

LWCD - A Columbia County Experience

**Kurt R. Calkins, Director
Columbia County Land and Water Conservation Department**

Overview

- Historical Perspective
 - LWCD Conservation Timeline

- The LWCD?
 - Who?
 - Roles of the LWCD
 - Partners

- Columbia County LWCD Services Provided
 - County Plan & Local Priorities
 - Projects
 - Future Projects

- Columbia County Watershed Approach

- Questions

Historical Perspective

- 1933 – Wisconsin hosts 1st conservation project in US (Coon Valley)
- 1937 – Legislation adopts national conservation district laws
- 1939 – Districts are required to follow county boundaries

Historical Perspective

- 1956 – Conservation districts now exist in every county in Wisconsin

- 1972 – US Clean Water Act passes
 - “fishable and swimmable” goals for all waters

- 1978 – WI Farmland Preservation Program begins

Historical Perspective

- 1979 – WI non point program begins
 - Lead by previously established conservation districts
- 1980 – Legislation audit recommends expanded state role in soil and water conservation

Historical Perspective

- 1982 – Conservation districts are replaced with County Land Conservation Committees
- 1984– WDNR and DATCP require counties to reduce soil erosion and animal waste pollution

Historical Perspective

- 1985 – Conservation compliance added to Federal Farm Bill
- 1991– Legislation requires construction erosion controls
- 1993 - Milwaukee cryptosporidium outbreak linked to farm runoff

Historical Perspective

- 1995 – Governor's Animal Waste Advisory Committee recommend increased animal waste regulation to be lead by CLWCD

Historical Perspective

- 1997– Legislature creates County Land & Water Resource Management Plans
 - Matching local needs with state priorities
 - Updated every 5 years
 - State LWCB Approval

- 1997 – WDNR directed to draft nonpoint “performance standards & prohibitions”
 - 2002 and 2011 versions

Historical Perspective

- 1999 – Legislature ends targeted nonpoint program and directs counties to implement new non point standards through LWRM plans

Historical Perspective

- 2002 – WDNR & DATCP adopt new rule package to replace nonpoint program relying on CLWCD for implementation
- 2010– Legislature passes
NR 102, Water Quality
Standards For Wisconsin
Surface Waters

Historical Perspective

- Present - Nutrient Trading & Wisconsin Adaptive Management Option is attached to WPDS permits
- TMDL Output of Water Quality Targets.

Guiding Legislation

- ❑ Wisconsin Statutes Chapter 92 - Soil and Water Conservation and Animal Waste Management
- ❑ NR 151 – Runoff Management
- ❑ ATCP 50 - Conservation practices a farmer must follow to meet DNR's performance standards in NR 151
- ❑ ATCP 51 - Livestock Facility Siting

Guiding Legislation

- ❑ Chapter 281 – Water and Sewage
- ❑ Chapter 91 – Farmland Preservation
- ❑ NR 102 – Water Quality Standards for Wisconsin Surface Waters
- ❑ NRCS Technical Standards

The LWCD?

- Land and Water Conservation Departments
 - Wisconsin's Best Kept Secret
 - Boots on the Ground
- Statutorily connected to county government
 - Chapter 92
- Exist in 72 Counties in Wisconsin
 - [http://www.wlwca.org / LCDWeb.html](http://www.wlwca.org/LCDWeb.html)

Roles of the LWCD

- Establishing conservation policy based on local input & resource needs assessments
 - County Land & Water Resource Management Plans
- Primary local delivery system of natural resource programs
 - Federal
 - State
- Conservation assistance and planning

Roles of the LWCD?

- ❑ Promoting conservation awareness and stewardship
- ❑ Possessing legislative and taxing authority
- ❑ Developing and obtaining local, state and federal cost-sharing funding programs
- ❑ Provide local conservation leadership and project coordination & technical assistance

Columbia County LWCD Partners

- WDNR
- DATCP
- NRCS
- RCD
- USGS
- USFW
- APHIS
- Wisconsin Geological and Natural History Survey
- University of Wisconsin –Extension
- University of Wisconsin-Stevens Point
 - Center for Watershed Science & Center Land Use Education
- City, Village and Township Government
- Lake Districts and Associations
- Special Interest and Friends Groups

Who are the LWCD?

- Locally lead conservation providing educational, technical and conservation planning assistance to help communities control rural and urban soil erosion; protect lakes, streams and groundwater; and manage woodlots, forests and wildlife.



