



# AWQMS

## Ambient Water Quality Monitoring System

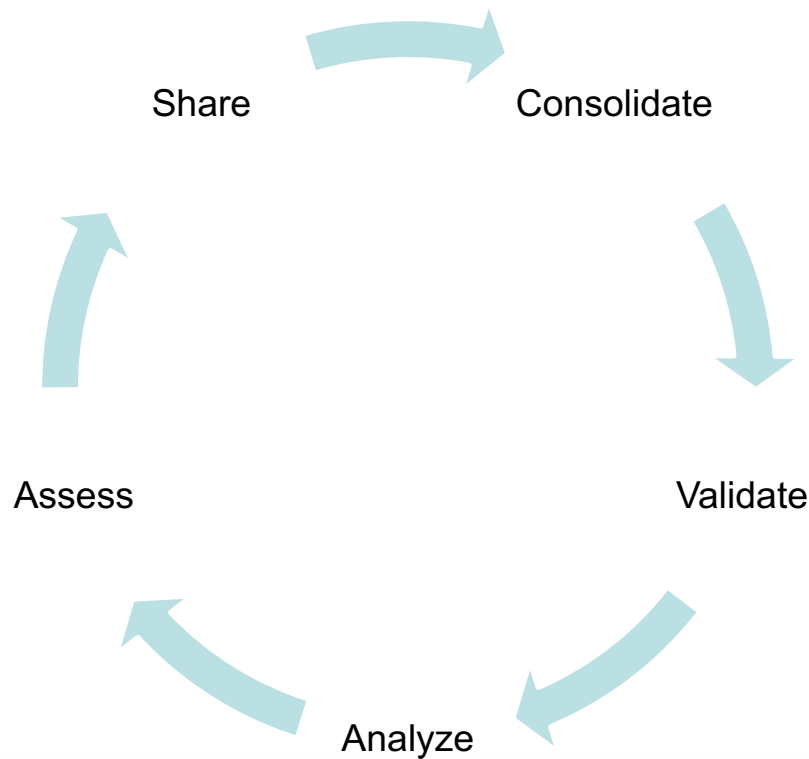


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# What is AWQMS?

A web-based water quality sample and observations database application



**AWQMS**

Ambient Water Quality Monitoring System

# Major AWQMS Capabilities for Wetlands Datasets

- Data Consolidation
- Data Quality & Consistency Checking
- Data Management / Editing Tools
- Data Analysis (Reporting and Graphing) Tools
- Document Management tool to store associated videos, pictures, and pdf documents from assessments
- Support team experienced in flowing wetlands data to WQX
- Sharing between AWQMS users and the public water quality portal (Optional)



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# Added Online Shared Resources Library Capability

**Documents**

← → 📁 🔄 📁 + 🗑️ 📄 📄 + Upload 🔍 Search

File Name	Organization ID	Creator
📄 Wild Rice With Mushrooms Recipe.txt	1854TREATYORG	Mark LeB
📄 WildRiceWithSteakAndMushrooms.docx	FONDULAC_WQX	Mark LeB

📁 Latest Search Results

- 📁 OrganizationFiles
  - 📁 1854TREATYORG
    - 📁 Shared Wild Rice Resourc
  - 📁 21BRBCH
  - 📁 BOISNETT\_WQX
  - 📁 FCPC\_WQX
- 📁 FONDULAC\_WQX
  - 📁 Shared Wild Rice Reso
- 📁 GPC5\_WQX
- 📁 HANNAHWQ\_WQX

Setup ▾ Metadata ▾ Import ▾ Enter ▾

**Documents**

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# Include Surrounding Agencies' Data

## Organization Preferences for MNPCA

[Return](#) [Save](#) [Cancel](#)

### Water Quality Portal (WQP)

- Automatically download monitoring locations and results from the Water Quality Portal every  days
  - When displaying results on the map, use results in AWQMS (rather than retrieving them from the WQP everytime). This is recommended to improve performance.
- Keep  years of data in AWQMS.

[Review Locations](#) [Accept Locations](#) [Cancel](#) [Save Position](#) [Jump to S](#)

Locations: 128606 found , 177 in view Once you've zoomed in enough to identify

[Map](#) [Satellite](#)

**Organization:** NALMS ×  
**ID:** 3596  
**Name:** Cross Lake  
**Type:** Lake  
**Lat/Long:** 46.7/-92.8



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# Pre-Mapped Import Configurations and Data Entry Pages

