National Wetland Condition Assessment 2026

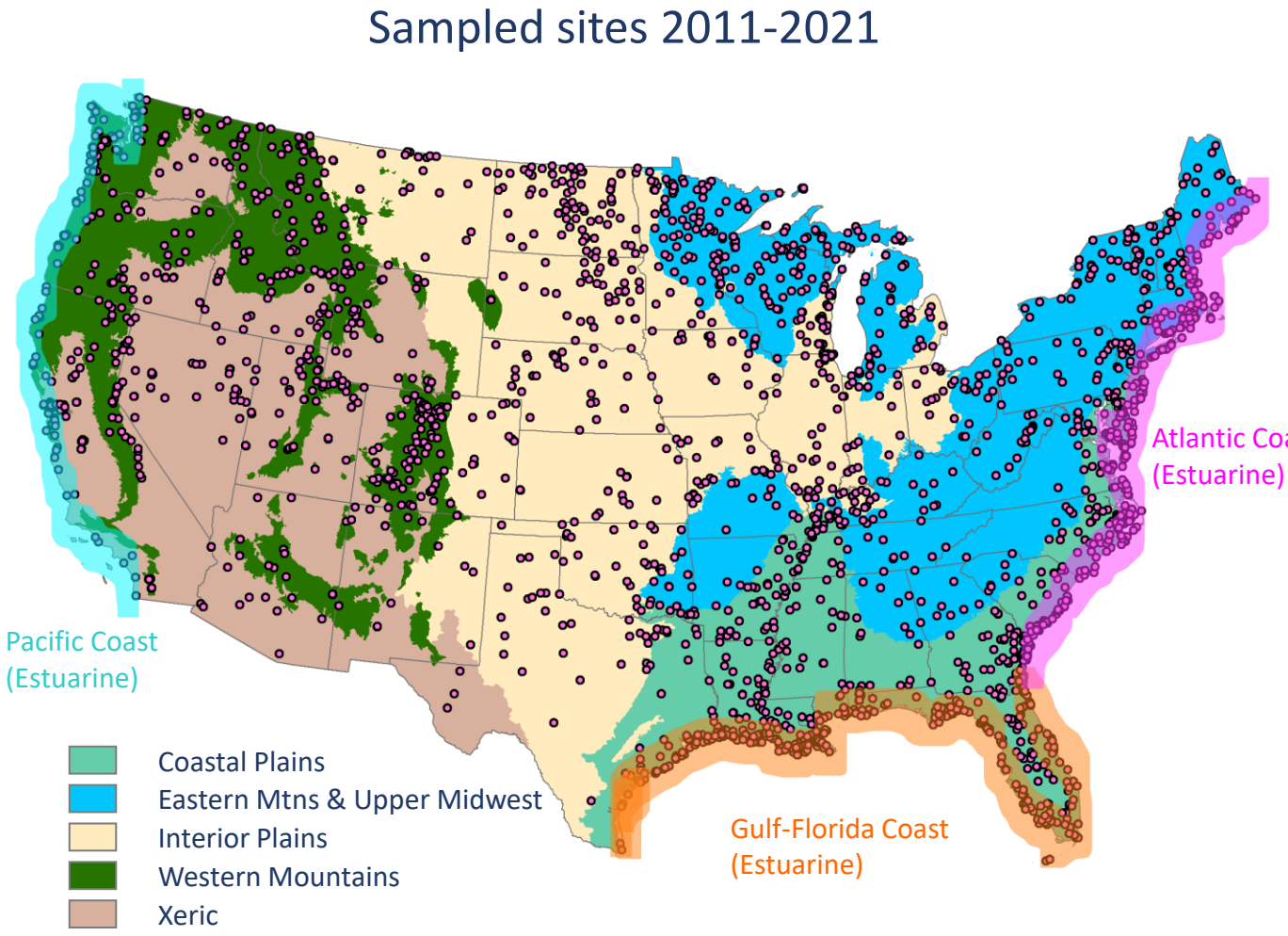
October 2025

NWCA overview

- One of 4 companion surveys under USEPA's National Aquatic Resource Survey (NARS)
- Statistical survey to assess and report on condition of U.S. wetlands
- Collaboration between USEPA and State and Tribal water quality and wetland agencies
- Surveys conducted every 5 years
  - 2011, 2016, 2021
- Supports USEPA, State and Tribal responsibilities under Clean Water Act