LWCD Services Provided

- Land and Water Resource Management Plan
 - A soil erosion focus to watershed management and water resources

Columbia County Land and Water Resource Management Plan

Revised 2011



Prepared by:

Columbia County Land and Water Conservation Department

LWCD Services Provided

- Management Planning Local Priorities
 - Water Quality Monitoring
 - Groundwater
 - Algal blooms
 - Aquatic Plant Management Plans
 - Sediment control
 - Aquatic Invasive Species
 - Lake District and Association
 - Shoreline Restoration
 - Conservation Planning
 - NR 151 AG Runoff Standards
 - Local Animal Waste Ordinance
 - Manure Management
 - Best Management Practices



LWCD Services Provided

- Watershed NR 151 inventories
 - Livestock Sites
 - WQMA D.R.O
 - Hydrology
 - Wetlands
 - Soils
 - Slopes
 - Zoning
 - Land Cover
 - Etc.

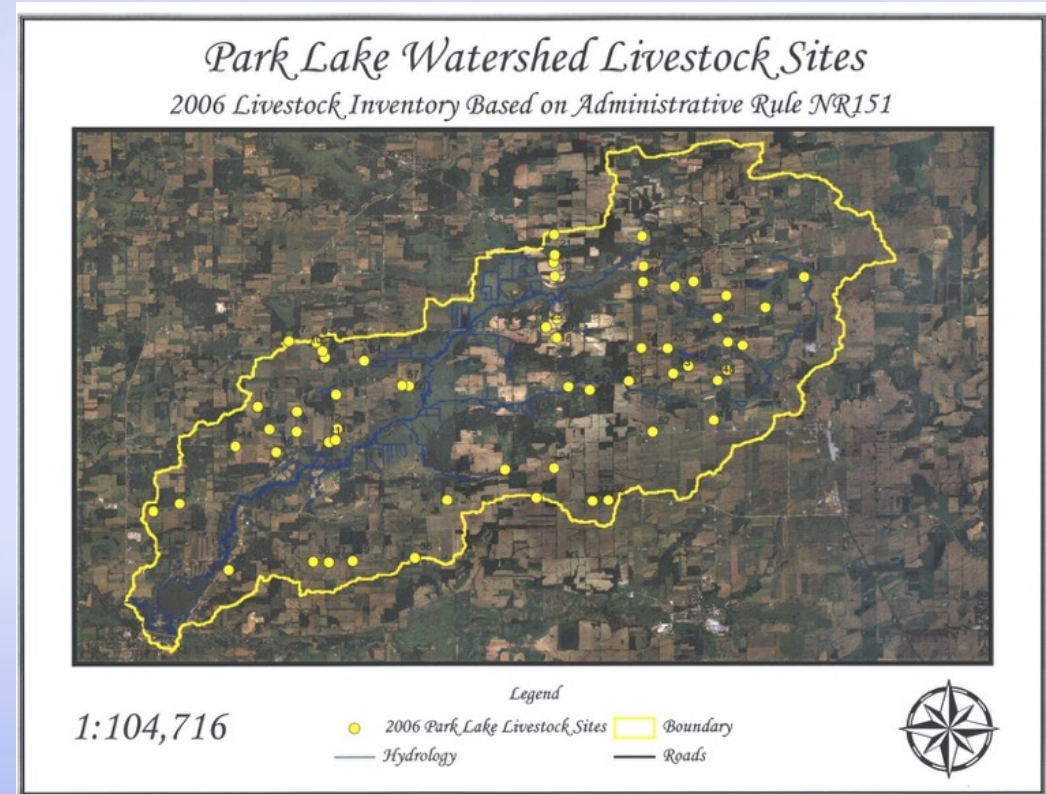


LWCD Services Provided

□ Watershed NR 151 Inventories

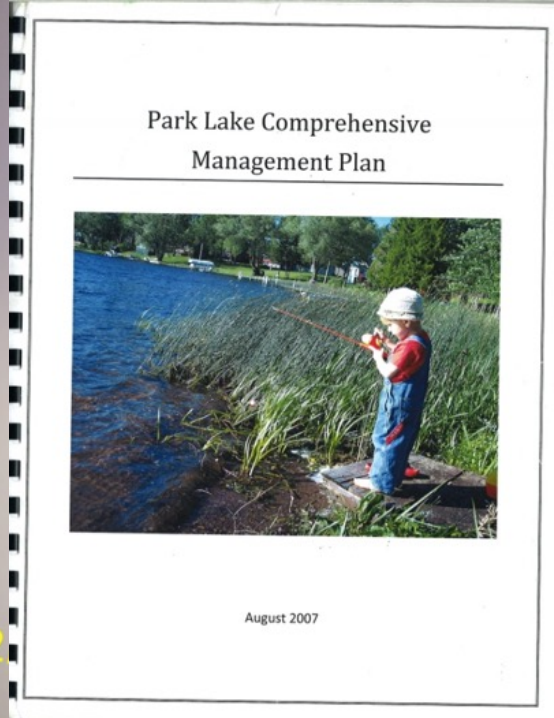
□ Park Lake

- 34,432 acres
- 1,920 dairy cattle
- 1,612 beef cattle
- 401 hogs
- 181 sheep
- 5,780,245 manure gal./annually



