

QUIL CEDA VILLAGE
IN-LIEU FEE MITIGATION PROGRAM
PROGRAM INSTRUMENT
TECHNICAL APPENDICES AND
COMPENSATION PLANNING FRAMEWORK

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Contents

Appendix A- Program Overview.....	10
1.0 Introduction.....	10
2.0 Mission and Program Objectives.....	11
Appendix B - Definitions	15
LIST OF ACRONYMS	18
Appendix C- Program Operation.....	19
1.0 Mitigation Sequencing.....	19
2.0 Approval of Credit sales.....	20
3.0 Credit Fulfillment.....	21
3.1 Approval of Mitigation Sites- Project Review, Selection and Prioritization	21
3.2 Phases of Project Implementation	21
3.3 Timing of Project Implementation	22
4.0 Mitigation Fees	22
5.0 The Proposed Ownership Arrangements and Long Term Management Strategy for the In-Lieu fee Project Sites.....	23
6.0 Program Tracking and Reporting.....	23
7.0 Program Compliance and Remedial Actions.....	24
8.0 Program Administration	24
Appendix D.....	26
Compensation Planning Framework.....	26
1.0 Overview.....	26
2.0 Geographic Service Area.....	26
3.0 Current Watershed Condition	28
3.1 Overview.....	28
3.2 Land Use.....	30
3.3 Species Information and Use in the Watershed	30
3.4 Fish Habitat.....	33
3.5 Riparian Condition.....	34
3.6 Wetland Condition.....	34
3.7 Wildlife Habitat	37
3.8 Water Quality.....	38
3.9 Water Quantity and Flow Characteristics	38
4.0 Historic Aquatic Resource Loss	41
4.1 Wetland Loss.....	41

Quil Ceda Village In-Lieu Fee Program Instrument

4.2	<i>Fish Habitat/Channel condition</i>	41
4.3	<i>Channelization and Ditching</i>	41
4.4	<i>Water Quantity-Groundwater Recharge/ Peak Flows</i>	42
4.5	<i>Water Quality</i>	42
4.6	<i>Riparian Cover</i>	43
5.0	<i>Threats to Aquatic Resources</i>	43
6.0	<i>Aquatic Resource Goals and Objectives</i>	45
7.0	<i>Prioritization Strategy</i>	46
7.1	<i>Cobo and Sturgeon Creek Planning Area</i>	47
7.2	<i>West Fork Quilceda Planning Area</i>	47
7.3	<i>Mainstem Quilceda Planning Area</i>	47
7.4	<i>Edgecomb Creek Planning Area</i>	48
7.5	<i>Middle Fork Quilceda Planning Area</i>	48
8.0	<i>Site Selection (33 CFR 332.3)</i>	48
9.0	<i>Preservation Objectives</i>	52
10.0	<i>Public and Stakeholder Involvement</i>	52
11.0	<i>Long Term Protection Strategies</i>	53
12.0	<i>Evaluation and Reporting</i>	53
Appendix E -Impact and Mitigation Site Assessment		55
Credits and Debits		55
1.0	<i>Debits and Credits – Aquatic Resource Types</i>	55
2.0	<i>Wetland Debits and Credits – Quantifying Impacts by Functional Types</i>	55
2.1	<i>Impact Site Debits</i>	56
2.2	<i>Mitigation Site Credits</i>	57
3.0	<i>Credit/Debit Ledgers and Credit Reporting</i>	57
4.0	<i>Quantifying Non-wetland Aquatic Resource, Aquatic Area Buffer and Wetland Buffer Replacement Values</i>	57
5.0	<i>Balancing Credits by Functional Type</i>	59
6.0	<i>Mitigation Types</i>	59
Appendix F- Advance Credit Allocation		64
1.0	<i>Advance Credit Request and Rationale</i>	64
2.0	<i>Aquatic Area and Buffer Credits</i>	66
Appendix G - Program Account		68
1.0	<i>Accounting Procedures</i>	68
2.0	<i>Mitigation Fees</i>	68
3.0	<i>Allocation of Mitigation Fees</i>	69

Quil Ceda Village In-Lieu Fee Program Instrument

3.1	Land Fee Account:	69
3.2	Program Administration Account:	69
3.3	General Project Implementation Account:	69
3.4	Long Term Management Fund:	70
3.5	Contingency Fee Account:	70
3.6	Mitigation Project Accounts:	70
4.0	Spending Authorization	71
5.0	Program Account Reporting	71
Appendix H – FINANCIAL ASSURANCES		75
1.0	Financial Assurances:	75
2.0	Direction of Funds/ Use of Financial Assurances:	76
Appendix I - IN LIEU FEES/COSTS		77
APPENDIX J -QCV ILFP PROGRAM TRACKING AND REPORTING		85
1.0	Program Ledgers	85
2.0	Program Reporting	86
3.0	Program Database	86
3.1	In Lieu Fee Tracking Database Components	86
3.1.1	Impacts/Debits:	86
3.1.2	Mitigation/Credits	86
3.1.3	Long Term Protection	87
3.1.4	Reports:	87
APPENDIX K – CREDIT FULFILLMENT		95
1.0	Mitigation Project Review, Selection and Prioritization:	95
2.0	Timing of Project Implementation	96
3.0	Source of Project Proposals:	96
4.0	Project Criteria:	97
5.0	Content of Mitigation Proposals	99
6.0	Methodology for Determining Project Specific Credits	101
7.0	Proposed Credit Release Schedule	101
8.0	Preservation Criteria:	101
Appendix L - Mitigation Site Establishment Phase Management, Monitoring, and Maintenance		109
1.0	Site Management – Establishment Phase	109
2.0	Monitoring Requirements- Establishment Phase	109
3.0	Monitoring Report Requirements	110

4.0	<i>Ecological Performance Standards</i>	111
5.0	<i>Maintenance</i>	113
6.0	<i>Noxious Weed and Non-native Invasive Plant Management</i>	113
7.0	<i>Fencing</i>	113
APPENDIX M - Adaptive Management and Contingencies Planning		115
1.0	<i>Adaptive Management Strategies</i>	116
APPENDIX N - Site Protection and Long Term Management		119
1.0	<i>Mitigation Site Protection</i>	119
2.0	<i>Long Term Management Roles and Responsibilities</i>	120
3.0	<i>Long Term Management Plans (LTMM)</i>	120
4.0	<i>General Management</i>	121
5.0	<i>Monitoring</i>	123
6.0	<i>Maintenance</i>	123
7.0	<i>Noxious Weed Management</i>	123
8.0	<i>Adaptive Management</i>	124
9.0	<i>Connectivity</i>	124
10.0	<i>Poaching and Trespass</i>	125
APPENDIX O – SITE AND PROGRAM NON-COMPLIANCE, REMEDIAL ACTIONS AND DEFAULT		127
1.0	<i>Mitigation Site Noncompliance</i>	127
1.1	<i>Site Performance Failure</i>	127
1.2	<i>Site Delinquency</i>	127
1.3	<i>Site Default</i>	128
2.0	<i>Service Area/Program Noncompliance</i>	128
2.1	<i>Service Area/Program Delinquency</i>	129
2.2	<i>Service Area/Program Default</i>	129
APPENDIX P – FORCE MAJEURE AND CLOSURE PROVISIONS		131
1.0	<i>Force Majeure</i>	131
2.0	<i>Closure Provisions</i>	131
APPENDIX Q - THIRD-PARTY MITIGATION PROPOSAL SUBMITTAL PROCESS - REQUEST FOR PROPOSALS		133
APPENDIX R - MAPS AND FIGURES		135
APPENDIX S – BACKGROUND MAPS, TABLES AND FIGURES OF THE COMPENSATION PLANNING FRAMEWORK		143

<i>Wetlands Mapped in the Quilceda/Allen Watershed Management Plan</i>	<i>143</i>
APPENDIX T – TRACKING PROGRAM PERFORMANCE	145
APPENDIX U – PROGRAM AND SCIENTIFIC GUIDANCE.....	147
APPENDIX V – QCV ILFP RECEIVING SITES.....	149
APPROVED MITIGATION PLANS.....	149
EXHIBIT 1 –Quil Ceda Village In-Lieu Fee Program Service Area Map	151
EXHIBIT 2 - Spending Agreement Template.....	153
EXHIBIT 3 - Statement of Sale Template.....	157
EXHIBIT 4 - TULALIP TRIBES GRANT OF CONSERVATION EASEMENT TEMPLATE.....	161
EXHIBIT 5 - FEE LEDGER	185
EXHIBIT 6 - IN-LIEU FEE DEBIT LEDGER	187
EXHIBIT 7 CREDIT FULFILLMENT LEDGER.....	188
EXHIBIT 8 - CRITERIA FOR PROJECT SUBMITTAL & REVIEW.....	189
EXHIBIT 9- AQUATIC AREAS LEDGERS	191
<i>AQUATIC AREAS DEBITS LEDGER.....</i>	<i>191</i>
<i>AQUATIC AREAS CREDIT LEDGER.....</i>	<i>193</i>
EXHIBIT 10a - Chart 1: Analyzing Potential Wetland Mitigation Sites Using Existing Watershed Plans	195
EXHIBIT 10b - Chart 3: Analyzing the Potential of Sites to Provide Sustainable Mitigation in a Watershed Context	197
EXHIBIT 11 - MEETING ESA SECTION 7 REQUIREMENTS	198
IN THE QCV IN-LIEU FEE PROGRAM.....	198
EXHIBIT 12 –Tulalip Tribes Board of Directors Resolution Authorizing ILF Program Adoption and Chairman Signature.....	201

EXHIBITS

EXHIBIT 1 –Quil Ceda Village In-Lieu Fee Program Service Area Map	151
EXHIBIT 2 - Spending Agreement Template.....	153
EXHIBIT 3 - Statement of Sale Template	157
EXHIBIT 4 - TULALIP TRIBES GRANT OF CONSERVATION EASEMENT TEMPLATE	161
EXHIBIT 5 - FEE LEDGER	185
EXHIBIT 6 - IN-LIEU FEE DEBIT LEDGER.....	187
EXHIBIT 7 - CREDIT FULFILLMENT LEDGER.....	188
EXHIBIT 8 - CRITERIA FOR PROJECT SUBMITTAL & REVIEW.....	189
EXHIBIT 9- AQUATIC AREAS LEDGERS.....	191
EXHIBIT 10a - Chart 1: Analyzing Potential Wetland Mitigation Sites Using Existing Watershed Plans	195
EXHIBIT 10b - Chart 3: Analyzing the Potential of Sites to Provide Sustainable Mitigation in a Watershed Context	197
EXHIBIT 11 - MEETING ESA SECTION 7 REQUIREMENTS IN THE QCV IN-LIEU FEE PROGRAM.....	198
EXHIBIT 12 –Tulalip Tribes Board of Directors Resolution Authorizing ILF Program Adoption and Chairman Signature	201

FIGURES

Figure 1: Structure of the Quil Ceda Village In Lieu Fee Program	13
Figure 2 : In Lieu Fee Program Process	25
Figure 3: Monitoring Wells, Water Year 2010	36
Figure 4: Monitoring Well Data in Quil Ceda Village, 2007 and 2008 Water Years	39
Figure 5: Stream channel and Aquatic Resource Mitigation credit	58
Figure 6 : QUIL CEDA VILLAGE IN LIEU FEE PROGRAM ACCOUNT STRUCTURE	73
Figure 7 : Adaptive Management Strategies Quil Ceda Village In-Lieu Fee Mitigation Program	117
Figure 8 : 2007-2012 QUIL CEDA VILLAGE WETLAND INVENTORY MAP	135
Figure 9 : QUIL CEDA VILLAGE IN LIEU FEE PROGRAM SERVICE AREA JURISDICTIONS MAP.....	137
Figure 10: QCV Potential Mitigation Project Area	139
Figure 11 : QUILCEDA WATERSHED TOPOGRAPHY AND HYDROGRAPHY.....	141
Figure 12 : 2007Aerial Photograph of the Watershed.....	143
Figure 13 : Watersheds and Stream Network of the Quilceda Watershed.....	143
Figure 14 : Quil Ceda Village Wetlands and Streams.....	143
Figure 15: Monitoring Well Locations within the QCV Boundary	143
Figure 16 : Restoration opportunities in the Coho, Sturgeon and Lower Mainstem subwatersheds.....	143
Figure 17: Restoration opportunities in the West Fork Quilceda Subwatersheds.....	143
Figure 18 : Restoration opportunities in the Edgcomb, Hayho and Middle Fork Quilceda Subwatersheds	143
Figure 19 : Wetland Inventory by Snohomish County – West Fork Quilceda Watershed	143
Figure 20 : Wetland Inventory by Snohomish County – Lower Mainstem Quilceda Watershed (Includes Coho and Sturgeon Creek Subwatersheds).....	143
Figure 21: Wetland Inventory by Snohomish County – Edgcomb, Hayho and Olaf Straad Subwatersheds.....	143
Figure 22: Wetland Inventory by Snohomish County – Middle Fork Quilceda and mainstem Quilceda Creek Watersheds.....	143
Figure 23: West Fork Quilceda Subwatershed Basin Wetlands Mapped.....	143
Figure 24: Wetlands Mapped in the Middle Fork and Upper Mainstem Quilceda Subwatershed Basins	143
Figure 25: Wetlands Mapped in the Sturgeon and Coho Creek Subwatershed Basins	143
Figure 26: Wetlands Mapped in the Edgcomb, Hayho, and Middle Fork Subwatershed Basins.....	143
Figure 27: Water Quality Monitoring Stations- City of Marysville.....	143
Figure 28: Water Quality Monitoring Stations-West Fork Quilceda Creek- Tulalip Tribes	143

TABLES

<i>Table 1: 2002 - 2011 Coho Creek Smolt trap Summary</i>	<i>32</i>
<i>Table 2: Qualitative and Quantitative Pre- and Post Project Site Assessment Form</i>	<i>61</i>
Table 3 : Advance Credit Proposal	65
<i>Table 4 : Estimated Mitigation Credits – QCV Conceptual Mitigation Plan^</i>	<i>67</i>
<i>Table 5 : Initial Cost Table – Per Acre Costs for wetland creation/establishment or restoration, planting and buffer planting.....</i>	<i>79</i>
<i>Table 6: Costs for riparian restoration</i>	<i>80</i>
<i>Table 7 : Tulalip Tribe Sponsored Restoration Costs</i>	<i>81</i>
<i>Table 8 : Average costs for Tulalip projects with added Administrative Costs</i>	<i>83</i>
<i>Table 9 : Quil Ceda Service Area Land Costs^</i>	<i>83</i>
<i>Table 10 : AQUATIC RESOURCE NO-NET LOSS LEDGER.....</i>	<i>89</i>
<i>Table 11 : MITIGATION PROJECT APPROVAL TIMELINE AS GIVEN IN THE FEDERAL RULE</i>	<i>102</i>
<i>Table 12: QCV ILFP CREDIT FULFILLMENT CHECKLIST.....</i>	<i>103</i>
<i>Table 13 : Sample credit release schedule, 5 YR monitoring plan.....</i>	<i>107</i>
<i>Table 14 : Sample credit release schedule , 10 YR monitoring plan.....</i>	<i>108</i>
<i>Table 15: Summary of Quilceda Creek Water Quality data 2000-2005.....</i>	<i>143</i>

Quil Ceda Village In-Lieu Fee Program Program Instrument

Appendix A- Program Overview

1.0 Introduction

Collectively, the Basic Agreement, these Appendices, and the Exhibits that follow constitute the “*Quil Ceda Village In-Lieu Fee Program Instrument*” (“instrument”). The Basic Agreement lays the legal framework for the operation of the program, and establishes the terms of the “contract.” The Appendices provide a detailed account of the proposed program, describing the program and its operation. Exhibits comprise key documents of the program.

The Quil Ceda Village In-Lieu Fee Program (hereafter “QCV ILFP”) is a Tulalip Tribes-sponsored “in-lieu fee” mitigation program. The proposed program structure and processes for completing mitigation projects are established pursuant to the guidance outlined in the Federal Rule issued in April 2008 by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency (hereafter “EPA”) [33 CFR Part 332 and 40 CFR Part 230] (hereafter “the federal rule”). With the signing of this Instrument, The Tulalip Tribes (the “Sponsor”) has established certification of this program under the federal rule, and this instrument has been generated under the authority of the federal rule. Nothing in the QCV ILFP Instrument shall be held to contradict or override the federal rule; in the case of any ambiguity, the federal rule shall control.

The federal rule defines an *in-lieu fee program* as “a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements... Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor.”[33 CFR 332.2]

With the certification of this program, the Corps has allocated to the Sponsor a number of “Advance Credits” to sell to prospective permittees in lieu of permittee responsible mitigation. The Sponsor will accept fees from permittees, as compensatory mitigation for Corps-and Tribally-authorized, or in the case of non-jurisdictional impacts, Tribally-authorized wetland, aquatic resource, and buffer impacts within Quil Ceda Village boundaries. The Sponsor will pool these funds to install mitigation projects as the responsible party for ensuring compensatory mitigation for the loss of functions and services of aquatic resources. Mitigation sequencing, with its formula of avoidance, and minimization first will be provided within the permitting process for federal or tribal permits. (See Appendix C- Program Operation). The applicable regulatory agencies have discretion to approve or deny permits which are conditioned on purchasing credits from the QCV ILF Program.

The two Tulalip Tribes’ entities responsible for implementing the QCV ILFP are the Tulalip Natural and Cultural Resources Department (TNCRD) and Quil Ceda Village (QCV) Environmental and Engineering Department (the “Program Administrator”). The Tulalip Tribes Natural and Cultural Resources Department has decades of experience managing all aspects of aquatic and land resources, from participating in watershed planning, conducting inventory and analysis, to designing, implementing and maintaining, and monitoring restoration and enhancement projects to improve

aquatic resources within The Tulalip Tribes adjudicated treaty resource areas reserved by the Tribes in the Treaty of Point Elliot of 1855. TNCRD has a wetland program within its department which has been conducting aquatic inventory and establishing ecological baselines on the Reservation. Quil Ceda Village Engineering and Environmental Services has a successful track record of working with permit applicants, in cooperation with The Tulalip Tribes Community Development Department (TTCD), to avoid and minimize environmental impacts, and to identify suitable compensatory mitigation options for development within its jurisdictional boundaries. TNCRD and QCV have been cooperating for several years in the restoration of Coho Creek located on a portion of the QCV jurisdiction.

The District Engineer has established an Interagency Review Team (IRT) to review documentation for the establishment and management of this in lieu fee program. The IRT is comprised of representatives from a group of agencies described in the Basic Agreement Article I.C. The District Engineer from the U.S. Army Corps of Engineers Seattle District, or his designee serves as Chair of the IRT. Other member agencies will include federal and state agencies where jurisdictionally appropriate. The IRT exercises oversight during the authorization process for the ILF Program. In this role, the IRT has reviewed and commented on the QCV ILF Program prospectus and earlier drafts of this Instrument. Once the ILF Program is authorized and operational, the IRT will play an integral role in reviewing and approving proposed ILF mitigation sites and Mitigation Plans (see Basic Agreement Introduction C and D and Appendix C and K). The IRT will also be provided an opportunity to review and comment on proposed mitigation sites, mitigation project proposals, project monitoring reports, release of credits, contingency and adaptive management plans and modifications to this program instrument as outlined in 33 CFR Part 332.8 (g).

The Appendices that follow provide a detailed account of the proposed program components and functioning. This portion of the instrument provides much greater detail about how the program will operate and the process by which mitigation projects will be identified, implemented and adaptively managed. Upon authorization, the QCV ILFP can begin selling “credits” and implementing compensatory mitigation projects.

This instrument will be revised accordingly as the program operates to ensure the program is as effective as possible in compensating for losses to aquatic resources associated with unavoidable permitted impacts. Any such revisions will be subject to review and approval by the Corps, in consultation with the IRT.

Regulatory Oversight and Authority

The Basic Agreement portion of this instrument describes in more detail the role of the Corps, The Tulalip Tribes, and the IRT members.

2.0 Mission and Program Objectives

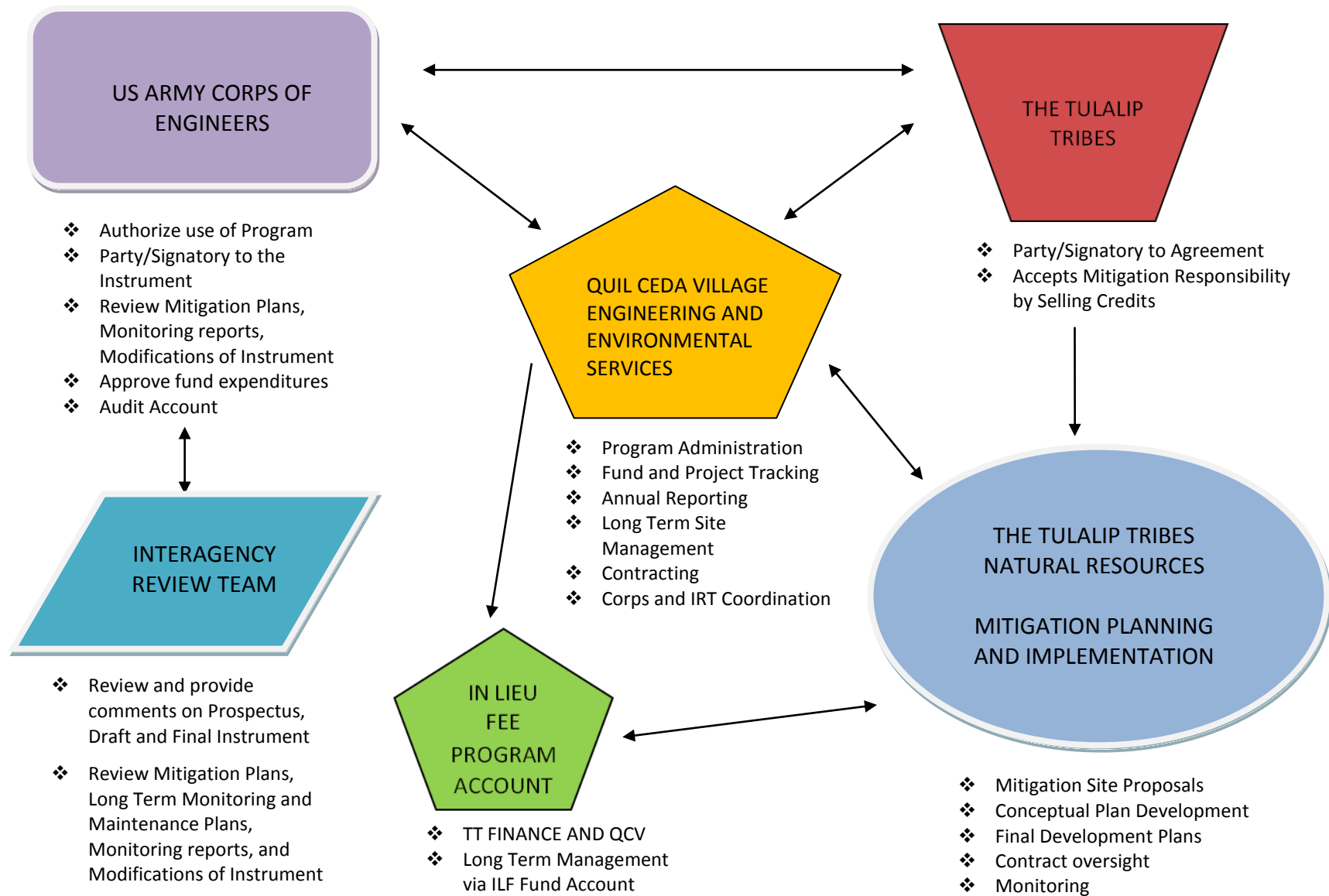
The primary mission of the Quil Ceda Village In-Lieu Fee Program is to provide a comprehensive natural resource program that addresses ecosystem needs at the local watershed level, and that provides mitigation for degradation or destruction to aquatic resources and their buffers as a result of unavoidable activities conducted in compliance with Federal, or tribal regulations. The program is intended to uphold the goal of no net loss through the preservation, enhancement, establishment,

and restoration of ecological functions within target watersheds through the establishment and management of mitigation sites.

The objectives of the in-lieu fee program are:

1. Meet Clean Water Act Section 404 requirements for compensation for unavoidable losses to aquatic resources as contained in 33 CFR 325 & 332; and 40 CFR 230. Mitigation projects developed under this Program are to replace functions and values of aquatic resources and associated habitats that have been degraded or destroyed as a result of unavoidable activities authorized by Department of Army and/or Tulalip Tribes issued permits.
2. Provide high quality, successful long term mitigation for unavoidable impacts to aquatic resources and to procedurally decouple permitted development projects from mitigation projects.
3. Meet The Tulalip Tribes Comprehensive Plan Environment Goals and Policies to protect, conserve and enhance the water quality and quantity on the Reservation, including surface water, groundwater and marine waters; and to protect, conserve and enhance the wetlands and other aquatic resources of the Reservation through the implementation of the Tribes' "no net loss with a long term net gain" wetland policy.
4. Provide mitigation under a watershed approach as defined in 33 CFR 332 to identify the most appropriate mitigation options available, thereby achieving greater success in the restoration, enhancement, creation and protection of tribal aquatic resources over that typically achieved by permittee-responsible, on-site compensatory mitigation for activities that impact wetlands and other waters of the U.S.
5. Meet The Tulalip Tribes Land Use Ordinance requirements for preservation and protection of environmentally sensitive lands, including streams, wetlands, and essential habitat for natural resources considered culturally important to the Tribes, as well as requirements for mitigation for impacts to tribal environmentally sensitive lands.
6. Provide public benefit by applying mitigation resources toward the improvement of ecologically-impaired ancestral lands of The Tulalip Tribes, both on and off Reservation, that have important ecological value to the watershed.

Figure 1: Structure of the Quil Ceda Village In Lieu Fee Program



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Appendix B - Definitions

The definitions used by the Regulatory Program of the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency [330 CFR Parts 320 – 331; 40 CFR Part 230] are adopted by Quil Ceda Village for this In-Lieu Fee Program. Terms are defined below for ease of reference in this document and where not defined in the above regulatory program.

Advance Credits – Credits of the approved in-lieu fee program that are available for sale prior to being fulfilled with an approved mitigation plan. A schedule of allowed advance credit sales will be provided in the in-lieu fee program instrument.

Applicant – An entity seeking a permit for a project that will create impacts to aquatic resources. Use of the term applicant indicates that a permit has not yet been issued.

Aquatic Areas – non-wetland aquatic resources such as streams, rivers, open water areas meeting the definition of “waters of the United States.” (although the Federal agencies use the term “aquatic resources” and occasionally “aquatic areas” to generically include jurisdictional wetlands and such features as rivers, streams, marine waters, open water areas and reservoirs, for the purposes of this document, aquatic areas will refer to non-wetland aquatic resources.)

Aquatic Resource Areas/ Aquatic Resources – Areas that include both jurisdictional wetlands and rivers, streams, marine waters, open water areas, meeting the definition of “waters of the United States,” but also including non-jurisdictional wetlands under the authority of The Tulalip Tribes Land Use Ordinance.

Authorized impacts - adverse effects to aquatic resources authorized by a Department of Army permit for waters of the US, or by Tulalip Tribes permit for non-jurisdictional environmentally sensitive areas.

Compensatory Mitigation - the restoration (re-establishment or re-habilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Corps – the U. S. Army Corps of Engineers, and its local representative

Credit Fees – Fees paid by a permittee to purchase QCVILF mitigation credits. Credit fees are used to pay for all aspects of implementing and managing mitigation projects, as well as Long Term Management duties. Credit fees are one component of a Mitigation Fee, the other being Land Fees.

Debit – A unit of measure (e.g. a functional or areal measure or other suitable metric) representing the replacement value for loss of aquatic functions at a wetland or aquatic impact site. The replacement value is based on aquatic resource functions and services lost via the impact, and a temporal loss to represent the time lag between the loss of resources and their replacement.

Default – Failure to perform an act or obligation as legally required; failure to meet financial obligations. For the purposes of this agreement, default means the failure of the Sponsor to meet its obligations in compliance with the requirements of this program instrument, through lack of due diligence and neglect.

Federal rule – Compensatory Mitigation for Losses of Aquatic Resources, Final Rule, April 10, 2008. 33 CFR Parts 325 and 332, 40 CFR Part 230

Fee lands – Lands owned in fee simple absolute, within the Reservation boundary and not held in trust by the Federal Government for the benefit of The Tulalip Tribes.

Fulfillment of advance credit sales – Application of credits released in accordance with a credit release schedule in an approved mitigation project plan to satisfy the mitigation requirements represented by the advance credits. Once the advance credits have been fulfilled by final acceptance, an equal number of advance credits are restored to the program sponsor for sale and transfer to permit applicants.

Functional lift – The increase in aquatic resource functions provided by mitigation work.

Functions and Services – Functions are the physical, chemical, biological processes that occur in ecosystems, whereas services are the benefits that human populations receive from functions that occur in ecosystems.

Impact Sites – Sites where impacts have occurred which are mitigated by purchase of credits from the ILF program are “impact sites”, also termed “sending sites.”

Impracticable – “Extreme and unreasonable difficulty”(as defined by Black’s Law Dictionary, West Publishing Co., 1996) in completing mitigation onsite due to site conditions and other constraints.

Land Fees – Fees paid by a permittee using the QCVILFP to account for land costs associated with implementing mitigation projects. Land Fees may be used by the QCVILFP to acquire new potential mitigation sites, or to refund acquisition funding sources for mitigation receiving sites in cases where the original funding source disallowed use of a property for mitigation purposes.

Mitigation Fees – Fees paid by a permittee using the QCVILFP to purchase mitigation credits from the Sponsor, including land fees and credit fees to be used in implementing mitigation projects.

Mitigation Sites – Sites selected for mitigation implementation with in-lieu fee program funds are “mitigation sites”, also termed “receiving sites.”

Mitigation Types–

- *Creation (Establishment)*: The manipulation of physical, chemical, or biological characteristics to develop an aquatic resource that did not previously exist, on an upland site. Establishment results in a gain in aquatic resource area and acres. Establishment results in a gain of aquatic resource area and function.
- *Restoration*: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into:
 - *Re-establishment*. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former aquatic resource. Re-establishment results in re-building a former aquatic resource and results in a gain in aquatic resource area and functions.
 - *Rehabilitation*. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

- **Enhancement:** The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.
- **Preservation:** Removal of a threat to, or preventing the decline of, aquatic resources by an action in or near a those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or function [33CFR 332.4].

Performance Standards— Ecological performance standards are used to assess whether the project is achieving its objectives. Performance standards must be based on attributes that are objective and verifiable, and must be based on best available science that can be measured or assessed in a practical manner.

Permittee — Any entity which has been issued a permit by one or more regulatory agencies for a federal 404 Clean Water permit, or, for non-jurisdictional impacts, has been issued a Tulalip Tribes land use permit.

Regulatory Agencies or “agencies with regulatory authority” — Agencies with regulatory authority over permitting for either impact sites or ILF program mitigation receiving sites. (e.g., Corps, The Tulalip Tribes, Ecology, or Snohomish County).

Service Area — The geographic area within which impacts can be mitigated for the in-lieu fee program, as designated in its instrument.

Sponsor — The public or private entity responsible for establishing and, in most circumstances, operating the mitigation bank or in-lieu fee program

Treaty Rights — Those rights held by The Tulalip Tribes as a successor in interest to the signatories of the Treaty of Point Elliot of 1855.

Tribal Sovereignty —independent powers of self-governance exercised by Indian tribes subject only to the United States, as is recognized in the U.S. Constitution. They have the same powers as the federal and state governments to regulate their internal affairs unless Congress has specifically limited those powers. Indian tribes exercise tribal sovereignty not because these powers were delegated to them, but because of their original tribal sovereignty.

Tribal Trust lands — Lands held in trust by the United States for the benefit of an Indian tribe or members of an Indian tribe.

Watershed approach — Selection of mitigation sites with an understanding of the characteristics, ecological processes, and ecological functions in a drainage basin, the extent and location of the alteration of those processes, and identification of areas where processes can most effectively be restored or protected.

Watershed processes — The dynamic physical, biological, and chemical interactions that form and maintain the landscape and its ecosystems. These processes include the movement of water, sediment, nutrients, wildlife and other biota, pathogens, toxins and wood as they enter into, pass

through, and eventually leave the hydrologic unit. Watershed processes can operate at any geographic scale, from regions to sub-catchments.

LIST OF ACRONYMS

ACOE – The U.S. Army Corps of Engineers

DE – The District Engineer of the Regional Army Corps of Engineers

ECY – Washington State Department of Ecology

EPA –Environmental Protection Agency

ESA – The Endangered Species Act

GIS – Geographic Information Systems

IRT –Interagency Review Team for the In Lieu Fee Program

LTMM – Long Term Management and Monitoring

NMFS – National Marine Fisheries Service

OHWM – Ordinary High Water Mark

QCVILMF –Quil Ceda Village In-Lieu Fee Mitigation Fund

QCV – Quil Ceda Village, a political subdivision of The Tulalip Tribes; a federally incorporated city.

QCV ILFP –Quil Ceda Village In-Lieu Fee Program

SF – Square feet

TNCRD – Tulalip Tribes Natural and Cultural Resources Department

TT – The Tulalip Tribes of Washington

USFWS – United States Fish and Wildlife Service

WDFW – Washington Department of Fish and Wildlife

WRIA – Water Resource Inventory Area

Appendix C- Program Operation

1.0 Mitigation Sequencing

Prior to utilizing the ILF program, Applicants must comply with the permitting requirements for applicable regulatory agencies: in this program, the Department of Army (Corps of Engineers) and the Tulalip Tribes. Prior to assessing whether ILF is a satisfactory compensatory mitigation option, an Applicant will be required to undergo a process of “mitigation sequencing” as required by each agency. “Mitigation sequencing” refers to a series of steps permit applicants must follow to eliminate or decrease the negative effects of a proposed action. Use of the QCV ILFP only becomes an option *after* a project proponent meets all requirements of the prior steps in the mitigation sequence.

1.1 Department of Army Mitigation Sequencing

The Clean Water Act Section 404(b) (1) [40 CFR Part 230.1 (a) – (d)] requires, among other things, that applicants pursuing Department of Army permits for impacts to Waters of the U.S. demonstrate that permitted impacts are unavoidable and meet criteria for the least environmentally damaging alternative. The 1990 Memorandum of Agreement between the EPA and the Corps defines the mitigation sequence under the Clean Water Act, section 404(b)(1) Guidelines (40 CFR 230), as being composed of the following steps:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (2) Minimizing impacts by (a) limiting the degree or magnitude of the action with appropriate technology; or (b) by taking affirmative steps such as project redesign, relocation or timing;
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- (5) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
- (6) Monitoring the impact and taking appropriate corrective measures or remedial actions

1.2 Tulalip Tribes Permitting

Applicants for development within Quil Ceda Village with proposed impacts will also have tribal permitting requirements to comply with before authorization in those permits for use of the in-lieu fee program.

1.3 Use of QCV ILFP as Compensatory Mitigation

Once an Applicant has completed steps 1-4 above for a DA impact, and tribal permitting requirements, consideration of impacts being mitigated via the QCV ILF program will occur. Specifically, once impacts have been avoided and minimized to the extent practicable and feasible, an assessment of functions and services for remaining impacts will be made by the applicant, and the applicable regulatory agencies will review the assessment of impacts, determine whether mitigation may be obtained via purchasing credits from the QCV ILFP. For jurisdictional impacts, the Corps will determine, in conformance with 33 CFR 332.3(b)(1) – (b)(6), whether the remaining impacts can

utilize the ILF program to compensate for the adverse impact by restoring, rehabilitating, enhancing and/or preserving aquatic resources and their buffers, or by establishing (creating) substitute aquatic resources and their buffers. The Tulalip Tribes will determine during tribal permitting processes whether the ILF program may be utilized for mitigating isolated wetlands/waters and buffer-only impacts.

The availability of the QCV ILFP as a means of meeting compensatory mitigation requirements does not affect requirements for an applicant and regulatory agencies to exhaust all preceding steps in the mitigation sequence.

2.0 Approval of Credit sales

The standard unit of measure used in mitigation banking and in-lieu fee programs to quantify impacts are “debits,” and the ecological functional lift provided at a mitigation site is measured in “credits.” Thus the permittee buys the appropriate number of credits to fulfill the debits of their impact. The QCV ILFP provides project applicants within the boundaries of QCV a compensatory mitigation option within the traditional mitigation sequence. Specifically, the program provides an applicant the opportunity to pay a fee to buy mitigation “credits” from The Tulalip Tribes in-lieu of completing their own mitigation, once impacts have been avoided and minimized to the extent possible. Determinations of an applicant’s credit requirement must be approved by the regulatory agencies permitting an impact. If regulatory agencies issuing permits for an impact project agree that the QCV ILF is the most appropriate way for the applicant to meet their mitigation obligations, the mitigation requirements must be quantified by the applicant and reviewed and approved prior to permit issuance.

The method for measuring credits and debits for the QCV ILF program is described in **Appendix E**. Approval of applicant use of the QCV ILF program will entail documentation of debits according to **Appendix E** prior to approval. The mitigation fee for per credit purchased is established in **Appendix I**, and may be adjusted as necessary. To quantify impacts and mitigation involving non-wetland aquatic areas and their buffers (e.g. streams and stream buffers), the impacts and ecological lift will be quantified on a case-by-case basis, as described in Appendix E.4. For approval of credit sales for aquatic area impacts requiring ESA Section 7 consultation, the process in **Exhibit 11** will be followed.

Once an approval for the underlying impacts has been granted, including a determination for use of the QCV ILFP to mitigate the impacts, and if the QCV ILF program has sufficient credits available, the applicant will pay a mitigation fee to the Sponsor to buy Credits and offset Debits. A Statement of Sale (**Exhibit 3**) will be signed and sent to the Corps, Tribal permitting, and other applicable regulatory or Permitting Entities. Work in waters of the U.S. (including wetlands, streams, marine environments and other aquatic resources), authorized by DA permits may not commence until proof of purchase of ILF credits has been submitted to the Corps.

3.0 Credit Fulfillment

3.1 Approval of Mitigation Sites- Project Review, Selection and Prioritization

Every effort will be made by the Corps and the IRT to meet the timeframes given in the federal rule for project review and approvals; deadlines may be extended by the District Engineer at his or her sole discretion according to 33 CFR 332.8(f). The timeline for project approval as outlined in the federal rule is found in Appendix K.

Approval of mitigation sites will follow the credit fulfillment processes outlined in **Appendix K**, and pursuant to 33 CFR 332 and 335 and 40 CFR Part 230.¹ Generally, as mitigation dollars become available in the Quil Ceda Village In-Lieu Fee Mitigation Fund, the Program Administrator will solicit aquatic compensatory mitigation projects to be developed by Tulalip Natural and Cultural Resources Department (TNCRD). TNCRD will develop proposals for implementing mitigation projects, and submit these to the Program Administrator, Quil Ceda Village Environmental and Engineering Department (QCV). TNCRD and QCV will use the QCV ILFP Compensation Planning Framework as its guide in developing ILF mitigation projects. The program administrator will submit project conceptual plans to the Corps and the IRT for review and Corps approval in consultation with the IRT. Upon written authorization from the Corps, in the form of a Spending Agreement (**Exhibit 2**), draft and final mitigation plans will be developed according to the Credit Fulfillment checklist in Appendix K.

The Sponsor may also partner with departments of the Tulalip Tribes, or may contract with other agencies or entities to carry out the required mitigation, management, maintenance, monitoring and/or stewardship to fulfill the Sponsor's obligations under this program instrument.

Disbursements from the project account for ILF project implementation may only be made upon receipt of written authorization from the Corps, in consultation with the IRT, except for up to 75% of Administrative Fees, per Appendix G.4. Authorization will be in the form of a Spending Agreement (**Exhibit 2**). Initial project development, i.e. conceptual design, and site selection will be carried out under administrative funds, according to **Appendix G**.

Mitigation conducted under this ILF instrument will be based on a functional assessment of both the impact sites and the receiving sites, along with the expected ecological lift of mitigation proposals at the receiving sites. The QCV ILFP will utilize a Mitigation credit/debit tool (Credit/Debit Tool) described in **Appendix E**, to calculate debits and credits for freshwater wetlands. Impacts to other aquatic resources that are not covered by the Credit/Debit Tool (e.g. streams, buffers, marine waters) will be reviewed on a case-by-case basis to determine appropriate credits and debits.

3.2 Phases of Project Implementation

Mitigation Projects funded through the QCV ILFP will have both an establishment phase, where more active management, maintenance and monitoring of project performance standards and objectives is occurring, and a long term management phase where long term management, maintenance, and monitoring are occurring, once project performance standards associated with the

¹ FR 73 No 70 19594-19705. Federal Register on Compensatory Mitigation for Losses of Aquatic Resources, Final Rule, April 10, 2008

mitigation plan have been achieved. The phases of project implementation are described in **Appendix L and M**.

3.3 Timing of Project Implementation

Land acquisition and initial physical and biological improvements will be completed by the third full growing season after the impact that generated the credit sale, as required by 33CFR 332.8(n)(4), unless the DE determines that more time is needed to plan and implement an in-lieu fee project.

The credit fulfillment process and schedule is outlined in **Appendix K**, and a Credit Fulfillment Checklist is in **Table 12**.

4.0 Mitigation Fees

Fees will be established by the Sponsor, according to a fee schedule that may vary depending on current market rates for real estate and construction costs². Per unit fees for credit purchase will be based on “full cost accounting,” and will account for all project implementation costs such as project planning, permitting and design, construction and contracting, plant materials, labor, land purchase, legal fees, monitoring, contingency or adaptive management, and long term management of mitigation sites, as well as administration of the ILF program.³

Apportionment of mitigation Fees are outlined in **Appendix G**. A tentative initial fee schedule is attached in **Appendix I**, and will be re-evaluated prior to sale of first credits. Mitigation fees will comprise two fees: a Credit Fee, and a Land Fee. Mitigation fees will be reviewed by the Sponsor annually to determine if they are in need of adjustment, and may be adjusted periodically, with notification to the Corps and the IRT. (See **Table 5- Table 9, Appendix H**)

Mitigation fees are intended for use in activities related to producing mitigation credit. Mitigation fees will include cost of administering the program, in accordance with 33 CFR 332.8(o)(5).

Mitigation fees cannot be used for activities such as trail maintenance, or other types of activities unrelated to management, maintenance and monitoring of a mitigation site.

4.1 Land Fee

A land cost fee shall be added to the base credit price to be used exclusively for purchase of properties to replace those impacted under permit authorizations. It is anticipated that trust lands within the Tulalip Reservation will initially be used for mitigation projects, and the land cost surcharge represents a replacement value for these lands. The land cost fee will be based on an average land cost per acre for rural or rural residential-zoned lands within the subwatersheds where mitigation will occur, multiplied by the impact acreage, to determine the surcharge to the lessee or project applicant. The land cost fee represents a replacement of area in addition to functions and services replaced, and will be used to purchase properties for mitigation.

Approval of Land Fee Account Expenditures

In some cases opportunities may arise to acquire properties with future mitigation project potential for the QCV ILFP, when they are offered for sale, or due to market conditions. Although the properties may not be tied to an immediate mitigation project for the In Lieu Fee program, the

² 33 CFR 332.8(o)(5)(i) Credit costs determined by sponsor

³ 33 CFR 332.8(o)(5) (ii) Credit costs to be based on full cost accounting

market conditions and owner willingness to sell may encourage acquiring properties with known potential for future mitigation value, in accordance with the Compensation Planning Framework. In these cases, the property purchase expenditure from the Land Fee Account will be sent as a proposal to the Corps and the IRT. Corps approval, after consultation with the IRT, will come in the form of a signed Spending Agreement (**Exhibit 2**), following the credit fulfillment process and timeline for review, with consideration of future mitigation potential. The Corps and the IRT will make all efforts to provide a timely response to ensure that opportunities for property acquisitions are not missed.

5.0 The Proposed Ownership Arrangements and Long Term Management Strategy for the In-Lieu fee Project Sites

It is anticipated The Tulalip Tribes currently holds or will purchase most properties proposed for in-lieu fee mitigation sites, and place them into trust or hold them as fee lands. In some cases, conservation easements may be purchased on privately-owned lands. Because of the different status of tribally-owned properties and non-tribally owned properties, either on-Reservation trust lands, or off-Reservation fee lands, different site protection mechanisms may be required for long term protection of mitigation sites. All QCV ILFP mitigation sites will be protected by Conservation Easement (**Exhibit 4 A&B**). At this time The Tulalip Tribes has selected the Northwest Indian Fisheries Commission to serve as the third-party holder of the QCV ILFP Conservation Easements, for Tribally-owned properties. For mitigation sites on non-tribally owned fee lands on or off the Reservation, the Sponsor will purchase a conservation easement, to be held by The Tulalip Tribes Community Development Department. The Tulalip Tribes will establish a separate non-wasting trust account for funding the long term management of project sites, as outlined in the Long-term Management and Maintenance Plan for each ILF receiving site. The Project Administrator will arrange for operation and maintenance of the mitigation project sites in the long term (See Appendix N).

