Roadmap to Managing Nonpoint Source Pollution: Developing your CWA Section 319 Program

May 10, 2011

Nancy Arazan, US EPA Headquarters
Audrey Johnson, US EPA Region 9
Janette Marsh, US EPA Region 5
Dan Cozza, US EPA Region 5
Jenilynn Bohm, Red Lake Band of Chippewa Indians

Guide to Our Webcasts

• To Ask a Question – Type your question in the text box located at the bottom of your screen
• To Answer Poll Question – Click on the radio button to the left of your choice and click submit. Do not type your answer in the “Ask a Question” box
• To See Closed Captioning – Turn your pop-up blocker off and click on the “closed captioning” button
• To Complete the Evaluation – Answer questions in the slide window
What is Nonpoint Source Pollution?

Audrey Johnson, US EPA Region 9

Definition of Nonpoint Source (NPS) Pollution

• Polluted Runoff
  - Occurs when rainfall, snowmelt, or irrigation water runs over land or through the ground, picks up pollutants, and transports them into surface and ground waters.

Extent of NPS Pollution

Percent of the Nations Waters Affected by Nonpoint Source Pollutants

- 47% Point Sources Only
- 10% Combination of Point and Nonpoint Sources
- 43% Nonpoint Sources Only

Major Categories and Sources of NPS Pollution

- Agricultural Activities
- Hydromodification
- Riparian Habitat Alteration
- Urban Runoff

*Information found in Handbook for Developing and Managing Tribal NPS Pollution Programs Under Section 319 of the Clean Water Act, Introduction, xii.*
Major Categories and Sources of NPS Pollution

- Abandoned Mine Drainage
- Forestry Activities
- Faulty Septic Systems
- Construction Activities
- Marinas and Boating
- Roads, Highways and Bridges

Definition of Sub-Category of NPS Pollution

- Specific Details that Describe the Category of NPS Pollution in an Area
  - *Example: Agriculture*
    - Number of Acres of Irrigated Crop Production
    - Number of Feedlots
    - Number of Miles of Fencing Needed to Prevent Livestock Access to a Water Body
    - Number of Acres of Pastureland

Examples of Nonpoint Source Pollution

Categories and Sources Affecting Waterways Nationally

Agricultural Activities
Faulty Septic Systems

Construction Activities
Illegal Dumpsites Along Waterways

Streambank Destabilization
Hydromodification

Flow Alteration

Non-native / Invasive Species
Hydromodification

Forestry Activities
The Tribal Clean Water Act (CWA), Section 319 Program
What Does the CWA, § 319 Program Do?

• Provides funding to eligible federally recognized Tribes and States for the purpose of implementing activities to improve water quality.
  – Activities must Address NPS Pollution Problems.
  – Activities must be identified in an EPA-Approved Management Program.

*Information found in Handbook for Developing and Managing Tribal NPS Pollution Programs Under Section 319 of the Clean Water Act, I-1.

What Activities are Eligible?

• Road Stabilization
• Riparian Planting
• Stream Channel Reconstruction
• Low-Impact Development
• Livestock Exclusion Fencing / Alternate Watering
• Invasive / Non-Native Species Removal
• Springs Protection
• NPS Training for Staff
• Developing NPS Education Programs
• Hiring a NPS Coordinator
• Large Woody Debris Placement
• Urban Stormwater Activities
• NPS Ordinance Development
• Wetland Development for Springs Protection Sediment/Toxic Substance Removal

What Activities are Ineligible?

- General Assessment Monitoring Unrelated to Identifying NPS Pollution
- Implementing Requirements of NPDES Point Source or Stormwater Permits
- Operation and Maintenance of NPS Implementation Projects
- NPS Activities not Identified in an EPA Approved Management Program

*Information found in Handbook for Developing and Managing Tribal NPS Pollution Programs Under Section 319 of the Clean Water Act, I-3.

