

Confederated Tribes of the Colville Reservation

Non-Point Source Water Pollution Management Plan



August 2011

Office of Environmental Trust  
Confederated Tribes of the Colville Reservation  
PO Box 150  
Nespelem, WA 99155

Prepared By:  
Todd Thorn and Elizabeth Wright

With assistance from:  
Chris Fisher, Bret Nine, and Bruce Wakefield

## Contents

<u>Overview</u>	<u>2</u>
<u>Introduction</u>	<u>3</u>
<u>NPS Management Plan Summary</u>	<u>6</u>
<u>NPS Management Plan Description</u>	<u>9</u>
<u>References</u>	<u>18</u>
<u>Appendices</u>	<u>19</u>

DRAFT

## Overview

Non-point source (NPS) pollution is water pollution that comes from many diffuse sources. As runoff from rainfall or snowmelt moves, it picks up and carries natural and human-made pollutants to streams, rivers, lakes, and wetlands, or ground waters.

This program management plan provides a framework for coordinating NPS pollution control efforts on the Colville Indian Reservation and maintaining water quality that meet standards set by the Confederated Tribes of the Colville Reservation (CTCR). NPS sources on the reservation include agriculture, silviculture, construction, hydrologic and habitat modifications, resource extraction, roads and water flow regulation, with significant levels of these activities occurring across much of the Reservation.

The CTCR have a primary interest in the protection, control, conservation, and utilization of the water resources of the Colville Indian Reservation. Surface waters have always had significant cultural and traditional values as well as more utilitarian and recreational purposes for the Tribes. All tribal surface waters are expected to support at least some of the following: water supply (domestic, industrial, agricultural); commerce & navigation; ceremonial & religious use; fish & shellfish; recreation; stock watering; wildlife habitat; fish migration; and natural food chain maintenance. Many Tribal members continue to live, at least partially, a subsistence lifestyle – hunting, fishing and gathering food (CTCR, 2011). Surface- and groundwater quality on the Reservation is important to the health, economic, aesthetic and cultural well-being of all people residing here.

CTCR has been accorded “treatment in a manner similar to a state” by the Environmental Protection Agency (EPA) for purposes of managing and controlling NPS water pollution. This means CTCR is eligible to administer a program for the purpose of controlling NPS water pollution, and to receive federal funding toward that purpose. This plan provides a description of CTCR’s program.

Tribal water monitoring shows several water quality criteria affected or potentially affected by NPS pollution on the reservation. The criteria of greatest concern include water turbidity, bacteria, and temperature. More than a quarter of 59 monitored streams experience levels of concern for turbidity. A quarter of monitored streams had exceedances of the Tribal fecal coliform standard or an *E. coli* level of concern since 2006. Water temperatures are a concern though recent monitoring has not revealed exceedances of tribal temperature standards (CTCR, 2011). The human activities mentioned previously are considered to be agents causing at least some of the water quality concerns and exceedances.

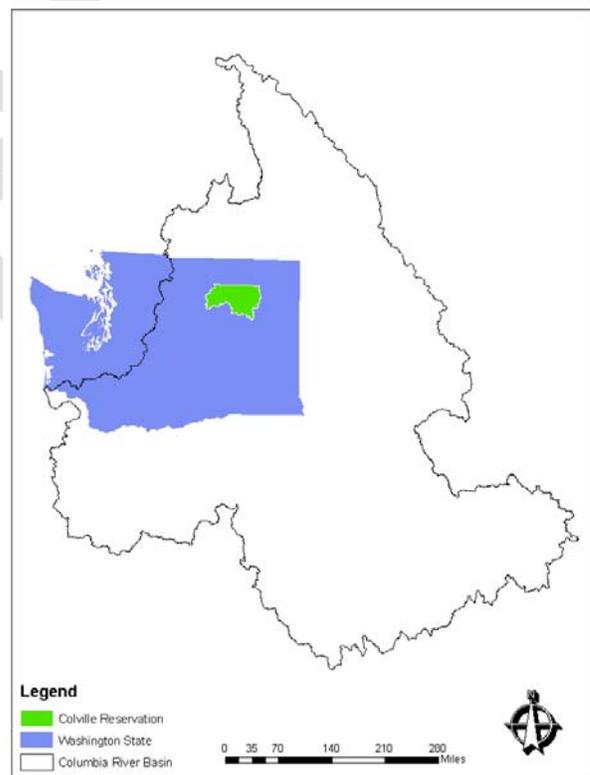
The NPS water pollution management plan includes information about water resources of the Reservation, goals and objectives for NPS pollution control, program elements, best management practices, funding sources, and information related to authority of CTCR to regulate and control NPS pollution.

