



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

May 10, 2011

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- **To Complete the Evaluation** – Answer questions in the slide window



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What is Nonpoint Source Pollution?

Audrey Johnson, US EPA Region 9

EPA

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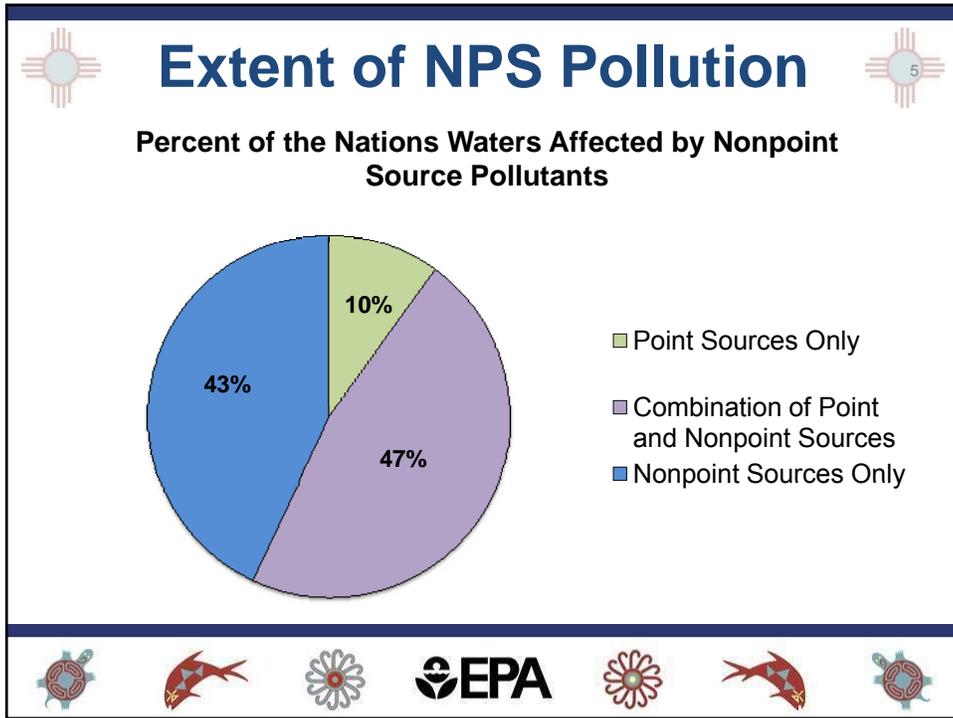
Definition of Nonpoint Source (NPS) Pollution

- **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.



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

EPA



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.*

EPA

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

*Information found in *Handbook for Developing and Managing Tribal NPS Pollution Programs Under Section 319 of the Clean Water Act, I-9.*



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Examples of Nonpoint Source Pollution

