

# **Wetland Program Plan for the Nez Perce Tribe**



**October 2012 – September 2017**

## Contact Information for Nez Perce Tribe's (NPT) Wetland Program

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### Description of NPT Reservation and Wetlands

The 770,470 acre Nez Perce Reservation is located in the Columbia-Snake River Plateau east of Lewiston, Idaho. The Clearwater River runs through the north and east side of the reservation. The river and its tributaries form deep canyons with drought-tolerant grasses and forbs on south-facing slopes and shrubs and trees on north-facing slopes. Cropland is located on the plateaus above the canyons and on the Camas Prairie in the south-central part of the reservation. Forests cover the eastern edge and the southwest corner of the reservation. Annual precipitation varies from 20 to 28 inches per year. Though the land is mostly semi-arid, scattered wetlands are found in the headwaters and riparian zones of streams and rivers and in depressions in the farmland.



Over a third of the wetlands assessed on the Reservation were classified according to Cowardin (1989) as Palustrine Emergent, Seasonally Flooded (PEMC); 19% were Palustrine Emergent, Saturated (PEMB); 14% Palustrine Forested, Temporarily Flooded (PFOA); 7% Palustrine Scrub-Shrub, Temporarily Flooded (PSSA); and 4% Riverine Upper Perennial, Unconsolidated Shore, Seasonally Flooded (R3USC). Several other palustrine and riverine wetland types occurred in smaller numbers. Many headwater wetlands have been lost to agricultural conversion, resulting in flashier hydrology, loss of water storage, and decreased water quality as well as loss of wildlife habitat and native vegetation.

The Nez Perce people place a high value on their wetlands. They have traditionally derived much of their food, fiber, and medicines from wetland plants such as camas, Labrador tea, hardstem bulrush (tule), Indian hemp, wild mint, and willow. Salmon, steelhead, and lamprey—important food sources for the Nez Perce people—depend on wetlands for spawning and rearing habitat and food supply. Wetlands increase habitat quality for fish by filtering out fine sediment that would smother fish eggs, by reducing nutrients and biological oxygen demand (BOD) that would lower oxygen levels in the water, and by storing spring runoff for release during the dry season to enhance stream flow. Wetlands also supply forage and cover for mammals such as deer, elk, and

moose, which are hunted for food by the Nez Perce people. For all those reasons, the protection and restoration of wetlands are a high priority for the NPT.

## **Previous Activities of the NPT Wetlands Program**

The following work was performed with funding through EPA's Wetland Program Development Grants (WPDG):

### **Pre-2003**

- Designed wetland assessment methodology.
- Field-tested draft method in pilot watersheds.

### **2003-2008**

- Identified wetlands on tribal lands on NWI maps and aerial photographs.
- Ground-truthed, classified, inventoried, and mapped identified wetlands.
- Assessed 251 tribal wetlands according to our Wetland Functional Assessment Method:
  - 26 wetlands in Lapwai Creek watershed (2003/2004);
  - 31 wetlands in Cottonwood Creek (Nez Perce Co.), Jacks Creek, and Big Canyon Creek watersheds (2004/2005);
  - 53 wetlands in Lawyer Creek and Cottonwood Creek (Idaho Co.) watersheds (2005/2006);
  - 67 wetlands in Little Canyon Creek, Six-mile Creek, Five-mile Creek, Catholic Creek, Bedrock Creek, and Pine Creek watersheds (2006/2007);
  - 74 wetlands on tribal fee lands on Craig Mountain and Bedrock Creek (2007/2008).
- Collected information on
  - plant species occurrence and abundance
  - wildlife habitat and observations; suitability for beaver
  - hydrologic regime
  - soil characterization
  - wetland functions and values
  - land use, impacts, and management recommendations
- Produced a GIS wetland map.
- Wrote a draft Wetland Management Plan.
- Created an Access database.
- Updated the GIS wetlands map, Access database, and draft Wetland Management Plan each year.

### **2008/2009**

- Assessed the condition of key wetlands on private (nontribal) land on the reservation.
- Identified, ground-truthed, inventoried and mapped 44 wetlands after obtaining permission from landowners.
- Sent reports on findings to some of the landowners.
- Other products generated during each year of wetland inventory and assessment were GPS maps, photo documentation, and pressed plant specimens as well as PowerPoint presentations, posters, etc.