Survey design

- 1,000 sites sampled across conterminous U.S. each survey cycle
- Statistical design allows extrapolation of results to entire population of interest
- NWCA Target Population: Tidal and nontidal wetlands with rooted vegetation and, when present, shallow open water < 1m deep
- National Wetland Inventory (US FWS) maps used to identify sampling locations



Vegetation

- Presence and cover of each vascular plant species
- Cover of all vascular species by strata
- Cover of bryophytes, lichens, and algae
- Tree counts, cover, and snags
- Ground cover (water, bare ground, litter, woody debris)

Soil

- Morphology (color, texture, redox features)
- Depth to water table
- Hydric soil field indicators
- Chemical analysis
  - Metals
  - Carbon
  - Nutrients

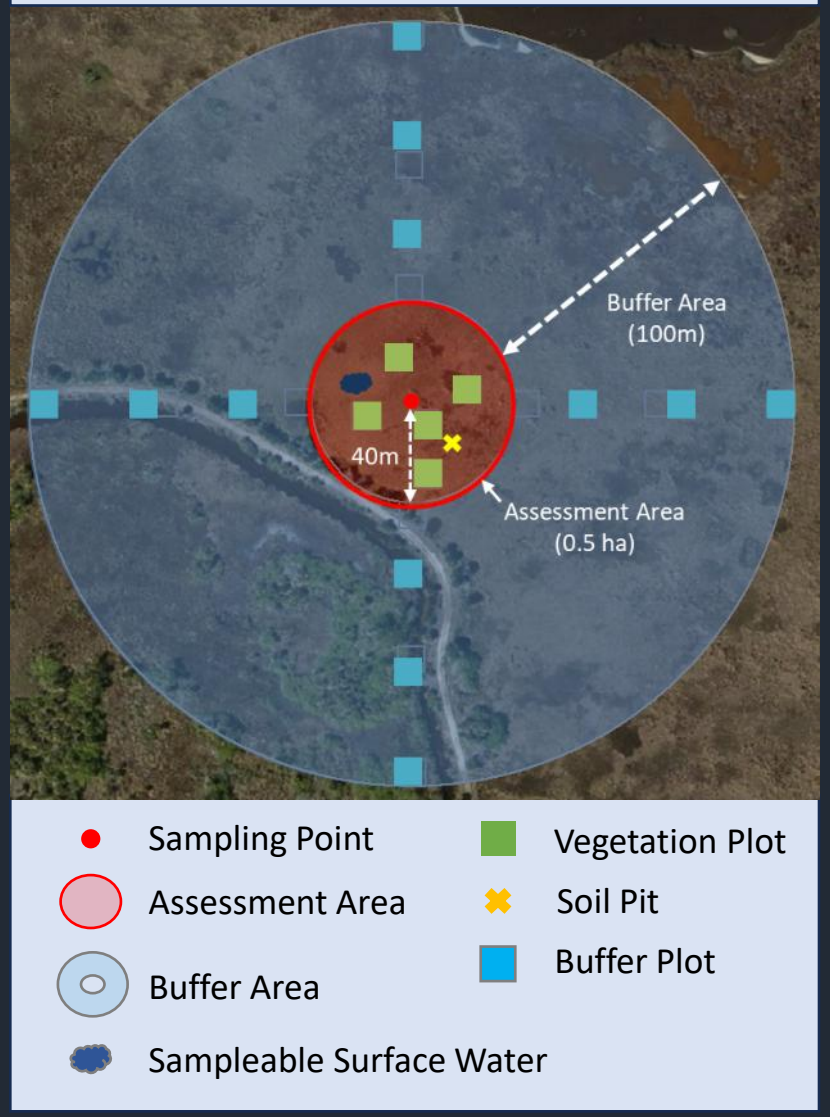
Disturbance

- Presence, severity of physical alterations
- Assessed inside core assessment area and 100m area outside