Categories and Sources
Affecting Waterways Nationally

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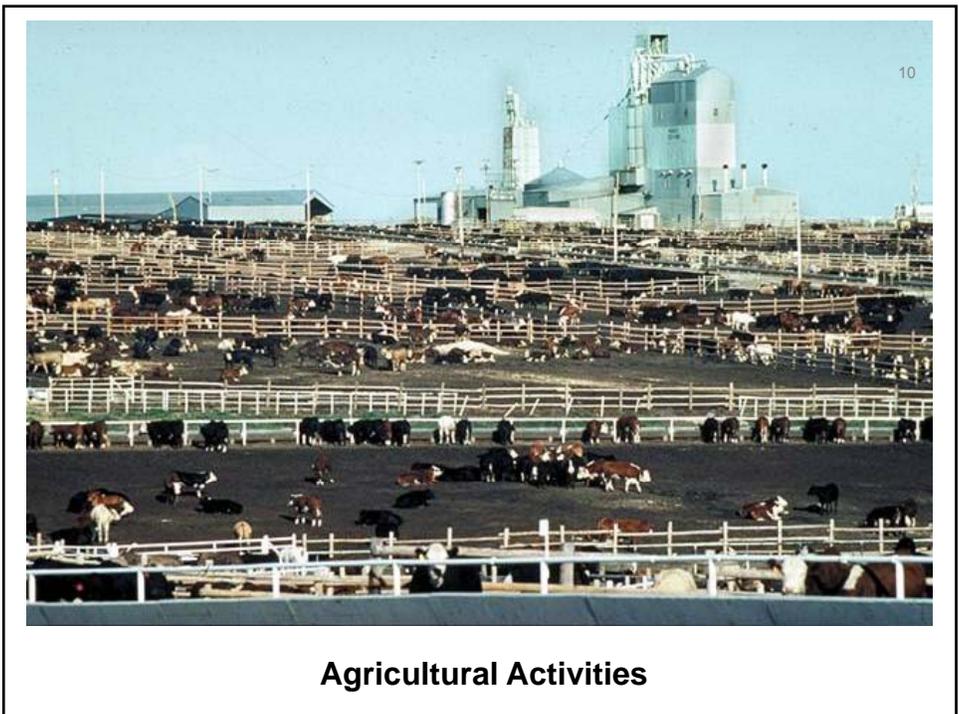
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Faulty Septic Systems



Construction Activities



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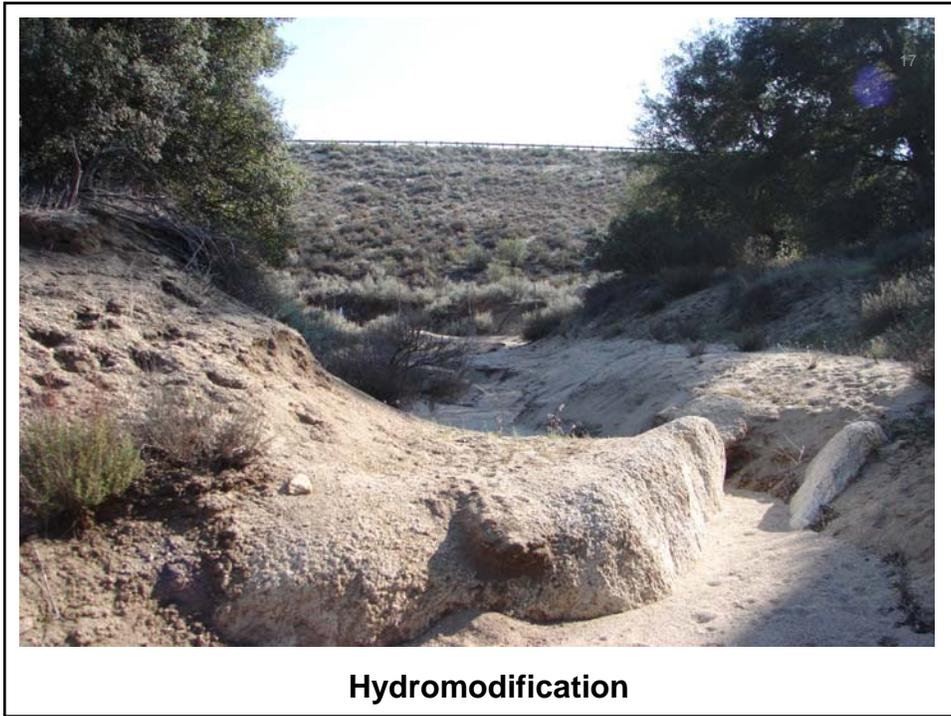
Hydromodification