## **2009/2010**

- Developed a surface and ground water quality monitoring program for wetlands.
- Wrote a Quality Assurance Project Plan (QAPP).
- Selected 12 representative wetlands in which to install monitoring wells (lysimeters and piezometers).
- Measured temperature, pH, dissolved oxygen, conductivity, and turbidity once a month throughout the field season.
- Analyzed water samples for nitrate/nitrite, total phosphorus, and bacteria.
- Organized a workshop on Amphibian Identification and Monitoring for NPT staff and other agencies and tribes.
- Monitored amphibians and macroinvertebrates in 12 wetlands.

## **2010/2011**

- Processed monitoring data from previous field season.
- Collected a second year of water quality data in the 12 previously monitored wetlands.
- Installed monitoring wells in 2 additional wetlands and built fences around monitoring wells in grazed wetlands.
- Monitored amphibians and macroinvertebrates in 14 wetlands.



## **Overall Goal Statement and Time Frame for Plan**

The NPT plans to continue to develop its wetlands program with the goal of protecting and restoring wetlands for their environmental, cultural, economic, and human health benefits. The NPT has accumulated information on baseline wetland condition through its previous inventory, assessment, and monitoring efforts. This baseline data will form the foundation for future monitoring and assessment projects, wetland restoration and protection goals, development of water quality standards, and advancement of wetland regulations. EPA is encouraging States and Tribes to write a Wetland Program Plan (WPP) to guide their wetland program development. The time frame for this WPP is five years, from October 2012 through September 2017. The timely completion of the activities proposed in this plan will depend on adequate funding from EPA and other sources. The WPP should be seen as an evolving document that may need to be updated part-way through its duration to accommodate changed circumstances or new

developments. For instance, EPA retains responsibility for administering the Clean Water Act within the exterior boundaries of the 1863 Nez Perce Reservation; should the NPT acquire “Treatment in a Manner Similar to that of a State” (TAS), the scope of activities under the core elements Regulation and Water Quality Standards could change.

This WPP follows the guidelines provided by EPA in their Core Elements Framework, as described at [http://water.epa.gov/grants\\_funding/wetlands/cef\\_full.cfm](http://water.epa.gov/grants_funding/wetlands/cef_full.cfm). EPA’s lists of program building activities were followed in general, but activities that have already been completed or are not applicable to our circumstances were omitted. Our WPP addresses all four core elements of an effective tribal wetlands program in the course of its five-year duration. However, in the first year we will address only three of the elements, and we are currently planning to focus our efforts on two elements in the last year of the WPP.

## **Core Elements to Be Addressed in WPP:**

### **VOLUNTARY RESTORATION AND PROTECTION**

The goal of restoration is to bring back the healthy condition and ecological functions of natural wetlands that have been degraded. Protection removes a threat to a wetland or prevents the deterioration of current wetland conditions. Both can halt the loss of valuable wetland acreage and increase the quality and quantity of wetlands. Wetland restoration reduces the harmful effects of nonpoint source pollution by improving the wetlands’ ability to filter pollutants from the water, creates more and better wildlife habitat, reduces the danger of flooding and erosion, and maintains water tables and stream baseflow through the dry season.

The NPT has a strong interest in improving salmon runs, and healthy wetlands can help provide clean, cool water in sufficient quantity to support the fish populations that the NPT values so much. Fully functioning wetlands can also buffer the effects of climate change. The NPT’s Fisheries/Watershed Division and Water Resources Division (WRD) have conducted a few wetland restoration projects in the past, but much remains to be done to achieve our goals for improving the condition of our wetlands.

With encouragement from the Army Corps of Engineers, the NPT has been considering the possibility of establishing a wetland mitigation bank to restore wetlands on the reservation. We may decide to pursue that option, provided funding from sources other than the EPA can be obtained to get such a bank established and to conduct on-the-ground wetland restoration activities. Once restoration projects have been completed and mitigation credits can be sold, the bank should be self-supporting.