Mitigation plans will include provisions for long term protection and monitoring of mitigation projects funded by the in-lieu fee program. Long term management of project sites will be the responsibility of The Tulalip Tribes as the project sponsor, but will be delegated to Quil Ceda Village as the Program Administrator who will work with the Natural and Cultural Resource Department. Long term management will include periodic monitoring of mitigation project sites for a variety of ecosystem variables, to include, where applicable: percent cover by non-native invasives, stream flow, water quality and aquatic habitat conditions, as well as wetland functions and services, and prevention of illegal dumping, timber theft and poaching. (See **Appendix N**). Adaptive Management as described in **Appendix M** will be utilized to address management issues that arise during the long term management phase. Use of contingency funds is addressed in **Appendix H**, Financial Assurances, and **Appendix G** - Program Account.

6.0 Program Tracking and Reporting

QCV ILFP Program Tracking will be conducted via a database established for the Program. Annual Reporting will include fee ledgers, and debit and credit ledgers. Program Tracking and Reporting elements are described in **Appendix J**.

7.0 Program Compliance and Remedial Actions

Non-compliance may occur at individual sites, or throughout the Service Area, at the Program scale. In most cases, it is expected issues at mitigation sites will be handled through Adaptive Management measures outlined in **Appendix M**. Performance issues arising to a level beyond adaptive management measures, site and program compliance, remedial actions and default procedures are enumerated in **Appendix O**.

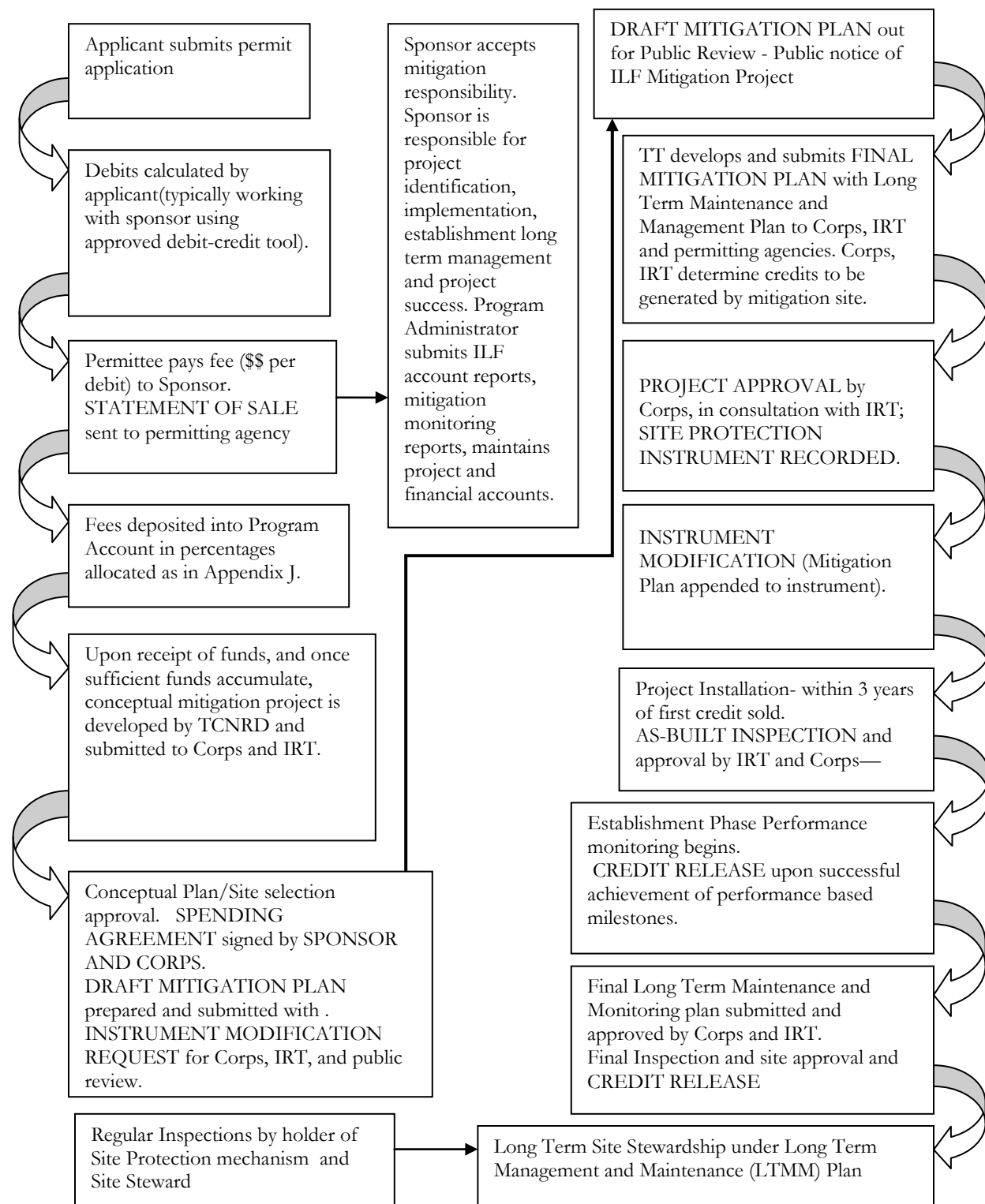
8.0 Program Administration

In accordance with 33 CFR 332.8(o)(5)(ii), credit fees may also be used for administration of the in-lieu fee program. Program administration will be funded by a percentage of the Credit fees, not to exceed 10% and will pertain to activities related to the sale or expenditure of mitigation fees, including, but not limited to:

- a. Site selection and concept designs, including staff time
- b. Fee and Credit accounting
- c. Legal services
- d. Data management
- e. Reporting
- f. Correspondence and meetings with the Corps, IRT, and other regulatory agencies about the program
- g. Program development
- h. Other program administration duties as necessary.

Figure 2 : In-Lieu Fee Program Process

Flowchart of ILF Process Program and Participants after ILF Instrument is signed by Corps and the Sponsor



Appendix D

Compensation Planning Framework

1.0 Overview

This Compensation Planning Framework supports a watershed approach for compensatory mitigation for approved aquatic resource impacts under Department of Army or Tulalip Tribes permit, under the Quil Ceda Village In-Lieu Fee Program. This planning framework uses watershed planning documents as a guide to select, secure, and implement aquatic resource restoration, establishment, enhancement and preservation activities, such that ecological processes are effectively restored, and wetland and other aquatic resource functions replaced under a watershed approach to compensatory mitigation. Several watershed planning documents have been prepared in the past twelve years for the Quilceda Watershed. The Tulalip Tribes completed a Tulalip Watershed Management Plan in 1996⁴. Snohomish County Surface Water Management published the Quilceda/Allen Watershed Management Plan in 1999⁴, in cooperation with the City of Marysville, The Tulalip Tribes and other agencies and citizen groups. Snohomish County also prepared the Drainage Needs Report⁵, with a section on Quilceda Watershed, in 2002. The WRIA 7 Salmonid Habitat Limiting Factors Analysis¹⁰ was published in 2002, by the Washington State Conservation Commission, with assistance of Snohomish County, The Tulalip Tribes, Washington Department of Fish and Wildlife, and Snohomish Conservation District, among others. These documents incorporated a large amount of resource inventory, Arc GIS analysis, field studies, and data pertaining to stream habitat conditions, wetland inventory and condition, water quality data, flooding evaluation, and storm water modeling. They also provide management recommendations for protecting salmon habitat and its accompanying hydrologic and ecosystem functions within a rapidly urbanizing area.

This Planning Framework summarizes these various documents and was updated with watershed information gathered from stakeholder groups and agencies that are working in aquatic restoration in the watershed, as well as from The Tulalip Tribes resource inventories and databases. In October 2008, scoping was conducted with the Allen-Quilceda Watershed Action (AQWA) team participants, to update the Quilceda/Allen Watershed Management Plan suggested threats, opportunities and goals for the watershed. A draft copy of this compensation planning framework was provided to the group for their review, and during the team meeting, potential restoration sites for the Quilceda watershed were identified and projects that had been completed were noted on maps.

2.0 Geographic Service Area

The project impact area for which this In-Lieu Fee program is established is located within the boundaries of the Municipality of The Borough of Quil Ceda Village, located wholly within the

⁴ P.Lynch, A.Loch, J.Gold, B.Taylor, P. Anderson, and K. Nelson, 1996. The Tulalip Tribes Watershed Management Plan, The Tulalip Tribes, Tulalip WA. Funded by a Water Quality 104(b) grant from the U.S. Environmental Protection Agency with matching funds from the Tulalip Tribes.

Tulalip Indian Reservation. The receiving area or geographic service area for compensatory mitigation projects of this In-Lieu Fee program is the Quilceda Watershed, including all of its tributary areas: Sturgeon and Coho Creek, the West Fork, Edgecomb, Hayho, Olaf Straad, and Mainstem and Middle Fork Quilceda Creek subwatersheds. The Quilceda Watershed includes parts of the Tulalip Reservation, City of Marysville, parts of City of Arlington, and unincorporated Snohomish County. Because the Quilceda watershed crosses jurisdictional boundaries, in the event projects are to be implemented outside of Tulalip Reservation boundaries on non-trust lands, other jurisdictions may be involved at the project permitting stage. (See **Figure 9** and **Exhibit 1**).

The Quilceda Creek watershed is located north of the Snohomish River near its mouth, and joins the River at Ebey Slough on the Tulalip Reservation. The watershed extends from the Snohomish River to the City of Arlington, with a gradual increase in elevation from sea level in Marysville to 120 feet in Arlington. The total drainage area is 23,850 acres^{5 6}.

For the purposes of the In-Lieu Fee Program, the watershed is divided into the sub-watershed basins of:

- Coho and Sturgeon Creek,
- West Fork Quilceda Creek,
- Middle Fork Quilceda Creek,
- Mainstem Quilceda Creek

Expanding the receiving areas for mitigation projects to the greater Quilceda Watershed is partially due to the small area of the federal city. The Tulalip Reservation boundary extends north from Quil Ceda Village within the West Fork Quilceda subwatershed. The West Fork Quilceda Creek flows through Quil Ceda Village to its confluence with Quilceda Creek, approximately 2 miles upstream of Coho Creek's confluence, in the lower watershed. The subwatershed area has a close connection and similarity to the Quil Ceda Village project area. The project impact area is also similar in geology and hydrology to the remaining sub-watershed basins of the Quilceda Watershed, (i.e. it is located within the Marysville trough and the trough sandy recessional outwash sediments, and has similar issues of groundwater recharge, wetland loss and urbanization). West Fork Quilceda Creek flows through the Northwest corner of Quil Ceda Village to its confluence with Quilceda Creek, and some of the Village lands drain to the West Fork. The Tulalip Reservation boundary extends north from Quil Ceda Village and includes the West Fork Quilceda subwatershed.

Although Quil Ceda Village is the project impact area, extending the service area to the greater Quilceda watershed is supported by the Compensation Planning Framework, a watershed approach to mitigation, and will allow for viable projects to be developed if none are available within the Sturgeon Creek, Coho Creek or the West Fork Quilceda Creek sub-watersheds within a suitable time frame. Extending the service area to the greater Quilceda watershed will also ensure that adversely affected aquatic resource functions and services may be replaced by functions of equal or greater value, as determined on a watershed basis, because of the greater pool of potential projects. It will also afford the opportunity for cooperative funding with other jurisdictions should projects arise

⁵ Janet Carroll, Quilceda/Allen Watershed Management Plan. Prepared for the Quilceda/Allen Watershed Management Committee, Snohomish County Public Works, Surface Water Management, Everett, WA, 1999.

⁶ Snohomish County Public Works, Quilceda Creek Drainage Needs Report, DNR No.1. Surface Water Management Division, Snohomish County, Everett, WA, 2002.

that would meet this in-lieu fee program goals and criteria. However, it is anticipated that a majority of mitigation projects will occur west of Interstate 5 within the sub-watersheds of Sturgeon, Coho or West Fork Quilceda Creek. (See **Exhibit 1**)

3.0 Current Watershed Condition

3.1 Overview

The Quilceda-Allen Watershed Management Plan⁷, Quilceda/Allen Watershed Characterization^{8 9} and the Tulalip Watershed Management Plan⁴ provide a historical overview of the condition of the watershed. The WRIA 7 Salmonid Habitat Limiting Factors Analysis¹⁰ also details historic and current conditions limiting fish production within the Quilceda Creek watershed.¹¹ The Quilceda Drainage Needs Report provides the most up to date compilation of resource conditions and in-depth monitoring of the watershed.¹² In addition, water quality monitoring and stream monitoring have been conducted by Adopt a Stream, City of Marysville, The Tulalip Tribes, and Snohomish Conservation District. Generally the City of Marysville has focused east of I-5 in the Quilceda, Edgecomb and Middle Fork Quilceda Creeks, with The Tulalip Tribes, Adopt a Stream, and the Snohomish Conservation District focusing in the West Fork Quilceda Creek.

Quilceda Creek flows primarily through a broad valley area called the Marysville Trough, bordered by 400 to 500 foot elevation plateaus to the east (Getchell plateau) and west (Tulalip plateau). The headwaters of the Quilceda Creek originate on either side of the Marysville Trough, on the Getchell and Tulalip plateaus.

The West Fork Quilceda originates on the western side of the valley on the Tulalip plateau, and flows through the recessional outwash sand deposits of the Marysville trough valley to its confluence at River Mile 3.7 of the Quilceda. Sturgeon and Coho Creek headwaters also originate within the Tulalip plateau and flow through the sandy valley sediments to their confluence with Quilceda Creek within its tidally influenced portion, River Miles 0.9 and 1.9, respectively. Edgecomb, Olaf Straad and the mainstem and Middle Fork Quilceda Creeks originate on the east side of the valley, on the Getchell Plateau. Hayho Creek, a ditched stream within the City of Marysville, (formerly known as Smokey Point Channel West) is entirely comprised in the Trough valley. (See **Figure 11, Appendix R**)

The geology of the Marysville trough and its surrounding slopes are a major driver in the hydrologic patterns and functions within the watershed. While Tulalip and Getchell plateaus are comprised of glacial till materials known as the Vashon till, within the Marysville trough valley, thick glacial sands

⁷ Janet Carroll, Quilceda/Allen Watershed Management Plan. Prepared for the Quilceda/Allen Watershed Management Committee, Snohomish County Public Works, Surface Water Management, Everett, WA, 1999.

⁸ Janet Carroll, and K. Thornburgh, Quilceda/Allen Watershed Characterization – Snohomish County, Washington. Prepared for the Quilceda/Allen Watershed Management Committee by Snohomish County Public Works, Surface Water Management Division, Everett, WA, 1995.

⁹ Snohomish County Public Works. Quilceda/Allen Watershed Management Plan Technical Supplement. Snohomish County Public Works, Surface Water Management Division, Everett, WA, 1998.

¹⁰ Donald Haring, WRIA 7 Snohomish River Watershed Salmonid Habitat Limiting Factors Analysis, Washington State Conservation Commission. Olympia WA. December 2002

¹¹ Washington State Conservation Commission (WSCC), Salmonid Habitat Limiting Factors Analysis. Snohomish River Watershed, WRIA 7. Olympia. WA, 2002.

¹² Snohomish County Public Works, Quilceda Creek Drainage Needs Report, DNR No.1. Surface Water Management Division, Snohomish County, Everett, WA, 2002.

(up to 150 feet in thickness) were deposited as the glaciers retreated, on top of the same Vashon till. Ragnar and Custer soils, deep sandy soils, are the predominant parent material within the Marysville trough, along with Norma loam, a hydric soil found within depressional areas. In addition, a smaller portion of alluvial soils, Lynnwood soils are also found along stream margins and in the northern portion of the Marysville trough. Within the mouth of Quilceda Creek, the Snohomish River floodplain contains soils of Puget silty clay loam. Alderwood and Tokul soils, gravelly sandy loams comprise most of the land on the plateaus. Overall 50 percent of the Quilceda watershed is comprised of hydric soils (Norma, Puget, Mukilteo Muck and Custer soils).⁷ Due to its geology, the Quilceda watershed has a large unconfined, or water table aquifer within the Marysville Trough. On the Tulalip plateau, the Tulalip aquifer is a confined aquifer, which has been under study as a sole source aquifer. Within the Marysville Trough, groundwater generally flows in a south to southwest direction. Groundwater contribution to the mainstem Quilceda Creek ranges from 8 to 33 percent, with contribution to stream flow in the Middle Fork ranging from 67-83 percent. Groundwater is an important source of stream flow during non-storm periods.^{10, 11}

NOAA maintains a precipitation gauge in the Smokey Point area. Average annual precipitation in the watershed from water year 1971 to water year 2000 was 47.34 inches. Average annual rainfall reported in the Quilceda-Allen Watershed Management Plan was 35.09 inches for water years 1991 to 1996. On average the last eleven years have been slightly wetter than the previous 35.^{7, 13} Quil Ceda Village has begun monitoring with a rain gauge beginning November 2010, and rainfall slightly lower than the Arlington NOAA gauge, by approximately one -2 inches per month.

Flooding is an issue in the Quilceda watershed. Flooding occurs as a result of the high regional water table in the Marysville Trough. During fall and winter, the water table is at or near the surface in hydric and Custer soils. The water table fluctuates rapidly in response to precipitation, creating a unique impact of groundwater on storm water runoff (See **Figure 4**). The water table drops early in the spring to greater than 3 feet in depth.^{7, 11}

Due to a high groundwater table, wetlands comprise a significant percentage of the Marysville trough area, with Custer and Norma soils comprising almost 50 percent of the area. More recent inventory conducted by Tulalip Tribes has revealed that a portion of the area mapped as Norma soils within the Coho and Sturgeon Creek watersheds is misidentified. However, approximately 30-40% of the area is still wetland. Wetland inventory conducted by City of Marysville indicated a large percentage of the Edgecomb and Hayho watersheds within the valley trough were historically wetland.^{7, 11, 14}

Twenty-two percent of the Quilceda watershed is found within the Tulalip Reservation, approximately 7500 acres. Approximately one third of the West Fork Quilceda Creek watershed is within the Tulalip Reservation, or 2288 acres. Coho Creek and Sturgeon Creek are entirely contained within the Tulalip Reservation, west of Interstate 5. The headwaters of Coho Creek and Sturgeon Creek are found within Quil Ceda Village, a federal city within the Tulalip Reservation. Edgecomb Creek, Middle Fork Quilceda, and upper mainstem subwatersheds are mainly comprised within unincorporated Snohomish County and the City of Marysville, with the lower mainstem Quilceda primarily located within the City of Marysville (See Map, **Figure 9; Appendix R**).

¹³ Snohomish County Public Works, Precipitation Data, Surface Water Management Online Data, Snohomish County, Everett, 2008. Available from:
http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SWM/Library/Data/default.htm

¹⁴ The Tulalip Tribes, Tulalip Wetland Inventory 2007-2010, Darla Boyer, The Tulalip Tribes Natural and Cultural Resources Department. Draft report.

3.2 Land Use

Population in Marysville doubled between 1989 and 1994, with increased residential developments occurring during this period. Land use in the Quilceda basin is nearly evenly divided between rural residential, agricultural, and urban residential land, with approximately 15% of commercial and industrial land. The upper reaches of the Quilceda Creek system consist primarily of agricultural and low-density rural land uses, whereas the middle and lower reaches consist of urbanized areas with moderate to high density residential, industrial, and commercial development.^{11, 14}

A land use study conducted in 2004 by Snohomish County showed a total increase of 97% in impervious surface within the Snohomish River Basin area from 1991 – 2001. According to that study, the Quilceda Watershed has seen the greatest increase in impervious area within urban areas.¹⁵ The Snohomish County Drainage Needs Report estimated total effective impervious area coverage in the basin to be approximately 2582 acres (7.8%) broken down as follows: Smokey Point 725 acres, Middle Quilceda 333 acres, Lower Quilceda 909 acres and West Quilceda 615 acres.¹¹ However, significant new developments have occurred within Smokey Point and in Quilceda Village since that time.

Primary land use changes since the Quilceda-Allen Management Plan have been increased commercial development in the Coho Creek, West Fork and Hayho Creek subwatersheds, and residential subdivisions within the Marysville UGA in the West fork, Middle Fork and Edgecomb Creek watersheds.

3.3 Species Information and Use in the Watershed

Within Quil Ceda Village, use above the tidally influence portion of the stream by fish species is limited to chum, coho, pacific lamprey [*Entosphenus tridentatus*] and resident fish (cutthroat trout [*Onchorhynchus clarkia*], mottled sculpin [*Cottus bairdii*], stickleback [*Gasterosteus aculeatus*]). No fish production other than cutthroat and other resident fish existed within the ditched portions of Coho Creek west of 27th Ave NE since the 1940's, until the culvert under 27th Ave NE was replaced in 1999, allowing fish passage to return to approximately 2 miles of stream and restoration area north and west of 27th Ave NE.¹⁶ The Tulalip Tribes have maintained a smolt trap in Coho Creek immediately below 27th Ave NE since 2002. By **2005**, 40 coho smolts, 91 coho Fry, 1751 chum fry, and 603 cutthroat were counted, with 651 coho smolts, 0 chum fry and 204 cutthroat counted in **2006**. By April-May of **2011**, coho smolt production had increased to 2649, chum fry to 12,628, and coho fry to 641. The extent of fish use on Sturgeon Creek above tidally influenced areas is unknown as there are several large blockages. Within the remaining watershed, use by all salmon species is documented.

Chinook Salmon

Chinook salmon (*Onchorhynchus tshawytscha*) were listed as a threatened species under the Endangered Species Act on March 24, 1999, with threatened status reaffirmed on June 28, 2005. Critical Habitat was designated on September 5, 2005. Quilceda Creek, its outlet, and the Snohomish estuary are designated as Critical Habitat for Chinook salmon, with the Tulalip Indian Reservation excluded

¹⁵ Snohomish Basin Salmon Recovery Forum, Snohomish River Basin Salmon Conservation Plan, Snohomish County Department of Public Works, Surface Water Management Division. Everett, WA, June 2005.

¹⁶ Kurt Nelson, Environmental Division Manager, The Tulalip Tribes Natural and Cultural Resources Department, personal communication, December 15, 2008

from critical habitat. Critical habitat includes the water quality, channel and channel habitat features within the bankful width of the stream.

Use of Quilceda Creek system by Chinook salmon is reported to be relatively minimal, when compared to its use by coho and chum salmon, or to Chinook use in the Snohomish River system as a whole. This is likely due to the fine channel bed substrate within the Marysville trough area limiting spawning within the watershed. Limited Chinook spawning is located along the mainstem Quilceda Creek, approximately mid-basin.¹⁵ Chinook utilizing Quilceda Creek are of the Skykomish stock, an “ocean” type, with juveniles migrating downstream from April to early June, and utilizing estuarine and/or marine habitat before mid-July^{17,18} The tidally influenced portion of the channel, up to approximately River Mile 3, could be utilized by Chinook smolts.

Puget Sound Steelhead

Puget Sound Steelhead (*Oncorhynchus mykiss*) were proposed threatened on March 29, 2005, and listed May 11, 2007.¹⁹ Steelhead are known to use the Quilceda Watershed, however due to fine channel bed material, only small areas of the watershed are suitable for steelhead spawning. The Department of Fish and Wildlife lists summer and winter steelhead as rearing and presumed in Quilceda Creek. The smolt trap on Coho Creek has not shown any steelhead use in Coho Creek. The winter or ‘ocean-maturing’ type enters freshwater between November and April for spawning. Since summer run steelhead usually only occur when habitat is not fully utilized by winter runs, it is unlikely that many summer run steelhead utilize Quilceda Creek.

Steelhead exhibit one of the most complex life histories of any species of Pacific salmon. *O. mykiss* can be anadromous (“steelhead”) or freshwater residents (“rainbow” or “red band” trout), and under some circumstances, they can yield offspring of the alternate life history form. Anadromous steelhead can spend up to 7 years in fresh water prior to smolting, and then spend up to 3 years in salt water prior to migrating back to their natal streams to spawn. Steelhead may spawn more than once during their life span (iteroparous), whereas the Pacific salmon species generally spawn once and die (semelparous).

Coho Salmon

Puget Sound/Georgia Strait Coho salmon (*Oncorhynchus kisutch*) were listed as a species of concern under the Endangered Species Act on April 15, 2004. The listing does not confer any procedural or substantive protections of the ESA to the species. The Quilceda Creek watershed is within the boundaries of the Puget Sound ESU for coho salmon that is the subject of the listing. No critical habitat is designated.

Coho salmon utilize Quilceda Creek and all of its tributaries, including Coho and Sturgeon Creeks.²⁰ Coho in Quilceda and Coho Creeks are part of the Snohomish River stock, a mixed stock with wild production that is considered in healthy status as of the Salmonid Stock Inventory in 2002.¹⁹ According to Washington Department of Wildlife’s Salmonscape website digital data maps and City

¹⁷ Washington Department of Fish and Wildlife (WDFW). 2002. Salmonid Stock Inventory. Available from: <http://wdfw.wa.gov/fish/sasi>

¹⁸ The Watershed Company, Biological Evaluation for sensitive Fish and Wildlife Species at the Proposed Coho Creek Restoration and Habitat Enhancement Project West of the Tulalip Tribes’ Quil Ceda Village. Prepared for The Tulalip Tribes Environmental Department. Tulalip, Washington, 2006.

¹⁹ 72FR 26722

²⁰ Washington Department of Fish and Wildlife (WDFW). Salmonscape Interactive Web Mapping. Coho distribution map, 2003. Available from: <http://fortress.wa.gov/dfw/gispublic/apps/salmonscape/default.htm>

of Marysville, spawning areas are in the upper Quilceda mainstem, the Middle Fork, West Fork Quilceda and Edgecomb Creeks within the gravel stream bed alluvial fan areas at the base of the plateaus ^{19, 21}. Coho and Sturgeon Creeks do not have any significant spawning habitat; however restoration work undertaken by the Tulalip Tribes since 2003, has increased coho production from essentially nil to over 650 smolts in 2004 and 2006 (Data was not available in 2007 and 2008). (See **Table 1** below)

Rearing areas are throughout the valley portions of the watershed. A significant amount of rearing habitat is in ditched portions of streams within agricultural areas in the West Fork and Edgecomb Creeks. The Quilceda is noted as a primary coho-producing watershed.²⁵

Table 1: 2002 - 2011 Coho Creek Smolt trap Summary

	<u>Year</u>	<u>Coho Smolts</u>	<u>Cutthroat</u>	<u>Chum Fry</u>	<u>Coho Fry</u>
April - June	2002*	0	282	31	13
March- June	2003	79	691	0	13
March- June	2004	330	670	77	0
March- June	2005	40	603	1751	91
April- June	2006	651	204	0	
No Data	2007				
May	2008*	28	53	871	54
April- May	2009	1010	116	2899	0
April - May	2010	2039	555	2509	52
April - May	2011	2649	3089	12628	641

*Partial Catch

Bull Trout

Bull trout (*Salvelinus confluentus*) were listed as threatened under the Endangered Species Act on June 10, 1998. The Puget Sound Management Unit, Coastal-Puget Interim Recovery Unit were listed as threatened on November 1, 1999. ²² Bull trout also have a complex life history with both adfluvial and anadromous forms. The Quilceda Creek watershed is within the boundaries of the Puget Sound ESU for bull trout; however, no critical habitat is designated within the Quilceda watershed. The Quilceda is presumed habitat for bull trout, however due to its distance from known spawning areas and from suitable spawning habitat, it is likely only utilized by anadromous not adfluvial fish for foraging.

²¹ City of Marysville, Coho, Steelhead and Chinook Salmon Distribution Maps. Quilceda-Allen Watershed. City of Marysville GIS, October 8, 2008 http://ci.marysville.wa.us/gis/maps/streams/coho_distribution_2006.pdf
http://ci.marysville.wa.us/gis/maps/streams/chinook_distribution_2006.pdf
http://ci.marysville.wa.us/gis/maps/streams/steelhead_distribution_2006.pdf

²² 64 FR 58910

Chum Salmon

Chum salmon spawn throughout the Quilceda watershed and its tributaries, including Coho Creeks. Chum salmon in the Snohomish watershed are a fall stock, and spawn November through December. A run of chum and coho have been re-established on the previously ditched Coho Creek. Recent smolt trap counts have exceeded 10,000 fish, following re-establishment of fish passage and stream meander/spawning segment restorations in Coho Creek.

Coastal Cutthroat Trout

Quilceda Creek and its tributaries are host to the anadromous, and resident life history forms of the species. Cutthroat are found throughout the watershed.

3.4 Fish Habitat

Instream fish habitat was evaluated by the 2002 Quilceda Creek Drainage Needs Report study.¹¹ As noted above, substrate in Quilceda Creek has a high percentage of fines, qualifying it for “not properly functioning” status based on the National Marine Fisheries Service Matrix of Pathways and Indicators²³. This channel bed condition throughout most of the trough area is likely due to the surficial geology within the trough area. Gravel bed stream reaches are located within the alluvial fan and upper Edgecomb, Middle Fork and upper Quilceda Creek channels as well as a short reach of the West Fork on the Tulalip plateau.^{24, 20}

Large woody debris density, pool frequency and pool quality were also categorized as “not properly functioning.” Pools were found to contain large quantities of sediment, and no off-channel habitat was noted in the report. Primarily limiting pool habitat is the lack of pool forming factors such as large wood, boulders or bedrock. Pool habitat was noted to be properly functioning in one surveyed reach of the West Fork, notably a forested parcel within the Tulalip Reservation boundary that is relatively undisturbed. Stream bank condition was relatively good, with only 4.5 percent of surveyed stream banks noted to be unstable.

Spawning habitat located in the alluvial fan sections of Middle Fork, Upper Quilceda Creek and Edgecomb Creek is in good condition.²³ There are sections of the lower Middle fork and mainstem Quilceda through the middle third of the watershed that also have spawning gravels. Most of the rest of the watershed is primarily rearing habitat, due to the fine substrate of the channel bed. The West Fork Quilceda has only small sections of spawning gravels in the upper channel within the alluvial fan at the toe of the Tulalip plateau. Most of the channel is in sandy substrate and provides rearing habitat in ditched sections of the stream and its tributaries.

Quilceda Creek’s extensive fish habitat can no doubt be attributed to its gradient class, which is predominantly in the 0-1% gradient class for a majority of the mainstem, Middle Fork and West Fork stream reaches. The maximum gradient class, for short reaches in the slopes ascending the Getchell plateau, in the upper reaches of the Middle Fork and mainstem, is 8-12%. A majority of the stream and its tributaries is found in 0-4% stream gradient classes.

Coho Creek has similar fine sand substrate to Quilceda Creek, with similar low gradient class. Both Sturgeon and Coho Creek are primarily unconsolidated mud bottom and aquatic bed palustrine

²³ National Marine Fisheries Service. 1996. Making ESA determinations of effect for individual or grouped actions at the watershed scale. National Marine Fisheries Service, Portland, Oregon, USA.

²⁴ Kurt Nelson, Environmental Division Manager, The Tulalip Tribes Natural and Cultural Resources Department, personal communication, October 8, 2008.

wetland (i.e. rearing) habitat below 88th St NE, contained by numerous beaver dams. Above 88th St, and west of 27th Ave NE, Coho Creek is sand bottom and mainly in a ditched condition, with several key reaches having restored meanders since 2005.

The lower Quilceda Creek mainstem is tidally influenced to just upstream of Interstate 5, with excellent rearing habitat for outgoing Chinook and coho smolts within the estuary portions of the stream, on the Tulalip Reservation. Fish use and presence has not been documented in the lower reaches of Coho Creek and Sturgeon Creek.

3.5 Riparian Condition

The steep ravines and wide valleys associated with Quilceda Creek and its tributaries have created a protective buffer along most of the stream channels in the lower watershed (outside of agricultural areas). Although the majority of the mainstem Quilceda and Middle Fork Quilceda have a wide riparian corridor, with average 75 foot vegetated buffers, the wide floodplain area and narrow steep bank walls have few large diameter trees available to channel recruitment. The vast majority of stream reaches surveyed for the Quilceda Watershed Drainage Needs Report had low large wood recruitment potential. And almost 50% of the watershed riparian areas are dominated by non-forest vegetation. In forested areas, trees are generally less than 12 inches in diameter. Stream shade within the Marysville UGA areas is approximately 50-50 in terms of potential for detrimental impacts from lack of shade^{7, 25, 20}. Agricultural areas of the watershed have poorly vegetated riparian areas along ditched sections of stream.

Since the 1999 Quilceda-Allen Watershed Management Plan was written, Snohomish County Surface Water Management and the City of Marysville have continued to do riparian enhancement projects within the Middle Fork, and Edgecomb Creek. In 2004, Snohomish County completed 6 acres of riparian plantings on the Mainstem Quilceda Creek. The City of Marysville also has riparian and wetland enhancement projects in Hayho, Edgecomb and the Middle Fork Quilceda Creek, including 1 acre completed in 2003. In 2007, Snohomish County completed 1200 feet of riparian plantings and weed removal on a section of the Middle Fork Quilceda Creek near 140th St NE, just south of the confluence with Edgecomb Creek. In 2008, the Adopt a Stream Foundation completed .60 acres of Riparian forest buffer enhancements. The upper watershed areas are most in need of riparian enhancement, within Edgecomb, Hayho, Middle Fork, and West Fork Quilceda Creek watersheds. Several opportunities were identified on maps at the October 2008 scoping meeting with AQWA team participants.

3.6 Wetland Condition

The focus of a majority of the plans and studies within the watershed has been on hydrologic functions of wetlands, as well as riparian habitat and habitat values related to salmon and fish production. Wetlands have primarily been assessed for their value as water storage features in the watershed and their connectivity to fish bearing streams; i.e. wetland processes related to hydrology including the potential for reducing peak flows, the potential for decreasing downstream erosion, and the potential for recharging groundwater. Detaining and storing flood and storm water runoff within wetlands facilitates these processes.²⁶ However, wetlands also provide feeding, rearing, and

²⁵ However, water quality data from the City of Marysville, Snohomish Conservation District and Tulalip Tribes indicate that stream temperature is properly functioning for the majority of the watershed area, speaking perhaps to the importance of groundwater to stream flow in the watershed.

²⁶ Thomas Hruby et al, Methods for Assessing Wetland Functions, Volume I: Riverine and Depressional Wetlands in Lowlands of Western Washington, Department of Ecology Publication #99-115. Olympia Washington.

resting habitat for a variety of species including invertebrates, amphibians, birds, and mammals. Wetlands are also important for maintaining a gene pool of native plant communities. Within the Quilceda watershed wetlands associated with streams contain important habitat for different life-history phases of anadromous and resident fish species.

An estimate of wetland aerial coverage and vegetation classes within the Quilceda watershed was determined in the Drainage Needs Report.²⁷ The Drainage Needs Report did not assess wetland functions and values (or services²⁸) other than cover class. A total of 189 wetlands were assessed, totaling 1433 acres, or 6% of the drainage basin. Of these, 63 were hydrologically-connected to streams (approximately 33% of the total). Of the classes identified for wetlands in the Quilceda Creek watershed, 28 percent were palustrine emergent (PEM), 27 percent were palustrine scrub/shrub (PSS), 21 percent were palustrine forested (PFO), 10 percent were palustrine aquatic bed (PAB), 9 percent were palustrine open water (POW), 3 percent were palustrine unconsolidated bottom (PUB), and 2 percent were estuarine wetlands. The Drainage Needs Report noted wetlands that were considered significant within the greater Quilceda watershed, including some that were important reservoirs of native plants and wildlife habitat. A bog community dominated by Labrador tea was also noted within the West Fork Quilceda subwatershed, outside of Reservation boundaries. This same bog was identified in the Quilceda-Allen Management Plan as a target for acquisition. (See **Figure 19, Appendix S**)

Prior to the most recent 2007-2010 Tulalip Wetland Inventory, Snohomish County Surface Water Management (SWM) conducted the most comprehensive look at wetlands within the watershed to date. SWM compiled wetland inventory data for the Quilceda-Allen Watershed Management Plan,²⁹ from Snohomish County wetland inventory, from the National Wetland inventory and permit data within Marysville and Snohomish County. The functions and values and condition of wetlands were also assessed for a sampling of wetlands. A field study of 36 wetlands was completed, including an assessment of water quality function, flood attenuation, groundwater recharge (base flow support), and fish and wildlife habitat. The wetland inventory includes a wetland by wetland description, and management recommendations. Wetland maps from the Quilceda-Allen WMP are in **Appendix S**. (See **Figure 23 - Figure 26**).

A majority of wetlands had a moderate rating for flood attenuation and storm water abatement, with a very few wetlands rating high. Almost 60% of wetlands rated moderate for habitat values with approximately one third rating low, and 10% rating high for habitat values. A majority of wetlands rated in all Quilceda subwatersheds rated high for water quality services, with only a fifth rating low.²⁸

The largest wetlands in the watershed are estuarine or stream adjacent, along Sturgeon Creek, the lower Quilceda, as well as large wetland areas associated with Edgecomb and Olaf Straad Creek. The West Fork Quilceda and Coho Creek subwatersheds also have large wetland areas (greater than 20 acres). The West Fork Quilceda and Edgecomb and Olaf Straad wetlands are in cleared agricultural

²⁷ Snohomish County Public Works, Quilceda Creek Drainage Needs Report, DNR No.1. Surface Water Management Division, Snohomish County, Everett, WA, 2002.

²⁸ US Department of Army and US EPA Compensatory Mitigation Rules have changed the previous functions and “values” term to “services”, meaning “benefits that human populations receive from functions that occur in ecosystems. (33 CFR Part 332.2)

²⁹ Janet Carroll and Kathy Thornburgh. Quilceda/Allen Watershed Characterization – Snohomish County, Washington. Prepared for the Quilceda/Allen Watershed Management Committee by Snohomish County Public Works, Surface Water Management Division, Everett, WA, 1995.

areas, for the most part, and have potential for wetland rehabilitation by ditch removal and also for enhancement, by restoring them to shrub and forest cover.

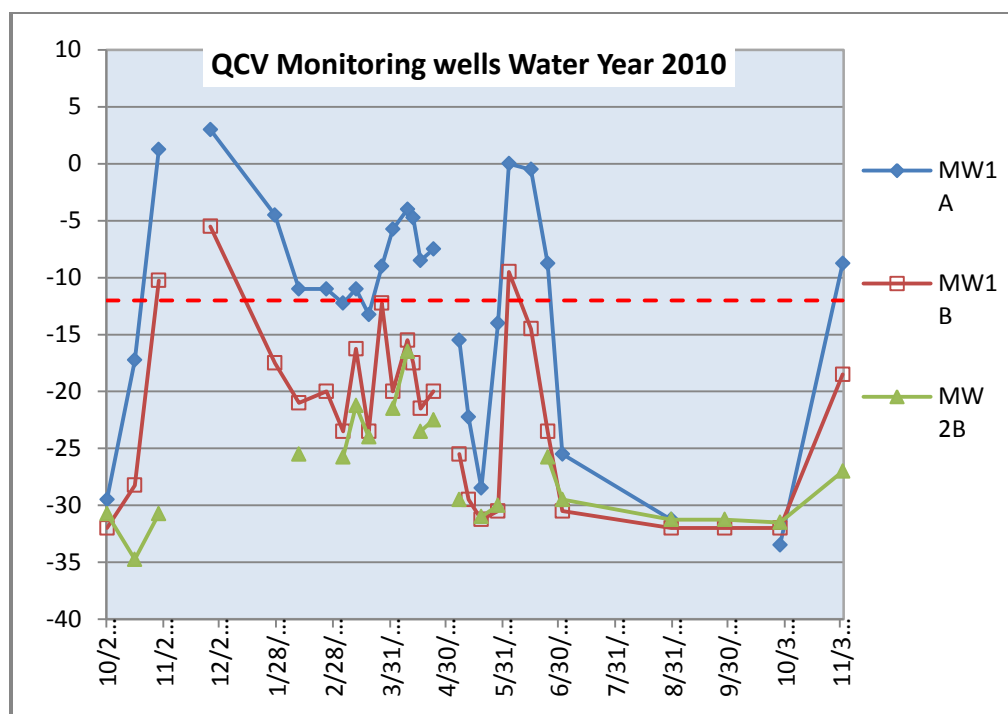
The Tulalip Tribes have been conducting a wetland inventory of the Tulalip Reservation, including the Coho, Sturgeon and West Fork Quilceda watersheds. Reservation-wide, over 4297 acres of wetlands were determined by inventory in 2007-2010.³⁰ Quilceda Watershed wetlands comprised approximately 48% of the total acreage, including 1029 acres of tidally-influenced, estuarine wetlands at the mouth of the Quilceda Creek. This inventory is a detailed on-the-ground inventory, and revises previous wetland inventories for the QCV site. In 1992, the Tulalip Tribes conducted a wetland inventory including wetlands in the Coho, Sturgeon and West Fork Quilceda watersheds and Quil Ceda Village boundaries, based primarily on hydric soil maps and overestimates wetlands when compared to the current wetland inventory.

Similarly to the 1992 Tulalip Wetland inventory, the 1995 Snohomish County wetland inventory for the Quilceda/Allen Watershed Management Plan was performed without having access to the Boeing-QCV property, and only indicates one large wetland (> 30 acres) at the north end of Quil Ceda Village, which was also shown in the Drainage Needs Report. The Tulalip Wetland Inventory 2007-2010 inventory identified similarly large or larger forested wetlands throughout the Quil Ceda Village boundaries west of 27th Ave NE. These wetlands have been dissected by a system of roads and deep ditches and have been hydrologically impacted to greatly reduce hydrologic functions. See **Figure 19 - Figure 22** for maps of the current inventory.

This more recent, detailed Tulalip wetland inventory has revealed sandy soils onsite, a prevalence of facultative vegetation, and lack of prolonged hydrology. Water table depths are inconsistent in several areas between years with differing rainfall, necessitating monitoring well installation. Graphs of the water table pattern during the inventory years are in **Figure 3** and **Figure 4**, below. Water table monitoring has continued onsite to assist with further wetland and site characterization. The water table shows rapid response to rain events, with the water table close to the surface or ponded in both wetland and upland wells in response to rain events, from December through late April. In addition, data shows that for wetlands within Coho Creek and Sturgeon Creek headwaters, the period of hydrology meeting wetland criteria is seasonal. The water table is only present above 12 inches between February through May of the growing season, usually dropping rapidly to below twenty inches by the end of May. Similar rapid water table fluxuation has been noted in portions of the West Fork Quilceda subwatershed, but it is unknown how widespread this condition is within the Quilceda watershed as a whole.

³⁰ Unpublished wetland inventory report, The Tulalip Tribes Department of Natural and Cultural Resources.

Figure 3: Monitoring Wells, Water Year 2010



3.7 Wildlife Habitat

Since the funding and focus of previous watershed plans has been connected to salmonid habitat and flooding issues, no assessment of wildlife habitat needs or existing condition within the watershed has been made by any plans or studies. However, the importance of wetlands in providing feeding, rearing, and resting habitat for a variety of species including invertebrates, amphibians, birds, and mammals was noted within the Drainage Needs Report. Numerous wetlands of exceptional habitat value were noted in the Quilceda-Allen WMP wetland study.

The Quilceda-Allen WMP noted that of wildlife species in Washington State, 75 percent use wetlands or riparian habitat during some portion of their life cycle. Many species occur only in wetlands. Species noted to use riparian habitat along Quilceda and Allen Creeks are raccoon, opossum, coyote, bald eagle, winter wren, Swainson's thrush, Stellar's jay, western garter snake and Pacific tree frog. Undoubtedly neo-tropical migrant bird species and numerous birds of prey should be included in this list. Forest fragmentation has reduced wildlife populations; however most Northwest forest-inhabiting species with the exception of black bear and cougar are likely still found within the watershed. In recent years there has been a resurgence of beaver in the watershed along with Snohomish County as a whole, with a part to play in restoration of the watershed.

Within the Tulalip reservation, bald eagle, black bear, cougar, coyote, birds of prey and numerous neo-tropical migrant bird species utilize both wetlands and forested areas. It is important to note several riparian and forest nesting birds such as purple finch, are in decline in Washington State that may utilize the area.³¹ In addition, Great Blue Heron have established rookeries on tribal property in the past, west of I-5, and could utilize areas within the Coho and Sturgeon Creek watersheds due to

³¹ Audubon Society of America. State of the Birds Report. 2007

their forested condition and also proximity to the estuary. It is likely the forested interior block of the Reservation, with its numerous wetlands, bogs, and stream corridors, is a reserve of wildlife and plant diversity for the western portion of the Marysville trough.

A conclusion of the wetland inventory for Quil Ceda Village is that the wetlands contain ubiquitous facultative species and do not on the whole provide a great diversity of wetland plant species or obligate species, likely due to the lack of prolonged saturation or inundation. Forest practices have created areas of young forest, which lack diversity; and scrub shrub habitat and open water areas are lacking. However the site is a large area of wetland deciduous forest habitat of varying stand ages, including areas of 80 year old black cottonwood, and patches of older coniferous forest, which is connected by forested slopes on the western boundary of the Marysville trough to forestry zoned parcels in the interior of the Tulalip Reservation. Within QCV, only scattered young to mid age cedar are found, except on the forested slopes within Forest lands of the Reservation.

3.8 Water Quality

Water temperatures for Quilceda Creek reported in the WRIA 7 Salmonid Habitat Limiting Factors Analysis³² ranged between 12.0 and 13.7° C, and are noted within the range of “properly functioning.” Quilceda Creek is listed as “impaired” on the State of Washington 2012 303d list for dissolved oxygen, and fecal coliform. Dissolved oxygen levels are attributed to elevated nitrate, nitrite, and phosphorus nutrients in streams sampled. Fecal coliform and nutrient problems are attributed to agriculture and septic systems upstream. No water quality data is available at time of writing for Sturgeon Creek. Coho Creek has one site that The Tulalip Tribes have been monitoring (See Appendix S).