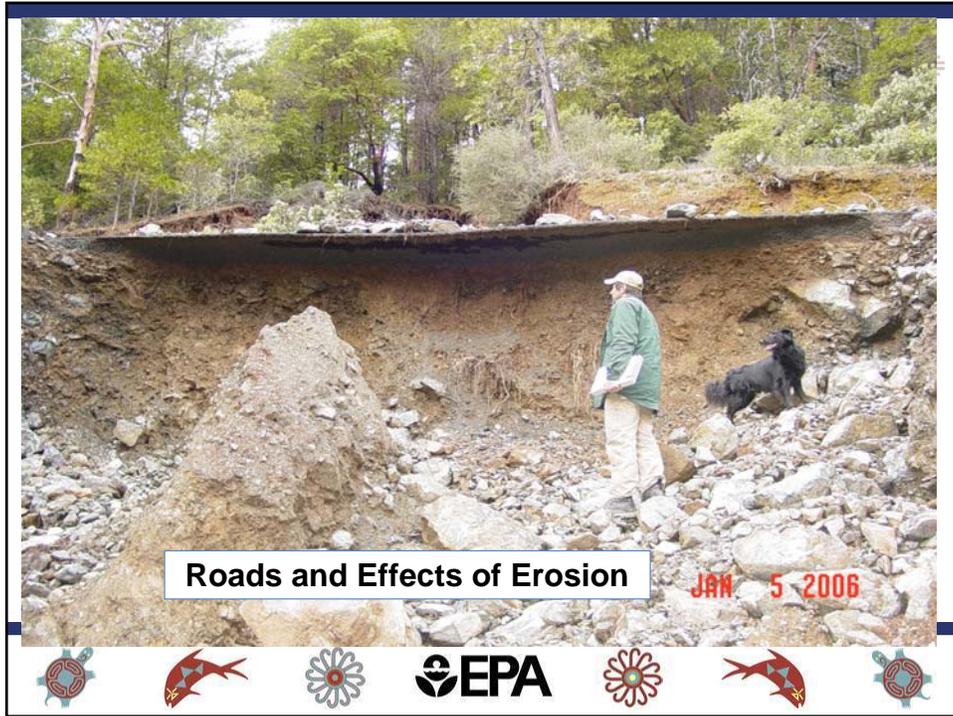


Flow Alteration



Non-native / Invasive Species





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The Tribal Clean Water Act (CWA), Section 319 Program

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This slide features a white background with a blue border. At the top corners are sun-like symbols, with the number '20' in a circle on the right. The main title is centered in a large, bold, blue font. At the bottom is a decorative border with icons: a blue gear, a red fish, a grey flower, the EPA logo, a red flower, a red fish, and a blue gear.



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?



<ul style="list-style-type: none"> • Road Stabilization • Riparian Planting • Stream Channel Reconstruction • Low-Impact Development • Livestock Exclusion Fencing / Alternate Watering • Invasive / Non-Native Species Removal • Springs Protection 	<ul style="list-style-type: none"> • 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 Sediment/Toxic Substance Removal
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*Information found in *Handbook for Developing and Managing Tribal NPS Pollution Programs Under Section 319 of the Clean Water Act, I-2.*









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.tetrattech-ffx.com/stepl/>



Types of BMPs

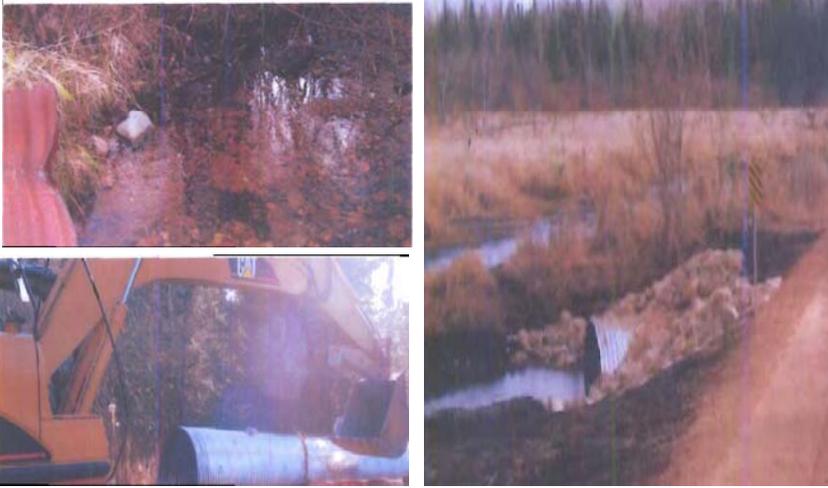
- **Structural**
 - Moves dirt
 - Plant things
 - Construction
- **Non Structural**
 - Institutional
 - Ordinance
 - Outreach and education