**Wild Rice Field Data Sheet**

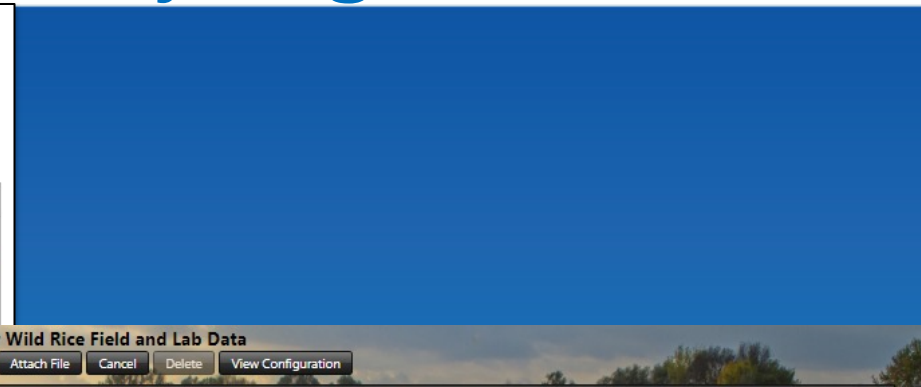
Water body name: \_\_\_\_\_

County: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ Sections(s): \_\_\_\_\_

Date: \_\_\_\_\_ Crew: \_\_\_\_\_ Sheet is # \_\_\_\_\_ of \_\_\_\_\_ (# of sheets for water body)

Be sure to record the units of measurement you are using!

Sample ID#	# of rice stalks within 0.1 m <sup>2</sup> quadrat	Other vegetation present	SAMPLE PLANT	
			Height <input type="checkbox"/> Above water <input type="checkbox"/> Total cm / in	Water depth



**Data Entry - Marks Copy Wild Rice Field and Lab Data**

Return Save Add New Attach File Cancel Delete View Configuration

**Activity**

Organization ID: WQXTEST  
 Activity Type: Field Msr/Obs  
 Activity Media Name: Biological  
 Activity Start Time Zone: CST  
 Project ID: Wild Rice Shared Project  
 Assemblage Sampled Name: Aquatic Vegetation  
 Equipment ID: Visual Sighting  
 Sample Collection Method ID: WildRice Field Guide  
 Monitoring Location ID: \_\_\_\_\_  
 Activity ID: EXAMPLE ACT ID: ML-DATE:TIME:TYPE  
 Activity Start Date: \_\_\_\_\_  
 Activity Start Time: \_\_\_\_\_  
 Activity Comment: Enter comments from "Presence of animals, birds, pathogens, or pests" here.  
 Sampling Component/Quadrat: \_\_\_\_\_  
 Sampling Place In Series: \_\_\_\_\_

QC Checking is in place for this organization.  
[Review QC Parameters and Thresholds](#)  
[Change Organization Preferences](#)

**Results**

Data Entry		Generated		Translate To		
Characteristic Name (translation)	Result Value	Result Status ID	Result Value Type	Characteristic Name	Result Unit	
(a) Number of Rice Stalks per 1/2 m squared		Final	Actual	Grid count	count	Number of Rice Stalks per
(b) Other Vegetation Present		Final	Actual	General observation (text)	None	Other Vegetation Present
(c) Plant Height (Above Water)		Final	Actual	Plant height (Above water)	cm	Plant Height (Above Water)
(e) Water Depth		Final	Actual	Depth, bottom	cm	Water Depth
(f) Number of Stalks Per Sample Plant		Final	Actual	Number of stalks per sample plant	count	Number of Stalks Per Samp
(h) Weather Conditions		Final	Actual	Weather comments (text)	None	Weather Conditions: Recon
(j) Brown Spot Fungi (Low/Med/High)		Final	Actual	Shoot weight	None	If brown spot fungal infect
(k) Plant Height (Total)		Final	Actual	Height	None	Plant Height (Total)
(l) Presence of animals, birds, pathogens, or pests		Final	Actual	Taxon Present (Y/N) (choice list)	None	If (Y) is selected, enter any
(m) Shoot Weight		Final	Actual	Shoot weight	g	Shoot Weight
(n) Root Weight		Final	Actual	Root weight	g	Root Weight

# Graphing features allow comparison between multi-media

The image is a composite showing a person holding a plant stem in a wetland, a software interface for data analysis, and a box plot comparing biomass across monitoring locations.

**Software Interface: Box and Whiskers Plot**

Color Scheme: Default | Change Header Text | Save as PDF | Save as Image | Export Data To Excel | Help

Individual  
Biomass, *Zizania palustris*  
01-01-2010 to 12-31-2018  
Note: this graph may include values that are preliminary, unreviewed, or rejected

Relative\* | Past... | 5 | Years |  
 Only include this period (within each year):  
January | 1 | To | December | End of Month |

Activity Types\*: 18 items checked |  
Result Status\*: Accepted, Final, Preliminary, Validated |  
Projects: |  
Media\*: Biological |  
 Check All |  
 Air |  
Sampling:  Biological |  
 Only  Habitat |  
 Other |  
 Sediment |  
 Soil |  
 Tissue |  
 Water |

**Box Plot: Individual Biomass, *Zizania palustris***

Monitoring Location

104 108 112 114B 115

noted by a solid line.

Monitoring Location	Min	Q1	Median	Q3	Max
104	~550	~600	~650	~700	~850
108	~550	~580	~590	~600	~650
112	~550	~600	~650	~700	~850
114B	~550	~600	~650	~700	~850
115	~550	~650	~700	~750	~900



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