

Restoring a Recreational Gem



Stewart Park

Pete Jopke-Water Resources Planner

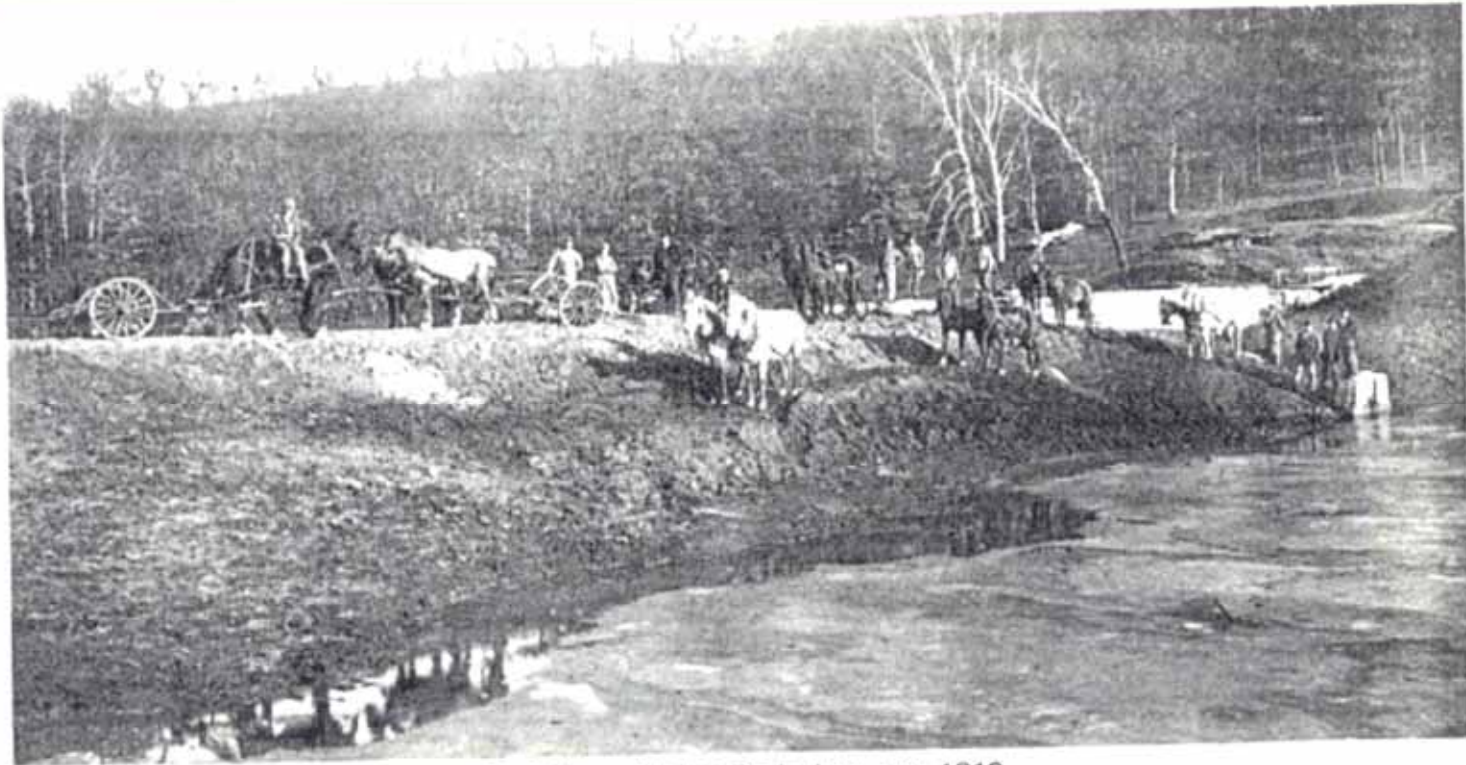
Dane County Land & Water Resources Department

Lake Park Association 1912

Land purchased, road constructed and dam built...



Late Fall 1912



Building of Lake Park dam, ca. 1912.

—Courtesy of Mount Horeb Area Historical Society, Inc.

January 1, 1913



January 2012



Main Attraction.....