Structural



Perched Culvert Replaced

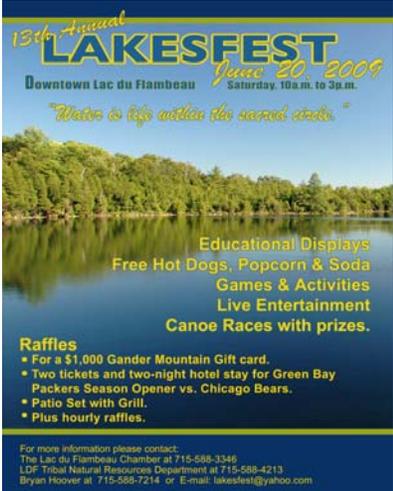


Urban





Non-structural



13th Annual LAKESFEST
June 20, 2009
Downtown Lac du Flambeau
Saturday, 10 a.m. to 3 p.m.
"Water is life within the sacred circle."

Educational Displays
Free Hot Dogs, Popcorn & Soda
Games & Activities
Live Entertainment
Canoe Races with prizes.

Raffles

- For a \$1,000 Gander Mountain Gift card.
- Two tickets and two-night hotel stay for Green Bay Packers Season Opener vs. Chicago Bears.
- Patio Set with Grill.
- Plus hourly raffles.

For more information please contact:
The Lac du Flambeau Chamber at 715-588-3346
LDF Tribal Natural Resources Department at 715-588-4213
Bryan Hoover at 715-588-7214 or E-mail: lakesfest@yahoo.com



**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?** 



 **CWA Section 319** 
Tribal Eligibility / TAS

Dan Cozza
Water Division
US EPA Region 5





 **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))**











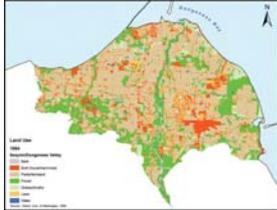


CWA 319 TAS Application



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.**











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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.**





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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



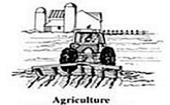
- As per CWA 319(a)
- **4 types of information needed:**
 - Waters in need of NPS protection
 - Categories and subcategories of NPS
 - How BMPs will be identified
 - Other programs addressing NPS



Construction



Wastewater Disposal



Agriculture



Mining



Home & Garden



Logging











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**

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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**











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Questions?



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Miskwagamiwizaaga'iganing Tribal Case Study

Jenilynn Bohm
Nonpoint Source Pollution
Specialist
Red Lake DNR
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Jbohm@paulbunyan.net





Red Lake Indian Reservation

**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...SHED?



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).



Red Lake Band of Chippewa Indians,
Minnesota







319 TAS Continued

- **Tribal Governmental Duties and Powers**
- **Existing Programs**
- **Mechanisms for Governmental Functions**
- **Accounting and Procurement Systems**