### **MONITORING AND ASSESSMENT**

A monitoring and assessment program forms the basis of a successful wetlands program and lays the foundation for other core elements by providing baseline data on wetland extent, condition, functions, and values. This data is necessary to track changes and trends in wetland quality and quantity (particularly in view of climate change), evaluate the success of restoration projects, and support management decisions on the protection of wetland resources. Monitoring identifies

impacts to wetlands that may require new regulations to be put in place or existing regulations to be enforced better. Water quality monitoring can be used to determine if existing water quality standards are being met, to identify specific pollutants and sources of pollution, and to lay the groundwork for establishing wetland-specific water quality standards.

The NPT conducted a first-round rapid assessment of tribal wetlands in previous years. Therefore, our WPP will bypass Objective 1 of the Core Elements Framework, which is intended for programs in the earliest stages of monitoring and assessment, and address some of the suggested actions in Objectives 2 and 3. Our wetlands program still needs a systematic approach for tracking changing conditions in wetlands, comparing them to reference standards, prioritizing restoration targets, and interpreting trends. The monitoring and assessment component of the WPP will help us fill that need.

## **REGULATION**

The goal of a regulatory program is to assure “no net loss” of wetlands and “overall increase” in wetland extent, functions, and quality. Regulations can reduce impacts to aquatic resources and call for mitigation of wetland degradation or loss. EPA retains responsibility for administering the Clean Water Act within the exterior boundaries of the 1863 Nez Perce Reservation. The NPT has not been approved for “Treatment in a Manner Similar to that of a State” (TAS) and therefore has not assumed the CWA §404 Program and §401 Certification. The NPT will work with EPA to assist EPA in stepping up regulations and enforcement pertaining to wetlands violations. The WRD has been commenting on permit applications for projects that affect wetlands and will continue to do so.

The NPT is in the process of developing an Integrated Resource Management Plan (IRMP) to address management of natural resources, including aquatic resources, on tribal lands on the reservation. The strategies developed by following the WPP will be considered for incorporation into the IRMP and may provide guidance for land use decision-making on tribal land. The NPT will consider adopting measures and rules for land use in wetlands.

Tribal departments follow a variety of BMPs to restore and/or protect natural resources. For example, our Forestry Division adheres to the “Rules Pertaining to the Idaho Forest Practices Act Title 38, Chapter 13, Idaho Code.” Our Land Services Division encourages lessees to follow the Idaho Cattle Association’s BMPs for grazing lands. The WRD will draft guidelines and BMPs for managing tribal wetlands in a manner that protects or improves their important functions and ecosystem services.

## **WATER QUALITY STANDARDS FOR WETLANDS**

Water quality standards define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions such as antidegradation policies to protect waterbodies from pollutants. The NPT has developed draft water quality standards for surface water, but they have not been approved by the EPA and may not be adequately protective of wetlands at this stage.

The WRD has been involved in writing Total Maximum Daily Load (TMDL) documents for watersheds on the reservation. TMDLs describe the maximum amount of a pollutant that a water body can receive while still meeting water quality standards. They also list waterbodies that do not fully support beneficial uses, such as aquatic life, fisheries, drinking water, recreation, industry, or agriculture.

Water quality standards for wetlands would provide a basis for certification and permitting decisions and for guiding restoration and protection efforts. EPA retains authority for administering the Clean Water Act within the exterior boundaries of the 1863 Nez Perce Reservation; the NPT has not been granted “Treatment in a Manner Similar to that of a State” (TAS).

We have not collected enough water quality data in our wetlands to derive numeric standards, and additional monitoring will be required to develop water quality standards specific to our area. In addition to water chemistry data, we may utilize data on plant and macroinvertebrate diversity in deriving water quality standards for wetlands. There may be numeric standards in place in other states that could be applied to wetlands on this Reservation.



## **Actions and Activities Supporting Overall Goal**

The remainder of this document lists the objectives, actions, and activities to be undertaken in each of the five years of the plan, following the framework suggested by EPA in their Core Elements Framework (CEF). For clarity, the objectives and actions are numbered in order; references to the corresponding items in the CEF are added in parentheses. Note that not every item in EPA’s Program Building Activities Menu is addressed in the WPP, and some additional activities that the NPT is interested in pursuing were included.