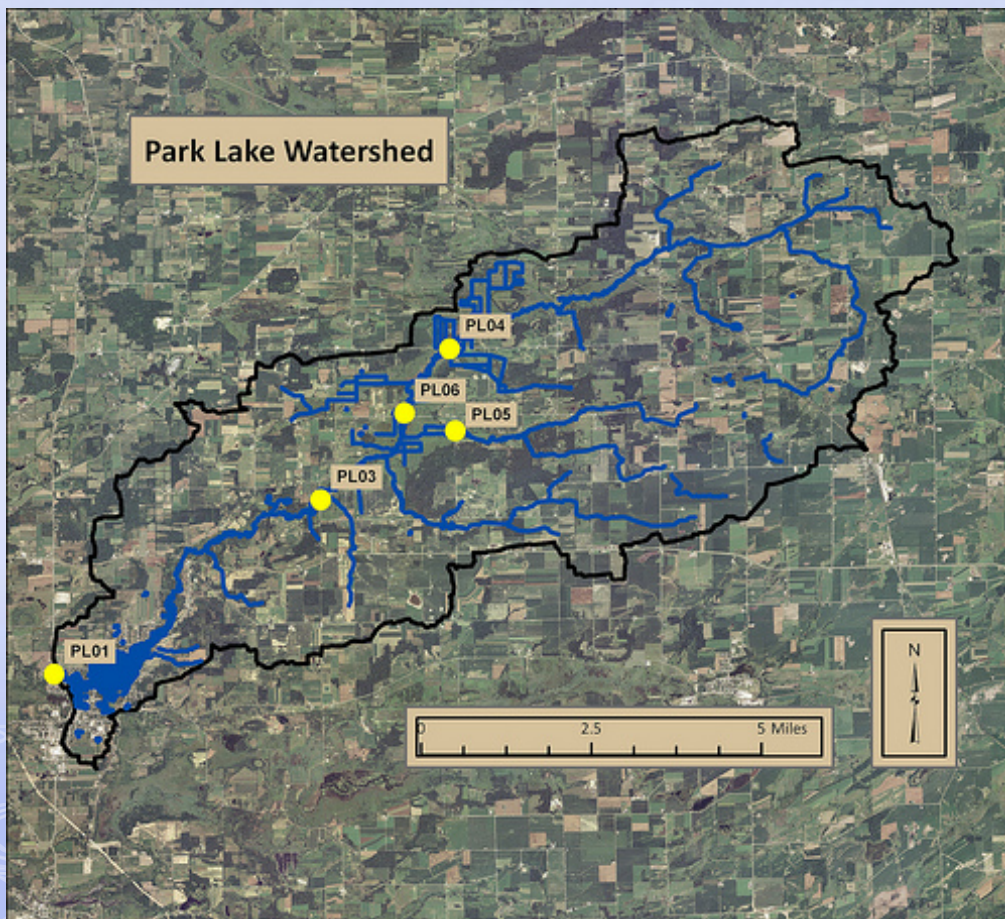
LWCD Services Provided

- ❑ Lake/watershed management plans
 - Publicly driven
 - Scientifically based



LWCD Services Provided

