LUMMI NATION
NONPOINT SOURCE POLLUTION MANAGEMENT PLAN: 2015-2020

Prepared For:
Lummi Indian Business Council
(LIBC)

Funded By:
U.S. Environmental Protection Agency
(Grant Number BG-97042602-4)

Prepared By:
Water Resources Division
Lummi Natural Resources Department

Contributors:

Jeremy Freimund, P.H.	Water Resources Manager
Stacy Fawell, CFM	Natural Resources Analyst
Jean Snyder	Water Resources Specialist II (former)
Gerald Gabrisch, GISP	GIS Division Manager

September 2015

This project has been funded wholly or in part by the United States Environmental Protection Agency under Assistance Agreement BG-97042602-4 to the Lummi Nation. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

CONTENTS

List of Figures

List of Tables

Appendices

EXECUTIVE SUMMARY

The primary goal of the Lummi Nation Nonpoint Source (NPS) Pollution Management Program is to effectively and efficiently control NPS pollution on the Lummi Indian Reservation (Reservation) and to coordinate with appropriate jurisdictions to control NPS pollution in the watersheds that discharge to the Reservation.

The objectives of the NPS Pollution Management Plan are the following:

1. To identify management practices that will reduce NPS pollution on the Reservation;
2. To identify and implement on-the-ground projects that protect or restore water quality on the Reservation and in the watersheds that discharge to the Reservation;
3. To encourage public involvement and education directed toward reducing or eliminating NPS pollution sources; and
4. To coordinate with appropriate jurisdictions to reduce off-Reservation NPS pollution that adversely affects Reservation surface and ground water resources.

An important element of the Lummi Nation NPS Pollution Management Program is the updated Lummi Nation NPS Pollution Assessment Report (NPSPAR). The Lummi Water Resources Division completed an initial NPSPAR in 2001 (LWRD 2001) and updated the NPSPAR during 2015. The objectives of the NPSPAR are (1) to determine the current and potential impairments of Reservation water bodies due to NPS pollution, (2) to identify the primary nonpoint sources responsible for this pollution, and (3) to list the resources available to address NPS pollution.

This update of the 2002 Lummi Nation Nonpoint Source Pollution Management Plan (LWRD 2002) includes the following primary changes:

- Updated descriptions of BMPs for NPS pollution reduction.
- Updated list of identified impairments of Reservation water bodies.
- An updated NPS Pollution Management Plan for the Lummi Nation for the 2015-2020 period.

An analysis of available water quality data and potential sources of NPS pollution in the 2015 NPS Pollution Assessment Report shows that surface waters on and flowing onto the Reservation are currently or potentially affected by all types of NPS pollutants. These NPS pollution types include bacteria/pathogens, fine sediment, nutrients, oxygen demanding substances (which result in low dissolved oxygen levels), pH, temperature, metals, pesticides, household and industrial chemicals, and oil and grease. Nonpoint source pollution currently and/or potentially impairs the four major water bodies (Nooksack River, Portage Bay/Bellingham Bay, Lummi River, and Lummi Bay/Georgia Strait) and the ground water on the Reservation.

The Lummi Nation NPS Pollution Management Program is focused on addressing the three current impairments of greatest concern: loss of salmonid habitat in the Nooksack River watershed and estuary; restrictions to ceremonial, subsistence, and commercial shellfish harvests in Portage Bay; and salt water intrusion and other contamination of the Reservation aquifers. Also identified in the NPS Pollution Assessment Report is the potential impairment to the Lummi Nation Waters that would result in restrictions to ceremonial, subsistence, and commercial shellfish harvests in Lummi Bay. These waters require NPS pollution control measures to restore or maintain desired water uses and/or, in the case of surface waters, to meet or maintain the Lummi Nation Water Quality Standards.

The primary NPS pollution categories responsible for the current and potential impairments of surface and ground water on the Reservation are agriculture, silviculture, hydromodification (including aquatic and riparian habitat modification), urban runoff, and both surface and ground water withdrawal. Other pollution source categories contribute to the impairment of Reservation water bodies but are not known to produce significant impairment at this time. Control of each NPS pollution category should contribute to the improvement and maintenance of water quality on the Reservation. The five primary sources of impairment listed above are the priority targets for NPS pollution management.

To reduce and/or eliminate the adverse effects of NPS pollution on surface and ground water and to achieve the NPS pollution management goals, appropriate best management practices (BMPs) must be effectively applied. Nonpoint source pollution on the Reservation is largely addressed through 15 interrelated Lummi Indian Business Council (LIBC) environmental programs and various Lummi Natural Resource Department (LNR) activities that specifically target the primary current and potential impairments of Reservation water bodies. The NPS Pollution Management Program for the Reservation supports and complements these programs and activities and emphasizes continued involvement in off-Reservation NPS pollution control efforts.

Community involvement is a key element of the Lummi Nation NPS Pollution Management Program because surface and ground water movement does not adhere to property or political boundaries and because community participation in developing and implementing the NPS Pollution Management Program is necessary for program success. The three elements of the community involvement plan are: (1) public education and outreach, (2) interjurisdictional coordination and cooperation for activities off-Reservation that affect on-Reservation resources, and (3) working with project applicants to ensure compliance with Lummi Nation ordinances and regulations. The certification of tribal authority to implement Section 319 of the Clean Water Act (CWA) is presented in Appendix A and described in Section 2. A further description of the public notice and public comment period for this NPS Pollution Management Plan is provided in Section 3 and the documentation is attached as Appendix D.

1. INTRODUCTION

The Lummi Indian Reservation (Reservation) is located in northwest Washington State, approximately eight miles west of Bellingham, Washington (Figure 1.1). The Reservation is located along the western border of Whatcom County and at the southern extent of Georgia Strait and the northern extent of Puget Sound. Approximately 38 miles of highly productive marine shoreline surround the Reservation uplands on all but the north and northeast borders. The Reservation includes approximately 12,500 acres of uplands and 7,000 acres of tidelands. The Nooksack River drains a watershed of approximately 786 square miles, flows through the Reservation near the mouth of the river, and discharges to Bellingham Bay (and partially to Lummi Bay during high flows). The Reservation is comprised of a five-mile long peninsula (Lummi Peninsula), which is bordered by Lummi Bay on the west and Bellingham Bay on the east; a northern upland area and the smaller peninsula of Sandy Point; the floodplains and deltas of the Lummi River (a.k.a. Red River) and the Nooksack River; Portage Island; and associated tidelands (Figure 1.2).

The Lummi Nation is the largest fishing tribe in the Puget Sound in terms of pounds of fish landed and number of species fished (NWIFC 2012) and has relied on their water resources since time immemorial for ceremonial, subsistence, and commercial purposes. The waters of the Reservation contain significant resources for both the Lummi Nation and the region. Numerous economically and culturally important species, including salmon, herring, oyster, manila clam, little neck clam, butter clam, horse clam, and Dungeness crab, are present in Lummi Nation waters (LNR 2010). The estuarine waters of the Nooksack River and Lummi River deltas form the interface between marine and inland fresh water. Estuarine waters are important habitat for both juvenile and adult salmon as they acclimate to either saline or fresh waters during their seaward and landward migrations, respectively.

As documented in the Lummi Intertidal Baseline Inventory (LNR 2010), Reservation waters also contain large eelgrass meadows and habitat for numerous species of waterfowl, marine birds, and raptors (including bald eagle and peregrine falcon). Nonpoint source pollution can result in economic and cultural hardship by decreasing the health and abundance of fish, shellfish, and wildlife; by causing the closure of shellfish beds harvested for ceremonial, subsistence, and commercial purposes; and by affecting human health through consumption of contaminated fish and shellfish.

Because these water resources are vital for economic stability, political integrity, growth, and the cultural and spiritual life of the community, the potential contamination of Lummi Nation surface waters has a direct, serious, and substantial effect on the health and welfare of the Lummi Nation, its members, and all persons present on the Reservation. In addition, because of the geographic and hydrogeologic conditions in the area, ground water resources on the Reservation are also vulnerable to pollution. Over 95 percent of the residential water supply for the Reservation is currently pumped from local ground water wells. The contamination of the aquifers that supply these wells would

Figure 1.1 Regional Location of the Lummi Indian Reservation

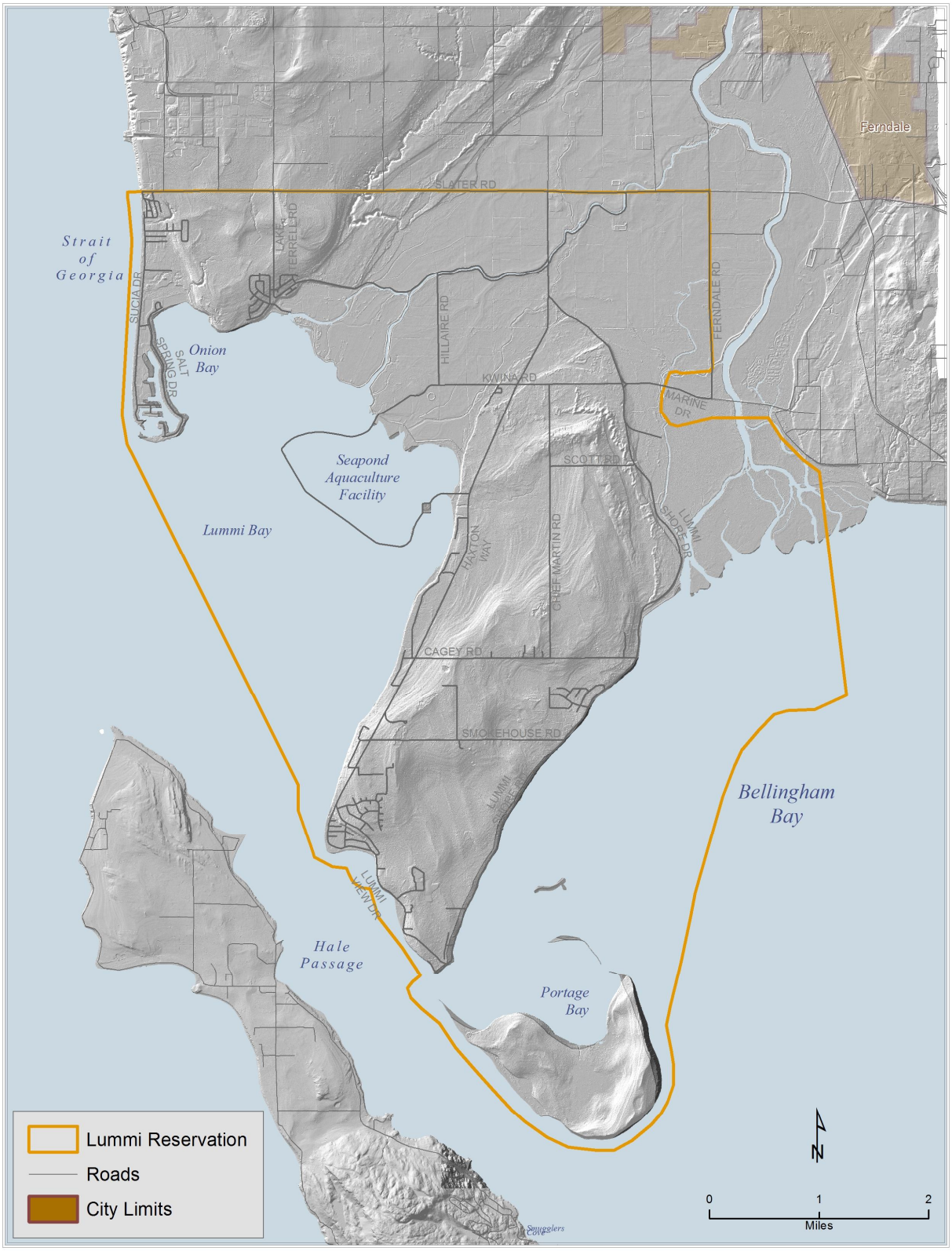

Figure 1.2 Topography of the Lummi Indian Reservation and Adjacent Areas

adversely affect the health of persons drinking or using water from these supplies. Ground water contamination could lead to the loss of the primary water supply source for the Reservation because it is very expensive to treat, and some damages to ground water caused by contamination may be impossible to correct or mitigate.

As described in the Lummi Nation Water Resources Protection Code (Lummi Code of Laws [LCL] Title 17) the Lummi Nation finds that contamination of surface and ground water resources on the Reservation has a direct, serious, and substantial effect on the political integrity, economic security, health, and welfare of the Lummi Nation, its members, and all persons present on the Reservation. Further, the Lummi Nation finds that those activities posing threats of such contamination, if left unregulated, could cause such adverse effects. Accordingly, the Lummi Natural Resources Department (LNR) is developing and implementing the NPS Pollution Management Program for the Reservation based on the foregoing findings and the following considerations:

- The Lummi Nation has a goal of achieving the "fishable and swimmable" goal of the Clean Water Act and the Lummi Nation Water Quality Standards.
- The resource-rich tidelands and estuaries of the Reservation, which receive almost all of the water that falls onto or passes through the Reservation, are culturally and economically important to the Lummi Nation.
- There is a foreseeable continued conversion of forested and agricultural lands to residential, commercial, and community uses which will bring greater impacts to surface water quantity and quality.
- There is a need to minimize the adverse effects from development and maximize the protection of natural resources.
- As a finite resource, ground water is one of the most important and critical of the Lummi Nation's resources and is vulnerable to contamination from storm water and pollutants from human activity.
- Ample supplies of high quality ground water are essential to serve the purposes of the Reservation as a permanent, economically viable, homeland to the Lummi Nation and its members.
- Ninety-five percent of the residential water supply for the Reservation is pumped from local ground water wells and wellhead contamination threatens public health.
- Ground water contamination could lead to the loss of the primary water supply source for the Reservation.
- Alternative water supply sources are expensive and may not be available in amounts sufficient to replace existing supplies and to provide for future growth.
- The on-Reservation salmon hatchery is dependent on high quality ground and surface water.

This update of the 2002 Lummi Nation Nonpoint Source Pollution Management Plan (LWRD 2002) includes the following primary changes:

- Updated descriptions of BMPs for NPS pollution reduction.

- Updated list of identified impairments of Reservation water bodies.
- An updated NPS Pollution Management Plan for the Lummi Nation for the 2015-2020 period.

1.1. Goals and Objectives

The NPS Pollution Management Program is a part of the Lummi Nation Comprehensive Water Resources Management Program (CWRMP). The CWRMP also includes a Wellhead Protection Program, Storm Water Management Program, Wetlands Management Program, and Water Quality Standards Program. The CWRMP is being implemented by the Water Resources Division of the Lummi Natural Resources Department (LNR) and addresses the overall management of Reservation waters. The Lummi Nation Water Quality Standards (LWRD 2008) provide criteria against which impacts from NPS pollution can be evaluated.

The primary goal of the Lummi Nation NPS Pollution Management Program is to effectively and efficiently control NPS pollution on the Lummi Reservation and to coordinate with appropriate jurisdictions to control NPS pollution sources in the watersheds that discharge to the Reservation. The objectives of the NPS Pollution Management Plan are the following:

1. To identify management practices that will reduce NPS pollution on the Reservation;
2. To identify and implement on-the-ground projects that protect or restore water quality on the Reservation and in the watersheds that discharge to the Reservation;
3. To encourage public involvement and education directed toward reducing or eliminating NPS pollution sources; and
4. To coordinate with appropriate jurisdictions to reduce off-Reservation NPS pollution that adversely affects Reservation surface and ground water resources.

Section 319 of the Clean Water Act requires eight principal categories of information to be included in the NPS pollution management plan. Each of the following categories is addressed in this management plan:

1. Best Management Practices that will be used to reduce pollution from each category or subcategory of NPS pollution taking into account the impact of the proposed practice on water quality.
2. Nonpoint source programs including regulatory and non-regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring/evaluation to assist in the implementation of BMPs at the earliest practicable date.
3. A schedule containing annual milestones for the four-year plan that can be used to gauge the effectiveness of various programs. The schedule shall provide for utilization of BMPs at the earliest practicable date.
4. A certification of adequacy by the Tribal Attorney that the existing Tribal laws and ordinances provide adequate authority to implement the proposed management program. If additional legal authority is needed, a schedule for seeking such authority

shall be adequately expeditious to allow implementation within the five year Management Program.

5. A list of funding sources which are available to carry out the Tribe's program in each of the five fiscal years, in addition to assistance provided under Section 319.
6. Identification of federal financial assistance programs and federal development projects that will be reviewed by the tribe for consistency with the proposed NPS pollution management plan.
7. Identification of local and private experts to be used in developing and implementing a management program.
8. Development of a NPS pollution management plan on a watershed basis (encouraged but not required).