Ski tournament participants pose at the depot, February 26, 1914.



Chronology.....

- **Dam Construction 1912, 1915**
- **Property sold in 1918 to Dr. J.E. Braeger for \$5,500**
- **1935-Purchased by Dane County for \$2,800.**
National Park Service describes Lake Park as, “One of the most beautiful spots in the state they have seen.”
- **Dam construction begins in 1939**
- **Named after County Board Chairman Frank Stewart in 1941**
- **1943- “The Sun Valley of Dane County” as reported by the Capital Times**

Chronology Continued.....

- **1990's Restoration and Watershed Plan/Implement Upland Treatment**
- **2000-Village of Mt. Horeb Stormwater Management Plan**
- **2006/2007-Updated Water Quality Plan & Developed Implementation Plan for Restoration**
- **2007 through 2009-Drawdown, dam repairs, lake restoration**

2006 Water Quality Study

- Consistent with 1993 study, water quality linked to sediments
- New sediment deposits have not occurred since County constructed upland sediment basins
- Existing dam does not affect Moen Creek fisheries
- Dredging recommended as main water quality improvement tool

Stewart Lake Restoration

- **Dam Maintenance**
- **Improve Water Quality**
- **Enhance Recreational Opportunities**
- **Update Park Amenities**
- **Comprehensive Park Project Plan**

Drawdown-Early Fall 2007





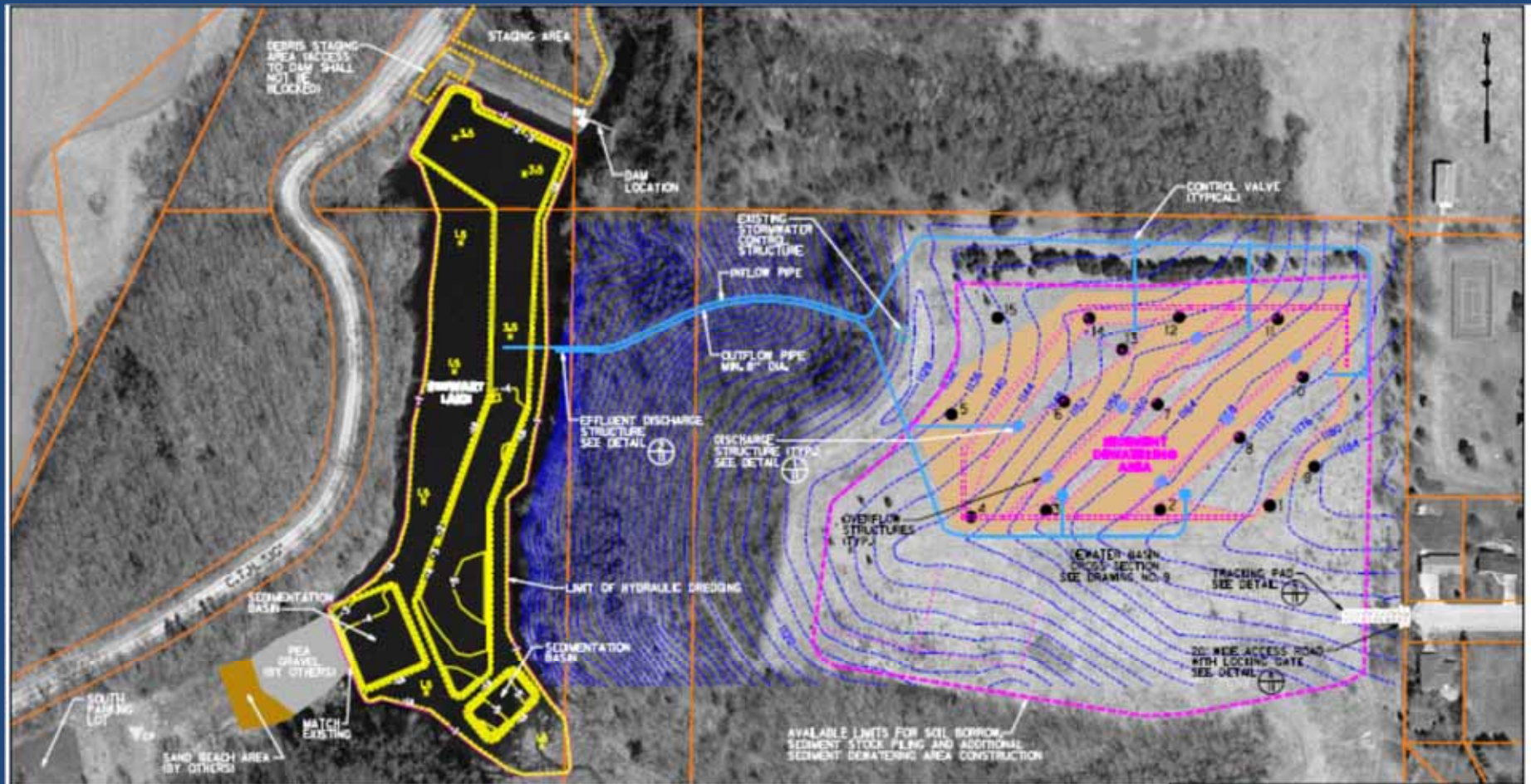
- Tree/brush removal
- Minor concrete/crack repairs
- New fencing, stop logs, bank stabilization, and spillway cleanout