## Introduction

The Confederated Tribes of the Colville Indian Reservation (CTCR) is a federally recognized Tribe located in Northeastern Washington State on approximately 1.4 million acres of land. CTCR owns about half of all tribal trust land in the State of Washington. Along with 1.5 million acres of ceded lands at the Reservation's northern boundary, the current Reservation is bounded on the east and south by the Columbia River and on the west by the Okanogan River. Both the Columbia and Okanogan Rivers are international waters that originate in Canada. These and other trans-boundary river systems are within CTCR's tribal lands and directly impact the health and safety of tribal members and natural resources. The northern boundary of the ceded territory is the Canadian border. Two of the Country's largest generating hydropower dams; Grand Coulee and Chief Joseph are located partially on the Reservation. The twelve tribes within the confederation are governed under the leadership of the Colville Business Council. There are approximately 9,000 tribal members and about half live on the Reservation. Much of the membership practice subsistence lifestyles in some manner. Several thousand non-Indians reside on or adjacent to the Reservation. Thousands of non-Indians depend on groundwater originating on Reservation lands.

Approximately 80% of the Reservation area is in trust status with remaining area being fee land (20%). Its 1,397,673 acres contain approximately 2,755 miles of streams and 420 lakes. The Reservation encompasses over 300 lakes with 175 that are five acres or greater in size; more than 25,000 acres of wetlands exist on the Reservation. Figure 2 (pg. 5) shows the Reservation as divided into management units. Resource Management Units (RMUs) are larger and encompass multiple Watershed Management Units (WMUs) the unit of area upon which most natural resource work is planned for. About 800,000 acres are forested and the remainder is range land or farmed. A small percentage of the land base is covered with urban or industrial development. Some 7,000 miles of road lie across the reservation.

This plan applies to all lands within the exterior boundaries of the Colville Indian Reservation, including lands held in trust or in fee status, and on other trust lands or allotments under the jurisdiction of the Colville Tribes.



**Figure 1: Reservation location within WA and the Columbia River Basin**

The intent is to create a framework to coordinate efforts and maximize overall effectiveness by numerous entities to prevent, reduce and mitigate NPS pollution on the Colville Indian Reservation. Individual and program roles relating to NPS will be described to aid in developing collaboration and addressing gaps in controlling NPS pollution.

