

Welcome!!

U.S. EPA, Region 9
Water Quality Assessment Report
(WQAR) Template Webinar
September 7, 2011

Webinar URL: <http://epa.adobeconnect.com/wqar/>

Webinar Conference Line

Phone Number: 866-299-3188

Passcode: 2025661194





Webinar Agenda

10:05 AM – 10:10 AM

Welcome to Webinar

Audrey L. Johnson, US EPA Region 9

10:10 AM – 10:15 AM

Introduction to the WQAR Template

Janis Gomes, US EPA Region 9

10:15 AM – 10:35 AM

Live Demonstration of Data Entry into WQAR Template

Christopher Chen, US EPA Region 9

10:35 AM – 10:50 AM

Tribal Success Story - Water Quality Monitoring, Data Storage, and Using the WQAR Template

Gina Leverette, Salt River Pima Maricopa Indian Community

10:50 AM – 11:00 AM

Using Data to Tell Our Story – Results of WQAR Data Collection

Christopher Chen, US EPA Region 9

11:00 AM – 11:15 AM

NEW from Region 9 – Interactive WQAR Template Tutorial & Other Reminders

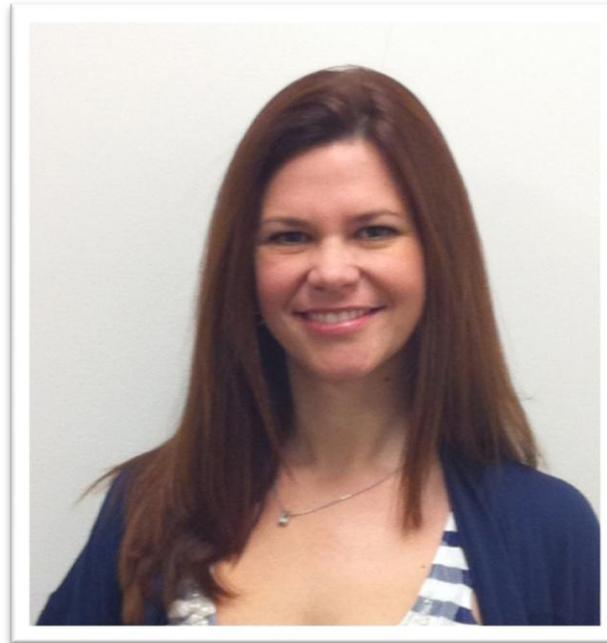
Audrey L. Johnson, US EPA Region 9

11:15 AM – 11:30 AM

Final Questions & End Webinar

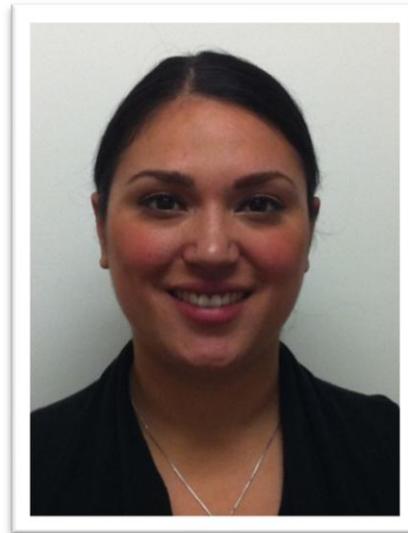
WQAR Webinar Moderator:

Audrey L. Johnson
US EPA, Region 9
Water Division



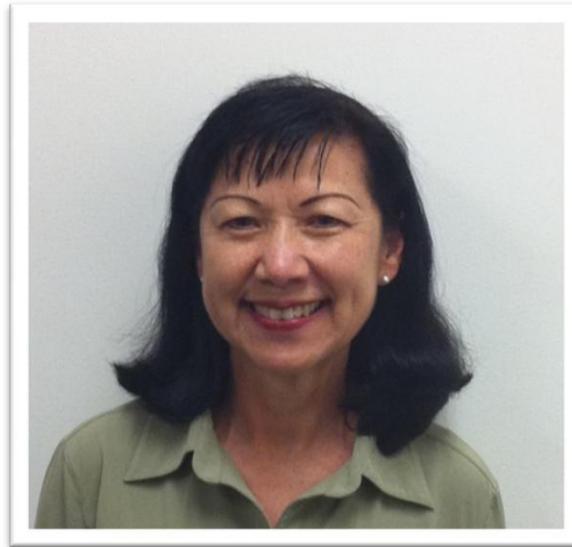
WQAR Webinar – Technical Coordinator:

Mariela Lopez
US EPA, Region 9
Water Division

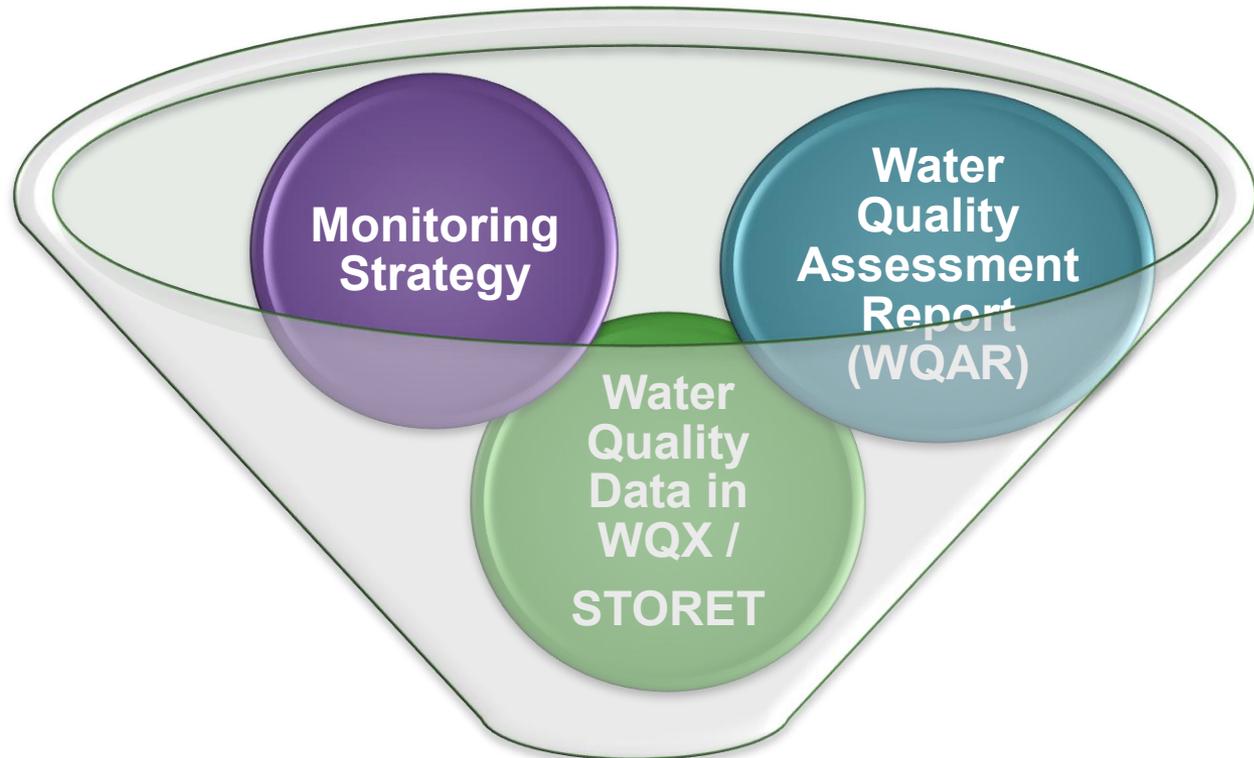


Purpose of the WQAR Template

Janis Gomes
US EPA, Region 9
Water Division



CWA § 106 Reporting Requirements



Document Environmental Results in Indian Country

Background

Region 9 created this pilot template to collect tribal water quality data to create a region-wide picture of water quality on tribal lands in EPA R9.

(Tab 1)
EPA Region 9 Pilot
Clean Water Act §106 Tribal Water Quality Assessment Report (WQAR) Template
Version 2010
INSTRUCTIONS

This pilot template fulfills the annual water quality assessment reporting requirement per the CWA 106 Guidance. To meet this requirement, use the most current tribal water quality data available (i.e. data in STORET-compatible format) to fill out this template and write the narrative.

Tab 2: WQAR Template

IMPORTANT: Please use separate entries for each monitoring station. This may result in more than one entry per waterbody.