Hydraulic Dredging Advantages

- Complete by October 15, 2009
- Eliminate the need for secondary handling of spoil material
- Eliminate transportation of spoils on local roadways
- Spoil site located on County-owned land and restored to natural prairie
- General nuisance factor greatly reduced (construction activity)

Dredging Plan

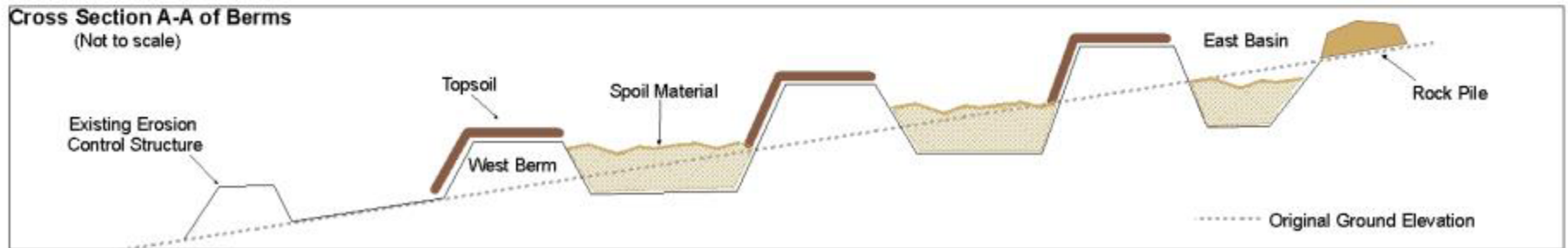


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|---|--|--|--|
| <p>LEGEND</p> <ul style="list-style-type: none"> —180— EXISTING GROUND CONTOUR — ORANGE — PARCEL BOUNDARIES — PINK — LIMITS OF HYDRAULIC DREDGING — GREEN — PROPOSED CONTOUR REPRESENTING AMOUNT OF DREDGE CUT FROM EXISTING CONDITIONS INCLUDING OVERDRENSE ALLOWANCE — GRAY — PROPOSED PEA GRAVEL (BY OTHERS) — BROWN — PROPOSED SAND BEACH (BY OTHERS) ⊕ 1M 4' HENCHMARK LOCATION ⊕ 4' CONTROL POINT LOCATION ● 4' TEST PIT NUMBER AND LOCATION — BROWN — CONCEPTUAL DEMO CONFIGURATION | | <p>NOTES:</p> <ol style="list-style-type: none"> 1. HORIZONTAL CONTROL BASED ON NAD 1983 DANE COUNTY COORDINATE SYSTEM, VERTICAL DATUM BASED ON NAVD83. 2. SEDIMENT DREDGING LAYOUT IS CONCEPTUAL ONLY. CONTRACTOR TO PROVIDE PROPOSED DREDGING LAYOUT AS PART OF SUBMITTALS REQUIRED IN THE PROJECT MANUAL. 3. DREDGE CUT ELEVATIONS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER OF THE PROJECT. 4. BOTTOM OF PROPOSED DREDGE CUT SHOWN INCLUDES OVERDRENSE ALLOWANCE. | |
| <p>Foth Foothold Infrastructure & Environment, LLC</p> <p>DANE COUNTY DEPT. OF PUBLIC WORKS, HIGHWAY & TRANSPORTATION</p> <p>DRAWING NO. 8 CONCEPTUAL DREDGING & DEWATERING PROJECT LAYOUT</p> | | <p>Date: JUNE, 2009 Revision Dates:</p> <p>Drawn By: JRB2 Checked By: TAG Scope# 09D002</p> | |