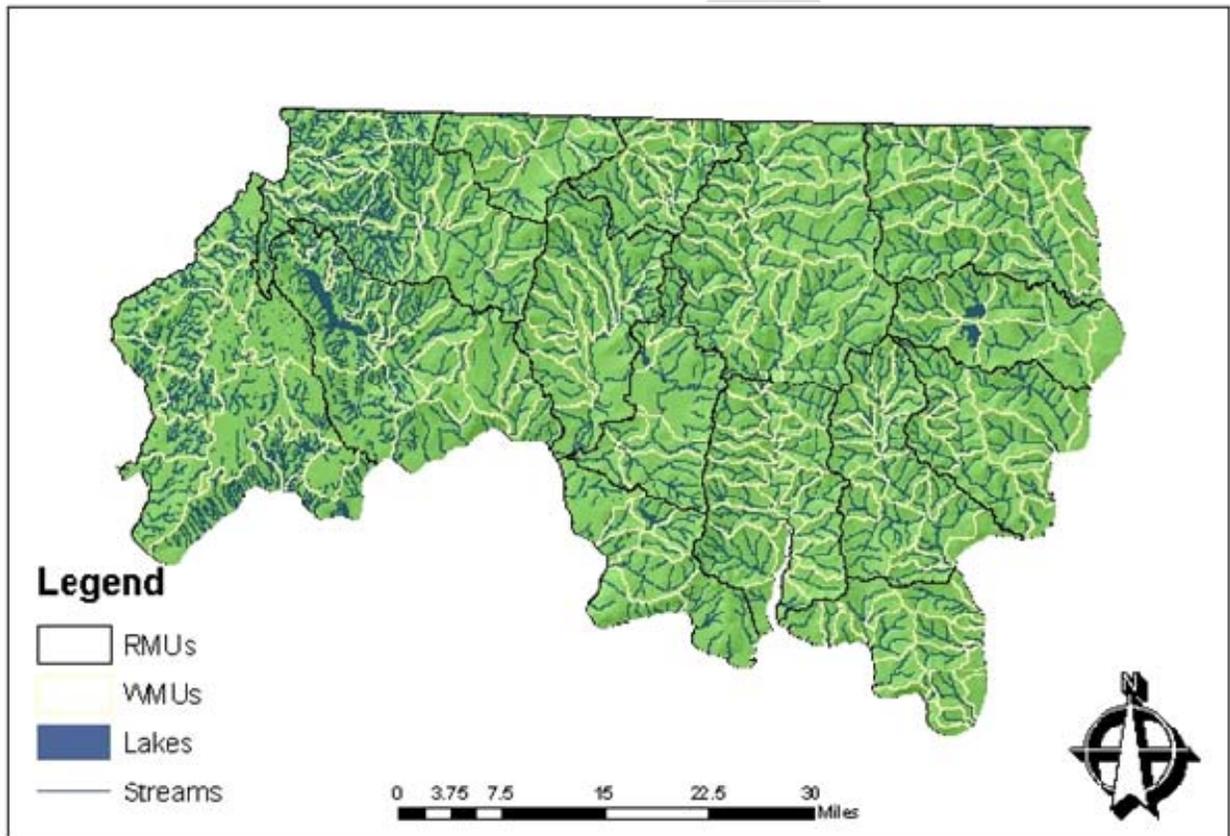
Goals for NPS management are:

- 1 To reduce and control NPS pollution, protect and improve water quality as needed to achieve CTCR's water quality standards and supporting all beneficial uses of tribal surface and ground waters, including keeping waters safe for drinking, fishing, swimming, and cultural uses.
- 2 To utilize NPS management to achieve CTCR's Holistic Goal. The Goal includes "having flourishing enterprises; having healthy productive landscapes including rangelands, croplands, forests, riparian areas, streams and lakes; ... in balance with an effective water, mineral, and energy cycle with biodiversity resulting in an abundance of culture, medicinal and edible plants, clean air and water, springs and streams that flow year round, large trees, wildlife, fish and insects (CTCR, 1996)."
- 3 To ensure adequate water quality and quantity in streams which provide habitat for anadromous and resident salmonids and increase the quality of suitable spawning habitat in tributaries, rivers and lakes within the Colville Indian Reservation.
- 4 To prevent degradation of high quality waters (those that do not experience levels of concern for temperature, sediment loading, dissolved oxygen, pH, or toxics), and restore waters that do not currently meet water quality standards on the Reservation.

NPS control strategies for achieving these goals include:

- Utilize a watershed-based approach to control of NPS pollution.
- Emphasize outreach and collaboration with intra-tribal agencies, partner agencies, and the community.
- Identify all water bodies within the Reservation that do not meet water quality standards.
- Incorporate watershed management perspective and provide technical assistance during natural resource project planning.
- Maintain an up-to-date and well-coordinated set of water quality protection codes. Conduct permitting processes and code compliance to assure project compliance with tribal water quality protection codes.
- Implement watershed Best Management Practices (BMPs-the best available economically achievable practices needed to solve a water quality problem. A BMP can be a particular technique, measure, or structural control used to manage the quantity and improve the quality of runoff to the maximum extent possible and most cost-effectively).