1.2. Organization of Report

This report is divided into six sections:

- Section 1 is this introductory section.
- Section 2 presents the Lummi Nation NPS Pollution Management Plan for the period January 1, 2015 through December 31, 2020 including identification of the primary impairments of Reservation water bodies and the source categories responsible for these impairments.
- Section 3 describes the existing NPS pollution reduction programs on the Reservation and all potential NPS pollution control programs available on- and off-Reservation.
- Section 4 presents the conclusions of the NPS Pollution Management Plan.
- Section 5 lists the references cited in this NPS Pollution Management Plan.
- Section 6 lists the acronyms and abbreviations used in this NPS Pollution Management Plan.

2. MANAGEMENT PROGRAM DESCRIPTION

This section summarizes the details of the Lummi NPS Pollution Management Program in four subsections: a description of the Lummi Nation NPS Pollution Management Program administration, identification of the best management practices that will be used as part of this NPS Pollution Management Plan implementation, a discussion of the effects of the NPS pollution categories on each of the three current impairments of greatest concern and the potential impairments of concern, and a description of the action plan for the January 1, 2015 through December 31, 2020 period.

2.1. Nonpoint Source Pollution Management Program Administration

The Lummi Nation is governed by an elected 11-member council, the Lummi Indian Business Council (LIBC). The LIBC is elected by the General Council, which is comprised of all enrolled tribal members over the age of 18. The LIBC is supported by several administrative departments including Planning and Public Works, Cultural Resources Protection, Economic Development, Police, the Office of the Reservation Attorney, and Natural Resources. The Lummi Nation was one of ten tribes that initiated the Self-Government Demonstration Project in 1988; the Lummi Nation maintains an independent Tribal Court System.

In 1990, the Lummi Nation applied for and established eligibility for "Treatment in the same manner as a State" (TAS) status from the EPA under Clean Water Act (CWA) Section106. In 2002, the Lummi Nation was also approved for TAS status under the provisions of CWA Section 319. In 1995 the Lummi Nation applied to the EPA for delegation to administer CWA Section 303(c), establishing water quality standards, and CWA Section 401 authority to issue certifications that discharges meet the water quality standards. On March 5, 2007 the EPA approved the Lummi Nation application and authorized the Lummi Nation to administer Water Quality Standards under Section 303(c) of the CWA and to provide water quality certifications pursuant to Section 401 of the CWA for all surface waters within the boundaries of the Lummi Indian Reservation.

The January 25, 2002 letter from the EPA approving the Lummi Nation's application for TAS status for CWA Section 319, the 2001 Nonpoint Source Pollution Assessment Report, and the 2002 Nonpoint Source Pollution Management Plan is attached in Appendix A. This letter is provided to fulfill the certification of tribal authority requirement for this plan. This NPS Management Plan and the associated NPS Pollution Assessment Report are updates to the previous management plan and assessment report that were reviewed and approved by the EPA. The letter in Appendix A also demonstrates that the Lummi Nation has already provided certification of authority to administer CWA Section 319.

As described above, the Lummi Nation NPS Pollution Management Program is a part of the Lummi Nation Comprehensive Water Resources Management Program (CWRMP). The Lummi Water Resources Division (LWRD) of the Lummi Natural Resources Department

(LNR) is the lead agency tasked with developing and implementing the NPS Pollution Management Program and the CWRMP in response to Lummi Indian Business Council (LIBC) resolutions 90-88 and 92-43. These resolutions direct the LNR to develop a comprehensive water resource management program to ensure that the planning and development of Reservation water and land resources are safeguarded against surface and ground water degradation.

The CWRMP also includes the Lummi Nation's Wellhead Protection, Storm Water Management, Wetlands Management, and Water Quality Standards programs. The Lummi Nation Water Resources Protection Code (Lummi Code of Laws [LCL] Title 17) was developed as a component of the CWRMP to protect, enhance, and restore the water quality of Reservation surface and ground water including the Reservation estuaries and tidelands. Following a public comment period and public hearing, Title 17 was adopted by the LIBC in January 2004 (LIBC Resolution No. 2004-012). Pursuant to LCL Title 17, following a public comment period and hearing the LIBC adopted a Lummi Administrative Regulation (LAR) that established surface water quality standards for the Reservation (17 LAR 07) in August 2007 (approved by the EPA on September 30, 2008). During 2010 the LIBC also adopted four additional Lummi Administrative Regulations for: storm water management (17 LAR 05), wetland management (17 LAR 06), technical requirements for ground water wells (17 LAR 04), and a system for civil fines for violation of Title 17 (17 LAR 08). In addition, as part of the public involvement and education element of the CWRMP, a webpage for the Lummi Natural Resources Department was launched during October 2010. Copies of the documents describing the various components of the CWRMP are available online from the webpage (http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=89). The water resources regulations can be found through the following link: http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=53.

The CWRMP is intended to address the overall management of Reservation waters. The NPS Pollution Management Plan is based on the 18 watersheds delineated for the Reservation (Figure 2.1) during 2010 (LWRD 2011a), which are described in greater detail in the NPS Pollution Assessment Report. The water quality standards provide criteria against which impacts from NPS pollution can be evaluated. The Natural Resources Department Watershed Restoration, Harvest Management, and Endangered Species Act (ESA) Divisions have been actively addressing the degradation of salmonid habitat in the Nooksack River and Lummi River watersheds and estuaries.

The primary LIBC staff members responsible for developing and implementing elements of the NPS Pollution Management Plan are identified in Table 2.1. Although the LWRD is the lead agency for developing and implementing the NPS Pollution Management Plan, as depicted in Figure 2.2 essentially all Lummi Natural Resources Department staff members are involved in implementing some elements of the NPS Pollution Management Plan. In particular the Watershed Restoration, Harvest Management, Stock Assessment, and ESA Divisions of the Lummi Natural Resources Department are directly involved in the plan elements that address the degradation of salmonid habitat in the Nooksack River watershed and estuary.

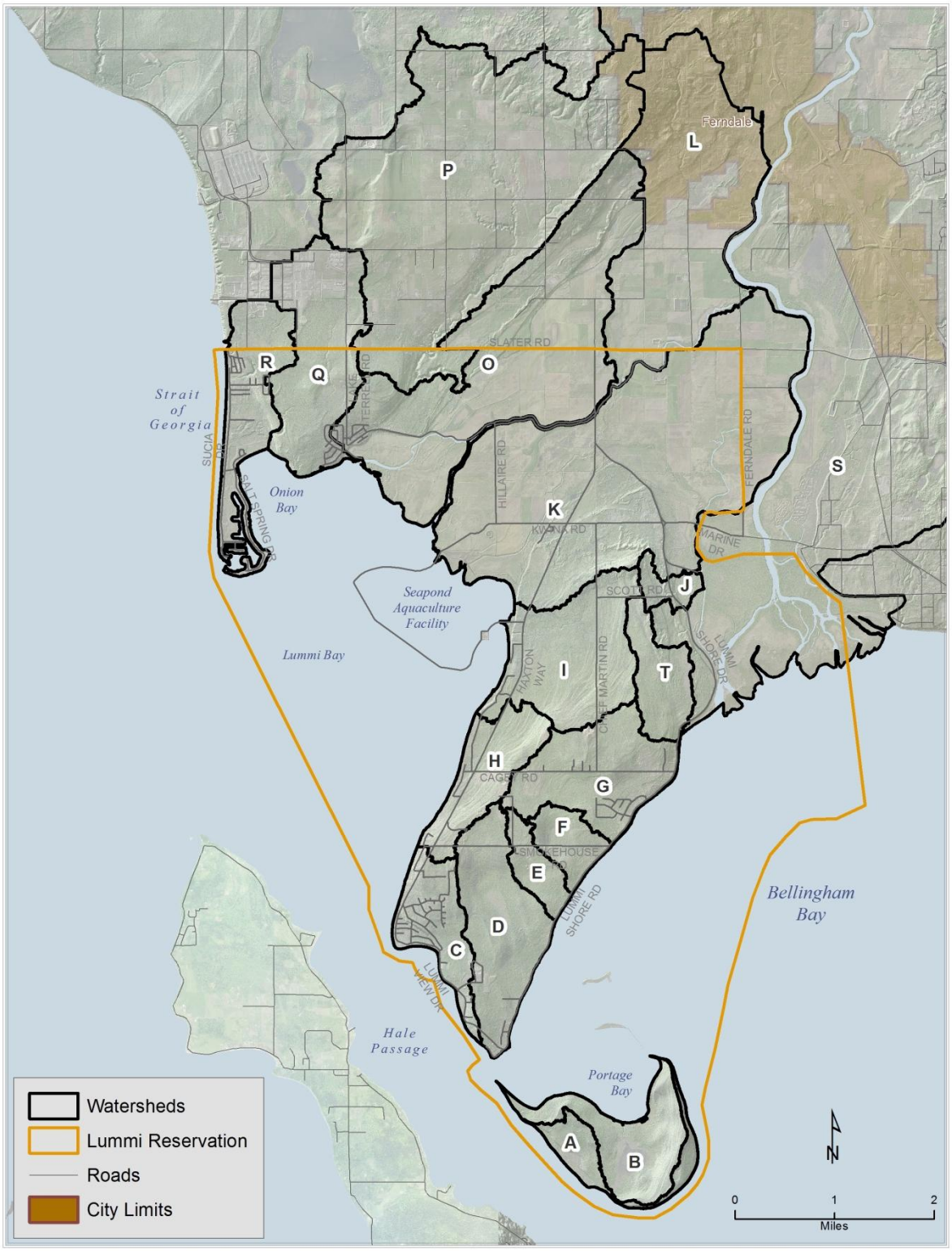

Figure 2.1 Lummi Indian Reservation Watersheds Delineated in 2010

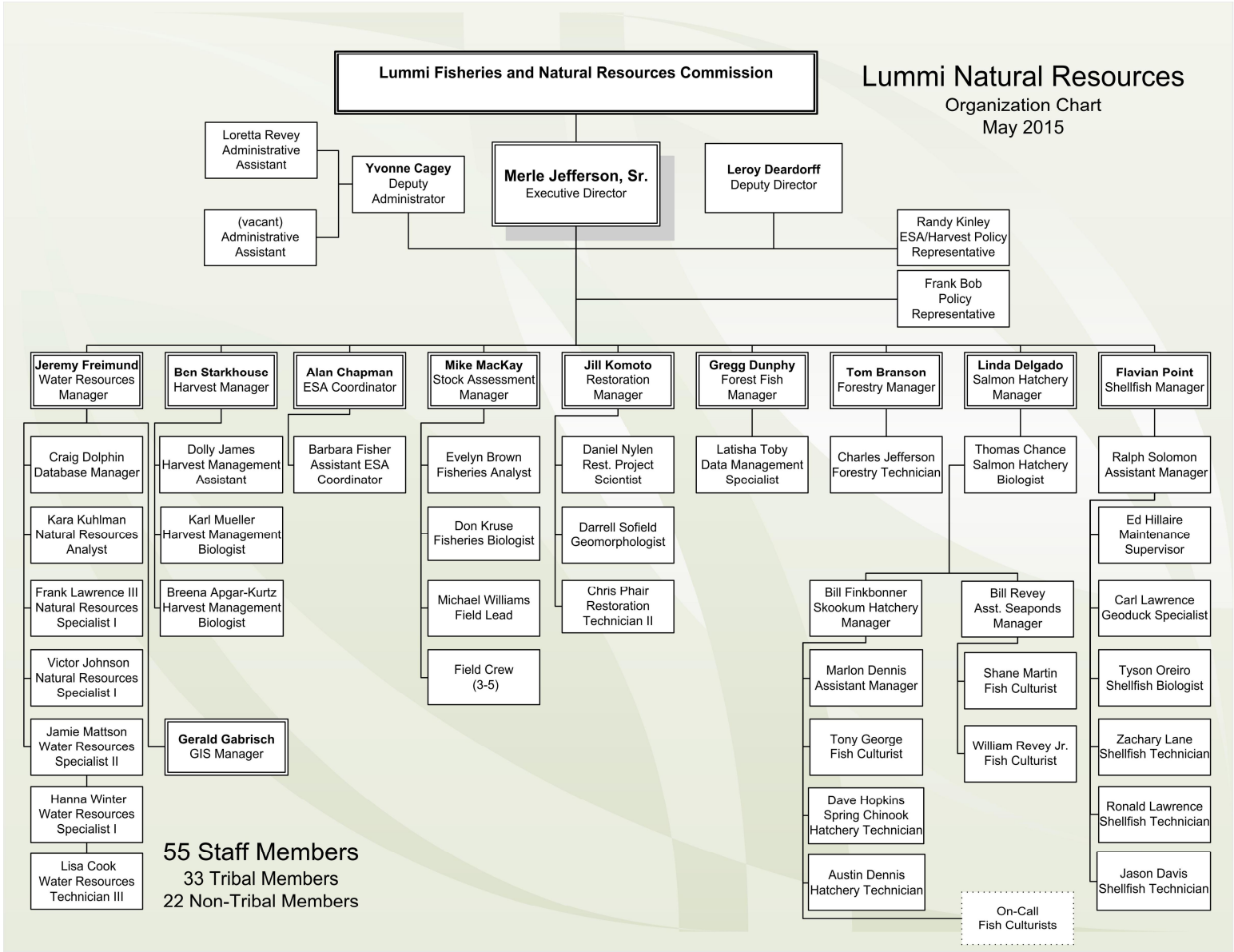

Figure 2.2 Lummi Natural Resources Department Organization Chart

Table 2.1 is a summary of the background/qualifications of the LWRD (lead agency) staff members involved in the development and implementation of the NPS Pollution Management Plan. In addition to the LIBC staff members identified in Figure 2.2 and Table 2.1, staff members from other federal, tribal, state, and local governmental agencies and a number of natural resources management contractors support implementation of the Lummi Nation NPS Pollution Management Plan.

Table 2.1 Lummi NPS Pollution Management Program Lead Agency Staff

Name	Title	Background/Qualifications
Leroy Deardorff	LNR Deputy Director	B.S. degree in Environmental Sciences and over 25 years of experience in administrative, technical, and policy positions with the Lummi Nation.
Water Resources Division (Lead Agency)		
Jeremy Freimund, P.H.	Water Resources Manager	B.S. degree in Zoology, a M.S. degree in Watershed Management, and a Professional Hydrologist with nearly 30 years of experience in water resources management and planning in the public and private sector; has worked within the Lummi Water Resources Division since 1996.
Gerry Gabrisch, GISP	GIS Manager	B.A. and M.S. degree in Geography, is a Geographic Information System Professional and has nearly 15 years of experience in natural resources management; has worked for the Lummi Nation since 2005.
Kara Kuhlman, CFM	Natural Resources Analyst	B.S. and M.S. degree in Environmental Science and a Certified Floodplain Manager with nearly 10 years of professional experience; has worked for the Lummi Nation since 2013.
Craig Dolphin	Database Manager	B.S. degree in Zoology, M.S. degree in Zoology (Aquatic Ecology, and a Postgraduate Diploma in Applied Science and has over 15 years of experience in natural resources management; has worked for the Lummi Nation since 2001.
Frank Lawrence III	Natural Resources Specialist I	G.E.D and courses related to wetland management, currently pursuing A.A. degree and has over 10 years of experience in natural resource management; has worked within the Lummi Water Resources Division since 2007.
Jamie Mattson	Water Resources Specialist II	B.S. degree in Environmental Science and a minor in Geology and nearly 10 years of experience in natural resource management; has worked within the Lummi Water Resources Division since 2007.
Hanna Winter	Water Resources Specialist I	B.S. and M.S. degree in Environmental Science with nearly 10 years of professional experience; has worked for the Lummi Nation since 2014.
Victor Johnson	Natural Resources Specialist I	A.A. degree in arts and sciences and Geographic Information Systems (GIS) certification; currently pursuing a B.A. degree in Environmental Policy and has over 10 years of experience in natural resource management; has worked within the Lummi Water Resources Division since 2008.

2.2. General Management Program

The Lummi Nation NPS Pollution Management Program is focused on addressing the three current impairments of greatest concern: loss of salmonid habitat in the Nooksack River watershed and estuary; restrictions to ceremonial, subsistence, and commercial shellfish harvests in Portage Bay; and salt water intrusion and other contamination of the Reservation aquifers. Also identified in the NPS Pollution Assessment Report is the potential impairment to the Lummi Nation Waters that would result in restrictions to ceremonial, subsistence, and commercial shellfish harvests in Lummi Bay. These waters require NPS pollution control measures to restore or maintain desired water uses and/or, in the case of surface waters, to meet or maintain the Lummi Nation Water Quality Standards.