Questions?
Best Management Practices and Management Measures

Janette Marsh
NPS Program Specialist States and Tribes
US EPA Region 5 Chicago

Water Quality Goals
Definitions

BMPs

• Either physical or cultural controls
• Working individually or as a group
• Appropriate to the source, location & climate for the pollutant to be controls

Definitions

Management Measures

• Economically achievable actions to control the addition of pollutants
• Provide the greatest degree of pollutant reduction
General Categories of BMPs

- Control pollutants at the source
  - Stormwater infiltration
- Provide treatment for special wastes
  - Manure management/containment
- Prevent stream and river bank erosion
  - Preserve/replace vegetation

Think about a Treatment Train

- Source controls
- Site controls
- Neighborhood controls
- Regional controls
Selecting BMPs and MM

• Select Management Measures by category of pollution (agriculture, forestry)

• Select BMPs by the source of pollution, site conditions and climate factors (cattle, paving)

BMPs Elaborated

• Check the state NPS Management Program documents

• NRCS electronic field office technical guide (efotg) on the web

• Local extension agent
Calculating Load Reductions

• STEPL (Spreadsheet Tool for Estimating Pollutant Load)

Employs simple algorithms to calculate nutrient and sediment loads from different land uses and the load reductions that would result from the implementation of various best management practices. Creates a customized spreadsheet-based model in Microsoft Excel.

http://it.tetratech-ffx.com/stepl/

---

Types of BMPs

• Structural
  – Moves dirt
  – Plant things
  – Construction

• Non Structural
  – Institutional
  – Ordinance
  – Outreach and education
Structural

Perched Culvert Replaced
Urban

Non-structural

MARENGO RIVER WATERSHED PARTNERSHIP PROJECT
WATERSHED ACTION PLAN
• Draft as of January 27, 2011
What it takes to get a BMP implemented

- Technical information: what is the problem you are trying to solve
- Partnerships – look at what is being used in your area
- Clear understanding of the outcome desired

Questions?
Statutory Overview

- CWA 319 requires States to prepare assessment reports and management programs. It also includes a grant program to assist in implementing the approved management program.
- CWA 518(e) says that Tribes may be treated in the same manner as a State for purposes of Section 319 if they meet certain conditions.
CWA 319 TAS

To Start the Process:

- Conference call between Region and Tribal staff; including ORC and Tribal Attorney.
- Discuss content of application, NPS issues, schedule of process; reservation boundaries, etc.
- Review Regional examples/websites
- Review the new 319 handbook, Part I
- Review the TAS Strategy, Attachment B
- Submit draft

The CWA 319 TAS Application

CWA 518(e)

- Federal Recognition (e.g., Federal Register Notice)
- Governing body carrying out substantial governmental duties and powers. This should include:
  - Description of form of tribal government
  - Description of governmental functions currently performed.
  - Description of source of governmental authority, such as tribal constitution, by-laws, etc.
The CWA 319 TAS Application
CWA 518(e)

- Function to be exercised by the Tribe pertains to the management and protection of water resources “held by or for the Tribe or otherwise within the borders of an Indian reservation.

- The Tribe is reasonably expected to be capable of carrying out the program.

The CWA 319 TAS Application

- To be eligible (TAS) for the Section 319 Non-Point Source Program, in addition to the criteria as outlined in CWA 518 and 40 CFR 35.633, a Tribe will also need BOTH of the following:
  1) Approved Assessment Report (CWA 319(a))
  2) Approved Management Program (CWA 319(b))
CWA 319 TAS Application
Pertaining To Water Resources

- Must show that activities pertain to waters held by or for a Tribe or “otherwise within the borders of an Indian reservation.”
- Describe the Reservation and Reservation waters.
- Provide Maps
- “Reservation” includes all lands within the exterior boundaries of federally recognized Indian reservations. Tribes which do not have a reservation with established boundaries can seek TAS for trust lands but the specific facts of your situation should always be discussed with EPA.

CWA 319 TAS Application
Capability
- Description of previous management experience;
- Description of existing environmental programs being carried out;
- Description of the organization which will be carrying out the program; and
- Description of technical and administrative capabilities of staff which will carry out the program.
Management Program

• Tribe must have authority to carry out the activities proposed in the Management Plan. Section 319 is not a “delegation” of authority. A Tribe must have sufficient authority to implement each element of the Management Program.

• Management Program must include a certification from the tribal attorney that the Tribe has adequate authority to implement the management program.