Both the City of Marysville and The Tulalip Tribes have been collecting data on streams within the Quilceda watershed. In addition, the Snohomish Conservation District also collected data for a livestock water quality improvements grant within the West Fork Quilceda Creek in 2004 and 2005. All monitoring data show low dissolved oxygen and high fecal coliforms consistently a problem throughout the watershed. Water temperatures, however, are properly functioning throughout the watershed. Within the West Fork, the exception is the outlet to Nina Lake, a man-made lake just north of 140th St. NE which has water temperatures in excess of 25° C during the dry season months of July and August.^{33 34 35} (See **Figure 27 - Figure 28** and **Table 15, Appendix S**)

3.9 Water Quantity and Flow Characteristics

The high groundwater table in late winter and spring months in the Quilceda basin is a unique contributor to streamflow and stormwater discharges in the watershed²⁶. In general, infiltration of precipitation and aquifer recharge is greater than aquifer discharge to the stream in the northern portion of the watershed, and discharge to the stream is greater than aquifer recharge in the southern portion of the watershed. Between 40 - 60% of streamflow is from groundwater discharge, on average, throughout the watershed.¹¹ Any development that decreases groundwater recharge or storage capacity of the aquifer in the upper Quilceda watershed will decrease the flow in Quilceda Creek, especially during periods of no rainfall and lowest flows. Increased stream peak

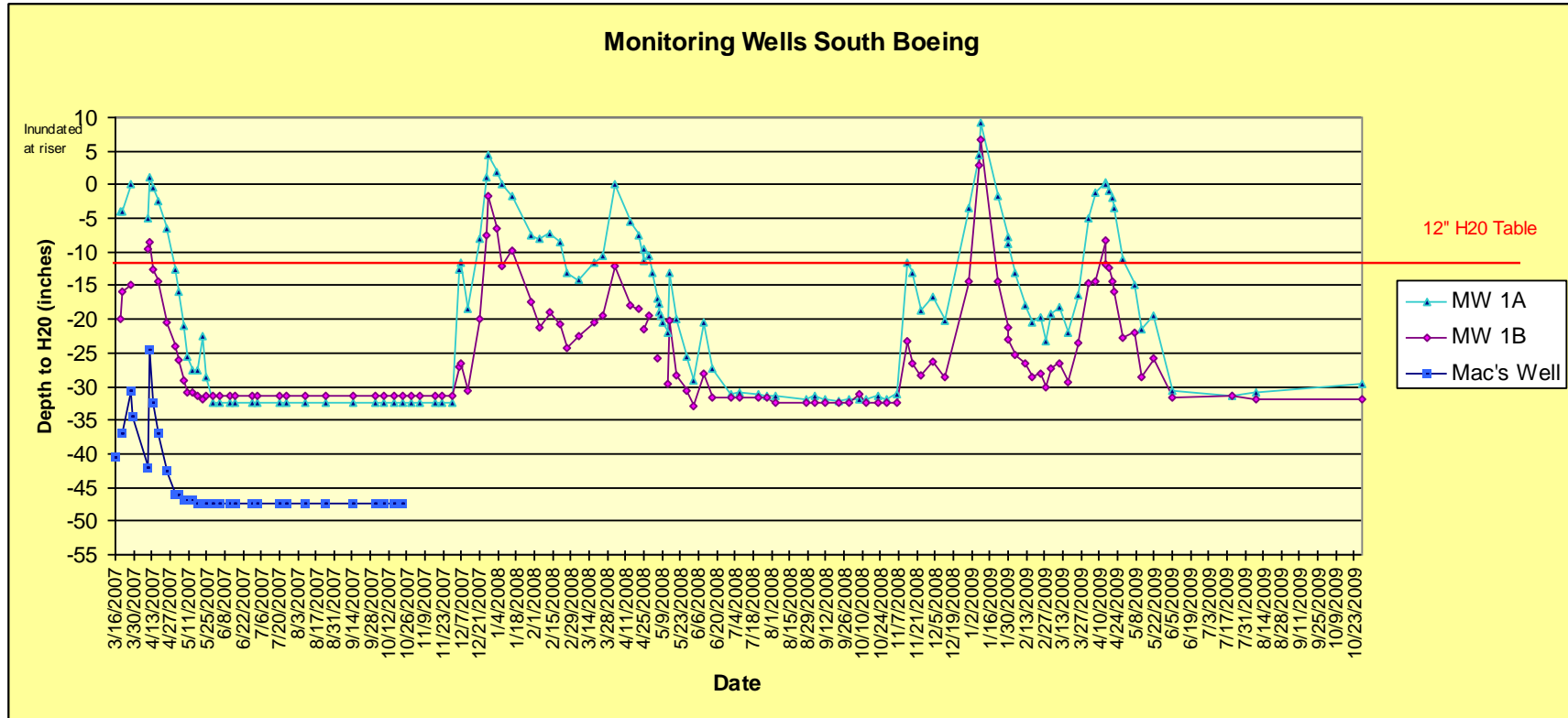
³² Washington State Conservation Commission. 2002. Salmonid Habitat Limiting Factors Analysis. Snohomish River Watershed, WRIA 7. Olympia, WA.

³³ Snohomish Conservation District. Water Quality Monitoring Report. Quilceda-Allen Watershed Livestock Water Quality Improvements Grant # G0400062. December 31, 2006. Everett, WA, 2006.

³⁴ The Tulalip Tribes, Unpublished water quality data. Harvey Eastman, personal communication. October 8, 2008.

³⁵ City of Marysville, Unpublished water quality data. Surface Water Management, October 8, 2008.

Figure 4: Monitoring Well Data in Quil Ceda Village, 2007 and 2008 Water Years³⁶



³⁶ Monitoring Well 1A is a wetland well, with Monitoring well 1B, 2A, and 2B upland wells. Monitoring well 2A was considered redundant and decommissioned in 2009.

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flows can also result from additional stormwater and rapid recharge through the sandy outwash soils. Sturgeon and Coho Creeks discharge to Quil Ceda Creek in its lower, tidally influenced reaches. It is unclear what effect reducing freshwater flows into the tidally influenced channel could have.

4.0 Historic Aquatic Resource Loss

4.1 Wetland Loss

Based on the extent of hydric soils mapped in the Quilceda watershed, Snohomish County Surface Water Management estimated in 1999 that 75-85% of wetlands have been lost within the watershed post European settlement. This number matches similar estimates in the Snohomish watershed as a whole, as well as Puget Sound as a whole.^{7,8} Loss of wetlands may be one of the primary reasons for increased peak flows evidenced in the watershed. Within the Tulalip Reservation, however, wetland loss is much less, due to lack of development. Within Quil Ceda Village boundaries, wetlands were impacted by ditching and fragmented by roads during US Department of Defense use of the property in the 1940's. Within the West Fork Quilceda Watershed, wetlands and streams also have been ditched and wetlands have been degraded by conversion to farm lands. However, until recent Quil Ceda Village and Smokey Point developments, fill and impervious surface have not been a major factor in the West Fork sub-watershed, to a large degree due to the maintenance of properties in a rural pasture and hobby farm condition. As a result, wetlands persist in this area; however in a degraded state.

4.2 Fish Habitat/Channel condition

Snohomish County Surface Water Management (SWM) surveys conducted in 1993 noted agricultural impacts in upper Quilceda Creek. The highest sediment loads were at water quality stations in both the upper Quilceda and MF Quilceda Creek. The source of sediment in MF Quilceda included streambank erosion associated with a gravel mining operation, and agricultural activities. The WF Quilceda Creek had low total suspended solids, with the primary sediment sources reported as agricultural activities and ditching, and a dirt bike track near 116th St NE. Turbidity was not evaluated systematically among water quality issues in the more recent Drainage Needs Report; however the report notes that the lower and middle watershed does have ongoing problems¹¹. As noted above, large woody debris, pool frequency and quality were reported as “not properly functioning” in the 2002 Report.

A dike just downstream of the confluence with Sturgeon Creek is impeding estuarine function from approximately 2 acres of estuarine habitat.¹⁴

4.3 Channelization and Ditching

One of the major impacts of agricultural and sprawling suburban residential development has been ditching of stream channels and wetlands. Historically the upper watershed within the Marysville Trough was comprised of a large wetland complex¹¹. Most of the wetland areas were drained by an extensive system of ditches within the upper valley, and the streams in the upper watershed, Edgecomb, West Fork, and Olaf Straad Creek were channelized around farm fields. This may be the other main reason for increased peak flows in the watershed. Channelization also removes in-stream habitat by increasing streambank scour, removing woody debris, riparian cover and natural pool riffle ratios found in meandering stream channels.^{7,11}

Within the Coho and Sturgeon Creek headwaters on the Tulalip reservation, extensive roading and associated ditching through larger wetland areas have aggravated the water table fluctuations for these two creeks, draining wetland areas, with a rapid drop in groundwater table in the spring.³⁷

4.4 Water Quantity-Groundwater Recharge/Peak Flows

Current peak streamflows in the Quilceda/Allen watershed have increased by an average of 40% from pre-development streamflow. Flooding is a significant problem in the watershed due to the failure of ditch systems and the high groundwater table, which is close or at the surface during winter and spring months. As discussed in earlier sections of this report, groundwater discharge is an important contributor to streamflow in Quilceda Creek in the lower watershed. There is no indication of previous losses in groundwater recharge in the watershed. Most impervious surfaces are in highly developed areas of Marysville and its Urban Growth Area (UGA), in residential and commercial areas within the Middle Fork and Mainstem lower watersheds. Undoubtedly surface water storage has been reduced historically within these areas.³⁸

The WRIA 7 Limiting Factors Analysis noted that the high water table throughout the Marysville trough is the main reason for all the ditching within agricultural areas. In addition the high water table makes stormwater detention ponds difficult to construct as the watershed develops.

4.5 Water Quality

Water Quality data in the service area has been collected by The Tulalip Tribes, Snohomish County SWM, City of Marysville, and Snohomish Conservation District. Water Quality data collection has focused on the West Fork Quilceda Creek and Edgecomb, Hayho and the Middle Fork and Mainstem Quilceda Creek(See **Table 15**, and **Figure 27 - Figure 28, Appendix S**). Fecal coliforms, low dissolved oxygen and elevated stream temperatures have been identified associated to agricultural and residential parcels within the West Fork Quilceda and also Middle Fork and mainstem Quilceda. Overall, the Quilceda has high levels of nutrients. Nitrate, nitrate-nitrogen and phosphorus are regularly detected in the Quilceda. Nutrient levels are often associated with algal production and contribute to low dissolved oxygen levels.¹¹

West Fork Quilceda Creek

Snohomish County Surface Water Management found an increase in fecal coliform concentrations in the West Fork Quilceda Creek at 128th St NE between 1994 to 2002. This trend continues in the monitoring conducted by both the Snohomish Conservation district and Tulalip Tribes Natural Resource Department.

The Snohomish Conservation District conducted water quality monitoring within the WF Quilceda as part of a DOE funded Quilceda Allen Watershed Livestock Water Quality Improvement project. The wet season water quality monitoring took place in November and December 2004, and dry season monitoring took place in August and September 2005. Data were collected at eight monitoring points in tributaries to Quilceda upstream of 128th St NE.

Fecal coliform, temperature, and dissolved oxygen were all outside of DOE state standards in both Tulalip water quality monitoring data and in the Snohomish Conservation District data for the West Fork Quilceda Creek. Highest temperature readings were at the outlet to Nina Lakes.

³⁷ Darla Boyer, Wetland Biologist, Tulalip Department of Natural Resources, personal communication, September 15, 2008.

³⁸ Snohomish County Public Works, Quilceda Creek Drainage Needs Report, DNR No.1. Surface Water Management Division, Snohomish County, Everett, WA, 2002.

Mainstem Quilceda Creek

The City of Marysville has collected water quality data between 2006 to present. Three sites on the mainstem Quilceda have been monitored, as well as at the confluence of Hayho Creek with the mainstem.

Fecal coliform has been elevated at all sampling sites, with low dissolved oxygen also at Hayho Creek. Stream temperature, turbidity, and pH have been mostly within the acceptable range. Hayho Creek had high turbidity in July and August of 2007, low rainfall months, indicating it was likely associated to improper erosion control during construction or ditch cleaning within this watershed.³⁹

4.6 Riparian Cover

Historically, riparian cover and buffers to wetlands have been reduced in conversion of lands to agriculture throughout West Fork Quilceda, Edgecomb and Hayho Creek areas. In residential areas within Marysville City limits, riparian areas were maintained to a greater extent on mainstem areas; however there is lack of a forested cover in approximately 50% of surveyed stream reaches.^{40,41} Within the Tulalip Reservation, buffers are generally present, with the exception of some agricultural areas in West Fork Quilceda Creek subwatershed. Sturgeon Creek has also experienced some reduced riparian buffers, but a minimum buffer of 50 feet is maintained in all areas.

Currently riparian cover is maintained in the same condition as previously noted in the Tulalip Watershed Plan and the Quilceda-Allen Watershed Management Plan, likely a result of provisions of the Growth Management Act, as well as physical constraints of the channel incision. Numerous riparian planting projects have been undertaken by the City of Marysville, Snohomish County, Snohomish Conservation District, Adopt-a-Stream, and the City of Arlington, on City of Marysville properties, and in cooperation with private landholders (See Watershed Characterization)⁴². Riparian fencing on agricultural lands and riparian planting projects have occurred in Edgecomb Creek, Middle Fork Quilceda, and West Fork Quilceda sub-watersheds. These projects are still relatively young (less than a decade old) and will not mature for several decades to the extent of impacting stream habitat.

5.0 Threats to Aquatic Resources

Comprehensive watershed information gathered by the Tulalip Watershed Plan and the Quilceda-Allen Watershed Management Plan included: water quality reports prepared by Snohomish County and Tulalip Tribes, spawner data from WDFW and the Tulalip Tribes, studies collected on the Snohomish River delta, geologic maps, ground water reports, watershed well logs, stream flow monitoring, fish habitat assessment, and stormwater runoff models. The Salmonid Habitat Limiting Factors Analysis for the Snohomish basin,³² undertaken in cooperation with numerous agencies and The Tulalip Tribes, and the Quilceda Drainage Needs Report,¹¹ were used to update information in earlier plans for this planning effort.

³⁹ City of Marysville. Unpublished water quality data, Surface Water Management, October 8, 2008

⁴⁰ Janet Carroll, Quilceda/Allen Watershed Management Plan. Prepared for the Quilceda/Allen Watershed Management Committee, Snohomish County Public Works, Surface Water Management, Everett, WA, 1999.

⁴¹ Washington State Conservation Commission (WSCC), Salmonid Habitat Limiting Factors Analysis. Snohomish River Watershed, WRIA 7. Olympia. WA, 2002.

⁴² Cara Ianni. Stilly-Snohomish Salmon Enhancement Task Force Education Coordinator, personal communication. Unpublished inventory of projects since 2001. October, 2008.

The following list of threats is developed from the Tulalip Watershed Plan and the Quilceda-Allen Watershed Management plan and confirmed by members of the Allen Quilceda Watershed Action Team for this planning framework (added threats are in *italics*):

- **Hydrologic impacts of Basin urbanization/impervious surface**
 - Increased peak runoff rates, stream scour and bank erosion
 - Reduced ground water recharge
 - Diminished summer base flows
- **Water Quality Impacts**
 - High levels of bacteria and nutrients due to failing septics, livestock and pet waste
 - Reduced dissolved oxygen, increased algal blooms, increased juvenile fish mortality
 - Increased pollutants in urban runoff: petroleum and metal toxicity, *endocrine blockers*
- **Physical habitat, buffers, interconnected habitat**
 - *Inadequate buffers on tributaries, and ditched portions of streams*
 - *Inadequate recruitment potential for LWD*
 - *Loss of structural, instream pool forming factors such as LWD*
 - Decreased bottom habitat, siltation of spawning gravels
 - Stream channelization (ditching and straightening)
 - *Threats to cultural species, collection sites (Tulalips)*
 - Loss of migration corridors.
 - *Creation of isolated non-viable wildlife populations, migratory songbird, amphibian, plant populations*
 - *Loss of food webs*

The potential for channel changes occurring as a result of increased stormwater is a primary area of concern, due to the threat of urbanization and development within the Quilceda Watershed, and particularly the City of Marysville UGA. Informal surveys with property owners in the West Fork Quilceda have indicated development on the Tulalip plateau may have increased stormwater impacts in the Trough area. Within the mainstem Quilceda inner gorge, the stream response to increased flows and flooding could cause landslides within the valley walls, which are comprised of highly erodible sandy sediments. Channelized streams and ditches within wetlands exacerbate stormwater problems by increasing flood flow velocities. However, it may be noted that the importance of Coho and Sturgeon Creek to flows in Quilceda Creek may be somewhat mitigated by the location of the outlets of these tributaries in the mainstem Quilceda Creek within its tidal portion. Because their confluences are in the lower, tidal portions of the watershed, where tidal influences may dominate flows from these relatively small subwatersheds, the effects of these drainages on instream fish habitat for Chinook and Steelhead are unknown. Coho and Sturgeon Creek channels are also tidal at approximately 0.5 and 1.0 miles below Quilceda Village.

Wetland loss also threatens food webs and cultural species important to the Tulalip Tribes. Creation of isolated sub-populations of plant and animal species is a threat when habitat corridors between wetland, streams, and forested habitats are broken. While many species of birds and mammals may be able to migrate across barriers of pavement and buildings, some species such as amphibians have

short mobility and are unable to migrate longer distances between vegetation patches, or may be more subject to predation.

6.0 Aquatic Resource Goals and Objectives

The following Goals for the Quilceda Watershed are adapted from the Tulalip Watershed Plan, and have been updated by scoping with members of the Allen-Quilceda Watershed Action team, in a meeting on October 3, 2008. Participating agencies/groups were: the Tulalip Tribes Natural Resources Department, Snohomish County, City of Marysville, City of Arlington, Snohomish Conservation District, Adopt-a-Stream, and the Stilly-Snohomish Salmon-Enhancement Task Force (SSSETF)(Now Sound Salmon Solutions). The Goals have been ordered in order of priority to the In-lieu fee Program.

- **MAINTAIN AND RESTORE HYDROLOGIC FUNCTION**

- Maintain/restore groundwater recharge
- Maintain/Restore hydroperiods
- Maintain/restore headwater storage, delivery
- Prevent groundwater contamination
- Maintain/restore floodplain connectivity (floodwater storage, flood attenuation)
- Remove ditching in wetlands and streams

- **NO NET LOSS, LONG TERM NET GAIN IN WETLAND FUNCTION AND ACREAGE**

- Restore degraded wetlands by restoring hydrologic, habitat, or water quality functions
- Reconnect wetlands to stream corridors, restoring floodplain connectivity
- Preserve high functioning wetland and stream corridors through acquisition
- Preserve headwater areas
- Identify opportunities for wetland establishment

- **PROTECT/RESTORE QUALITY OF SURFACE WATERS**

- Reduce urban and rural point and non-point runoff pollution
- Reduce unnatural sediment input into streams to levels than can be transported out of the system by stream flow at all times of the year.
- Restrict livestock access to streams and wetlands

- **MAINTAIN AND IMPROVE FISH SPAWNING AND REARING HABITAT**

- Maintain hydrologic function as further developments occur
- Maintain headwater storage, delivery
- Restore/maintain floodplain connectivity (floodwater storage, flood attenuation)
- Maintain habitat corridors, hydrologic connectivity
- Revegetate stream corridors
- Restore natural meanders in ditched tributaries to Quilceda Creek
- Restore in-channel complexity and habitat features

As a summary of the discussions on watershed needs and priorities, the key points are as follows:

Wetland creation, re-habilitation or enhancement can create additional flood storage needed as the watershed continues to develop. Wetland restoration potential is high within the West Fork Quilceda, Edgecomb and Olaf Straad Creek subwatersheds, due to conversion of wetlands to agricultural uses and the potential for ditch removal to restore wetlands. Restoration projects that involve filling in or blocking ditches, and restoring stream meanders, as well as re-establishment of forest and shrub cover will restore native species pools and have the potential to increase water storage and reduce flooding. Tribally-owned properties with this type of habitat are located within Reservation and shown on Figure 17.

The City of Marysville and City of Arlington have identified potential restoration projects within the Edgecomb and Olaf Straad subwatersheds, and have been actively working on developing a mitigation plan there. Snohomish County efforts have been focused on streamside habitat improvements in the Middle Fork and lower mainstem Quilceda Creek, as well as on culvert replacement projects to restore fish passage and correct flooding problems. Wetland preservation is also seen by the group as an important strategy in stormwater management.

Stream buffer restoration on both ditched streams or logged streamside areas for habitat creation and water quality protection, as well as wetland creation in association with streams for creation of flood storage are primary categories with high restoration potential. Potential mitigation project sites are identified on unpublished maps provided to the IRT.

7.0 Prioritization Strategy

Both the Quilceda/Allen Watershed Management Plan and the WRIA 7 Limiting Factors Analysis indicated priorities for restoration actions within the Quilceda Watershed. Many of the restoration activities are focused on salmonid habitat and population needs. The Quilceda-Allen Watershed Management Plan also has a wetland study with wetland specific management actions identified by sub-basin. The AQWA Team members, convened in October, 2008, agreed with the priorities identified in these previous planning documents, updated the priorities with a concern for wetland mitigation, and identified potential project areas/sites. Potential restoration activities that could serve

as in kind or out of kind mitigation for wetland impacts are summarized in order of priority below (See **Figure 16-Figure 18, Appendix S**).⁴³

7.1 Coho and Sturgeon Creek Planning Area

1. Preservation of Coho and Sturgeon Creeks and their riparian buffer areas.
2. Road removal within Quil Ceda Village property west of 27th within stream buffer and wetland areas.
3. Creation and rehabilitation of riparian wetlands.
4. Wetland rehabilitation via restoring wetland hydrology, ditch removal, culvert removals, fill removal, etc.
5. Restoration of stream reaches within Sturgeon and Coho Creeks, for example ditched stream reaches restored to meandering channels,
6. Preservation of forest headwaters to create a wildlife corridor and buffer connected to forest parcels on the Tulalip plateau.
7. Acquisition and preservation of riparian wetlands on Coho and Sturgeon Creek.
8. Wetland enhancement by invasive species removal and conifer underplantings within wetland areas.
9. Enhancement of impacted stream and wetland buffers by planting shrubs and trees.

7.2 West Fork Quilceda Planning Area

1. Wetland rehabilitation via restoring wetland hydrology, ditch removal, culvert removals, fill removal, etc. For example: ditch removal (floodplain reconnection) in parcels that have ditched wetland areas connected to West Fork Quilceda Creek.
2. Acquisition and rehabilitation of wetland areas adjacent to WF Quilceda Creek and its tributaries.
3. Wetland enhancement by re-vegetation of wetlands and wetland buffers with trees and shrubs.
4. Acquisition and preservation of two wetland areas, a bog wetland and large forested wetland, adjacent to the WF Quilceda. These wetlands are noted as WF-36 and WF-20 in the Quilceda/Allen WMP. One of these, WF-20 is located outside of Reservation boundaries.
5. Wetland creation where opportunities exist to create flood storage associated to WF Quilceda Creek
6. Restoration of natural meanders on ditched watercourses
7. Restoration of riparian buffer on ditched watercourses on where vegetation is absent.
8. Restoration of riparian buffer on streams where vegetation is absent.
9. Reconnect streams with adjacent wetlands and floodplains

7.3 Mainstem Quilceda Planning Area

1. Acquisition, preservation and enhancement of forested and headwater wetlands identified in the Quilceda/Allen WMP and Drainage Needs Report (Wetlands 50, 51, 52, 53, **Figure 20, Appendix S**).

⁴³ The areas shown on maps are for the purposes of documenting restoration potential in the watershed, but are not exclusive of other potential projects that may be identified and meet the proposal criteria, or fall into categories identified in this section.

2. Permanent protection of the large estuarine wetland at the mouth of Quilceda Creek (MQ-13 in the Quilceda/Allen WMP (See **Figure 20, Figure 26 Appendix S**).
3. Restore floodplain, wetland, and riparian function in channelized areas in the watershed.
4. Wetland and stream bank buffer enhancements, restoring riparian buffers on the mainstem channel.
5. Increase habitat diversity in areas with limited LWD presence and near-term recruitment potential, with particular attention to agricultural areas.

7.4 Edgecomb Creek Planning Area

1. Wetland and wetland buffer restoration via restoring wetland hydrology, ditch removal, fill removal, etc. Ditch removal (floodplain reconnection) in parcels that have ditched wetland areas connected to Edgecomb Creek.
2. Wetland creation adjacent to stream areas.
3. Wetland enhancement by re-vegetation of wetlands with trees and shrubs.
4. Restoration of riparian buffer on ditched watercourses or where vegetation is absent.

The City of Marysville is working on a regional plan for wetland preservation and restoration in this watershed. Any wetland mitigation proposals for the QCV ILFP should be coordinated with the City of Marysville in the Edgecomb Creek Planning area.

7.5 Middle Fork Quilceda Planning Area

1. Restoration of riparian buffers of streams in logged areas and where vegetation is absent.
2. Projects to improve channel complexity and fish habitat.
3. Preserve headwater and riparian wetlands.

The City of Marysville and Snohomish County have been working primarily on culvert replacements to improve fish passage as well as riparian buffer enhancements, within areas of their jurisdiction, representing opportunities for coordinated mitigation projects with QCV ILFP fees.

8.0 Site Selection (33 CFR 332.3)

In accordance with general compensatory mitigation requirements of 33 CFR 332.3, the compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions. Site selection for mitigation activities will consider the ecological suitability of the compensatory mitigation site to providing aquatic resource functions that adequately mitigate the functions lost with permitted activities. Due to functional similarities throughout the Quilceda Watershed, mitigation may be suitable within any of the subwatersheds, with an emphasis on replacing functions and services within closest proximity to impacts, particularly with respect to hydrologic impacts, to maintain and restore hydrologic patterns at various subwatersheds that feed Quilceda Creek. In addition, mitigation should adequately compensate for lost functions and services, such that wetlands are replaced at an equal or greater category or functional state by mitigation actions. Due to threats of urbanization within the watershed, preservation of wetland areas of significant hydrologic, species or habitats may be considered a good fit to replace habitat losses, when combined with restoration of wetlands within the subwatershed, to achieve goals of ecosystem sustainability at a watershed scale.

A joint guidance document: “Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) will be used for guiding site selection of mitigation sites for the QCV ILFP (See Exhibits 10a and 10b)⁴⁴

The following site selection factors are based on the previous compendium of watershed conditions, and the guidance provided in 33 CFR 332.3, and will be utilized to aid in selection of individual project sites.

a. **Preference will be given in selection of projects to those proposed in the following areas, listed in order of preference:**

- the Sturgeon and Coho Creek subwatersheds,
- the West Fork Quilceda watershed within Tulalip Reservation Boundaries and,
- the West Fork Quilceda subwatershed outside of Reservation Boundaries.

Because the anticipated project impact areas are within Coho and Sturgeon Creek, and because of the high restoration potential and historic impacts to groundwater recharge by ditching and roading within Quilceda Village boundaries, those subwatersheds will be first priority for mitigation projects. Because of the proximity and hydrologic connection of the West Fork Quilceda to the expected project impact areas within Quil Ceda Village, new wetland creation, rehabilitation and enhancement within the West Fork Quilceda in closest proximity to the project will have the greatest ecological connection to replace lost functions and services within the impact area, after priority projects are accomplished in the Sturgeon and Coho Creek subwatersheds. However, mitigation in any of the Quilceda Watersheds may be suitable upon consideration of greater watershed needs, due to the proximity of habitat and hydrologic connectivity.

b. **The order of preference to resource type of mitigation projects:**

- Wetland re-establishment
- Wetland creation (establishment)
- Wetland rehabilitation, and enhancement
- Acquisition and preservation of wetland or wetland buffer parcels that are at risk of development, and provide flood storage benefits or wildlife habitat or native species habitat.
- Restoration of stream hydrologic or habitat function such as restoring stream meanders and channel complexity.
- Preservation of Tribally-owned parcels that are at risk of development, that provide headwater delivery or wildlife habitat or native species habitat.

⁴⁴ Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington), Tom Hruby, Kim Harper and Stephen Stanley, Washington State Dept of Ecology Publication 09-06-031, December 2009. This document has been adopted by the Corps and EPA for use as a tool for reviewing mitigation site selection.

- Riparian enhancement to reduce stream temperatures, increase dissolved oxygen and reduce fecal coliforms by filtering pollutants
- Culvert replacements for fish passage or hydrologic attenuation when there is a wetland restoration or enhancement component to the project, except where mitigation credits are purchased for impacts to stream resources

QCV ILF mitigation projects will incorporate as many of these resource types as needed and as practicable to address Service Area impacts, following the watershed approach.

Due to the importance of maintaining groundwater recharge to Quilceda Creek, and the poor ability of the watershed to store stormwater due to a high water table, wetland creation, rehabilitation and acquisition/ preservation are important tools toward maintaining and enhancing flood storage in the watershed. The following is a summary of important hydrologic, biologic and habitat conditions in the watershed that may influence choice of restoration sites or activities:

c. Hydrological conditions, and other physical and chemical characteristics (33 CFR 332.3(d))

All of the Quilceda subwatersheds have similar hydrologic and physical and chemical characteristics related to aquatic resources. The aquatic resource areas within Quil Ceda Village that are anticipated to be impacted by future development projects are within Coho and Sturgeon Creek, in close proximity to the West Fork Quilceda Creek, all of which flow through the valley bottom of the Marysville Trough and its sandy recessional outwash sediments. These three subwatersheds have their headwaters in the Tulalip plateau, but flow primarily within the valley bottom. Of the remaining subwatersheds in the Quilceda watershed basin, Edgecomb, and Olaf Straad Creek are most similar to Coho Creek, West Fork and Sturgeon Creek, comprised mainly in the Trough valley, with shorter reaches in the plateau areas. The Middle fork and Mainstem Quilceda Creeks have more stream length in the Getchell plateau, with more gravel spawning areas, and are larger channels with much wider bankfull flow and stream valleys. These latter two subwatersheds also are more dominated by residential development, and have fewer wetland restoration opportunities outside of the stream channel valleys. Coho Creek, Sturgeon Creek, and the West Fork flow into the mainstem in the lower watershed, and the Middle Fork and Edgecomb Creek join the Mainstem higher in the watershed. However, the effects on flow in Quilceda Creek are likely to be greatest from the Middle Fork, and upper Mainstem due to the fact that Coho, Sturgeon Creek, and the West Fork join the Mainstem in its tidally influence portion.

There is similarity also in riparian condition between Coho Creek, the West Fork Quilceda, and Edgecomb, and Olaf Straad Creeks in that all of these subwatershed areas have a lot of area converted to agriculture, with little riparian cover. They also have forested areas in the plateau sections of the streams feeding the valley areas. There are similarities found also in the water quality data between all of these streams in that fecal coliform is a primary concern, and dissolved oxygen is a concern in some areas; however stream water temperatures are generally cool. In all of the subwatersheds groundwater is the primary source to stream flow, with discharge to the Mainstem and Middle fork in the lower watershed. The overriding role of the geology of the basin to stormwater issues and to groundwater recharge in both wetlands and streams is similar throughout the watershed.

Wetland rehabilitation associated with stream restoration in the form of ditch removal and restoration of channel meanders and floodplain reconnection is a documented need and will be a

prioritized mitigation strategy in almost all of the subwatersheds, including Coho, West Fork, Olaf Straad, Edgecomb, and Hayho as well as Middle Fork Quilceda Creek.

d. Watershed-scale features, such as aquatic habitat diversity, habitat connectivity (in accordance with 33 CFR 332.3(d))

As a lowland watershed, the Quilceda has a unique suite of species adapted to its natural habitats, from those utilizing the marine areas at the mouth of the Quilceda, to the riparian areas and extensive wetland areas within the lowland. As parts of an urban watershed, with rapid growth in population, residential housing and development of commercial areas, the Quilceda subwatersheds have similar unique challenges and needs for restoration.

Habitat connectivity is greatest in Coho Creek, Sturgeon Creek and the Middle Fork and Mainstem Quilceda watershed areas, with most impacts to habitat connectivity in the agricultural areas of the West Fork and Edgecomb, Hayho, and Olaf Straad watersheds. The residential areas in the Middle Fork and Mainstem Quilceda have relatively good riparian corridors due to earlier buffers left with streams. There is good potential throughout the watershed for reconnecting wetland habitat with stream habitat and restoring greater habitat diversity (vertical and structural diversity such as larger trees and coniferous vegetation, and large woody debris and snags). Also there is good potential and need for restoring forest cover with wetlands and stream and their buffers. Preservation may be an important tool in maintaining habitat corridors to maintain biological and ecological integrity of the watershed.

e. Compatibility with adjacent land uses and watershed management plans

Restoration goals and projects identified in the Tulalip Watershed Management Plan, WRIA 7 Limiting Factors Analysis, Drainage Needs Report, and Quilceda-Allen Watershed Management Plan are being incorporated into this Fee-in-Lieu Planning Framework above, and the documents are incorporated by reference herein.

Site selection will consider compatibility of adjacent land uses, such vegetation conditions, disturbance, light, noise, and connectivity to other natural resource areas

f. Reasonably foreseeable effects of the compensatory mitigation project

Site selection will also consider the reasonably foreseeable effects of the mitigation projects on ecologically important aquatic or terrestrial resources such as estuarine habitat, mature forests, needs of wildlife and endangered species within the subwatershed area. Functions and services and aquatic resource types must be mitigated at an equal or greater value than those impacted, and the in-lieu fee account needs to insure that aquatic resource types and functions and services are tracked separately.

Benefits of the mitigation projects as prioritized, over the long term, are greater flood attenuation, with more sustained summer low flows, and more moderate peak flows during winter storm periods. Some culvert replacement projects may require accompanying flood storage capacity created, due to passage of greater flows as more adequately sized culverts are installed.⁴⁵

Greater habitat connectivity will contribute to more stable plant and wildlife populations and greater diversity and sustainability of the ecosystem as a whole, in its ability to withstand ecological disturbances such as climate change.

⁴⁵ Quilceda Creek Drainage Needs Report DNR No. 1, Snohomish County Public Works, Everett, WA, December 2002

Water quality will be improved within mitigation areas, and in the long term, within West Fork Quilceda Creek and Coho Creek as more stream reaches are revegetated with forest and shrub cover. Greater wood recruitment potential will increase pool size and numbers of pools for fish rearing habitat within mitigation project areas.

g. Other relevant site selection factors

Other relevant site selection factors, include but are not limited to: habitat status and trends in the watershed, water quality goals, floodplain management goals, and relative locations of the impact and mitigation sites in the stream network.

The above sections a - f incorporate most if not all of the above site selection factors as do the documents that this CPF relies on. Compensatory mitigation sites will prioritize locations adjacent to existing aquatic resources or where aquatic resources previously existed.

9.0 Preservation Objectives

Preservation of wetlands and riparian resources has been identified as an important need in the Quilceda Watershed by the Quilceda/Allen Watershed Management Plan (WMP), and the Tulalip WMP, as well as by the AQWA team members giving input to this planning framework. Due to the rapid urbanization and commercial development associated with Quil Ceda Village and with the Marysville UGA, and the I-5 corridor, and the importance of stormwater and groundwater to hydrologic modeling in the watershed, wetland preservation has been identified as an important stormwater management tool. In addition wetlands provide an important reservoir and refuge for plants and animals in the unique lowlands of the Marysville trough. Particularly when connected to riparian corridors, wetlands present a valuable ecological resource for the Quilceda Watershed.

Seven wetlands were recommended for permanent protection by The Tulalip Tribes due to their size, exceptional habitat and plant heritage value, floodwater abatement and base flow support by the Quilceda/Allen Watershed Management Plan. Two wetlands were recommended for permanent protection in the West Fork Quilceda. A forested wetland at the headwaters of a tributary to the West Fork Quilceda within the Tulalip Reservation boundaries was recommended for preservation. Within Sturgeon Creek watershed, a large (50 acre) wetland within the riparian corridor and associated to Sturgeon Creek was recommended for permanent protection and adequate buffering due to its exceptional habitat and flood attenuation values. The estuarine wetland at the mouth of Quilceda Creek, also within the Tulalip Reservation, was also proposed for permanent protection via acquisition. This wetland is the largest wetland in the watershed (350 acres), and is listed as a DNR Heritage site. Additional wetlands have been added within the West Fork Quilceda subwatershed as a result of this planning process, in consultation with Tulalip Tribes and members of the Allen-Quilceda Watershed Action Team. Wetlands recommended for permanent protection are found in the Quilceda-Allen Watershed Management Plan. (See **Figure 23-Figure 26, Appendix S**)

Criteria for using preservation as compensatory mitigation as given in 33 CFR 332.3(h) will be utilized for selecting preservation projects. The criteria for properties to be protected by this Instrument are in **Appendix K, Section 8.0**:

10.0 Public and Stakeholder Involvement

This Compensation Planning Framework compiles and updates planning processes involving public and private stakeholder involvement for the sub-watersheds of Coho Creek and Sturgeon Creek as well as the Quilceda Creek watershed as a whole. The Tulalip Watershed Plan, completed in 1996, involved local community members on a Tulalip Citizens Advisory Committee, as well as the Tulalip

Hatchery Manager, Forestry Department, Tulalip Shellfish Biologist. The Quilceda/Allen Watershed Management Plan, completed in 1999, was completed by Snohomish County, and involved a Watershed Management Committee including The Tulalip Tribes, City of Marysville, Marysville--Pilchuck High School, Snohomish Conservation District, private citizens and farmers, the Snohomish Health District and City of Arlington, as well as the Environmental Protection Agency, the Washington Department of Ecology, Snohomish County Surface Water Management, Public Works and Planning and Development Services. In addition, this Planning Framework includes information provided in the WRIA 7 Salmonid Habitat Limiting Factors Analysis, undertaken by the Washington State Conservation Commission, with the cooperation of Tulalip Tribes, the Washington Department of Fish and Wildlife, Puget Sound Energy, Washington Trout, Snohomish County Surface Water Management, and National Marine Fisheries Service.

Public and Private stakeholder input was obtained to update the above mentioned plans through members of the **Allen-Quilceda Watershed Action Team**, and members of **The Tulalip Tribes** in a meeting held October 3, 2008, and the participants' submitted comments. Organizations and agencies working within the watershed were invited to participate in the update of watershed goals and restoration needs for this Planning Framework. Participants were: Snohomish Conservation District, Stilly-Snohomish Salmon Enhancement Task Force, Tulalip Tribes Natural Resource Department, Snohomish County Surface Water Management, City of Marysville and City of Arlington.

11.0 Long Term Protection Strategies.

Mitigation sites created with QCV ILFP dollars will be permanently protected such that aquatic resource functions and services replaced at the mitigation site serve as a permanent replacement for functions and services lost at the impact sites. For purposes of long term site protection, mitigation sites created by the QCV ILFP under this Instrument will be designated as such by Tulalip Tribes Ordinance and a Resolution of The Tulalip Tribes Board of Directors. Sites will be protected by a conservation easement or restrictive covenant granted to a third party executed by The Tulalip Tribes, or by adoption of a Tulalip Tribes Integrated Natural Resources Management Plan. Conservation easement granted to a third party (see **Exhibits 4A & B**), which will be appended as modifications of this Instrument.

Project criteria for mitigation projects funded by the In Lieu Fee Program will include provision of a long term protection and monitoring plan. Long term management plans will include long term monitoring and inspection of mitigation sites, as provided in **Appendix N**.

Initial release of credits will be contingent on signing and recording of a site protection instrument, in accordance with **Article IV.P** and **Appendix N**⁴⁶. The final credit release is contingent upon a final site specific Long Term Management Plan approved by the Corps, in consultation with the IRT (see **Appendix N**).

12.0 Evaluation and Reporting

Mitigation sites established under this program will be evaluated and monitored both during the Establishment phase and Long Term Maintenance and monitoring stage according to **Appendices L and N**. Long term site inspection, tasks, schedules and duration, once all performance standards

⁴⁶ 33 CFR332.8(t)(2) Site protection.

Quil Ceda Village In-Lieu Fee Program Instrument

have been achieved, will be determined and outlined in detail in the LTMM Plan as approved by the Corps, in consultation with the IRT. The Sponsor anticipates, at a minimum, a biennially inspection will be needed to monitor trespass, garbage removal needs and plant health.

In addition to condition assessment and inspection, the terms of conservation easements will be inspected periodically by an approved third party to ensure site compliance with the provisions of this Instrument and the Conservation Easement.

Appendix E -Impact and Mitigation Site Assessment

Credits and Debits

In order to more accurately address functional replacement for no net loss, impacts and mitigation within the QCV ILFP need to be determined in a way that can account for wetland function, temporal losses and risk. In addition wetland functions and services need to be accounted for in a way that can be easily converted to a “currency” to sell via the in-lieu “fee.” The standard unit of measure used in mitigation banking and in-lieu fee programs to quantify an impact is “debit;” ecological lift provided by a mitigation site is measured in “credits.”

1.0 Debits and Credits – Aquatic Resource Types

The QCV ILF program will offer applicants the ability to mitigate unavoidable impacts to multiple types of aquatic resources, including but not limited to wetlands, wetland buffers, streams and their buffers, and other aquatic resources. Permitted unavoidable impacts under this program, because they are located in Quil Ceda Village, will fall under the jurisdiction of either the US Army Corps of Engineers, or The Tulalip Tribes (for “isolated” wetlands). The Corps and EPA will determine whether wetlands are isolated, via a jurisdictional determination.

The QCV ILF program will offer applicants four basic aquatic resource types of credit:

- Wetland credits
- Wetland buffer credits
- Aquatic area credits (i.e. non- wetland, See Appendix B- Definitions)
- Aquatic area buffer credits

2.0 Wetland Debits and Credits – Quantifying Impacts by Functional Types

For the majority of approved impacts within Quil Ceda Village, the Credit/Debit Method (“Credit/Debit Tool”) as developed by the State of Washington⁴⁷ will be used for determining debits and credits by wetland functional type. The functional assessment methodology (i.e. Calculating Credits and Debits for Compensatory Mitigation in Western Washington – Operational Draft) yields three functional sub-types of debits and credits corresponding to the three main types of functions provided by wetlands: habitat functions, hydrological functions and water quality functions.

Debits and credits will be quantified according to the functions lost at an impact site (debits), and the “ecological lift” in functions predicted at the mitigation project site (credits). If the applicable regulatory agencies determine the Credit-Debit method is not appropriate for a particular site, a minimum one-to-one acreage or linear foot compensation ratio will be used, in accordance with 33 CFR 332.2(f)(1). If mitigation ratios are used, they will be determined by the applicable regulatory

⁴⁷ Hruby, Thomas, 2011. *Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report*, March 2012, Publication # 10-06-11 Shorelands and Environmental Assistance Program, Washington State Department of Ecology, Olympia, WA

agencies, and at a minimum meet requirements of Chapter 7 of the Tulalip Tribal Codes pertaining to land use,, whichever is more stringent. In accordance with 33 CFR 332.3(f)(2) a mitigation ratio greater than 1:1 will be required where necessary to account for the method of compensatory mitigation (e.g. preservation), the likelihood of success, differences between functions lost at the impact site and functions expected to be produced by the compensatory mitigation project, temporal losses and risk, and the distance between the affected aquatic resource and the compensation site. The rationale for the required replacement ratio must be documented in the administrative record for the permit action. Wetland buffer impacts will be replaced at a minimum 1:1 ratio, as determined by the applicable regulatory agencies, and will *at a minimum* meet the proper width for the wetland category required by Tulalip Tribal Codes pertaining to land use⁴⁹. To quantify impacts and mitigation involving non-wetland aquatic resources (streams and stream buffers), the impacts and ecological lift will be quantified on a case-by-case basis, as described in Section 3 below.

Determinations of debits (an applicant's credit requirement) must be approved by the regulatory agencies permitting an impact. If regulatory agencies issuing permits for an impact project agree that the QCV ILFP is the most appropriate way for the applicant to meet their mitigation obligations, the mitigation requirements must be quantified and approved prior to permit issuance. The Credit/Debit Method will provide the initial basis for determining wetland impacts, but regulatory agencies may need to use other methods for determining aquatic resource impacts. In either case, the number of debits associated with an impact may need to be adjusted for site-specific variables such as on site mitigation, or other methodologies such as Low Impact Development (LID). Similarly, the Corps, in consultation with the IRT, may make adjustments in consideration of site specific variables at a mitigation receiving site, and may "balance" credit functions according to a watershed approach (See Section 4.0, below), under the guidance of the Compensation Planning Framework.