The element Voluntary Restoration and Protection is included in each year of the plan, reflecting the importance the NPT places on safeguarding the health of its wetlands. During the first four years, we will continue our monitoring and assessment work at a reduced level, as baseline monitoring has already been accomplished in past years. We will start addressing wetland regulation in year one and have included that element each year through year four. Work on Water Quality Standards for Wetlands will commence in the first year and continue through year five of the WPP.

## **YEAR ONE (October 2012 – September 2013)**

### **Voluntary Restoration and Protection**

#### **Objective I: Clearly and consistently define restoration and protection goals throughout tribal territory**

*Action 1. Establish goals that are consistent or compatible across relevant agencies (Action a, CEF)*

- Coordinate with other tribal divisions and relevant agencies to outline restoration/protection goals, strategies, and timeframes
- Set restoration goals based on tribal and agency objectives and available information

*Action 2. Consider watershed planning, wildlife habitat, and other objectives when selecting restoration/protection sites (Action b, CEF)*

- Identify rare, vulnerable, or important wetlands and prioritize for restoration/protection
- Apply tools (GIS, color-infrared photography, mapping, field inspection of soil, vegetation, and hydrologic conditions) to identify and prioritize restorable wetlands
- Integrate restoration/protection efforts on a watershed or landscape scale, e.g., prioritize restoration sites within a watershed
- Share priorities with other tribal divisions and outside agencies involved in wetland protection and restoration, e.g., wildlife bureaus, agriculture/conservation agencies, land trusts
- Share priorities with other water quality protection programs, e.g., identify riparian restoration projects that would reduce sediment and nutrient loadings to streams and implement TMDLs

### **Monitoring and Assessment**

#### **Objective I: Implement a sustainable monitoring program consistent with the wetlands monitoring strategy (Objective 2, CEF)**

*Action 1. Ensure the scientific validity of monitoring and laboratory activities (Action a, CEF)*

- Update the existing Quality Assurance Project Plan to reflect any changes in procedures and priorities

*Action 2. Monitor wetland resources as specified in strategy (Action b, CEF)*

- Develop a schedule for long-term monitoring of wetland resources
- Monitor the condition of a percentage of tribal wetlands and the impacts that affect them, following the schedule
  - Record plant species composition, diversity, and abundance with emphasis on wetland plants, cultural plants, and noxious weeds
  - Collect data on water quality, including nutrients and bacteria, as well as other indicators of wetland health such as presence of macroinvertebrates and

amphibians

- Track sites that are monitored

*Action 3. Establish reference condition (Action c, CEF)*

- Determine process for measuring reference standard condition (e.g., reference sites, historical data)
- Define reference condition (the gradient from unimpaired to impaired) for the wetland types found on the reservation
- Select reference sites using a systematic approach

## **Regulation**

### **Objective I: Clearly Define the Jurisdictional Scope of the Program**

*Action 1. Provide clear and comprehensive jurisdictional coverage of aquatic resources (Action a, CEF)*

- Adopt definition of waters of the tribe at least as inclusive as CWA
- Extend tribal jurisdiction to aquatic resources that are not “waters of the US” (e.g., isolated wetlands)
- Develop guidance for wetland management and suggested BMPs to protect wetland health and add this information to the NPT’s Environmental Code (under review)

*Action 2. Investigate the potential for establishing a wetland mitigation bank*

- Complete the required documents to request approval of the bank in coordination with the Army Corps of Engineers
- Pursue initial funding for establishment of the bank

### **Objective II: Administer Regulatory Activities Efficiently and Consistently**

*Action 1. Actively review proposed impacts to waters of the Tribe (Action c, CEF)*

- The WRD reviews CWA §401 certifications and §404 permit applications for proposed projects on and off the Reservation that may impact waters of the Tribe and provides comments on those projects to EPA or the Army Corps of Engineers.

*Action 2. Track permit/certification program activity (Action g, CEF)*

- The WRD keeps a record of permits and certifications that we commented on.