Based on the 2015 NPS Pollution Assessment Report and presented in Table 2.2, the NPS pollution categories primarily responsible for the current and potential impairments of Reservation water resources are agriculture, silviculture, hydromodification/habitat modification, urban runoff, and ground water withdrawals. Although construction, atmospheric deposition, highway/road runoff, and land disposal may be significant contributors to the impairment of Reservation water resources, these four sources and the remaining source categories listed the Assessment Report do not appear to be major sources at this time. The pollution source categories in Table 2.2 descend from the category producing the greatest estimated overall impairment of the Reservation water resources to the category producing the least estimated impairment. However, control of each NPS pollution category should contribute to the improvement and the preservation of water quality and aquatic habitats both on and off the Reservation. The following section describes how the major and potentially significant NPS pollution categories contribute to the impairment of Reservation water resources. The primary and potentially significant sources of impairment are the priority targets for this NPS Pollution Management Plan.

Table 2.2 Estimated Impacts of Pollutants by NPS Pollution Category

	Nonpoint Source Pollution Type									
Pollution Source Category	**Bacteria/ Pathogens**	**Fine Sediment**	**Habitat Alteration**	**Metals**	**Nutrients**	**Oxygen Demanding Substances**	**Pesticides, Oil, Grease, and Other Chemicals**	**pH**	**Saltwater Intrusion**	**Temperature**
Agriculture	H	M/H	M/H	M	M/H	H	M	M	L	H
Silviculture	L	H	M	L	L	L	L	L	L	H
Urban Runoff	L/M	L/M	L/M	L/M	L/M	L/M	M/H	L	L	L/M
Construction	L	L/M	L/M	L	L	L	L/M	L/M	L/M	L/M
Atmospheric Deposition	X	L	X	L/M	L/M	L	L/M	L/M	X	X
Highway Maintenance and Runoff	X	L/M	L	L	L	L/M	L/M	L	X	L
Land Disposal	L/M	L	X	L, ~H	L/M	L	L, ~H	L	X	X
Hydromodification/ Habitat Modification	M/H	H	H	L	L/M	M	L	L	L/M	M/H
Ground Water Withdrawal	L	X	X	L	L	L	L	X	L/M, ~H	L/M
Resource Extraction (sand/gravel mining)	L	L, ~M	L, ~M	L	X	L	L	L	L	L
Spills	L, ~H	X	L	L	L, ~H	L	L, ~H	L, ~H	X	X
Waste Storage or Storage Tank Leaks	L	X	L	L	L	L	L, ~H	L	X	X
Recreation Activities (golf courses)	L	X	L	L	L	L	L, ~H	L	L	L
Marinas and Recreational Boating	L, ~H	L	L	L, ~H	L	L	L	L	X	L

L = Low Impact; M = Moderate; H = High; L/M = Low to Moderate; M/H = Moderate to High; ~ = Potentially, X = no, or insignificant, impact

As stated previously, the primary goal of the Lummi Nation NPS Pollution Management Program is to effectively and efficiently control NPS pollution on the Lummi Reservation and to coordinate with appropriate jurisdictions to control NPS pollution sources in the watersheds that discharge to the Reservation. The objectives of the NPS Pollution Management Plan are the following:

1. To identify management practices that will reduce NPS pollution on the Reservation;
2. To identify and implement on-the-ground projects that protect or restore water quality on the Reservation and in the watersheds that discharge to the Reservation;
3. To encourage public involvement and education directed toward reducing or eliminating NPS pollution sources; and
4. To coordinate with appropriate jurisdictions to reduce off-Reservation NPS pollution that adversely affects Reservation surface and ground water resources.

Table 2.3 lists general management program activities that will be implemented to meet the objectives of this NPS Pollution Management Plan described above.

Table 2.3 General Management Program Milestones

Activity	Date
Submit Draft NPS Pollution Assessment Report and Draft NPS Pollution Management Plan to the EPA for review and comments	November 2014
Present NPS Pollution Management Plan to the Natural Resources Commission and Planning Commission for review and approval	April 2015 – June 2015
Public Comment Period for the NPS Pollution Management Plan	April 2015
Present NPS Pollution Management Plan to the Lummi Indian Business Council for approval	June 2015 – September 2015
Submit the final NPS Pollution Assessment Report and the approved NPS Pollution Management Plan to the EPA for review and approval and publish on the LNR webpage	September 2015
Publish articles in Tribal Newspaper (Squol Quol) on the NPS Pollution Management Program activities	At least two annually
Update fact sheet and website on the NPS Pollution Management Program	Annually
Submit semi-annual progress reports to EPA regarding implementation activities associated with Performance Partnership Grants that include Section 319 funds.	Semi-Annual
Incorporate priorities into annual Water Resources Division work plan and submit proposals to funding sources (e.g., Tribes, EPA, BIA, USDA, NOAA)	Ongoing
Request CWA Section 319 funding from EPA for implementation of the NPS Management Program	Annually

2.3. Nonpoint Source Pollution Categories that Impair Reservation Waters

Based on the NPS Pollution Assessment Report (LWRD 2015), the NPS pollution categories primarily responsible for the current and potential impairments of Reservation water resources are agriculture, silviculture, hydromodification/habitat modification, urban runoff, and ground water withdrawals. Although construction, atmospheric deposition, highway/road runoff, and land disposal may be significant contributors to the impairment of Reservation water resources, these four sources and the remaining source categories listed in Table 2.2 do not appear to be major sources at this time. However, control of each NPS pollution category should contribute to the improvement and the preservation of water quality and aquatic habitats both on and off the Reservation. The following discussion describes how the major and potentially significant NPS pollution categories contribute to the impairment of Reservation water resources. These primary and potentially significant sources of impairment will be the high priority targets for NPS pollution management activities.

2.3.1. Agriculture

Agriculture is a significant source of all the types of NPS pollutants that are responsible for salmonid and shellfish impacts in the Nooksack River and Lummi River watersheds and estuaries. Agricultural land uses, especially dairy operations, were identified as the major source of the fecal coliform bacteria that was responsible for the closure of the Portage Bay shellfish beds from 1996 through 2006 (DOH 1997; WCD 1998; Ecology 2000) and the potential closure of Lummi Bay shellfish beds. The Lummi Nation harvests shellfish for ceremonial, subsistence, and commercial purposes. The agricultural activities that allow bacteria to reach surface waters in the Nooksack River and Lummi River watersheds include dairy waste application to fields at inappropriate times or locations, leaking manure lagoons, direct animal access to surface water, direct discharge of manure to waterways, and runoff from pastures, feedlots, and animal holding areas.

In addition, reduced instream flow levels particularly during summer months, removal of shade-providing riparian vegetation, lack of vegetated buffers or inadequate vegetated buffers, and organic enrichment due to animal wastes, contribute to low dissolved oxygen levels in Nooksack River and Lummi River tributaries. Land clearing, soil disturbance, and removal of riparian vegetation and vegetated buffers combine to increase storm water runoff and fine sediment loads to the streams and rivers. Higher peak flows due to increased runoff result in greater streambank erosion. Increased metal and nutrient levels in streams are largely due to the input of fertilizers, animal wastes, and crop residues from farmlands. Agricultural chemicals, including insecticides, herbicides, fungicides and their derivative products and chemical agents used to clean dairy milking equipment are some sources of chemical contamination of surface and ground water in the watersheds. The Nooksack tributaries on the 303(d) list for pH violations all flow through agricultural areas. Removal of temperature moderating riparian vegetation and reduced summer flows resulting from agricultural land uses including irrigation and drainage activities contribute to elevated water temperatures in the streams of the Lummi River and lower Nooksack River watersheds. In addition, the loss of riparian vegetation, alteration of creeks into channeled drainage ditches,

and livestock access to streams damage and alter stream habitats (EPA 1997). Hydromodification in agricultural areas, particularly irrigation and drainage activities, affects the magnitude and timing of the annual hydrograph and instream flow levels during the summer months by removing water from the system. Many of these agricultural effects on water quality are combined with the effects arising from other NPS pollutant sources, which are described in the following subsections.

Agriculture in the Reservation watersheds occurs largely on the floodplains of the Nooksack and Lummi Rivers. The floodplain is a sensitive area because it is periodically inundated by flood waters and the soil, which may contain accumulated contaminants, can be eroded and transported to areas with important aquatic resources. There is little opportunity for retention of pollutants during flooding because of the proximity of farm lands to surface waters and the lack of riparian vegetation. In addition, ground water under the floodplain is generally in hydraulic continuity with adjacent streams, providing another potential route for pollutants to reach surface waters.

Since some agricultural activity presumably occurs in the recharge zones that have been generally identified for Reservation aquifers (LWRD 1997a, LWRD 2011b), the potential exists for impacts on the Reservation aquifers. Crop production or over grazing by livestock could reduce ground water recharge by increasing surface runoff. This would increase the probability and magnitude of saltwater intrusion. The use of fertilizers and agricultural chemicals generally contributes to ground water contamination.

Aquaculture is being treated as a subcategory of the Agriculture NPS category. Creosote pilings used as part of the Seaponds and Lummi Bay aquacultural activities can leach polyaromatic hydrocarbons (PAHs), phenols, and cresols (WDNR 2008). Recent studies have shown that PAHs are detrimental to salmon immune function and development. Other studies have shown that herring eggs exposed to creosote have a high mortality rate and English sole develop liver lesions (Casillas et al 1998a, 1998b, Vines et al. 2000, Myers et al. 2003, Meador et al. 2006).

2.3.2. Silviculture

Forestry activity is probably the primary source of impairment to salmonids in the upper Nooksack River watershed (i.e., along the North, Middle, and South Forks of the Nooksack River and their tributaries) and is a contributing source of NPS pollutants affecting, or potentially affecting, shellfish in Portage Bay and Lummi Bay. The primary direct impacts to streams from silviculture activities are increased sediment and elevated water temperature. Lesser and/or indirect impacts result from habitat alteration, the input of nutrients, metals, and pesticides, and the increased access to forest lands that can result in increased recreational uses of former wilderness areas. Timber harvesting, road construction, and road use and maintenance are the activities that generate sediment contributions to streams. Mass wasting events from roads and harvested areas are the primary source of sediment from silvicultural sites (Rice et. al. 1972, Rice and Lewis 1991). The harvest of trees along riparian areas results in elevated stream temperatures during summer months and colder water temperatures during the winter months. The removal of potential large woody debris during harvests and bridge construction alter stream habitats. Fertilizers used during reforestation and leaching of nutrients from soils exposed by harvest activity can result in

nutrient inputs to streams. Silvicultural chemicals, including pesticides and their degradation products, are also carried to streams by runoff and by leaching into the ground water that feeds streams (EPA 1997).

Since much of the Reservation uplands are forested, future harvesting of these forests may have impacts on ground water. Harvest induced alteration of forest hydrology could reduce ground water recharge by increasing surface runoff during storm events. This could increase the probability and magnitude of saltwater intrusion, depending on whether the land was retained in forestry or converted to another use. The use of fertilizers and silvicultural chemicals during reforestation and forest management activities could contribute to surface and ground water contamination.

2.3.3. Urban Runoff

Urban runoff is a source of all the types of NPS pollutants (bacteria, fine sediment, habitat alteration, metals, nutrients, oxygen demanding substances, pesticides and other chemicals, pH, and temperature) that are responsible for salmonid and shellfish impacts in the Lummi River and Nooksack River watersheds and estuaries including the on-Reservation shellfish beds. Oxygen demanding substances, such as pet waste, oil, grease, detergents, waxes, and other household chemicals, and reduced streamflow due to hydrologic alterations likely contribute to low dissolved oxygen levels in Nooksack River and Lummi River tributaries.

The increase of impervious surfaces (e.g., driveways, roads, parking lots, and roofs) associated with development can significantly increase storm water runoff and fine sediment loads to the streams and rivers in the watersheds. Higher instream flows due to the increased storm runoff result in greater streambank erosion. Creeks channelized into roadside ditches and streambed scouring due to storm water runoff result in habitat alterations and degradation.

In addition, pollutants that accumulate on surfaces and in the atmosphere between precipitation events can produce high pollutant levels in the initial runoff from a storm. These runoff pollutants include the nutrients derived from fertilizers, automotive wastes, failing septic systems, and other sources. Also included are the significant levels of heavy metals, petroleum hydrocarbons, and various other chemicals, including pesticides and their derivative products, that result from automotive wastes and various residential, commercial, and industrial sources (EPA 1997, Ecology 2005). Many of these sources (e.g., leaking batteries, concrete) can alter the pH in watershed streams. The loss of riparian vegetation and reduced streamflow due to hydrologic alterations contribute to elevated stream temperatures in the Lummi River and lower Nooksack River watersheds.

Streams and storm water runoff transport some of the pollutants described above, especially metals, pesticides, and other chemicals, from urban areas to the resource rich tideland habitats along the Reservation shorelines (LNR 2010). With the highest housing density on the Reservation occurring along the shorelines, contaminated storm water can flow directly onto the resource rich tidelands. Because freshwater will generally “float” over denser seawater before gradually mixing with the seawater, species that reproduce, live, or feed in the intertidal zone or in the upper portion of the water column are particularly vulnerable to contaminated freshwater input. These species include juvenile salmon, herring, other small

forage fish, shellfish, great blue herons, and bald eagles. This marine exposure pathway also exists for pollutants that enter surface waters from other source categories (e.g., agriculture, silviculture, atmospheric deposition, and highway runoff).

Although much lower than from agriculture, urban runoff was a contributing source of fecal coliform bacteria responsible for the closure of Portage Bay shellfish beds from 1996 through 2006 (Ecology 2000) and the potential closure of Lummi Bay shellfish beds. Exposure of pet waste, illegal solid waste dumpsites that contain items like used diapers, and failing septic systems that discharge to surface runoff or storm water are the routes through which bacteria reach surface waters in the Reservation watersheds. The pathway described above acts to expose the shellfish in the tidelands of Bellingham, Portage, and Lummi bays to bacterial contamination with the ebb and flow of each tide.

Since urban runoff occurs in the generally identified recharge zones for Reservation aquifers, the potential exists for impacts to the ground water where surface waters contribute to aquifer recharge. The nutrients, metals, and chemicals present in urban runoff can contribute to ground water contamination. In addition, increased storm water runoff due to impervious surfaces results in reduced ground water recharge that could potentially increase the probability and magnitude of saltwater intrusion.

2.3.4. Hydromodification/Habitat Modification

Hydromodification, including aquatic and riparian habitat modification, is a significant source of salmonid and shellfish impairment in the lower Nooksack River and Lummi River watersheds and estuaries. Hydromodifications impact habitat and water quality in streams through direct alteration of channel morphology and salmonid habitat including channelization that reduces channel length and associated salmon habitat, isolation of streams from floodplains and side channels, input of fine sediment, drainage activities that reduce the amount of water available to support instream flows during the low flow season (July – October), and elevated water temperatures. Other impacts include reduction of dissolved oxygen, increased nutrient levels, and pH alterations. In Lummi Bay, the main impacts of hydromodification on habitat and water quality in estuarine habitats are due to the sea wall that physically separates nutrient sources in upland areas from the estuary and that results in a decrease in salt marsh habitat. The Lummi Bay and Bellingham Bay estuaries can also be affected by increased input of fine sediment resulting from hydromodification in the upper Nooksack River watershed. The levee construction along the Nooksack River for flood protection constrains the channel migration and deposition of sediments in the historic flood plains. As a result, the river channel acts like a chute to convey the sediment to the Nooksack River delta where it is deposited. Bortleson et al. 1980 concluded that the Nooksack River delta was the fastest growing delta for a river of its size in Puget Sound.

Hydromodification can be a less obvious source of NPS pollution relative to other sources because some of its effects are generated indirectly. For example, several forms of hydromodification indirectly affect dissolved oxygen levels: channelization often reduces the turbulence that mixes oxygen into the water column; reduced flow due to flow modification also reduces turbulence as well as the dilution of oxygen-depleting substances; removal of riparian vegetation produces elevated water temperatures that in turn reduce dissolved gas saturation concentrations; loss of riparian vegetation and streambank destabilization also

result in increased loading of sediment and other oxygen depleting substances in runoff; and the draining/filling of wetlands can result in reduced streamflow and less removal of oxygen demanding substances from runoff.

Other significant impacts of hydromodification include the effect of increased streambank erosion due to channelization, removal of riparian vegetation, and streambank destabilization. The draining/filling of wetlands and isolation of streams from their floodplains due to levee construction and resultant channelization reduces opportunities for fine sediments to be deposited outside of the streambed. In addition to the effects of riparian vegetation removal, reduced streamflow due to flow modification and draining/filling of wetlands also results in higher water temperatures in streams. All of these processes have smaller effects on the nutrient and pH levels in streams (EPA 1997).