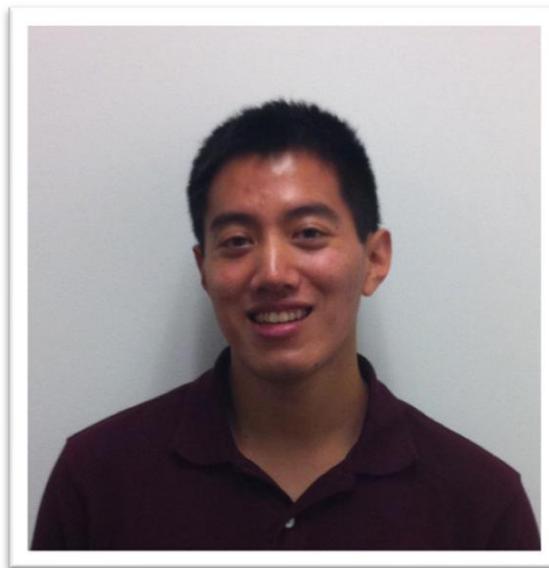
Column #	Column Title	Description
1	Waterbody Name/Identifier	Provide the name of the waterbody, or a code your tribe uses for the waterbody.
2	Waterbody Type	Choose from the drop down menu. You can enter your own value if not listed.
3	Monitoring Station Located on Reservation	Indicate whether the monitoring station on the waterbody is within reservation boundaries.
4	Monitoring Station ID	Please type in your monitoring location ID. List only one monitoring station for each entry within the template. If your data is in WQX format, use this location ID.
5	Distance or Area Monitored or Assessed	Indicate the distance or area of waterbody monitored. Please estimate to the nearest 10th of your unit of measure (i.e. 5.2 miles). See Definitions, Tab 6).
6	Units of Measure	Choose from the drop down menu or fill in your own value. Please type in the number of times water quality samples are collected at

1. Instructions 2. WQAR Template 3. Atlas of Tribal Waters 4. Watershed Restoration 5. Narrative 6. Definitions

Website URL: <http://www.epa.gov/region9/water/tribal/cwa-reporting.html#two>

Live Demonstration of Data Entry into WQAR Template

Christopher Chen
US EPA, Region 9
Water Division



Tribal Success Story: Water Quality Monitoring, Data Storage, and Using the WQAR Template

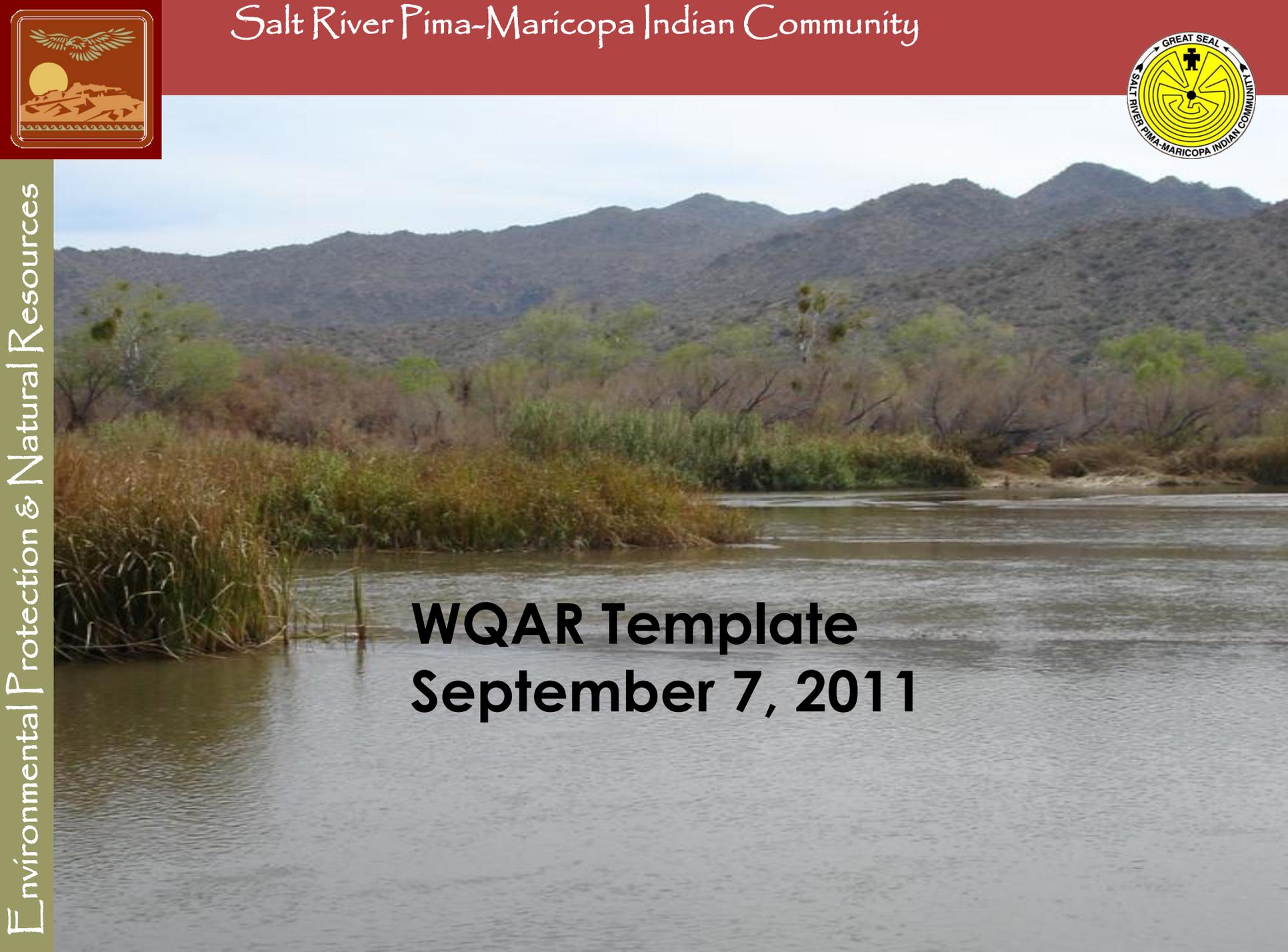
Gina Leverette

Salt River Pima Maricopa Indian
Community





**WQAR Template
September 7, 2011**





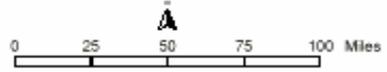
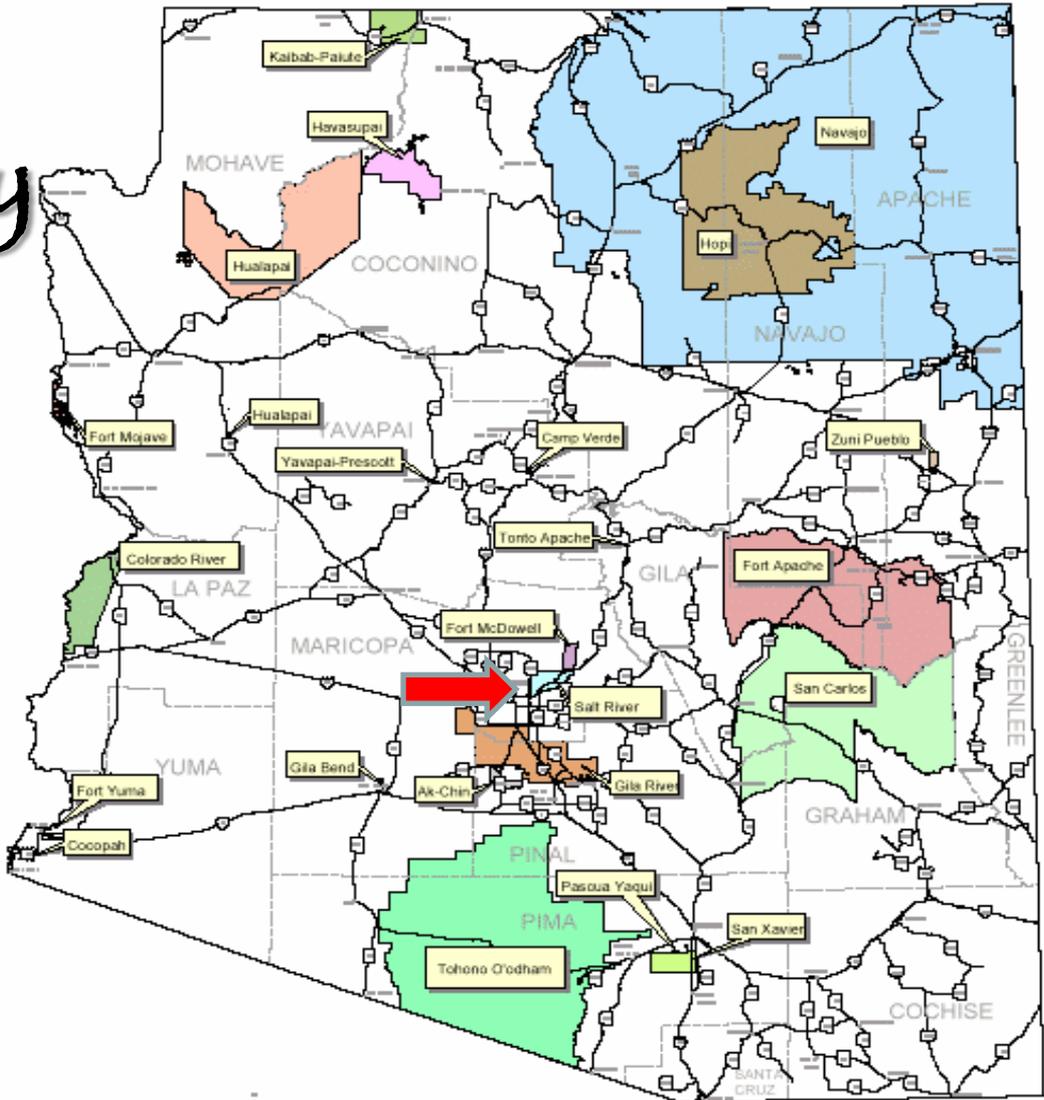
Background Information

- Akimel O'Odham (Pima)
- Xalychidom Piipaash (Maricopa)
- Bound on all sides
- Diverse ecosystem
- Innovative tribal commercial development



Community Location

American Indian Reservations





Environmental Protection & Natural Resources (EPNR)...



..to protect, preserve, restore and regulate our Community's natural resources and archaeological heritage by enforcing regulatory programs and providing educational opportunities.



Who We Are



- **Air Quality Program (AQP)**
- **Water Quality Program (WQP)**
 - **Wetland Program** 
- **Environmental Programs & Policy Development (EPPD)**
 - Pesticides & Hazardous Substances
 - Solid waste
 - Recycling
 - Environmental Policy
- **Land Use Clearances (LUC)**
 - Archaeology
 - National Environmental Policy Act (NEPA)
 - Enforcement & Compliance
- **Range Management Program (RMP)**











4 10:49 AM



8 10:26AM





**NO
WOODCUTTING**



**OR HARVESTING
ALLOWED**

4 1:00PM



Monitoring

RIVERS

- 2 areas along the Verde River
- 2 areas along the Salt River

MACROINVERTEBRATES

- 2 areas along the Verde River
- 2 areas along the Salt River

WETLANDS

- 3 sites @ Cottonwood Wetland
- Lehi Wetland
- Voluntary wetlands

GROUNDWATER

- Various wells

OTHER

- Irrigation ditches
- Special Requests
 - Ballfield, etc.