 **319 TAS Continued** 

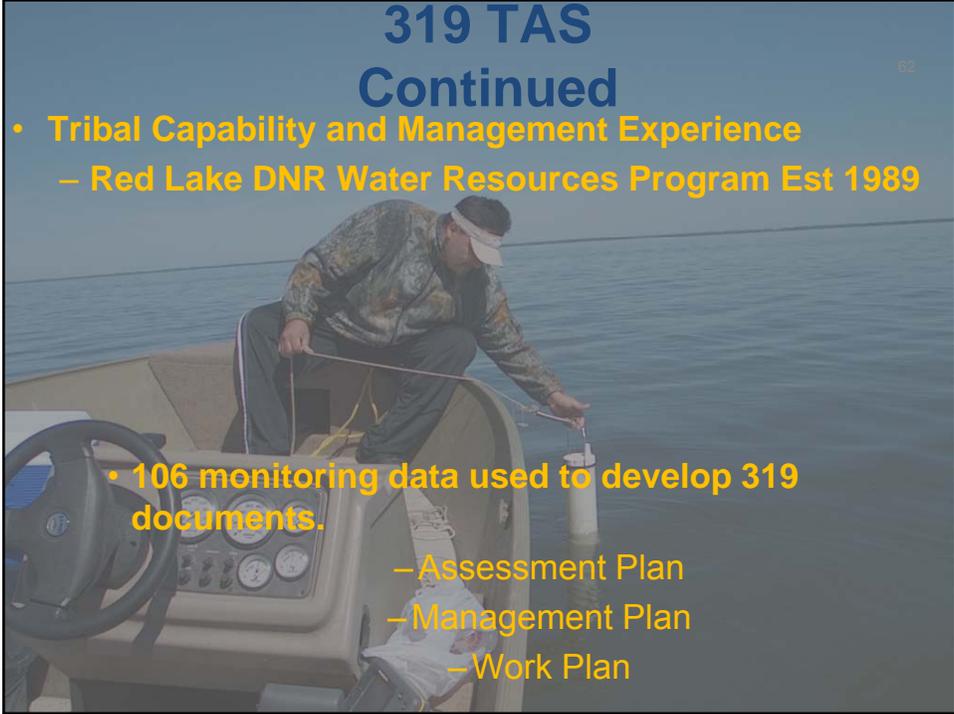
Attachments:

- 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 62

- **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

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PUBLIC ANNOUNCEMENT

30 day public comment period for Red Lake Band of Chippewa Indians Nonpoint Source Assessment and Management Plan: 3/24/08-4/23/08

The Red Lake DNR Waters program has developed a Nonpoint Source (NPS) Assessment for the waters of the Red Lake Reservation. Minimal nonpoint source pollution sources were detected. The Waters program has also developed a NPS Management Plan. The management plan lays the foundation for a NPS pollution prevention program for four years beginning in 2010. This program will help to maintain clean water and healthy fish populations throughout the Red Lake Reservation by restoring areas affected by or contributing to NPS pollution. The program will also aid in the prevention of NPS issues through education and public communication. The following documents are available for public review and comment until April 23, 2008:

Red Lake Band of Chippewa Indians Nonpoint Source Assessment
Red Lake Band of Chippewa Indians Nonpoint Source Management Plan

We welcome your comments and would appreciate the opportunity to answer your questions regarding our NPS program. To review these documents please visit: www.bemidjirecreation.com
 For more information please contact Shane Bowe or Joel Rohde at the Red Lake DNR Waters Program.

Phone: 218-679-3959
 E-mail: sbowe@paulbunyan.net
jrohde@paulbunyan.net

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

MEMORANDUM
FILE COPY

To: Chief, Red Lake, MN
From: [Signature]
Date: 11/19/00
Subject: Report on the NPS Assessment of the Red Lake Reservation

Identified projects that the following reports are for use in preparing an NPS Assessment Management Plan:

Water Resources of the Red Lake Indian Reservation, Northwestern Minnesota, USGS #90-4163

Tribal Nonpoint Source Planning for Red River Basin Information Document, MPCA, 1997

Water Quality in the Red River of the North Basin, 1992-1995, USGS

1990-1998 Water Quality Assessment of Selected Reservation Lakes and Streams, BARR, April, 1999.

Integrated Management Plan, Red Lake Band, June, 2000 (Previously submitted - Darrell)

1999 Annual Monitoring Report on Closed Landfills, Red Lake, MN. Earth Science Associates, September, 2000.

1998 Annual Monitoring Report, Closed Landfills, Red Lake, MN. BARR, August, 1999.

Red Lake Band of Chippewa Indians - Water Quality Standards (Draft). October, 2000.

Phase I Hydrologic and Water Quality Monitoring Review. ACOE, December, 1993.