2.3.5. Ground Water Withdrawal

Saltwater intrusion due to excessive pumping of ground water is a current threat to Reservation aquifers and has been documented since the 1970s. Most of the active water supply wells on the Reservation are located within a half mile of marine waters. Salt water intrusion was the subject of a federal lawsuit (*United States v. Bel Bay Community et al.*, Civil No. 303-71C2 (W.D. Wash.) during which assessments by the U.S. Geological Survey (USGS) and Ecology, presented as exhibits in *United States v. Bel Bay Community et al.*, indicate that ground water withdrawals from two new wells would increase the likelihood of saltwater intrusion into the Lummi Peninsula Aquifer. Progressive saltwater intrusion has already led to the closure of several public and private water supply wells. Since future residential development would both increase the demand for ground water and potentially decrease the area available for ground water recharge, the potential for further saltwater intrusion is high. Increased pumping due to future economic and population growth could further threaten the ground water resources of the Lummi Nation if such activities are not managed effectively.

2.3.6. Construction

Land development and associated construction activities directly or indirectly contribute possibly significant sources of all nine types of NPS pollutants (bacterial/pathogens, fine sediment, habitat alteration, metals, nutrients, oxygen demanding substances, pesticides and other chemicals, pH, and temperature) that are responsible for salmonid and shellfish impacts in the Lummi River and Nooksack River watersheds, other Reservation watersheds, and in the marine waters on or adjacent to the Reservation. The impacts of land development and construction activities are very similar to those of urban runoff. These impacts are those that occur during the development and construction of buildings and roads; once construction is completed, the land area becomes a source of urban or highway runoff. The contaminants associated with construction are also similar to those of urban runoff. Construction chemicals such as paints, acids, cleaning solvents, asphalt products, soil additives, concrete and concrete curing compounds, and pollutants in wash water from concrete mixers largely match or replace the various commercial and industrial chemicals found in urban runoff (EPA 1997, Ecology 2005). Pollution from construction differs from that of urban runoff in that soil erosion is generally greater (Ecology 2005). Control of soil erosion is therefore a high priority at construction sites.

2.3.7. Atmospheric Deposition

Although significant quantities of atmospheric pollutants are generated in (NWAPA 2010) or pass through the region (USGS 1999), the amount of atmospheric deposition within Reservation watersheds is unknown. The levels of impact from atmospheric deposition listed in Table 2.2 are estimated relative to the impacts determined for the other source categories. Pollutants deposited regionally from the atmosphere in significant amounts include nitrogen, mercury and other heavy metals, fine particulate matter, sulfuric and hydrochloric acids, pesticides, and various organic chemicals (NWAPA 2010; USGS 1999). The major sources of atmospheric pollutants are exhaust from combustion of fuels, waste incineration, pesticide applications, commercial and industrial processes, and natural sources such as volcanism. Industrial sources relatively close to the Reservation include four oil refineries, an aluminum smelter, a pulp and paper mill (now closed), and a municipal waste incineration facility (now closed). Since their distribution is widespread, the deposition of atmospheric pollutants can potentially, if not currently, affect salmonids, shellfish, surface water quality, and ground water quality both on and off the Reservation.

2.3.8. Highway Maintenance and Runoff

Storm water runoff from highways and roads is a contributing, possibly significant, source of eight of the nine types of NPS pollutants (fine sediment, habitat alteration, metals, nutrients, oxygen demanding substances, pesticides and other chemicals, pH, and temperature) that are responsible for salmonid and shellfish impacts in the Lummi River and Nooksack River watersheds, other Reservation watersheds, and in the marine waters on or adjacent to the Reservation. Since this category is a component of the urban runoff source category, the impacts of highway runoff on surface and ground water are the same as for urban runoff and described above. The contaminants in highway runoff, however, are limited to those found in atmospheric deposition and in automotive wastes, including rubber worn from tires (oxygen demanding substance), heavy metals, phosphorus, acids, oil, grease, and various other automotive chemicals.

2.3.9. Land Disposal

Nonpoint source pollution due to land disposal of wastes is a contributing, possibly significant, source of seven of the nine types of NPS pollutants (bacteria, fine sediment, metals, nutrients, oxygen demanding substances, pesticides and other chemicals, and pH) that are responsible for salmonid and shellfish impacts in the Lummi River and Nooksack River watersheds, other Reservation watersheds, and in the marine waters on or adjacent to the Reservation. The main sources of these pollutants in Reservation watersheds are failing septic systems, illegally dumped solid wastes, and abandoned landfills. All of these sources may leach organic material, bacteria, nutrients, pesticides, and household chemicals into ground water. Landfills and illegal solid waste dump sites can also leach metals, petrochemicals, and various commercial and industrial chemicals, depending on what was placed in the landfill or dump site. If ground water from these sites reaches the surface, streams may also become contaminated. For onsite septic systems, this could result in a contribution to bacterial contamination of Portage Bay and Lummi Bay, but on a far smaller scale than that due to agricultural sources (Ecology 2000).

2.4. Best Management Practices

As part of implementing the 2015-2020 NPS Pollution Management Plan the LNR Water Resources Division (LWRD) staff members are responsible for selecting best management practices (BMPs) to control NPS pollution. The BMP selection process is part of the LWRD's mission to protect, restore, and manage the Lummi Nation water resources, including Reservation shorelines, in accordance with the policies, priorities, and guidelines of the Lummi Nation. The LWRD staff select appropriate BMPs after reviewing pertinent publications on NPS management measures (e.g., MWCOG 1992, EPA 1993, IDHW 1996, EPA 1996, Ecology 2005, EPA 2007, LWRD 2010) and consulting, as needed, with other LIBC departments and local NPS pollution management agencies (USDA-NRCS, WSU Cooperative Extension Service, Whatcom Conservation District, Ecology, EPA, U.S. Forest Service, WA Department of Natural Resources). Table 2.4 provides a summary of NPS categories and subcategories, and the key planning and BMP documents utilized by the Lummi Nation to address NPS pollution. Specific BMPs for existing NPS Pollution Management activities can be found in Section 8 of the 2015 NPS Pollution Assessment Report.

Because surface and ground water movement does not adhere to private property or political boundaries, and because community participation in developing and implementing the Lummi Nation NPS Pollution Management Plan is necessary for a successful program, community involvement will continue to be a key element of the Lummi Nation NPS Pollution Management Program. The two elements of the community involvement plan are (1) public education/outreach, and (2) interjurisdictional coordination and cooperation for activities off-Reservation that affect on-Reservation resources. Agency and public involvement in this process will be openly solicited as required by the EPA and the Lummi Indian Business Council and as specified in 40 CFR 25 and the Lummi Nation's Water Resources Protection Code (LCL Title 17). Since a large portion of the NPS pollution within the Reservation is addressed in the Storm Water Management Program, the public participation process of the NPS Pollution Management Program will be integrated with the Storm Water Management Program.

The Lummi Nation NPS Pollution Management Program will emphasize continued involvement in NPS pollution issues off the Reservation and implementation of BMPs and other actions identified in the Comprehensive Water Resources Management Program for NPS pollution on the Reservation. The activities and programs described in this management plan should result in the maintenance or improvement of surface and ground water quality on the Reservation.

Table 2.4 Best Management Practices to Address NPS Pollution Categories

NPS Category	NPS Subcategory	Key Planning and BMP Documents
Agriculture	Non-Irrigated Crop Production	Whatcom County Conservation District Best Management Practices; Whatcom County Critical Areas Ordinance; NRCS Conservation Practice Standards; Washington State University Extension; Concentrated Animal Feeding Operation (CAFO) or Animal Feeding Operations (AFO) individual or general NPDES permits
	Irrigated Crop Production	
	Specialty Crop Production	
	Pasture Grazing	
	Confined Animal Feeding Operations	
Silviculture	Harvesting, Restoration, Residue Management	Lummi Nation Forestry Management Plan; Lummi Code of Laws Title 10, Federal Forest Plan; USFS Watershed Analysis, WDR HCP, WA Forest Practices
	Forest Management	
	Road Construction/Maintenance	
Construction	Highway/Road/Bridge	Lummi Nation Storm Water Management Technical Background Document, Lummi Code of Laws Title 17 and Title 15 and associated regulations, EPA General Permit for Storm Water Discharges from Construction Activities NPDES permit and associated Lummi Nation 401 certification; Ecology Storm Water Management for Western Washington, Whatcom County codes and ordinances
	Land Development	
Urban Runoff/ Storm Sewers	Non-Industrial Permitted	
	Industrial Permitted	
	Other Urban Runoff	
	Highway/Road/Bridge Runoff	
	Erosion and Sedimentation	
Resource Extraction	Surface Mining (sand/gravel)	Lummi Code of Laws Title 17 and Title 15, EPA Industrial Storm Water Fact Sheet for Sector J: Mineral Mining and Processing Facilities, Best Management Practices for Reclaiming Surface Mines in Washington and Oregon, DOE Storm Water Management for Western Washington,
Land Disposal	Landfills	Lummi Code of Laws Title 18, Lummi Nation Integrated Solid Waste Management Plan, EPA Municipal Solid Waste Landfill Criteria-Technical Manual, EPA Safer disposal for Solid Waste: The Federal Regulations for Landfills
	On-Site Wastewater Systems	Lummi Code of Laws Title 16, A Plain English Guide to the EPA Part 503 Biosolids Rule, EPA On-site Wastewater Treatment Systems Manual, EPA Handbook for Managing On-site and Clustered Wastewater Treatment Systems, EPA Tribal Management of Onsite Wastewater Treatment Systems, DOH On-Site Sewage System Management Plan Guidance, Whatcom County codes and ordinances
Hydromodification/ Habitat Modification	Channelization	Lummi Code of Laws Title 17, EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, EPA National Management Measures to Control Nonpoint Source Pollution from
	Flow Modification	
	Removal of Riparian Vegetation	

Table 2.4 Best Management Practices to Address NPS Pollution Categories

NPS Category	NPS Subcategory	Key Planning and BMP Documents
	Streambank Modification or Destabilization	Hydromodification, NRCS Stream Corridor Restoration: Principles, Processes, and Practices, DOE Storm Water Management for Western Washington, National Marine Fisheries Service Guidelines for Riparian Buffers, Corps of Engineers System Wide Improvement Framework (SWIF).
	Draining/Filling of Wetlands	Lummi Code of Laws Title 17, Lummi Nation Wetland Management Program, Army Corps Engineers, Whatcom County Critical Areas Ordinance
Marinas and Recreational Boating	Creosote Pilings	Lummi Code of Laws Title 17, EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating, Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Whatcom County Shoreline Management Program
Atmospheric Deposition		Lummi Code of Laws Title 10 and Title 18, Lummi Forestry Management Plan, Federal Air Rules for Reservations, Northwest Clean Air Agency
Waste Storage/ Storage Tank Leaks		Lummi Code of Laws Title 16 and Title 17
Highway Maintenance and Runoff		Lummi Nation Storm Water Technical Background Document, Lummi Code of Laws Title 17 and Title 15 and associated regulations, EPA Best Management Practices for Environmental Issues Related to Highway and Street Maintenance, DOE Storm Water Management for Western Washington, Whatcom County codes and ordinances
Spills		Lummi Nation Oil Spill Prevention and Response Plan, Geographic Response Plan for North Puget Sound, DOE Spills Program
Natural Sources		Lummi Code of Laws Title 16 and Title 17, Lummi Wellhead Protection Program
Recreation Activities	Golf Courses	Lummi Code of Laws Title 17, Best Management Practices for Golf Course Maintenance Departments (Florida Department of Environmental Protection)
Ground Water Withdrawal		Lummi Code of Laws Title 16 and Title 17, Lummi Nation Wellhead Protection Program, Lummi Water Conservation Plan, Lummi Tribal Sewer and Water District Comprehensive Water Facilities Plan

2.5. Nonpoint Source Pollution Management Program Action Plan 2015-2020

The action plan for the Lummi Nation NPS Management Program is focused on addressing the three current impairments of greatest concern and a potential impairment of most concern. Nonpoint source pollution control measures are required to restore or maintain desired water uses and to meet or maintain water quality standards in affected water bodies. Each of the primary NPS pollution categories responsible for the current and potential impairments of surface and ground water on the Reservation were described in Section 2.3. Although the NPS Pollution Assessment Report assessed all of the currently and potentially significant sources of NPS pollution and all of the current types of NPS pollutants in the Reservation and Nooksack River watersheds, the applicable primary sources of the current and potential major impairments are the priority targets for this NPS Pollution Management Plan. This section identifies specific actions that LIBC departments will undertake between 2015 and 2020 to address the current and potential impairments of greatest concern and the associated primary sources of impairment. The criteria that will be used to evaluate the effectiveness of this plan are also described.

2.5.1. Salmonid Habitat Degradation in the Nooksack River Watershed and Estuary

As noted above, the Watershed Restoration, ESA, and Harvest Management Divisions of the LNR are involved in many of the on-the-ground activities that address degradation of salmonid habitat in the Nooksack River watershed and estuary. Table 2.5 summarizes the actions and implementation schedule to address sources that have led to degradation of salmonid habitat. The effectiveness of the action plan to address degradation of salmonid habitat will be evaluated in terms of salmonid production from the Nooksack River watershed. If salmon production and harvests increase to levels that occurred in the mid-1980s within the next 10 years, the action plan will be judged to be effective. However, it is recognized that habitat protection and restoration activities can take many years to result in measurable improvements in salmonid habitat. For example, revegetation of a riparian buffer may take several years to complete substantial lengths of stream and 10 to 15 or more years to mature. The positive habitat effects of a functioning riparian zone may then take several years to manifest in the form of increased salmonid populations.

Table 2.5 Action Plan to Address Salmonid Habitat Degradation

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Agriculture, Hydromodification	Enhance riparian buffers	Lummi Wetland and Habitat Mitigation Bank tree planting and habitat enhancement	■	■	■	■	■	Funded through Lummi General Fund appropriations and/or various federal and state grant programs; future funding through Section 319 possible.
		Elk Flats Property (upper Nooksack River Watershed) tree planting and habitat enhancement			■	■	■	
		Coordinate with NRCS to assist with buffer strip planting through the CREP program throughout the Nooksack River Watershed		■	■	■	■	
		Maintenance of Smuggler's Slough Phase I tree planting	■	■				
Silviculture	Abandoned and active logging roads	Evaluate abandoned and active logging roads for sediment loading from landslides in the South Fork of the Nooksack River watershed	■	■	■	■	■	Funded through various federal and state grant programs; future funding through Section 319 possible.
Silviculture	Continue to implement the Lummi Nation Forestry Management Plan	Implement BMPs during on-Reservation timber harvests	■	■	■	■	■	Funded through LIBC appropriations.
Silviculture, Hydromodification	Stabilize stream and river banks	Conducting a study of sediment loading from landslides in the South Fork Nooksack River	■	■	■	■	■	Funded through various federal and state grant programs.
Hydromodification	Improve or Remove Culvert/crossing	Smuggler's Slough culvert replacement at Lummi Shore Road and Haxton Way			■	■	■	Future funding through various federal and state grant programs and Section 319 possible.
		Smuggler's Slough culvert removal from an agricultural ditch		■	■			
Hydromodification	Install engineered log jams	Saxton Project in the South Fork Nooksack River	■					Funded through various federal and state grant programs; future funding through Section 319 possible.
		Cavanaugh Project in the South Fork Nooksack River	■	■				
		Planning and implementation of Ring Forest log jams	■	■	■			
Hydromodification	Continue to implement Smuggler's Slough, Lummi Wetland and Habitat Mitigation Bank, and Nooksack Estuary Recovery Project	Land acquisition in the Lummi River Delta	■	■	■	■	■	Funded through Lummi General Fund appropriations and/or various federal and state grant programs; Cobell Settlement Land Buy-Back Program
		Flow regime and water quality monitoring of Smuggler's Slough Project Area	■	■	■			
Hydromodification,	Continue to implement Lummi Wetland and Habitat Mitigation Bank	Land acquisition in the Lummi River and Nooksack River deltas	■	■	■	■	■	Funded through Lummi General Fund appropriations and Cobell Settlement Land Buy-Back Program
		Riparian vegetation monitoring in Phase 1a the Nooksack Delta site	■	■	■	■	■	
		Tree planting in Phase 1a of the Nooksack Delta site	■	■	■	■	■	
		Invasive species removal in Phase 1a of the Nooksack Delta site	■	■	■	■	■	