## **YEAR TWO (October 2013 – September 2014)**

### **Voluntary Restoration and Protection**

**Objective I, continued: Clearly and consistently define restoration and protection goal throughout tribal territory**

*Actions 1 & 2, see Year One.*

*Action 3. Provide clear guidance on appropriate restoration and management techniques and success measures (Action c, CEF)*

- Develop restoration and management guidance specific to wetland types and location
- Establish measures of restoration success, e.g., adopt functional and/or condition indicators and field methods
- Establish performance standards based on reference wetland site in a relatively undisturbed condition
- Through guidance, encourage restoration outcomes that recreate natural self-sustaining systems and reduce the need for ongoing management
- Verify restoration techniques with site visits and adapt as necessary
- Provide educational opportunities to local students and involve them in restoration activities where appropriate.

### **Monitoring and Assessment**

**Objective I, continued: Implement a sustainable monitoring program consistent with the wetlands monitoring strategy** (Objective 2, CEF)

*Action 1, see Year One.*

*Action 2, continued. Monitor wetland resources as specified in strategy (Action b, CEF)*

- Document the condition of selected tribal wetlands and the impacts that affect them, according to the monitoring schedule.
- Track sites that are monitored

*Action 3, see Year One.*

*Action 4. Track monitoring data in a system that is accessible, updated on a timely basis, and integrated with other tribal water quality data (Action d, CEF)*

- Administer and update data system (Access database and GIS coverage) so that NPT can use it for analysis
- Integrate with water quality data systems used by other tribal programs
- Georeference data as it is gathered for reporting
- Identify sites to sample repeatedly for a trend network

*Action 5. Analyze monitoring data to evaluate wetlands extent and condition/function or to inform decision-making (Action e, CEF)*

- Document data analysis and assessment procedures
- Establish baseline wetland condition
- Analyze changes in wetland extent or condition relative to reference conditions
- Analyze changes in wetland extent or condition in response to climate change

## **Regulation**

### **Objective II, continued: Administer Regulatory Activities Efficiently and Consistently**

*Action 1, continued. Actively review proposed impacts to waters of the Tribe (Action c, CEF)*

- The WRD reviews CWA §401 certifications and §404 permit applications for proposed projects on and off the reservation that may impact waters of the Tribe and provides comments on those projects to EPA or the Army Corps of Engineers.

*Action 2, continued. Track permit/certification program activity (Action g, CEF)*

- The WRD keeps a record of permits and certifications that we commented on.

## **Water Quality Standards for Wetlands**

### **Objective I: Ensure that wetlands are treated as “waters” in the tribal water quality standards**

*Action 1. Adopt an appropriate definition of wetlands (Action a, CEF)*

- Include wetlands in tribal legal definition of waters
- Ensure legal definition of waters is at least as inclusive as the Clean Water Act (CWA) definition

### **Objective II: Develop wetland-specific water quality standards**

*Action 1. Gather and analyze monitoring data and other information that will become the basis of water quality standards (Action a, CEF)*

- Establish reference conditions for defined wetland types in terms of functional/condition performance and other physical measurements



## **YEAR THREE (October 2014 – September 2015)**

### **Voluntary Restoration and Protection**

#### **Objective II: Protect wetlands from degradation or destruction**

*Action 1. Establish partnerships to leverage additional protection (Action a, CEF)*

- Share protection priorities with partners
- Track acres of wetlands protected through partnerships
- Work with the Army Corps of Engineers to establish a wetland mitigation bank

*Action 2. Establish and institutionalize long-term protection, using mechanisms such as incentives, purchase of land title, or easements to protect wetlands (Action b, CEF)*

- Develop management plans for protected wetlands
- Track acres of wetlands protected

### **Monitoring and Assessment**

#### **Objective II. Incorporate monitoring data into agency decision-making (Objective 3, CEF)**

*Action 1. Evaluate monitoring program to determine how well it is meeting the NPT's monitoring program objectives (Action a, CEF)*

- Develop schedule to evaluate monitoring program
- Ensure the assessment method is providing the necessary information
- Make changes as necessary to the program
- Review other wetlands program elements (e.g., restoration, regulation, water quality standards)
- Modify other aspects of wetlands program as needed based on review of monitoring data

*Action 2. Improve the site-specific management of wetland resources (Action c, CEF)*

- Incorporate monitoring data and analysis into restoration techniques
- Establish ecologically-meaningful benchmarks for gauging restoration success
- Evaluate the performance of any compensatory mitigation sites
- Evaluate the ecosystem services provided by individual wetlands

### **Regulation**

#### **Objective II, continued: Administer Regulatory Activities Efficiently and Consistently**

*Action 1, continued. Actively review proposed impacts to waters of the Tribe (Action c, CEF)*

- The WRD reviews CWA §401 certifications and §404 permit applications for proposed projects on and off the reservation that may impact waters of the Tribe and provides comments on those projects to EPA or the Army Corps of Engineers.