Stewart Lake Spoil Area Restoration Plan: Existing Conditions



Cross Section A-A of Berms
(Not to scale)















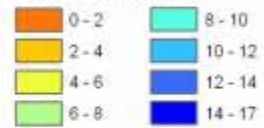




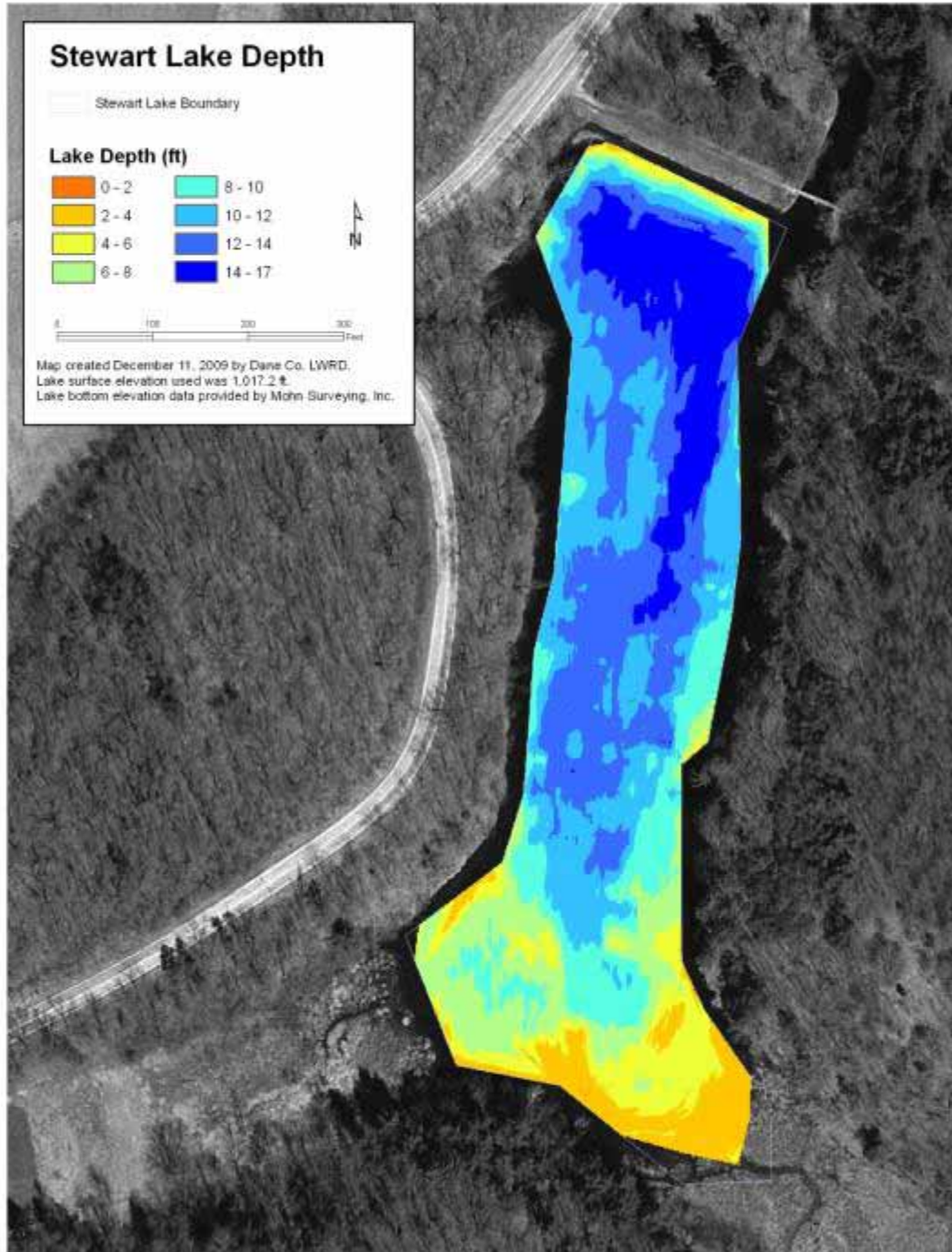
Stewart Lake Depth

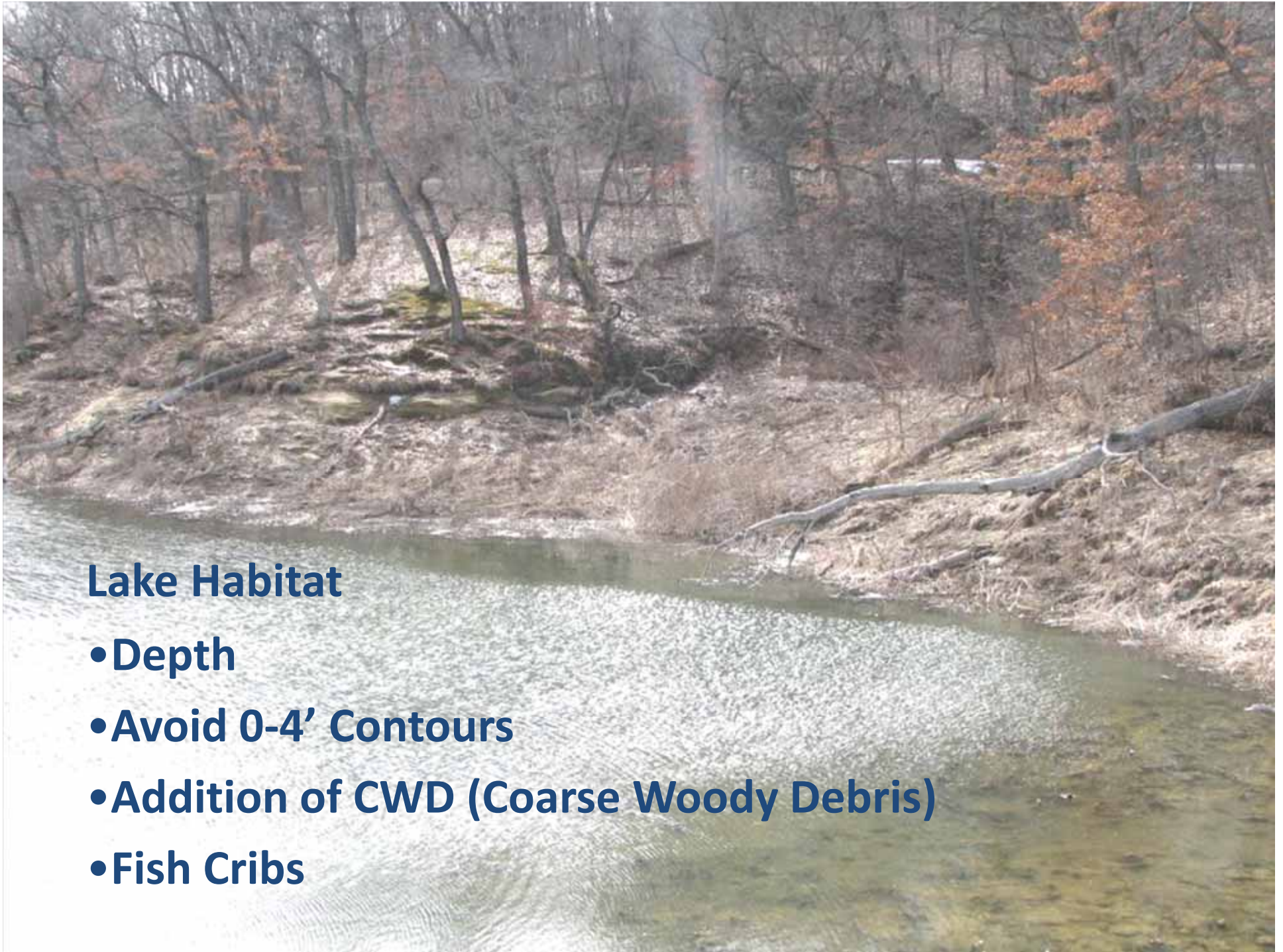
Stewart Lake Boundary

Lake Depth (ft)