Table 2.5 Action Plan to Address Salmonid Habitat Degradation

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Agriculture, Hydromodification/ Habitat modification, Urban runoff	Monitor and protect estuarine water quality and habitat via the Surface Water Quality Monitoring Program, Comprehensive Water Resource Management Program, Coastal Zone Management Program, and Tidelands Management	Habitat Assessment of on-Reservation Surface Water Quality Sampling Sites	■					Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Update of the Coastal Zone Management Program	■					
		Submit annual Water Quality Assessment Report and export monitoring data to the EPA	■	■	■	■	■	
Agriculture, Hydromodification, Urban runoff	Continue to implement the Wellhead Protection, the Wetland Management, and the Storm Water Management regulations and education programs	Continue reviewing on-Reservation Storm Water Pollution Prevention Plans for Construction Sites	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Conduct storm water construction site visits	■	■	■	■	■	
		Continued update of the 1999 Wetland Inventory	■	■	■	■	■	
Marinas and Recreational boating, Spills	Continue to implement Spill Prevention and Response Plan	On the water spill drills semi-annually	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Participation in table top spill drills	■	■	■	■	■	
		Update Lummi Spill Prevention and Response Plan	■	■				
Agriculture, Silviculture, Hydromodification/ Habitat modification, Urban runoff	Conduct case-specific investigations of water quality problems	Obtain funding to conduct additional nutrient sampling of the streams	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Hydromodification/ Habitat modification	Continue studies to identify ecological flow regime needs	WRIA 1 Watershed Management Project	■	■	■	■	■	Funded through local funding sources and various federal and state grant programs.
Agriculture, Silviculture, Hydromodification/	Stream temperature monitoring	Forest and Fish Division Stream Temperature Monitoring Program in the upper watershed of the Nooksack River	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC

Table 2.5 Action Plan to Address Salmonid Habitat Degradation

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Habitat modification		Continuous water temperature loggers at ten sample sites throughout the Reservation	■	■	■	■	■	appropriations.
Agriculture, Silviculture, Hydromodification/ Habitat modification, Urban runoff	Continue to coordinate with other federal, tribal, state, and local agencies and private interests	WRIA 1 Salmon Recovery Plan Implementation	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations, Washington Department of Health, National Estuary Program, Whatcom County
		WRIA 1 Watershed Management Project	■	■	■	■	■	
		Nooksack Estuary Recovery Project	■	■	■	■	■	
		Portage Bay Shellfish Protection District	■	■	■	■	■	
		National Shellfish Sanitation Program Washington Department of Health	■	■	■	■	■	
		Whatcom Clean Water Program	■	■	■	■	■	
		System Wide Improvement Framework (SWIF) Process	■	■	■	■	■	
		Puget Sound Nearshore Ecosystem Restoration Project (PSNERP)	■	■	■	■	■	

(This page intentionally left blank)

2.5.2. Threat of Shellfish Harvest Closures in Portage Bay and Lummi Bay

Substantial shellfish beds used for ceremonial, subsistence, and commercial harvest purposes are located in and adjacent to both Portage Bay and Lummi Bay on the Reservation. Water quality monitoring stations in both bays are regularly sampled by the Washington State Department of Health in consultation with the Lummi Nation under the Shellfish Consent Decree (Order Regarding Shellfish Sanitation, *United States v. Washington [Shellfish]*, Civil Number 9213, Subproceeding 89-3, Western District of Washington, 1994). The purpose of this monitoring is to ensure that the National Shellfish Sanitation Program (NSSP) standards for certification by the federal Food and Drug Administration are met. Certification of commercial shellfish beds is based on both the quality of surface waters over the growing areas and land use practices in the watersheds that discharge to the growing areas. The Lummi Nation also has a treaty right to harvest shellfish throughout their Usual and Accustomed grounds and stations including within Drayton Harbor and Birch Bay.

Following the initial and subsequent downgrades of tribal shellfish beds in Portage Bay during 1996 and 1997, in addition to enforcement actions by the EPA, several federal, tribal, and state agencies and numerous individuals took a variety of steps to address identified pollutant sources (not all of which were related to agricultural activities). The three key actions that led to the improvement of water quality were: (1) technical and financial assistance (in excess of $8 million) to the dairy industry, private land owners, and municipalities that discharge wastes and wastewater to the Nooksack River; (2) compliance inspections to enforce provisions of the federal Clean Water Act and state equivalent; and (3) water quality monitoring to identify pollution sources and document improvements. These three key actions, along with interagency collaboration, resulted in a reclassification of approximately 75 percent of the "Restricted" shellfish growing beds in Portage Bay to "Approved" status in November 2003 and the reclassification of all of the shellfish growing areas in Portage Bay as "Approved" in May 2006 – nearly 10 years after the initial closure.

Unfortunately these three key actions have not continued at the levels that existed prior to 2003 and water quality sampling results indicate that current animal waste management practices are not effectively reducing fecal coliform contamination in the Nooksack River watershed. Water quality sampling results during 2014 caused three of the Portage Bay sampling stations to no longer achieve the NSSP standards. As a result, the Lummi Nation voluntarily closed approximately 335 acres of Portage Bay shellfish growing area to ceremonial, subsistence, and commercial harvest during September 2014. However, water quality in Portage Bay continued to deteriorate through 2014 resulting in additional sampling stations no longer attaining the NSSP standards. In consultation with the Lummi Nation, the Washington Department of Health issued an administrative order on March 19, 2015 that conditionally closed 496 acres of shellfish growing areas (Figure 2.3). Harvest of shellfish in these growing areas is prohibited from April through June and from October through December.

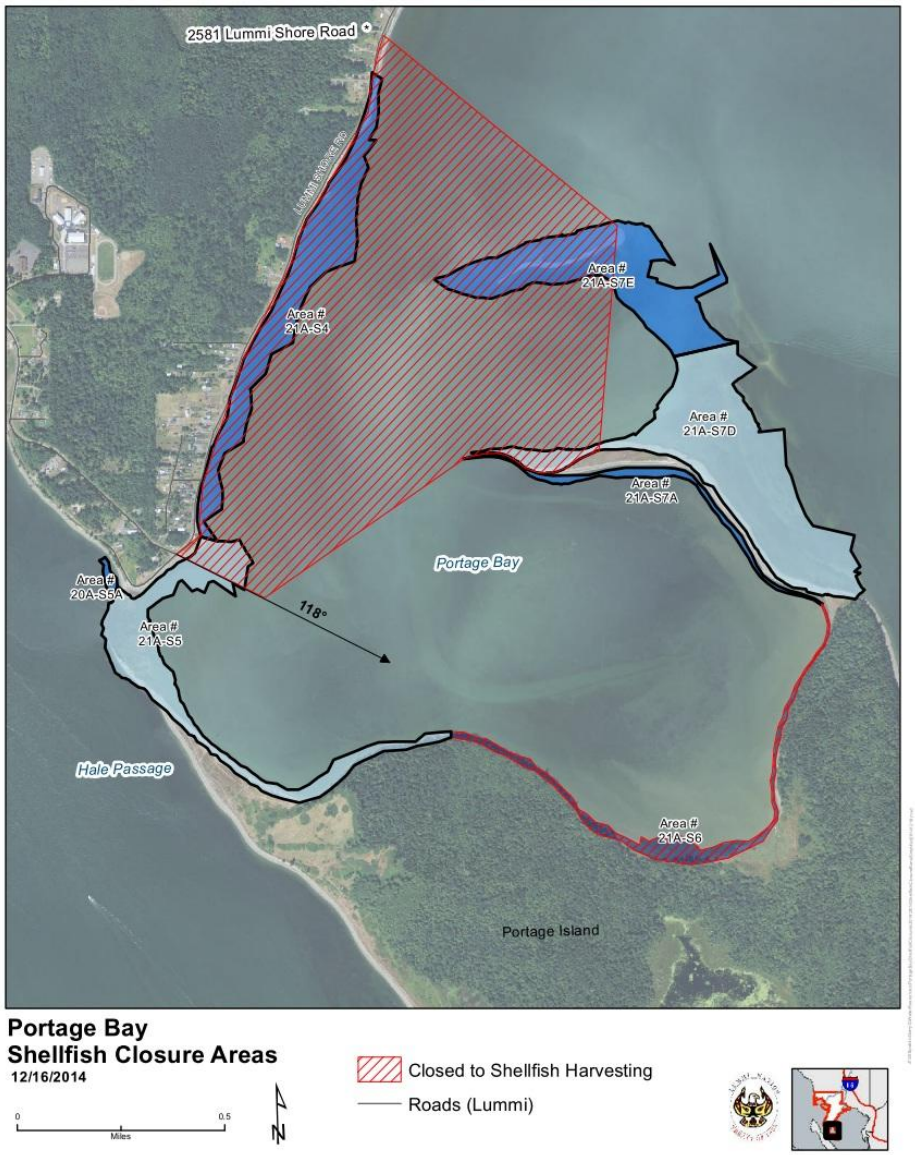

Figure 2.3 Conditionally Closed Portage Bay Shellfish Growing Area

Table 2.6 summarizes the actions and implementation schedule to both reopen the currently closed shellfish beds in Portage Bay and to prevent additional closures of tribal shellfish beds to ceremonial, subsistence, and commercial harvest. The effectiveness of the action plan will be evaluated in terms of the classification status of tribal shellfish beds. If the currently closed shellfish beds are reopened and if there are no further closures of tribal commercial shellfish beds on- and off-Reservation during the duration of the management program, the action plan will be judged to be effective. If not successful, subsequent versions of the management program will have to incorporate additional or more effective actions.

Table 2.6 Action Plan to Address Actual and Potential Closures of Tribal Shellfish Beds

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Agriculture, Silviculture, Urban runoff	Continue on-Reservation Surface Water Quality Monitoring Program	Collect samples at 56 surface water locations throughout the Reservation at least six times per year per station.	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture, Silviculture, Urban runoff	Continue assisting Washington State Department of Health with surface water quality sampling for National Shellfish Sanitation Program	Collect marine water samples at 12 DOH sample sites in Lummi Bay at least six times a year and 12 DOH sample sites in Portage Bay six times a year.	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Silviculture, Urban runoff	Continue Lummi Natural Resources Department participation on the Technical Review Committee	Provide written comments for Lummi Land Use Applications	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Waste Storage/Storage Tank Leaks	Continue to sample discharge from three Wastewater Treatment Plants	Collect quarterly discharge samples from the three wastewater treatment plans	■	■	■	■	■	Program started in 2000; funded through LIBC appropriations.
Waste Storage/Storage Tank Leaks	Improve coordination and spill response with Lummi Tribal Sewer and Water District for collection and treatment system	Adopt a written procedure between the Lummi Tribal Sewer and Water District and Lummi Natural Resources Department for sewer spill notifications	■	■				Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture	Remove creosote pilings from within Seaponds Aquaculture Facility, Lummi Bay, and Portage Bay	Apply for funding from Section 319 Funding for creosote pilling removal within the Lummi Aquaculture Facility		■				Pending funding through either Section 319 and/or General Assistance Program (GAP) grants.
		Remove the creosote pilings and properly dispose of them			■			
		Apply for funding from Section 319 Funding for creosote pilling removal in Lummi Bay			■	■	■	
Agriculture, Silviculture, Urban runoff	Support fecal coliform TMDL development and implementation in Drayton Harbor	Attend meetings and provide technical assistance during the TMDL process for the Drayton Harbor watershed	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture, Silviculture, Urban runoff	Continue implementation of Lummi Water Quality Standards	Implement recommendations from the Seafood Consumption Survey.	■	■				Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Revise public notice process for Section 401 certification	■					
		Tri-Annual review of the Lummi Water Quality Standards	■	■				
Agriculture, Silviculture, Urban runoff	Continue to implement Wellhead Protection, Storm Water Management, and Wetland Management regulations and public education programs	Continue reviewing on-Reservation Storm Water Pollution Prevention Plans for Construction Sites	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Conduct storm water construction site visits	■	■	■	■	■	
		Continued update of the 1999 Wetland Inventory	■	■	■	■	■	

Table 2.6 Action Plan to Address Actual and Potential Closures of Tribal Shellfish Beds

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Silviculture, Urban runoff	Continue Lummi Natural Resources Department participation on the Technical Review Committee	Provide written comments for Lummi Land Use Applications	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture, Silviculture, Hydromodification/ Habitat modification, Urban runoff	Continue coordination with other federal, tribal, state, and local agencies	WRIA 1 Watershed Management Project	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Nooksack Estuary Recovery Project	■	■	■	■	■	
		Portage Bay Shellfish Protection District	■	■	■	■	■	
		National Shellfish Sanitation Program Washington Department of Health	■	■	■	■	■	
		Whatcom Clean Water Program	■	■	■	■	■	
Urban Runoff, Land Disposal	Continue to implement the Lummi Integrated Solid Waste Management Plan	Obtain funding and implement the 2014 Lummi Integrated Solid Waste Management Plan	■	■	■	■	■	Seek funding through EPA Grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Increase enforcement to control illegal dumping	■	■	■	■	■	

2.5.3. Saltwater Intrusion and Contamination of Reservation Aquifers

The primary cause of saltwater intrusion into Reservation aquifers is excessive pumping, which is being addressed through negotiations and, as necessary, through litigation. Substantial progress was made to address excessive pumping of the Lummi Peninsula Aquifer in the settlement negotiated to resolve the federal ground water lawsuit regarding the Lummi Peninsula Aquifer (*United States, Lummi Nation v. Washington State Department of Ecology, et al*, Civ. No. 019047Z [W.D. Wash.]). Implementation of this settlement continues. However, this lawsuit did not address ground water management in the Northern Lummi Aquifer and conflict over water allocation in this separate aquifer continues.

There are several efforts underway to address ground water quality as part of the Comprehensive Water Resources Management Program (CWRMP). Table 2.7 summarizes the activities and implementation schedule to address NPS pollution sources that have led to saltwater intrusion into Reservation aquifers. The effectiveness of the action plan to address saltwater intrusion and other contamination of Reservation aquifers will be evaluated based on the results of the ground water monitoring program and monitoring results from the Lummi Water District's Safe Drinking Water Act sampling. If the chloride or contamination levels in monitoring wells do not increase over time or with increasing aquifer pumping within the duration of the NPS Pollution Management Plan implementation, the action plan will be judged to be effective for this impairment. If not successful, subsequent versions of the management program will have to incorporate additional or more effective actions to minimize saltwater intrusion and other contamination into Reservation aquifers.

Table 2.7 Action Plan to Address Saltwater Intrusion and Other Contamination of Reservation Aquifers

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Ground Water Withdrawal	Continue on-Reservation Ground Water Monitoring Program	Collect samples at 27 well locations throughout the Reservation 4 to 5 times per year	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Silviculture, Urban runoff	Continue Lummi Natural Resources Department participation on the Technical Review Committee	Provide written comments for Lummi Land Use Applications	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Ground Water Withdrawal	Implement the Water Conservation Plan in conjunction with the Lummi Tribal Sewer and Water District	Water Resources Division review water reclamation plans and rainwater catchment systems	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Obtain funding to update and implement a Water Conservation Plan			■	■	■	
		Publish water conservation educational information in the Squol Quol annually	■	■	■	■	■	
Ground Water Withdrawal	Implement the settlement agreement negotiated to resolve the federal ground water lawsuit regarding the Lummi Peninsula Aquifer (*United States, Lummi Nation v. Washington State Department of Ecology, et al*, Civ. No. 019047Z [W.D. Wash.])	Quarterly chloride sampling for LTSWD production wells	■	■	■	■	■	Funded through LIBC appropriations.
		Yearly chloride sampling and reporting of all wells in the Settlement Area	■	■	■	■	■	
		Continued connection of settlement parties to Lummi Tribal Water System	■	■	■	■	■	
Hydromodification	Ensure EPA oversight of Safe Drinking Water Act compliance of non-tribal water associations on the Reservation	Develop and implement a Tribal Environmental Plan with the EPA	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Hydromodification	Potential purchase of wells that threaten aquifer water quality	Obtain funding for land acquisition.			■	■	■	Obtain LIBC appropriations.
Hydromodification,	Continue the decommissioning of wells that are no longer in use and potentially threaten aquifer water quality	Obtain funding for well decommissioning	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture, Hydromodification/Habitat modification, Urban runoff	Pursue negotiated or litigated resolution of conflicting claims over water rights to Reservation ground water	Work with Washington Department of Ecology and other parties to resolve long-standing dispute of water allocation in the Northern Lummi Aquifer	■	■	■	■	■	Being addressed through actions independent of NPS Pollution Management Plan.
Agriculture, Hydromodification, Urban runoff	Continue to implement Wellhead Protection, Wetland Management, and Storm Water Management regulations and education programs	Continue reviewing on-Reservation Storm Water Pollution Prevention Plans for Construction Sites	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Conduct storm water construction site visits	■	■	■	■	■	
		Continued update of the 1999 Wetland Inventory	■	■	■	■	■	

Table 2.7 Action Plan to Address Saltwater Intrusion and Other Contamination of Reservation Aquifers

Nonpoint Source Pollution Category	BMPs	Activity	Year					Potential/Existing Funding Sources
			1	2	3	4	5	
Marinas and Recreational boating, Spills	Continue to implement Spill Prevention and Response Plan	Conduct on-water spill drills with boom deployment two times per year	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Participate in two table top spill drill exercises per year with local industries and response community.	■	■	■	■	■	
Ground Water Withdrawal	Incorporate the results of the Lummi Tribal Water District sampling program into the Lummi Water Resources Division database	Integrate data collection systems.	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Waste Storage/Storage Tank Leaks	Ensure continued coordination of spill response with Lummi Sewer District for collection and treatment system	Annually review adopted written procedures between the Lummi Tribal Sewer and Water District and Lummi Natural Resources Department for sewer spill notifications	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
Agriculture, Silviculture, Hydromodification/ Habitat modification, Urban runoff	Continue coordination with other federal, tribal, state, and local agencies	WRIA 1 Watershed Management Project	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Nooksack Estuary Recovery Project	■	■	■	■	■	
		Portage Bay Shellfish Protection District	■	■	■	■	■	
		National Shellfish Sanitation Program Washington Department of Health	■	■	■	■	■	
Urban Runoff/Storm Sewers, Land Disposal	Continue to implement the Lummi Integrated Solid Waste Management Plan	Obtain funding and implement the 2014 Lummi Integrated Solid Waste Management Plan	■	■	■	■	■	Funded through EPA Performance Partnership grants (Section 106, Section 319, GAP) and LIBC appropriations.
		Increase enforcement of illegal dumping	■	■	■	■	■	

(This page intentionally left blank)

3. EXISTING AUTHORITIES AND PROGRAMS

In this section, the existing Lummi Indian Business Council (LIBC) environmental programs directed toward managing NPS pollution on the Reservation are identified.