*Action 2, continued. Track permit/certification program activity (Action g, CEF)*

- The WRD keeps a record of permits and certifications that we commented on.

### **Objective III: Evaluate Regulatory Activities to Ensure Environmental Results**

*Action 1. Perform public education and outreach about wetland protection, regulated waters and activities, and authorization process (Action e, CEF)*

- Develop education/outreach documents or activities on important programmatic topics such as:
  - Importance of aquatic resources
  - How to identify protected waters
  - Regulatory program requirements
  - Listing regulated activities
  - Opportunities for public participation in the protection of aquatic resources
- Make program information available through readily accessible outlets (hotline, website, brochures, etc.)

### **Water Quality Standards for Wetlands**

#### **Objective II, continued: Develop wetland-specific water quality standards**

*Action 1, see Year Two.*

*Action 2. Establish and adopt appropriate wetland-specific designated uses to be achieved and protected (Action b, CEF)*

- Determine designated uses for different wetland types (e.g., recreation, wildlife habitat)
- Map wetland areas where designated uses apply

*Action 3. Establish and adopt narrative criteria that qualitatively describe the condition or suite of functions that must be achieved to support a designated use (Action c, CEF)*

- Establish narrative physical criteria (e.g., fill material not present; no hydrologic alterations)
- Establish narrative biologic criteria (e.g. species composition, population dynamics, structure)
- Develop technical document to support the narrative criteria with numerical data.



## **YEAR FOUR (October 2015 – September 2016)**

### **Voluntary Restoration and Protection**

#### **Objective III: Restore wetland acres, condition, and function**

##### *Action 1. Increase wetland acreage through restoration (re-establishment) (Action a, CEF)*

- Develop restoration and management plans for re-established wetlands consistent with restoration guidance
- If a wetland mitigation bank has been approved and funded, begin restoration of wetlands for mitigation credits
- Consider tracking
  - acres of wetlands re-established
  - level of function/condition based on indicators
- Provide technical assistance to re-establishment projects as needed

##### *Action 2. Improve natural wetland condition and functions through restoration (rehabilitation) (Action b, CEF)*

- Develop restoration and management plans for rehabilitated wetlands consistent with restoration guidance
- Consider tracking
  - acres of wetlands rehabilitated
  - improvement based on function/condition indicators
  - net change in water quality, flood control, or habitat
- Provide technical assistance to rehabilitation projects as needed

### **Monitoring and Assessment**

#### **Objective II, continued: Incorporate monitoring data into agency decision-making** (Objective 3, CEF)

*Actions 1 and 2, see Year Three.*

##### *Action 3. Develop geographically defined wetland protection, restoration, and management plans (Action d, CEF)*

- Identify and prioritize management areas (e.g., identify vulnerable wetlands, prioritize restoration potential)
- Coordinate with the NPT's divisions of Water Resources, Wildlife, Forestry, Land Services, and Fisheries/Watershed to incorporate wetlands into a comprehensive Watershed Plan that serves tribal water quality management needs and addresses all waters
- Evaluate progress toward meeting wetland objectives identified in other projects/programs
- Inform broader watershed activities (e.g., reducing erosion, providing floodplain storage, reducing nutrient loading, etc.)

## **Regulation**

### **Objective II, continued: Administer Regulatory Activities Efficiently and Consistently**

*Action 1, continued. Actively review proposed impacts to waters of the Tribe (Action c, CEF)*

- The WRD reviews CWA §401 certifications and §404 permit applications for proposed projects on and off the reservation that may impact waters of the Tribe and provides comments on those projects to EPA or the Army Corps of Engineers.