Water Quality Entry Screens

NEIEN Data Mgmt. Admin Transactions Map Reports Logout

Enter WQ Data

No.	Site	Parameter *	Result Value *	Result Value Unit *	Result Value Type Name	Detection Limit
1	UCL				Actual	

← Data Entry

Data Entry →

Edit WQ Data

Activity Medium * Water

Activity Type * Field Msr/Obs

Activity Start Date * 08 / 11 / 2010 (mm / dd / yyyy)

Activity Start Time [] : [] (HH : MM) AM PM

Activity Start Time Zone MST

Site * Outlet

Parameter *

Result Value *

Result Value Unit *

Result Value Type Name * Actual

Detection Limit

Detection Limit Unit

Detection Limit Type

Biological Sample Name

Flag

Depth to Activity

Depth to Activity Unit

Sample Collection Proc. ID

Sample Collection Procedure Name

Sample Collection Equipment Name

Sample Fraction

Field/Lab Procedure

Analysis Date [] / [] / [] (mm / dd / yyyy)

Reviewed Yes No

Result Comments

Cancel Save



Water Quality Entry Screens

Navigation bar with the following elements from left to right:

- NEIEN logo
- Data Mgmt. (Database icon)
- Admin (Building icon)
- Transactions (Double arrows icon)
- Map (Map icon)
- Reports (Report icon)
- Logout (Power icon)

Search WQ Data

Location: (dropdown)

Project ID: (dropdown)

Site: (dropdown)

Parameters: (dropdown)

From (Activity) Start Date: / / (mm / dd / yyyy)

To (Activity) Start Date: / / (mm / dd / yyyy)

Reviewed: All Yes No

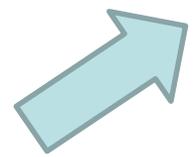
Submitted: All Yes No

Flagged: All Yes No

Filtered Results

Showing results 1-50 of about 1893

<input type="checkbox"/>	No.	Location	Site	Parameters	Result Value	Detection Limit	Activity Start Date	<input type="checkbox"/>					
<input type="checkbox"/>	1	Cottonwood Wetland	Inlet	Turbidity	3.81		03-17-2011	N	N	N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2	Cottonwood Wetland	Inlet	Velocity - stream	0.06		03-17-2011	N	N	N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Search Data Page

- Mark records "Reviewed"
- Submitted records to EPA
- Flagged results



Water Quality Entry Screens



← Get Status Page

Get Status

Select Node:

Transaction ID *

Transaction Status: N/A



EPA Submit History →

View Submission History

Location:

Project ID:

Site:

Parameters:

From (Activity) Start Date: / / (mm / dd / yyyy)

To (Activity) Start Date: / / (mm / dd / yyyy)

Reviewed: All Yes No

Flagged: All Yes No

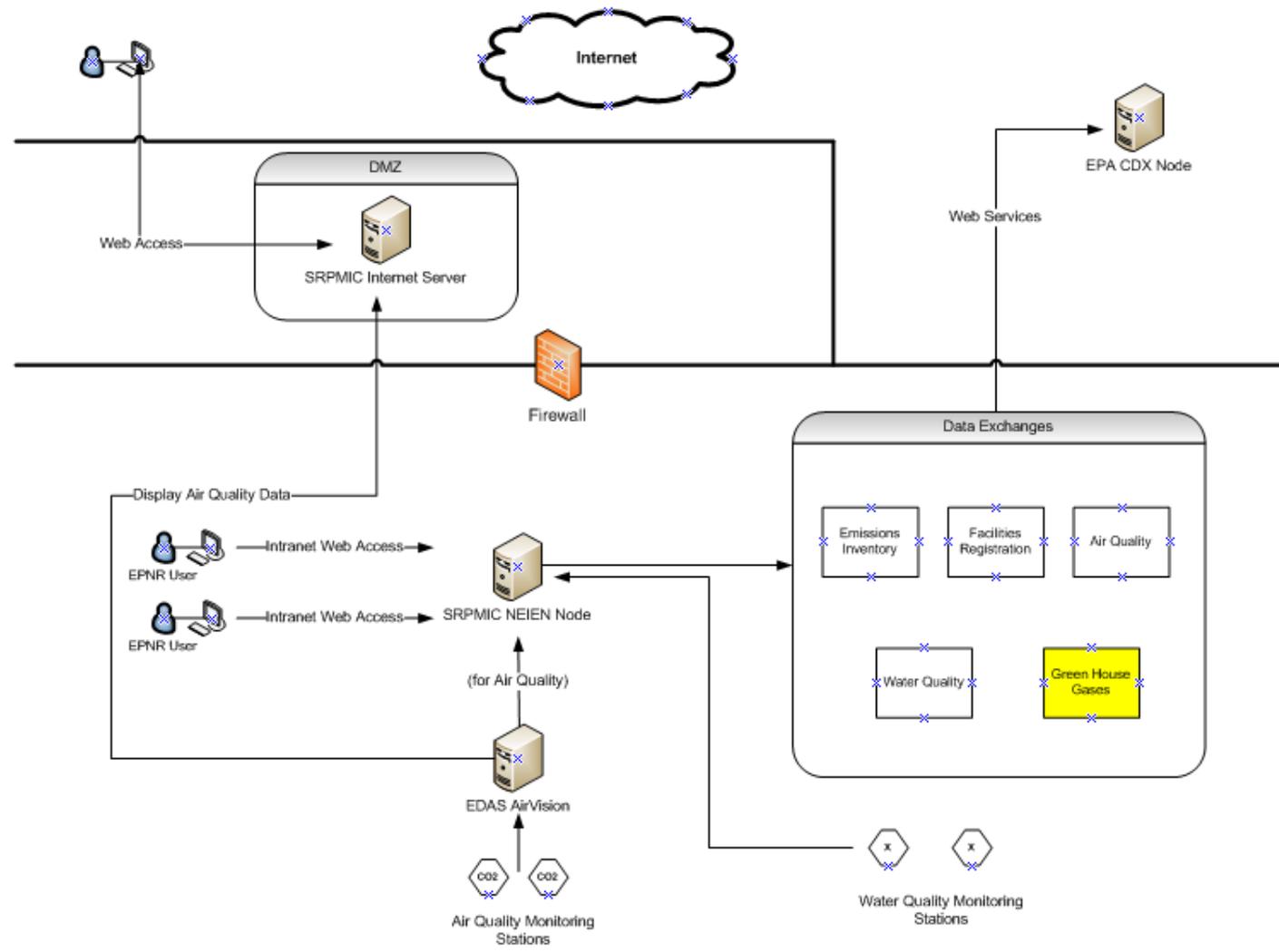
Filtered Results

Showing results 1-50 of about 604

No.	Submitted By	File Name	Date
1	Miguela1	1296264131996 - Miguela1.xml	01-28-2011 06:22 PM
2	Miguela1	1296264131996 - Miguela1.xml	01-28-2011 06:22 PM
3	Miguela1	1296262830534 - Miguela1.xml	01-28-2011 06:00 PM
4	Miguela1	1296262830534 - Miguela1.xml	01-28-2011 06:00 PM
5	Miguela1	1296262499652 - Miguela1.xml	01-28-2011 05:55 PM



Data Exchanges



Clean Water Act Section 106 Tribal Water Quality Assessment Report

Tribe: er Pima-Maricopa Indian Cor

Monitoring Period:

10/1/2009-9/30/2010

ONLY FILL OUT COL
STAT

1	2	3	4	5	6	7	8	9	10	11	12			
Waterbody Name/Identifier	Waterbody Type	Monitoring Station Located On Reservation	Monitoring Station ID (WQX)	Distance or Area Monitored or Assessed	Unit of Measure	Frequency of Monitoring	Parameters Monitored	Tribal Goal or Designated Use for this Waterbody	Change in water quality since start of monitoring period	Current Water Quality Status	Impaired Parameters			
Verde River	River/Stream Perennial	Yes	VR-1	1.5	miles (mi)	7 per year	pH	Yes	Unknown	Choose...	Maintained	Satisfactory	pH	No
							Temperature	Yes	Primary Contact	Yes			Temperature	No
							Dissolved Oxygen	Yes	Secondary Contact	Yes			Dissolved Oxygen	No
							Turbidity	Yes	Cultural Use	Yes			Turbidity	No
							Total Phosphorus	Yes	Drinking Water	No			Total Phosphorus	No
							Total Nitrogen	Yes	Fish/Shellfish Safe To Eat	Yes			Total Nitrogen	No
							E. coli	Yes	Agricultural Irrigation	Yes			E. Coli	No
							Enterococci	No	Aquatic Life and Wildlife	Yes			Choose...	Choose...
							Macroinvertebrates	No	Livestock Watering	Yes			Choose...	Choose...
							Basic Habitat	No	Rare And Endangered Species	Yes			Choose...	Choose...
							Chloride	Choose...	(Fill in any additional uses)	Choose...			Choose...	Choose...
							Specific Conductance	Choose...	(Fill in any additional uses)	Choose...			Choose...	Choose...
							Toluene	Choose...	(Fill in any additional uses)	Choose...			Choose...	Choose...
							Chloroform	Choose...	(Fill in any additional uses)	Choose...			Choose...	Choose...
Benzene	Choose...	(Fill in any additional uses)	Choose...	Choose...	Choose...									
Verde River	River/Stream Perennial	Yes	VR-2	0.5	miles (mi)	7 per	Frequency of Monitoring Please type in the number of times water quality samples are collected at this monitoring station during the monitoring period. If using a continuous datalogger, describe frequency (e.g. daily, hourly, etc.)	Unknown	Choose...	Maintained	Satisfactory	pH	No	
							Primary Contact	Yes	Temperature			No		
							Secondary Contact	Yes	Dissolved Oxygen			No		
							Cultural Use	Yes	Turbidity			No		
							Drinking Water	No	Total Phosphorus			No		
							Fish/Shellfish Safe To Eat	Choose...	Total Nitrogen			No		
							Agricultural Irrigation	Yes	E. Coli			No		
							Aquatic Life and Wildlife	Yes	Choose...			Choose...		
							Livestock Watering	Yes	Choose...			Choose...		
							Rare And Endangered Species	Yes	Choose...			Choose...		
							(Fill in any additional uses)	Choose...	Choose...			Choose...		
							(Fill in any additional uses)	Choose...	Choose...			Choose...		
							(Fill in any additional uses)	Choose...	Choose...			Choose...		
							(Fill in any additional uses)	Choose...	Choose...			Choose...		
(Fill in any additional uses)	Choose...	Choose...	Choose...											
							pH	Yes	Unknown	Choose...			pH	No
							Temperature	Yes	Primary Contact	Yes			Temperature	No
							Dissolved Oxygen	Yes	Secondary Contact	Yes			Dissolved Oxygen	No
							Turbidity	Yes	Cultural Use	Yes			Turbidity	No