Management Program

• Assessment Report and Management Program should be submitted to EPA “after notice and opportunity for public comment.” Section 319(a)(1) and (b)(1). The Tribe’s submittal should demonstrate compliance with this requirement and also include a response to comments.
NPS Assessment Report

- As per CWA 319(a)
- 4 types of information needed:
  - Waters in need of NPS protection
  - Categories and subcategories of NPS
  - How BMPs will be identified
  - Other programs addressing NPS

NPS Management Plan

- As per CWA 319(b)
- Identify BMPs and tribal programs
- Schedule
- Certification
- Potential funding sources and programs
- Potential partners
- Watershed based planning
EPA Approval

- EPA Review of Application
  - Including 4 Eligibility Requirements
  - Including Attorney certification
  - Including Review of Management Plan and Assessment Report
- Need to update MP and AR every 4-5 years
- Approval needed by 1st Friday in October for funding that FY

Additional Resources

- EPA’s TAS Strategy: Go to www.epa.gov/tribalportal and search for “strategy”
- Handbook for Developing and Managing Tribal Nonpoint Source Pollution Programs Under Section 319 of the Clean Water Act, 2010
  On EPA NPS website at: www.epa.gov/owow_keep/NPS/tribal/index.html
- Regional Coordinators and Technical Contacts
Questions?

Miskwagamiwizaaga’iganing
Tribal Case Study

Jeniflynn Bohm
Nonpoint Source Pollution
Specialist
Red Lake DNR
218-679-3959x 1347
Jbohm@paulbunyan.net
US EPA Region 5
Total Land Holdings
835,000 acres.
  – Upper and Lower Red Lake comprise 235,388 acres
    • 6th largest freshwater lake in the U.S.

$50,000 319 base funding

WHERE DOES YOUR WATER...SHELD?

RED LAKE WATERSHED

FUNDING PROVIDED BY THE ENVIRONMENTAL PROTECTION AGENCY THROUGH THE ENVIRONMENTAL EDUCATION GRANT

➢ EPA's Aggregate Nutrient Ecoregion 8:
  Nutrient Poor Largely Glaciated Upper Midwest and Northeast Ecoregion
NPS Management Program

• 319 TAS  CWA 1987
  – Federally recognized

DEPARTMENT OF THE INTERIOR
Bureau of Indian Affairs

Indian Entities Recognized and Eligible To Receive Services From the United States Bureau of Indian Affairs

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice.

SUMMARY: This notice publishes the current list of 562 tribal entities recognized and eligible for funding and services from the Bureau of Indian Affairs by virtue of their status as Indian tribes. The list is updated from the notice published on March 22, 2007 (72 FR 13648).

319 TAS  Continued

• Tribal Governmental Duties and Powers
• Existing Programs
• Mechanisms for Governmental Functions
• Accounting and Procurement Systems
319 TAS Continued

Attachments:

Exhibit A: Red Lake Band Narrative Statement
Exhibit B: Red Lake Band Statement of Authority
Exhibit C: List of federally recognized Tribes
Exhibit D: Tribal Council Resolution supporting application for TAS
Exhibit E: Red Lake Non-point Source Assessment
Exhibit F: Red Lake Non-point Source Management Plan
Exhibit G: Public comment responses
Exhibit H: Map of Red Lake Tribal Lands
Exhibit I: Tribal Constitution

319 TAS Continued

- Tribal Capability and Management Experience
  - Red Lake DNR Water Resources Program Est 1989

- 106 monitoring data used to develop 319 documents.
  - Assessment Plan
  - Management Plan
  - Work Plan
Public Notice and Comment

PUBLIC ANNOUNCEMENT

The US Environmental Protection Agency has developed a proposed rule to address the evaluation of the Red Lake Reserve. The proposed rule is intended to address potential violations of the Clean Water Act that may have occurred at the Red Lake Reserve. The proposed rule is open for public comment until October 9, 2012.

TAS Timeline

- 1987 CWA Amended
- 2000-2001 MSA NPS assessment contracted
- 2007 NPS Assessment and Management Revisions
- 2008 March-April
  - Public Comment Period
- 2008 October
  - NPS application approved
    - Assessment, Management Plans, T
  - FY 09 Program Start
- 2012-2013 New management plan
  - Update assessment plan
NPS Assessment Resources

Water Resources of the Red Lake Indian Reservation, Northwestern Minnesota. USGS 890-4163


---

NPS Categories

- Abandoned Mine Drainage
- Agriculture
- Forestry
- Hydromodification and Habitat Alteration
- Marinas and Boating
- Roads, Highways, and Bridges
- Wetland and Riparian Management
- Urban Areas
  - Onsite wastewater Treatment
  - Low-Impact Development
NPS Program

Conserve, Protect, Enhance Water Quality

- The Red Lake Band of Chippewa Indians NPS Assessment Report, NPS Management Plan, and application for treatment as a state were approved by EPA on October 8, 2008.
- Management and Assessment Plans Amendment Requests

Program Updates: DNR Website, Educational Articles

Mud River Habitat Analysis and Stream Restoration Watershed Project Updates

As you cross the Mud River in Redby, you might not realize that you are crossing a platform of partnership and cooperation. The Minnesota Department of Transportation (MN/DOT) and Red Lake: DNR, Economic Development, Legal, Roads, and Tribal Council representatives have been working together to facilitate the bridge replacement, dam removal, and stream restoration projects. These projects will promote safety as well as environmental benefits of fish passage, improved water quality and habitat.