Hydrology

- Water sources
- Hydrology indicators (USACOE)
- Chemical analysis
  - Nutrients
  - Microcystin

Standard Sampling Layout



NWCA Indicators

Category	Indicator	Data	Benchmark	21 Est	Change	Notes
BIO	Vegetation	Field/ancillary	NWCA reference	y	11-21	
BIO	Nonnative Plants	Field/ancillary	Fixed-BPJ	y	11-21	
PHYS	Vegetation removal	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Vegetation replacement	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Flow Obstruction	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Water addition-subtraction	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Soil hardening	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Surface modification	Field	Fixed-BPJ	y	--	Protocol change in 21
PHYS	Physical alterations sum	Field	Fixed-BPJ	y	--	Protocol change in 21
CHEM	WQ Nitrogen	Lab	NWCA reference	y	16-21	Protocol change in 16
CHEM	WQ Phosphorus	Lab	NWCA reference	y	16-21	Protocol change in 16
CHEM	Soil Heavy Metals	Lab	NWCA reference	--	--	Data delay
HHEALTH	Microcystin	Lab	Fixed-EPA std	y	16-21	Protocol change in 16

NWCA Website

Results, data and information on survey design, indicators, and methods available at:

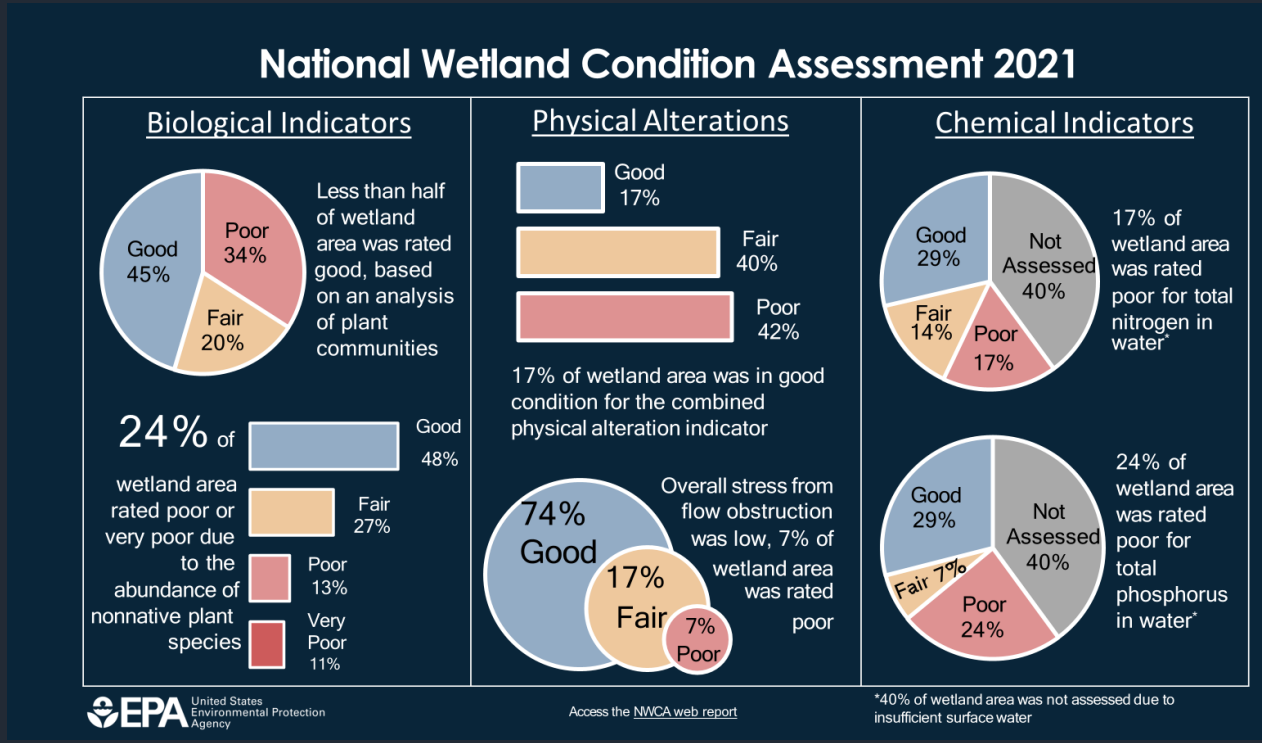
https://www.epa.gov/national-aquatic-resource-surveys/nwca