2.1 Impact Site Debits

When quantifying an impact to a wetland system, the tool quantifies debits by rating functions and services of the wetland that will be impacted, multiplying those scores by the area of the impact, and then multiplying the result by a temporal loss factor (TLF). The TLF accounts for the time lag between when an impact occurs and when the replacement functions are achieved by the mitigation.

$$\text{Debits} = [\text{Functions and Values of Wetland Being Impacted}] \times [\text{Area of Impact}] \times [\text{Temporal Loss Factor}]$$

2.2 Mitigation Site Credits

At mitigation sites, mitigation projects will “earn” credits in each of the three functional categories. The tool calculates the ecological “lift” in each category of function if the mitigation provides for one. In some cases, the pre-mitigation project functional condition may already be high. In these cases, the project may only achieve lift in the functional categories in which functions were improved. For example, a reed canary grass-dominated riverine wetland with ample over bank storage may provide high hydrologic and water quality functions in its pre-mitigation project condition. If the mitigation project mainly improves habitat complexity, the project might only earn “habitat credits,” and not earn any hydrology credits or water quality credits. Section 5.0, below, discusses the “balance” of credits across different functional categories.

$$\text{Credits} = [\text{Functions and Values of Wetland Mitigation}] \times [\text{Mitigation Area}] \times [\text{Risk Factor}]$$

3.0 Credit/Debit Ledgers and Credit Reporting

Credits sold will be tracked in the QCV ILFP **Debit Ledger** (See Appendix J, Program Tracking and Reporting, and **Exhibit 6**) both by aquatic resource type (e.g. wetland or stream), and functional type. The QCV ILF **Credit Ledger** will track credits released, project site subwatershed, target wetland category and vegetation class, as well as other pertinent info. (See Appendix J and **Exhibit 7**). Because the Credit/Debit tool cannot be used to translate aquatic area impacts into credits and debits, the QCV ILFP will track aquatic area and buffer impacts separately on an **Aquatic Areas Ledger (Exhibit 9)**. In addition to Credit and Debit tracking, a Qualitative Pre- and Post-Mitigation Site Assessment (See Error! Reference source not found., below) will document a variety of functions and services at QCV ILFP receiving sites, and an Aquatic Resource No Net Loss Ledger will document wetland functional type, HGM class, and Cowardin class impacts and mitigation by subwatershed (see **Table 10**, below). A database will be developed to track mitigation project milestones and data, including credits and debits; and is described in **Appendix J**.

4.0 Quantifying Non-wetland Aquatic Resource, Aquatic Area Buffer and Wetland Buffer Replacement Values

The current version of the Credit/Debit Tool can only be used to quantify functional losses or lift related to freshwater wetlands. The assessment method is not designed for use in quantifying impacts or lift related to other aquatic areas (e.g. streams and rivers), associated buffers, wetland buffers(except as preservation sites), or other aquatic bed environments. Determinations of aquatic area mitigation requirements will be made by regulatory agencies permitting the impacts. Aquatic area mitigation credits will be determined on a case-by-case basis, in close coordination with members of the IRT, especially those IRT member agencies with regulatory authority over stream and river resources, namely the US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and for off-Reservation mitigation receiving sites, the Washington Department of Fish and Wildlife (WDFW).

Credit determinations for aquatic resource areas will follow the methods of quantifying mitigation currently in use: namely, area ratios based on resource type as described below, but will consider new

methods as those become available. Streams and stream buffer impacts mitigated by the QCV ILFP will be replaced at a minimum one-to-one ratio, for the habitat type, habitat functions and the stream length and channel width impacted, calculated both on an acreage basis and linear foot basis. (See **Figure 5**, below). Stream habitat type will be used for stream category and functions of replacement, using the Timber Fish and Wildlife (TFW) stream habitat assessment type⁴⁸, or other agency-approved assessment type.

Because the Credit/Debit Tool is for wetland and preservation area assessment and cannot be used to translate “aquatic area” (i.e. rivers and streams, or other aquatic bed environments), aquatic area buffers, or wetland buffers impacts into credits/debits, the QCV ILFP will track aquatic area and buffer impacts separately on an Aquatic Areas/Buffers Ledger (See **Exhibit 9**).

Channel width will be the wetted width to the Ordinary High Water Mark (OHWM). Acreage will be calculated from the channel width at the top of the stream bank, or OHWM, whichever is greater, times the lineal feet of stream impact (See, below). Stream buffer replacement will be at a minimum 1:1 ratio, and at a minimum, meet the requirements of the Tulalip Tribal Land Use Regulations⁴⁹, for each stream type, and habitat type, or as required by permitting agencies.

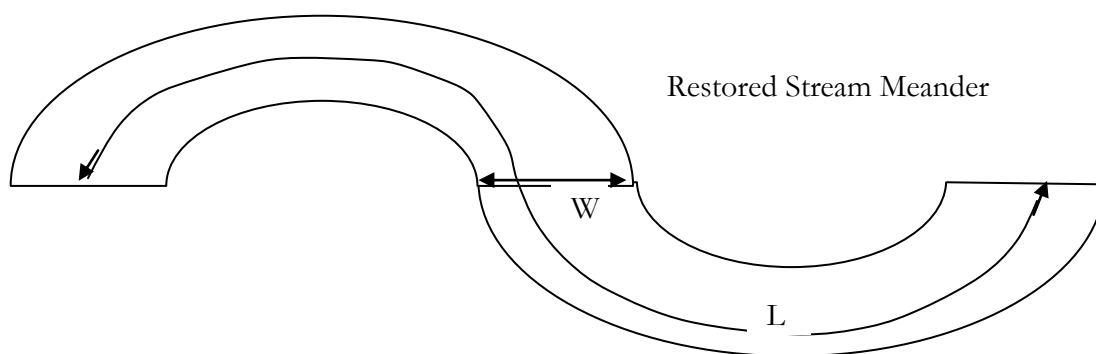
Aquatic area impacts and mitigation where ESA consulting is required will follow the process outlined in **Exhibit 11**, for both determining quantity and type of mitigation and also to ensure Section 7 compliance.

Figure 5: Stream channel and Aquatic Resource Mitigation credit

Ditch length = Ditch length X bankfull width = A;



New Stream meander = (Stream length) X bankfull width= B



Mitigation credit = (B-A) / 43,560 = Acres of stream mitigation

⁴⁸ TFW Monitoring Program method manual for the habitat unit survey. 1999. A.E. Pleus, D. Schuett-Harnes, and L. Bullchild. Prepared for the Washington State Dept of Natural Resources under the Timber Fish and Wildlife Agreement. TFW-AM9-99-003.DNR #105. June

⁴⁹ Title 7 Tulalip Tribal Codes, Aug. 2013

5.0 Balancing Credits by Functional Type

The Compensation Planning Framework will be used as a guide for identifying acceptable imbalances across functional types; and to identify where balancing functional debit and credit types may be required. As the program accrues mitigation fees and implements mitigation through time, the type and amounts of debits and credits, and the balance among them, will be tracked and reported to the Corps and the IRT (via the Credit Ledger, see **Exhibit 7**). Final determination of credits at the receiving sites and any “trade-offs” between functional categories will be made by the Corps, in consultation with the IRT. Tracking each of the three functional subtypes of debits and credits separately will constitute an explicit and transparent record of decisions.

6.0 Mitigation Types

Mitigation ratios and the DOE Credit/Debit tool are based on the type of compensatory mitigation proposed (e.g., establishment, restoration, enhancement and preservation). In their *Final Rule: Compensatory Mitigation for Losses of Aquatic Resources* (33 CFR Part 332), the U.S. Army Corps of Engineers and EPA provided definitions for these types of compensatory mitigation.

Mitigation types are provided for convenience in the Definitions in Appendix B. Examples of mitigation types:

- **Re-establishment:** Removal of ditching to restore hydrology to a drained wetland, removal of fill from a previous wetland, removal of roads within a wetland area. For streams, removing roads or culverts from a stream reach or segment to re-establish a natural channel.
- **Rehabilitation:** Restoring functions and services previously existing within a wetland area. Rehabilitation often involves actions that substantially improve hydrologic processes such as breaking drain tiles and/or plugging ditches in a degraded wetland which will restore functions like groundwater recharge. Within streams, restoring meanders and pool/riffle ratios to a ditched or channelized stream system.
- **Creation/Establishment:** Creating a wetland from upland site by impoundment or excavation to create a hydroperiod sufficient to meet hydrology criteria in the 1987 Wetland Delineation manual. Or alternatively, adding wetland area to an existing wetland by impoundment or excavation. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species.
- **Enhancement:** Manipulating the aquatic resource functions and values such that a higher wetland category will result from the manipulation such as by integration of woody debris, adding shrubs and trees to a site that has been cleared, restoring known historic species to a wetland area.

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Table 2: Qualitative Pre- and Post-Project Site Assessment Form

ESTABLISHMENT/RESTORATION			
	BASELINE CONDITION	POST – MITIGATION EXPECTATION	ASSESSMENT METHODOLOGY
Current parcel use (Residential, pasture, vacant/fallow, forest)			Site visit/aerial photo
Adjacent land uses within 600 ft (rural, agricultural, residential,			Site visit/aerial photo
Wetlands currently onsite (AC)			NGPA/NWI/Tribal inventory
Emergent cover class (AC/ % of site)			ArcGIS
Scrub Shrub cover class (AC/ % of site)			ArcGIS
Forested Cover class (AC/ % of site)			ArcGIS
AC/FT of flood storage			Topo/hydrologic analysis
Floodplain connectivity (Y/N)			Topo/hydrologic analysis
Groundwater recharge (AC/Ft of existing wetland persisting throughout spring)			Wetland Inventory/Delineation
Water Quality Improvement-Sediment (High/moderate/low)			Credit Debit Tool/WA Rating system
Water Quality Improvement-Nutrients (High/moderate/low)			Credit Debit Tool/WA Rating system
Water Quality Improvement-Metals and Toxic organics (High/moderate/low)			Credit Debit Tool/WA Rating system
Native plant richness (# native spp/AC)			Quadrat/Line transect
Habitat suitability for anadromous fish (Y/N)(Ex/G/P) (excellent/good/poor)			Existing WQ data/stream survey/The Tulalip Tribes DNR/ TFW Habitat Modules

Table 2, cont'd - Qualitative Pre- and post mitigation site condition assessment			
Habitat suitability for resident fish)(Ex/G/P) (excellent/good/poor)			Existing WQ data/stream survey/TT DNR/TFW Habitat Modules
Habitat suitability for birds (Forage/nesting/source of water) (Excellent, Suitable, Impaired) (Ex, S, I)			Professional judgement/ Rapid Assessment method
Habitat suitability for mammals(Excell/Good/Poor)			Prof judgement/ Rapid assessment method
Habitat corridor for birds and mammals (Width of corridor)			Aerial photos

ENHANCEMENT			
	BASELINE CONDITION	POST – MITIGATION EXPECTATION	ASSESSMENT METHODOLOGY
Current parcel use (Residential, pasture, vacant/fallow, forest)			Site visit/aerial photo
Adjacent land uses within 600 ft (rural, agricultural, residential, Wetlands currently onsite (AC)			Site visit/aerial photo
Emergent cover class (AC/ % of site)			NGPA/NWI/Tribal inventory
Scrub Shrub cover class (AC/ % of site)			ArcGIS
Forested Cover class (AC/ % of site)			ArcGIS
AC/FT of flood storage			ArcGIS
Floodplain connectivity (Y/N)			Topo/hydrologic analysis
Groundwater recharge (AC/Ft of existing wetland persisting throughout spring)			Topo/hydrologic analysis
			Wetland Inventory/Delineation

Table 2, cont'd - Qualitative Pre- and post mitigation site condition assessment			
Water Quality Improvement-Sediment (High/moderate/low)			Credit Debit Tool/WA Rating system
Water Quality Improvement-Nutrients (High/moderate/low)			Credit Debit Tool/WA Rating system
Water Quality Improvement-Metals and Toxic organics (High/moderate/low)			Credit Debit Tool/WA Rating system
Native plant richness (# native spp/AC)			Quadrat/Line transect
Habitat suitability for anadromous fish (Y/N)(Ex/G/P) (excellent/good/poor)			Existing WQ data/stream survey/The Tulalip Tribes DNR/ TFW Habitat Modules
Habitat suitability for resident fish)(Ex/G/P) (excellent/good/poor)			Existing WQ data/stream survey/TT DNR/TFW Habitat Modules
Habitat suitability for birds (Forage/nesting/source of water) (Excellent, Suitable, Impaired) (Ex, S, I)			Professional judgement/ Rapid Assessment method
Habitat suitability for mammals(Excell/Good/Poor)			Prof judgement/ Rapid assessment method
Habitat corridor for birds and mammals (Width of corridor)			Aerial photos

Appendix F- Advance Credit Allocation

1.0 Advance Credit Request and Rationale

With the signing of this instrument, the Corps, in consultation with the IRT, has allocated advance credits to be made available for sale to applicants undertaking permitted actions with unavoidable impacts. The rationale, amount, and type of advance credits requested are detailed below. The Sponsor may need to request additional advance credits, in which case approval must be granted by the Corps, in consultation with the IRT. Requests for additional advance credits must also comply with Article VI.B.

The Sponsor agrees to maintain the advance credit balance through timely submittals and implementation of mitigation projects. An annual credit and debit ledger report will be provided to the Corps and IRT for the amount of advance credits that have been utilized or released during the prior year.

According to 33CFR 332.8(n)(1), the number of advance credits will be determined by the District Engineer, and will be based on the following:

1. The compensation planning framework;
2. The sponsor's past performance for implementing aquatic resource restoration, establishment, enhancement, and/or preservation activities in the proposed service area; and
3. The projected financing necessary to begin planning and implementation of in-lieu fee projects.

The Tulalip Tribes have a long history of project implementation and management of aquatic restoration activities in the Snohomish River watershed. The Tulalips Tribes have initiated a non-regulatory restoration project within the Coho Creek subwatershed, and are managing one of the largest estuary restoration projects in the Snohomish basin, the Qwuloolt estuary restoration. The restoration needs within the service area watersheds have been documented in the Compensation Planning framework, in large part to due inventory and analysis conducted by The Tulalip Tribes and with technical guidance from The Tulalip Tribes to the supporting documents. Actions to restore hydrologic patterns and groundwater recharge, reconnect streams and wetlands, and restore habitats are needed.

A sampling of potential impact and mitigation wetlands of Tulalip-owned sites within Quil Ceda Village, as well as projected potential acres of mitigation sites in the service area was utilized to determine average number of debits and credits per acre in the subwatersheds for calculating the advance credit allocation.

Based on a sample of conceptual mitigation projects, projected mitigation areas within Quil Ceda Village boundaries alone can produce over 39 acres of wetland creation and enhancement and stream restoration, with a resulting 100+ acres of wetland rehabilitation, at approximately 16.9 combined credit points per acre (over 250 Habitat credits, 180 Water Quality credits and 160 Hydrologic credits). In the West Fork Quilceda Creek basin, the Compensation Planning Framework has identified several hundred acres of potential mitigation sites and preservation sites (See **Appendix S, Figure 17**).

The Tulalip Tribes proposes advance credits (in each of 3 Function categories), based upon the Credit/Debit Tool as given in **Table 3**, below, as its initial allocation of advance credits (The Sponsor does not propose lumping the credits for the purposes of tracking them but will be sold in a combined credit). The initial allocation proposed is based on the total number of acre-points that is expected can be mitigated/restored in the Quilceda subwatersheds within time frames required by 33 CFR 332.8 (n)(4), and based on the Compensation Planning Framework, the previous experience of the Tulalip Natural Resources Department, and the financing needed to begin planning and implementation of the in-lieu fee projects. An evaluation was done of the wetland sites that may be among the first to be impacted in the watershed, and the credit request reflects number of credits needed for approximately 10 acres of wetland impacts with an average of 16-21 credits/acre across the three functional categories (for a total of 58 combined credits/acre), and a temporal loss factor of 4 due to the deciduous forested nature of the majority of the area that might be impacted.

Table 3 : Advance Credit Proposal

Functional Credits	Water Quality	Hydrologic	Habitat
Advance Credit Allocation Sturgeon and Coho Subwatersheds	180	160	250

Based upon analysis of potential credits generated within potential mitigation sites in Quil Ceda Village and expected permit activity, the Advance Credit Request is well within the range of credits that could be generated within the impact area watersheds(see **Table 4**, below, and **Figure 10, Appendix R**). In addition, beyond Coho and Sturgeon Creeks, Quil Ceda Village has additionally identified over 200 acres of lands with restoration potential within Tulalip Reservation trust lands and several hundred acres of wetland restoration potential on off-reservation non-tribally owned lands within West Fork Quilceda Creek subwatershed. There are also over 1000 acres of potential preservation areas (See **Figure 16 - Figure 18, Appendix S**).

The mitigation potential within Sturgeon and Coho Creek subwatersheds is considered to be high. The Tulalip Tribes own many of the parcels identified as potential mitigation areas within Quil Ceda Village and the West Fork Quilceda subwatershed. Many of identified sites are filled or drained former wetlands that contain hydric soils so mitigation potential for success is high and achievable within a short period of time. Similarly, the ecological lift of the anticipated mitigation program within Quil Ceda Village is also expected to will be high, given the potential to reconnect large wetland areas to each other and to large upland buffer and forest lands on the reservation, and to remove ditches in areas of formerly hydric soils. Similar conditions exist within the greater Quilceda watershed, particularly the West Fork Quilceda watershed (both on and off-Reservation). With these properties, The Tulalip Tribes can accomplish the mitigation required for the advance credits proposed.

At approximately \$6,500/credit (See **Appendix J**), a maximum of 160- 250 credits (across the 3 functional categories) would create a starting fund for the program of up to \$3,835,000, allowing for the start-up administrative costs of creating a database and reporting systems, securing land purchases in the subwatersheds outside of QCV, as well as cover mitigation costs and long term monitoring. It is expected that with an average scoring of 16-21 credits per acre across the functional categories (58 combined credits) at impact sites, the advance credits will amply allow enough financing to implement mitigation sites such that a deficit will not occur within the required 3 year implementation deadline during the initial stages of the program.

160 – 250 debits worth of impacts would be equivalent to a maximum of 10 acres, based on a temporal loss factor of 4 for forested sites at QCV and scores between 16-21 debits/acre for most sites.

2.0 Aquatic Area and Buffer Credits

The current version of the credit/debit tool is not designed for use in assessing impacts or lift related to functions and values of aquatic areas such as streams or aquatic bed environments, or wetland buffers. Since ditch removal and restoring stream meanders is considered a priority in the Compensation Planning framework for the Quilceda Watershed, **Appendix E 1.1** elaborates a proposed method for giving credit for this type of mitigation. While it is not anticipated that the Quil Ceda In- Lieu Fee Program will be used much for stream impacts, in anticipation of some road crossing impacts within the service area impact area, **100 LF or 4000 SF of Advance stream credits** are requested.

Table 4 : Estimated Mitigation Credits – QCV Conceptual Mitigation Plan[^]

Wetland	FINAL WETLAND	WQ CREDITS	HYDRO CREDITS	HABITAT CREDITS	Estimated MITIG AC
WET Q-N-H	WETLAND X	37	30.8	49.3	7.7
WET X-Q-N-H	WETLAND X	12	10	16	2.5
WETLAND X-Q-4	WETLAND X	5.3	4.4	7	1.1
WETLAND Q LIFT	WETLAND X	0	0	3.4	4.3
WETLAND Q-4 LIFT	WETLAND X	0	0	2.6	3.2
WETLAND H REHAB	WETLAND X	0	0	23	14.4
WETLAND N REHAB	WETLAND X	0	0	11.3	14.1
WETLAND Q-1 (Remove nursery bunker)	WETLAND L	28.4	18.9	37.8	8.18
WETLAND Q-2 (Remove shooting range bunker)	WETLAND L	74.7	49.8	99.6	15.6
WETLAND J-L	WETLAND L	11	7.4	14.7	2.63
WETLAND Q-1, Q-2, L REHAB	WETLAND L	8.9	8.9	20.4	12.38
Coho Creek Restoration	Multiple				9308 LF/ 5.98 Ac
(Estimate 1.76 Mi Restored) (Acres determined with 28 Ft Bankful width)					
TOTAL CREDITS/ACRES		177.3	130.1	285.1	35.1 AC*
POINTS/ACRE		5.1	3.7	8.1	16.9
REHABILITATION ACRES					241⁺
COHO CREEK RESTORATION ACRES					5.98

[^]This table is based on a sample of conceptual mitigation sites solely for the purpose of seeing the range of credits that might be generated over a range of mitigation project types, to ascertain a credit per acre figure. It is based on a Tulalip wetland inventory of existing wetlands and a portion of the road, ditch and fill removals reconnecting previously contiguous wetland areas (Final Wetlands) that could occur within QCV. It does not represent actual approved mitigation, but an estimate of a portion of the mitigation potential within Quil Ceda Village jurisdiction. The last column represents acres of wetland creation, rehabilitation, or re-establishment. The acres of creation or establishment, divided into the credits generated for each function gives the credits per acre. This table shows the relatively high potentials for wetland re-establishment within Quil Ceda Village, which was ditched, drained and filled extensively in the past, but has undergone very little development since.

*Creation and re-establishment project acres shown in Red (tallied with total credits/acres)(This only represents a partial sample of available creation and re-establishment projects, and does not include potential enhancement and preservation)

+ Rehabilitation Acres available are greater than the rehabilitation shown in this sample.

Appendix G - Program Account

In-lieu mitigation fees collected under this program will be deposited into the “Quil Ceda Village Aquatic Mitigation Trust Fund (QCVILMF),” held in an FDIC-insured banking institution. The Program Fund will be established as a separate interest-bearing fund solely for use by the Quil Ceda Village In Lieu Fee Program, managed by The Tulalip Tribes’ Munis Financial Accounting System. The Munis Accounting System is annually audited by an independent accounting service and the audit will be available for QCV ILFP reporting as described in **Appendix J**.

1.0 Accounting Procedures

The QCVILMF will have five accounts to be comprised as follows: **a)** for administration of the program (10% of credit fees); **b)** a non-wasting endowment for long term management and maintenance of project sites (5%); **c)** a project implementation account for project development, design, implementation, maintenance and monitoring, contingencies and individual project accounts (85%); **d)** land acquisition account (land fees are placed in this account); **e)** contingencies account (15% of the project implementation portion of the mitigation fees)(See **Figure 6**). Within the Munis Accounting System, separate management codes (“fund sites”) will be established for individual mitigation projects, for tracking their respective costs for project design, implementation, monitoring and maintenance within the Mitigation Project Accounts. Interest earnings from the entire program account will be distributed equally between the Long Term Management and Contingency Accounts in the percentages established under this Appendix. (See **Figure 6**, below for a visual chart of the Program Accounts)

2.0 Mitigation Fees

Mitigation fees collected will be based on full-cost accounting for establishment and management of mitigation sites, including: costs associated with site selection, permitting and design, construction, monitoring and maintenance, long-term management, program administration, contingencies, and property rights acquisition. The in-lieu fees will be updated based on current market rates for mitigation costs and land purchase costs.

Mitigation Fees will comprise two fees: a Credit Fee and a Land Fee. QCV ILFP Fees and Cost basis are described in **Appendix I**. Mitigation fees are intended for use in activities related to producing mitigation credit. Section 332.8(o)(5)(ii) of the federal rule states that credit costs may also be used for “administration of the in-lieu fee program.”

An analysis of the program’s cost data will be provided in the annual report as described in Article III G, along with a report of any fee adjustments. Further information on breakdown of mitigation fees and an initial fee schedule is attached in Appendix I.

Credit fees will be applied to debits determined by the Credit/Debit Tool as outlined in Appendix E, and on the cost per debit established in Appendix I.

The Land Fee prices will be based on an analysis of average cost of recent Service Area natural lands acquisitions within different watershed areas and zoning categories. Land Fees will be used for acquisition of lands as described in Appendix C, Section 6.1.

Mitigation fees cannot be used for activities such as trail maintenance, and other types of routine public land stewardship or maintenance activities unrelated to management of a mitigation site. The following sections, as well as **Appendix I**, describe how credit fees collected through the QCV ILFP will meet requirements for full-cost accounting as specified in the federal rule.

3.0 Allocation of Mitigation Fees

Upon receipt of mitigation fees, the Program Administrator will allocate funds to the administration, general project implementation, contingency and long term management accounts according to this section. Allocation rates were determined through an analysis of expenditures on recent restoration projects used in calculating the credit price (See **Appendix I**).

3.1 Land Fee Account:

A Land Fee Account will contain 100% of the Land Fee portion of the Mitigation Fees collected in the service area. These funds will be used for payment of land acquisition costs for property to include as potential mitigation sites or used to secure Preservation Credits. Land fees are determined as a surcharge based on current per acreage costs (See **Appendix C.6, Appendix I- Fees/Costs, and Table 9**). Because the land area required to replace the impacted wetland is greater than the impact site, due to risk and temporal loss, as well as the needed buffer area, the land fee will be based on the number of acres of impact and its appropriate buffer, times the Temporal Loss Factor required in the Credit/Debit Method for the impact site.

3.2 Program Administration Account:

A Program Administration Account fund will be funded by a percentage of Credit Fees collected in the Service Area, to pay for program administration duties, including but not limited to:

- a. Project development, site selection and conceptual design,
- b. Fee and Credit accounting,
- c. Legal services,
- d. Data management (e.g. maintaining MRP Database (see Appendix G, Section 6.0),
- e. Reporting,
- f. Correspondence and meetings with the IRT and other regulatory agencies,
- g. Program development, and
- h. Other program administration duties as necessary.

Program administration costs will initially be set at 10% of the in-lieu fees paid. The District Engineer may authorize fund expenditures for administrative costs to an approved third party contracted for such activities, upon the Sponsor's request.

3.3 General Project Implementation Account:

Within the General Project Implementation Account, various fund sub-accounts (i.e. management codes in Munis, the Tulalip Tribes accounting system) will be established for individual receiving site projects, and will document in a ledger the various account numbers or management codes for account activities, such as project design, implementation, maintenance and monitoring and contingencies. In addition, under the Project Implementation Account, a Contingency Account will be established with 15% of project dollars allocated. In addition, each mitigation project will have a Contingency cost center established with the Spending Agreement for up to 15% of project costs.

Any remaining funds in the individual project accounts will rollover to the Long term management account for that site.

3.4 Long Term Management Fund:

A percentage (5%) of the Credit Fees will be held in a separate trust fund until mitigation projects enter the Long Term Management phase. An individual project Long Term Management Account will be established with the signing of the spending agreement, allocating 5% of project funds to an individual Long Term Management Account. In addition, any funds left in the project account at the end of the establishment phase other than contingency funds will be transferred to the Long Term Management Fund. Monies in the Long Term Management Fund will be available solely for use in long term management (i.e. for implementing long-term management plans included in IRT-approved Adaptive Management Plans; see **Appendix L**); and Long Term Management funds are not available for use on a project until the project enters the Long Term Management phase (i.e. after the establishment phase is complete, and all credit associated with a project is released.) (see Credit Release Schedule, **Appendix K**, and Long Term Management, **Appendix N**). In the event monies in the project's Long Term Management Fund are insufficient to cover unexpected tasks related to the long-term management of a specific mitigation site, monies from the General Project Implementation Contingency Fee Account may be used to cover the shortfall, in accordance with the hierarchy established in Appendix H.2.

3.5 Contingency Fee Account

A percentage (15%) of Project Implementation dollars will be allocated to a Contingency Account within the General Project Implementation Account, from which contingency funds of 15% of project costs will be allocated to each Mitigation Project pursuant to Appendix G. Contingency funds are to be used for contingencies related to project implementation, such as adaptive management measures (See **Appendix H**, and **Appendix M**). Contingency fees not spent when the project enters Long Term Management will rollover back to the General Project Implementation Contingency Fee Account. These funds are to be used only for contingencies related to project implementation or approved contingencies related to Long Term Management (see **Appendix H** and **Appendix M**, and Section 3.4 above).

3.6 Mitigation Project Accounts:

In addition to general program accounts, within the General Project Implementation Account, separate mitigation project accounts will be established. And for each mitigation project, a system of management codes ("cost centers") will aid in tracking of project expenditures and expenditure types, based on project tasks. Staff involved in administration, project design, etc. will charge their time against management codes. Work contracted out to a third party, such as project design and, site implementation may be paid out of the appropriate account once invoiced. Any unused funds at the completion of the monitoring period will be transferred to the Long Term Management account for that mitigation project, with the exception that contingency dollars will be returned to the general contingency account within the General Project Implementation Account (See **Figure 6**, below).

4.0 Spending Authorization

Expenditure of funds from any account other than Program Administration Accounts for implementation of projects subject to the terms of this Instrument may only occur after receipt of written authorization from the Corps after consultation with the IRT, pursuant to 33 CFR 332.8(i)(2) and pursuant to the **Basic Agreement Article III.A.**

With the signing of this instrument, the Corps, in consultation with the IRT, has pre-authorized the Sponsor to spend up to 75% of funds from the Program Administration Account upon initial receipt of mitigation fees from an applicant. Uses of administration funds are detailed in Section 3.2 above.

Beyond the initial release of Administrative Funds, written authorization from the Corps to spend funds shall be in the form of the Spending Agreement found in **Exhibit 2**. The Sponsor must submit a completed Spending Agreement form to the Corps, in connection with a proposed mitigation site and following approval of the site and conceptual mitigation plan. (See **Appendix K**). Following the initial Corps review in consultation with the IRT, the District Engineer or his designee may sign the Spending Agreement authorizing the subsequent release of funds to the Sponsor. Spending agreements will also authorize expenditure of ILF funds to purchase potential mitigation properties or for preservation sites. Successive spending agreements may be needed at intervals as the project develops through Final Mitigation Plan approval.

In cases of non-compliance or default, the Corps, after consultation with the IRT, may direct the use of QCVILMF funds according to either an amended Spending Agreement or issued corrective action directive letter to the Sponsor (see **Article III.E** and **Appendix O**).

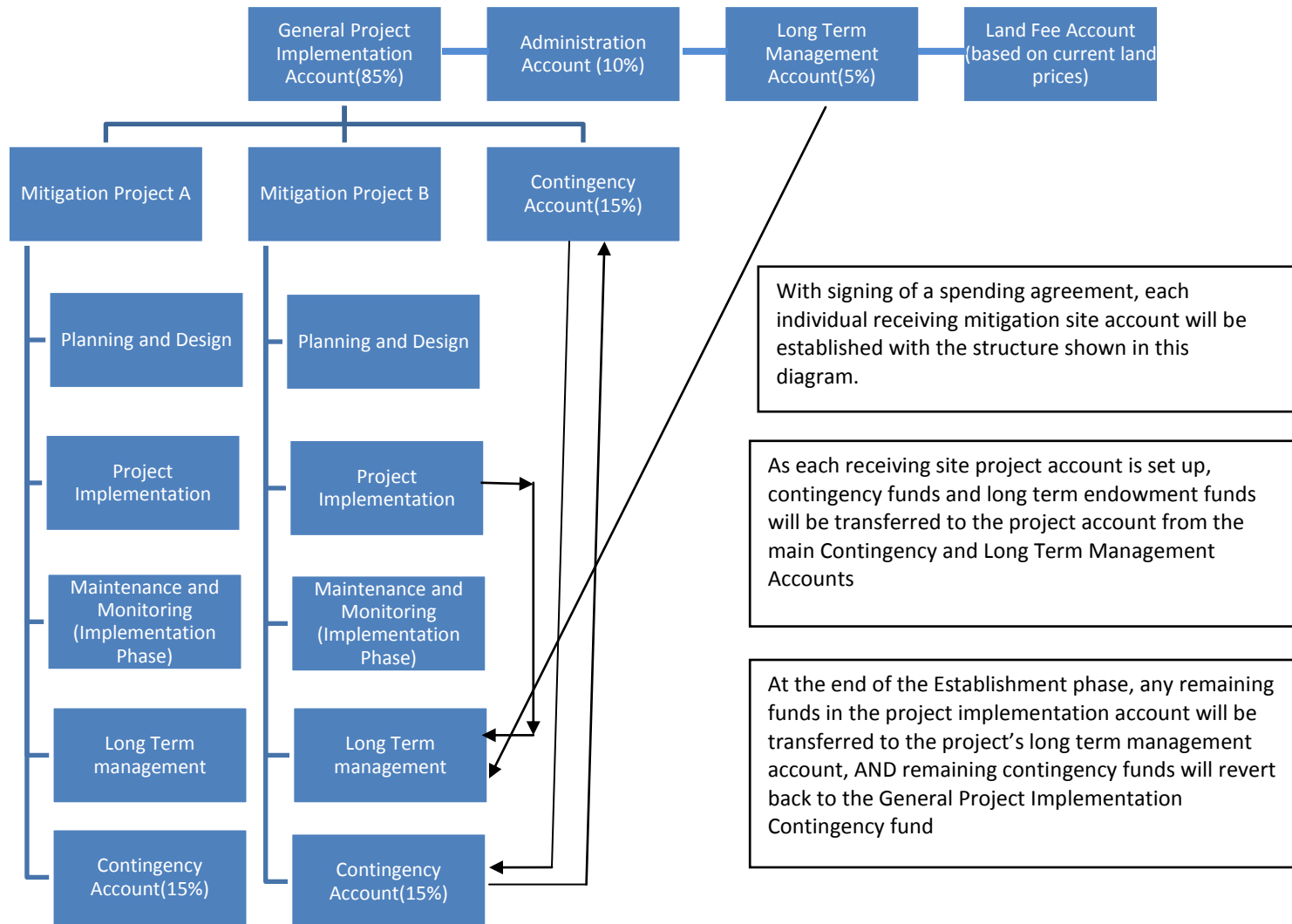
By signing this Instrument the Sponsor has agreed to abide by the direction of the Corps in authorization, release, and use of QCVILMF funds. The Sponsor acknowledges that failure to abide by the Spending Agreement or written requests from the Corps is a violation of the program Instrument and may result in Program termination, among other penalties.

5.0 Program Account Reporting

Credit sales and balances, debits, program expenditures and functions and values will be reported annually using program ledgers. Reports will be sent to the Corps by the end of the first quarter (March 31) following the end of The Tulalip Tribes' fiscal year. The ledgers are explained in **Appendix J** and found in **Exhibits 5-7**.

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Figure 6 : QUIL CEDA VILLAGE IN LIEU FEE PROGRAM ACCOUNT STRUCTURE



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Appendix H – FINANCIAL ASSURANCES

1.0 **Financial Assurances:**

When an applicant buys mitigation credits from the QCVILFP, full responsibility for fulfilling the mitigation obligation is transferred from the applicant to the Sponsor with the signing of a Statement of Sale (**Exhibit 3**). In conformance with the requirement in 332.3(n)1) for a documented commitment of the Sponsor to construct, monitor, maintain and provide long term site protection for the project in accordance with its performance standards, each approved Mitigation Project funded by this program will have a signed Spending Agreement (**Exhibit 2**). In addition to the Statement of Sale and Spending Agreement, the Sponsor agrees to provide the following financial assurances for the work described in this instrument.

- a. Mitigation Fees collected will be based on actual costs and adhere to full cost accounting requirements in the federal rule (33 CFR 332.8(o)(5)). Prices charged permittees for impacts will reflect the expenses incurred for implementation, establishment, maintenance and management of recent The Tulalip Tribes sponsored mitigation projects, as well as mitigation cost tables generally accepted by industry standards (See **Appendix I**).
- b. Fully funded mitigation projects: Project approval by the Corps is contingent upon each project being fully funded at the time of its approval.
- c. Contingency Accounts. A percentage of each credit fee will be allocated to a contingency fund within the General Project Implementation Account, and each Mitigation Project will also have a contingency fee account. Contingency monies in the Mitigation Project Contingency Accounts will be held in reserve to fund adaptive management and contingencies during the establishment phase for mitigation sites. The Corps may also direct the Sponsor to use contingency funds for needed remedial actions in the case of site failure or deficiencies, including direction of funds to a third party. Left over contingency funds will be rolled back into the General Project Implementation Contingency account. In the event monies in the Long Term Management Fund are insufficient to cover unexpected tasks related to the long-term management of a specific mitigation site, monies from the General Project Implementation Contingency Fee Account may be used to cover the shortfall, in accordance with the hierarchy established in Appendix H.2.
- d. Long Term Management Accounts. Monies in the Long Term Management Accounts will be held in reserve to fund long-term management, for each mitigation project site after completion of the establishment phase, and may be used as financial assurances in the event other accounts are insufficient to meet the needs of the required action.
- e. Accrual of interest earnings: Interest earnings from the entire program account will be distributed equally between the General Program fund and General Program contingency fund in the percentages established in this Appendix, Section 3.0.
- f. Land Cost Surcharges: Monies in the Land Fee Account may be used as financial assurances in the event other accounts are insufficient to meet the needs of the required action, provided such use does not violate any legal requirements of the funding source utilized for the acquisition of lands serving as mitigation sites.

- g. Funding deficiency: The Sponsor agrees to seek, in good faith, Tulalip Tribes General Fund appropriations for any necessary funds in the event of Program Account deficiencies or default.

2.0 Direction of Funds/ Use of Financial Assurances

If the Corps chooses to direct program account funds in cases of default, options available to the Corps shall include, but not be limited to:

- a) Directing The Tulalip Tribes to spend funds at an alternative site or sites to secure necessary credits;
- b) Directing The Tulalip Tribes to provide funds to a third party to bring a mitigation project into compliance; or
- c) Directing The Tulalip Tribes to secure credits from another third party mitigation provider.

The District Engineer shall direct the use of funds through the issuance of a signed Corrective Action Letter to the Sponsor. The letter will specify what financial and responsive action the Sponsor must take. The letter will also specify the timeframe in which the Sponsor must complete the actions. The Sponsor's noncompliance with the letter may result in program closure and legal action.

If the Corps directs The Tulalip Tribes to spend funds from the Program Account, The Sponsor shall spend funds in the following order until sufficient funds are provided:

- 1) Funds remaining in the Mitigation Project Account (See **Section 3.0** for description of Mitigation Project Accounts).
- 2) Contingency funds- (See **Basic Agreement, Article III.E.**) Utilization of Financial Assurances shall be appropriate to the phase of the project. For example, for projects in the Establishment phase, the Contingency Account funds should be accessed first, and for projects in the Long-term Management phase, funds from the Long Term Management Account should be accessed first (See **Section 3.0** for description of Accounts).
- 3) Land Fees. Use of land fees to compensate for default shall be in accordance with **Basic Agreement Article III.E.**

Should these sources of money be insufficient to secure the required number of credits, the QCV ILFP is committed to seeking funding through The Tulalip Tribes appropriation process.

In the case of default or closure, if the Sponsor has outstanding mitigation or credit obligations which it is unable to fulfill, the Corps, in consultation with the other members of the IRT, may direct the Sponsor to use remaining program funds to secure credits from a third party source of mitigation(See **Basic Agreement Article III.E.**). Remaining funds should be used, to the maximum extent practicable, to provide for compensation in the amount and type of aquatic resource for which the fees were collected. The Corps itself cannot accept directly, retain, or draw upon such funds.

Appendix I - IN LIEU FEES/COSTS

An estimate for determining the In Lieu Fees for the program was developed by two methods. First, costs for a 'typical' one-acre wetland creation project were calculated based on the King County Mitigation Cost Worksheet, which is standard for most mitigation plans submitted with Corps permits. The project costs were estimated for design, construction costs for wetland creation, planting costs including an average buffer at 3:1 ratio to wetland area created, mulching with straw and woody mulch, maintenance, monitoring, land acquisition costs, contingency and mobilization, and a long term monitoring and maintenance fee. A 3% standard inflation rate⁵⁰ was calculated for 3 years to estimate time to installation. It is assumed that in normal times, for the long term monitoring and maintenance and land acquisition portion, the inflation rate will be offset by account earnings at a modest rate of 3%. (See **Table 5- Table 8** below).

The second method for estimating project costs was based on real costs of projects undertaken by The Tulalip Tribes in the Service area or nearby (such as the Qwuloolt project). Since a some of these projects entailed stream restoration, the wetland creation projects were averaged. (See **Table 7**) Since much of the project information gathered did not include administrative costs (these are normally absorbed by The Tulalip Tribes Natural and Cultural Resources Department for restoration projects funded by grants), administrative, land purchase and contingency were added in **Table 8**.

The two methods showed similar costs per acre on average. An average of 58 credits per acre (combined across functional types), estimated for wetlands within Quil Ceda Village Coho and Sturgeon Creek watersheds (see **Appendix F**), was used to convert cost per acre to cost per credit.

Due to the information gathered in the Compensation Planning Framework, it is likely that approximately 1/3 – 1/2 of the projects will contain a ditch removal/stream meander restoration component, as well as wetland restoration, which has a relatively higher cost as shown in Table 6. The cost for riparian restoration, including stream channel restoration, was averaged in with the costs provided by the two methods of real costs vs estimated costs.

Based on the real costs and estimated costs outlined in the tables below, with an average of the two methods of generating costs with the riparian restoration cost, a Credit Fee of **\$6,500** per credit is estimated to be the starting base price for purchase of In Lieu Fee credits in the QCV ILF program, subject to further analysis prior to sale of first credit. This includes 10% Administrative costs, Contingency (15%), and a Land cost of \$10,000 per acre, monitoring and maintenance costs for a 10 year monitoring cycle, long term monitoring and maintenance and also a 3% inflation rate, and accounting for the greater cost of including stream restoration activities in the price per credit fee. The cost for Credit Fees will be reviewed annually and adjusted to fit current economic conditions and variables, based on this full cost accounting formula.

⁵⁰ Based on current September 2011 CPI

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Table 5 : Initial Cost Table – Estimated Per Acre Costs for wetland creation/establishment or restoration, planting and buffer planting

Acres of wetland restoration	1	Notes
Excavation (4.00/CY)(assumes 1'depth)*	\$6,453	Each acre = 43560 SF X 1 ft depth = 43560 CF/27=1600 CY
Straw bales/Erosion control	\$540	Each bale covers 200 SF at 2-3" depth; Est. 1/4 acre, 54 bales @\$10ea
Planting circles wood mulch (\$3.25/SF)	\$9,9260	Assumes 3 foot dia planting circles around trees planted on 10 ft centers, and shrubs planted on 6 ft centers
Planting shrubs or emergents (\$8.50/pot)	\$4,854	Assumes shrubs @ 26 SF per shrub @ \$8.50/pot/ coverage of 1/3 of one acre area (571 shrubs)
Planting trees	\$4,968	Assumes trees @78 SF per tree - 1 gallon pot - @ \$13.50 per pot/ coverage of 2/3 of one acre area (368 trees)
Planting buffer	\$29,320	Assumes coverage as for trees and shrubs above, with 3/1 ratio of buffer to wetland.
Maintenance	\$25,000	(\$ 2500 - \$5000/ AC) x 10YRS
Monitoring	\$7,000	(\$1000/ AC* 7 YRS) (Yrs 1,2,3,5,7,9,10)
Total	\$88,054	Does not include LWD, channel construction, snags, installation of piezometers and monitoring for piezos
Contingency and Mobilization(25%)	\$22,014	
Cost per acre mitigation	\$110,068	
Average land cost per acre (rural parcel)	\$10,000	
Cost including land acquisition cost	\$120,068	
Add Administration (10%)	\$8,805	
Subtotal	\$128,873	
Long Term Monitoring and Maintenance (5%)	\$5,503	Long term monitoring, maintenance and design and planning are calculated off Total costs plus contingency and mobilization
Add Design (30%)	\$33,020	
Total	\$167,397	Cost per Credit: \$ 3,236^
With Inflation @ 3.0% x 3 Yrs	\$187,679	(Estimated 58 COMBINED Credits/AC)- ADDED across credit functional type from Table 4, Appendix F.

* Based on typical soil profiles and depth to water table within Coho Creek and West Fork Quilceda subwatersheds.

^This cost was averaged with estimated riparian restoration costs and actual project costs in the Snohomish Co by The Tulalip Tribes.