In support of these projects the tribal council approved tribal resolutions: Dam and Spillway Removal, Archaeological and Historical Surveys, and Dam removal in support of the stream restoration.

You may have watched the water level dropping and plants growing to help stabilize nine feet of sediment that has accumulated the last 90 years. Perhaps you saw MN/DOT staff surveying the area or the giant yellow rig drilling sediment cores to determine the soil texture and stability for the new bridge.

Keep an eye open for Red Lake DNR staff as they are testing the soil for potential contaminants and monitoring the water quality as the project progresses. This summer will involve bioassessment, surveying, willow stake planting, and monitoring.

To learn more about the Mud River projects come to the Red Lake Nation Earth Day at the Boys and Girls Club in Red Lake on Thursday April 21st in the afternoon. More Earth Day information to follow! If you have any questions, please contact Jenilynn Behm at the Red Lake DNR 675-3959 x 1347.
5/9/2011

**RLDNR's Nonpoint Source Pollution Prevention Article:**

**"WHERE DOES YOUR WATER.......SHED?"**

The Red Lake DNR (RLDNR) has begun a Nonpoint Source Pollution Program. This program is funded by the Environmental Protection Agency (EPA) and addresses NPS issues and provides a framework whereby to address NPS issues.

To enhance public awareness of the Red Lake Watershed, the RLDNR and the Red Lake Conservation District (RCD) staff joined forces to create signs along the main roads throughout the Red Lake Watershed. The signs were designed as a tool to remind the public about the unique characteristics of the Red Lake Watershed. The signs are located at key points throughout the Watershed, including road intersections and prominent landmarks.

**3.19 NPS Program Highlights**

**TRADITION**

Interagency collaboration: EPA, Red Lake DNR, RCD, Beltrami County SWCD and Environmental Services, and Leech Lake DRM. The Water Festival allows us to educate over 200 5th grade students about important aspects of water pollution within the Red Lake Watershed. Students enjoy hands-on demonstrations of Nonpoint source pollution, environmental contamination, water cycle, water wildlife, septic systems, forestry, fire ecology, air quality, wetlands and watersheds.

"WHERE DOES YOUR WATER.......SHED?"

Staff from the NRCS and Red Lake DNR stenciled over 50 storm drains in these communities and placed signage to enhance watershed size and pollution prevention awareness. Students also had the opportunity to tour their hometown storm drains, create their own model watershed and spread the pollution prevention message through decorating their own storm drains on a paper bags which were distributed at local grocery stores.

**GLOBE VOLUNTEER MONITORING**

Two Red Lake staff assisted 7 volunteer monitors with collecting data from the four stream sites. Baseline data includes: GPS waypoints, habitat assessment, flow, color, total phosphates and nitrogen, nutrient sampling, and collection of flow, temperature, pH, dissolved oxygen, and conductivity parameters for four stream sites.

**Program Goals:**

1. Implement BMP’s and work towards watershed management to improve water quality.
2. Environmental Education
3. Develop general habitat and environmental protection ordinances.
4. Monitor storm water issues through BMP’s, rain gardens, detention basins, and/or detention treatment ponds.
5. Expand baseline monitoring in areas of current or likely future NPS pollution input.
Red Lake’s Roadmap

• Any Questions?
  – Jenilynn Bohm NPS Specialist
    • Jbohm@paulbunyan.net
  – Shane Bowe, Aquatic Biologist
    • Sbowe@Redlakenation.org
      – 218-679-3959
      – www.redlakednr.org

Speaker Contact Information

Nancy Arazan, US EPA HQ
arazan.nancy@epa.gov

Audrey Johnson, US EPA Region 9
johnson.audreyL@epa.gov

Dan Cozza, US EPA Region 5
cozza.daniel@epa.gov

Janette Marsh, US EPA Region 5
marsh.janette@epa.gov

Jenilynn Bohm,
Red Lake Band of Chippewa Indians
jbohm@paulbunyan.net