



Coquille Indian Tribe Water Quality Monitoring Program Summary Report March 2010

Introduction

This 2010 Coquille Indian Tribe Water Quality Monitoring Program Report was developed to outline the current status of the Tribe's Water Quality Monitoring Program (WQMP) with a broad look at tribal water quality activities of the past, and a reassessment of the goals and objectives of future program activities. The Tribe considers the WQMP to be subject to periodic review and adaptation as part of the Tribe's continuous planning process.

Historical Overview

The Coquille Indian Tribe (the Tribe) was terminated under adverse circumstances in 1954. It regained Federal recognition in 1989. The Tribe purchased about 1,100 acres in 1991, and regained 5,400 acres of forest land under the 1996 Coquille Forest Act (P.L. -104-208); together these serve as the Tribe's primary land base and represent the Tribe's natural resources.

With acquisition of additional trust lands and its resources, the Tribe is inclined to conduct land use planning and has determined that environmental and cultural resource management is an integral part of the Tribe's continued growth and development. This includes developing land management and water quality monitoring services to ascertain management activity impacts and to monitor greater watershed contributions.

The Coquille Indian Tribes WQMP was developed by the Tribe's Water and Environmental Resource Manager (WERM) in 2000, in order to monitor and protect the Tribe's natural resources. During that period, the Tribe was awarded CWA Section 106 funding for its water quality monitoring programs. The Tribe's initial goal was to fully develop its environmental management capabilities in order to preserve, protect and enhance the environmental and cultural values of the Tribe while preserving the water quality of the streams, wetlands, and riparian habitat on tribal lands. Since 2000 CWA Section 106, 319, and GAP funding has allowed the tribe to build its capacity for directly managing the Tribe's water resources.

Water Quality Program Organization

Over the last ten years, the Tribe's water quality program has undergone several changes and a few personnel adjustments. In April 2006, the Lands Resource and Environmental Services (LRES) department was created and a director hired. In May 2006, a fisheries biologist was added to the department, in the following July 2006, an Environmental Protection Specialist (EPS) was hired to assist the Water and Environmental Resources Manager (WERM) in the implementation and management of the Tribe's Environmental Protection Agency (EPA) grants, including GAP and Section 106 Clean Water Act (CWA) grants. With the abrupt and unexpected departure of the WERM in August 2006, staffing needs were re-evaluated. Instead of replacing

the WERM, two new staff positions were created for the LRES department, including a natural resources technician and program assistant.

These positions are called upon as needed to assist in the implementation of the Tribe's WQMP. In June of 2007 the EPS position became vacant; and in November 2007 the Tribe reorganized their LRES department to provide more collaboration between the water resources program and the fisheries and wildlife program by reclassifying the fisheries biologist position into the Biological and Environmental Services Coordinator (BESC) position to manage the Tribe's environmental programs. A new Water and Environmental Specialist (WES) was hired in January 2008, to manage and implement EPA grants and the Tribe's Water Quality Monitoring Program.

Water Quality Program Activities

Currently, the Tribe's WQMP monitors a total 65 separate water quality stations on the Coquille Forest and Empire Reservation combined; collecting information on: dissolved oxygen, turbidity, pH, conductivity, water temperature, stream flow, bacteria and ground water levels. Sampling regimen consists of monthly grab samples for the basic water quality parameters of dissolved oxygen; pH; conductivity; temperature; bacteria and turbidity; while continuous data loggers are deployed to capture the seven day mean high temperatures within all waterbodies. Additional continuous stream flow data is being collected on select streams within the Coquille Forest parcels ahead of management activities to establish stream baseline water quantity data sets.

Water quality and quantity monitoring on the Coquille Forest will help to ensure that riparian management buffers and best management practices are sufficient to prevent deleterious impacts on the water quality of the streams that may be associated with timber harvest or activities associated with timber harvest. Initial water flow procedures are being tested on three sites within the Coquille Forest to test the implementation of the Tribe's own continuous water flow weir designs; upon satisfactory performance these designs shall be implemented on a larger scale across tribal trust lands.

The mixture of land ownership on the Southern Oregon Coast is a juxtaposition of diverse landholders with differing management objectives. Often the challenge for the Tribe is to realize watershed based management plans on the Coquille Forest Parcels across multiple management and landowner strategies. The Tribe utilizes a water quality protection approach in managing their natural resources that includes a water quality based environmental monitoring methodology. Ongoing water quality monitoring of Coquille Forest streams continues to ensure compliance with state and federal water quality guidelines and tracks water quality trends within streams associated with timber harvest activities.

The U.S. EPA within their "Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act" (2007) lays out a convenient evolutionary framework for organizing water quality programs based on fundamental; intermediate; and mature program activities. As the Tribe begins to develop and perfect it's water quality management capabilities it has moved from a fundamental to intermediate program over the course of several years.