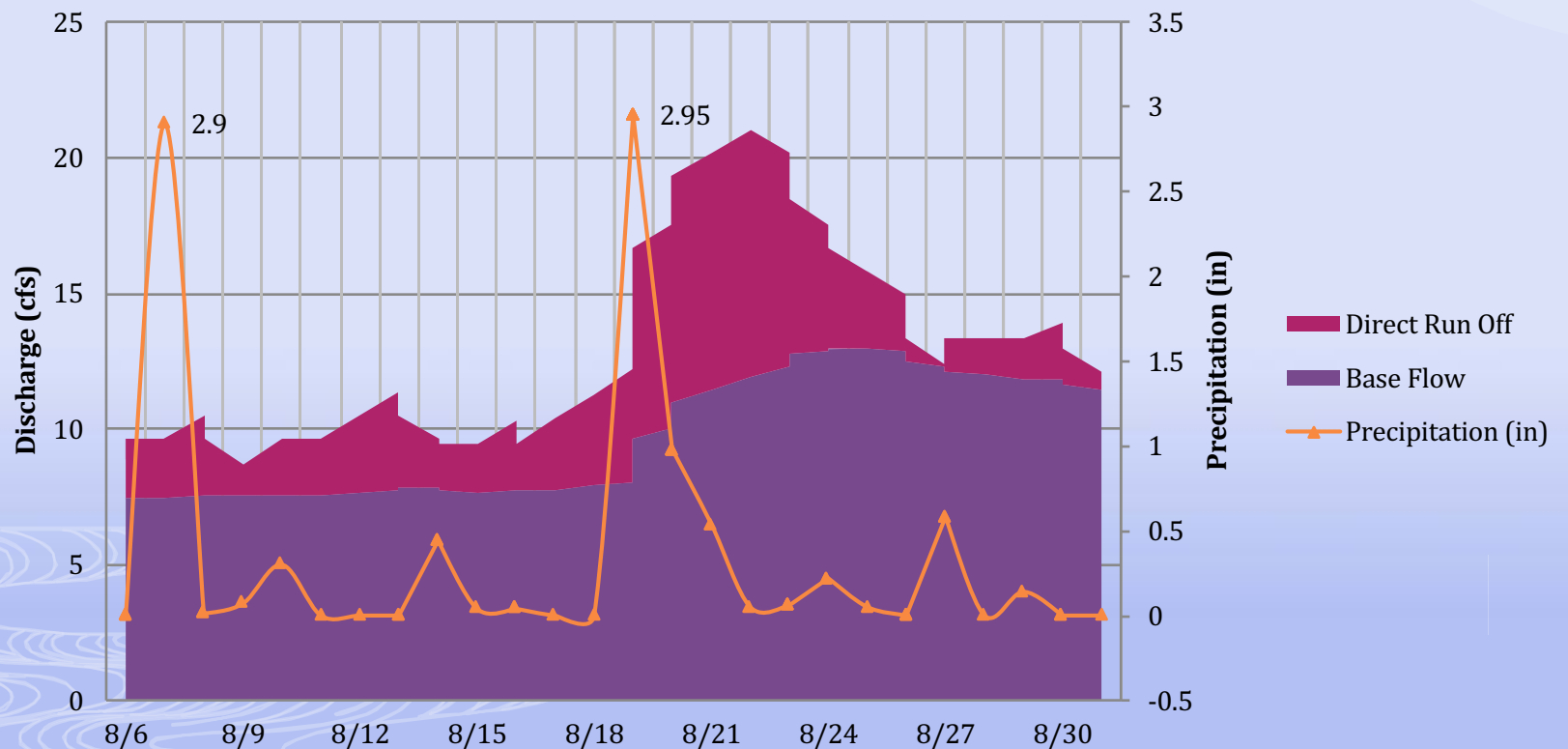
- ❑ Watershed water quality monitoring



LWCD Services Provided

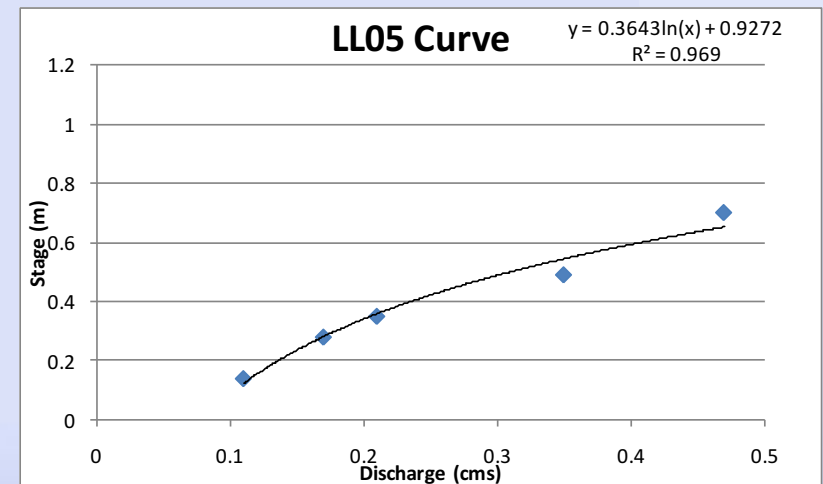