- Conduct water quality improvement and watershed stabilization projects as funding is obtained.
- Update the tribal water permit filing system to increase its efficiency, accuracy, access and speed.
- Efficiently quantify and measure water usage within the reservation by category such as surface water or groundwater, purpose of use, and location.
- Improve and expand monitoring efforts to eliminate information gaps.
- Evaluate the performance of BMPs being installed.



**Figure 2: Surface water resources and watershed areas of the Colville Reservation**

A number of CTCR- and other agency programs, businesses, and landowners have roles that affect NPS pollution and its control and mitigation. CTCR programs include Environmental Trust (ETD), Fish & Wildlife (F&W), Planning, Tribal Roads & Transportation, Colville Reservation Conservation District (CRCD), Public Works, and History/Archaeology. BIA programs include Forestry, Land Operations (Range), and Leasing. Federal programs include the Natural Resources Conservation Service (NRCS) and EPA. Businesses include the Colville Tribal Economic Corporation, numerous contractors, operators, and permit or lease holders. Landowners also have a key role. Reservation land ownership includes tribal trust, allotments

(trust land owned by individuals or groups of people), both involving BIA oversight, and lands owned in fee by tribal members or non-members.

Public comment regarding this plan will be solicited through an open house forum (TBA).

## NPS Management Program Plan Summary

### Tribal Authorities

CTCR is a federally recognized Indian Tribe operating under a Constitution and Bylaws ratified by the Colville Indians on February 26, 1938. The governmental powers of CTCR are, in general, the “inherent powers of a limited sovereignty which has never been extinguished.” F. Cohen, Hand Book of Federal Indian Law, 122 (1941). The Constitution and Bylaws establishes the 14 member Colville Business Council as the governing body for CTCR. Powers and duties of the Business Council are set forth in Article III, including authority to protect and preserve the property, wildlife and natural resources of the CTCR. The Business Council has adopted a Comprehensive Law and Order Code and established a broad range of regulatory programs to implement CTCR’s Constitutional mandate, including the Colville Water Quality Management Program, which was certified by the State of Washington and approved by the EPA.

### Resource Plans

CTCR submitted analysis to EPA in 1990 and 1991 supporting section 518 and 319 applications, and was granted authority “in a manner similar to a state” for managing and controlling non-point source pollution. This authority is granted by EPA under Section 518 (e) of the Clean Water Act (33 USC 1329).

The CTCR Integrated Resources Management Plan (IRMP) provides policy guiding forest management on the Reservation for the period from 2001 through 2014. The IRMP was approved by both CTCR and BIA, and directed significant advances in water resource protection. IRMP policies served as a catalyst to upgrade both the Forest Practices and Hydraulic Practices codes. Work is beginning to revise or redo the plan for a period extending beyond 2014.

CTCR is taking steps to develop a comprehensive solid waste management plan on the Reservation. We have completed our Integrated Waste Management Plan (IWMP). This effort and funding was initiated as a result of planning and grant writing efforts between ETD and Tribal Planning Programs through their Tribal Solid Waste Advisory Committee (SWAC).

ETD has not completed a wetland management program plan, but has taken steps to develop and implement some necessary components. A program plan is scheduled for development during FY 2012, supported by EPA grant funding.

### Ordinances

Tribal laws set forth water quality standards, administrative and enforcement procedures, and best management practices (BMP) relating to the control of NPS pollution; see Table I.