Survey contact:

Gregg Serenbetz
Serenbetz.Gregg@epa.gov

National Findings

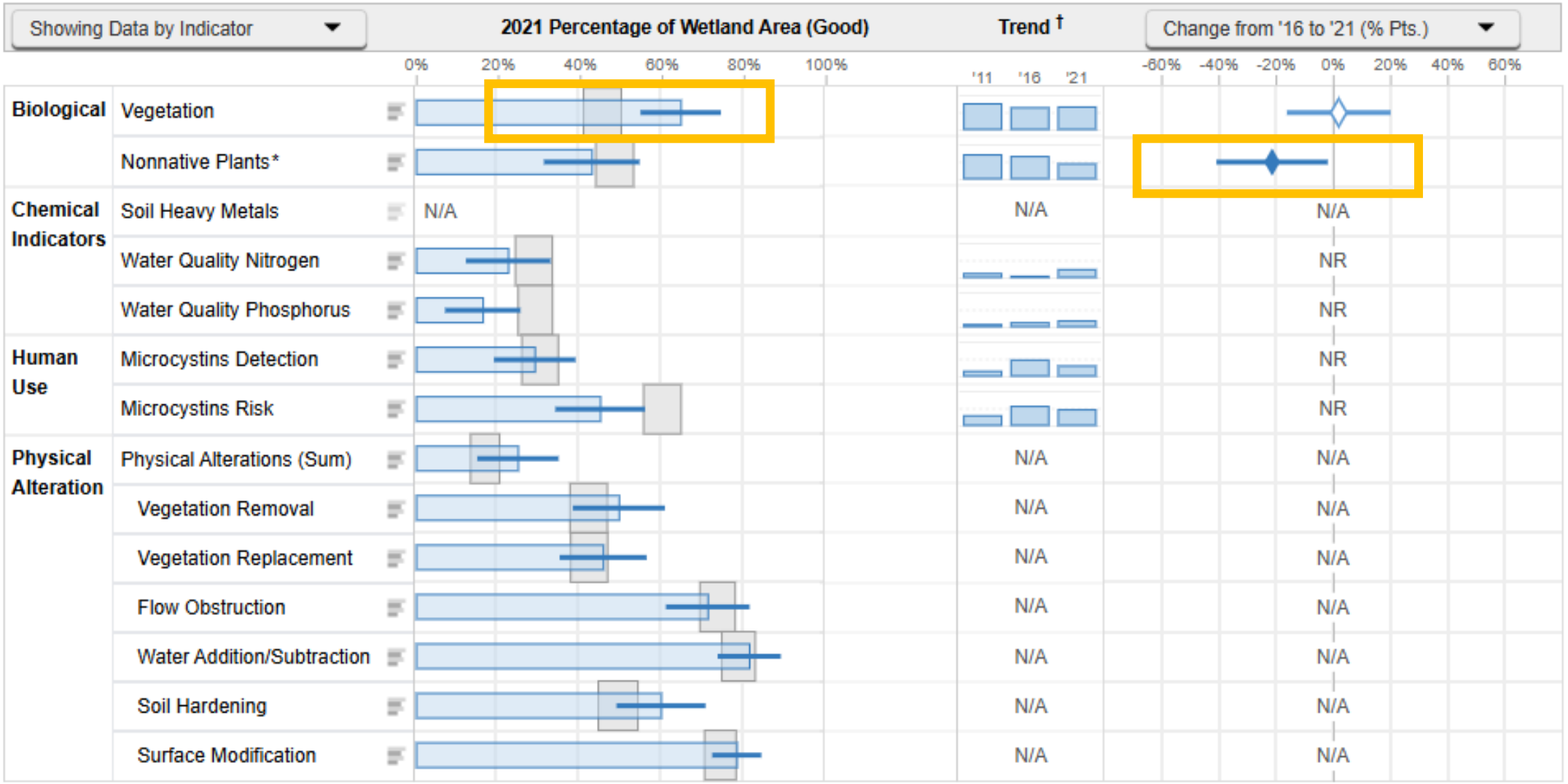
- Less than half of wetland area was rated good, based on analysis of plant communities
  - Consistent across survey years at national-scale
- Nonnative plants are a widespread concern and getting worse
  - Good dropped 9 points from previous surveys
- Physical alterations to wetlands are the most widespread stressors measured
  - 82% of wetland area has moderate to high levels of alteration
  - Wetlands with high level of alteration are 3.4 times more likely to have poor vegetation condition
  - Wetlands with high level of compacted/impervious surfaces (soil hardening) are 2.6 times more likely to have poor vegetation condition
- Nutrient levels are elevated for some wetlands
  - Wetlands with elevated levels of TN or TP more likely to have poor vegetation condition
- Western U.S. wetlands in worse condition generally