PILOT: CLEAN WATER ACT §106 TRIBAL WATER QUALITY ASSESSMENT REPORT

Components of the annual Water Quality Assessment Report requirement of the CWA §106 Guidance for Tribes. In order to fully meet the requirement, you should fill out this template as well as a (component three) to EPA.

NOTE: Fill out the included Narrative Template using a word processing program. Refer to your CWA 106 Monitoring Strategy and Appendix A of the CWA §106 Guidance for general information.

TEMPLATE: Refer to the Assessment Template Tutorial to fill out your answers below. Enter your answers below each column. Some questions offer a dropdown list for you to choose a selection from the left corner of the screen:

your CWA §106 water quality monitoring program. Columns 1 through 11 are required for all tribes (regardless of maturity level). Please fill out columns 12 through 16 only if you have this information.

Implementing any watershed restoration projects (including those funded by CWA §319 - Nonpoint Source Pollution Control).

For filling out these questions and provides definitions of some terms. You can also click on category links in the blue and yellow tabs to view these definitions.

Project Period: **10/1/08-9/30/09**

20.4		TOTAL LAKE ACRES: 0		TOTAL WETLAND ACRES: 2.4		TOTAL ESTUARY SQUARE MILES: 0				
4	5	6	7		8		9	10	11	COLUMNS
Units of measure	Distance or Area Monitored	Number of monitoring stations on waterbody	Parameters Monitored		Tribal Goal or Designated Use for this Waterbody		Current Water Quality Status	Change in water quality since start of project period	Watershed restoration project on this waterbody?	
miles (mi)	2.0 mi	2	pH	<input type="checkbox"/>	Assess Water Quality	<input type="checkbox"/>	Satisfactory	Maintained (no change)	Yes (Describe in Yellow Tab #2)	
			Temperature	Yes	Primary Contact (swimming)	Yes				Primary Contact/Swimming
			Dissolved Oxygen	Yes	Secondary Contact (recreation)	Yes				Secondary Contact/Recreation
			Turbidity	Yes	Cultural Use	Yes				Cultural Use
			Total Phosphorus	Yes	Drinking Water	No				
			Total Nitrogen	Yes	Fish/Shellfish Safe To Eat	Yes				Fish/Shellfish Safe To Eat
			E. coli	Yes	Agricultural Irrigation	Yes				Agricultural Irrigation
			Enterococci	No	Aquatic Life and Wildlife	Yes				Aquatic Life and Wildlife
			Macroinvertebrates	No	Livestock Watering	Yes				Livestock Watering
			Basic Habitat	No	Rare And Endangered Species	Yes				Rare And Endangered Species
			Other parameters	Yes	Other	No				
miles (mi)	18.4 mi	2	pH	Yes	Assess Water Quality	Yes	Satisfactory	Maintained (no	Yes	

(Tab 1)

EPA Region 9 Pilot

Clean Water Act §106 Tribal Water Quality Assessment Report (WQAR) Template

Version 2010

INSTRUCTIONS

This pilot template fulfills the annual water quality assessment reporting requirement per the CWA 106 Guidance. To meet this requirement, use the most current tribal water quality data available (i.e. data in STORET-compatible format) to fill out this template and write the narrative.

Tab 2: WQAR Template

IMPORTANT: Please use separate entries for each monitoring station. This may result in more than one entry per waterbody.

Column #	Column Title	Description
1	Waterbody Name/Identifier	Provide the name of the waterbody, or a code your tribe uses for the waterbody.
2	Waterbody Type	Choose from the drop down menu. You can enter your own value if not listed.
3	Monitoring Station Located on Reservation	Indicate whether the monitoring station on the waterbody is within reservation boundaries.
4	Monitoring Station ID	Please type in your monitoring location ID. List only one monitoring station for each entry within the template. If your data is in WQX format, use this location ID.
5	Distance or Area Monitored or Assessed	Indicate the distance or area of waterbody monitored. Please estimate to the nearest 10th of your unit of measure (i.e. 5.2 miles). See Definitions, Tab 6).
6	Units of Measure	Choose from the drop down menu or fill in your own value.
		Please type in the number of times water quality samples are collected at

PILOT: CLEAN WATER ACT §106 TRIBAL WATER QUALITY ASSESSMENT REPORT

Components of the annual Water Quality Assessment Report requirement of the CWA §106 Guidance for Tribes. In order to fully meet the requirement, you should fill out this template as well as a (component three) to EPA.

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your CWA §106 water quality monitoring program. Columns 1 through 11 are required for all tribes (regardless of maturity level). Please fill out columns 12 through 16 only if you have this information.

implementing any watershed restoration projects (including those funded by CWA §319 - Nonpoint Source Pollution Control).

For filling out these questions and provides definitions of some terms. You can also click on category links in the blue and yellow tabs to view these definitions.

Project Period: **10/1/08-9/30/09**

20.4		TOTAL LAKE ACRES: 0		TOTAL WETLAND ACRES: 2.4		TOTAL ESTUARY SQUARE MILES: 0					
4	5	6	7		8		9	10	11	COLUMNS	
Units of measure	Distance or Area Monitored	Number of monitoring stations on waterbody	Parameters Monitored		Tribal Goal or Designated Use for this Waterbody		Current Water Quality Status	Change in water quality since start of project period	Watershed restoration project on this waterbody?		Tribal Goals/Designated Uses Answered in 8:
miles (mi)	2.0 mi	2	pH	<input type="checkbox"/>	Assess Water Quality	<input type="checkbox"/>	Satisfactory	Maintained (no change)	Yes (Describe in Yellow Tab #2)		
			Temperature	Yes	Primary Contact (swimming)	Yes				Primary Contact/Swimming	
			Dissolved Oxygen	Yes	Secondary Contact (recreation)	Yes				Secondary Contact/Recreation	
			Turbidity	Yes	Cultural Use	Yes				Cultural Use	
			Total Phosphorus	Yes	Drinking Water	No					
			Total Nitrogen	Yes	Fish/Shellfish Safe To Eat	Yes				Fish/Shellfish Safe To Eat	
			E. coli	Yes	Agricultural Irrigation	Yes				Agricultural Irrigation	
			Enterococci	No	Aquatic Life and Wildlife	Yes				Aquatic Life and Wildlife	
			Macroinvertebrates	No	Livestock Watering	Yes				Livestock Watering	
			Basic Habitat	No	Rare And Endangered Species	Yes				Rare And Endangered Species	
			Other parameters	Yes	Other	No					
miles (mi)	18.4 mi	2	pH	Yes	Assess Water Quality	Yes	Satisfactory	Maintained (no	Yes		

ATLAS OF TRIBAL WATERS

On Reservation

	Total	Monitored
STREAM MILES:	20.4	7.4
LAKE AND RESERVOIR ACRES:	0	0
WETLAND ACRES:	4.5	1.5
ESTUARY OR COASTAL WATER SQUARE MILES:	0	0
NUMBER OF SPRINGS:	0	0
NUMBER OF GROUNDWATER MONITORING WELLS (optional):	(Type number here)	(Type number here)

Off-Reservation

Monitored (optional)

(Type number here)

(Type number here)

(Type number here)

(Type number here)

WATERSHED RESTORATION PROJECT INFORMATION

Tribe: Salt River Pima-Maricopa Indian Community

The purpose of this section is to help EPA and tribes track water quality changes through the implementation of watershed restoration activities. On-the-ground watershed restoration projects include the implementation of management measures and best management practices (BMPs) in areas where water quality is threatened or has been degraded by pollutants. Such tribal water quality projects are usually funded through EPA's CWA Section 319 grant program, however, other sources of funding (Natural Resources Conservation Service, Department of Fish and Wildlife, Bureau of Reclamation, etc) are available to tribes. Please list all watershed restoration activities that have been implemented on the specific waterbody/watershed you have listed for this exercise.

A	B	C	D	E	F	G	H	I	J	K
CWA §319 Project	Waterbody or Watershed Targeted by Project	Type of Best Management Practice(s) (BMPs) Implemented	Total BMP Length or Area	BMP Units	Year Project Work Began	Project Status	Pre-Project Data	Post-Project Data	Monitoring Location ID (WQX)	Project Cooperators
Yes	Verde River	Non-native Species Removal	2	miles (mi)	2009	Complete	Yes	Yes	VR-1	EPA
		Seeding/Mulching	2	acres (ac)						
Yes	Salt River	Non-native Species Removal	1.5	acres (ac)	2003	Complete	Yes	Yes	OUTLET	EPA
		Sediment Trap	1.5	acres (ac)						
		Waste Removal	1.5	acres (ac)						
Yes	Salt River	Non-native Species Removal	3	acres (ac)	2008	Complete	Yes	No	NO Monitoring ID	EPA
		Sediment Trap	3	Choose...						
		Seeding/Mulching	1.5	Choose...						
Choose...		Choose...		Choose...		Choose...	Choose...	Choose...		
		Choose...		Choose...						
		Choose...		Choose...						