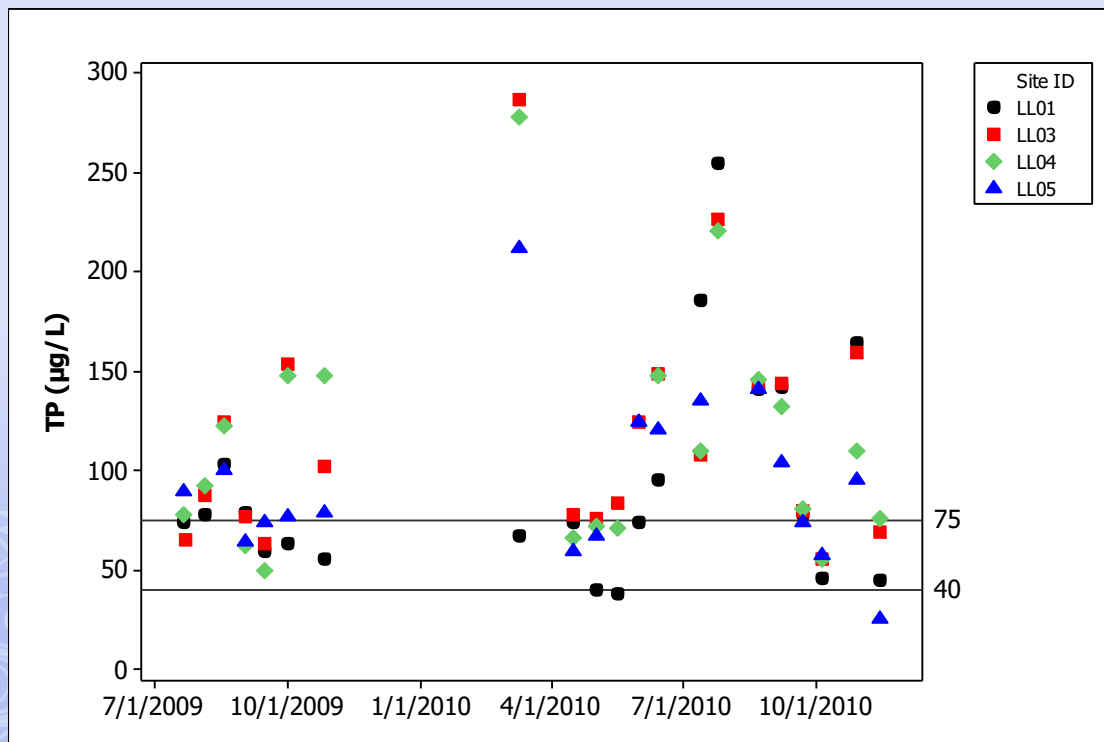
Water Quantity Data Analysis

Fox River at Highway E Base Flow Separation for Discharge from Two Comparable 2.9 in. Precipitation Events