U.S. EPA National Wetland Condition Assessment 2021

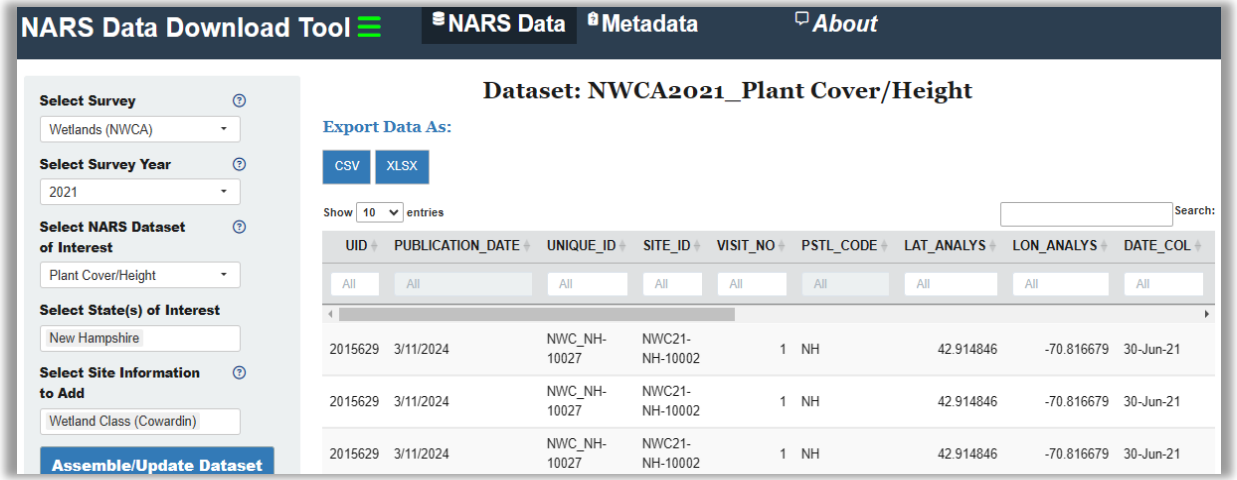
Percentage of Wetland Area in Good Condition