3.1. LIBC Environmental Programs

Fifteen LIBC environmental programs on the Reservation directly relate to managing Reservation water quality. Other programs may indirectly protect Reservation water quality (e.g., Public Health and Safety). These environmental programs are part of the LIBC's efforts to protect the political integrity, economic security, health, and welfare of the Lummi Nation and all Reservation residents. The Lummi Natural Resources Department (LNR) administers eight of the programs and the Lummi Planning Department administers seven programs. These fifteen LIBC environmental programs address the current and potential impairments of water quality on the Reservation.

The LNR administers the following environmental programs pursuant to its authority delegated by the LIBC through the Natural Resources Code (Lummi Code of Laws [LCL] Title 10) and the Water Resources Protection Code (LCL Title 17):

- Surface Water Quality Monitoring Program
- Ground Water Monitoring Program
- Comprehensive Water Resources Management Program
    - Storm Water Management Program
    - Wellhead Protection Program
    - Wetland Management Program
    - Non-Point Source Pollution Management Program
    - Water Quality Standards Program
- Case-Specific Investigations of Water Quality Problems
- Nooksack Estuary Recovery Project
- Natural Resources Ordinances
- Spill Prevention and Response Plan
- Multi-Hazard Mitigation Plan

The Lummi Planning Department administers the following programs pursuant to its authority delegated by the LIBC through the Tidelands Ordinance (LCL Title 13), Land Use, Zoning and Development Code (LCL Title 15), Flood Damage Reduction Code (LCL Title 15A), Sewer and Water District Code (LCL Title 16), and the Solid Waste Control and Disposal Code (LCL Title 18):

- General Land Use Plan
- Land Use Permitting/Technical Review Committee
- Lummi Tribal Sewer and Water District

- Integrated Solid Waste Management Plan
- Flood Damage Reduction Plan
- Coastal Zone Management Plan
- Tidelands Management

More detailed discussion of each of these LIBC environmental programs listed above can be found in the NPS Pollution Assessment Report.

3.2. Federal, State, and Local Nonpoint Source Control Programs

Existing NPS pollution control programs implemented by agencies other than the Lummi Nation in the portions of the watersheds that discharge to the Reservation but that extend off-Reservation are identified in Table 3.1. Many of these existing programs and responsible parties also provide, or in the future could provide, financial and technical assistance to the Lummi Nation NPS Pollution Management Program.

Table 3.1 Nonpoint Source Pollution Management Programs and Administering Agency

Nonpoint Source Pollution Control Programs	Responsible Agency
Tribal Habitat Restoration Projects	Nooksack Indian Tribe
Portage Bay Shellfish Protection District	Whatcom County
National Shellfish Sanitation Program	Washington State Department of Health
Clean Water Action Plan	Many Federal, State, and Local Agencies
Clean Water Act Section 106	EPA, Nooksack Indian Tribe
Clean Water Act Section 319	EPA, Nooksack Indian Tribe
Clean Water Act Section 303(d)	EPA, Washington State Department of Ecology
Clean Water Act Section 401	EPA, Washington State Department of Ecology
Clean Water Act Section 402	EPA, Washington State Department of Ecology
Clean Water Act Section 404	EPA, US Army Corps of Engineers
EPA General Assistance Program	EPA, Nooksack Indian Tribe
ESA Section 4(d) Rules for Nooksack Chinook Salmon	National Marine Fisheries Service
ESA Section 7 or Section 10 Consultation	National Marine Fisheries Service and US Fish and Wildlife Service
National Environmental Policy Act	Project-Dependent Lead Agency
Consolidated Pesticide Compliance Monitoring Program	EPA, Washington State Department of Agriculture
National Water Quality Assessment Program	USGS
Bureau of Indian Affairs Water Resources Grant Program	Bureau of Indian Affairs
Nonpoint Watershed Action Plans for Kamm, Tenmile, and Silver Creeks	Washington Department of Ecology
Centennial Clean Water Act Grant Program	Washington Department of Ecology
WRIA 1 Salmon Recovery Plan	Lummi Nation, Nooksack Tribe, Washington State Department of Fish and Wildlife, Whatcom County
Puget Sound Partnership	Multiple Federal, Tribal, State, and Local Agencies
Local Planning and Management of Nonpoint Source Pollution	Washington State Department of Ecology, Whatcom County

Table 3.1 Nonpoint Source Pollution Management Programs and Administering Agency

Nonpoint Source Pollution Control Programs	Responsible Agency
Local Wellhead Protection Programs	Washington State Department of Health, Whatcom County
WRIA 1 Watershed Management Project	Initiating Governments (Lummi Nation, Nooksack Indian Tribe, Whatcom County, PUD No. 1 of Whatcom County, City of Bellingham)
Whatcom Clean Water Program	Washington State Department of Health
System Wide Improvement Framework (SWIF)	Whatcom County
Puget Sound Nearshore Ecosystem Restoration Project (PSNERP)	Washington Department of Fish and Wildlife, U.S. Army Corps of Engineers
Comprehensive Plan	Whatcom County
Critical Areas Ordinance	Whatcom County
Shoreline Master Program	Washington State Department of Ecology, Whatcom County
State Growth Management Act	Local Governments
Puget Sound Water Quality Management Program	Washington State Department of Ecology
State Revolving Loan Fund	Washington State Department of Health
Washington State Water Pollution Control Act	Washington State Department of Ecology
Washington State Coordinated Water System Plans	Washington State Department of Health
Washington State Ground Water Management Program	Washington State Department of Ecology
State Wetland Mitigation Banks Rule	Washington State Department of Ecology
Habitat Conservation Programs	National Marine Fisheries Service, US Fish and Wildlife Service
SEPA review of proposed projects	Washington State Department of Ecology, Whatcom County, Other Lead Agencies
Nooksack Salmon Enhancement Association	Nooksack Salmon Enhancement Association
Whatcom Land Trust	Whatcom Land Trust
Whatcom Watershed Information Network	Washington State University, Whatcom County
Cooperative Extension Service	Washington State University
Natural Resources Conservation Service	USDA
Environmental Quality Initiative Program	USDA
Conservation Reserve Enhancement Program	USDA
Wildlife Habitat Incentive Program	USDA
Public Law 566 Small Watershed Protection and Flood Prevention Act	USDA
Conservation Technical Assistance Program	USDA
Emergency Conservation Program	USDA Farm Agency
Rural Clean Water Act Program	USDA
Farmer's Home Administration	USDA
Rural Development Administration	USDA
Sustainable Agriculture Research and Education	USDA
Agriculture in Concert with the Environment Program	USDA, EPA
Whatcom County Manure Ordinance	Whatcom County
Application Risk Management (ARM) Program	Whatcom County Conservation District
Washington Sate Dairy Nutrient Management Act	Washington State Department of Agriculture
BIA Forest Management Program	Bureau of Indian Affairs

Table 3.1 Nonpoint Source Pollution Management Programs and Administering Agency

Nonpoint Source Pollution Control Programs	Responsible Agency
State Forest Practices Rules and Regulations including the Forest and Fish Report/Plan	Washington State Department of Natural Resources
State Forest Land Management Program	Washington State Department of Natural Resources
1987 Timber, Fish, and Wildlife Agreement	Tribes, Washington State Department of Natural Resources, Timber Industry
Watershed Analysis	Washington State Department of Natural Resources
Watershed Restoration Initiative Forest Roads	State, Tribes, Conservation Agencies
Northwest Forest Plan	US Forest Service
FEMA Unified Hazard Mitigation Assistance Program	Federal Emergency Management Agency
Wetlands Protection Development Grants	EPA
US Fish and Wildlife Service Grants	U.S. Department of the Interior
Whatcom County Comprehensive Flood Hazard Management Plan	Whatcom County
Hydraulic Project Approval Program	Washington State Department of Fish and Wildlife
Washington Conservation Corps	Washington State Department of Ecology
Environmental Justice to Small Community Groups	EPA
Resource Conservation and Recovery Act	EPA
Municipal Storm Water Management Plans	Washington State Department of Ecology, local governments
Municipal Separate Storm Sewer System Permits	EPA, Washington State Department of Ecology
Disposal of Toxics Program	Whatcom County
Small Business Hazardous Waste Reduction Program	Washington State Department of Ecology, Whatcom County
Community Litter Clean Up Program	Washington State Department of Ecology
Beyond Waste Program	Washington State Department of Ecology
Hazardous Waste Management Program (Ecology)	Washington State Department of Ecology
Sand and Gravel General Permit Program (Ecology)	Washington State Department of Ecology
State Surface Mining Act	Washington State Department of Natural Resources
Air Quality Program	EPA
Northwest Air Pollution Control Authority	Northwest Air Pollution Control Authority
Road Maintenance	Whatcom County
Inspection of onsite septic systems	Whatcom County
Washington State Water Right Permit Process	Washington State Department of Ecology

3.3. Public Involvement

The public involvement effort associated with the development and adoption of the Lummi Nation Nonpoint Source Pollution Management Plan is summarized below and further documented in Appendix D. Draft versions of both the Lummi Nation NPS Pollution Assessment Report and the Lummi Nation NPS Pollution Management Plan were transmitted to the EPA for review during November 2014. Comments provided by the EPA were incorporated into the Public Review drafts of the two documents.

A PowerPoint presentation about the updated NPS Pollution Management Plan was presented to the Lummi Natural Resources Commission (members elected for 3-year term by all registered fisheries who are enrolled Lummi tribal members) and the Lummi Planning Commission (members appointed by the LIBC) for input and support. The commissions hold meetings that are open to the public.

Further input was solicited from the public through a legal notice in the April 2015 edition of the Lummi monthly newspaper (*Squol Quol*) and a legal notice in the Bellingham Herald (regional newspaper with the largest circulation) that appeared on three consecutive days (March 25 through March 27, 2015). The legal notice advertised that both the updated Nonpoint Source Pollution Assessment Report and the associated Nonpoint Source Pollution Management Plan were available for public review and comment, how copies of the draft documents could be accessed through the Lummi Nation website, how to submit comments, and identified that the comment period closed on May 1, 2015. The Public Review draft documents were available on the Lummi Natural Resources Department website (http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=80). The legal notice was also emailed directly to representatives from the U.S. Environmental Protection Agency, Washington Department of Ecology, Whatcom County, PUD No. 1 of Whatcom County, the City of Ferndale, the City of Lynden, the Whatcom Conservation District, and the Whatcom County Farm Friends. No comments were received during the public comment that extended from March 25 through May 1, 2015.

The EPA approved the Lummi Nation's application for "treatment as a state", the 2001 Nonpoint Source Assessment Report, and the 2002 version of the Lummi Nation NPS Pollution Management Plan on January 25, 2002 (see Appendix A). The LIBC passed Resolution No. 2015-089 on September 1, 2015 to formally adopt this first update of the Lummi Nation NPS Pollution Management Plan (see Appendix B). Following adoption of the final version of the plan by the LIBC, the EPA approved the Lummi Nation NPS Pollution Management Plan: 2015-2020 on October 1, 2015. The letter from the EPA approving the Lummi Nation Nonpoint Source Pollution Assessment Report 2015 Update and the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 is attached in Appendix C.

(This page intentionally left blank)

4. CONCLUSION

This update of the 2002 Lummi Nation NPS Pollution Management Plan (LWRD 2002) includes the following primary changes to the earlier version:

- Updated inventory of potential nonpoint sources of pollution in the Reservation watersheds.
- Updated impairments of Reservation water bodies.
- Updated listing of BMPs for NPS pollution.
- Updated NPS Management Action Plan for the 2015-2020 period.
- Updated lists of NPS pollution prevention and control programs.

Analysis of available water quality data and potential sources of NPS pollution shows that surface waters on and flowing onto the Reservation are currently or potentially affected by all classes of NPS pollutants. These pollutants include bacteria/pathogens, fine sediment, nutrients, oxygen demanding substances (low dissolved oxygen), pH, temperature, metals, pesticides, household and industrial chemicals, and oil and grease. The four major water bodies (Nooksack River, Portage Bay/Bellingham Bay, Lummi River, and Lummi Bay/Strait of Georgia) and the ground water on the Reservation are currently and/or potentially impaired by NPS pollution.

The Lummi Nation NPS Pollution Management Program is focused on addressing the three current impairments of greatest concern: loss of salmonid habitat in the Nooksack River watershed and estuary; restrictions to ceremonial, subsistence, and commercial shellfish harvests in Portage Bay; and salt water intrusion and other contamination of the Reservation aquifers. Also identified in the NPS Pollution Assessment Report is the potential impairment to the Lummi Nation Waters that would result in restrictions to ceremonial, subsistence, and commercial shellfish harvests in Lummi Bay. These waters require NPS pollution control measures to restore or maintain desired water uses and/or, in the case of surface waters, to meet or maintain the Lummi Nation Water Quality Standards.

As determined by the 2015 NPS Pollution Assessment Report, the NPS pollution categories primarily responsible for the current and potential impairments of surface and ground water in the Reservation watersheds are agriculture, silviculture, hydromodification/habitat modification, urban runoff, and ground water withdrawal. Although construction, atmospheric deposition, highway/road runoff, and land disposal may be significant contributors to the impairment of Reservation waters, these four sources and the remaining source categories listed in the Assessment Report do not appear to be major sources at this time. However, control of each NPS category should contribute to the improvement and the preservation of water quality and aquatic habitats both on-and off- Reservation. The primary and potentially significant sources of impairment should be the high priority targets for NPS management.

To reduce the impacts of NPS pollution on surface and ground water and achieve the NPS pollution management goals, appropriate BMPs must be effectively applied. Effective use of

BMPs (listed by source category in Tables 2.5, 2.6, and 2.7), coupled with land use zoning, should minimize the effects of NPS pollution on the Reservation. The fifteen LIBC environmental programs, as well as specific LNR activities aimed at the current and potential primary impairments, already address or will address NPS pollution on the Reservation. The NPS Pollution Management Plan will support and complement these current programs and activities.

5. REFERENCES

Bortleson, G.C., M.J. Chrzastowski, and A.K. Helgerson. 1980. Historical Changes of Shoreline and Wetland at Eleven Major Deltas in the Puget Sound Region, Washington. U.S. Geological Survey. Hydrologic Investigations Atlas HA-617.

Casillas, E., B.-T. L. Eberhart, F. C. Sommers, T. K. Collier, M. M. Krahn, and J. E. Stein. 1998a. Effects of Chemical Contaminants from the Hylebos Waterway on Growth of Juvenile Chinook Salmon, Report to Commencement Bay Natural Resource Trustees and NOAA Damage Assessment Center, Seattle, WA.

Casillas, E., B.-T. L. Eberhart, T. K. Collier, M. M. Krahn, and J. E. Stein. 1998b. Exposure of Juvenile Chinook Salmon to Chemicals Specific to the Hylebos Waterway: Tissue Concentrations and biochemical Responses, report to Commencement Bay Natural Resource Trustees and NOAA Damage Assessment Center. Seattle, WA

Idaho Department of Health and Welfare (IDHW). 1996. *A Landowner and Contractor's Best Management Practices Guide for the Control and Treatment of Storm Water, Erosion, and Sedimentation.*

Lummi Natural Resources Department (LNR). 2010. *Lummi Intertidal Baseline Inventory*. Prepared for Lummi Indian Business Council, Bellingham, WA.