Table 6: Estimated Costs for riparian restoration

Riparian impacts	Per 100 LF	
Channel construction (4.00/CYD)	\$2,407	100 LF X channel width avg 28 ft width X 100 =2500 SF (Top Width=40FT)
LWD installation (\$800 ea)	\$2,400	(25+40ft)/2 X 5 FT avg depth/ 27CFT/CYD x 100 X \$4/CYD
Riparian planting-trees	\$6,231	3 root wad and log buried per 100 LF -Based on King Co worksheet &Kurt Nelson personal communication
Riparian planting- shrubs and emergents	\$7,847	Assumes 3 foot dia planting circles around trees planted on 10 ft centers 400 FT of buffer X 100 LF@ \$13.50 ea
Planting circles wood mulch	\$9,920	Assumes shrubs @ 26 SF per shrub (6 ft center) @ \$8.50/pot
Willow whips	\$400	Assumes 3 FT dia circles around trees and shrubs
Straw bales/erosion control	\$260	\$4.00 ea installed -Installed at bank at 3 ft spacing
Maintenance	\$22,957	26 bales as needed(26 X 200SF = 5200SF (.12 AC)
Monitoring	\$7000	400 x 100/ 43560/AC *2.5K - \$5K/acre
Fencing (\$5-8 / LF)	\$1400	(\$1000/ AC* 7) (Yrs 1,2,3,5,7,9,10)
Cost per 100 LF	\$55,428	
Contingency and Mobilization (30%)	\$16,629	
Cost per 100 LF mitigation	\$72,057	
Average Land Cost per 100LF	\$10,000	400FT Riparian areaX100LF/43560 +40FT channel width X 100 LF= 44000 SF
Add Administration 10%	\$7,206	
Add Long Term maintenance (5%)	\$3,603	
Add Design (30%)	\$21,617	
Total Cost per 100 LF or 1 AC	\$114,584	Including 100 LF of stream with 200 Ft Buffer each side
With Inflation @ 3.0%	\$140,686	Cost per lineal foot = \$1,096
Cost including land acquisition cost, 500 LF project	\$572,918	Approximately 0.5AC (20,000 SF) including 100LF of stream with 200 Ft Buffer each side (Bankdful width =40 FT X 500 LF = 20000
COST PER COMBINED CREDIT	\$19,756	(Cost per 1000 LF/1 AC Aquatic area restoration)/58 credits/AC

Table 7 : Tulalip Tribe Sponsored Restoration Costs

Project Name	Project Size (AC)	Buffer (AC)	Design	Construction	Planting	Land Cost	Monitoring/Maintenance	Contingency (15%)	Total Cost	Cost per Acre/ LF
Qwuloolt Estuary Restoration Phase IV (Dike Removal	390 AC		\$125,000	\$667,800	\$89,600	\$440,000			\$1,342,400	3442/AC
Coho Creek Phase 1	2.2 Mi			\$2,029,404+		\$0		507,351	\$2,536,755	\$214/LF
Coho Creek Railroad Grade removal(Wetland restoration)	2.2 AC			\$737,906					\$737,906	\$335,412
Power Line Riparian Planting Mitigation	0.40			\$35,000		\$0			\$35,000	\$87,500*
116 th Wetland Mitigation	0.032	1.44		\$67,365	\$12,635	\$0			\$80,000	\$55,556
Tulalip Bay Site Assessment and Wetland Design	1.4		42,500			\$0			\$42,500	\$30,357
Tulalip Bay Constructed Wetland Phase I	0.34	0	See above	\$51,000	\$31,000	\$0			\$82,000	241,176
Tulalip Bay Total										\$271,533
Average Cost/ Wetland Project^							\$5000	57,870		\$231,482
Average Cost per LF of Stream Restoration with Land Cost, Admin, Contingency and Long Term M&M & 3% CPI										298/LF

+ - This did not include buffer planting or design , *-Planting only, ^Qwuloolt project not included in average cost of wetland creation but included for comparison only

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Table 8 : Average costs for Tulalip projects with added Administrative Costs

Average Cost per Acre Wetland (from Table 7 above)	\$231,482
Contingency (15%)	\$34,722
Administration costs (10%)	\$18,518
Land Cost	\$10,000
Monitoring and Maintenance	\$14,815
Long Term Monitoring and Maintenance (5%)	\$11,574
Total cost	\$294,722
Total cost projected 3 years to implementation @ 3% CPI	\$321,111
Cost per credit, assuming 58 credits/Acre	\$6222

Table 9 : Quil Ceda Service Area Land Costs[^]

Property	Type	No. Acres	Sale price	Cost per acre
	Residential	60	\$3 Mill	\$50,000
	Rural	31	\$300K	\$9,677
	Industrial/ waterfront	8	\$550K	\$68,750
	Rural residential	10	\$266K	\$26,600
Average Price per Acre				\$38,757

[^] Based on 2009- 2010 land purchases- The Tulalip Tribes, and real estate data for QCV ILFP Service Area

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APPENDIX J -QCV ILFP PROGRAM TRACKING AND REPORTING

1.0 **Program Ledgers**

The Program Administrator will maintain four program ledgers for reporting to the Corps and IRT, and for tracking purposes. The Program Administrator will submit annual ledger reports to the Corps and the Interagency Review Team, according to subsection 332.8(h) of the Federal Compensatory Mitigation Rule.⁵¹ The purpose of the ledgers are to provide a summary of deposits made into the program account, debits incurred, projects funded, and impacts mitigated by resource type and subwatershed area. A program database will assist in maintaining records and reporting.

In Lieu Fee Debit Ledger - The Program Administrator will keep a written record of each in-lieu fee paid that includes the Tribes' permit number, Corps permit number, if applicable, sub-watershed in which the impact is located; wetland category, Cowardin class, and HGM rating of each type of protected aquatic resource or buffer impact, for which in-lieu fee compensation is being made; number of debits; and the amount of the in-lieu fee paid. (See **Exhibit 6**)

Mitigation Credit Fulfillment Ledger - The Program Administrator will keep a written record of mitigation projects for the purposes of tracking credit fulfillment. The Mitigation Credit Ledger will maintain a running balance of advance credits, credits fulfilled and released. The ledger will maintain a written record of Mitigation project number, numbers of acres/square feet, subwatershed, target wetland category, Cowardin class and HGM class. A report generated from this ledger will be submitted to the Corps and the IRT as part of annual reporting. (See **Exhibit 7**)

In Lieu Fee Program Accounts and Expenditure Ledger - The Program Administrator will also maintain a written record of the in-lieu fee program expenditures from the account, such as the costs of land acquisition, planning, construction, monitoring, maintenance, contingencies, adaptive management, and administration. The expenditure ledger will be provided as part of reports to the Corps and the IRT. (See **Exhibit 5**)

Aquatic Resource No-Net Loss Ledger - The Program Administrator will maintain a ledger of acres/SF of impacted functions and services by Cowardin and HGM class, and acres/SF of mitigation functions and services by Cowardin and HGM class replaced by subwatershed. This table/database portion will be in addition to credits and debits tracked according to the new Credit/Debit system for mitigation. (See **Table 10**, below)

Aquatic Areas and Buffers Ledger - The Program Administrator will maintain a ledger of impacted aquatic areas by LF/SF of stream class and Habitat unit, and acres/SF of buffer impacts, as well as mitigation by subwatershed. This table/database portion will be in addition to credits and debits tracked according to the new Credit/Debit system for mitigation. (See **Exhibit 9**)

⁵¹ Federal Register, Vol. 73, No. 70, 2008. Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. Department of Army, Corps of Engineers, 33 CFR Parts 325 and 332 and Environmental Protection Agency 40 CFR, Part 230.

2.0 Program Reporting

The QCV ILF Program Administrator will submit annual reports to the Corps and the IRT, in accordance with 33 CFR 332.8(i)(3), including annual account audit reports. In addition, monitoring reports for establishment phase projects will be submitted at the end of the growing season, no later than December 1 of each year. Long Term Monitoring reports will be submitted according to schedule established in the Long Term Management plan for each Mitigation Project site. A summary report and the program ledgers submittal will be provided to the Corps no later than the end of the first quarter (March 31) following each fiscal year (The Tulalip Tribes' fiscal year runs from January 1-December 31).

Financial assurance reports will also be provided as required by the District Engineer, to document expenditures for any contingencies or remediation.

As provided in 33 CFR 332.8(i)(4), the District Engineer may also audit the records pertaining to the program account. All books, accounts, reports, files and other records relating to the in-lieu fee program account shall be available for inspection upon request.

3.0 Program Database

In addition to budget tracking via the Sponsor's financial management system, a QCV ILFP Database will be established to facilitate tracking of debits, credits, mitigation projects, monitoring and maintenance schedules, reporting schedules. Components of the database include, but are not limited to:

3.1 In Lieu Fee Tracking Database Components

3.1.1 Impacts/Debits

- a. Permit number
- b. Debits, debit calculations/tool
- c. Fee amount paid
- d. Breakdown of fees by subaccounts
- e. Site characteristics, parcel number, watershed, wetland classification

3.1.2 Mitigation/Credits

- a. Unique identifier- project number
- b. Applicable permit numbers
- c. Site information, parcel number, watershed, existing wetlands, streams
- d. Site/Aquatic resource condition (Qualitative Pre- and post mitigation site condition assessment)
- e. Credits, credit tool
- f. Mitigation type, target wetland class

- g.** Credit Release Schedule, credits released yes/no
- h.** Mitigation schedule
- i.** Monitoring schedule
- j.** Adaptive management
- k.** Monitoring reports (link/store pdfs)
- l.** Long term site protection instrument (store pdfs), Tribal Board Resolution
- m.** Spending Agreement
- n.** Spending Agreement modifications(dates)

3.1.3 Long Term Protection

- a.** Monitoring schedule
- b.** Resolution adopting into QCV In-Lieu Fee Program (pdf stored)
- c.** Conservation easement copy(link/store pdf)

3.1.4 Reports:

- 1. Annual reports
 - a. All income received, including interest earned by the program account.
 - b. DEBITS- List of permits for which ILF funds were accepted:
 - i. Corps permit no.
 - ii. Subwatershed
 - iii. Amount of authorized impacts (LF, SF, AC)
 - iv. Required compensatory mitigation (debits incurred)
 - v. Amount paid to ILF program
 - vi. Date funds received
 - c. Description of ILF program expenditures (e.g. land acquisition costs, planning, construction, monitoring, etc.)
 - d. CREDITS - List of projects for which ILF funds were expended:
 - i. Corps permit no.
 - ii. Subwatershed
 - iii. Potential amount of credits to be generated
 - iv. Date projects implemented
 - e. Advance credit balance, released credit
- 2. Impacts Functions and Services and Credit and Debit ledgers
- 3. Mitigation Functions and Services and Credit and Debit ledgers
- 4. Aquatic Resource No net Loss Ledger

5. Aquatic Areas and Buffers ledger

Table 10 : AQUATIC RESOURCE NO-NET LOSS LEDGER

AQUATIC RESOURCE TYPE	FUNCTIONS AND VALUES	IMPACT ACRES	MITIGATION ACRES	BALANCE*
Coho				
Palustrine Forested Temporarily Flooded/Saturated (PFOA/B)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Seasonally Flooded (PFOC)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Temporarily Flooded/Saturated (PFOA)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Scrub- Shrub Seasonally Flooded/Saturated (PSSE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Emergent Seasonally flooded/Saturated	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			

Quil Ceda Village In-Lieu Fee Program Instrument

Table 10, cont'd

AQUATIC RESOURCE TYPE	FUNCTIONS AND VALUES	IMPACT ACRES	MITIGATION ACRES	BALANCE*
HGM CLASS- Coho				
HGM CLASS	Freshwater or saltwater Tidal Fringe			
	Flats			
	Slope			
	Riverine			
	Depressional			
	Lake-Fringe			
Totals				
Sturgeon				
Palustrine Forested Temporarily Flooded/Saturated (PFOA/B)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Seasonally Flooded (PFOC)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Temporarily Flooded/Saturated (PFOA)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Scrub- Shrub Seasonally Flooded/Saturated (PSSE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			

Quil Ceda Village In-Lieu Fee Program Instrument

Table 10, cont'd

AQUATIC RESOURCE TYPE	FUNCTIONS AND VALUES	IMPACT ACRES	MITIGATION ACRES	BALANCE*
Palustrine Emergent Seasonally flooded/Saturated	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
HGM CLASS- Sturgeon				
HGM CLASS-	Freshwater or saltwater Tidal Fringe			
	Flats			
	Slope			
	Riverine			
	Depressional			
	Lake-Fringe			
Totals				
WF Quilceda				
Palustrine Forested Temporarily Flooded/Saturated (PFOE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Seasonally Flooded (PFOC)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Scrub- Shrub Temporarily Flooded/Saturated (PSSA/B)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			

Quil Ceda Village In-Lieu Fee Program Instrument

Table 10 cont'd

AQUATIC RESOURCE TYPE	FUNCTIONS AND VALUES	IMPACT ACRES	MITIGATION ACRES	BALANCE*
Palustrine Scrub- Shrub Seasonally Flooded/Saturated (PSSE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
HGM CLASS- WF Quilceda				
HGM CLASS-	Freshwater or saltwater Tidal Fringe			
	Flats			
	Slope			
	Riverine			
	Depressional			
	Lake-Fringe			
Totals				
Mainstem Quilceda				
Palustrine Forested Temporarily Flooded/Saturated (PFOE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Forested Seasonally Flooded (PFOC)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Scrub- Shrub Temporarily Flooded/Saturated (PSSA/B)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			

Quil Ceda Village In-Lieu Fee Program Instrument

Table 10 cont'd				
Mainstem Quilceda				
Palustrine Scrub- Shrub Seasonally Flooded/Saturated (PSSE)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
Palustrine Emergent Seasonally flooded/Saturated (PEME)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
HGM CLASS- Mainstem Quilceda				
HGM CLASS-	Freshwater or saltwater Tidal Fringe			
	Flats			
	Slope			
	Riverine			
	Depressional			
	Lake-Fringe			
Totals				

Quil Ceda Village In-Lieu Fee Program Instrument

Palustrine Emergent Seasonally flooded/Saturated (PEME)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
	Bird and Mammal habitat			
Palustrine Emergent Seasonally flooded/Saturated (PEME)	Floodwater storage			
	Water Quality			
	Groundwater Support			
	Amphibian habitat			
	Bird and Mammal habitat			
HGM CLASS- WF Quilceda				
HGM CLASS-	Freshwater or saltwater Tidal Fringe			
	Flats			
	Slope			
	Riverine			
	Depressional			
	Lake-Fringe			
Totals				

*(Negative numbers indicate impacts yet unmitigated)

APPENDIX K – CREDIT FULFILLMENT

Credit fulfillment is the process by which mitigation projects are planned and constructed to offset credits that have been sold. This Appendix describes the process for planning and implementing mitigation projects.

1.0 Mitigation Project Review, Selection and Prioritization

As mitigation dollars become available in the Quil Ceda Village In-Lieu Fee Mitigation Fund, the Program Administrator will solicit aquatic compensatory mitigation projects to be developed by Tulalip Natural and Cultural Resources Department (TNCRD). To create the portfolio, TNCRD will develop proposals for implementing mitigation projects, and submit these to the Program Administrator. TNCRD and QCV will use the Compensation Planning Framework as its guide in developing projects.

The Sponsor, upon coordination with the Corps may also partner with departments of the Tulalip Tribes, or may contract with other agencies or entities to carry out the required mitigation, maintenance, monitoring and/or stewardship to fulfill the Sponsor's obligations under this program instrument.

Prior to mitigation project implementation, the Program Administrator will first submit conceptual plans for proposed mitigation sites to the Corps for review by the Corps and the IRT, according to the Credit Fulfillment Checklist, (**Table 12**, below) and **Exhibit 8**, Project Review Criteria. Following Corps approval, in consultation with the IRT for the conceptual site plan, draft and final mitigation plans will be submitted according to the Credit Fulfillment Checklist (**Table 12**, below). Proposed mitigation projects will also be subject to public notice once a draft mitigation plan has been approved. Draft mitigation plans will also be submitted to appropriate regulatory agencies as needed for any required permits.

Project review timelines established in the Rule are found in **Table 11**, below. Every effort will be made by the Corps and the IRT to meet the timeframes given in the federal rule; deadlines may be extended by the District Engineer at his or her sole discretion according to 33 CFR 332.8(f). Once Corps approval, in consultation with the IRT, has been obtained via a Spending Agreement (see **Exhibit 2**) for the conceptual mitigation plan, draft and final mitigation plans, will be provided to the Corps and IRT for final review and Corps approval. The District Engineer will seek to achieve consensus on issues raised by the IRT; however the District Engineer alone is responsible for decisions with respect to project site approval, instrument modifications, credit sales and credit releases⁵².

Approval for in-lieu fee funded projects is not final until all permits have been obtained for construction of mitigation sites, as needed. For Tribal Trust lands, approvals shall be obtained from Tulalip Tribes Community Development Department and federal agencies as required. For fee-simple lands within the Tulalip Reservation, or lands outside of reservation boundaries, approvals

⁵² FR 73 No 70 19684, Section 332.8 (j)1; 19684, Section 332.8(g)(1), 19682, Section 332.8(d)(7);

shall be obtained from agencies with jurisdictional authority, such as Department of Army, Washington Department of Fish and Wildlife, Department of Ecology, county or city governments.

2.0 Timing of Project Implementation

Land acquisition and initial physical and biological improvements will be completed by the third full growing season⁵³ after the impact that generated the credit sale(s) as required by the federal rule [33CFR332.8(n)(4)], unless the Corps, in consultation with the IRT, determines that more time is needed to plan and implement an in-lieu fee project .

If insufficient funds have accumulated within three years of in-lieu fee payment, the Sponsor will notify the Corps and the IRT, that more time is needed for funds to accumulate. An extension may be then issued from the Corps. If Quil Ceda Village is unable to develop mitigation projects within three years of when wetland or aquatic resource impacts occurred for credits are sold, the District Engineer may direct funds to alternative mitigation project(s) to fulfill the credits sold, in consultation with the Sponsor and the IRT.

If the Project Sponsor anticipates project funds cannot be expended within the appropriate timeframe, the Sponsor may alternatively request submittals for proposals from non-profit natural resource management or other government entities for projects within the greater Quilceda watershed as described in Section 3.0 below.

Time extensions may be granted at the District Engineer's discretion, in the case of delays due to compliance with other applicable laws such as Section 7 ESA consultation, or Section 106 NHPA consultation, unavoidable delays as outlined Article IV.BB, and/or more time is needed by the Sponsor for project planning due to collection of information that is essential to project approval that cannot be reasonably obtained within the specified timeframe.⁵⁴

In some cases, mitigation projects may require baseline data collection in order to reduce risk of project failure. In these instances, the collection of data will generally occur within one year of the impact that generated the credit sale, but actual construction may not occur within 3 growing seasons. These cases would be limited to those which require multiple years of baseline data collection, and would be contingent on Corps, approval, in consultation with the IRT.

3.0 Source of Project Proposals

TNCRD shall develop and submit to Quil Ceda Village, for review by the Corps and the IRT, proposals for implementing mitigation projects. In developing a proposal, TNCRD shall give primary consideration to providing compensation commensurate with the type(s) and extent of adverse aquatic resource impacts for which in-lieu fees have been or are likely to be paid, and with watershed needs identified in the Comprehensive Planning Framework.

If TNCRD is unable to develop mitigation projects within required time frames, the Sponsor may, upon approval by the Corps, issue a public notice that it will consider third-party proposals for projects outside of Reservation boundaries, within the greater Quilceda Watershed, for in-lieu fee mitigation funding. Potential mitigation projects may be submitted to the Program Administrator by any member of the Interagency Review Team, any state or federal agency, or non-governmental natural resource management entity, provided the mitigation proposal includes all of the

⁵³ In the Puget Sound region (and more specifically Quilceda Watershed), the growing season typically extends from March 1 up to as late as November 15.

⁵⁴ FR 72 No 70 19683 33 CFR 332.8(f) Extension of deadlines

requirements listed under Exhibit 8, Project Criteria. All projects will comply with criteria established as described in this ILF Program Instrument, and pursuant to 33 CFR Section 332.3. Projects submitted by third parties will be reviewed by the IRT and approved by the Corps in the same manner as for TNCRD developed projects, according to the review process in this Appendix.

4.0 Project Criteria:

Mitigation projects will be selected for implementation with in-lieu fee dollars (as receiving sites for the ILF program) in accordance with 33 CFR Section 332.3 (a) through (j), including consideration of ecological suitability factors as listed in the Mitigation Rule 332.3(d), and: the need within the watershed or sub-watershed, prioritization of project types, as provided in the Compensation Planning Framework;⁵⁵ the correlation between the proposed activities and the adverse impacts to aquatic resources documented by the in-lieu fee program, the environmental costs and benefits of the mitigation project, and the required credits to mitigate for debits incurred by impacts authorized to the Program. Criteria for project review at each stage of submittal are provided in **Exhibit 8. Exhibits 10a and 10b** will be used to guide selection of mitigation sites.

Using a watershed approach, mitigation projects may be in-kind or out-of-kind, based on priority of wetland category/functions and limited resource factors in the watershed as elaborated in the Compensation Planning Framework. However, to maintain the no net loss of wetland functions within the ILF service area, out-of-kind mitigation will be limited and will be evaluated on a case by case basis.⁵⁶

In general, ILF projects will replace wetland HGM types, category and functions of impacted wetlands and non-wetland aquatic areas at an equal or higher value. The QCV ILF database will track HGM types, wetland category and functions in the Aquatic Resource No Net Loss Ledger (**Table 10, Appendix J**), as well as in the Credit Fulfillment Ledger (**Exhibit 7**).

In accordance with the Compensation Planning Framework, culvert replacement may be allowed as an out-of-kind mitigation for wetland impacts only when there is a riparian wetland restoration component to the stream restoration. In the case where streams are restored from a ditched or culverted condition, the total length and square footage of additional stream channel (as described in Appendix F) shall be used as the aquatic resource creation or re-establishment, not the entire length of the stream restoration, unless the restoration also includes riparian wetland adjacent to the channel.

Also in accordance with the Compensation Planning Framework, first priority shall be given to projects in the Coho and Sturgeon Creek watersheds, then to projects within the West Fork Quilceda Creek watershed or the greater Quil Ceda Watershed, based on the match between potential mitigation project sites, the impacted aquatic resources in the in lieu fee ledger, and the watershed needs identified in the Comprehensive Planning Framework.

This prioritization is supported by a watershed approach, due to the high restoration potential within Coho Creek, Sturgeon Creek and West Fork Quilceda watersheds, and their relationship to the service area hydrologically and biologically.⁵⁷ If projects are not available and if project funds cannot be expended within Coho or Sturgeon Creek subwatersheds properties or West Fork Quilceda subwatershed, within the appropriate timeframe, or if projects of a higher priority are determined, by

⁵⁵ FR73 No. 70 19673, .Sec 332.3(c) *Watershed approach*

⁵⁶ FR73 No. 70 19673, .Sec 332.3(e) *Mitigation type*.

⁵⁷ FR73 19672, Section 332.3(b) Type and location of compensatory mitigation

a watershed approach, to be located outside of these subwatershed boundaries, proposals for projects within the greater Quilceda Watershed may be considered for use of in-lieu fee mitigation funds.

Projects developed and selected for funding shall meet the following criteria:

1. Compensatory mitigation projects shall restore, establish, enhance, and/or preserve aquatic resources in accordance with Corps and Tribal mitigation policy and guidance, including guidance for Selecting Wetland Mitigation Sites Using a Watershed Approach⁴⁴. As such the compensatory mitigation projects must use the Compensation Planning Framework as a guide to watershed need within the Quilceda watershed. (See **Exhibits 10a and 10b**)
2. Compensatory mitigation projects shall generally restore, enhance, preserve, and/or establish aquatic resources of equal or greater functions and services on a sub-watershed basis as those wetlands that have been impacted by the projects serving as sources of in lieu fee funds.
3. In-kind mitigation shall be preferable to out-of-kind mitigation; however The Tulalip Tribes, using the watershed approach, may propose and the Corps may determine, in consultation with the IRT, that out-of-kind compensatory mitigation will better serve the aquatic resource needs of the watershed. In such a case, the Corps may consider and approve projects involving out-of-kind mitigation.⁵⁸
4. Compensatory mitigation projects shall be located such that hydrologic resources will sustain plant growth and wetland hydrology at the project site.
5. Compensatory mitigation projects shall include upland areas sufficient to protect, buffer, or support identified aquatic resource functions and values, and provide ecological connectivity to other conservation areas, or undeveloped large block habitats. At a minimum, buffers required by the Tulalip Zoning Ordinance for Tulalip trust lands or for tribally-owned fee lands, or by the authorized agency for off-Reservation lands, shall apply.
6. Compensatory mitigation projects shall include a mitigation plan with all twelve elements as outlined in Content of Mitigation Proposals, below, pursuant to 33 CFR 332.4(c). Compensatory mitigation projects shall have provisions for maintenance and monitoring, with established ecological performance standards.
7. Compensatory mitigation projects shall represent an efficient use of funds expended given the condition, location and relative appraised values of the properties;⁵⁹
8. Compensatory mitigation projects shall consider the location of a potential in-lieu fee proposal relative to Tulalip or watershed planning focus areas for land conservation or habitat preservation;⁶⁰

⁵⁸ 33 CFR 332.3(e)(2)

⁵⁹ FR73 19672, Section 332.3(a) *General considerations*

⁶⁰ FR73 19675, Section 332.3 (d)(iv) *Site selection*

9. Compensatory mitigation projects shall demonstrate project readiness and likelihood of success.

5.0 Content of Mitigation Proposals

In accordance with 33 CFR 332.2(n), financial assurances are provided for all QCVILFP mitigation projects through the implementation of a spending agreement and the programmatic financial assurances provided in **Appendix H**. The IRT project review process will include conceptual mitigation plans, with portions of the required mitigation plan content approved in stages, as described in **Exhibit 8**. Final proposals submitted to the Program Administrator, the Corps and the IRT, for receiving sites shall include the following:

1. Project objectives and site selection (33 CFR 332.4(c)(2)-(c)(3): a description of the resource type(s) and quantities that will be provided, the type of mitigation (i.e. restoration, establishment, enhancement and/or preservation), and how the proposed project will address the debits incurred by resource function and type. A description of factors considered in site selection and the practicability of accomplishing the compensatory mitigation project.
2. Site description (33 CFR 332.4(c)(5). A detailed description of the mitigation project area, consisting of vicinity and site maps, spatial coordinates of the project area, any available aerial photographs, land use history, and a determination of protected natural resources based on a wetland delineation conducted in accordance with the Corps of Engineers 1987 Delineation Manual or subsequent USACE-approved method;
3. Baseline information/description of aquatic resources (33 CFR 332.4(c)(5). A description of existing plant communities, existing hydrology, soil conditions, and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information will include a delineation of waters of the US, and describe wetland category, stream type, hydrogeomorphic class, and Cowardin classification of any aquatic resources on the site.
4. Functional analysis of aquatic resources (33 CFR 332.4(c)(6). A functional analysis of any existing aquatic resources on the proposed mitigation site, and proposed changes/improvements to functions and services provided by wetlands, streams or their buffers. A description should be provided of the manner in which resource functions of the compensatory mitigation project will address the needs of the watershed as detailed in the Compensation Planning Framework, as well as the functions impacted in the debit ledger. There should be a description of the local hydrology, assessment of likely mitigation project-related changes to local hydrology, and demonstration that local hydrology will be sufficient to support and sustain the proposed mitigation project. If the project includes areas consisting solely of preservation, include a description of the size, type and value of wetlands or uplands being protected, and their adjacency to other conservation lands, as well as how the preservation lands meet the criteria outlined in 33 CFR 332.3(h).
5. Final mitigation plans shall include a pre- and post-project site assessment as in **Appendix E, Table 2** (33 CFR 332.4(c)(5)).

6. Determination of credits. (33 CFR (332.4(c)(6))A determination of the number of and type of aquatic resource mitigation credits to be provided by the project, as well as a credit release schedule proposed for the project, based on the Credit/Debit method detailed in **Appendix E**.
7. Work plan. (33 CFR (332.4(c)(7)) Final mitigation plans shall include a detailed work plan for the project. This will not be required at the conceptual plan approval stage. This description may include road closures or other activities needed to support the project. For projects including creation, restoration and enhancement, the description should be as detailed as practicable and include the type and location of all soil disturbing activities and structures; a project implementation schedule; and a planting plan that includes a list of non-invasive, native species to be used; planting density; planting methods and schedule; and performance standards and criteria for project accomplishment. The final site plan shall also include a grading plan, if grading is required for the project. The final mitigation plan shall also include a description of the project implementation timeline, projected costs, including: design, construction, monitoring, land or easement acquisition, long term operation and maintenance, and contingencies.
8. Impact analysis. A final mitigation plan shall include a description of any potential adverse impacts to any protected natural resource, such as upstream or downstream aquatic resources, ecologically sensitive areas, tribal cultural resources and wildlife habitat, as a result of ILF project implementation, and how such impacts will be avoided and minimized.
9. TES Species. Final mitigation plans shall include a discussion of any potential effect of the mitigation project on any species listed by the Tulalip Tribes or other resource management agencies as threatened or endangered, or on critical habitat for those species.
10. Cultural species. Final mitigation plans shall include an evaluation of any potential effect of the mitigation project on cultural species or resources of The Tulalip Tribes.
11. Maintenance and Monitoring plan. (33 CFR (332.4(c)(8)- (c)(10)) A final mitigation plan shall include a plan for monitoring the project, containing performance standards and criteria for success of the proposed mitigation project, including planting and wetland hydrologic criteria and a contingency plan, as well as a maintenance and monitoring reporting schedule. Monitoring requirements shall be according to Appendix L. Ecological performance standards and monitoring plans shall comply with 33 CFR 332.5 and U.S. Army Corps of Engineers Regulatory Guidance Letter 08-03, unless superseded.⁶¹
12. Long term management plan and adaptive management plan. (33 CFR (332.4(c)(11)- (c)(12)) The final mitigation plan shall include a site protection instrument and a long term maintenance management and monitoring plan. If the project will involve the acquisition of a conservation easement on lands not owned by The Tulalip Tribes, the mitigation plan will include an explanation of what the easement will accomplish and who will monitor and enforce it. A conservation easement template is provided in Exhibit 4.

⁶¹ "Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving Restoration, Establishment, and/or Enhancement of Aquatic Resources," US Army Corps of Engineers, Regulatory Guidance Letter No. 08-03, October 10, 2008.

13. Other information as required by the District Engineer to determine the appropriateness, feasibility, and practicability of the compensatory mitigation project.

6.0 Methodology for Determining Project Specific Credits

Once an appropriate mitigation site has been located, the number of credits to be generated by the site will be determined according to Appendix E and submitted with the proposal, for IRT review and Corps approval. Credits will be released according to Section 7 and **Table 12 - Table 14**, below.

Credits released back to the advance credit balance will be available for purchase by permittees within Quil Ceda Village. Should additional acres or lineal feet of aquatic resource area be generated by a mitigation project, greater than was anticipated in the approved mitigation plan, credits generated by the additional area will be tracked in a separate ledger and may be used, upon Corps approval, in consultation with the IRT

7.0 Proposed Credit Release Schedule

Initial release of credits will be contingent on the signing and recording of a site protection instrument. Once a mitigation project has been implemented, and performance standards achieved, credits will be released for the mitigation site according to the credit release schedule established with the mitigation plan. The final credit release is contingent upon a final site specific Long Term Management Plan approved by the Corps, in consultation with the IRT. Final credits will be released once the project establishment phase has been completed, a final monitoring report is reviewed by the IRT and the project is signed off by the Corps as meeting all performance standards.

The credit release schedule will consider factors including 1) the method of providing the credits, 2) the likelihood of success, 3) the nature and amount of work needed to generate the credits, and 4) the aquatic resource type(s) and function(s) to be provided by the in-lieu fee project. A significant share of the total credits to be released will be reserved for once ecological performance standards have been fully achieved. An example credit release schedule, which will be the default unless a different release schedule is specified or it is later modified, is in **Table 13** and **Table 14**, below.

8.0 Preservation Criteria

Criteria for using preservation as compensatory mitigation, as given in 33 CFR 332.3(h), will be utilized for selecting preservation projects. The criteria are:

1. The resources to be preserved provide important physical, chemical, or biological functions for the watershed.
2. The resources to be preserved contribute significantly to the ecological sustainability of the watershed.
3. Preservation is determined by the District Engineer to be appropriate and practicable;
4. The resources are under the threat of destruction or adverse modifications; and
5. The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g. easement, title transfer, or land trust).

Table 11 : MITIGATION PROJECT APPROVAL TIMELINE AS GIVEN IN THE FEDERAL RULE⁶²⁶³

Process step/Reviewing party	IRT Review	Corps REVIEW AND response to Sponsor	other	Total
Preliminary Site Selection Approval and review of Conceptual Mitigation Plan (Instrument modification request 332.8(d)(4))		30 days from receipt of conceptual plan to public notice ⁶⁴		75 days
	30 days (as part of 30-day public review)	30 days (as part of 30-day public comment)	30 day public comment	
	15 days from close of public comment to provide comments to Sponsor	15 days from close of public comment for Corps to provide public comments to IRT and Sponsor		
Draft Mitigation plan (Draft instrument modification 332.8(d)(6))		30 days to notify Sponsor if complete		90 days
	30 days +5 days	30 days Corps review		
		30 days to respond to Sponsor		
Final Mitigation Plan (Final Instrument 332.8(d)(8))	15 days to object via dispute resolution	30 days to notify IRT of intent		45 days
		15 days respond to Sponsor		
Section 7 ESA Consultation and/or Section 106 National Historic Preservation Act			Concurrent with Conceptual Mitigation Plan and Final	Unknown
TOTAL				210 days
Dispute Resolution	15 days to object	30 days for response to objection		30 days
Dispute elevation to Headquarters (Federal Agencies)	15 days to forward to Headquarters	30 day review by Director of Civil Works- 150 days for response from DE to Sponsor	20 days Headquarters response to ASA(CW)	150 days
TOTAL				390days

⁶² In accordance with 33 CFR 33.8(f)(1) and (2) This timeline may be extended by the district engineer for reasons cited therein.

⁶³ In compliance with 33 CFR 332.8(j)(1) In lieu fee project approval; 332.8(g)(1) Approval of an amendment to an approved instrument; 332.8(d) Review process

⁶⁴ Public notice may be satisfied during permit processing public notice period

Table 12: QCV ILFP CREDIT FULFILLMENT CHECKLIST

Proposed Mitigation Project Details

Proposed Receiving Site: _____

Debit Ledger Balance: WQ _____ HYDRO _____ HAB _____

Receiving Site Proposed Credits: WQ _____ HYDRO _____ HAB _____

	Fulfillment Step	Responsible Party	Notes/Special Conditions	Date started	Date completed
1	TNCRD selects preferred site based on preliminary baseline analysis of site (aerial photos, existing information, etc.,	TNCRD			
2	Baseline data collection at site (wetland rating, stream mapping, functional assessment)	TNCRD			
	Conceptual plan development	TNCRD			
3	Conceptual plan submitted to Corps and IRT for review and approval of site and conceptual mitigation plan	QCV	Includes credit-debit worksheets		
4	Corps and IRT review of proposed receiving site and conceptual mitigation plan	IRT/Corps			
5	Corps approval of proposed receiving site and conceptual mitigation plan	CORPS	Corps sends letter with IRT comments to TT/QCV		
6	SPENDING AGREEMENT signed	Corps/TT			
7	Detailed draft mitigation plan developed incorporating initial comments, more detailed site specific data,	TCNRD			
8	Draft mitigation plan submitted to Corps/IRT AND PERMITTING AGENCIES	QCV	Applicable permits must be obtained for construction of ILF mitigation sites		
9	Public Comment period and 2 nd round of Corps, IRT Review; Permitting agency review	Corps/IRT	Public comment for permitting may be combined with ILF mitigation process.		

Quil Ceda Village In-Lieu Fee Program Instrument

10	Final mitigation plan completed and submitted to Corps, IRT and permitting agencies where applicable for review	TNCRD/QCV			
11	IRT and Corps review of Final Mitigation plan and comments to Corps (45 days)	IRT/Corps/Permitting agencies	Permitting agency concurrence needs to dovetail with Corps/IRT review		
12	PROJECT APPROVAL (Corps has 30 days from IRT comments)	Corps	With final approval, letter sent from Corps.		
13	Site protection instrument signed and recorded- Instrument modification signed	Corps/TT	332.8(d)(8) Site protection recording begins Establishment phase.		
14	Project Implementation	TNCRD	332.8(n)(4) Construction, planting Within 3 full growing seasons of 'first' credit sale, "initial physical and biological improvements"		
15	PROJECT construction, planting completed/AS BUILT	TNCRD/QCV	As-Built- Mitigation prepared		
16	AS-BUILT REPORT SUBMITTED to Corps and IRT	QCV			
17	AS-BUILT INSPECTION WITH IRT	QCV/TNCRD/Corps/IRT			
18	Project acceptance; RELEASE OF CREDITS	CORPS/QCV/ TT			
19	Establishment Phase Performance Monitoring/Reporting period	QCV/TNCRD	QCV contracts monitoring, submits monitoring reports to Corps/IRT. QCV schedules annual performance inspections with TNCRD/IRT		
20	Project achievement of performance standards- CREDIT RELEASES	QCV/Corps/IRT	According to performance compliance and credit release schedule		
21	Sponsor submits credit release approval request to Corps and IRT		IRT has 15 days of receipt of documentation, or from site visit to submit comments to Corps. Within 30 days of end of the comment period, Corps decision on Release of Credits and notify IRT and Project Administrator		

Quil Ceda Village In-Lieu Fee Program Instrument

22	Final CREDIT Release- Project enters long term management phase.	QCV/Corps/IRT			
23	Long Term Management of project site and reporting	QCV/Third Party	Tulalip Tribes will remain as steward of mitigation sites, with third party compliance monitoring		

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Table 13 : Sample credit release schedule, 5 YR monitoring plan

Project Type	Project Milestone	Portion of Credit Released	Cumulative Portion of Fulfillment
Preservation			
	Purchase Finalized/or Legal instrument signed	100 % of appropriate credits by Credit-Debit Method	100%
Establishment, Re-establishment, Enhancement			
	Project installation	1/6	
	Year 1 performance standards achieved	1/6	1/3
	Year 3 performance standards achieved	1/6	1/2
	Year 5 performance standards achieved	1/6	2/3
	Final inspection and IRT sign off on achievement of performance standards	1/3	100%
Stream restoration			
	Project installation	1/6	1/6
	Year 1 performance standards achieved	1/6	1/6
	Year 3 performance standards achieved	1/6	1/2
	Year 5 performance standards achieved	1/6	2/3
	Final inspection and IRT sign off on achievement of performance standards	1/3	100%

Table 14 : Sample credit release schedule , 10 YR monitoring plan

Project Type	Project Milestone	Portion of Credit Released	Cumulative Portion of Fulfillment
Preservation			
	Purchase Finalized/or Legal instrument signed	100 % of appropriate credits	100%
Re-establishment, Establishment, Enhancement			
	Project installation	1/6	1/6
	Year 1 performance standards achieved		
	Year 3 performance standards achieved	1/6	1/3
	Year 5 performance standards achieved	1/3	2/3
	Year 7 performance standards achieved	1/6	5/6
	Year 10 - Final inspection and IRT sign off on achievement of performance standards	1/6	100%
Stream restoration			
	Project installation	1/6	1/6
	Year 1 performance standards achieved		
	Year 3 performance standards achieved	1/6	1/3
	Year 5 performance standards achieved	1/3	2/3
	Year 7 performance standards achieved	1/6	5/6
	Year 10 - Final inspection and IRT sign off on achievement of performance standards	1/6	100%

Appendix L - Mitigation Site Establishment Phase Management, Monitoring, and Maintenance

1.0 Site Management – Establishment Phase

Site management during the Establishment phase will be according to the Mitigation Plan for each ILF receiving site, but will generally conform to management guidelines in this section as well as **Appendix N** for Long Term Site Management, with the exception that allowed uses for treaty reserved cultural activities such as hunting, gathering, and cultural practices will be limited while the site becomes established to minimize site disturbance.

2.0 Monitoring Requirements- Establishment Phase

The Program Administrator is responsible for monitoring of in-lieu fee project sites, in accordance with approved monitoring requirements for each project. Monitoring must be conducted in accordance with the requirements in 33 CFR 332.6, and at time intervals appropriate for the particular project type and will conform to Sections 2 and 3 of this Appendix. Monitoring will continue until such time that the District Engineer, in consultation with the IRT, has determined that the performance standards for the project have been attained.⁶⁵ Monitoring guidance is provided in the Corps Regulatory Guidance Letter 08-03, issued October 10, 2008.⁶⁶

Monitoring of all mitigation sites will be performed to determine compliance with the Performance Standards established in the mitigation plans, as defined in 33 CFR 332.2 and discussed in more detail in 33 CFR 332.5. Performance Standards will generally include vegetation cover, species diversity and frequency requirements. Performance standards will also include objectives for hydrologic functions, stream channel and habitat conditions and may require shallow water table monitoring wells, percent cover and frequency of hydrophytic vegetation, and percent cover and frequency of invasives/non-natives. Overall site condition will be evaluated as well as problems such as trespass, garbage dumping, or trampling, as well as vegetative vigor and condition.

The first monitoring/inspection post-site installation (hereafter “as-built inspection”) shall establish permanent transects, quadrats and photopoint locations for the duration of the monitoring period. Photopoints should be established with the as-built documenting overall site condition as well as that of transects or quadrats. Photopoints, transects, and quadrat locations shall be marked on the ground with wooden or pvc stakes and flagging as well as on a scaled site map for easy relocation. Photos should be dated and clearly marked as to the direction from they are taken. Monitoring will also include random sampling points.

Monitoring periods will comply with the terms of 33 CFR 332.6(b), which states that the “mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands,

⁶⁵ 33 CFR 332.8(q)(2).

⁶⁶ US Army Corps of Engineers. Regulatory Guidance Letter No. 08-03, October 10, 2008, “Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Restoration, Establishment, and/or enhancement of Aquatic Resources.”

bogs).” Following the first three years of monitoring, a more frequent monitoring scheme will likely be required, e.g. monitoring will be conducted in Years 1, 2, 3, 5, for five year monitoring; and 1, 2, 3, 5, 7, 9, and 10, for the ten year monitoring, unless it is determined by the Corps, in consultation with the IRT that more frequent monitoring will be necessary. If necessary, contingency monitoring will be carried out. If the compensatory mitigation site has met its performance standards prior to the end of the projected monitoring period, the monitoring period length can be reduced, provided there are at least two consecutive monitoring reports that demonstrate that success. If performance standards are met prior to the monitoring benchmark, a determination will be made by the Corps, in consultation with the IRT, of the need for continued monitoring for invasives or non-native weeds. The Corps, in consultation with the IRT, will determine if a longer monitoring period is required, based on site specific considerations.^{67 68, 69}

Monitoring will occur in the early summer for an assessment of species survival and vigor after the winter, as well as determination of maintenance needs for invasives and non-native cover. In this way, any potential problems can be deterred early to prevent competition during the growing season. It may be determined that monitoring should be conducted earlier in the growing season to observe wetland boundaries.

Methods described at <http://forestandrange.org/modules/vegmonitor/mod9/mod9-13.shtml> or similarly valid methods shall be utilized. Foliar percent cover may be determined by quadrats or point intercept method for low cover sites. Species frequency may be determined by line transects. Transects shall be between 50 to 100 feet and 10 feet in width, with quadrats either 10 feet by 10 feet or 20 feet by 20 feet, unless otherwise required by the approved mitigation plan.

Stream habitat and channel morphology will be monitored during bankfull, and during low flow periods in the summer, but before streams dry up completely. Monitoring protocols may include the Timber Fish and Wildlife stream survey protocols and EPA Rapid Bioassessment Protocols^{70 71},

Monitoring reports will be maintained at the Quil Ceda Village Administrative offices and also will be provided to the District Engineer and the IRT, by December 1st of the year performed.

3.0 Monitoring Report Requirements

Monitoring reports will conform to the guidance provided in the Corps Regulatory Guidance Letter 08-03, issued October 10, 2008 and conform to Sections 2 and 3 of this Appendix.

Monitoring Reports should contain a Report Narrative. The Report Narrative should be concise and generally less than 10 pages in length. Reports should not contain unnecessary general information, but should provide information necessary to describe the general site conditions and whether the

⁶⁷ FR 73 19678, Section 332.6(b)

⁶⁸ Wetland Mitigation in Washington State – Part 2, Version 1, Chapter 3.6.3.2 Duration and Frequency of Monitoring, WA Department of Ecology, US EPA Region 10, and US Army Corps of Engineers Seattle District, Ecology Pub #06-06-011b, March 2006

⁶⁹ Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving Restoration, Establishment, and/or Enhancement of Aquatic Resources, US Army Corps of Engineers Regulatory Guidance Letter #08-03, October 10, 2008

⁷⁰ Bioassessment Protocols for Use in Streams and Wadeable Rivers, Second Edition. 1999. M.T.Barbour, J. Gerritsen, B.D.Snyder, and J.B.Stribling, EPA 841-B-99-0002, U.S. EPA; Office of Water; Washington, D.C.

⁷¹ TFW Monitoring Program Method Manual for the Habitat Unit Survey. 1999. A.E.Pleus, D. Schuett-Hames, and L. Bullchild. Prepared for the WA State Department of Natural Resources under the Timber Fish and Wildlife Agreement. TFW-AM9-99-003

compensatory mitigation project is meeting its performance standards. The required performance standards to be met should be included in the report, as well as any necessary supporting documentation such as base maps (as-builts), plans and photographs. Maps and plans should clearly delineate the mitigation site boundaries.

Photopoints, transects, and quadrat locations shall be marked on the base map/ mitigation site plan and provided with the report. Photocopies of field forms or spreadsheets should accompany the report. Photopoint photos should be attached to the report, and clearly labeled as to their location on the base map.

At a minimum, monitoring reports will include the following information, with additional information as needed to address performance standards:

- Frequency and percent canopy cover by trees, shrubs and emergent vegetation
- Species richness and abundance
- General vigor of plant growth, indications of die-back, or insufficient water
- Area of hydrogeomorphic (HGM) classes/subclasses, Cowardin classification, including hydrologic modifier and vegetation class, aquatic area types, or upland community types
- Buffer condition
- Invasive and noxious weed species and percent cover
- General condition of site, including indications of trespass, garbage dumping, poaching, etc.
- Evaluation of planting or vegetation replacement needs.
- Estimated area of soil inundation or saturation, length of hydroperiod
- In some instances, hydrologic monitoring for length of hydroperiod via shallow monitoring wells.

4.0 Ecological Performance Standards

Performance standards are observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives. Performance standards included in QCVILFP Mitigation Plans submitted to the IRT will relate to the objectives of the compensatory mitigation project, so that the project can be evaluated through time to determine if it is developing into the desired resource type, providing the expected functions and generating the anticipated functional lift.

Ecological performance standards will be based on the best available science that can be measured or assessed in a practicable manner. Performance standards may be based on variables or measures of functional capacity described in the mitigation assessment method, measurements of hydrology or other aquatic resource characteristics and/or comparisons to reference aquatic resources of similar type and landscape position.

Reference sites may be used to develop performance standards for mitigation sites. Performance standards based on measurements of hydrology will take into consideration the hydrologic variability

exhibited by reference aquatic resources, especially wetlands. Performance standards will take into account the expected stages of the aquatic resource development process in order to allow early identification of potential problems and appropriate adaptive management.

Specific performance standards for a given mitigation project will depend in large part on the type, scale and scope of the proposed project and will be outlined in detail in the Mitigation Plans developed for each site. These plans must be reviewed by the IRT and approved by the Corps prior to implementation. Performance standards for QCVILFP mitigation projects will generally include the following components⁷²:

A. *List of Indicators.* Indicators identify what will be monitored, such as *woody vegetation*, *invasive species* (e.g., reed canary grass - *Phalaris arundinacea*), *wetland area*, or *water regimes*. The indicators to be monitored will vary from site to site, and will be listed in the Monitoring and Maintenance sections of the Mitigation Plans developed for each receiving site.