CWA §106 Water Quality Assessment Report Template Pilot

Narrative Outline

The following is a suggested outline for the narrative component of the Water Quality Assessment Report. This should be used in conjunction with the Region 9 Water Quality Assessment Report Template (WQAR Template) and the submittal of your water quality data in a STORET-compatible format in order to comply with the annual reporting requirement as described in **Appendix A** of the **Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act**. For additional information, please refer to **Appendix A** and contact your CWA § 106 Project Officer.

The subsequent information should be discussed by ALL grantees receiving CWA § 106 funding for their Water Quality Monitoring Program:

1) Name of Tribe:

2) Project Period Used for Water Quality Assessment:

- a. Should be the same project period used within the WQAR Template and Water Quality Data submittal

3) Purpose of your Water Quality Monitoring Program:

NOTE: Be sure to include the goals described within your Monitoring Strategy

- a. Describe the *Major Goals* of your program
 - i. Examples: Identifying water quality problem areas, developing a water quality baseline by collecting data from around the area/region for purposes of developing trend analysis, identifying Nonpoint source (NPS) impacts, protect and maintain water quality for cultural purposes, address public health concerns, etc.
 - ii. Do you currently have tribally-adopted water quality standards on any of the monitored water bodies?

4) Collaboration or coordination with other groups addressing water quality concerns:

- a. Discuss in detail any work with other groups on your water bodies and/or within your watershed to address water quality issues
 - i. Examples: watershed restoration activities, ordinances, community outreach, etc.
- b. Watershed organizations, stakeholders (farmer groups or concerned community members), local irrigation districts, etc.

5) Design of your Water Quality Monitoring Program:

NOTE: Be sure that the justification for your monitoring design is consistent with your Monitoring Strategy

- a. Discuss the approach you used for selection of sampling sites
 - i. List the factors that went into your decisions, for example:
 1. Particular water bodies of concern
 2. Accessibility to water for the person monitoring
 3. Was there a particular area of concern?
 4. Changes in water source (i.e., the convergence of two streams, the affects of a dam, etc)
 5. Seasonal water flows and conditions
- b. Discuss the approach you used for determining the frequency in which all of the sampling locations would be monitored
 - i. List the factors that went into your decisions, for example:
 1. Seasonal or daily water flows and conditions
 2. Changes in human activities on a water body (construction, agriculture, etc)
 3. Resource availability (personnel, monitoring funding, etc)



Tips/Advice

- Database
- QAPP
- WQS
- EPA Project Officer



Contact Information

**Gina Leverette –Environmental Engineer–
(480) 362-7632
Regina.Leverette@srpmic-nsn.gov**

www.SaltRiverEnvironmental.org



Using Data to Tell Our Story: Results of WQAR Data Collection

Christopher Chen
US EPA, Region 9
Water Division



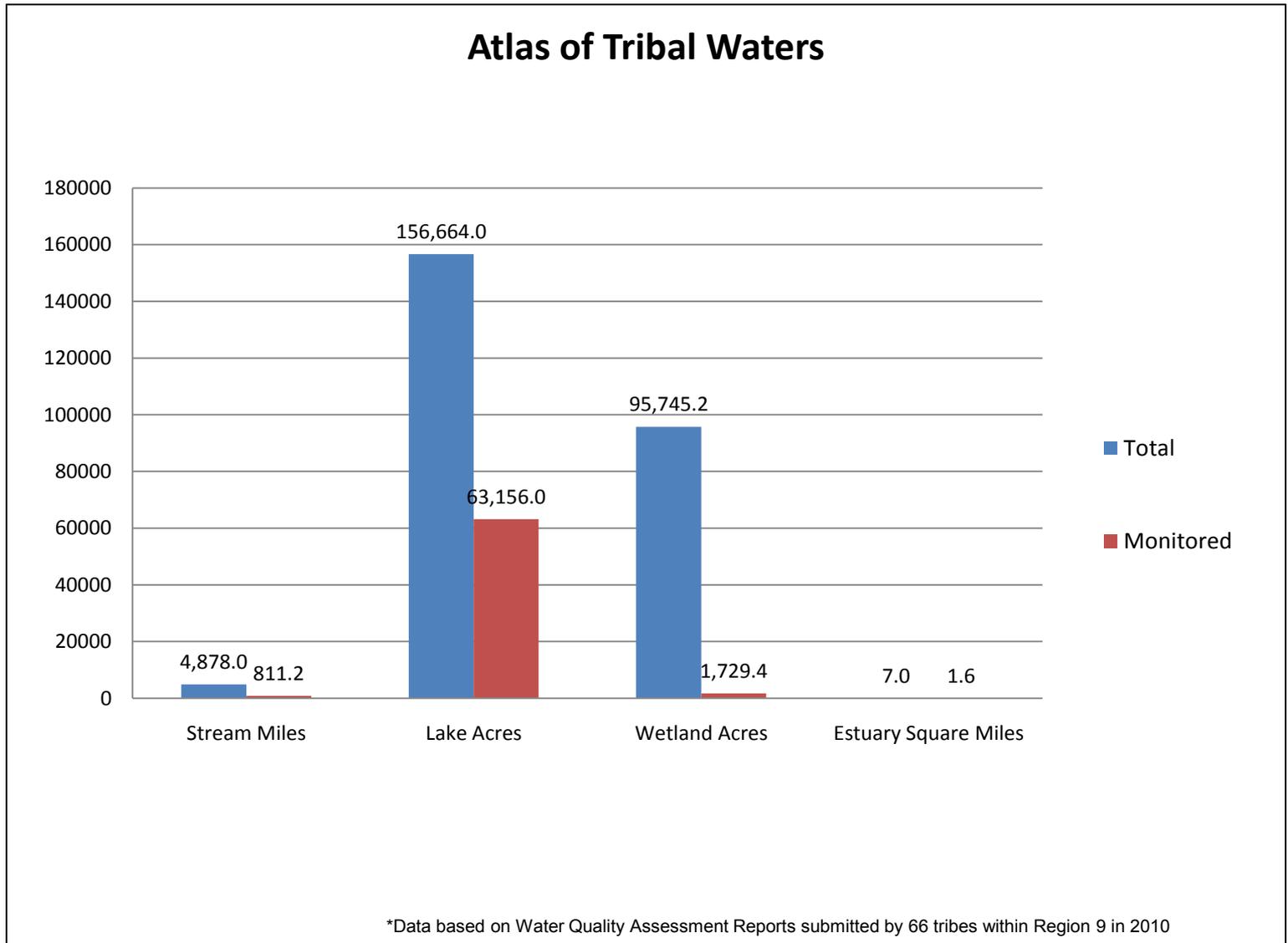


Results of the Tribal Water Quality Assessment Report Template Pilot 2010

Prepared by the WTR-10 Data Team
(with assistance from the R9 RTOC CWA Workgroup and R9 tribes)

*Data from Water Quality Assessment Reports submitted by 67 tribes within Region 9 in 2010

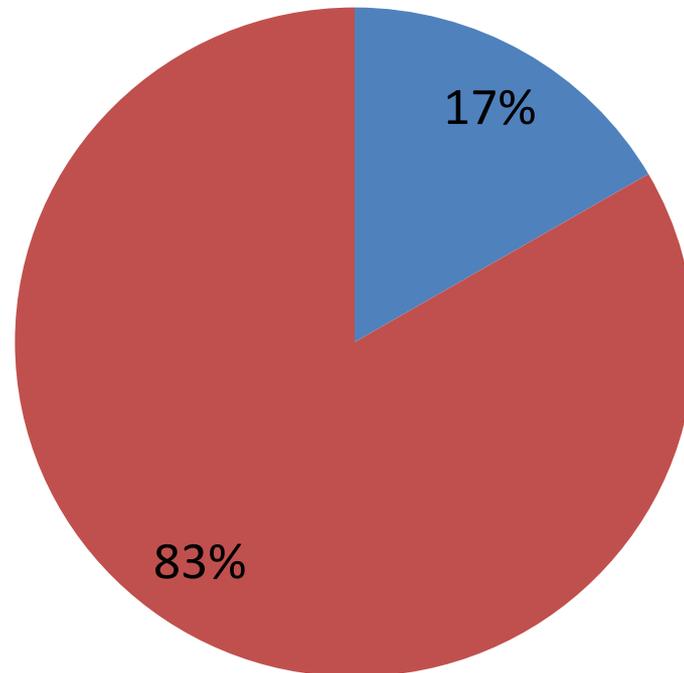
Reservation Waters: How Much was Monitored?