Lummi Water Resources Division (LWRD). 1997. *Lummi Nation Wellhead Protection Program --Phase I*. Prepared for Lummi Indian Business Council, Bellingham, Washington.

Lummi Water Resources Division (LWRD). 2001. *Nonpoint Source Assessment Report.* Prepared for Lummi Indian Business Council, Bellingham, Washington.

Lummi Water Resources Division (LWRD). 2002. *Nonpoint Source Management Plan*. Prepared for Lummi Indian Business Council, Bellingham, Washington.

Lummi Water Resources Division (LWRD). 2008. *Water Quality Standards for Surface Waters of the Lummi Indian Reservation.* Prepared for Lummi Indian Business Council, Bellingham, Washington.

Lummi Water Resources Division (LWRD). 2010. *Quality Assurance Project Plan Lummi Nation Water Quality Monitoring Program.* Prepared for Lummi Indian Business Council, Bellingham, Washington.

Lummi Water Resources Division (LWRD). 2011a. *Lummi Reservation Storm Water Management Program Technical Background Document – 2011 Update.* Prepared for the Lummi Indian Business Council, Bellingham, Washington. July.

Lummi Water Resources Division (LWRD). 2011b. *Lummi Nation Wellhead Protection Program – 2011 Update*. Prepared for the Lummi Indian Business Council, Bellingham, Washington. December.

Lummi Water Resources Division (LWRD). 2015. *Lummi Nation Nonpoint Source Pollution Assessment Report – 2015 Update*. Prepared for the Lummi Indian Business Council, Bellingham, Washington. March.

Meador, J. P., F. C. Sommers, G. M. Ylitalo, and C. A. Sloan. 2006. *Altered Growth and Related Physiological Responses in Juvenile Chinook Salmon (Oncorhynchus tshawytscha) from Dietary Exposure to Polycyclic Aromatic Hydrocarbons (PAHs)*. Canadian Journal of Fisheries and Aquatic Science, 63, Pgs 2364–2376.

Metropolitan Washington Council of Governments (MWCOG). 1992. *A Current Assessment of Urban Best Management Practices: Techniques for Reducing Nonpoint Source Pollution in Coastal Areas*. Pub. No. 92705, Pg 127.

Myers, M. S., L. L. Johnson, and T. K. Collier. 2003. *Establishing the Causal Relationship Between Polycyclic Aromatic Hydrocarbon (PAH) Exposure and Hepatic Neoplasms and Neoplasia-related Liver Lesions in English Sole (Pleuronectes vetulus)*. Human Ecological Risk Assessment, 9, Pgs 67–94.

Northwest Air Pollution Authority (NWAPA). 2010. *Class "A" and Air Operating Permit Source Emission Inventory for Island, Skagit, and Whatcom Counties of Washington State*. Mt. Vernon, Washington.

Northwest Indian Fisheries Commission (NWIFC). January 2012. *Tribal Online Accounting System (TOCAS)*. access.nwifc.org/webapps/

Rice, R.M., J.S. Rothacher, and W.F. Megahan. 1972. *Erosional Consequences of Timber Harvesting: An Appraisal*. National Symposium on Watershed in Transition.

Rice, R.M. and J. Lewis. 1991. *Estimating Erosion Risks Associated with Logging and Forest Roads in Northwestern California*. Water Resource Bulletin 27(5):809-818.

U.S. Environmental Protection Agency (EPA). 1993. Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters. Office of Water, Washington, D.C. EPA/840/B/92/002. January.

U.S. Environmental Protection Agency (EPA). 1996. *Protecting Natural Wetlands: A Guide to Storm water Best Management Practices*. Office of Water, Washington, D.C. EPA/843/B-96/001.

U.S. Environmental Protection Agency (EPA). 1997. *Monitoring Guidance for Determining the Effectiveness of Nonpoint Source Controls.* Office of Water, Washington, D.C. EPA/841/B/96/004.

U.S. Environmental Protection Agency (EPA). 2007. *Developing Your Storm Water Pollution Prevention Plan: A Guide for Construction Sites.* Office of Water, Washington D.C. EPA-833-R-06-004.

U. S. Geological Survey (USGS). 1999. *The Quality of Our Nation's Waters -- Nutrients and Pesticides.* USGS Circular 1225. U.S. Department of the Interior. Reston, Virginia. Pg 82.

Vines, C.A., T. Robbins, F.J. Griffin, and G.N. Cherr. 2000. The Effects of Diffusible Creosote Derived Compounds on Development in Pacific herring (Clupea pallasi). Aquatic Toxicology 51:225 239. Cited in Stratus 2005a.

Washington State Department of Ecology (Ecology). 2000. *Nooksack River Watershed Bacteria Total Maximum Daily Load*. Pub No. 00-10-036 June.

Washington State Department of Ecology (Ecology). 2005. *Stormwater Management Manual for Western Washington.*

Washington State Department of Health (DOH). 1997. *Sanitary Survey of Portage Bay*. Office of Shellfish Programs.

Washington State Department of Natural Resources (WDNR). 2008. *Creosote Cleanup of Puget Sound and its Beaches*. FS-07-210 updated 8/11/08.

Whatcom Conservation District (WCD). 1998. *Portage Bay Initial Closure Response Strategy: A Community Effort to Reclaim Lost Shellfish Resource.* Portage Bay Closure Response Team, Whatcom Conservation District, Lynden, Washington. February. Pg 12.

(This page intentionally left blank)

6. LIST OF ACRONYMS AND ABBREVIATIONS

Programs and Terms:	
BMP	Best Management Practice
CWA	Clean Water Act
CWRMP	Comprehensive Water Resources Management Program
ESA	Endangered Species Act
GAP	General Assistance Program
GIS	Geographic Information System
NPS	Nonpoint Source
NPSPAR	Nonpoint Source Pollution Assessment Report
NSSP	National Shellfish Sanitation Program
TMDL	Total Maximum Daily Load
WRIA	Water Resource Inventory Area

Agencies and Organizations (Parent Organization):	
BIA	Bureau of Indian Affairs
Corps	U.S. Army Corps of Engineers
DOH	Department of Health, Washington State
Ecology	Department of Ecology, Washington State
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
IDHW	Idaho Department of Health and Welfare
LIBC	Lummi Indian Business Council
LNR	Lummi Natural Resources Department
LTSWD	Lummi Tribal Sewer and Water District
LWRD	Lummi Water Resources Division (LNR)
MWCOG	Metropolitan Washington Council of Governments
NMFS	National Marine Fisheries Service (NOAA)
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service (USDA)
NWAPA	Northwest Air Pollution Authority
NWIC	Northwest Indian College
USDA	US Department of Agriculture
USDI	US Department of the Interior
USEPA/EPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service (USDI)
USGS	US Geological Survey (USDI)
WCD	Whatcom Conservation District
WDFW	Washington State Department of Fish and Wildlife
WSDC	Washington State Department of Conservation
WDNR	Washington State Department of Natural Resources
WSU	Washington State University

(This page intentionally left blank)

APPENDIX A

Lummi Nation Certification of Tribal Authority: January 25, 2002 Letter from the EPA Approving the Lummi Nation's Application for "Treatment as a State" under Section 319 of the Clean Water Act, the 2001 Nonpoint Source Pollution Assessment Report, and the 2002 Nonpoint Source Pollution Management Plan

(This page intentionally left blank)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

JAN 25 2002

Reply To
Attn Of: ECO-086

Leroy Deardorff, Director
Lummi Indian Business Council Environmental Protection Program
2616 Kwina Road
Bellingham, WA 98226-9298

Dear Mr. Deardorff,

The U.S. Environmental Protection Agency is pleased to approve the following documents, establishing eligibility for the Lummi Nation to receive funding under Section 319 of the Clean Water Act (CWA): (1) Application for "treatment as state," (2) Nonpoint Source Assessment Report, and (3) Nonpoint Source Management Program. This approval is based on legal analysis of the "treatment as state" application by Regional Counsel, review and approval of documents by the Nonpoint Source Program in the Office of Ecosystems and Communities, and the experience of the Tribal Office.

Please note that we are specifically approving only those portions of these documents that ***pertain to waters of a reservation***. We are interpreting this to mean that the Tribe may use CWA grant funds outside the Reservation or tribal trust lands if the eligible activity pertains to management of the waters within the Reservation or tribal trust lands, and this relationship is explained in its work plan. If the work plan includes such off-reservation activities, the grant agreement will condition the use of the funds on the Tribe obtaining necessary access agreements or permission to do such activities because the CWA does not provide additional authority over rights of access to off-reservation waters.

Now that eligibility is established, the Lummi Nation should submit a work plan for $30,000 FY 2002 base funding under 319 to Robin Slate by March 4, 2002. You may also submit a project summary proposal for up to $150,000 to the Regional Office to compete for watershed funds by March 4, 2002. Please see *Guidelines on Awarding Section 319 Grants to Indian Tribes in FY 2002* for further details. You may call Teena Reichgott, Nonpoint Source Program Coordinator at 206-553-1601 if you have questions.

Congratulations. We look forward to working with you as you implement your Nonpoint Source Control Program.

Sincerely,

L. John Iani
Regional Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: ECO-086

MEMORANDUM

SUBJECT: EPA Region 10 Program Review of the Lummi Nation Nonpoint Source Assessment and Management Program

FROM: Elbert Moore
Director, Office of Ecosystems and Communities

TO: L. John Iani
Regional Administrator

We have conducted a program review of the Lummi Nation's Nonpoint Source Assessment Report and Management Plan and find that they satisfy the requirements for eligibility to receive funds under Section 319 of the Clean Water Act. The documents, particularly the Nonpoint Source Assessment Report, are well written and nicely organized. The summaries are excellent, focusing on major points. There are good, clear maps showing stream networks, watersheds, land use, and land cover. The charts and tables are appropriate and helpful. We recommend approval.

The plans meet the following statutory requirements:

NPS Assessment

1. Identification of navigable waters that cannot be expected to attain or maintain tribal water quality standards without the control of nonpoint source pollution. If the tribe does not have water quality standards, state standards can be used for evaluation of water quality.

The Lummi Nation has developed draft water quality standards. The surface water standards are numerically the same as current Washington State standards. Applications to administer Sections 303 and 401 of the Clean Water Act are in process. Nonpoint source-related impairments of greatest concern are closure of shellfish beds to commercial harvest, degradation of salmonid habitat, and saltwater intrusion into Reservation aquifers.

The major water bodies are: Nooksack River, Portage Bay/Bellingham Bay, Lummi River, Lummi Bay/Strait of Georgia, and ground water. The Lummi's Unified Watershed Assessment, completed in response to the Clean Water Action Plan, placed the Nooksack River and the Strait

of Georgia in Category 1, as watersheds in need of restoration. A number of surface waters are not meeting standards for bacteria, sediment, oxygen demanding substances, and temperature, all attributable to nonpoint source pollution.

2. An identification of the categories and subcategories of nonpoint source pollution that contribute to the water quality problems for the individual waters identified in paragraph 1.

Table 5.2 on pages 61 through 70 is entitled *Impairment of Reservation Waterbodies and NPS Pollutant Source Categories for Each Type of Pollutant*. Each water body is listed along with NPS pollutants that affect that water body, categories and subcategories of pollutant sources, and a high, medium or low designation for degree of impairment. Then, in Table 6.1, NPS categories are ranked according to level of impact. Based on this analysis, the NPS categories most in need of attention are agriculture, silviculture, hydromodification/habitat modification, urban runoff, and groundwater withdrawl.

3. A description of how the tribe will identify the best management practices needed to control each category and subcategory of nonpoint pollution identified in paragraph 2, as well as a description of how the management practices will be used to reduce the level of pollution resulting from these sources. Such factors as public participation and inter/intragovernmental coordination should be included.

The discussion in Section 8 (pages 89 and 90) describes responsibilities and processes by which BMPs are chosen. It is clear that the staff of the LWN Water Resources Division is familiar with the pertinent nonpoint source literature. The staff plans to consult other LIBC departments and local NPS management agencies as appropriate.

4. A description of any existing tribal, state, federal, and other programs that might be used for controlling nonpoint source pollution.

Tribal, federal, state, and local programs are described in Sections 7 and 9 for each NPS category.

NPS Management Program

1. A description of BMPs and measures that will be used to reduce pollutant loadings resulting from each category and subcategory of nonpoint source pollution identified in the assessment report. The impact of the practices on ground water should also be discussed.

Discussions throughout the documents show the there is a clear understanding of existing and

potential sources as well as applicable BMPs and measures. Specific approaches that include BMPs are listed in some detail in each action plan to address the impairments of greatest concern: closure of shellfish beds to commercial harvest, degradation of salmonid habitat, and saltwater intrusion into Reservation aquifers.

2. A description of the programs that will be used to achieve implementation of the BMPs identified in paragraph 1.

Programs are described in Section 4. Particularly helpful is the description of programs and activities that address the impairments of greatest concern in Section 4.2.

3. A schedule containing annual milestones for the implementation of the BMPs and programs identified in paragraphs 1 and 2.

Tables 3.2 through 3.6 list specific actions that are planned according to a five year schedule for each impairment of greatest concern in priority water bodies.

4. A certification by an independent legal counsel that the laws of the tribe provide adequate authority to implement such a management program, or if there is not adequate authority, a list of additional authorities that might be necessary to implement the management program. Schedule and commitment to seek any needed additional authority.

The Lummi Nation submitted TAS documents to EPA. These documents have been reviewed by the Office of Regional Counsel. A memo from Richard McAllister (attached) concludes that the Tribe meets the requirements of Section 518(e) of the CWA and 40 C.F.R. Part 130, as amended and is eligible for the assistance programs under Section 319 of the CWA.

5. A list and descriptions of any sources of federal and other assistance/funding (other than 319 (h)) that will be available for supporting the implementation of the nonpoint source pollution control measured identified in the tribe's nonpoint source management program.

The action plans (Tables 3.2 through 3.6) list existing and potential funding sources for each action.

6. Identification of any federal assistance programs and development projects to be reviewed by the tribe for their effect on water quality or inconsistency with the tribe's nonpoint source management program.

The Lummi Nation works with other federal agencies in programs and projects described throughout the document. Water quality is an integral part of many of these and any inconsistencies would be addressed during the course of program and project implementation.

APPENDIX B

LIBC Resolution 2015-089 Adoption of the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020

(This page intentionally left blank)

LUMMI INDIAN BUSINESS COUNCIL
2665 KWINA ROAD • BELLINGHAM, WASHINGTON 98226 • (360) 312-2000

RESOLUTION #2015-089 OF THE LUMMI INDIAN BUSINESS COUNCIL

TITLE: Adoption of the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020

WHEREAS, the Lummi Indian Business Council (LIBC) is the duly constituted governing body of the Lummi Nation by the authority of the Constitution and Bylaws, as amended, of the Lummi Tribe of the Lummi Reservation, Washington; and

WHEREAS, pursuant to Article VI(l) of the Lummi Constitution, the LIBC is required to safeguard and promote peace, safety, and welfare of the Lummi People and the Lummi Reservation community; and

WHEREAS, it is the mission of the LIBC "*To Preserve, Promote and Protect our Sche Lang en*" (LIBC Resolution #2012-025); and

WHEREAS, the LIBC is responsible for the protection, restoration, enhancement, and management of the natural resources within the exterior boundaries of the Lummi Reservation and throughout the Lummi Nation's Usual and Accustomed (U&A) fishing and gathering grounds and stations and traditional territories; and

WHEREAS, the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 is consistent with the Water Resources Protection Code (Title 17 of the Lummi Nation Code of Laws); and

WHEREAS, the primary goal of the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 is to effectively and efficiently control nonpoint source pollution on the Lummi Indian Reservation and to coordinate with appropriate jurisdictions to control nonpoint source pollution in the watersheds that discharge to the Reservation; and

WHEREAS, the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 identifies proposed actions for reducing current and potentially significant sources of nonpoint source pollution and impairments of greatest concern; and

WHEREAS, implementation of the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 will reduce the impacts of nonpoint source pollution on surface and ground water and achieve the nonpoint source pollution management goals; and

WHEREAS, the Lummi Natural Resources Department developed the Lummi Nation Nonpoint Source Assessment Report (2001) and the Lummi Nation Nonpoint Source Management Program (2002); and

WHEREAS, the U.S. Environmental Protection Agency approved the Lummi Nation Nonpoint Source Assessment Report (2001) and the Lummi Nation Nonpoint Source Management Program (2002) on January 25, 2002, establishing eligibility for the Lummi Nation to receive funding under Section 319 of the Clean Water Act; and

WHEREAS, the Lummi Nation Nonpoint Source Pollution Plan: 2015-2020 is an update to the Lummi Nation Nonpoint Source Management Program (2002); and

WHEREAS, a public comment period from March 25, 2015 through May 1, 2015, advertised in The Bellingham Herald and the Squol Quol, received no comments; and

WHEREAS, both the Lummi Fisheries and Natural Resources Commission, at their meeting on May 5, 2015, and the Lummi Planning Commission, at their meeting on June 10, 2015, recommended that the LIBC approve the Lummi Nation Nonpoint Source Pollution Plan: 2015-2020.