**Table I: Tribal Code related to NPS pollution**

Code Title	Code Number	Administering Program
Water Quality Standards	CTC 4-8	Environmental Trust Department
On-Site Wastewater Treatment and Disposal	CTC 4-5	Environmental Trust Department
Mining Practices Water Quality	CTC 4-6	Environmental Trust Department
Forest Practices	CTC 4-7	Environmental Trust Department
Hydraulic Projects	CTC 4-9	Environmental Trust Department
Water Use	CTC 4-10	Environmental Trust Department
Land Use & Development	CTC 4-3	Planning Department
Shoreline Management	CTC 4-15	Planning Department

The codes are available at the Colville tribal website:

[http://www.colvilletribes.com/law\\_and\\_order\\_code.php](http://www.colvilletribes.com/law_and_order_code.php)

### NPS Program Location

The CTCR NPS management program is located within ETD, in the Division of Land & Property Management. ETD administers the CTCR Water Quality Standards program, conducts surface and ground water monitoring, administers various water quality codes, assures Tribal compliance with the Clean Water Act, and is the lead Tribal agency for water resource and watershed management on the reservation and its boundary waters. ETD conducts NPS assessments, writes management plans, submits work plans, applies for 319 grant funding, conducts watershed projects and watershed-based planning, and reports program results to EPA.

A number of ETD staff is involved to varying degrees with program direction and administration. The ETD Director, Watershed Program Manager, Forest Practices/Hydraulic Practices Administrator, Watershed Specialist, Water Administrator, Water Regulatory Specialist, and Water Resource Technicians all have NPS-related responsibilities.

### Watershed Based Program

A watershed based approach is used for NPS pollution control, having four characteristics:

1. Planning is conducted by groups of people working in diverse, integrated partnerships.
2. Planning areas for many projects are the watershed unit.
3. Actions included in the NPS plan are based on scientific methodologies and technology.
4. The plan presents coordinated priority setting and integrated solutions.

### 1. Diverse, integrated partnerships:

Most natural resource projects on the reservation are planned in an interdisciplinary fashion by the Project Planning Process Team, as described in the next section. This process is formalized in a handbook (CTCR, 2001). Project planning typically includes input from water, wildlife, soil, forestry, range, fire management, and cultural resource perspectives by Tribal and BIA staff.

### 2. Planning using watershed units:

In 1994 fifteen Resource Management Units (RMUs) comprised of over 200 WMUs were designated within the exterior boundaries of the reservation to facilitate natural resource management. RMU and WMU boundaries follow watershed boundaries similar to those of the National Hydrography Dataset. A geographic information system is used to organize and analyze geospatial data supporting natural resource management on the Reservation. Project boundaries such as BIA timber sales generally are delineated by watershed boundaries.

### 3. Using scientific methodologies and technology:

Watershed analysis conducted during development of CTCR's IRMP in the mid 1990's utilized the Tribes' geographic information system capabilities (CTCR, 1996). Another assessment was conducted for the Omak Creek Watershed (CTCR, 1995). NPS management continues to be guided by the recommendations of those analyses. NPS control actions are also based on new information as it becomes available, such as the watershed road maintenance inventories examining effects from roads on reservation water resources.

### 4. Coordinated priority setting, integrated solutions:

The reservation encompasses many watersheds so priority setting begins with assessment of the water resource and potential beneficial water uses. The Tribes' Water Quality Standards support this through the assignment of a water class to each water body. Resource inventory and surveys, water quality monitoring, and the NPS assessment indicate resource conditions. The IRMP and other resource plans, fashioned with stakeholder input, provide guidance setting priorities and integrating resource management. Project planning then supports integrated solutions to be applied on the ground.

### Local Expertise and Partnerships

Interdisciplinary resource expertise is integrated during program and project planning between Tribal and BIA programs, permitting, and through other agency technical assistance. The Project Planning Process (3P) is a primary mechanism allowing interdisciplinary review between Tribal and BIA programs. 3P emphasizes two-way review and comment between resource disciplines about projects as they are being planned. Permitting allows another opportunity to examine projects, assure adequate resource protection and code compliance. CTCR conducts NEPA (National Environmental Policy Act) analysis, review, and comment for many activities.



**Figure X: 3P Team reviewing plans for a timber harvest project**

Other agencies may provide resource expertise or financial assistance to deal with NPS pollution including the NRCS through the EQIP, WHIP, CRP and WRP programs. Additional coordination between programs, grazing lessees and permittees, and landowners occurs through efforts of the Colville Reservation Conservation District (CRCDD), BIA Range, and BIA Leasing programs.