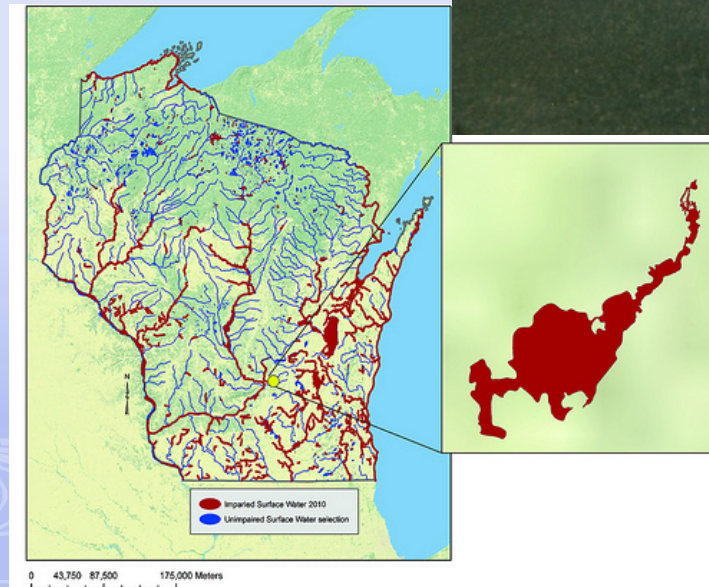
LWCD Services Provided

- Load Studies
 - Flux
 - TMDL

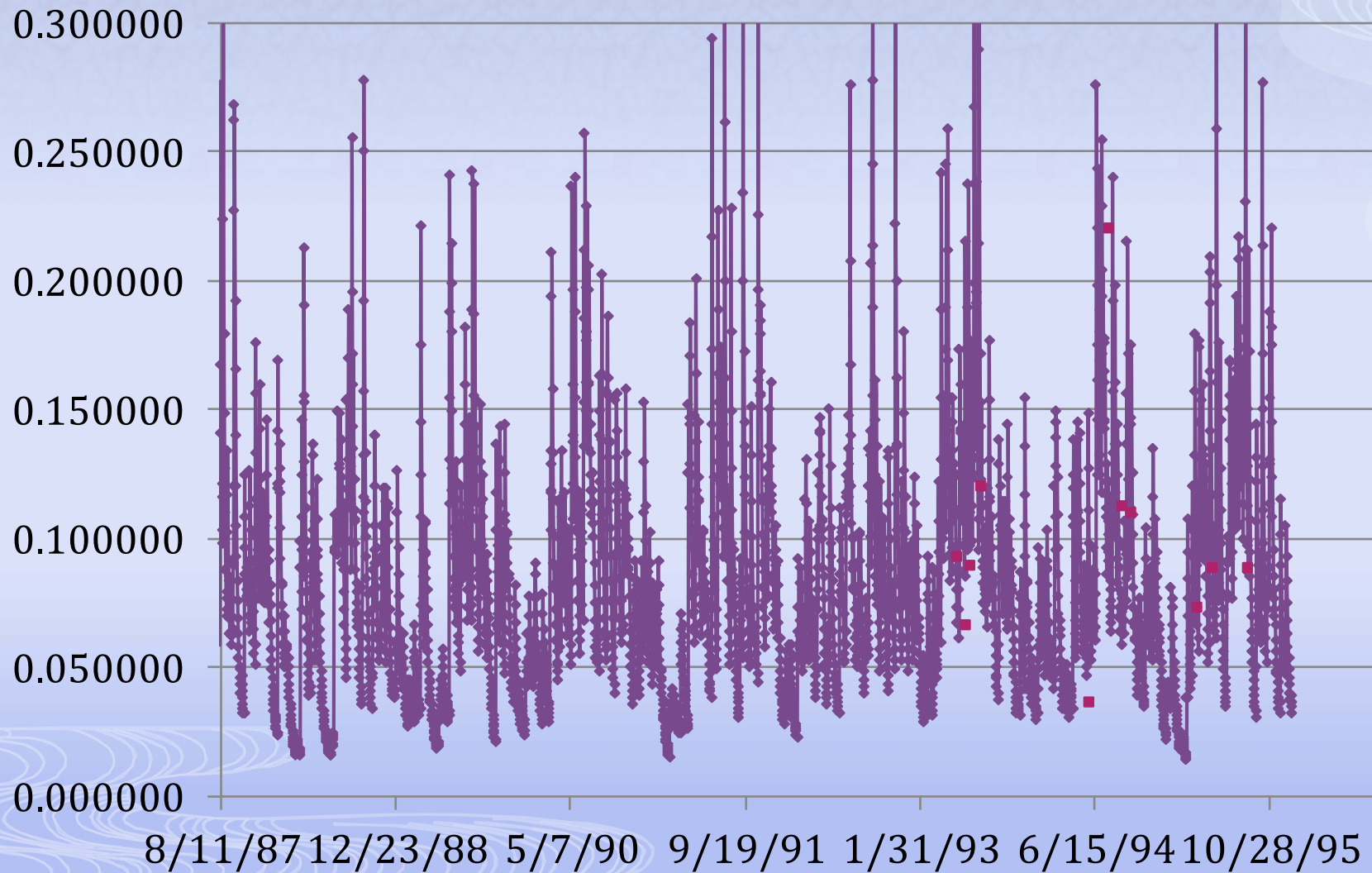


LWCD Services Provided

- Watershed & Lake Modeling
 - SWAT
 - P-8
 - WILMS
 - In Lake Nutrient Calculators