Map created December 11, 2009 by Dane Co. LWRD.
Lake surface elevation used was 1,017.2 ft.
Lake bottom elevation data provided by Mohn Surveying, Inc.





Lake Habitat

- **Depth**
- **Avoid 0-4' Contours**
- **Addition of CWD (Coarse Woody Debris)**
- **Fish Cribs**

Tree Drop



Fish Stocking Plan



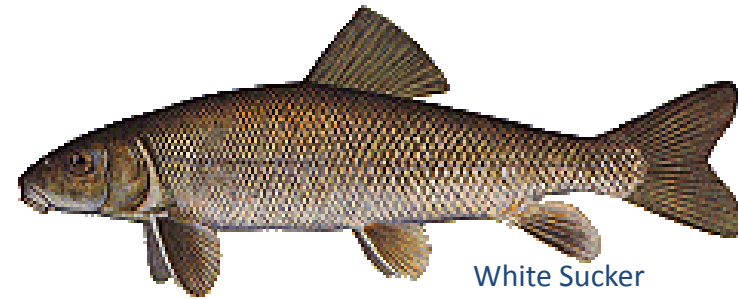
Bluegill



Largemouth Bass



Rainbow Trout



White Sucker



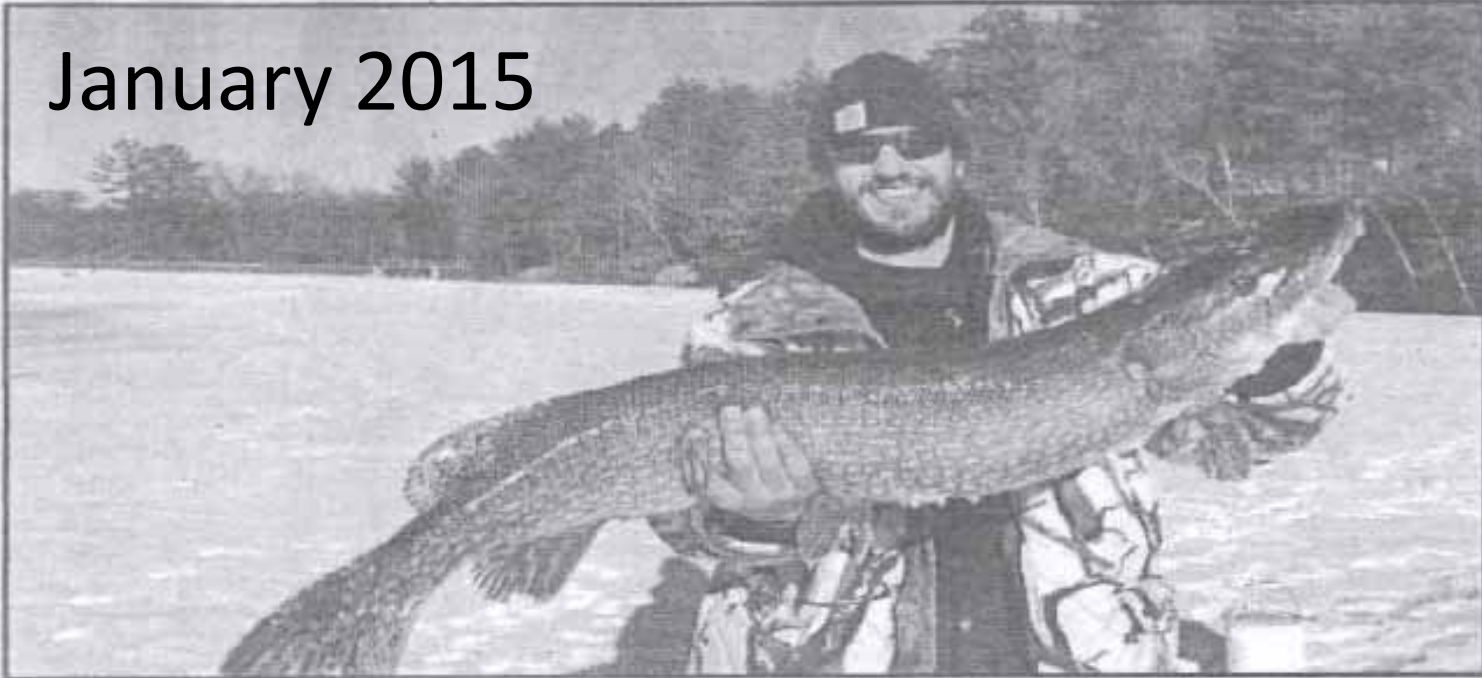
Fathead Minnow



Golden Shiner

Northern Pike

January 2015



Monster hauled out of Stewart Lake...

Mount Horeb man Matt Schollmeyer recently caught this 40-inch Northern Pike while ice fishing at Stewart Lake. If Schollmeyer looks familiar, that's because he was featured in the paper last year (Jan. 23, to be exact) drilling a hole in the ice before dropping a line in the water. This year, the photo is a bit more exciting. Photo contributed.