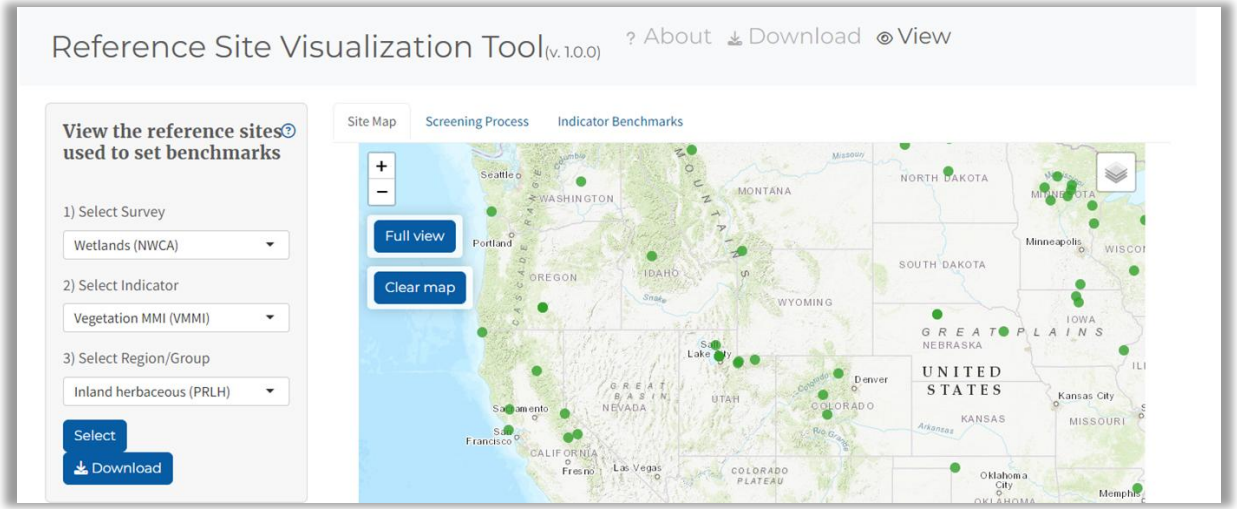
2021 Estimates and Change Over Time | EPA Region 5 (All Wetlands)

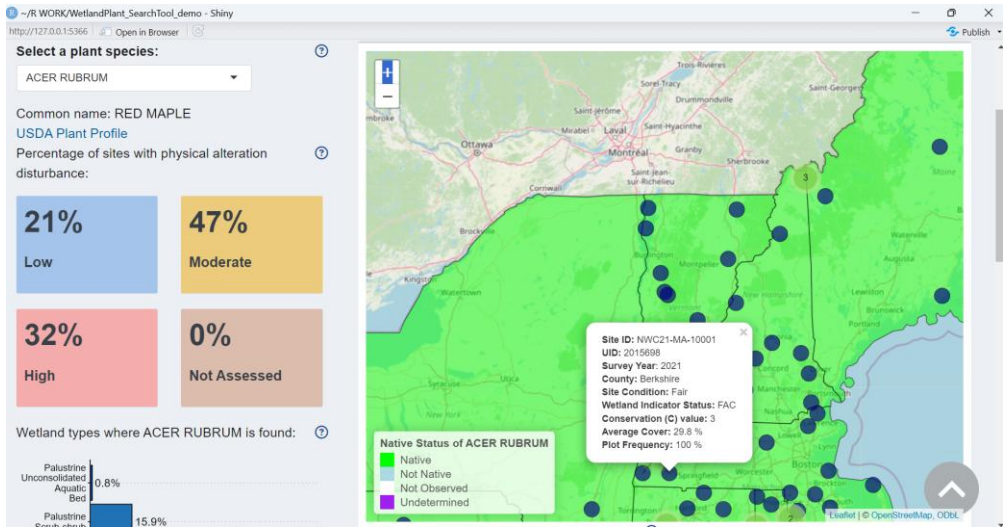


Tools to report, explore, visualize NWCA data

- NARS Data Download Tool
- NARS Reference Site Visualization Tool
- Observed plant viewer







https://www.epa.gov/national-aquatic-resource-surveys/tools-related-national-aquatic-resource-surveys