The San Poil River Floodplain Management Study (NRCS, 2002) is an example of a study completed through the coordinated efforts of CTCR, Ferry County Conservation District, NRCS, and the Washington State Department of Ecology.

#### Consistency of Other Federal Projects

Environmental Trust is involved in project planning, environmental review and NEPA analysis, and permitting/permit compliance for most federal projects on the reservation. Involvement with each of these project phases improves consistency of projects with requirements of the Clean Water Act and the NPS program. Federal programs that plan, conduct, or oversee activities which may generate NPS pollution include BIA Forestry, Range, Fire Management, Roads, and Leasing. These programs implement BMPs and NPS solutions, and work cooperatively with CTCR.

#### NPS Management Program Description

Management activities are detailed in a logic model provided on pages 11 through 15 which outlines how ETD and other entities will address each NPS category. The logic model identifies a lead entity, available resources, measureable outputs, and short- and long term objectives for

each proposed action. The lead entity is the Tribal or BIA program responsible for administering, undertaking, and reporting on the listed action. In the logic model, the lead entity is the first entity named, however, subsequent entities will be assisting/taking part during action implementation. Measureable outputs are expected deliverables produced from implementing listed actions. CTCR should be able to measure progress towards closing information gaps as well as NPS reduction and mitigation activities completed on a yearly basis. Short term objectives are those targets CTCR expects to reach within one to three years as a result of implementing listed actions. Long term objectives, similarly, are those targets CTCR expects to reach within three to five years as a result of implementing listed actions.

Resulting outputs and environmental outcomes will be reported and evaluated in the next NPS assessment. Actions and outputs undertaken by ETD are currently reported to EPA in quarterly and grant reports for GAP, Section 106, and Section 319 grants. This plan only includes discussion on NPS pollution categories and subcategories that CTCR has definite plans to address in the next five years. Should other potential or existing concerns develop a greater need for action, ETD will incorporate such concerns into the next management plan update.

Natural disasters such as fire, flooding, tornadoes, earth quakes, oil spills, etcetera may adversely affect waters of the reservation or waters that pertain to the protection or management of waters within the reservation. We understand that EPA may allow us flexibility under our work plan(s) to divert funds to address NPS disaster-related priority issues or to repair project areas damaged by natural disasters without prior update of our Assessment Report or Management Program.

If such an emergency arises, we may contact our EPA Regional Tribal NPS Coordinator or assigned EPA Project Officer to explore timely re-scoping of activities under our Section 319 work plan(s). Additionally, natural disasters, emergencies, or other circumstances may delay work plan tasks because we may need to take administrative actions such as emergency hiring freezes, etc. In these circumstances, we will communicate with our EPA Project Officer so that work plan schedules can be renegotiated.

### NPS Pollution Categories

About 1% of the reservation has urban or industrial land use. The remaining land base is forested, range land, or is cropped. Some seven thousand miles of road cross the reservation. Correspondingly, NPS pollution on the reservation is probably associated with forest, range, and road management as well as agricultural uses.

## Turbidity and Bacteria

The Assessment Report identified high turbidity and bacteria levels as NPS pollution problems on the reservation.

The report showed that ETD monitoring may not capture certain important metrics (ex. sediment loading, temperature) that would illuminate NPS issues. It also revealed information gaps that could easily mask real and existing water quality threats, such as the source of bacterial contamination (CTCR, 2011). As such, this management plan serves a dual purpose. First, the plan is a tool with which to coordinate efforts among the multiple agencies involved in NPS control work (pg. 5). Second, the plan provides direction and a timeline to incorporate monitoring that will eliminate information gaps identified in the assessment report.