NPS Assessment Resources









- **Abandoned Mine Drainage**
<http://water.epa.gov/polywastry/nps/categories.cfm>
- **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



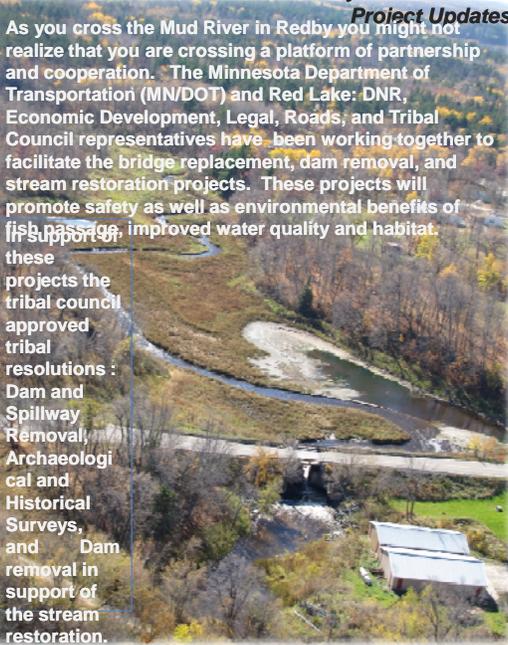

Program's Mud River Habitat Analysis and Stream Restoration Watershed Project Updates

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 Bohm at the Red Lake DNR 679.8959 x 1347.





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RLDNR's Nonpoint Source Pollution Prevention Article:
“WHERE DOES YOUR WATER.....SHED?”
 By: Jenlynn Bohm

The Red Lake DNR (RLDNR) has begun a Nonpoint Source (NPS) Pollution Program. This program is funded by the Environmental Protection Agency (EPA) to address NPS issues and protect or improve water quality on the Reservation.



The Environmental Education grant activities encompassed the water festival, storm drain stenciling and tour for 5th graders, as well as the GLOBE volunteer monitoring and watershed signs. The upcoming 5th grade water festival for schools within the Red Lake Watershed will be held this fall at Concordia Language Villages. Check the RLDNR Website at <http://www.rldnrdnr.com> for updates, directions, schedules, and other information.

To enhance public awareness of the Red Lake Watershed, the RLDNR and Natural Resources Conservation Service (NRCS) staff placed five roadway signs along major roads (HWY 89, HWY 71, HWY 72, and River Road) that define the Red Lake watershed boundary. The signs are double sided to inform drivers as to which watershed they are entering and leaving. Special thanks goes to MENDOT, MINDNR, Big Bear State Park, Northome School, and land owners Bob Olke and Frank Bera for their valuable input and cooperation.

Stop noted for future NPS article.
 Contact Jen Bohm at the RLDNR: 218-779-3959x1247 or jbohm@rldnrdnr.com for questions or comments.



319 NPS Program Highlights
The Red Lake Band of Chippewa Indians Non-point Source (NPS) Assessment Report, NPS Management Plan, and application for treatment as a state were approved by EPA on October 8, 2008.

ENVIRONMENTAL EDUCATION FOR WATERSHED POLLUTION PREVENTION

WATER FESTIVAL



TRADITION

Interagency collaboration: EPA, Red Lake DNR, NRCS, Beltrami County SWCD and Environmental Services, and Leech Lake DRM. The Water Festival allows us to educate over 200 5th graders each year 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 watersheds 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 DNR staff assisted 7 volunteer monitors with collecting data from the four stream sites. Baseline data includes: GPS waypoints, habitat assessment, flow, color, total phosphorus 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). Manage storm water issues through BMPs, rain gardens, sediment 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** 

<p>Nancy Arazan, US EPA HQ arazan.nancy@epa.gov</p> <p>Audrey Johnson, US EPA Region 9 johnson.audreyL@epa.gov</p> <p>Dan Cozza, US EPA Region 5 cozza.daniel@epa.gov</p>	<p>Janette Marsh, US EPA Region 5 marsh.janette@epa.gov</p> <p>Jenilynn Bohm, Red Lake Band of Chippewa Indians jbohm@paulbunyan.net</p>
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