B. *List of Attributes.* They identify what aspect of the indicator will be monitored, such as percent *aerial cover* (of vegetation), density (of stems of surviving vegetation), *size* (of wetland area), or *percent area* (of a water regime).

C. *Actions.* They identify the “verb” of the attribute, such as *will not exceed* X percent cover (of invasive species), *establish* X acres (of wetland area), *maintain* number (of surviving vegetation), or *will have* X-X% area (of a water regime).

D. *Quantities/Status.* They identify the amount of change or the desired level the attribute should reach, such as achieving greater than 50% total aerial cover of trees and shrubs, establishing 2 acres of wetland, or having 25% to 50% area of a water regime.

E. *Time Frame.* They identify when the quantity/status should be achieved or at what time the effectiveness of management of the site should be evaluated. For example, having X-X% area of a water regime *each year* of monitoring, achieving X acres of wetland by *the end of the monitoring period*, or achieving X% total aerial cover of trees and shrubs by *the end of year 7*. Performance standards should be included for interim years, not just the end of the monitoring period.

F. *Location.* They identify the geographical area where the indicator will be monitored, such as a particular wetland mitigation site or a specific habitat type within a compensatory wetland. For example, the compensatory mitigation area at Coho Creek Restoration Area Phase 4, located at Tulalip, Washington will achieve X acres of emergent wetland by the end of the monitoring period.

In the context of the above performance standard components, most projects will generally also include standards to address specific goals and objectives including:

- ❖ Water, hydroperiod and hydrology
- ❖ Hydroperiod associated with target functions
- ❖ Area of hydrogeomorphic (HGM) classes/subclasses, Cowardin classes, aquatic area types, or upland community types

⁷² excerpted from Monitoring Plant and Animal Populations, Elzinga et al. 2001
October 25, 2013

- ❖ Species richness and abundance
- ❖ Maximum percent cover of invasive vegetation species
- ❖ Specific target functions or physical characteristics

Finally, to the extent possible, performance standards will be developed to ascertain whether lift is being created in the context of the functions measured by the mitigation assessment method.

5.0 Maintenance

A maintenance plan, including maintenance protocols, will be established for each mitigation site, based upon site specific conditions and needs. For example, a site adjacent to a weed source will be subject to more frequent maintenance. Active maintenance practices will generally follow the monitoring period, and can include nuisance species control, and active management to protect plantings or engineered structures. For nuisance species/invasives/weed control, physical treatment shall be preferable to chemical treatment, with the exception of extreme cases or problems. Adaptive management strategies will favor alternatives to chemical treatment but all options will be considered when necessary. Maintenance plans will be incorporated into the Mitigation plans for each site, and as such, will be appended to this program instrument upon Corps approval, following consultation with the IRT.

6.0 Noxious Weed and Non-native Invasive Plant Management

During the establishment phase, any site with presence of non-native invasive plants will have a bi-annual treatment, in early summer and at the end of the growing season to prevent competition with target plants.

- i) For Himalayan blackberry, maintenance will include removal of root crowns where plants emerge.
- ii) Reed canary grass – trampling or mowing around young trees and shrubs may need to occur during the establishment phase and for several years after the release of mitigation credits, until trees and/or shrubs have established sufficient canopy to shade out reed canary grass. Where infestations continue for more than five years after project installation, adaptive management strategies will be considered.
- iii) Other non-native invasive plants shall be treated according to best available science and practices.

7.0 Fencing

A determination of the need for fencing will be made upon the site establishment, and again when the site enters the Long Term Management phase. To avoid disruption of wildlife corridors, in general sites will not be fenced, with the exception of wooden split rail fences in some instances. Rather hedgerows of vegetation will be utilized to provide wildlife friendly barriers to pet and people access. Proximity to residential areas with pets, adjacent pasture areas, and potential for trespass will determine need for fencing or hedgerows.

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APPENDIX M - Adaptive Management and Contingencies Planning

Each Mitigation Plan (see Appendix K, Section 2.0) will include an *adaptive management plan*, which is defined in the federal rule as “a management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success.” (33 CFR 332.4(c)(12)) Potential contingency actions and adaptive management strategies are to be elaborated in the mitigation plans funded under this program, and will meet the requirements in Appendix K; however adaptive management plans included with mitigation plans may lack specific measures to address underperformance, for types of underperformance unforeseen at the time the Mitigation Plan is developed. Specific corrective measures may be developed if and when underperformance details become clear. Any and all adaptive management measures will be appended to the Mitigation Plan and the IRT will review and comment on any additions or amendments to Mitigation Plans.

If during the establishment phase, mitigation projects funded through this ILF program do not achieve one or more of the performance standards of the approved Mitigation Plan, consistent with the provisions in Appendix K, or cannot be implemented in accordance with an approved mitigation plan, the Sponsor shall notify the Corps as soon as possible, and develop necessary adaptive management/contingency plans and implement appropriate measures as specified in this Appendix to attain those project objectives and performance standards, including, if necessary, substitute proposals for mitigation project sites, or in some cases, revisions to the Performance Standards. The measures may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements. The measures must be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives. Prior to their execution, proposals for the contingency plans and adaptive management and monitoring activities must be approved by the Corps, after consultation with the Sponsor, and the IRT.

Once approved, the revised project elements identified in the contingency/revised adaptive management plan will be implemented, and will be appended to the approved Mitigation Plan and incorporated into the program instrument; ecological performance standards, monitoring requirements and schedule, and credit release schedule will be amended accordingly to incorporate the terms of the project as revised in the adaptive management plan.

If an adaptive management plan identifies the need for significant modification of a compensatory mitigation project, the responsible party must get approval from the Corps, in consultation with the IRT.

If the failure is substantial and would be difficult or impossible to correct on-site (e.g. landscape conditions change such that hydrology is insufficient to support a wetland) the Sponsor will, in consultation with the Corps and the IRT, evaluate whether the project should be abandoned altogether in favor of pursuing alternate contingency measures, such as a new project. A failure of a project (in whole or in part) is considered “site default” in which case provisions in the Basic Agreement **Article IV.Y** and **Appendix O** of this instrument would apply.

Contingency funds, incorporated into the credit fees and held in reserve in a separate account (see Appendix F, Section 3.1), will pay for development and implementation of adaptive management plans.

1.0 Adaptive Management Strategies

Mitigation proposals must include adaptive management plans as required in 33 CFR 332.3 (c)(11)- (c)(12), and as outlined in **Appendix K, Section 5.0**. Below are some proposed strategies for expected issues that may arise with Mitigation Sites based on typical mitigation situations in North Puget Sound and the conditions of the Quilceda Watershed area. However, there may be unforeseen issues arise with a mitigation site and a specific adaptive management plan will be developed to address the particular situation. The following list, as a minimum, will be included within the content of mitigation plans under contingencies/adaptive management where applicable.

1.1.1 Plant mortality

Determination will be attempted to be made regarding any causes of plant mortality. Strategies may include species replacement, identification of plant diseases and proper treatment in consultation with plant experts or the Washington State University extension service.

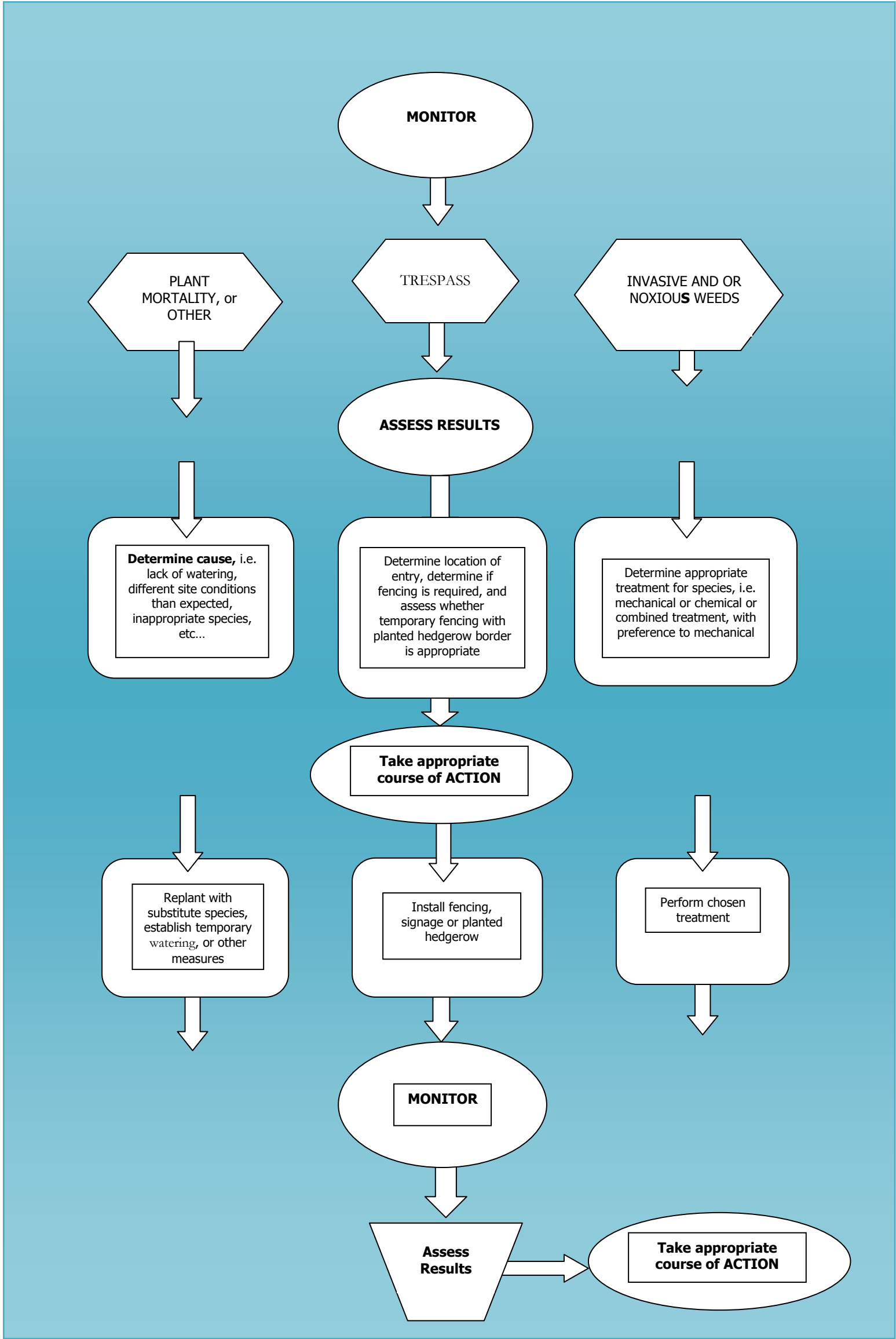
1.1.2 Trespass and/or Poaching

In general mitigation sites will not be fenced to avoid disruption of habitat corridors and connectivity within the watershed. Evaluation of the potential risks and benefits of fencing will be made once trespassing and/or poaching is identified as a problem. The problem access area will be attempted to be identified. Signage may be used to identify mitigation sites and their protected status.

1.1.3 Noxious and nuisance weeds

Management strategies for non-native invasives/noxious weeds will follow a hierarchy of actions depending on severity of the plant outbreak or infestation and based on best available science for WA state and the Puget Sound area of Western WA. In general mechanical/biological control strategies will be preferred; however depending on risk and severity of infection, chemical and more aggressive mechanical control strategies will be used in consultation with a native plant specialist, or according to known expert technologies available at the time of the infestation.

Figure 7 : Adaptive Management Strategies Quil Ceda Village In-Lieu Fee Mitigation Program



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APPENDIX N - Site Protection and Long Term Management

Following the project establishment phase, and release of credits, mitigation projects will enter the long term management phase (see Article IV.K for requirements to enter long term management and monitoring phase). Sites will be managed in accordance with long-term management plans (See **Section 9** below) developed for each site according to the provisions of this section. Sections 3-9 below include management considerations and template language for every LTMM submitted and approved in the QCV ILFP.

QCV ILFP credit pricing will reflect costs associated with long term management of mitigation sites to ensure money is available to implement the long-term management plan. Long-term management will be funded from the QCVILMF Long-Term Management Fund, with a subaccount specific to each Mitigation Site, to ensure sites remain functioning according to the performance standards and functions and values established by the mitigation plan, in perpetuity. In order to provide assurance of protection of mitigation sites in perpetuity, legal site protection mechanisms (i.e. conservation easements or restrictive covenants) will be utilized. All site protection mechanisms must be approved by the Corps, following consultation with the IRT.

1.0 Mitigation Site Protection

All real property established as mitigation sites under the QCV ILFP, now or in the future, shall be:

- (1) tribal trust properties owned by the Sponsor, subject to a conservation easement held by an approved third party or subject to an Integrated Natural Resources Management Plan authorized by the Tulalip Tribes;
- (2) tribal member owned fee simple properties within the Reservation boundaries, subject to a restrictive covenant granted to the Tulalip Tribes Community Development Department;
- (3) non-tribal member owned fee simple properties within the Reservation boundaries, subject to a conservation easement granted to the Tulalip Tribes Community Development Department); or
- (4) non-tribal member owned fee simple properties outside the Reservation boundaries, subject to a conservation easement granted to The Tulalip Tribes Community Development Department.

The site protection mechanism assures that the protected property will be retained in perpetuity in its condition as wetland and /or other aquatic and/or riparian habitat for fish, wildlife, and plants to prevent any use of, or activity on, the property that will impair or interfere with the identified aquatic habitat values. Other uses and activities on the property will be consistent with the stated purpose. The terms of the site protection mechanism shall stipulate that no other uses, easements, rights of way, or any other property interests shall be allowed on the project area, without consent of the Corps, in consultation with the IRT, save Tulalip reserved treaty rights. Tulalip reserved treaty rights to hunt, gather, and engage in cultural practices will be maintained.

It is anticipated The Tulalip Tribes currently holds or will purchase most properties proposed for in-lieu fee mitigation sites, and place them into trust or hold them as fee lands. In some cases, conservation easements may be purchased on privately-owned lands adjacent to existing mitigation or restoration projects for completion of a landscape level restoration or enhancement (such as a continuance of a stream restoration on a ditched portion of a stream). Because of the different status of tribally-owned properties and non-

tribally owned properties, different site protection mechanisms may be required for long term protection of mitigation sites. The Tulalip Tribes will execute Conservation Easements, pursuant to **Exhibit 4**. For Tribally owned properties, The Tulalip Tribes will execute Conservation Easements to an approved third party. For mitigation sites on non-tribally owned fee lands on or off the Reservation, the Sponsor will purchase a conservation easement, to be held by The Tulalip Tribes Community Development Department (TTCD). All site protection mechanisms shall be perpetual in duration, must be approved by the Corps, and must be recorded either with the Bureau of Indian Affairs Title Plant for tribal or tribal member trust lands, or with Snohomish County Auditor's office, for fee simple lands.

In accordance with 33 CFR 332.7(a), real property may be protected by an Integrated Natural Resources Management Plan that is duly approved by the Corps, in consultation with the IRT.

2.0 Long Term Management Roles and Responsibilities

Two Tulalip Tribes agencies will have roles in site protection: Quil Ceda Village as the Program Administrator, and The Tulalip Tribes Community Development Department as the grantee of the conservation easement. TTCD will annually monitor the Mitigation Sites in order to enforce the provisions of the conservation easement.

The Tulalip Tribes will protect sites by taking the following actions for each mitigation site:

1. Recording conservation easements or restrictive covenants on title for each mitigation site which clearly enumerate allowed and prohibited uses. The Northwest Indian Fisheries Commission will be named as grantee within the easement for Tribal trust or tribally-owned fee lands within the Reservation. For conservation easements purchased from a third party landowner by The Tulalip Tribes, the Tulalip Tribes Community Development Department will be the grantee.
2. Completing periodic monitoring and maintenance reports for each site. TTNCRD or a contractor will develop these reports according to Section 4.0 below, and according to an approved schedule for each mitigation site contained within the LTMM plan. Copies of these reports will be distributed to QCV who will provide the reports to the Corps and the IRT.

Quil Ceda Village Wetland Program Administration Roles:

- Quil Ceda Village Wetland Program will serve as the long term steward of the site, contracting for performance of monitoring and maintenance to ensure mitigation sites continue to provide ecological functions according to each project's performance standards. These activities will be funded through an account established expressly and solely for long-term maintenance and monitoring (See Appendix G). This account will be a stand-alone fund with sub-accounts for each mitigation site.

The Tulalip Tribes Natural and Cultural Resources:

- The Project Administrator will subcontract to either TTNCRD or an outside consultant, the monitoring and maintenance of the QCVILFP mitigation sites.

3.0 Long Term Management Plans (LTMM)

In-lieu Fee project criteria will include provision of a long term protection as well as monitoring of mitigation projects funded by the in-lieu fee program. Each in-lieu fee project will have a long term

management and maintenance plan (“LTMM plan”) as part of its mitigation plan. Long term management of project sites will be the responsibility of Quil Ceda Village as the Project Administrator. Long term management will include periodic monitoring of mitigation project sites for a variety of ecosystem variables, to include, where applicable: percent cover by non-native invasives, stream flow, water quality and aquatic habitat conditions, as well as wetland functions and services, and prevention of illegal dumping, and timber or plant theft.

The final LTMM Plan will be submitted for approval by the Corps, in consultation with the IRT, before the mitigation site enters the LTMM Phase. Long Term Management and Monitoring Plans established at the end of the Establishment phase and upon final credit release, will contain, at a minimum, the following components:

- 3.1 Site characterization and landscape setting: species, communities, and ecosystems occurring in the area
 - Identify landscape and ecosystem elements (compositional, structural, or functional) that are essential for conservation and management of cultural and natural resources.
 - Individual resources within the landscape (soils and geology, water, upland vegetation, riparian and wetland areas, fish and wildlife, cultural resources)
- 3.2 Site Management objectives and goals (desired condition)
 - Established site goals (e.g. % Cowardin class Palustrine forested intermittently flooded, HGM class depressional or riverine)
 - Determine objectives (incremental steps) used to meet resource goals
 - Management strategies and site constraints. What are adjacent land uses that may affect achieving goals? (e.g. adjacent pasture or residential areas with potential water quality impacts, or pet nuisance, lights, etc) What site constraints may present long term management needs.
- 3.3 Monitoring plan, with needed frequency and type of monitoring, including elements in Section 4-10, below.
- 3.4 Adaptive management thresholds used to determine whether management strategies are reaching resource goals

4.0 General Management

4.1 Management Goals and Objectives

The goals of long term management of mitigation sites established under this program are long term protection and preservation with a positive ecological trajectory toward mitigation goals (Individual site goals will be established in the individual management plan for each site).

4.2 Management Considerations in an Urbanizing Watershed

In general, mitigation sites that are part of the QCV In-Lieu Fee Program will be parcels either preserved for their pristine natural resource values, or areas restored from drained and cleared wetlands. Within Quil Ceda Village, mitigation parcels will be contiguous to large undeveloped parcels; however, outside of Quil Ceda Village and the Tulalip Reservation boundaries, parcels may be adjacent to low intensity rural development, one to five-acre hobby farms or rural cluster residential developments on one acre parcels. Outside of QCV,

many sites will be at the location of ditched streams or ditched wetlands in former pasture areas, and restored areas may be adjacent to ditched portions upstream or downstream. Considerations for management of mitigation sites include, but are not limited to, non-native and invasive species infestation, encroachment from neighboring parcels, boundary clearing, disturbance from pets and adjacent lights and noise, trespass, runoff from chemically maintained lawns, or high fecal coliform concentrations from livestock/pet waste. Mitigation sites functions will include provision of wildlife corridors and fish and wildlife habitat, flood prevention and water storage, and water quality amelioration within a suburban and rural residential environment. Management will need to include barriers to human and pet encroachment that are not barriers to wildlife, prevent flooding onto neighboring properties and roads from beaver colonization, deal with hazard trees as sites grow into mature forests, and manage non-native invasive and noxious weed invasions from neighboring properties. Adaptive Management will play a key role in maintaining the site in a healthy condition for plants and wildlife, and addressing changing land uses on adjacent parcels.

Below are standard portions of the QCV ILFP LTMM template for every approved mitigation project.

4.3 Allowed uses⁷³

- Tulalip Tribes reserved treaty rights to hunt, gather, and engage in cultural practices at usual and accustomed places.
- Vegetation management as needed to maintain site condition, including pruning, thinning, and invasive/noxious weed management.
- Installation of fencing or planting in accordance with a mitigation plan, or adaptive management plan
- Forestry practices to enhance stand health, when prescribed within a Forest Management Plan approved by the Corps, in consultation with the IRT. In some cases forestry practices may be considered useful in proper long term management of a mitigation site (primarily preservation sites). It may be necessary to thin senescing forest stands, or to otherwise manage brush overgrowth that is competing with trees or presenting a fire hazard or competing with emergent wetland plants. Adaptive management strategies will be utilized to determine a proper course of action.

4.4 Prohibited uses

- Structural developments, filling, logging, with the exception of maintenance activities described in Sections 4.3, 7.0, and 8.0, clearing; including roads, buildings, trails, firewood cutting.

4.5 Fencing and Signage:

The need for fencing and signage will be determined with the establishment of the mitigation plan. To avoid disruption of wildlife corridors, in general, sites will not be fenced, with the exception of a wooden split rail fence where necessary. Vegetative buffers, if adequate, will be used instead. Proximity to residential areas with pets, adjacent pasture areas, and potential for trespass will determine need for fencing.

⁷³ Allowed and prohibited uses will be according to those uses specifically allowed in the Conservation Easement for each QCVILFP Mitigation Site. See **Exhibit 4 and 5**

4.6 Buffers

Buffers as required for mitigation areas are part of the protected parcels and are to be monitored along with the mitigation areas and maintained.

4.7 Trespass

Each site management plan will contain an assessment of trespass and encroachment risk, with a prescription of management actions to prevent trespass. (See Fencing, Section 2.5 above).

5.0 Monitoring

- 5.1 Monitoring Reports will conform to requirements in **Appendix L**, but will be tailored to the long term management phase
- 5.2 Monitoring frequency: Long term site inspection duration and frequency will occur in accordance with the approved LTMM Plan developed for each ILF mitigation site.
- 5.3 Permanent transects will be established upon the first monitoring period during the establishment phase, as a baseline according to the monitoring methods outlined in Appendix K. Both line transects and quadrats will be established and recorded on a site map. If site vegetative cover growth progresses to the point where a new monitoring baseline needs to be established, new transects, photopoints and quadrats will be established unless a determination of other more appropriate methods is made.
- 5.4 Permanent photo points will be established upon the first monitoring period during the establishment phase as a baseline, and will be retaken to record any changes as needed.
- 5.5 Monitoring will be conducted in the mid-summer; unless it is determined that monitoring should be conducted earlier in the growing season to observe wetland boundaries.
- 5.6 Monitoring reports will be maintained at the Quil Ceda Village Administrative offices and also will be provided to the District Engineer and IRT members by December 1st of the year performed.

6.0 Maintenance

- 6.1 A maintenance plan will be established for each mitigation site, based upon site specific conditions and needs and detailed in the LTMM Plan for each site. For example, a site adjacent to a weed source will be subject to more frequent maintenance. A twice-annual maintenance cycle will be established for non-native invasives/noxious weeds, depending on the species of concern. Physical treatment shall be preferable to chemical treatment, with the exception of extreme cases or problems. Adaptive management strategies will favor alternatives to chemical treatment but all options will be considered when necessary.

7.0 Noxious Weed Management

Thresholds for non-native invasives will be established in management plans for individual sites, however in general, any detection of Japanese knotweed or Scots broom will be dealt with aggressively; reed canarygrass exceeding 15% and non-native blackberry exceeding 5% will be cause for adaptive management strategies. The goal of the long term noxious weed management will be to allow forest cover to shade out undesirable plant species, thereby managing plants to avoid competition with trees and shrubs establishing 100% cover. When monitoring indicates invasives and noxious weeds have exceeded prescribed % cover on site, adaptive management strategies will

be triggered. Physical treatment shall be preferable to chemical treatment, with the exception of extreme cases or problems. Adaptive management strategies will favor alternatives to chemical treatment, but all options will be considered when necessary.

- 7.1 For Himalayan blackberry, maintenance will include removal of root crowns where plants emerge.
- 7.2 Reed canarygrass – mowing around young trees and shrubs may need to occur for several years after the release of mitigation credits, until trees and/or shrubs have established sufficient canopy to shade out reed canarygrass. Where infestations continue for more than five years after project installation, adaptive management strategies will be considered.
- 7.3 Other non-native invasives shall be treated according to best available science and practices.

8.0 Adaptive Management

In addition to implementing ongoing proven management actions, adaptive management is an approach whereby decisions and actions are treated like experiments to be tested and adopted if appropriate. Approaches to problems are monitored, feedback on effectiveness is sought and accepted, and new methodologies considered. It is an approach that allows for ecosystem change, unexpected results, learning, and adaptability in management practices. (See **Figure 7, Appendix M**, Adaptive Management Flow Chart). The sub-sections herein will be standard language to be included under the adaptive management strategy template for each LTMM plan.

8.1 Plant mortality

Determination will be attempted to be made regarding any causes of plant mortality. Strategies may include species replacement, identification of plant diseases and proper treatment in consultation with plant experts or the Washington State University extension service. Plant mortality thresholds will be determined on a site by site basis.

8.2 Trespass and/or Poaching

In general mitigation sites will not be fenced to avoid disruption of habitat corridors and connectivity within the watershed. Evaluation of the potential risks and benefits of fencing will be made once trespassing and/or poaching is identified as a problem. The problem access area will be attempted to be identified, and may be fenced temporarily until a thick enough vegetative barrier/hedgerow can be established. Trespassing thresholds will be determined on a case by case basis, but will generally be worthy of action if it is determined that site impacts are being experienced as a result of trespass (clearing, fire rings, or garbage dumping).

8.3 Noxious and nuisance weeds

Management strategies for noxious weeds will follow a hierarchy of actions depending on severity or risk of the plant outbreak or infestation. In general mechanical/biological control strategies will be preferred; however depending on risk and severity of infection, chemical and more aggressive mechanical control strategies will be used in consultation with a native plant specialist, or according to known expert technologies available at the time of the infestation.

9.0 Connectivity

When determining fencing needs, consideration shall be given to wildlife migratory connectivity between mitigation sites and adjoining naturally vegetated areas, or adjoining mitigation areas. Where possible, hedgerows of dense vegetation should be used to screen the mitigation sites, rather than fencing. Adaptive

management processes should consider re-evaluating connectivity issues as site and general area conditions change. Connectivity should be provided in a way that limits risk of wildlife/vehicle collisions, and provides wildlife access to water sources.

10.0 Poaching and Trespass

If determination is made that wildlife poaching is occurring on a QCV ILFP site, an adaptive management process/protocol will be initiated to determine if management actions can prevent further poaching events. Similarly if it is determined that routine trespass is occurring that is creating vegetative trampling, wildlife harassment or fire risk, adaptive management processes will be utilized to determine an appropriate course of action.

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APPENDIX O – SITE AND PROGRAM NON-COMPLIANCE, REMEDIAL ACTIONS AND DEFAULT

This section identifies the ways in which compliance under the terms of the program instrument is to be achieved, and the corrective measures available to The Tulalip Tribes, the IRT and the Corps, if the QCV ILFP is found to be in noncompliance.

Non-compliance may occur at individual sites, or throughout the Service Area, at the Program scale. Corrective measures available to the Corps and the Sponsor should be commensurate with the degree of noncompliance and the scale at which noncompliance occurs. Such measures will ensure that mitigation fees collected from project applicants ultimately result in sufficient compensatory mitigation to offset original impacts.

The QCV ILF program fosters a collaborative process between the Sponsor, the Corps and the IRT when assessing Sponsor mitigation site performance. The approach will first feature adaptive management strategies, as elaborated in **Appendix M**, if a project site fails to meet performance standards in the mitigation plan according to the established credit release schedule. Should the Sponsor fail to undertake contingency actions, or fail to implement adaptive management measures to address site performance issues, the Site or QCV ILFP will be considered to be delinquent and will require further measures to be undertaken by the Corps, in consultation with the IRT and the Sponsor. Outlined below are the categories of noncompliance, the characteristics of each category of noncompliance and the corrective measures that are available for each category of noncompliance.

If the Sponsor develops an accumulation of unaddressed performance issues, or fails to abide by the terms of the program Instrument in ways that fundamentally prevent the overall successful operation of the program, the QCV ILF Program may be found in default.

1.0 Mitigation Site Noncompliance

Site noncompliance may occur if the Sponsor fails to adhere to the terms of an approved Mitigation Plan developed for a mitigation site. For example, a site may be found to be in noncompliance if the program Sponsor fails to implement a project element called for in the Mitigation Plan, or if establishment phase monitoring (see Appendix L) reveals a project is failing to meet performance standards outlined in the mitigation plan. There are several potential phases of site noncompliance, including (1) site performance failure, (2) site delinquency, and (3) site default.

1.1 Site Performance Failure

Site performance failure may occur if, for any reason, a mitigation project fails to achieve one or more performance standards in the Mitigation Plan (see **Appendix K**, Section 5.0) after a project is constructed. If establishment phase site monitoring reveals a site is not meeting performance standards or objectives, the QCV ILFP and the Corps, in consultation with the IRT, will first attempt to address the failure through adaptive management (see **Appendix M**). If adaptive management efforts are successful, no further responses to site performance failure will be necessary.

1.2 Site Delinquency

If required adaptive management measures are not undertaken by the program Sponsor, or if the Sponsor fails to adequately implement adaptive management measures, such that performance failure is not

corrected, the Corps may notify the Program Administrator of site delinquency by written notice sent to the Program Administrator. The notice will identify the areas of site delinquency and request that the Program Sponsor propose corrective measures or a process for determining appropriate corrective measures. The notice shall provide the Program Sponsor with at least 60 days from the date of receipt of the notice to recommend corrective measures to the IRT.

As soon as practicable after receipt of the Sponsor's proposal for corrective measures, the IRT shall provide comments to the Corps on the proposed corrective measures. By way of a second written notice to the Program Administrator, the Corps shall authorize implementation of proposed corrective measures or request revisions, as well as provisions for subsequent review and approval of corrective measures, if necessary.

If corrective measures are implemented successfully, no further responses to site delinquency will be necessary.

1.3 Site Default

The Corps may determine the QCV ILFP to be in site default (1) should a Mitigation Site fail to comply with the Performance Standards or other requirements of an approved Mitigation Plan by the end of the monitoring period (or sooner at the discretion of the District Engineer), or (2) if the Sponsor fails to comply with the terms of a corrective action or written notice of delinquency and/or implement corrective actions specified in the notice. The Sponsor shall be notified of site default by written notice from the Corps. In cases of site default, actions available to the Corps shall include, but are not limited to:

- a. Decreasing the amount of available credits generated by a site(see Basic Agreement, Article V.R);
- b. Directing the Sponsor to utilize financial assurances to correct identified deficiencies (i.e. access contingency funds)(see Basic Agreement Article III. D and E and Appendix H);
- c. Directing the Sponsor to use the in-lieu fee program account funds to secure necessary credits (see Basic Agreement Article III. E); or
- d. Referring the noncompliance with the terms of this Instrument to the Department of Justice

2.0 Service Area/Program Noncompliance⁷⁴

If the Sponsor fails to abide by the terms of the Program Instrument in ways that fundamentally prevent the overall successful operation of the Program, the QCV ILFP may be found to be in Program non-compliance. The Corps shall notify the Sponsor of such non-compliance in writing. The written notice will identify the areas of deficiency and required corrective measures, or request that the Sponsor propose corrective measures or a process for determining appropriate corrective measures. The notice shall provide the Sponsor with at least 60 days from the date of the receipt of notice to recommend corrective measures to the Corps and the IRT. Should the Corps, in consultation with the IRT determine the program to be in noncompliance, there are potentially two phases of such noncompliance: (1) program delinquency and (2) program default.

⁷⁴ Service Area is Quilceda Watershed. Area of allowed impacts will only be within jurisdictional boundary of Quil Ceda Village

The QCV ILF Program may be found to be in program noncompliance if any of the following occur:

- a. Conditions at more than one site deteriorate to an extent where sites are no longer providing ecological functions according to long term projections in the sites' Mitigation Plans, either during the Establishment or Long Term Management phase. Reasons for deterioration at multiple sites may include, but are not limited to the Sponsor's failure to properly manage the sites, or other acts or omissions of the Sponsor with regard to obligations contained in this instrument or approved Mitigation Plans, except for actions force majeure as described in Section P, below.
- b. The Sponsor is improperly accounting for and reporting debits and credits in the service area/program;
- c. The Sponsor is improperly accounting for and reporting fees collected and expenditures in the service area/program; or
- d. The Sponsor has improperly managed fees resulting in insufficient funds to pay for long-term management activities as required by the IRT approved Mitigation Plan and outlined in the Long Term Management Plan for a mitigation site.
- e. Failure to establish and maintain an annual ledger report and individual ledgers for each project in accordance with the provisions in Appendix G, Section 1.0, and Appendix J, Section 1.0, and 33 CFR 332.8(q);
- f. Failure to report approved credit transactions;
- g. Failure to submit monitoring reports in a timely manner;
- h. Failure to properly track and manage funds, maintain credit ledgers, or provide timely reports;
- i. Failure to otherwise comply with the terms of the Program Instrument.

2.1 Service Area/Program Delinquency

Should the Corps and the IRT find the QCV ILFP to be in Service Area/Program Noncompliance, the Corps shall notify The Tulalip Tribes, via the Program Administrator in writing of service area/program delinquency. The notice will identify the reasons for service area delinquency and will request that The Tulalip Tribes propose corrective measures or a process for determining appropriate corrective measures. The notice shall provide The Tulalip Tribes with at least 60 days from the date of the receipt to recommend corrective measures to the Corps and the IRT.

As soon as practicable after receipt of The Tulalip Tribes' proposal for corrective measures for service area/Program delinquency, the IRT shall advise the Corps regarding whether or not to authorize The Tulalip Tribes to implement the proposed corrective measures. By way of a second written notice to the Sponsor, the Corps shall authorize implementation of proposed corrective measures or request revisions; the second notice shall include a timeline for implementation of the necessary corrective measures, as well as provisions for subsequent review and approval of corrective measures, if necessary. If corrective measures are implemented successfully, no further responses to service area delinquency will be necessary.

2.2 Service Area/Program Default

The Corps may determine the QCV ILFP to be in program default if (1) corrective measures undertaken by The Tulalip Tribes after receipt of notification of program/service area delinquency are unsuccessful, or (2)

Quil Ceda In Lieu Fee Program Instrument

if The Tulalip Tribes fails to begin implementation of corrective actions within the timeline specified in the program/service area delinquency notice.

In case of QCV ILFP Service Area/Program default, remedies available to the Corps include:

1. Suspending credit sales;
2. Decreasing available credits;
3. Directing the Sponsor to utilize in-lieu fee program account funds to secure necessary mitigation credits (see Basic Agreement Article III. D)
4. Referring the noncompliance with the terms of this instrument to the Department of Justice
5. Terminating the Program Instrument (see Basic Agreement Article IV.Y)

APPENDIX P – FORCE MAJEURE AND CLOSURE PROVISIONS

1.0 Force Majeure

Any delay or failure of the Sponsor to comply with the terms of this instrument shall not constitute noncompliance if and to the extent that such delay or failure is primarily caused by any force majeure or other conditions beyond the Sponsor's ability to perform its obligations under this instrument. Additional details about force majeure events are included in Article V.W. of the Basic Agreement.

2.0 Closure Provisions

Closure means termination of all QCV ILF operations. If the QCV ILFP is closed, the agreed upon terms reflected by certification of this instrument will be terminated and the QCV ILFP will no longer have the right to sell mitigation credits under the terms of this instrument. In the event of closure, the program must either fulfill remaining mitigation obligations or transfer all remaining mitigation obligations and site management responsibilities to an appropriate third party. This third party must be approved by the Corps, in consultation with the IRT.

Closure provisions are described in Article IV.DD- FF of the Basic Agreement.

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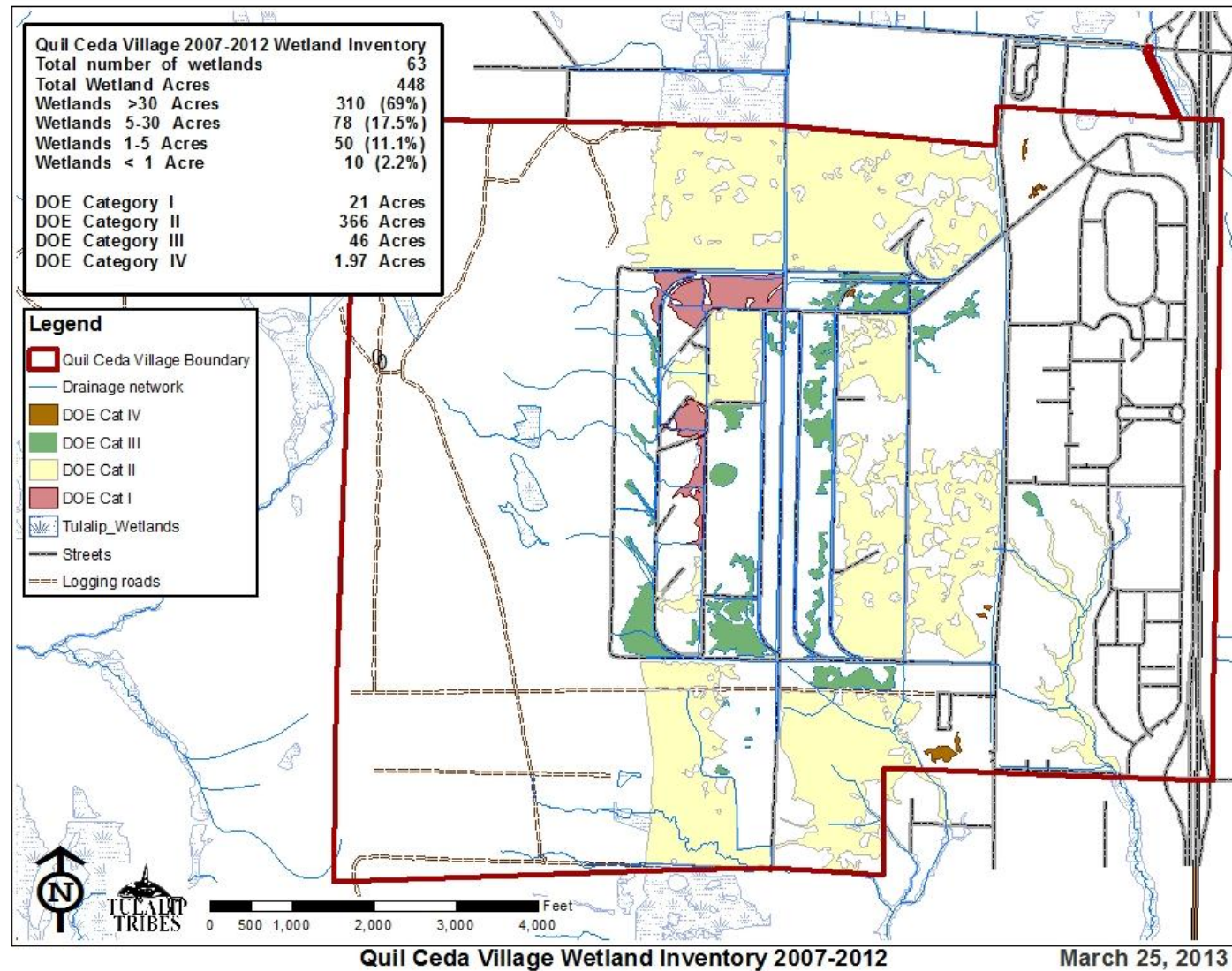
APPENDIX Q - THIRD-PARTY MITIGATION PROPOSAL SUBMITTAL PROCESS - REQUEST FOR PROPOSALS

In the case TNRCDC is unable to submit proposals for projects within the timeframes required by this Instrument, the Sponsor may with Corps approval, issue contracts to approved non-profit natural resource management or other government entities the opportunity to use QCV ILF Mitigation fund dollars to install projects within the service area. The third party entity must have a proven track record of restoration within the watershed, and contract or provide all engineering services required for mitigation proposals. The mitigation proposals will follow the criteria in Appendix B, and must comply with the priorities and needs identified in the Compensation Planning Framework, and will include a mitigation plan in accordance with 33 CFR 332.4(c). Upon project installation and completion of as-builts, the project monitoring may be taken over by QCV Program Management, or may be contracted to the third party entity to continue monitoring for the appropriate time frame until all performance criteria are met. An RFP for project development, construction and monitoring will be developed following establishment of this program and will be provided to the Corps for approval in consultation with the IRT.