Acknowledgements

- State and Tribal Agencies
- Federal Agencies
  - USDA Natural Resources Conservation Service
  - U.S. Fish and Wildlife Service
  - National Park Service
- Other collaborators
  - Contractors
  - Academic institutions
- Colleagues in EPA Office of Water, EPA Office of Research and Development, and EPA Regional Offices

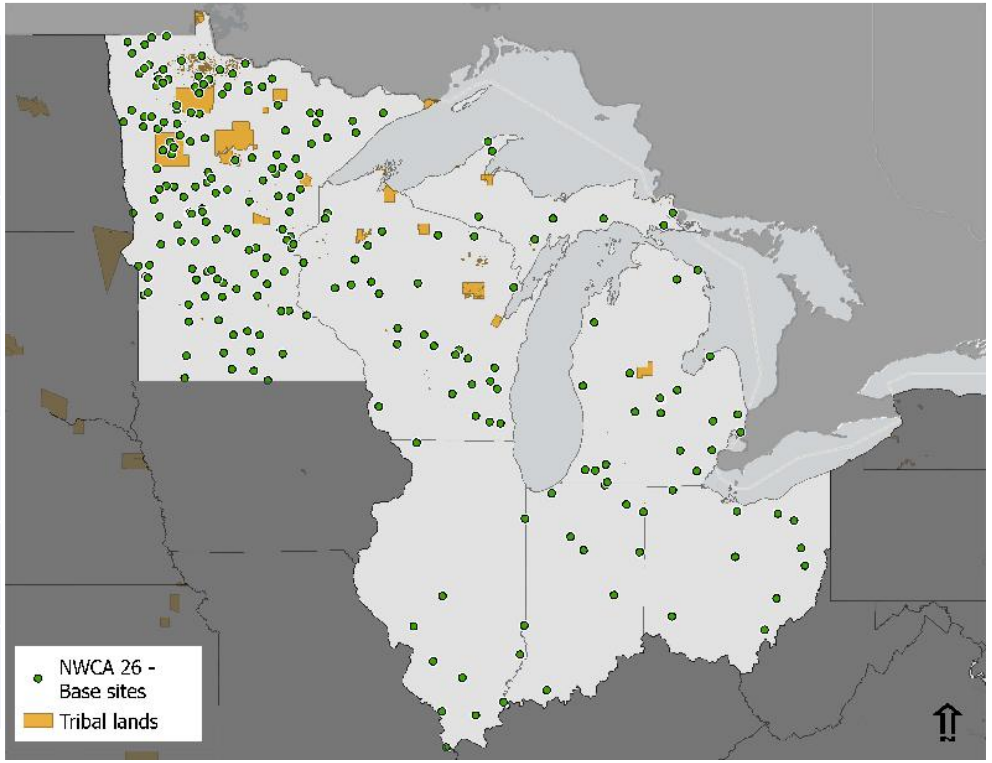
Alabama Department of Environmental Management
Arizona Department of Environmental Quality
California State Water Resources Control Board
Colorado Natural Heritage Program
Confederated Tribes of the Colville Reservation
Confederated Tribes of the Umatilla Indian Reservation
Confederation of Northern Mariana Islands Bur. of Env. and Coastal Quality
Delaware Department of Natural Resources and Environmental Control
District of Columbia Department of Energy and Environment
Florida Department of Environmental Protection
Georgia Department of Natural Resources, Env. Protection Division
Guam Environmental Protection Agency
Idaho Department of Environmental Quality
Illinois Environmental Protection Agency
Illinois Natural History Survey
Indiana Department of Environmental Management
Iowa Department of Natural Resources
Kansas Department of Health and the Environment
Kansas Water Office
Kentucky Division of Water
Leech Lake Band of Ojibwe, Division of Resource Management
Louisiana Department of Wildlife and Fisheries
Maine Department of Environmental Protection
Maine Natural Areas Program
Maryland Department of the Environment
Massachusetts Department of Environmental Protection
Michigan Department of Environment, Great Lakes and Energy
Minnesota Pollution Control Agency
Missouri Department of Natural Resources
Montana Natural Heritage Program
Navajo Environmental Protection Agency
Nebraska Game and Parks Commission
Nevada Division of Environmental Protection
New Hampshire Department of Environmental Services
New Jersey Department of Environmental Protection
New Mexico Environmental Department
New Mexico Natural Heritage Program
New York Natural Heritage Program
North Carolina Department of Environmental Quality
North Dakota Department of Environmental Quality
Ohio Environmental Protection Agency
Oklahoma Conservation Commission
Oregon Department of Environmental Quality
Oregon Division of State Lands
Pennsylvania Department of Environmental Protection
Quinault Indian Nation
South Carolina Department of Health and Environment Control
Tennessee Department of Conservation and Environment
Texas Commission on Environmental Quality
Utah Department of Environmental Quality
Utah Geological Survey
Vermont Department of Environmental Conservation
Virginia Department of Environmental Quality
Washington Department of Ecology
Washington Natural Heritage Program
West Virginia Department of Environmental Protection
Wisconsin Department of Natural Resources
Wisconsin State Laboratory of Hygiene
Wyoming Department of Environmental Quality