## Site Identification

Because of the size of the Colville Reservation, the assessment identifies categories and some watersheds. It does not specify exact NPS pollution locations. Environmental Trust will identify sites for remediation under Section 319 through several venues. The Tribes' permitting process (On-Site Wastewater Treatment and Disposal, Forest Practices, Water Quality Standards, Water Resource Use, Hydraulic Project Permitting, Shoreline Management, and Mining Practices Water Quality) provides a preventative measure but also a means to identify current NPS activities. Additionally, ETD will rely on expanded monitoring and collaboration with partner agencies (BIA Range, BIA Forestry, Fish & Wildlife, Planning) as well as incoming complaints from any reservation stakeholder. Sites will also be identified through road maintenance inventory which documents and maps water quality concerns such as undersized or poorly functioning culverts, erosion, and road segments that deliver runoff and sediment to waters.

## BMPs to be implemented

The Tribes' BMPs for NPS control are described in Appendix A. BMP selection will be site and situation specific. Resource specific BMPs are detailed in the code chapters listed in Table I (pg. 7). Tribal codes require use of BMPs but there are challenges keeping abreast of all projects and operations, ensuring that appropriate BMPs are utilized and that they work effectively.

Some industrial and construction sites are subject to requirements of EPA's stormwater program which may involve developing and implementing stormwater pollution prevention plans and implementing site stabilization practices. These include mill sites and construction sites larger than 5 acres. Under a new general permit, EPA plans to include construction sites as small as 1 acre.

Restoration projects are performed by agencies or programs on the reservation, as well as individual landowners. These are projects with a primary focus on improving water or watershed conditions. Often the projects are performed by Fish & Wildlife, Range, and Environmental Trust programs and funded by hydropower mitigation, NRCS EQIP or WHIP, or EPA CWA 319 funding.

Recent restoration projects have included road decommissioning, road stream crossing replacement, riparian area planting, livestock fencing, and spring developments.

Schedule of Implementation

As previously stated, the NPS Assessment does not identify specific sites for implementation but does identify several information gaps. The schedule of implementation and associated milestones in Table II represent activities undertaken by ETD and do not specify remediation but rather the actions ETD will take to gain a more comprehensive understanding of NPS within the Reservation. See Table II (pg. 17) for ETD’s expected milestones.

**Table II: ETD Annual milestones for NPS management.**

ETD Management Milestones	Year One	Year Two	Year Three	Year Four	Year Five
NPS-related Project comment activity report	X	X	X	X	X
NPS-related Project permitting activity report	X	X	X	X	X
Annual NPS outreach and training report		X	X	X	X
Annual number of named lakes surveyed		X	X	X	X
319 Project Quarterly and Final Reports	X	X	X	X	X
Total miles of road closed or decommissioned	X	X	X	X	X
Annual erosion control workshop results	X	X	X	X	X
Concentrated livestock/pasture/cropland inventory			X		
Updated water permit database			X		
Web access to water permitting data			X		
Tribal septic system inventory			X		
Urban runoff impact survey framework			X		
Agricultural geo-database					X
Concentrated livestock/pasture/cropland impact assessment					X
Forestry BMP effectiveness assessment					X
Forest soil condition baseline assessment					X
Road impacts assessment					X
Water use vs. recharge model					X
Groundwater/surface water interaction model					X
Anthropogenic impact on hydrology study framework					X
Urban runoff impact survey report					X
Adaptive review and assessment of NPS Management Plan					X

Certification

Certification has been provided by the Tribal attorney to show that the laws of the Confederated Tribes of the Colville Reservation (CTCR) provide adequate authority to implement the nonpoint source pollution management program pursuant to Section 319 (b)(2)(d) of the Clean Water Act. The letter of certification is provided in Appendix XX.

## References

- CTCR.** (1995) *Omak Creek watershed plan and environmental assessment*. Nespalem, WA. NRCS.
- CTCR.** (1996). *Integrated resources management plan: hydrology*. Nespalem, WA. Hunner, W. and Jones, C.
- CTCR.** (2011). *Water Pollution Nonpoint Source Assessment Report*. Nespalem, WA. Thorn, T. and Wright, E.
- NRCS.** (2002). *San Poil River Flood Plain Management Study*. Ferry County, WA.

DRAFT