Potential Park Improvements

- Public access
- Handicapped accessible fishing Pier
- Non-motorized boat launch
- Trails
- New shelter
- Remodel Restrooms
- Landscaping
- **Volunteer/Partnership Opportunities**



"IN THE GOOD OLD SUMMER TIME"
LAKE PARK MT. HOREB, WIS.

Beach

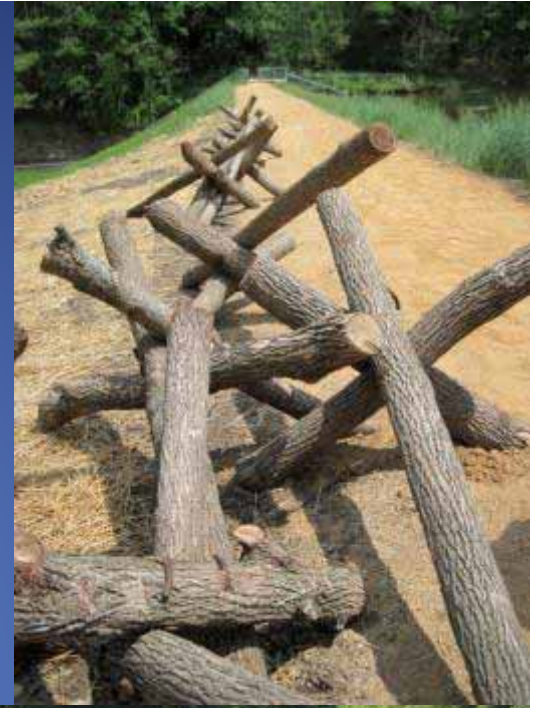
Weekly Bacteria

Daily maintenance including
vegetation/trash removal



Construction and placement of 20 fish cribs

Spring 2010 Mount Horeb High
School Students



Fish Stocking

Golden Shiner-70#s

White Sucker-35 #s

Fathead Minnow-175 #s

2,500 Bluegills

250 Largemouth Bass



Trout Stocking-Spring 2011

1,000 Rainbow Trout

Stocked by Mt. Horeb HS!