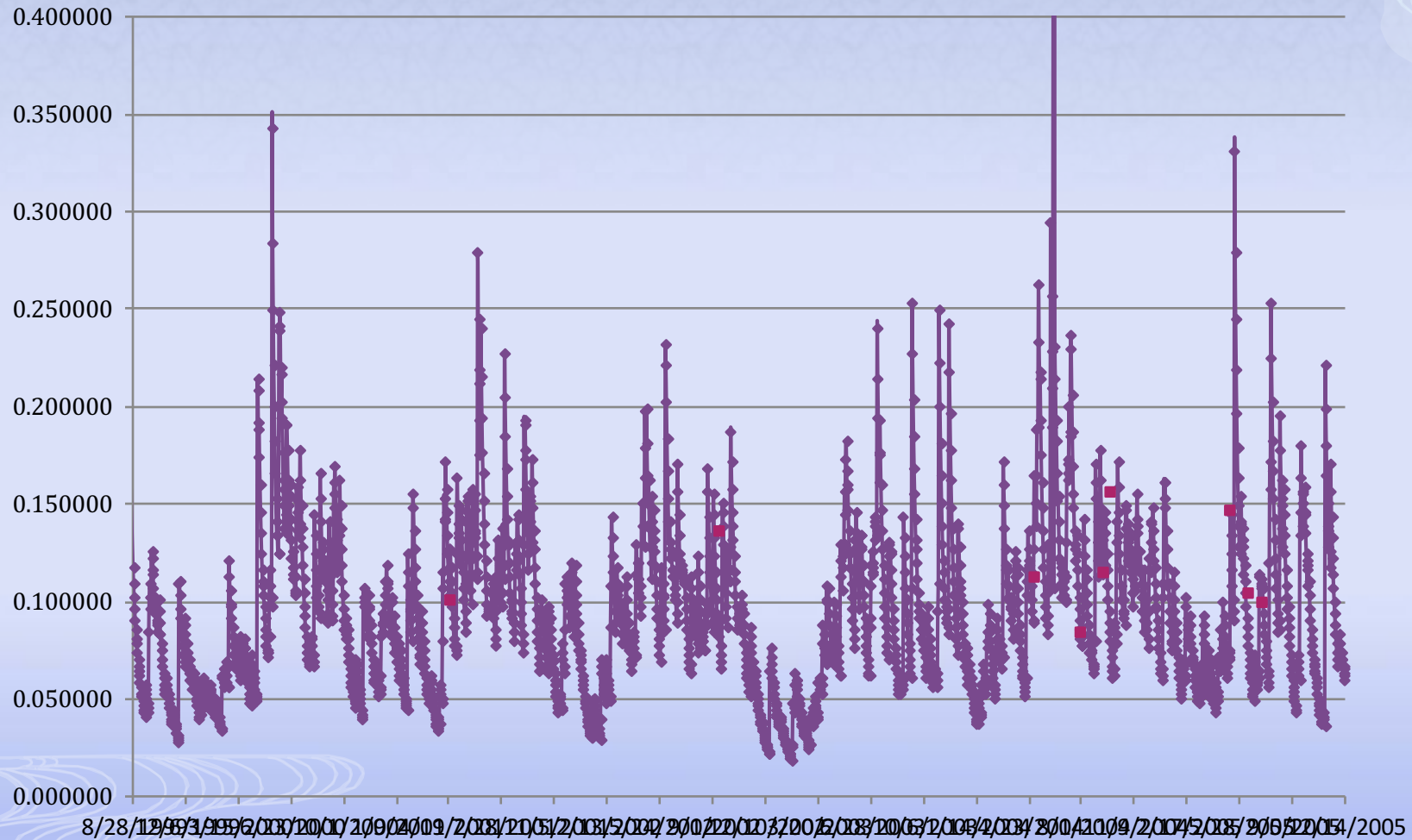


In Lake Nutrient Calculator 1980-1995



In Lake Nutrient Calculator

1999 - 2005



LWCD Services Provided

- ▣ Shoreland/Streambank Stabilization



LWCD Services Provided

- Shoreland Restoration

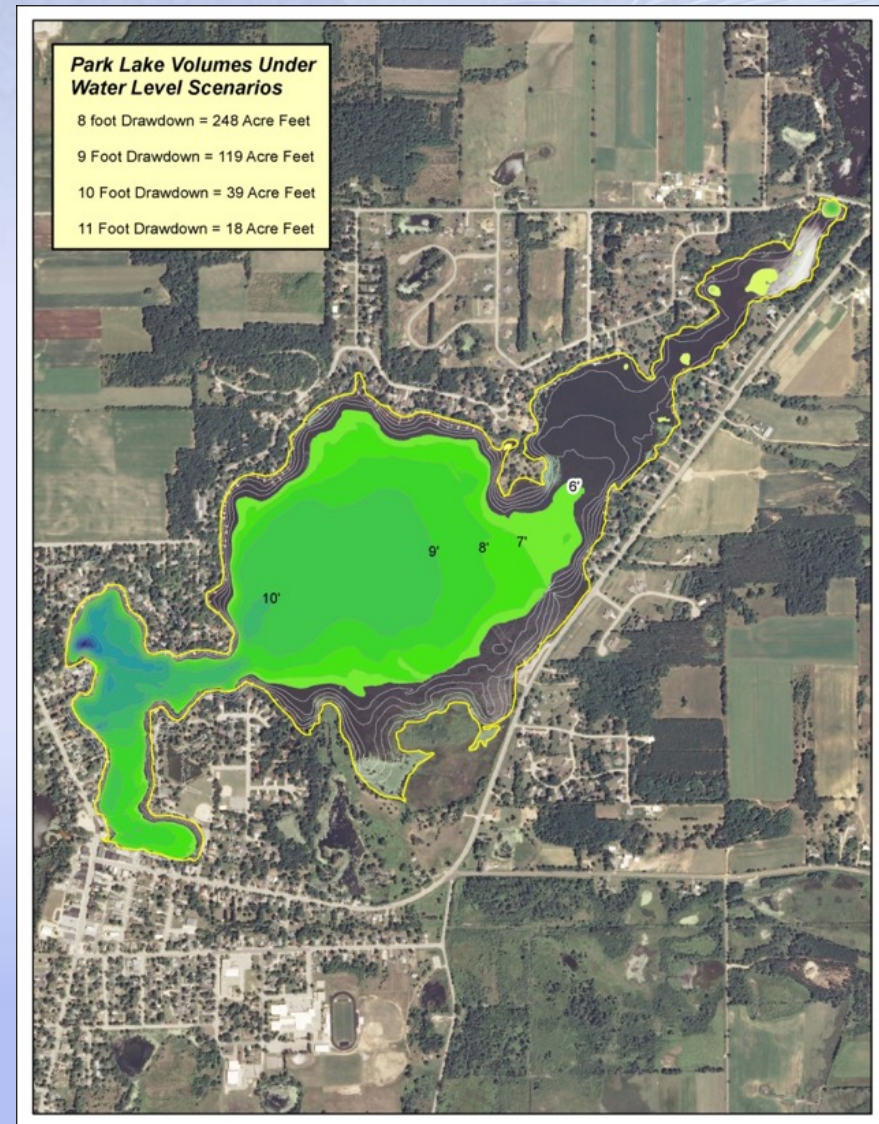


LWCD Services Provided

□ Bathymetric Mapping



Map created by WDNR



Map created by WDNR

LWCD Services Provided

- Aquatic Plant Inventory
- Aquatic Plant Management Plan

LWCD Services Provided

- Columbia County ground water model
 - Depth to ground water
 - Directional flow map
 - Bedrock Map
 - Groundwater and surface water recharge
 - Groundwater susceptibility
 - Well sighting
 - Etc.

LWCD Services Provided

- County wide ground water testing/database



WATER NITRATE TESTING

Testing will Take Place on:

Thursday, July 26th - 5:00-7:00 PM

Friday, July 27th -5:00-7:00 PM

Saturday, July 28th -4:00-6:00 PM

If you have WELL WATER and would like a sample tested, please bring a bottle of your well water to our booth and we can test it for nitrate levels.

This is ONLY for Well Water, not Municipal water.

There's no charge for this testing.

We will do testing on the First 40 people present during these test periods, due to limited supplies.

**Thanks for your Cooperation!
Columbia County LWCD**

LWCD Services Provided

- Possible Future Projects