National Park Service
U.S. Army Corps of Engineers
U.S. Department of Agriculture, Natural Resources Conservation Service
U.S. EPA Office of Research and Development
U.S. EPA Office of Water
U.S. EPA Regions 1-10
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Geological Survey

Avanti
Burke Museum Herbarium
Coastal Environment
Crow Insight
Eastern Kentucky University
EnviroScience
ESS Group
Four Peaks Environmental Science and Data Solutions
General Dynamics Information Technology
Great Lakes Environmental Center
Midwest Biodiversity Institute
Moss Landing Marine Laboratories
New England Interstate Water Pollution Control Commission
North Dakota State University
Oregon State University
PG Environmental
Riparia at Pennsylvania State University
Southern California Coastal Water Research Project
University of Central Missouri
University of Florida
University of Houston-Clear Lake
University of Illinois
University of Montana
University of New Mexico
University of Wyoming
Virginia Institute of Marine Sciences

2026 NWCA Region 5 Site Distribution / field teams

IL	11	Illinois Natural History Survey
IN*	10	Illinois Natural History Survey
MI	29	EGLE
MN**	52	MPCA
OH	10	OEPA
WI	29	WDNR (plant voucher)



State Enhancements / Intensifications

MICHIGAN

- Additional 16 sites which will contribute to the State scale survey of 105 total sites distributed over 3 ecoregions. (3rd cycle of Statewide assessment)
- Michigan methods on all sites including NWCA sites.

Katie Fairchild – fairchildk@michigan.gov

WISCONSIN

- Conduct Rapid Floristic Quality Assessment at multiple sites including some NWCA sites. By leveraging results from NWCA and past wetland data, the goal is to improve tools used to identify higher condition wetlands and grow watershed-scale wetland monitoring efforts.

Sally Jarosz- sarah.jarosz@wisconsin.gov

State Enhancements / Intensifications

MINNESOTA

- Additional Sites = +98 sites for a total 150 for the State (3 ecoregions)
- Additional parameter of modified soil sampling at sites and use of Minnesota Wetlands protocols at all sites.
- Support completion of Minnesota Wetland Condition Assessment (4th State Scale report)
- +100 sites Depressional Wetland Quality Assessment (5th State Study).
- Results included in State 305b report

Mike Bourdaghs -michael.bourdaghs@state.mn.us

Thank you

nord.mari@epa.gov