*Action 2, continued. Track permit/certification program activity (Action g, CEF)*

- The WRD keeps a record of permits and certifications that we commented on.

## **Water Quality Standards for Wetlands**

### **Objective II, continued: Develop wetland-specific water quality standards**

*Action 1, see Year Two.*

*Action 2 & 3, see Year Three.*

*Action 4. Establish and adopt numeric criteria representing wetland-specific values for chemical, physical, and biological parameters used to protect or restore designated uses (Action d, CEF)*

- Establish numeric criteria for biological attributes based on wetland type and location (e.g., plant or macroinvertebrate indices, algae)
- Establish numeric criteria for chemical constituents based on wetland type and location (e.g., nutrients, pH, temperature)
- Establish numeric criteria for physical parameters based on wetland type and location (e.g., buffer characterizations, microhabitats)

*Action 5. Better define tribal antidegradation policies for wetlands, requiring full protection of existing uses, maintenance of functions/condition in high-quality wetlands, and a prohibition against lowering functions/conditions in outstanding national resource waters (Action e, CEF)*

- Include wetlands in antidegradation policies
- Include restoration potential of wetlands in antidegradation policies
- Administer and enforce antidegradation policies for wetlands
- Develop measures to ensure antidegradation is being applied successfully in a manner specific to wetlands



## **YEAR FIVE (October 2016 – September 2017)**

### **Voluntary Restoration and Protection**

#### **Objective III, continued: Restore wetland acres, condition, and function**

*Actions 1 and 2, see Year Four.*

*Action 3. Establish partnerships to leverage more restoration (Action c, CEF)*

- Share restoration and protection priorities with partners
- Develop restoration and management plans for restored wetlands consistent with restoration guidance
- Track acres of wetlands restored through partnerships
- Provide technical assistance to partners as needed

#### **Objective IV: Monitor and track progress over time, document results, and modify practices as appropriate**

*Action 1. Track restoration/protection projects (Action a, CEF)*

- Develop an accessible tracking database for restoration/protection sites
- Administer and update tracking database regularly
  - Track total acres of restoration/protection sites throughout tribal territory in database
  - Track projects by watershed or other relevant spatial unit

*Action 2. Monitor restoration/protection sites to ensure that they are implemented and managed correctly and linked to relevant watershed planning efforts (Action b, CEF)*

- Monitor effectiveness of all or a sample of sites representative of wetland type and size using adopted indicators and methods
- Track acres or numbers of restored/protected wetlands that are comprehensively monitored for  $\geq 3$  years
- Select subset of indicators to monitor effectiveness of all restoration and protection sites
- Monitor effectiveness of restoration/protection sites using those core indicators
  - Acres or percentage of restored/protected wetlands monitored for  $\geq 3$  years using core indicators
  - Acres or percentage meeting established performance goals based on function/condition indicators
  - Update monitoring and performance records regularly
- Regularly report wetland restoration/protection efforts to relevant entities (other tribal divisions, agencies, public, etc.)

*Action 3. Modify restoration/protection techniques as needed (Action c, CEF)*

- Review restoration and protection methods and modify as needed
- Plan for follow-up site maintenance, restoration, and protection activities

## Water Quality Standards for Wetlands

### **Objective III: Incorporate wetland-specific water quality standards into agency decision-making**

*Action 1. Use water quality standards (WQS) as basis for regulatory decisions (Action a, CEF)*

- If the NPT is making permit decisions, including mitigation requirements, base them on WQS
- Track wetland impacts avoided or mitigated based on WQS

*Action 2. Use water quality standards as basis for evaluating restoration/protection projects and mitigation/compensation projects (Action b, CEF)*

- Use water quality standards in restoration guidelines
- Track restoration/protection projects that are monitored for compliance with water quality standards
- Track restoration/protection sites that meet water quality standards
- Identify remedial measures for sites that do not meet wetland WQS

*Action 3. Incorporate water quality standards into monitoring and assessment program (Action c, CEF)*

- Update monitoring strategy and methods based on water quality standards
- Track acres monitored for compliance with water quality standards
- Regularly report on wetlands status and trends relative to water quality standards

### **References**

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. 103 pp.