Stream Miles Monitored in Indian Country

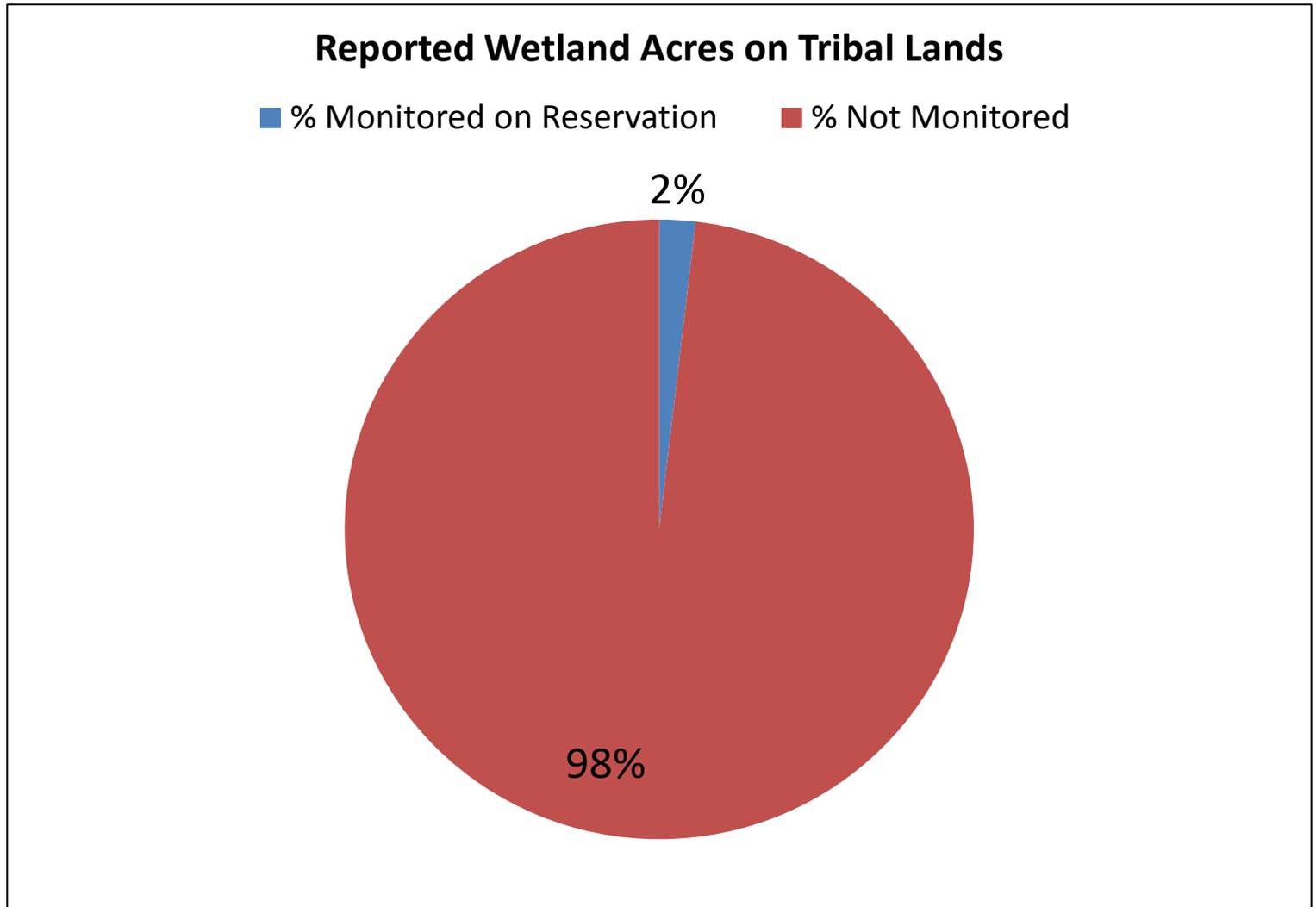
Reported Stream Miles On Tribal Lands

■ % Monitored on Reservation ■ % Not Monitored



*Data based on Water Quality Assessment Reports submitted by 66 tribes within Region 9 in 2010

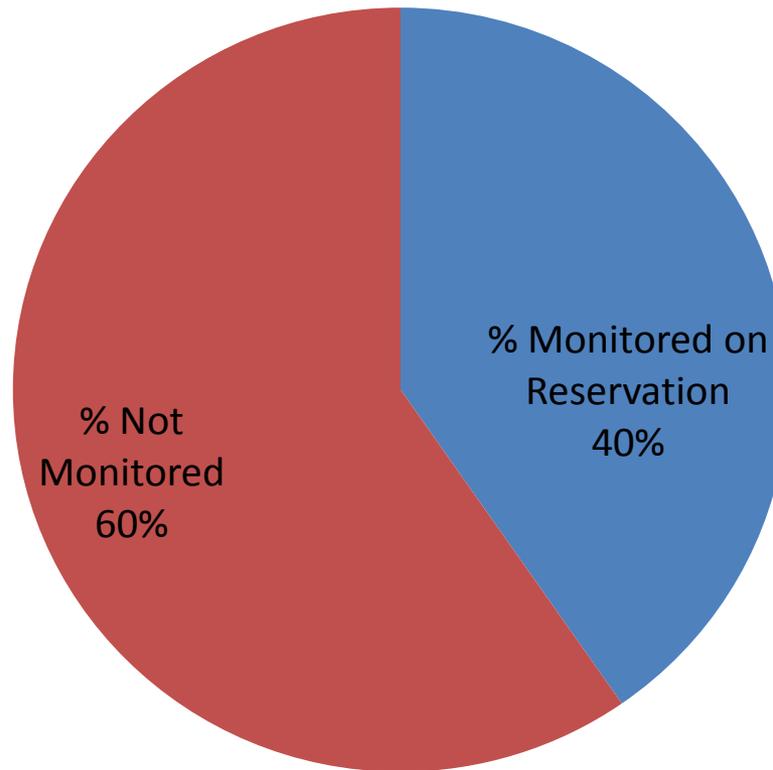
Wetland Acres Monitored in Indian Country



*Data based on Water Quality Assessment Reports submitted by 66 tribes within Region 9 in 2010

Lake Acres Monitored in Indian Country

Reported Lake Acres on Tribal Lands

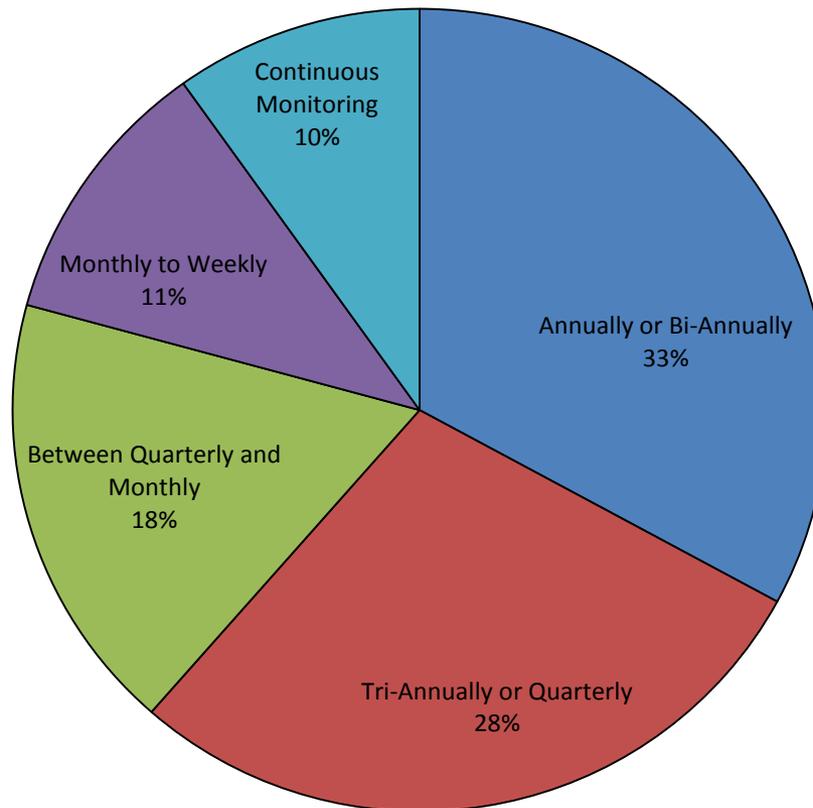


*Data based on Water Quality Assessment Reports submitted by 66 tribes within Region 9 in 2010

How Often Did Monitoring Occur?