Fundamental program activities include: applying for and establishing Treatment-As-A-State (TAS) eligibility for EPA Clean Water Act (CWA)106 and 319 funding; identifying basic tribal water resources; building in-house staff capabilities; drafting and adopting water quality monitoring work-plans and strategies; implementing water quality monitoring for dissolved

oxygen, pH, water temperature, turbidity, and conductivity; data management and assessment; establishing a non-point source pollution program; setting watershed based goals; and working in partnership with the EPA, other Tribes and State agencies.

Evidence of the Tribe's move towards an intermediate water quality program include: amending the Tribe's TAS agreement with the EPA to include CWA 106 and 319 funding onto the Coquille Forest; enhanced data management and assessment activities; implementation of more continuous sampling methods; providing enhanced training to staff; reassessing program objective goals; developing draft water quality standards; and adding additional water quality parameters of bacteria, phosphorus, total nitrogen, and heavy metals. Additionally, the Coquille Tribe continues to build partnerships with adjacent landowners while educating them on the Tribe's water quality goals and objectives.

Future Direction of the Water Quality Program

The future of the Tribe's WQMP will be to continue towards a mature program utilizing an EPA approved water quality protection approach that is supported by a strong water quality based environmental monitoring strategy. This approach to water quality management uses a regulatory framework based on the Clean Water Act structure to control water quality. This is a gradual approach that the Tribe shall follow to develop and establish EPA-approved water quality standards on all Tribal Trust Lands, which serve the dual purposes of establishing the water quality goals for specific water bodies and serving as the basis for establishment of water quality-based controls.

Additional water quality activities will also be added to the Tribal protocol as the Tribe moves towards a more mature program. To supplement the above parameters the Tribe shall also take on macro-invertebrate sampling and physical habitat monitoring to document baseline water quality communities and conditions, particularly within the Coquille Forest watersheds.

Pending EPA approval of the Tribe's TAS agreement, the Tribe plans to move forward with a Non-Point Source (NPS) pollution assessment of the Coquille Forest waterbodies, and the cumulative effects of log hauling on the watersheds as a whole. Through the subsequent assessment and monitoring of NPS pollution trends the Tribe shall greatly improve its capacity to protect water quality on the Coquille Forest Parcels.

Within the 2010 funding year the Tribe's Biological and Environmental Services' WES shall attend the EPA's Water Quality Standards Academy Basic Course in Arlington, VA. The 5-day course is aimed at states, tribes, territories, watershed groups, and anyone else with fewer than 6 months experience with water quality standards and criteria programs. The Basic Course is a comprehensive and highly structured course that introduces students to all aspects of the water quality standards program, including: the interpretation and application of water quality standards regulation; policies and program guidance; the development of water quality criteria (human health, aquatic life, nutrient, and biological); and other facets of the water program.

Tribal water quality standards (WQS) shall define the goals and pollution limits for all waters within the Coquille Indian Tribe's jurisdiction, particularly on the Coquille Forest; however; the implementation and enforcement of tribal WQS shall not be immediate. The following is a WQS implementation phase for the Coquille WQMP:

1. Modify the EPA TAS agreement to continue baseline water quality monitoring on the Coquille Forest;

2. Develop Water Quality Standards (WQS) and Total Maximum Daily Loads (TMDLs) for the Coquille Forest Lands and Reservation;
3. Apply WQS and TMDLs to Coquille Forest and Reservation while continuing baseline WQ monitoring to assess impacts from management actions; and
4. Post implementation of WQS and enforcement.

Consequently, the adoption of tribal WQS sets a course for restoring and protecting tribal watersheds over the long term; they determine which healthy waters need protection, which waters must be restored and how much they must be restored.

Conclusion

Through the expansive development of the Tribe's WQMP on the Coquille Forest, the Tribe has created the capacity to ensure a sustainable resource for future generations while ensuring the continued functionality of the forest ecosystems that housed the ancestral communities of the past. Expanded NPS pollution protection and water quality monitoring on the Coquille Forests will also enable the Tribe to be a leading local entity in applying for an independent third party forest product sustainability certification for its timber resources through the Forest Stewardship Council; a non-profit organization devoted to encouraging the responsible management of the world's forests.

The Coquille Indian Tribe has strong cultural ties to coastal streams, wetlands, estuaries, bays and marine ecosystems. The Tribe collaborates with tribal, federal, northwest regional, state and local partners in order to provide and receive pertinent information about the ecologic integrity and environmental conditions in these areas. Ongoing tribal water quality monitoring of the Coquille Forest and Reservation streams ensures compliance with state and federal water quality guidelines, setting beneficial uses, determining impaired waters, monitoring streams associated with timber harvest activities, evaluating the need for and effectiveness of restoration activities, and to ensure that riparian management buffers and best management practices are sufficient to prevent deleterious impacts on the water quality of the streams from tribal management activities.

The development and adoption of water quality standards on Tribal Trust Lands is a progressive step for the Tribe in setting watershed goals for tribal waterbodies within the Coquille Forest and on the Reservation. Water quality standards act as a powerful force to prevent pollution and improve water quality and will be instrumental in allowing the tribe to have a greater say on the goals and objectives of watershed health in their traditional homelands; and will deliver a regulatory framework into the Tribal WQMP that will allow greater protections for tribal water resources.