NOW, THEREFORE, BE IT RESOLVED that the LIBC approves the Lummi Nation Nonpoint Source Pollution Plan: 2015-2020; and

BE IT FURTHER RESOLVED, that the LIBC directs the Lummi Natural Resources Director to designate appropriate staff members to implement the actions identified in the plan; and

BE IT FINALLY RESOLVED, that the Chairman (or Vice Chairwoman in his absence) is hereby authorized and directed to execute this resolution and any documents connected therewith, and the Secretary (or the Recording Secretary in his absence) is authorized and directed to execute the following certification.

LUMMI NATION

Timothy Ballew II, Chairman
Lummi Indian Business Council

CERTIFICATION

As Secretary of the Lummi Indian Business Council, I hereby certify that the above Resolution **#2015-089** was adopted at a **Regular/Special** Meeting of the Council held on the **1st** day of **September, 2015**, at which time a quorum of **9** was present by a vote of **8** for, **0** against, and **0** abstention(s).

Jeremiah Julius, Secretary
Lummi Indian Business Council

APPENDIX C

EPA Approval of the Lummi Nation Nonpoint Source Pollution Assessment Report: 2015 Update and the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020

(This page intentionally left blank)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
WATER AND WATERSHEDS

OCT 0 1 2015

Mr. Merle Jefferson Sr.
Executive Director
Lummi Natural Resources Department
2665 Kwina Road
Bellingham, Washington 98226

Dear Mr. Jefferson Sr.:

Thank you for submitting the Lummi Nation's updated Nonpoint Source Pollution Assessment Report, March 2015 and Nonpoint Source Pollution Management Plan for 2015-2020, September 2015. I am pleased to inform you that the Environmental Protection Agency (EPA) Region 10 is approving the updated documents.

In 2002, as part of your Clean Water Act Section 319 application for treatment-as-a-state, the Lummi Nation submitted an assessment report and management plan to the EPA Region 10. Recently, we have been asking tribes in Region 10 to review and update these documents as needed and develop a new five-year schedule of activities. The documents that the Lummi Nation submitted in response to our request are very well written and thorough. The updated assessment report clearly describes the current impairments and causes and sources of nonpoint source pollution. The updated five-year management plan effectively integrates assessment, planning, voluntary measures and regulatory actions to address the wide range of nonpoint issues upstream of and on the reservation. Combined the documents demonstrate a broad understanding of the problems and the actions needed to address nonpoint source pollution. Such guiding documents are sure to provide a valuable roadmap for Section 319 grant funding for the next five years.

I appreciate the time and effort your staff took to develop these documents, conduct a public review and present them to tribal leadership. We look forward to continuing to support your important work of protecting and restoring the waters of the Lummi Nation. If you have any questions, please do not hesitate to contact me at (206)553-1906 or have your staff contact Krista Mendelman at (206) 553-1571.

Sincerely,

Christine Psyk, Associate Director
Office of Water and Watersheds

cc: Leroy Deardorff, Deputy Director
Jeremy Freimund, Water Resources Manager

(This page intentionally left blank)

APPENDIX D

Record of the Lummi Nation Nonpoint Source Pollution Management Plan: 2015-2020 Public Notice and Comment Period

(This page intentionally left blank)

Jeremy Freimund

From: Jeremy Freimund
Sent: Thursday, March 26, 2015 10:34 AM
To: 'Allen, Douglas R. (ECY)'; 'Hood, Steve (ECY)'; Rau, Ben (ECY); 'Tyler Schroeder'; 'Steve Jilk'; GregYoung@cityofferndale.org; 'Steve Banham'; Henry Bierlink [hbierlink@wcfarmfriends.com]; 'George Boggs'
Cc: Todd Bolster ; Kara D. Kuhlman; Mendelman, Krista; Foster, Westley; Leroy Deardorff Sr.
Subject: Public Notice Regarding the Availability of the Lummi Nation 2015 NPS Assessment Report and Management Plan Updates
Attachments: LummiNPSProgramReportpublic.announcement.doc

Hi all,
I hope that you are doing well. In the event that you missed it, the attached public notice appeared today in the Bellingham Herald (and will be posted for the next two consecutive days).
Kind Regards,
Jeremy

Jeremy R. Freimund, P.H.
Water Resources Manager
Lummi Natural Resources Department
2665 Kwina Road
Bellingham, WA 98226
(O) 360-312-2314
(C) 360-410-1775
http://lnnr.lummi-nsn.gov/LummiWebsite/

PUBLIC COMMENT PERIOD AND NOTICE OF AVAILABILITY
LUMMI NATION'S NONPOINT SOURCE POLLUTION ASSESSMENT REPORT
AND NONPOINT SOURCE POLLUTION MANAGEMENT PLAN

Notice is hereby given that the Lummi Nation's updated Nonpoint Source Pollution Assessment Report and associated Nonpoint Source Pollution Management Plan are available for public review and comments. The public review drafts of these documents are available through the internet and can be downloaded through the following link: http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=80. Electronic copies of the public review draft documents may also be obtained by contacting the Lummi Water Resources Manager at either 360-312-2314 or at jeremyf@lummi-nsn.gov. Written comments will be accepted until May 1, 2015 and should be sent to: ATTN: Water Resources Manager, 2665 Kwina Road, Bellingham, WA 98226.

MISCELLANEOUS MERCHANDISE

EMERGEN Transfer Switch
#10-7501 $200
360-303-3281

MOBILITY SCOOTER
Wheelchair Brand New and never used! $2300
(360) 671-0427

PETS SUPPLIES - SERVICES

AKC Golden Retriever Puppy for Sale
Male puppy is 10 weeks old and has had its first shots.$400
(360) 319-0537

AUNT CAROL'S PET & HOME SITTING
Aunt Carol is a professional pet care provider and dog walker. I do in-your-home pet sitting and dog walking for South Bellingham residents when people go on vacation, weekend away, business trip, date night or working long hours. Overnight pet sitting, daily visits or daily dog walks available.
*Licensed *Insured *Bonded
www.AuntCarolPetSits.com
Peace of Mind for You & Your Precious Loved Ones
Call for FREE Consultation!
(360) 318-5606

BORDER COLLIES
11 week old pups, 2 males, smart, social, shots, $300., 2 adults, trained, $100.ea, Concrete, WA.
treasurebordercollies.com
$300
(360) 608-4447

SOUTH HAVEN SHELTIES
AKC Sheltie female. Champion lines: Apple Acres, Old Bancory, Tall Timbers. Show quality markings and personality. Ready now. $1200
(360) 220-9058

SPORTS EQUIPMENT

BIODYNAMIC MEN'S ROLLERBLADES $10
Size 10
fish.princess@yahoo.com

YOGACISE YOGA BENCH $20
adjustable tension straps
fish.princess@yahoo.com

LEGAL NOTICES

(L4081)IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON IN AND FOR WHATCOM COUNTY
NO. 15 4 00100 4
NOTICE TO CREDITORS
In re the Estate of FELIX P. GREGUSKI, deceased
The Personal Representative named below has been appointed and has qualified as personal

LEGAL NOTICES

presented within the later of (1) Thirty days after the personal representative served or mailed the notice to the creditor as provided under RCW 11.40.020(3); or (2) four (4) months after the date of first publication of this notice. If the claim is not presented within this time frame, the claim is forever barred, except as otherwise provided in RCW 11.40.051 and 11.40.060. This bar is effective as to claims against both the probate assets and nonprobate assets of the decedent.
DATE OF FILING COPY OF NOTICE TO CREDITORS with the Clerk of Court: March 13, 2015.
DATE OF FIRST PUBLICATION: 3/14/2015
By KRISTIN CREASEY, 2989 Birch Bay-Lynden Road, Custer, WA 98240
Lisa Saar,
WSBA # 46494
Law Office of Lisa Saar, PLLC
Attorney for Estate
805 Dupont Street, #6, Bellingham, WA 98225

(L4613)PUBLIC COMMENT PERIOD AND NOTICE OF AVAILABILITY LUMMI NATION'S NONPOINT SOURCE POLLUTION ASSESSMENT REPORT AND NONPOINT SOURCE POLLUTION MANAGEMENT PLAN
Notice is hereby given that the Lummi Nation's updated Nonpoint Source Pollution Assessment Report and associated Nonpoint Source Pollution Management Plan are available for public review and comments. The public review drafts of these documents are available through the internet and can be downloaded through the following link: http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=80. Electronic copies of the public review draft documents may also be obtained by contacting the Lummi Water Resources Manager at either 360-312-2314 or at jeremyf@lummi-nsn.gov. Written comments will be accepted until May 1, 2015 and should be sent to: ATTN: Water Resources Manager, 2665 Kwina Road, Bellingham, WA 98226.

WHATCOM COUNTY LEGALS

WHATCOM COUNTY LEGALS

tem of assessment to provide revenue for the Consolidated Drainage Improvement District No. 21. The proposed revised system of assessment is similar to the current system and each parcel assessment is based on a combination of the relative ratio of benefit or use and acreage within the District. Each property owner would pay a proportionate share, based on the subsequent benefit value within their individual parcels. The revised system is being proposed to enable automation of the annual assessment roll generation process and provide a more equitable assessment of benefits. Council introduced the above at its March 17, 2015, meeting. Public documents are available for review in the Council Office, 311 Grand Avenue, Bellingham, and at www.co.whatcom.wa.us/council. Meetings are in the Council Chambers, same address, at 7:00 p.m., unless otherwise announced. The Council Chambers is handicapped accessible. People with special needs or disabilities who will be attending this meeting are asked to please contact our office (676-6690 or 800-676-6757 from Point Roberts) at least 96 hours in advance, so that we may make any needed accommodations. If interpretive services or transportation is needed, please call more than two days ahead of time.

AUTOS

4 WHEEL DRIVES

POSSIBLY THE FASTEST 4X4 IN WHATCOM COUNTY.
'88 Chev K1500 Stepside. Over $50k invested. Too many things to put in this ad. Must sell! Will take much less. Cash only. 360-220-1639

RECREATIONAL VEHICLES

2011 JAYCO TENT TRAILER
Model 1006 in excellent condition.Garaged, spotless. 2propane tanks, hot water heater, 3-way fridge, 2burner stove, sink, electric brakes, heated mattresses, furnace, front storage compartment, awning.Sleeps 6-8 people. Can email photos
Call 360-201-7389
$8,600
jcheck56@gmail.com

PUBLIC SERVICE ANNOUNCEMENT
Chapter 18.27.100 of the Revised Code of Washington requires that all advertisements for construction services include the contractors registration number in the advertisement. To verify a contractor's license, call the Dept. of Labor and Industry's Contractors Registration at 1-800-647-0982.

PUBLIC SERVICE ANNOUNCEMENT
Chapter 18.27.100 of the Revised Code of Washington requires that all advertisements for construction services include the contractors registration number in the advertisement. To verify a contractor's license, call the Dept. of Labor and Industry's Contractors Registration at 1-800-647-0982.

PUBLIC SERVICE ANNOUNCEMENT
Chapter 18.27.100 of the Revised Code of Washington requires that all advertisements for construction services include the contractors registration number in the advertisement. To verify a contractor's license, call the Dept. of Labor and Industry's Contractors Registration at 1-800-647-0982.

Attn - Legals
Bellingham Herald

PURCHASE ORDER

LUMMI INDIAN BUSINESS COUNCIL
2665 KWINA ROAD
BELLINGHAM, WA 98226
PHONE (360) 312-2187
TAX EXEMPT NUMBER WAC 458-20-192

PURCHASE ORDER NUMBER: **148911**
P.O. DATE: **3/24/2015**
CANCEL DATE: 5/24/2015

VENDOR: 10661

SHIP TO:

Bellingham Herald
1155 N. State Street
Suite #200
Bellingham, WA 98225

Lummi Indian Business Council
2665 Kwina Road
Bellingham, WA 98226

QUANITITY	DESCRIPTION	UNIT PRICE	EXTENSION
1.00	LEGAL NOTICE-PUBLIC COMMENT PERIOD FOR LUMMI NATION NONPOINT SOURCE PULLUTION MANAGMENT PLAN 3/25 TO 3/27	343.50	343.50

Distribution Account	Distribution Amount
10 150 9200 58300	343.50

REQUISITION	REQUESTED BY/DEPT.		
353572	KARA/LNR	**TOTAL:**	**343.50**

APPROVED BY Loni Jefferson

LPD Arrest Activity Summary

Based on drug and alcohol related charges

CASE	LAST NAME	FIRST NAME	MIDDLE NAME	BLOCK/STREET	DATE	TIME	CHARGE

PUBLIC NOTICE

TO: FERNANDO AUDITOR

Pursuant to the Lummi Code of Laws 3.03.040 and 8.07.060:

In the Tribal Court of the Lummi Nation

In Re the Welfare of K.P.

Case Number: 2008 CVDP 1308

SUMMONS

NOTICE OF HEARING

YOU ARE HEREBY NOTIFIED that a petition for suspension of your parental rights has been filed in this matter requesting the court to find and declare the above-named child to be legally free, and to enter an order permanently suspending your parental rights. A permanent plan order has been entered in this case with the primary plan of adoption.

A HEARING will be held on MAY 27, 2015 (date) at 9:00 AM (time) at the Lummi Tribal Court, 2665 Kwina Rd., Bellingham, WA 98226 for the purpose of the determination of whether to permanently suspend your parental rights.

SUMMONS

YOU ARE HEREBY SUMMONED to appear at the hearing at the time and place indicated above, and other hearings set in this matter. The purpose of this hearing is to hear and consider evidence on the petition. If you do not appear at (attend) the hearing, the court may receive evidence, hear argument, make findings and issue orders about this matter, without further notice to you, and you may risk that a default order be entered.

PURPOSE OF THE COURT

Lummi Tribal Court has jurisdiction over proceedings concerning dependent children arising under Title 8, under the Lummi Tribal Codes.

ADVICE OF RIGHTS

A parent of a child alleged to be dependent, has a right to receive a copy of the suspension petition, a notice of the hearing and a summons, and advice of rights.

If the child was taken into temporary custody and placed in shelter care, a shelter care hearing will be held within 72 hours (excluding Saturdays, Sundays and holidays) of the time the child was taken into custody. The purpose of this hearing is to determine whether or not the child should remain in custody pending a decision on the petition itself.

A parent or legal guardian of a child alleged to be dependent has a right to be represented by a lawyer (attorney). A lawyer can look at the files, talk to the caseworker and other persons, tell you about the law, help you to understand your rights, and help you in court.

If you are economically unable to hire a lawyer (attorney), you should immediately contact Spokesperson, Michael Ayosa, 2665 Kwina Road, Bellingham, WA 98226, (360) 312-2228.

At court hearings you have a right to present evidence, to be heard in your own behalf, to have a decision based solely on the evidence presented in open court, and to an unbiased fact-finder or judge.

At the first hearing, social workers from the Department of Social and Health Services (DSHS) or Lummi Children's Services (LCS); the Indian Child Welfare Staff Attorneys and the child's parents or guardians may make recommendations to the court as to the need for continued shelter care.

If the Court finds that the child is dependent, the Court will also determine where the child should be placed (temporarily), what visitation should occur, what services should be provided, and other matters. The Court's goal is to reunite the child with his or her family as soon as this can be safely achieved. Every dependency case is reviewed in court at least each six months and more frequently than that, if needed.

You are encouraged to contact your DSHS or LCS caseworker, or your attorney if you have any further questions about these matters.

NOTE: Parents may be held responsible for the financial support of the child if the child is placed in out-of-home care.

PUBLIC COMMENT PERIOD AND NOTICE OF AVAILABILITY

LUMMI NATION'S NONPOINT SOURCE POLLUTION ASSESSMENT REPORT AND NONPOINT SOURCE POLLUTION MANAGEMENT PLAN

Notice is hereby given that the Lummi Nation's updated Nonpoint Source Pollution Assessment Report and associated Nonpoint Source Pollution Management Plan are available for public review and comments. The public review drafts of these documents are available through the internet and can be downloaded through the following link: http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=80. Electronic copies of the public review draft documents may also be obtained by contacting the Lummi Water Resources Manager at either 360-312-2314 or at jeremyh@lummi-nsn.gov. Written comments will be accepted until May 1, 2015 and should be sent to: ATTN: Water Resources Manager, 2665 Kwina Road, Bellingham, WA 98226.