Frequency of Water Quality Monitoring

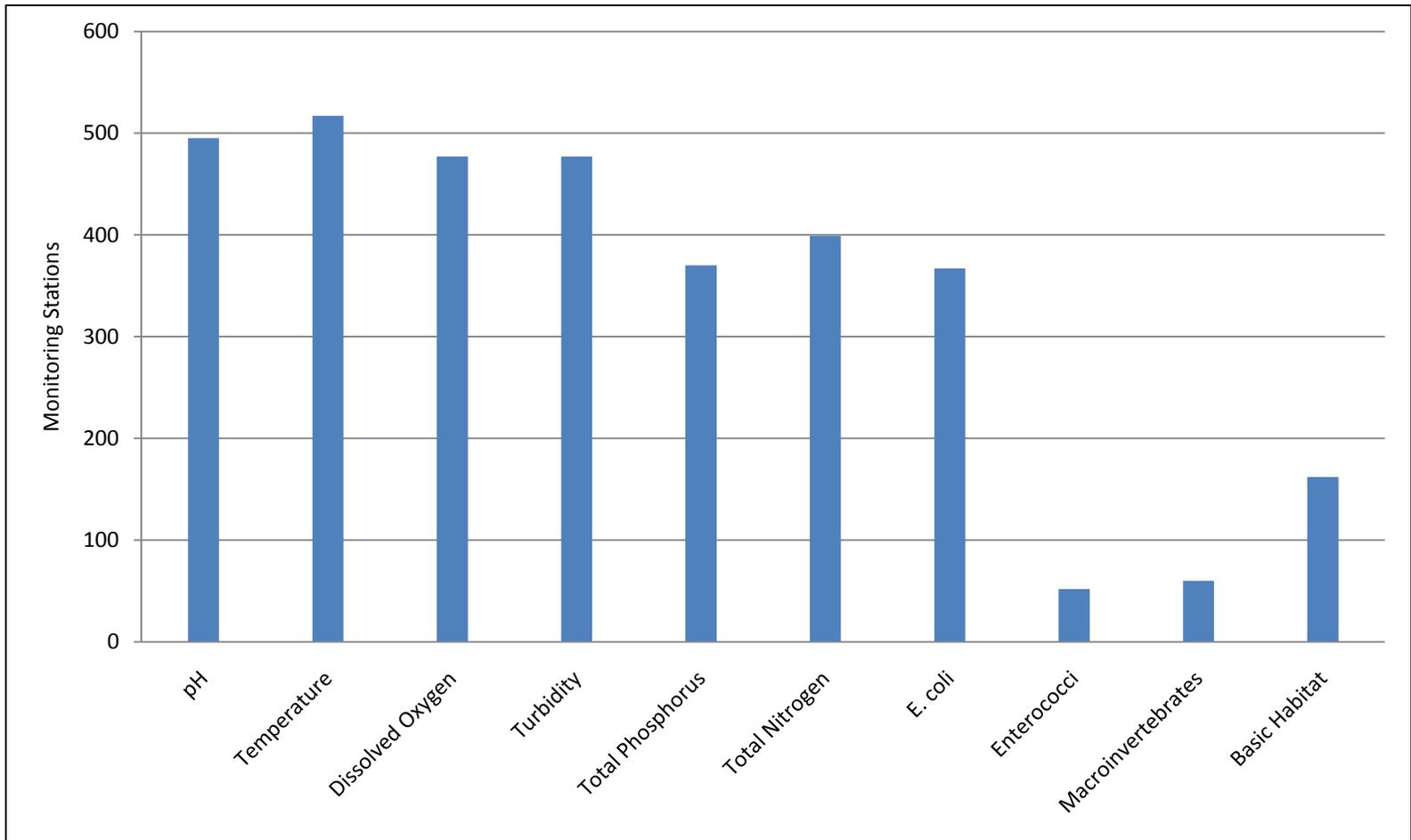
568 monitoring stations



*Data based on Water Quality Assessment Reports submitted by 67 tribes within Region 9 in 2010

What EPA Recommended Parameters Were Being Monitored by R9 Tribes?

Several tribal programs have progressed beyond fundamental levels and are now monitoring for macroinvertebrates and basic habitat. The majority of programs in R9 monitor the 4 fundamental parameters.

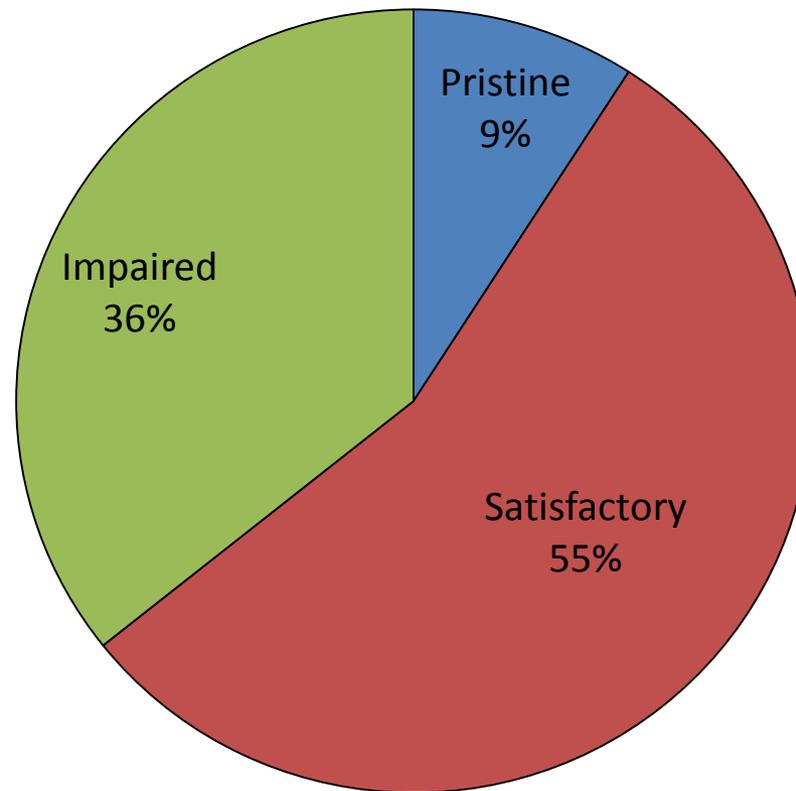


*Data based on Water Quality Assessment Reports submitted by 67 tribes within Region 9 in 2010

What is the Status of Water Quality in R9 Indian Country?

Current Water Quality Status of Monitored Stations

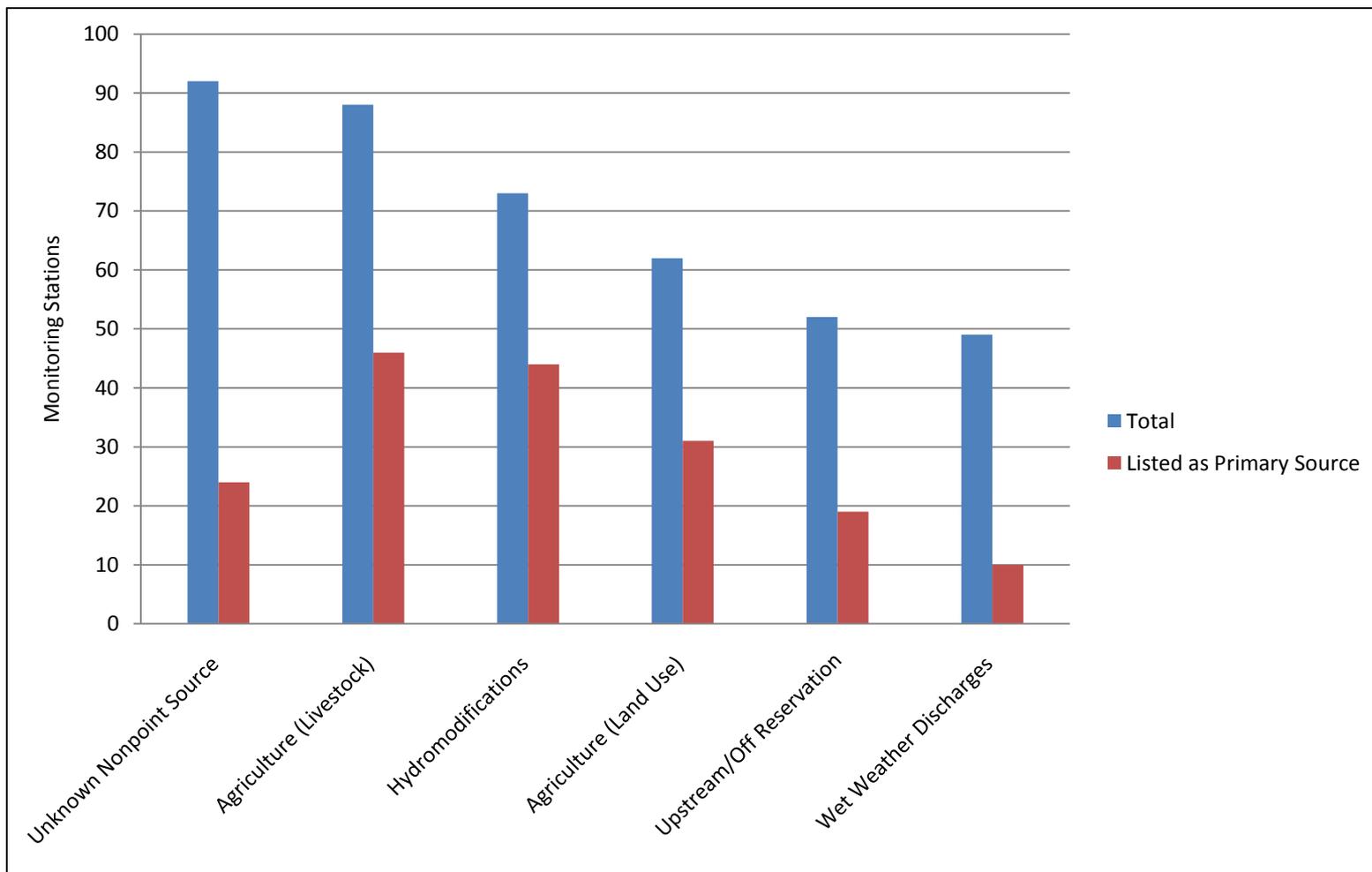
586 stations



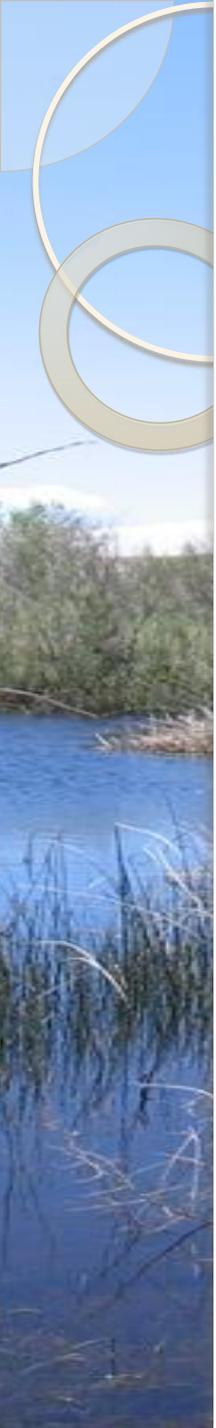
*Data based on Water Quality Assessment Reports submitted by 67 tribes within Region 9 in 2010

What is Causing Water Quality Impairment?

Nonpoint source pollution is the primary cause of most water quality impairment. More work is required through the CWA 319 program to help address these concerns. The CWA 106 program also helps tribes identify the nature of these nonpoint sources.