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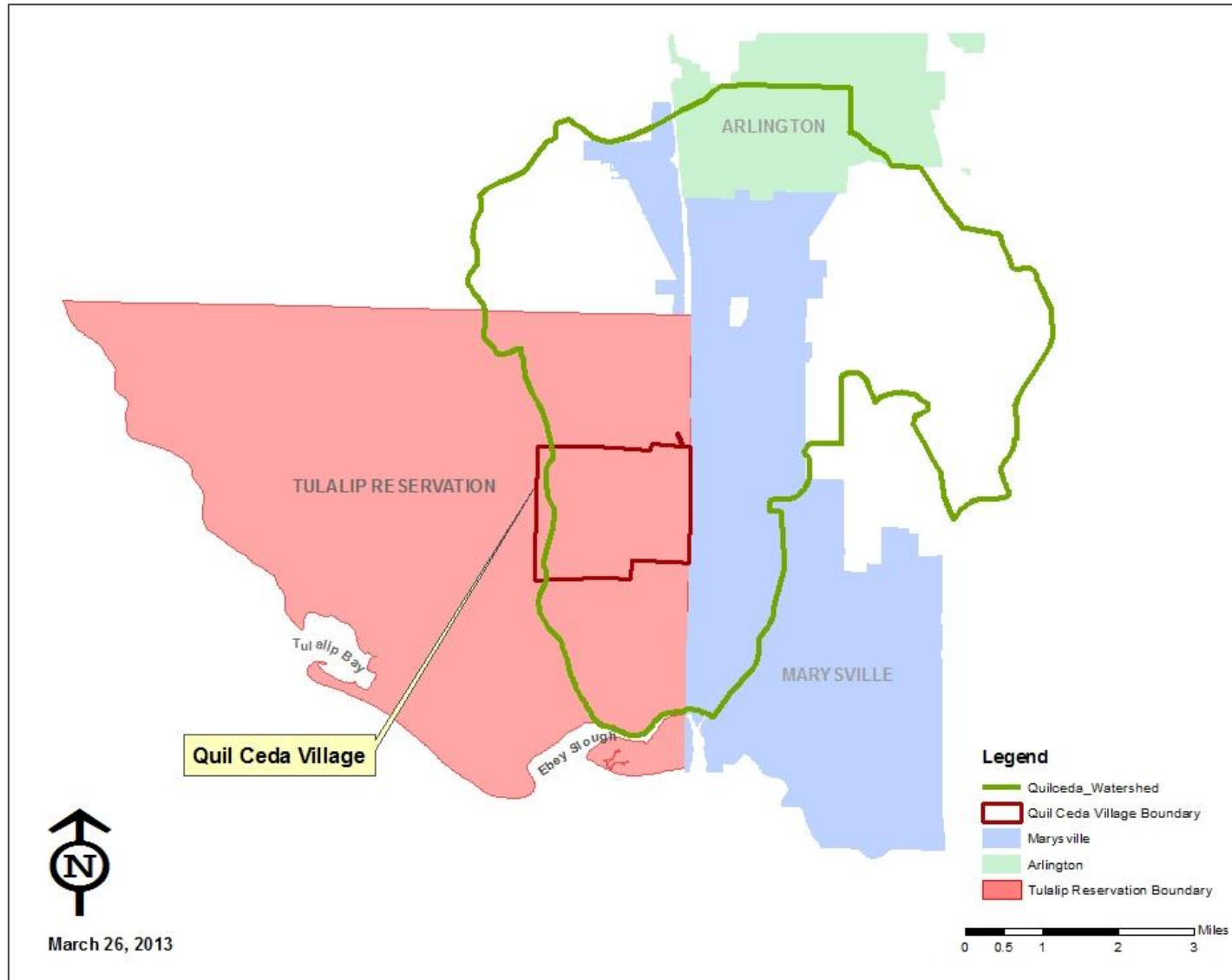
APPENDIX R - MAPS AND FIGURES

Figure 8 : 2007-2012 QUIL CEDA VILLAGE WETLAND INVENTORY MAP



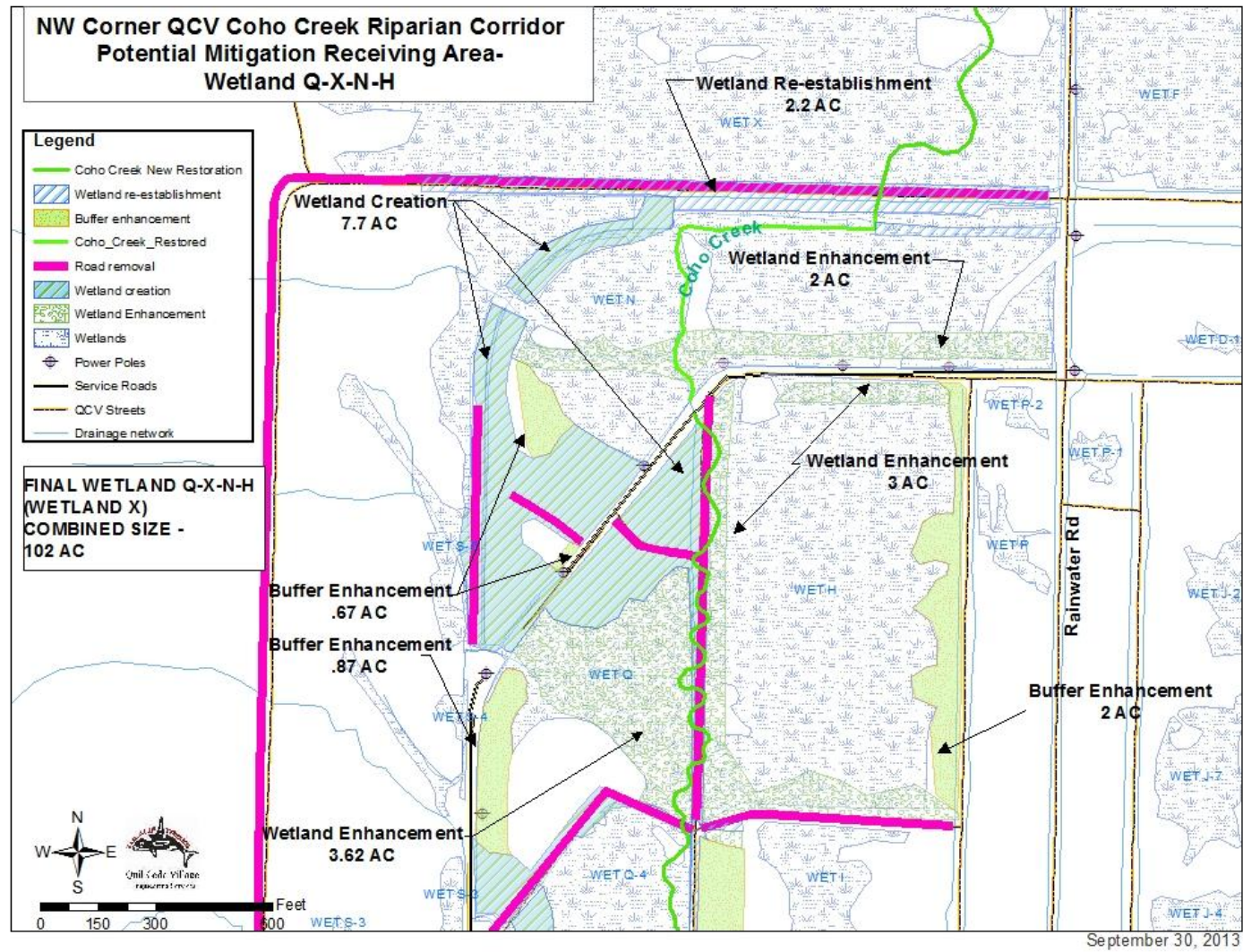
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Figure 9 : QUIL CEDA VILLAGE IN LIEU FEE PROGRAM SERVICE AREA JURISDICTIONS MAP



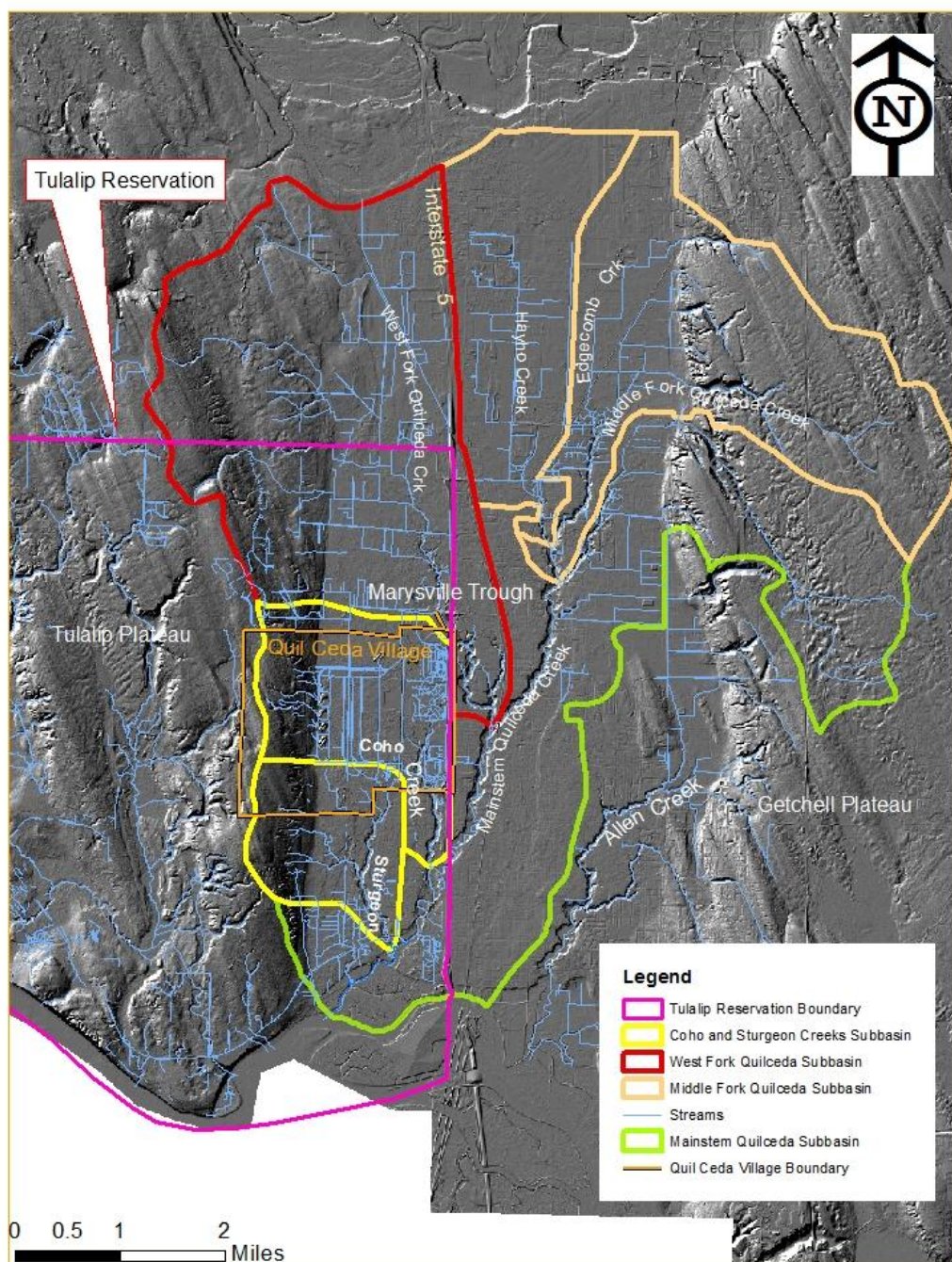
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Figure 10: QCV Potential Mitigation Project Area



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Figure 11 : QUILCEDA WATERSHED TOPOGRAPHY AND HYDROGRAPHY



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APPENDIX S – BACKGROUND MAPS, TABLES AND FIGURES OF THE COMPENSATION PLANNING FRAMEWORK

(See attached - under separate cover)

Figure 12 : 2007Aerial Photograph of the Watershed

Figure 13 : Watersheds and Stream Network of the Quilceda Watershed

Figure 14 : Quil Ceda Village Wetlands and Streams

Figure 15: Monitoring Well Locations within the QCV Boundary

**Figure 16 : Restoration Opportunities in the Coho, Sturgeon and Lower Mainstem
subwatersheds**

Figure 17: Restoration Opportunities in the West Fork Quilceda Subwatersheds

**Figure 18 : Restoration Opportunities in the Edgecomb, Hayho and Middle Fork Quilceda
Subwatersheds**

Figure 19 : Wetland Inventory by Snohomish County – West Fork Quilceda Watershed

**Figure 20 : Wetland Inventory by Snohomish County – Lower Mainstem Quilceda Watershed
(Includes Coho and Sturgeon Creek Subwatersheds)**

**Figure 21: Wetland Inventory by Snohomish County – Edgecomb, Hayho and Olaf Straad
Subwatersheds**

**Figure 22: Wetland Inventory by Snohomish County – Middle Fork Quilceda and mainstem
Quilceda Creek Watersheds**

Wetlands Mapped in the Quilceda/Allen Watershed Management Plan⁷⁵

Figure 23: West Fork Quilceda Subwatershed Basin Wetlands Mapped

**Figure 24: Wetlands Mapped in the Middle Fork and Upper Mainstem Quilceda Subwatershed
Basins**

Figure 25: Wetlands Mapped in the Sturgeon and Coho Creek Subwatershed Basins

Figure 26: Wetlands Mapped in the Edgecomb, Hayho, and Middle Fork Subwatershed Basins

Figure 27: Water Quality Monitoring Stations- City of Marysville

Figure 28: Water Quality Monitoring Stations-West Fork Quilceda Creek- Tulalip Tribes .

Table 15: Summary of Quilceda Creek Water Quality data 2000-2005

⁷⁵ Snohomish County Public Works. Quilceda/Allen Watershed Management Plan Technical Supplement. Snohomish County Public Works, Surface Water Management Division, Everett, WA, 1998.

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APPENDIX T – TRACKING PROGRAM PERFORMANCE

Tracking performance of mitigation projects is a requirement of the federal rule and as such, guidelines for performance standards and project-scale monitoring plans are outlined in detail in Appendices L and M, respectively.

Tracking performance of the Quil Ceda In Lieu Fee Program (in addition to tracking performance of mitigation sites) will also be important to inform adaptive management of the program in order to enable implementation of the best possible mitigation.

There are four criteria related to tracking program performance:

- (5) Are mitigation fees (i.e. credit fees) collected from applicants covering operating costs of the QCV ILFP?
- (6) The program meets regulatory requirements outlined in the federal rule in a timely and efficient manner. (e.g. is implementation of mitigation projects routinely occurring within three years from the time of impact?)
- (7) How is the program affecting permit processing times relative to historical norms?
- (8) is the overall ecological function in a the geographic service area enhanced or degraded considering the balance of allowed impacts and resulting mitigation projects implemented by the QCV ILFP?

The following indicators for tracking Program performance will relate to fiscal self-sustainability, regulatory performance of the program, and success of the program in maintaining or improving ecological conditions (i.e. aquatic resource functions and values) in service areas where impacts have been allowed and mitigation projects have been implemented to compensate for the impacts.

Specific types of data will include, but not be limited to:

- Cost to permit applicants per credit versus cost to the QCV ILFP to fulfill credits;
- Contingency funds in the QCV ILFP account versus contingency funds spent on projects;
- Predicted monitoring costs versus actual costs;
- Timeframe for implementation of mitigation projects (from time of actual impact);
- Number and type of regulatory infractions/corrective actions;
- Volume of Impacts (e.g. debits, acreage, plants, lineal feet, etc.);
- Volume of Mitigation (credits, acreage, plants, lineal feet, etc.);
- Predicted credits (e.g. from Mitigation Plans) versus actual credits determined at monitoring plan milestones;
- Percentage of in-kind mitigation (e.g. same HGM class) versus percentage of out-of-kind mitigation;
- Impacts and mitigation aquatic resource function and services in the geographic service area tracked through the Aquatic Resource No Net Loss Ledger (Table 10);

- Location of mitigation projects (e.g. average distance from impact, percentage of mitigation occurring in same sub-basin as impacts).

The QCV ILFP Manager will track these data through the course of the program and analyze and report results on a biennial basis in a *Quil Ceda Village In Lieu Fee Program Performance Report*, which will be submitted to the Corps and the IRT. This report shall examine the overall effectiveness of the QCV ILFP and if necessary, suggest revisions to improve the program. However, The Tulalip Tribes and the Corps shall retain the right to make IRT-reviewed program revisions or amendments to the instrument at any time, and these changes need not coincide with an annual performance report. This report will also be shared with the TCNRD to enable a more comprehensive review of all mitigation activities.

APPENDIX U – PROGRAM AND SCIENTIFIC GUIDANCE

Program guidance

- Clean Water Act (33 USC 1251 et seq.)
- Council on Environmental Quality Procedures for Implementing the National Environmental Policy Act (40 CFR 1500-1508)
- Executive Order No. 11990 (Protection of Wetlands)
- Executive Order No. 11988 (Floodplains Management)
- Endangered Species Act (16 USC 1531 et seq.)
- Fish and Wildlife Coordination Act (16 USC 661 et seq.)
- Fish and Wildlife Service Mitigation Policy (46 FR 7644-7663, 1981)
- Guidelines for the Specification of Disposal Sites for Dredged and Fill Material (40 CFR 230)
- Magnuson-Stevens Act (16 USC 1801 et seq.)
- Memorandum of Agreement Between the Environmental protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (February 6, 1990)
- National Environmental Policy Act (42 USC 4321 et seq.)
- National Historic Preservation Act (16 USC 470)
- Regulatory Program of the U.S. Army Corps of Engineers (33 CFR 320-332)
- Title 7 Tulalip Tribal Codes, Aug. 2013. The Tulalip Tribes of Washington, Tulalip, WA
- U. S. Army Corps of Engineers Regulatory Guidance Letter No. 02-2

Scientific and Technical Guidance

In general, the scientific, technical, procedural and policy underpinnings of the QCV ILFP are based on best practices for wetland protection, and best available science developed in the Pacific Northwest and nationally where applicable.

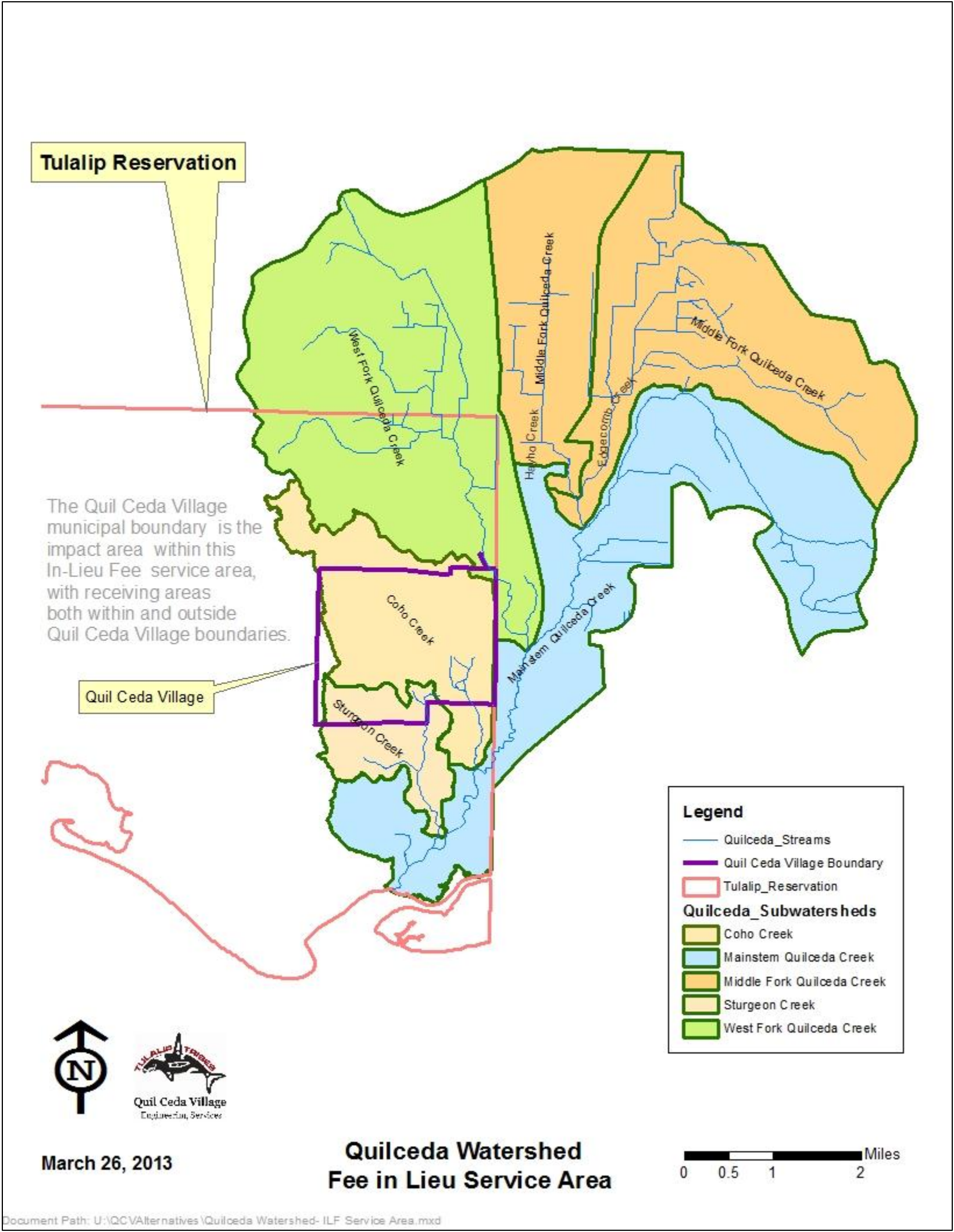
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- TFW Monitoring Program method manual for the habitat unit survey. 1999. A.E. Pleus, D. Schuett-Harnes, and L. Bullchild. Prepared for the Washington State Dept of Natural Resources under the Timber Fish and Wildlife Agreement. TFW-AM9-99-003.DNR #105. June 1999
- Washington Department of Ecology (WSDOE), US Army Corps of Engineers Seattle District and Environmental Protection Agency Region 10. March 2006. Guidance on Wetland Mitigation in Washington State. Part 1. Agency Policies and Guidance. Report Pub. No. 06-06-011A.
- Washington Department of Ecology (WSDOE), US Army Corps of Engineers Seattle District and Environmental Protection Agency Region 10. 2006. Guidance on wetland mitigation in Washington State. Part 2. Guidelines for developing wetland mitigation plans and proposals. Olympia, WA. Report Pub. No. 06-06-011A.
- Washington Department of Ecology (WSDOE), 2005. Washington State Wetland Rating System for Western Washington. Olympia, WA. Report Pub. No. 04-06-025.
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**APPENDIX V – QCV ILFP RECEIVING SITES
APPROVED MITIGATION PLANS**

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EXHIBIT 1 –Quil Ceda Village In-Lieu Fee Program Service Area Map



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EXHIBIT 2 - Spending Agreement Template

Quil Ceda Village In-Lieu Fee Program Mitigation Fee Spending Agreement

AN AGREEMENT REGARDING THE AUTHORIZATION TO SPEND MONEYS FROM THE QUIL CEDA VILLAGE IN-LIEU FEE MITIGATION FUND ACCOUNT PURSUANT TO THE FINAL QUIL CEDA VILLAGE IN-LIEU FEE PROGRAM BASIC AGREEMENT AND PROVISIONS CONTAINED IN 33 CFR PARTS 325 AND 332 AS REVISED EFFECTIVE JUNE 9, 2008 (FEDERAL MITIGATION RULE).

I. PURPOSE

Under this agreement, the District Engineer of the US Army Corps of Engineers, Seattle District (hereinafter the “District Engineer”) authorize The Tulalip Tribes to spend a portion of mitigation fees collected through The Tulalip Tribes’ federally-certified Quil Ceda Village In Lieu Fee Program (hereinafter “QCV ILFP”), an in-lieu fee mitigation program.

This spending agreement shall supplement the spending authority provisions contained in the final program instrument (see Basic Agreement Article III.A and Appendix G).

The District Engineer hereby authorizes expenditures from QCV ILFP Program Account for the mitigation project described below. The mitigation plan has been reviewed and approved by the Corps and the Interagency Review Team (“IRT”). This signed Agreement represents approval by the District Engineer of the use of QCVILMF funds for the mitigation site.

Upon acceptance of these fees, The Tulalip Tribes agrees to implement mitigation and assume all associated obligations and liabilities according to terms of the Final Program Instrument for the Quil Ceda Village In-Lieu Fee Program certified on Date , 2013.

II. MITIGATION PROJECT DETAILS

Name of mitigation site:

Service Area:

Parcel Number(s):

[Insert other details as relevant, including description of IRT review process]

Page 1

III. AUTHORIZATION FOR EXPENDITURE OF FUNDS FROM THE QCV AQUATIC MITIGATION TRUST FUND ACCOUNT

Upon execution of this agreement, The Tulalip Tribes is authorized to spend the following monies from the accounts listed below for the mitigation project described in Article III above:

Land Fee: (\$)

Program Administration Account: (\$)

Contingency Fee Account: (\$)

Long Term Management Fund: (\$)

Mitigation Project Accounts: (\$)

IV. ADDITIONAL PROVISIONS

A. This Spending Agreement shall satisfy the federal rule requirement that, “Disbursements from the program account may only be made upon receipt of written authorization from the District Engineer, after the District Engineer has consulted with the IRT.” [332.8(i)(2)].

B. Nothing in this agreement shall prevent The Tulalip Tribes from spending up to 75% of funds allocated to Administrative Accounts as authorized in the Program Instrument Basic Agreement, Article III.A., and Appendix G, Section 1.1.

C. Expenditure of funds authorized by this Agreement may be amended due to changes in actual costs, by an amended agreement.

D. Spending Authorization Provided: Only upon execution of this Agreement is The Tulalip Tribes authorized to spend moneys allocated to the Accounts within its service area.

E. Limits: The authorization provided under this agreement shall not extend to expenditures to or from any other Tulalip Tribes mitigation accounts.

F. Reporting requirements unaffected: This Agreement shall not affect reporting requirements outlined in the program instrument

G. Duration: If initial expenditures under this Agreement have not been made within 3 years of the latter of the two dates in the signature block below, this Spending Agreement may be voided or revoked. Expenditures under this Agreement are authorized for the duration of the Establishment phase of any site that is the subject of this Agreement.

G.1. Following the Establishment phase, spending by the Sponsor may be authorized by the Corps issuance of a letter approving a subsequent spending plan for the Long Term Monitoring and Maintenance phase.

H. Additional Spending Authority Requests. Whether or not three years have elapsed, the Sponsor may request subsequent releases of funds. Such subsequent releases of funds will require an additional approval by the District Engineer, using this template, and will supplement this Agreement.

I. Revocation: In the event of default as defined in Appendix B, and as outlined in the Basic Agreement, Article V.Q., this Spending Agreement may be revoked.

J. Effect of Agreement: This Agreement does not in any manner affect statutory authorities and responsibilities of the signatory Parties. This Agreement is not intended, nor may it be relied upon, to create any rights in third parties enforceable in litigation with the United States or the State of Washington. This Agreement does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the QCV In-Lieu Fee Program property, with the sole exception of the right on the part of the Corps to require the Sponsor to implement the provisions of this Agreement, including recording conservation easements or similarly restrictive covenants, required as a condition of the issuance of permits for discharges of dredged and fill material into waters of the United States associated with construction and operation and maintenance of a Mitigation Site.

K. Attorneys' Fees: If any action at law or equity, including any action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, each party to the litigation shall bear its own attorneys' fees and costs of litigation.

L. Availability of Funds: Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act, 32 U.S.C. § 1341, and the availability of appropriated funds. Nothing in this Agreement may be construed to require the obligation, appropriation, or expenditure of any money from the United States Treasury, in advance of an appropriation for that purpose.

M. Headings and Captions: Any paragraph heading or caption contained in this Agreement shall be for convenience of reference only and shall not affect the construction or interpretation of any provision of this Agreement.

O. Binding: This Agreement, pursuant to the program instrument, shall be immediately, automatically, and irrevocably binding upon the Sponsor and its heirs, successors, assigns and legal representatives upon execution by the Sponsor and the Corps.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement on the date herein below last written.

UNITED STATES ARMY CORPS OF ENGINEERS:

[Name] Date
Mitigation Manager/Chair of the IRT

10

Bruce A. Estok Date
Colonel, Corps of Engineers Seattle District Engineer

U.S. Army Corps of Engineers, Seattle District
Regulatory Branch
Seattle District, Corps of Engineers
4735 E. Marginal Way South
P.O. Box 3755
Seattle, WA 98124-3755

SPONSOR

[Name] Date

Tribal Chair
The Tulalip Tribes
Quil Ceda Village In-Lieu Fee Program
6406 Marine Drive
Tulalip, WA 98271

EXHIBIT 3 - Statement of Sale Template

Quil Ceda Village In-Lieu Fee Program Statement of Sale

OFFICIAL RECORD OF SALE OF MITIGATION CREDITS PURSUANT TO THE TERMS AND CONDITIONS OF THE QUIL CEDA VILLAGE IN LIEU FEE PROGRAM FINAL PROGRAM INSTRUMENT AND PROVISIONS CONTAINED IN 33 CFR PARTS 325 AND 332 AS REVISED EFFECTIVE JUNE 9, 2008 (FEDERAL MITIGATION RULE).

I. PURPOSE

This Statement of Sale confirms the sale of mitigation credits from the Quil Ceda Village In Lieu Fee Program (hereinafter “Sponsor”) to the Applicant listed in Article III below. This Statement of Sale does not constitute a permit or permission to proceed with any proposed action. The Statement of Sale does not confer any interest in real property upon the Applicant. The Applicant is responsible for obtaining all necessary permits for a proposed action.

II. TRANSFER OF PERMIT MITIGATION RESPONSIBILITY

The Sponsor agrees to accept full legal responsibility for satisfying the mitigation requirements for all Corps, State, and local permits for which mitigation fees from an Applicant have been accepted under the terms of this Statement of Sale. This responsibility includes compliance with 33 CFR 332, 40 CFR 230, Tulalip Land Use Ordinance 80., any applicable state and local jurisdictional laws, and the terms of the Program Instrument. In satisfaction of the compensatory mitigation requirements, the Sponsor shall provide compensatory mitigation of the type and in the amount necessary to meet applicable Federal, State, and local regulation requirements.

III. APPLICANT AND IMPACT PROJECT DETAILS 22

A. Applicant.

[Applicant Name](hereinafter “Applicant”)

[Address and other Contact information]

B. Impact Project. The Sponsor has accepted mitigation fees in the amount of \$_____ for the unavoidable impact to aquatic resources as described below. Upon acceptance of these fees from the Applicant, the Sponsor is agreeing to implement mitigation and assume all associated obligations and liabilities according to terms of the Final Program Instrument for the Quil Ceda Village In Lieu Fee Program certified on [date].

Impact Subwatershed:

Description of impacts: [Provide details of project impact]

Permitting Agency: _____ Permit Number: _____

[Add additional agencies and permits as necessary]

Debits incurred:

Description of debits: [Description of resource type, functional type, rationale, etc.]

IV. CREDITS PURCHASED AND MITIGATION FEES PAID

A. Credits Purchased. In exchange for the payment of mitigation fees, the Applicant receives mitigation credits. These credits have been withdrawn from the [Advance Credit pool or existing credit balance] in the [Service Area Name] service area.

B. Allocation to the QCVILMF Program Account. The mitigation fees will be deposited into the following accounts within the Quil Ceda Village In-Lieu Fee Mitigation Fund Account (see Basic Agreement Article III.B and Appendix G):

Total Mitigation Fees Collected from Applicant: \$ _____

Land Fee Account: \$ _____ (% of total mitigation fee)

Program Admin. Account: \$ _____ (10% of total mitigation fee)

Long Term Management Fund: \$ _____ (5% of total mitigation fee)

Mitigation Project Accounts: \$ _____ (% of total mitigation fee)

Contingency Fee Account: \$ _____ (15% of project dollars)

V. PROOF OF PURCHASE

This Statement of Sale shall serve as official proof that the Applicant has purchased mitigation credits from the Sponsor.

A. Signed Statement of Sale provided to Applicant. The Sponsor will provide a signed copy of this form to the Applicant within 15 days after receipt of funds from the Applicant. The Applicant is responsible for submitting copies of the signed Statement of Sale to appropriate regulatory agencies as proof of purchase of QCV ILF mitigation credits.

B. Signed Statement of Sale provided to the Corps and Ecology. The Sponsor will provide a signed copy of this form to the Corps within 15 days after receipt of funds from the Applicant.

C. Copies available to IRT members. Copies of this Statement of Sale will be made available to any member of the IRT upon the IRT member's request.

VI. ADDITIONAL PROVISIONS

A. Allocation of Funds. The Sponsor will deposit the monies listed above into the program account in the amounts listed in Article IV.B of this Statement of Sale. Record of these funds will also be added to the Program Account Ledger.

B. Reporting requirements unaffected. This Agreement shall not affect reporting requirements outlined in the Program Instrument.

C. Effect of Agreement. This Agreement does not in any manner affect statutory authorities and responsibilities of the Sponsor. This Statement of Sale is not intended, nor may it be relied upon, to create any rights in third parties enforceable in litigation with the United States, The Tulalip Tribes, or the State of Washington. This Statement of Sale does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the Quil Ceda Village In Lieu Fee Program properties or properties held in trust by the Federal Government for The Tulalip Tribes, with the sole exception of the right on the part of the Corps to require the Sponsor to implement the provisions of Program Instrument, including recording conservation easements or similarly restrictive covenants, required as a condition of the issuance of permits for discharges of dredged and fill material into waters of the United States associated with construction and operation and maintenance of a Mitigation Site.

D. Attorneys' Fees. If any action at law or equity, including any action for declaratory relief, is brought to enforce or interpret the provisions of this Statement of Sale, each party to the litigation shall bear its own attorneys' fees and costs of litigation.

E. Headings and Captions. Any paragraph heading or caption contained in this Statement of Sale shall be for convenience of reference only and shall not affect the construction or interpretation of any provision of this Statement of Sale.

IN WITNESS WHEREOF, the Sponsor confirms the information contained in this Statement of Sale to be true as written.

SPONSOR

[Name] Date

Tribal Chair
The Tulalip Tribes
Quil Ceda Village In-Lieu Fee Program
6406 Marine Drive
Tulalip, WA 98271

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**EXHIBIT 4 - TULALIP TRIBES GRANT OF CONSERVATION EASEMENT
TEMPLATE**

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**GRANT DEED OF CONSERVATION EASEMENT FOR
THE TULALIP TRIBES
QUIL CEDA VILLAGE IN-LIEU-FEE WETLAND MITIGATION PROGRAM**

**Recorded in the Bureau of Indian Affairs Division of Land Titles and Records and
Snohomish County**

Northwest Regional Office
Bureau of Indian Affairs
911 Northeast 11th Ave.
Portland, OR 97232-4169

PARTIES:

Grantor: The Tulalip Tribes of Washington

Grantee: Northwest Indian Fisheries Commission

LEGAL DESCRIPTION OF TRUST PROPERTY: Exhibit A

Conservation Easement:

This Grant Deed of Conservation Easement (Easement) for Tulalip Tribes Trust Properties is made by The Tulalip Tribes of Washington, a federally recognized Indian Tribe, whose administrative offices are located at 6406 Marine Drive, Tulalip, WA 98271. (“Grantor”). Grantor makes this Easement in favor of the Northwest Indian Fisheries Commission, a support service organization created in 1974 to assist the 20 treaty Indian tribes in western Washington in their roles as co-managers of natural resources and having the address of 6730 Martin Way E., Olympia, WA 98516 (“Grantee”)(Collectively “Parties”).

1. RECITALS

- 1.1** Grantor is the sole beneficiary of certain real property held in trust by the United States for the exclusive use of the Tulalip Tribes of Washington located within the Tulalip Reservation consisting of _____(describe the nature of the property to be protected/wetland/riparian/etc. number of acres)(“Protected Property”). The Protected Property is described more fully in Exhibit A, and shown on the map in Exhibit B, attached here and incorporated by reference to this Grant of Conservation Easement.
- 1.2** Grantee is a quasi-governmental support service organization, created in 1974 by and for the 20 treaty Indian tribes in western Washington, to assist those member tribes in their role as natural resources co-managers. Grantee, as a not-for-profit legal entity that has among its principal purposes the conduct or facilitation of scientific research regarding

natural resources, and the conservation of natural resources for the benefit of the general public, all within the geographic region encompassing this Conservation Easement, qualifies as a suitable grantee for The Quil Ceda Village In-Lieu Fee Wetlands Mitigation Program conservation easement.

- 1.3** The Protected Property includes wetlands, both aquatic and associated uplands habitat, aquatic habitat functions and services including hydrologic connectivity, natural native vegetation, wildlife habitat, and open spaces. (“Conservation Values”) Wetlands and/or other natural resource habitat on the Protected Property that are restored, enhanced, or otherwise created after the effective date of this Easement shall also be considered Conservation Values.
- 1.4** The Conservation Values are a result of the Protected Property’s inherent ecological potential coupled with anticipated enhancement of wetlands and other habitats on the Protected Property by The Tulalip Tribes. The aforementioned enhancements are intended to qualify the Protected Property for inclusion in the QCV ILF mitigation program for the issuance of credits therefrom. Additional restoration and enhancement of the Protected Property may occur as identified and described in the QCV ILF mitigation program and may be amended as needed and approved by the U.S. Army Corps of Engineers and certain public agencies as appropriate.
- 1.5** This Easement is a condition of the operation of the QCV ILF Program. Grantor and Grantee intend that the Conservation Values be preserved and maintained in perpetuity by permitting only those land uses on the Protected Property that do not impair or interfere with the Conservation Values, which include enhancement and cultural and religious uses as further provided in Section 5 of this Conservation Easement. Grantee acknowledges that Grantor may increase the real property that is subject to this Easement in furtherance of the In Lieu Fee Program. Grantor and Grantee may amend this Easement to accomplish the foregoing as provided in Section 12.
- 1.6** Grantor is a federally-recognized Indian tribe located in Washington State. The State of Washington does not have jurisdiction over the QCV ILF properties located on the Tulalip Indian Reservation or over the Grantor’s land use activities on such properties.
- 1.7** Grantee agrees, by accepting this Easement, to preserve and protect in perpetuity the Conservation Values and enforce the provisions hereof, unless this Easement is terminated as expressly provided herein at Section 11.
- 1.8** The Parties acknowledge that this Easement does not provide standards or criteria regarding the effectiveness of the Grantor’s restoration or enhancement of the Protected

Property and this Easement is not intended to provide a basis for ensuring the effectiveness of such restoration and enhancement or to obligate Grantee to ensure such effectiveness. The Parties further acknowledge that such standards and criteria and ability to ensure the effectiveness thereof are provided for in the QCV ILF Instrument and related documents and provided to Grantee.

2. CONVEYANCE

- 2.1** In consideration of the mutual covenants, terms, conditions, and restrictions contained in this Easement, Grantor hereby voluntarily grants to Grantee a conservation easement in perpetuity over the Protected Property, consisting of certain rights in the Protected Property, as set forth in this Easement, subject only to the restrictions contained in this Easement.
- 2.2** This grant shall be subject to easements, restrictions, interest and water rights of record as of the effective date of this Easement, including, but not limited to, those set forth in Exhibit A, which is attached and incorporated into this Easement by reference.
- 2.3** This Grant of Easement constitutes a conveyance of an interest in real property. Grantor expressly intends that this Easement run with the land and this Easement shall be binding upon Grantor's successors and assigns unless otherwise extinguished pursuant to Section 11.
- 2.4** This Easement does not transfer any water or water rights. This Easement also does not transfer, or create any entitlement in, any credits from, or rights in the QCV ILF Program.
- 2.5** Notwithstanding any other provision of this Easement to the contrary, this Easement shall not be interpreted to preclude Grantor from using the acreage of the Protected Property for the purpose of calculating permissible lot yield or development density of any other property. Grantor may participate in County sponsored transfer of development rights programs for any off-Reservation properties so long as high density or clustered development is not enabled on any land adjacent to the Protected Property.

3. PURPOSE

The purpose of this Easement is to assure that the Protected Property will be retained in perpetuity predominantly in its condition as wetland or other aquatic and riparian habitat for fish,

wildlife, and plants and provide the wetland, aquatic and riparian functions and values described in the Baseline Documentation, and to prevent any use of, or activity on, the Protected Property that will impair or interfere with the stated Conservation Values (the “Purpose”). Grantor intends that this Easement will confine the use of, or activity on, the Protected Property to such uses and activities that are consistent with this Purpose. The Easement shall not be construed as affording to the general public physical access to any portion of the Protected Property.

4. RIGHTS CONVEYED TO GRANTEE

To accomplish the Purpose of this Easement, the following rights are conveyed to Grantee by this Easement:

- 4.1 **Scope:** To preserve and protect in perpetuity, unless sooner terminated as expressly provided under this Easement and to enhance by mutual agreement, The Conservation Values.
- 4.2 **Access:**
 - 4.2.1 To enter the Protected Property at a minimum annually, at a mutually agreed time and upon prior written notice to Grantor, for the purpose of making a general inspection to monitor compliance with this Easement.
 - 4.2.2 To enter the Protected Property at such other times as are necessary if Grantee reasonably believes that a violation of the Easement is occurring or has occurred, for the purpose of mitigating or terminating the violation and otherwise enforcing the provisions of this Easement. Such entry shall be upon prior reasonable notice to Grantor, and Grantee shall not in any case unreasonably interfere with Grantor’s use of the Protected Property.
 - 4.2.3 To enter the Protected Property, at mutually agreeable times and upon prior written notice to Grantor, to exercise any other affirmative rights as expressly provided in this Easement.
- 4.3 **Notice to Remedy and Restore Protected Property.** To enjoin any use of, or activity on, the Protected Property that is inconsistent with the Purpose of this Easement, including trespass by members of the public, and to require the restoration of the Protected Property, including seeking injunctive relief, of such areas or features of the Protected Property as may be damaged by uses or activities inconsistent with the provisions of this Easement. Grantee shall provide written notice to the QCV ILF Program Administrator identifying any use that is inconsistent with this Easement and make demand for Grantor to remedy the problem(s). Grantee shall provide a copy of this Notice to the Quil Ceda Village In-Lieu Fee Inter-agency Review Team. Grantor shall have forty-five (45) days to remedy the problem(s) to the satisfaction of the Grantee. If, after forty-five (45) days, the situation is not remedied to the satisfaction of the Grantee, then Grantee shall bring an action in the Tulalip Tribes Tribal Court to compel specific

performance of this agreement. The Tulalip Tribes has provided a limited waiver of tribal sovereign immunity to permit specific performance of this agreement in the form of Tulalip Tribes Board of Directors Resolution No. 2013-490 at Exhibit C.

4.4 Enforcement. To enforce the terms of this Easement by filing an action in the Tulalip Tribal Court if Notice pursuant to Section 4.3 does not result in compliance by Grantor.

4.5 Maintenance of Protected Property. To report non-native, invasive and/or noxious weeds (“Weeds”) at the Protected Property, and direct Grantor to remedy non-native noxious weeds and invasive weeds at Grantor’s sole expense.

4.6 Baseline Documentation.

4.6.1 Within sixty (60) days after the effective date of this Easement, or within sixty (60) days after the recording of any amendment pursuant to Section 12 unless precluded due to site conditions (e.g. growing season, flooding) in which case as soon as practicable as determined by the Grantor and the Grantee, Grantee shall verify the accuracy of the Conservation Values in an inventory of relevant features of the Protected Property, which Grantee shall maintain on file at its offices and which shall be incorporated into this Easement by reference (“Baseline Documentation”). The Baseline Documentation shall consist of reports, maps, photographs, and other documentation that provides an accurate representation of the Protected Property. The Baseline Documentation is intended to serve as an objective, although nonexclusive, information baseline for monitoring compliance with the terms and conditions of this Easement.

4.6.2 Grantee may, as necessary, confirm updates provided by Grantor to the Baseline Documentation to reflect any additional restoration and enhancement work undertaken at the Protected Property under the QCV ILF Program to enhance Conservation Values, and to document the actions intended to result in enhanced Conservation Values for purposes of monitoring compliance with the terms and conditions of this Easement.

5. GRANTOR’S RESERVED RIGHTS AND OBLIGATIONS

5.1 General. Grantor reserves for itself and its successors and assigns all rights as sole beneficiaries of the Protected Property including, but not limited to, the right to sell, lease, and devise the Protected Property (subject to applicable laws pertaining to trust property) and the right to engage in, or permit or invite other to engage in, any use of, or activity on, the Protected Property that is not inconsistent with the Purpose of this Easement and that is not prohibited by this Easement. Without limiting the generality of this Section 5.1, Grantor specifically reserves for itself and its successors and assigns the following uses and activities:

5.2 Treaty, Cultural, and Religious Use. The right to permit ceremonial, subsistence, commercial activities, and other non-intrusive uses or activities common and/or inherent

to the Tulalip Tribes cultural way of life consistent with this Easement, including the maintenance of access necessary to exercise these rights, provided that the exercise of these reserved rights does not cause more than *de minimis* adverse impact on the Conservation Values.

- 5.3 Protection of Historical and/or Archaeological Sites.** The right to protect historical and/or archaeological sites, including without limitation, the right to survey the site, excavate the site, and remove artifacts and other items of historical and archaeological interest, subject to obtaining any required Corps and/or other applicable permits provided that the exercise of these reserved rights does not cause more than *de minimis* adverse impact on the Conservation Values.
- 5.4 Ceremonial, Subsistence, and Commercial Traditional Activities.** Treaty reserved fishing, hunting, and gathering for ceremonial, subsistence and commercial purposes by Tulalip tribal members may take place on the Protected Property so long as these activities are conducted in a manner that will not destroy trees or other attributes of the Protected Property and does not cause more than *de minimis* adverse impact on the Conservation Values. Engagement in treaty reserved activities includes the right to erect temporary structures associated with these activities for ceremonial, subsistence, and commercial purposes so long as the structures and any associated wastes are removed within one month following the end of the permitted activity.
- 5.5 Plant Material for Religious, Spiritual and Cultural Use.** Gathering of plant material, roots, or herbs by enrolled Tulalip Tribal members for religious, spiritual, and cultural purposes, and not for the commercial resale thereof so long as no action is taken that will destroy trees or impair the function and value of the Protected Property. The cutting and removal of individual trees for cultural uses, which include, but are not limited to, totem poles or canoes, if suitable trees do not exist on nearby lands that are not restricted by this Easement or on lands readily accessible to the Tulalip Tribes. These actions are permitted provided that the exercise of these reserved rights does not cause more than *de minimis* adverse impact on the Conservation Values.
- 5.6 River Maintenance:** Taking various actions necessary to maintain rivers and tributaries may be necessary. These actions are permitted provided that the exercise of these reserved rights does not cause more than *de minimis* adverse impact on the Conservation Values.
- 5.7 Fences.** The construction and maintenance of fences within or around the Protected Property as needed provided that the design and location shall not adversely impact the Conservation Values.
- 5.8 Signs.** The installation and maintenance of signs provided that such installation does not cause an adverse impact on the Conservation Values.
- 5.9 Habitat Stewardship, Restoration and Enhancement.** Constructing, installing, planting, maintaining, and engaging in other activities to maintain or further restore or enhance the Conservation Values in accordance with the ILF Instrument and any final

construction or management plans and bid specifications subsequently developed in conformance with the Instrument, which may include, but are not limited to : planting and irrigating plants; removing and controlling weeds; installing and maintaining ditches, berms, dikes, wells, log weirs, and water control and production structures; diking wetland areas, altering or manipulating ponds and water courses; and creating new wetlands, water impoundments, or water courses. Motorized and mechanized vehicles may be used in furtherance of, and to facilitate, the foregoing activities, provided that any off-road use thereof does not cause more than minor adverse impact to Conservation Values. If Grantor has conveyed or assigned its rights to engage in the activities described in this Section 5.9 to Grantee or third parties, Grantor will not interfere with such restoration and/or enhancement by the exercise of any rights reserved to Grantor under this Easement.

5.10 Educational and Scientific Activities. Educational and scientific activities that do not conflict with the use limitations or other provisions of the Conservation Easement, do not interfere with the delineated purposes and goals of the QCV ILF Program, and do not adversely affect the ecological viability and functionality of the Program may take place on the ILF site. These activities may include but are not limited to: guided site tours, water quality or quantity measurements, and topographic or hydrographic surveys.

5.11 Protection of Health or Safety. The undertaking of activities necessary to protect health or safety, or that are required by and subject to compulsion of any governmental agency with authority to require such activity; provided that any such activity shall be conducted so that significant adverse impacts on the Conservation Values are avoided or, if avoidance is not possible, minimized to the greatest extent possible.

5.12 Grantor's Obligations.

5.12.1 Noxious Weed Control. Grantor shall control noxious weeds within the Protected Property. Grantor shall voluntarily comply with provisions of the Washington State law for the purpose of identifying and controlling noxious weeds within the Protected Property. Enforcement by grantee shall be consistent with the terms of this Agreement. The state and local noxious weed control boards shall not have authority to regulate or enforce Grantor's voluntary compliance under state law.

5.12.2 Structures, Facilities, and Improvements. Grantor shall maintain all structures, facilities and improvements associated with the foregoing activities, including roads, trails, and fences that are within the Protected Property and are incidental to the functionality of the mitigation site, but that are necessary to the QCV ILF Program management and maintenance activities, for as long as necessary to serve the needs of long-term management and maintenance, as described in the ILF Instrument and related documents.