 - PI Inventories
 - Agricultural Field Scale Data
 - Shoreland Health Studies
 - Critical Habitat Studies
 - Wisconsin Adaptive Management Option
 - Water Quality Monitoring
 - Watershed Modeling
 - Nutrient Trading
 - TMDL's

CCLWCD Watershed Approach

- ❑ Watershed Inventory
 - Comprehensive Data Base
 - NR 151 Livestock Data
- ❑ Water Quality Data
 - Water concentration data
 - Flow Rating Curves
 - Data Assessment
- ❑ Modeling (if needed)
- ❑ Comprehensive Lake/Watershed Management Plan
- ❑ Implement Plan
 - Best Management Practices
 - In Lake Practices

Columbia County LWCD Goal

- ❑ Get defensible conservation installed
- ❑ Diversify funding sources
 - TRM, NOD, EQUIP, SWRM, Land & Water, Grazing Technical Grants, Lake Planning & Protection Grants, River Planning & Protection Grants, and AIS Grants
- ❑ Build Wide Range of Watershed Understanding
 - Connect surface water to the watershed
 - Focused approach to lake/watershed management
 - Create Local Support To Fix Local Issues That People Understand and Support

Suggested Local Approaches

- ❑ Build Capacity & Understanding Slowly..
- ❑ Be Professional!
- ❑ Be Accepting Of All Parts of Equation
- ❑ Realize Processes Move Slow
- ❑ Be Supportive Of Local Services
- ❑ Get To Know Your Local Land & Water Conservation Committee & Staff
- ❑ Realize Challenges and Constraints!

Questions ?