*Data based on Water Quality Assessment Reports submitted by 67 tribes within Region 9 in 2010



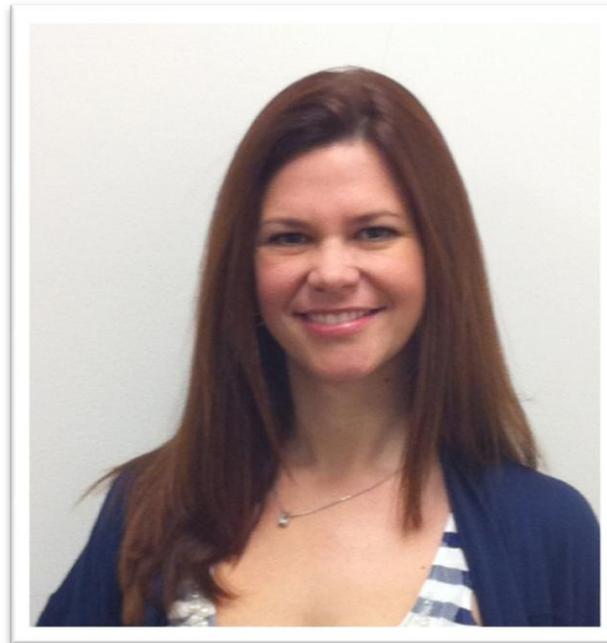
Contact Information

If you have any questions, please contact:

- Audrey L. Johnson
 - johnson.audreyl@epa.gov, 415-972-3431
- Christopher Chen
 - chen.christopher@epa.gov, 415-972-3442
- Janis Gomes
 - gomes.janis@epa.gov, 415-972-3517
- Mariela Lopez
 - lopez.mariela@epa.gov, 415-972-3771

NEW from Region 9: Interactive WQAR Template Tutorial & Other Reminders

Audrey L. Johnson
US EPA, Region 9
Water Division



Now Available on R9's CWA 106 Reporting Requirements Website: Region 9's Interactive WQAR Template Tutorial

R9 Water Quality Assessment Report Outline

The WQAR is made of 6 sections

- **Tab 1:** Instructions
- 4 sections you must complete:
 - Tab 2:** WQAR Template (data analysis and assessment)
 - Tab 3:** Tribal Atlas (overview of water existing in and being monitored on Tribal lands)
 - Tab 4:** Restoration Projects (CWA 319)
 - Tab 5:** Narrative (written report, attached)
- **Tab 6:** Definitions

1. Instructions 2. WQAR Template 3. Atlas of Tribal Waters 4. Watershed Restoration 5. Narrative 6. Definitions



Water Quality Assessment Example Spring River Tribe

You are the newly appointed Water Quality Monitoring Specialist for the Spring River Tribe. It is your task to monitor the water bodies affecting the Tribe's reservation for the purpose of protecting, maintaining or improving the health of this vital resource, which the Tribe uses for a variety of reasons.

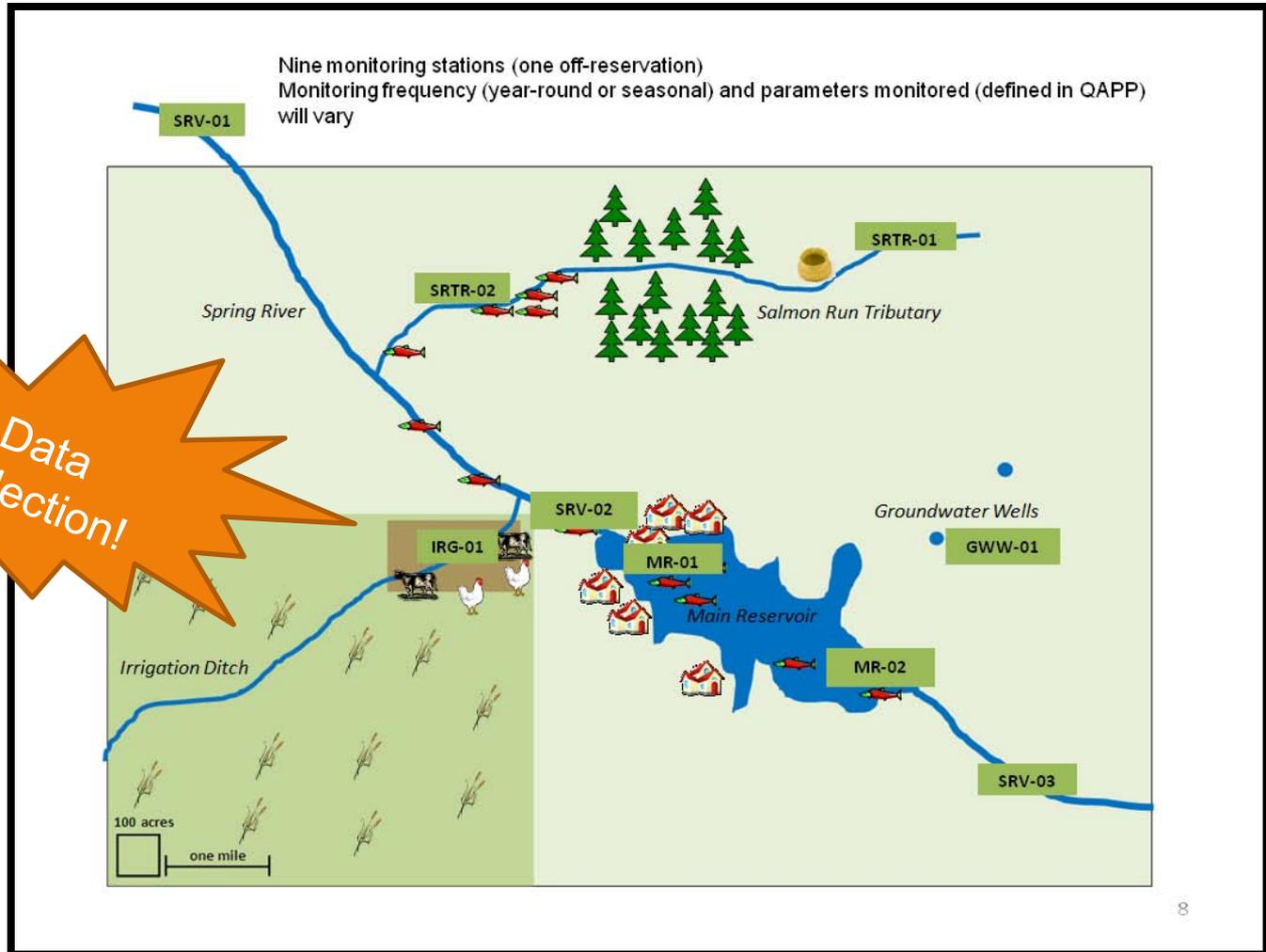
As part of your responsibilities, you must fill out a Water Quality Assessment Report Template to submit to your Region 9 EPA Project Officer. The template will help you document impaired parameters, and possible sources of pollutants, and will prompt you to answer basic questions about the quality of your water.

This tutorial will guide you through the process of filling out a WQAR Template. It will also help you determine what type of environmental analysis you'll need to make based upon any monitoring data you have collected in order to complete the template.



Region 9's Interactive WQAR Template Tutorial

URL: <http://www.epa.gov/region9/water/tribal/cwa-reporting.html>

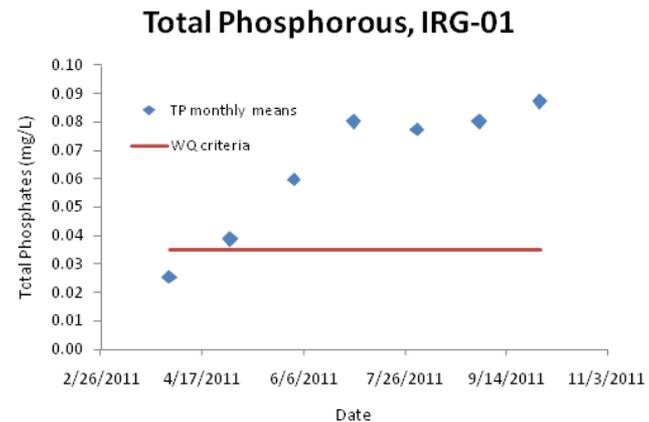


Region 9 WQAR Template Tutorial

URL: <http://www.epa.gov/region9/water/tribal/cwa-reporting.html>

Monthly Means

Date	TP monthly means (mg/L)	Water Quality criteria for TP (mg/L)
4/2011	0.026	0.035
5/2011	0.039	0.035
6/2011	0.060	0.035
7/2011	0.080	0.035
8/2011	0.078	0.035
9/2011	0.080	0.035
10/2011	0.087	0.035



Data Analysis!

- TP data.** Questions to consider:
- Do any of the data points exceed the minimum or maximum criteria allowed? (Yes suggests impairment)
 - Do any of the data points above the red line have exceeded the maximum TP levels set by the WQ criteria
 - Do you see any trends in your data points? What is causing these trends? [decreased/increased inputs, seasonal pollutant input changes, other conditions?]
 - TP levels appear to be increasing over time. However, this is likely because the amount of phosphorous in the soil builds up over the growing season, so higher levels are present in the runoff later in the year. This is a seasonal effect that occurs every year, and does not necessarily mean that water quality is degrading.
 - Do any of the data points look like outliers that do not follow the trend of the graph (and should be ignored)? Not in this example. In some (other) cases, however, if most data points are below the criteria line but one exceeds it, this may simply be an outlier due to some unique event, and may not mean that the water quality is actually impaired



Reminders & Announcements

1. Data Session at Annual Conference – October 17-21, 2011 – Pala Tribe
2. Additional WQX Help – Pyramid Lake Paiute Tribe
 - Contact your CWA 106 Project Officer for more details
3. Region 9's Website for Q&A Document Post Webinar:
 - URL:
<http://www.epa.gov/region9/water/tribal/cwa-reporting.html>



Questions???