5.12.3 Access and Non-Interference. Grantor shall provide access for the purpose of implementing the long-term management and maintenance plan of the QCV ILF Program as set forth in the QCV ILF Instrument. Grantor shall refrain from

impeding or otherwise interfering with implementation of the Instrument. Activities in furtherance of the Instrument are to be carried out by the QCV ILF Program Administrator, or its assignees. Such activities may include, but are not limited to, maintenance and repair of water control structures; maintenance, repair, or removal, or abandonment of structural elements of the QCV ILF Program; and removal of invasive plant species.

6. USES AND ACTIVITIES INCONSISTENT WITH THE PURPOSE OF THE EASEMENT

- 6.1 General.** Any use of, or activity on the Protected Property inconsistent with the Purpose of this Easement is prohibited, and Grantor acknowledges and agrees that it will not conduct, engage in, or permit any such use of activity. Although not an exhaustive list of inconsistent uses or activities, the following activities are inconsistent with the Purpose of this Easement and shall be prohibited:
- 6.2 Subdivision.** The Protected Property shall not be subject to legal or “de facto” subdivision, short subdivision, platting, binding site plan, testamentary division, or any other process by which the Protected Property is divided into lots. This prohibition shall not be interpreted to preclude any lot line adjustment that does not create a number of lots that is greater than the number of lots in existence on the effective date of this Easement.
- 6.3 Construction.** The placement, installation, or construction of any buildings, structures, or other improvements of any kind, including but not limited to roads, utilities, septic systems, wells, recreational facilities, and parking lots except as expressly provided in Section 5.
- 6.4 Alteration of Land.** The alteration of the surface of the land, including without limitation, the excavation or removal of soil, sand, gravel, rock, peat, or sod except in conjunction with a use or activity expressly allowed in Section 5.
- 6.5 Removal of Trees and Other Vegetation.** The pruning, topping, cutting down, uprooting, girdling, or other destruction or removal of live and dead trees and other vegetation, except as expressly provided in Section 5 or in conjunction with a use or activity expressly allowed in this Easement.
- 6.6 Erosion or Water Pollution.** Any use or activity that causes, or is likely to cause, significant soil degradation or erosion or significant pollution of any surface or ground waters is prohibited. The uses and activities expressly allowed under Section 5 shall not violate this prohibition.
- 6.7 Waste Disposal.** The disposal, storage, or Release of Hazardous Substances, rubbish, debris, unregistered vehicles, abandoned equipment, parts thereof, or other offensive waste or material. The term “Release” shall mean release, generation, treatment, disposal, storage, dumping, burying, or abandonment. The term “Hazardous Substances” shall mean any substances, materials, or wastes that are hazardous, toxic, dangerous, or

harmful or are designated as or contain components that are, or are designated as, hazardous, toxic, dangerous, or harmful and/or that are subject to regulation as hazardous, toxic, dangerous or harmful or as a pollutant by any applicable federal, state, or local laws, regulation statute, or ordinance including but not limited to, petroleum or any petroleum product.

6.8 Mining. The exploration for, or development and extraction of, oil, gas, coal, limestone, fossils, metals, geothermal resources, sand, gravel, or rock of any type on or below the surface of the Protected property, except as expressly provided in Section 5.

6.9 Recreational Activities. The undertaking of recreational activities and the installation or construction of improvements in furtherance of the same.

6.10 Access. No right of access by the general public to any portion of the Protected Property is conveyed by this Easement without specific written authority from the Tulalip Tribes describing places, trails, and other conditions upon which entry may be granted. Upon seven (7) days advance written notice to The Tulalip Tribes, a member of the general public may request permission to enter the Protected Property. For inspection and monitoring required for compliance with federal law and this Easement, nothing contained in this Easement shall be construed to diminish the United States' right of entry.

7. NOTICE AND APPROVAL

7.1 Notice.

7.1.1 Grantor. Certain provisions of this Easement require Grantor to notify Grantee and/or to receive Grantee's written approval prior to undertaking certain permitted uses and activities. The purpose of requiring Grantor to notify Grantee prior to undertaking these permitted uses and activities is to afford Grantee an adequate opportunity to ensure that the use or activity in question is designed and carried out in a manner consistent with the Purpose of this Easement. Whenever such notice is required, Grantor shall notify Grantee in writing not less than thirty (30) days prior to the date Grantor intends to undertake the use or activity in question. The notice shall describe the nature, scope, design, location, timetable, and any other material aspect of the proposed use or activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with the terms of this Easement and the Purpose thereof.

7.1.2 Grantee. Certain provisions of this Easement require Grantee to give notice to Grantor prior to undertaking certain activities. Whenever such notice is required, Grantee shall notify Grantor in writing not less than thirty (30) days prior to the date Grantee intends to undertake the use or activity in question, unless otherwise provided for by this Easement.

7.2 Approval. Where approval by one of the Parties is required under this Easement, such approval shall be granted or denied in writing within thirty (30) days of receipt of a

written request for approval, and such approval shall not be unreasonably withheld. Such approval may include reasonable conditions consistent with the ILF Program Instrument that must be satisfied in undertaking the proposed use or activity. When approval is required under this Easement, and when such approval is not granted or denied within the time period and manner set forth in this Section 7.2, the non-approving party may conclusively assume the other party's approval of the use or activity in question.

7.3 Optional Consultation. If Grantor is unsure whether a proposed use or activity is prohibited by this Easement, Grantor may consult Grantee by providing Grantee a written notice describing the nature, scope, design, location, timetable, and any other material aspect of the proposed use or activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with the Purpose of this Easement and to provide comments thereon to Grantor. This Section 7.3 does not itself impose a requirement of prior approval of the activity described in any such notice; however, if Grantee does not provide written objections within thirty (30) days after receipt of Grantor's notice, Grantee shall be deemed to have approved of the proposed use or activity.

7.4 Addresses. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class certified mail, postage prepaid, or by electronic means (if available) with original dispatched by certified mail, addressed as follows, or to such other address as either party shall designate by written notice to the other:

To Grantor: Quil Ceda Village General Manager
8802 27th Ave NE
Tulalip, WA 98271

To Grantee: Executive Director
Northwest Indian Fisheries Commission
6730 Martin Way E.
Olympia, WA 98516

8. COSTS AND LIABILITIES

The Grantor retains all responsibility and shall bear all costs and liabilities of any kind related to the ownership, operation, and maintenance of the Protected Property. The Grantor shall keep the Protected Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by the Grantor. In the event of litigation, the Grantor shall bear all reasonable costs.

9. JUDICIAL RESOLUTION

9.1 Notice of Violation, Corrective Action. If either party determines that the other is in violation of the terms of this Easement or that a violation is threatened, they shall give

- written notice to the other of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Protected property resulting from any use or activity inconsistent with the Purpose of this Easement, to restore the portion of the Protected Property so injured to its prior condition in accordance with a plan approved by the Grantee.
- 9.2 Failure to Respond.** Either party may bring an action as provided in Section 9.3 below if the other party:
- 9.2.1** Fails to cure the violation within forty-five (45) days after receipt of a notice of violation; or
 - 9.2.2** Under circumstances where the violation cannot reasonably be cured within a forty-five (45) day period, fails to begin curing the violation within the forty-five (45) day period and fails to continue diligently to cure such violation until finally cured.
- 9.3 Action.**
- 9.3.1 Injunctive Relief.** Either party may bring an action at law or in equity in the Tulalip Tribal Court, a court having jurisdiction to enforce the terms of this Easement:
- 9.3.1.1** To enjoin the violation, *ex parte* as necessary and as allowed under the applicable civil rules, by temporary or permanent injunction; and
 - 9.3.1.2** To require the restoration of the Protected Property to the condition that existed prior to any such injury.
- 9.4 Emergency Enforcement.** If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values, Grantee may pursue its remedies under this Section 9 without prior notice to Grantor or without waiting for the period provided for cure to expire.
- 9.5 Scope of Relief.** Grantee's rights under this Section 9 apply equally in the event of either actual or threatened violations of the terms of this Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this Section 9, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this Section 9 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.
- 9.6 Costs of Enforcement.** Costs of enforcement shall be handled as provided in Section 8 so long as the action that is presented to the court is reasonable for the circumstances.

9.7 Discretion in Enforcement. Enforcement of the terms of this Easement shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any terms of this Easement by Grantor, its agents, employees, contractors, invitees or licensees shall not be deemed or construed to be a waiver by Grantee of such term of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

9.8 Acts Beyond Party's Control. Neither Grantor nor Grantee shall be in default or violation as to any obligation created hereby and no condition precedent or subsequent shall be deemed to fail to occur if such party is prevented from fulfilling such obligation by, or such condition fails to occur due to:

9.8.1 Actions by trespasser upon the Protected Property;

9.8.2 Forces beyond such party's reasonable control, including without limitation, destruction or impairment of facilities resulting from breakdown not resulting from lack of ordinary care and maintenance, drought, flood, earthquake, slide, tsunami, storm, lightning, fire, epidemic, war, riot, civil disturbance, sabotage, proceeding by court of public authority, or act or failure to act by court, public authority, or third party, which forces by exercise of due diligence and foresight such party could not reasonably have expected to avoid; or

9.8.3 Any action deemed reasonable by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Protected Property resulting from such causes.

In the event the terms of this Easement are violated by acts of trespassers, Grantor agrees to take appropriate actions against the responsible parties.

9.9 Compliance Certificates. Upon request by Grantor, Grantee shall within thirty (30) days execute and deliver to Grantor, or to any party designated by Grantor, any document, including a compliance certificate, that certifies, to the best of Grantee's knowledge, the status of Grantor's compliance with any obligation of Grantor contained in this Easement and otherwise evidences the status of this Easement.

9.10 Non-Interference. The Tulalip Tribes representatives to the Northwest Indian Fisheries Commission shall recuse themselves from any participation, to include voting and advocacy, regarding measures before the Northwest Indian Fisheries Commission (Grantee) pertaining to this Conservation Easement that affect or may affect the financial or other interests of The Tulalip Tribes.

10. COSTS, LIABILITIES, TAXES, ENVIRONMENTAL COMPLIANCE, AND INDEMNIFICATION

- 10.1 Costs, Legal Requirements, Liabilities and Insurance.** Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation upkeep and maintenance of the Protected Property.
- 10.2 Taxes and Other Costs.** Grantor shall pay all applicable taxes, fees and charges assessed against the Protected Property by governmental authority as they become due including taxes imposed upon, or incurred as a result of this Easement and shall furnish Grantee with satisfactory evidence of payment upon request. To preserve its rights under this Easement, Grantee may, but is not obligated to, make payment of any taxes upon five (5) days prior written notice to Grantor, in accordance with any bill, statement, or estimate procured from the appropriate authority, without inquiry into the validity of the taxes or the accuracy of the bill, statement or estimate, and the obligation to Grantee created by such payment will bear interest until paid by Grantor at the same rate imposed by the relevant government authority for the late payment of the tax so paid by Grantee.
- 10.3 Representations and Warranties.** Grantor represents and warrants that to Grantor's knowledge, and except as disclosed to Grantee in writing prior to the effective date of this Easement:
- 10.3.1** There are no apparent or latent defects in or on the Protected Property; and
- 10.3.2** Grantor and the protected property are in compliance with all federal, state, and local laws, regulations and requirements applicable to the Protected Property and its use, including but not limited to, environmental laws, regulations, and requirements.
- 10.4 Control.** Nothing in this Easement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Grantee to exercise physical or managerial control over the day-to-day operations of the Protected Property, or any of Grantor's activities on the Protected Property, or otherwise to become an operator with respect to the Protected Property within the meaning of the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended ("CERCLA"), and the Model Toxics control Act, as amended ("MTCA").
- 10.5 Grantor's Indemnification.** Grantor shall hold harmless, indemnify, and defend Grantee and its members, directors, officers, employees, agents, and contractors (collectively "Grantee Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments, including, without limitation, reasonable attorneys' and consultants' fees, arising from or in any way connected with breach of its representations and warranties or

injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition (including pollution), or other matter related to or occurring on or about the Protected Property that is not a consequence of any action or omission of any of the Grantee Indemnified Parties on or about the Protected Property.

- 10.6 Grantee's Indemnification.** Grantee shall hold harmless, indemnify, and defend Grantor and Grantor's members, directors, officers, employees, agents, and contractors (collectively "Grantor Indemnified Parties" from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments, including, without limitation, reasonable attorneys' and consultants' fees, arising from or in any way connected with injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Protected Property that is a consequence of Grantee's actions or omissions or the actions or omissions of Grantee's members, directors, officers, employees, agents, or contractors on or about the Protected Property. Grantee shall not be liable for any failure to detect pollution.

11. EXTINGUISHMENT, CONDEMNATION, AND SUBSEQUENT TRANSFER

- 11.1 Extinguishment.** If circumstances arise in the future that render the Purpose of this Easement impossible to accomplish, this Easement can only be terminated or extinguished, whether in whole or in part, by the Parties mutual agreement and with the written approval of the ILF Agency, or by judicial proceedings of a court having jurisdiction. Neither party shall unreasonably withhold agreement to modify or terminate this easement. Unless otherwise agreed to by the Parties, Grantee shall have no compensable interest in this Easement under such circumstances. The immediately foregoing provision shall be limited solely to the circumstances described in this Section 11.1, and shall not be interpreted to have any application or inference to any other provision of, or circumstance under, this Easement, including but not limited to those provisions pertaining to Grantee's rights to enforce the terms of this Easement and Grantee's rights to damages to, or the cost of restoring, the Conservation Values.

- 11.2 Rescission.** In the event that The Tulalip Tribes adopts an Integrated Natural Resources Management Plan (INRMP) pursuant to 33 CFR 332.7 (a) for the Protected Property and such Plan is duly approved by the U. S. Army Corps of Engineers, this Easement shall be rescinded and terminated.

- 11.3 Condemnation.** If the Easement is taken, in the whole or in the part, by the exercise of the power of eminent domain, Grantee shall not be entitled to compensation and

- the entirety of any compensation award shall belong to Grantor. The immediately foregoing provision shall be limited solely to the circumstances described in this Section 11.2, and shall not be interpreted to have any application or inference to any other provision of, or circumstance under, this Easement, including but not limited to, those provisions pertaining to Grantee's rights to enforce the terms of this Easement and Grantee's rights to damages to, or the cost of restoring, the Conservation Values.
- 11.4 Subsequent Transfers.** Grantor agrees to:
- 11.4.1** Incorporate the terms of this Easement by reference in any deed or other legal instrument by which it divests itself of any interest in all or a portion of the Protected Property, including, without limitation, a leasehold interest;
 - 11.4.2** Describe this Easement in and append it to any executor contract for the transfer of any interest in the Protected Property; and
 - 11.4.3** Give written notice to Grantee of the transfer of any interest in all or a portion of the Protected Property prior to the date of such transfer. Such notice to Grantee shall include the name, address, and telephone number of the transferee or the transferee's representative. The failure of Grantor to perform any act required by this Section 11.4.3 shall not impair the validity of this Easement or limit its enforceability in any way.
- 11.5 No Merger.** In the event that Grantee acquires the fee title to the Protected property, it is the Parties' intention that no merger of title shall take place that would merge the restrictions of this Easement with fee title to the Protected Property and thereby eliminate them, and that the restrictions on the use of the Protected Property, as embodied in this Easement shall, in the event title becomes vested in Grantee, become and remain permanent and perpetual restrictions on the use of the Protected Property.

12. AMENDMENT

- 12.1 Amendment to Expand Area.** Grantor and Grantee are free to jointly amend this Easement to increase the real property that is subject to this Easement, provided that any such additional real property is contiguous with the property that is already subject to this Easement. Any such amendment shall be recorded in the official records of The Tulalip Tribes and the Bureau of Indian Affairs Division of Land Titles and Records and any other jurisdiction in which such recording is required.
- 12.2 Other Amendments.** If circumstances arise other than as described in Section 12.1 above, under which an amendment to or modification of this Easement would be appropriate, Grantor and Grantee may jointly amend this Easement upon approval of such amendment or modification by the ILF Agency. Any such amendment shall be recorded in the official records of The Tulalip Tribes and The Bureau of Indian

Affairs Division of Land Titles and Records, and any other jurisdiction in which such recording is required.

13. RECORDING

The Tulalip Tribes shall record, at its cost, this Easement within thirty (30) days of the ILF Program Director and the Bureau of Indian Affairs approval on this conservation Easement. Such Easement shall be recorded in the official records of The Tulalip Tribes, the Bureau of Indian Affairs Division of Land Titles and Records, and any other jurisdiction in which such recording is required. Upon recording, a conformed copy of the recorded Easement shall be sent to the QCV ILF Program Agency within thirty (30) days.

14. ASSIGNMENT AND SUCCESSION

14.1 Assignment. With Grantor's written approval, which will not be unreasonably withheld, and the ILF Agency's written approval, this Easement is transferable, but Grantee may assign its rights and obligations under this Easement only to an organization that is authorized to acquire and hold conservation easements under RCW 64.04.130 or RCW 84.34.210 (or any successor provision(s) then applicable). As a condition of such transfer, Grantee shall require that the transferee exercise its rights under the assignment consistent with the Purpose of this Easement. After receiving Grantor's written approval, Grantee shall notify Grantor in writing forty-five (45) days prior to such assignment at Grantor's last known address.

14.2 Succession. If at any time (a) it become impossible for Grantee to ensure compliance with the terms, conditions and/or restrictions contained in this Easement, (b) the Grantor and the ILF Agency, or the ILF Agency alone, determine that this Easement should be assigned due to any reasons of actual non-performance by the Grantee, including, but not limited to circumstances under which actual non-performance occurs because Grantee is the holder of both the fee title to the Protected Property and this Easement, c) Grantee ceases to exist as a not-for-profit legal entity having among its principal purposes the conduct or facilitation of scientific research regarding natural resources, or the conservation of natural resources for the benefit of its member tribes as well as the general public, within the geographic region encompassing this Conservation Easement or (d) Grantee is otherwise released from its liabilities and obligations under the Easement, then, if Grantee has been provided forty-five (45) days prior notice and opportunity to cure any non-performance or otherwise remedy any other circumstance forming the basis of any transfer under this Section 14.2, Grantee's rights and obligations under this Easement shall become vested upon such other entity, with purposes similar to Grantee's, that is authorized to acquire and hold Conservation Easements under RCW 64.04.130 or RCE 84.34.210 (or any successor provision(s) then applicable), selected by the Grantor and approved by the ILF

Agency; provided that if such vesting is deemed to be void under the Rule Against Perpetuities, the rights and obligations under this Easement shall vest in such organization as a court having jurisdiction shall direct, pursuant to applicable law with due regard to the Purpose of this Easement.

15. GENERAL PROVISIONS

- 15.1 Controlling Law.** This Agreement shall be governed and construed in accordance with the laws of The Tulalip Tribes, except where matters exclusively of federal law are concerned (such as the provisions regarding lease of restricted Indian lands), notwithstanding any choice of law provisions. This Agreement shall not be construed for or against any party based on drafting or preparation. Each Party has been represented by legal counsel of its choosing throughout the negotiation of this Agreement. Captions in this Agreement are included for convenience only and in no way define or limit the meaning or intent of any provision herein.
- 15.2 Liberal Construction.** Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the grant to affect the purpose of this Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the Purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.
- 15.3 Severability.** If any provision of this Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.
- 15.4 Entire Agreement.** Except as to any other written agreement between the Parties, all prior discussions, negotiation, understandings, communications, or oral arguments regarding this Easement have been superseded by, and are merged into, this Easement.
- 15.5 No Forfeiture.** Nothing contained in this Easement shall result in forfeiture or reversion of The Tulalip Tribes title in any respect.
- 15.6 Successors.** The terms, conditions, and restrictions of this Easement shall be binding upon The Tulalip Tribes and its personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Protected Property unless extinguished pursuant to Section 11.1 or Section 11.2.
- 15.7 Successors and Assigns.** The terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties to this Easement and the respective successors and assigns, and shall continue as a servitude running in perpetuity with the Protected Property, unless sooner terminated as expressly provided herein. No term or provision of this Easement is intended to be, or shall be,

- for the benefit of any person, firm, organization or corporation not a party to this Easement, and such other person, firm, organization, or corporation shall have no right or cause of action hereunder, except as expressly provided in Section 14.
- 15.8 Termination of Rights and Obligations.** A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Protected property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.
- 15.9 Captions.** The captions in this instrument are solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.
- 15.10 No Precedent.** The parties agree that the terms and conditions set forth in this Easement shall not act as precedent, nor be binding upon either party, in regard to any future dealings between the parties.
- 15.11 Effective Date.** The effective date of this Easement is the date of recording of the Easement.
- 15.12 Signatures and Authority.** Each of the signatories below represents and warrants on behalf of the entity s/he purports to represent that s/he has been duly authorized by resolution to enter into and execute this Agreement and to commit to the performance of the obligations herein. This Agreement with any subsequent amendments or changes to this Agreement and any subsequent implementation agreements shall be approved by The Tulalip Tribes Board of Directors and the Northwest Indian Fisheries Commission.

IN WITNESS WHEREOF The Tulalip Tribes has set its hand on this ____day of _____, 20____.

The Tulalip Tribes

By_____

Chairman, Tulalip Board of Directors

STATE OF WASHINGTON)
) ss:
COUNTY OF SNOHOMISH)

Before me, the undersigned Notary Public, personally appeared _____, to me known to be the Chairman of The Tulalip Tribes Board of Directors, and acknowledged to me that s/he executed the above instrument on behalf of The Tulalip Tribes as his/her free and voluntary act and with knowledge of its contents for the purposes therein expressed.

WITNESS my hand and official seal this _____day of _____, 20____.

Notary Public, State of Washington
My commission expires _____

The Northwest Indian Fisheries Commission does hereby accept the above Grant Deed of Conservation Easement this _____ day of _____, 20____.

Northwest Indian Fisheries Commission

By_____

Michael Grayum, Executive Director

STATE OF WASHINGTON)
) ss:
COUNTY OF THURSTON)

Before me, the undersigned Notary Public, personally appeared _____, to me known to be the Executive Director of the Northwest Indian Fisheries Commission, and acknowledged to me that s/he executed the above instrument on behalf of the Northwest Indian Fisheries Commission as his/her free and voluntary act and with knowledge of its contents for the purposes therein expressed.

WITNESS my hand and official seal this _____ day of _____, 20____.

Notary Public, State of Washington
My commission expires _____

BIA SECTION 81 APPROVAL

I, Judith R. Joseph, Superintendent of the Puget Sound Agency, Bureau of Indian Affairs, being the duly authorized representative of the Secretary of the Interior, approve this grant and conveyance pursuant to the requirements of 25 U.S.C. 81 and 25 C.F.R. Part 84.

Superintendent

Date

This Conservation Easement protects land within the Quil Ceda Village In Lieu Fee Compensatory Wetlands Mitigation Program and is recorded in the Office of Indian Affairs in Volume _____, Page _____, Indian Land Deed Book.

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EXHIBIT 5 - FEE LEDGER

Sample ILF Credit Fee Ledger										
DATE	IMPACT FEE SITE	TUL PERMIT #	ACOE 404 PERMIT #	INCOME/ (CREDIT FEES)	INTEREST INCOME	ADMINISTRA-TIVE ACCOUNT (10%)	LONG TERM MANAGEMENT (5%)	LAND FEE	PROJECT ACCOUNT	CONTIN-GENCY ACCT (15%)
12/12/2012	XYZ		123	\$250,000		\$20,000	\$10,000	\$50,000	170,000	\$25,550
3/13/2013	UVW		789	\$365,000		\$30,000	\$15,000	\$65,000	\$255,000	\$38,250
5/15/2015					\$2,000	\$200	\$100		\$1,700	\$255

PROJECT ACCOUNT FUND SITES (MANAGEMENT CODES)QUARTERLY EXPENDITURES REPORT											
DATE	RECEIVING PROJECT	NO. OF CREDITS	SPENDING AGREEMENT	DESCRIPTION OF EXPENDITURE/Income	DESIGN	CONSTRUCTION	PLANTING	MAINTAIN & MONITOR	LAND COST	CONTIN-GENCY	PROJECT BALANCE
10/10/2012	COH-123	13	\$450,000	Project establishment	\$135,000	\$77,500	\$90,000	\$25,000	\$55,000	\$67,500	\$450,000
10/17/2012	COH-123			Design contract with H2O Consultants	\$129,000						\$321,000
6/12/2014	COH-123			Construction contract		\$80,000	\$79,000				\$162,000
9/10/2013	COH-125	6	\$60,000	Spending Agreement							60,000
10/20/2013	COH-125			LAND PURCHASE- Appraisal					\$5,000		\$55,000
4/15/2014	COH-125			LAND PURCHASE					\$55,000		\$0

ILF Program Administration Fund

DATE	TYPE OF TRANSACTION	PROJECT #	FEE INCOME	EXPENDITURES	ACCOUNT BALANCE
	Site Selection and conceptual design				
	Account Management				
	Legal services				
	Data Management				
	Reporting				
	NCRD Project Administration				

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EXHIBIT 7 CREDIT FULFILLMENT LEDGER

Date Installed	Mitigation Project Number #	MIT ACRES / SQ FT	Mitigation SUB- WATER SHED	Target WET CAT (DOE)	Target WET CAT (TUL) (On-Res)	Target WETLAND CLASS (COWARDIN)**	HGM+	Advance WQ Credit Balance	Advance HYDRO Credit Balance	Advance HABITAT Credit Balance	Credits Released	Credits Fulfilled? (Y/N)

* SUBWATERSHED CODES: COHO, WF QUIL – West Fork Quilceda, STUR – Sturgeon Creek, MF QUIL – Middle Fork Quilceda, QUIL – Mainstem Quilceda
** PFOC – Palustrine Forested Seasonally Flooded; PFOE – Palustrine Forested Seasonally flooded/saturated; PFOF – Palustrine Forested Semi-permanently flooded
+ HGM CLASSES: D – Depressional; S – Slope; R – Riverine; T – Freshwater tidal; L – Lake fringe

EXHIBIT 8 - CRITERIA FOR PROJECT SUBMITTAL & REVIEW

1. SITE SELECTION –

- a) Mitigation Proposal content 33 CFR 332.4 (c)(2), (c)(3), (c)(5).
- b) Based on prioritization strategy in the Compensation planning framework (requirement of 33 CFR 332.8(c)) and 33 CFR 332.3(a)-(d)
- c) In accordance with the above, a prioritization , as well as other criteria, is found in the Compensation Planning Framework (**Appendix D**): Hydrological conditions, watershed-scale features, compatibility with adjacent land uses and watershed management plans, reasonably foreseeable effects of the compensatory mitigation projects are the criteria for site selection
- d) Proposal supports a watershed approach (Chart 1 & 3) (Exhibits 10a & 10b)

2. CONCEPTUAL MITIGATION PLAN

- a) Mitigation Proposal content 33 CFR 332.4 (c)(2) - (c)(6), (c)(11) - (c)(12)
- b) Potential to replace aquatic resource types/ functions and services (HGM, WQ, HAB, HYD) of Debit ledger.
- c) Determination of the potential credit lift (credit/scores),
- d) Delineation of existing wetland resources if any, will be required at this stage
- e) Site map to 20 scale.
- f) Project objectives

3. FINAL

- a. Engineering, hydrologic analysis, if required
- b. Impact analysis
- c. TES and Cultural species assessment
- d. Ecological performance standards- review evaluates
- e. All 12 elements of Mitigation plan (33 CFR 332.4 (c)(2)-(c)(13))
- f. Final Credit scoring and analysis
- g. Long term management plan
- h. Site protection instrument
- i. ESA timelines/ project window
- j. Site map to 1:20 ft scale

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EXHIBIT 9- AQUATIC AREAS LEDGERS

AQUATIC AREAS DEBITS LEDGER

[illegible]

* SUBWATERSHED CODES: COHO, WF QUIL – West Fork Quilceda, STUR – Sturgeon Creek, MF QUIL – Middle Fork Quilceda, QUIL – Mainstem Quilceda

** P - Pool; Riff – Riffle; G- Glide

+ HGM CLASSES: D – Depressional; S – Slope; R – Riverine; T – Freshwater tidal; L – Lake fringe

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AQUATIC AREAS CREDIT LEDGER

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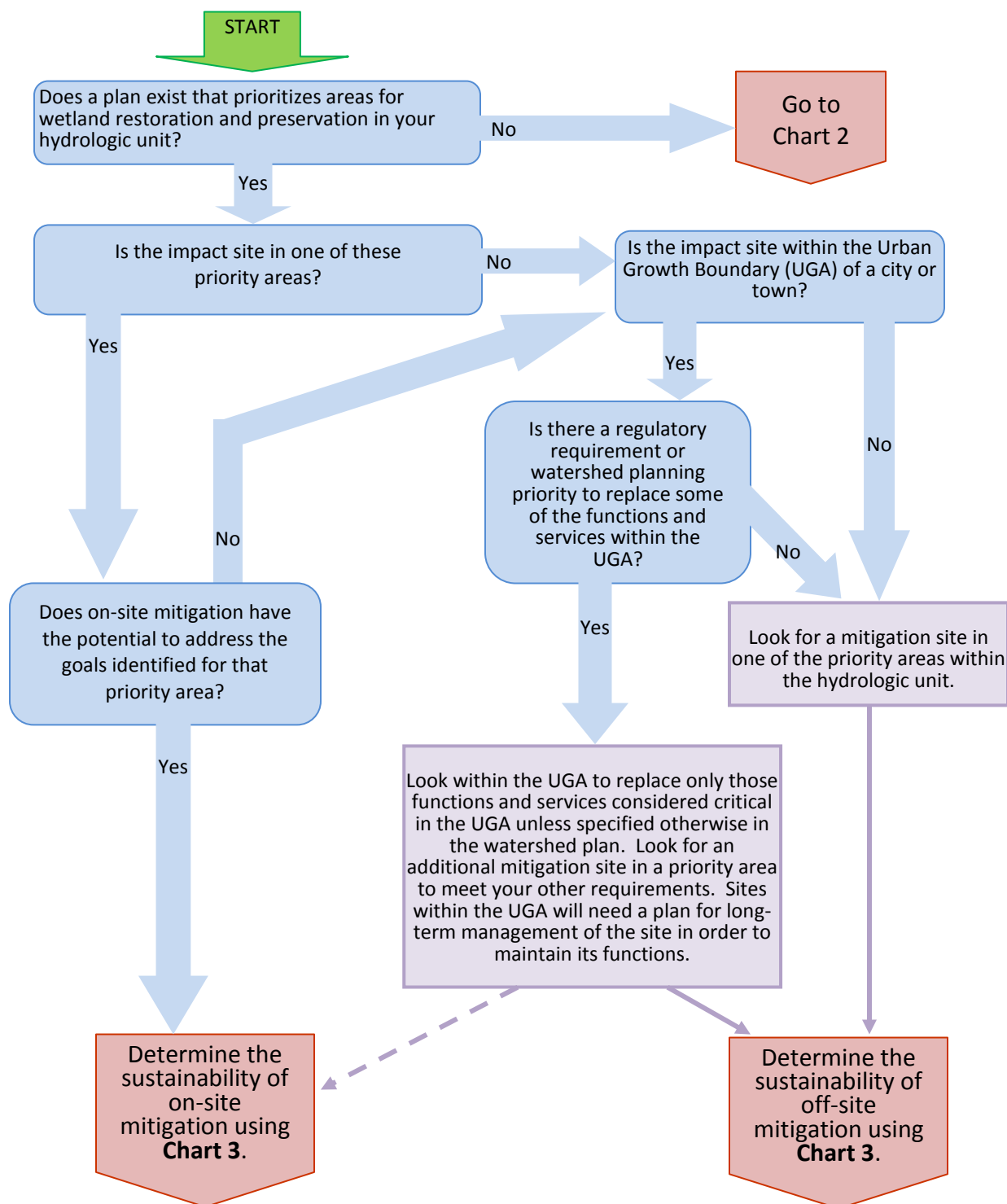
* SUBWATERSHED CODES: COHO, WF QUIL – West Fork Quilceda, STUR – Sturgeon Creek, MF QUIL – Middle Fork Quilceda, QUIL – Mainstem Quilceda

** P - Pool; Riff – Riffle; G- Glide

+ HGM CLASSES: D – Depressional; S – Slope; R – Riverine; T – Freshwater tidal; L – Lake fringe

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EXHIBIT 10a - Chart 1: Analyzing Potential Wetland Mitigation Sites Using Existing Watershed Plans



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EXHIBIT 10b - Chart 3: Analyzing the Potential of Sites to Provide Sustainable Mitigation in a Watershed Context

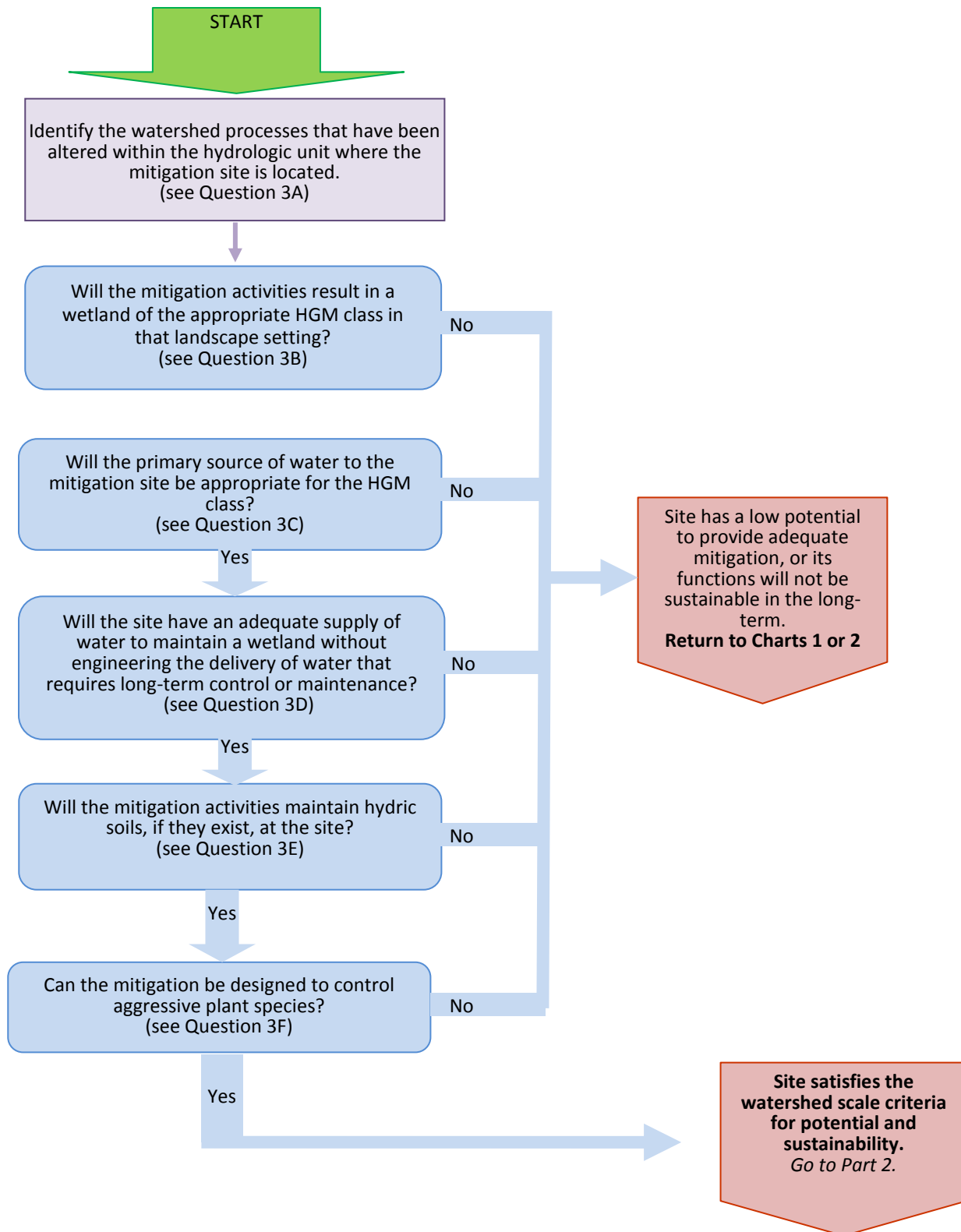


EXHIBIT 11 - MEETING ESA SECTION 7 REQUIREMENTS IN THE QCV IN-LIEU FEE PROGRAM

The following guidelines and process were established by the Army Corps of Engineers (Corps) in consultation with the US Fish and Wildlife Service and National Marine Fisheries Service (collectively, “the Services”). The guidelines below provide the procedures for using the QCV In Lieu Fee Program to satisfy the needs of a permittee for implementing Impact Reduction Measures, Conservation Measures, or Reasonable and Prudent Alternatives/Measures (i.e. mitigation needs) associated with impacts to Endangered Species Act (ESA) listed species or designated critical habitat.

Currently no designated critical habitat exists within the Reservation boundaries of the Tulalip Tribes. ESA Section 4 critical habitat designations on tribal trust or tribal member fee lands within an Indian Reservation are made only after coordination between tribes and the Services. For Puget Sound tribes, such coordinations are completed on a species-based case by case basis.

Each use of the QCV ILFP for ESA Section 7 needs will occur on a case-by-case basis to ensure use of the QCV ILFP results in the best possible mitigation for impacts with the greatest benefits to affected species. Use of the QCV ILFP may not be appropriate in all cases.

Considerations regarding use of the QCV ILFP as a Conservation Measure to meet ESA Section 7 Consultation Requirements:

Background information:

- Some impact projects buying QCV ILFP credits may require informal or formal consultation with the Services for ESA listed species and/or, if applicable critical habitat.
- Generally, the Section 7 Consultation for impact projects requires upfront knowledge of how impacts will be mitigated via Impact Reduction Measures, Conservation Measures or Reasonable and Prudent Alternatives/Measures for the individuals and, if applicable critical habitat, affected by the proposed impacting project.
- When an applicant buys QCV ILFP credits to meet their mitigation need, the QCV ILFP may not know how credit fees will be used (i.e. the type, location, and timing of the resulting mitigation project may be unknown). Therefore the QCV use as a minimization measure may not reduce the amount or extent of incidental take⁷⁶ or habitat impacts associated with the project.
- It is anticipated that the majority of QCV ILFP Receiving Sites (Mitigation Sites) that may affect but are not likely to adversely affect listed species will utilize the 2008 Fish Passage and

⁷⁶**Incidental take** - take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or applicant. [50 CFR §402.02]. **Take** is defined under the ESA to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. [ESA §3(19)]. **Harm** is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. **Harass** is defined by USFWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. [50 CFR §17.3]

Restoration Programmatic consultation for expedited ESA Section 7 Consultation. Some mitigation projects may have to go through the regular Section 7 Consultation process.

- According to the Compensation Planning Framework, at least 50% of potential QCV ILFP receiving sites are within 200 ft of channels and streams, and nearly 30% of potential receiving sites are within 200 ft of streams used by Chinook and Steelhead (Quilceda Creek watershed). Nearly 90% of potential mitigation sites are within 200 feet of streams used by Coho. Projects at these sites would advance recovery of species and, if applicable, critical habitat.
- The majority of QCV ILFP Receiving sites will utilize the Fish Passage and Habitat Enhancement Restoration Programmatic consultation (FWS 13410-2008—F-0209; NMFS 2008/03598) or most recently adopted procedures for expedited ESA Section 7 consultation.

When using the QCV ILFP to minimize impacts to listed species/critical habitat and/or to improve conditions for the recovery of the effect species and their critical habitat, the following should be considered.

- Whether a proposed project will impact a listed species and/ or, if applicable, critical habitat,
- Whether onsite opportunities to address impacts are unavailable, unsuitable or insufficient, and
- Whether a mitigation bank is not available and/or its use would not result in minimization of the incidental take of the effected species, or
- Whether use of the QCV ILFP will assist in the recovery of the effect listed species and/or, if applicable, improve one or more of the primary constituent elements of their critical habitat.

If the applicant, QCV ILFP, and regulatory agencies (i.e. Corps and the IRT) anticipate the use of the QCV ILFP for ESA minimization purposes, the following process will be used:

1. Applicant contacts the QCV ILFP to provide details about the proposed impact project. At a minimum, such details would be similar or identical to information in Biological Evaluation or Assessment, including:
 - a. Location, size and type of impact
 - b. Species and habitat affected
 - c. Proposed onsite conservation measures or impact reduction measures, i.e. compensatory mitigation, (if any)
 - d. Timing and duration of impact (e.g. temporary, permanent)
2. The QCV ILFP Administrator will review the proposed impacts and potential mitigation sites (i.e. Conceptual Mitigation Plan) and consult with TTNCRD about the ability to meet the ESA minimization need at an existing conceptual mitigation site or at other potential mitigation sites where mitigation could occur.
3. The QCV ILFP Administrator will coordinate with the Corps and the Services to receive preliminary guidance regarding the appropriateness of the selected mitigation site(s) for minimizing project impacts and/or to provide beneficial effect to aid in the recovery of listed species or, if applicable reducing adverse effects to critical habitat. Additionally, as no

debit/credit tool is presently available for listed salmonids, the Services will provide assistance on the amount of “credit” needed for the proposed action.

4. The QCV ILFP will provide the applicant with a response regarding the potential for use of the program to meet the applicant’s minimization needs. This response could take several forms:
 - a. If QCV ILFP has what it considers to be one or more appropriate mitigation receiving sites with a readily available mitigation project, the QCV ILFP Administrator will provide site/project details to the applicant, including:
 - i. Location of project site(s)
 - ii. Basic attributes of the existing or proposed project(s)
 - iii. How the projects will minimize the effects of the proposed action to listed species or critical habitat and/or address recovery of listed species
 - iv. Timeline for implementation of the mitigation
 - b. If the QCV ILFP has one or more mitigation receiving site/projects that may meet minimization or recovery needs, the QCV ILFP Administrator will provide the applicant with information about the range of potential projects with as many details as possible related to how the potential sites/projects will minimize the effects of the proposed action and/or address recovery of listed species, and when such projects would be likely to occur.
 - c. If there are no projects or if there is a high level of uncertainty about potential mitigation projects, the QCV ILFP Manager will provide the applicant with this information as well as information about pending acquisitions or other relevant details about potential future mitigation sites/projects in the service area.
5. The Applicant may use the QCV ILFP as a Conservation Measure in light of information provided by QCV ILFP in steps 3 and 4 above.
 - a. This information will be disclosed in the Biological Evaluation or Assessment for the impacting project as well as submission of an “MRP Use Plan” (analogous to a Mitigation Bank Use Plan).
 - b. As appropriate, the QCV ILFP manager will work directly with the Services to determine information needs about QCV ILFP receiving sites for Section 7 consultation for specific projects.

**EXHIBIT 12 –Tulalip Tribes Board of Directors Resolution Authorizing ILF
Program Adoption and Chairman Signature**

**THE TULALIP TRIBES
OF
WASHINGTON**

RESOLUTION NO. 490

**ADOPTION OF THE QUIL CEDA VILLAGE
IN LIEU FEE WETLANDS PROTECTION PROGRAM**

BE IT RESOLVED: By the Board of Directors of the Tulalip Tribes of Washington, an Indian Tribe organized pursuant to the Indian Reorganization Act of June 18, 1934, (25 USCA 476-477) and in accordance with its Constitution Article VI, Sections 1 A and C and the By-Laws as approved by the Secretary of the Interior, and

WHEREAS: the Tulalip Tribes of Washington is a federally recognized Indian Tribe under the Treaty of Point Elliott, signed in 1855, and

WHEREAS: the Tulalip Tribes of Washington established the municipality of the Consolidated Borough of Quil Ceda Village as a political subdivision of The Tulalip Tribes, and incorporated Quil Ceda Village under the Indian Tribal Government Tax Status Act of 1982, and

WHEREAS: the Tulalip Tribes established Quil Ceda Village for commercial and economic development and designated the Borough boundaries within which such development shall take place, and

WHEREAS: development within the boundaries of Quil Ceda Village may result in unavoidable impacts to aquatic resources, such as wetlands and their buffers, protected under the Tulalip Tribal Code and/or the Federal Clean Water Act and;

WHEREAS: the Tulalip Tribes requires no net loss of wetland functions and a net gain in wetland area to protect its aquatic resources and treaty resources and;

WHEREAS: the Tulalip Tribal Code and/or the Federal Clean Water Act require mitigation for unavoidable impacts to aquatic resources and;

WHEREAS: the Tulalip Tribes has identified the In Lieu Fee Wetland Mitigation Program authorized by regulations of the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency as a means by which it may mitigate for unavoidable impacts to aquatic resources and;

WHEREAS: the Tulalip Tribes agrees to act as the Sponsor and undertake all measures of the Quil Ceda Village In-Lieu Fee Wetlands Protection Program and;

NOW THEREFORE BE IT RESOLVED: the Tulalip Tribes adopts the Quil Ceda Village In Lieu Fee Wetlands Protection Program attached herewith in accordance with the Tulalip Tribes of Washington Constitution Article VI and;

NOW THEREFORE BE IT RESOLVED: the Tulalip Tribes designates the Tulalip Natural Resources and Cultural Resources Department and Quil Ceda Village Environmental and Engineering Department as Program Administrators for the Quil Ceda Village In Lieu Fee Wetlands Protection Program and;

Reso #2013-490

NOW THEREFORE BE IT RESOLVED: that the Board of Directors for the Tulalip Tribes authorizes the Chairman (or Vice-Chair in his absence) to execute this resolution.

PASSED this 1 day of November, 2013 in Regular Session with a quorum present, by a vote of 6 **FOR** and 0 **AGAINST**.

Melvin R. Sheldon Jr
Melvin R. Sheldon, Jr., Chairman

ATTESTED:

Marie Zackuse
Marie Zackuse., Secretary