Stewart Lake Spoil Area Restoration Plan: Prairie Restoration



Cross Section A-A' of Restored Area
(Not to scale)



Prairie Planting

Site Prep-Village of Mt. Horeb
Parks, Dane County Park
Volunteer Burn Crew

Planting-Mound Vue Garden
Club, Mt. Horeb Elementary,
Friends of Stewart Lake



DNR-AIS Rapid Response Grant

4 yr aquatic herbicide plan

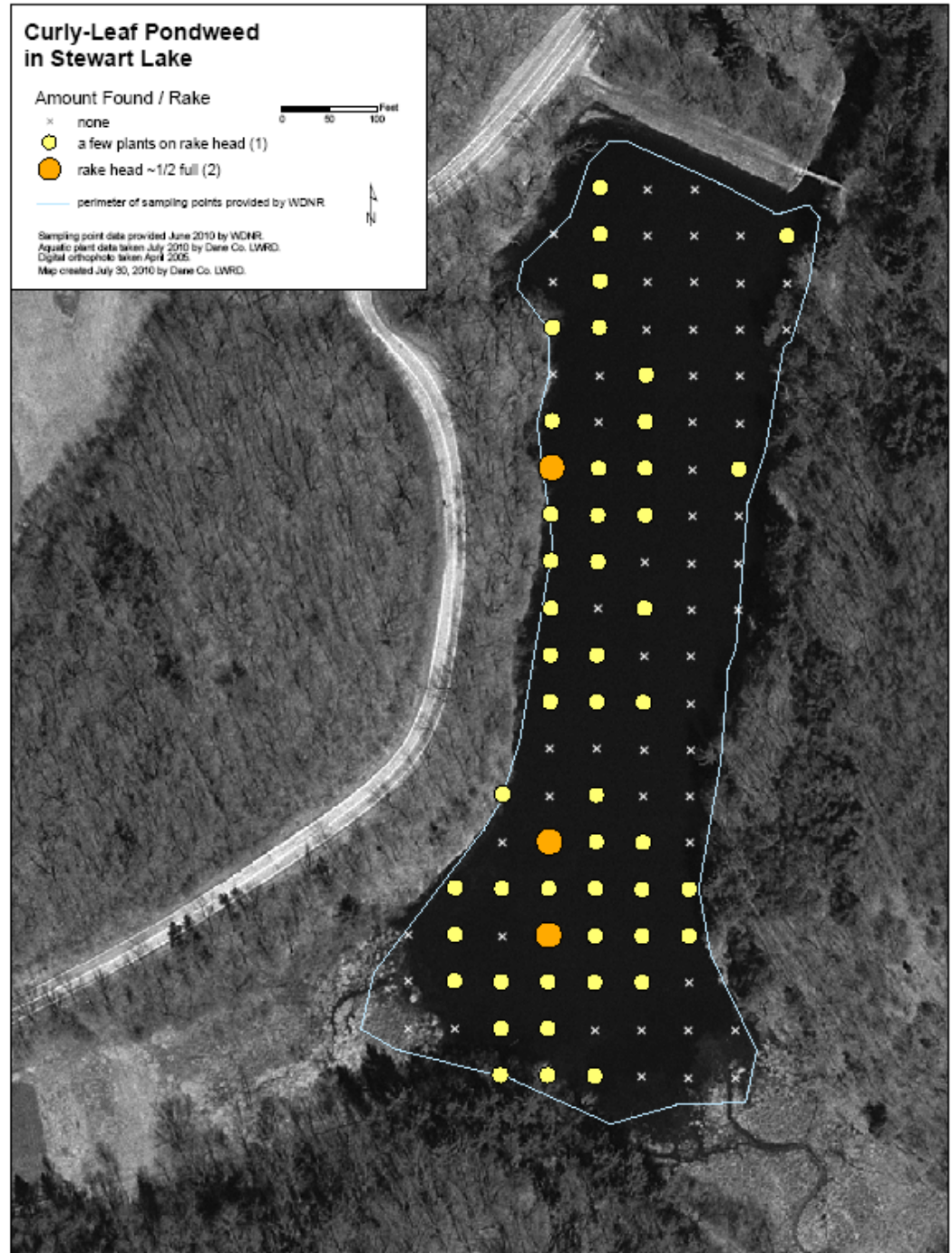
Subsurface injection at specified rate

Plant densities evaluated yearly

Subsequent applications and rates
subject to change

Early spring application-most
effective/minimize environmental
impacts

Curled Pondweed (*Potamogeton crispus*)
© Bigpix.dk, J.C. Schou



Handicapped Accessible Fishing Pier

\$15,000 Private Donation

\$5,000 Donation from Mt. Horeb Rotary

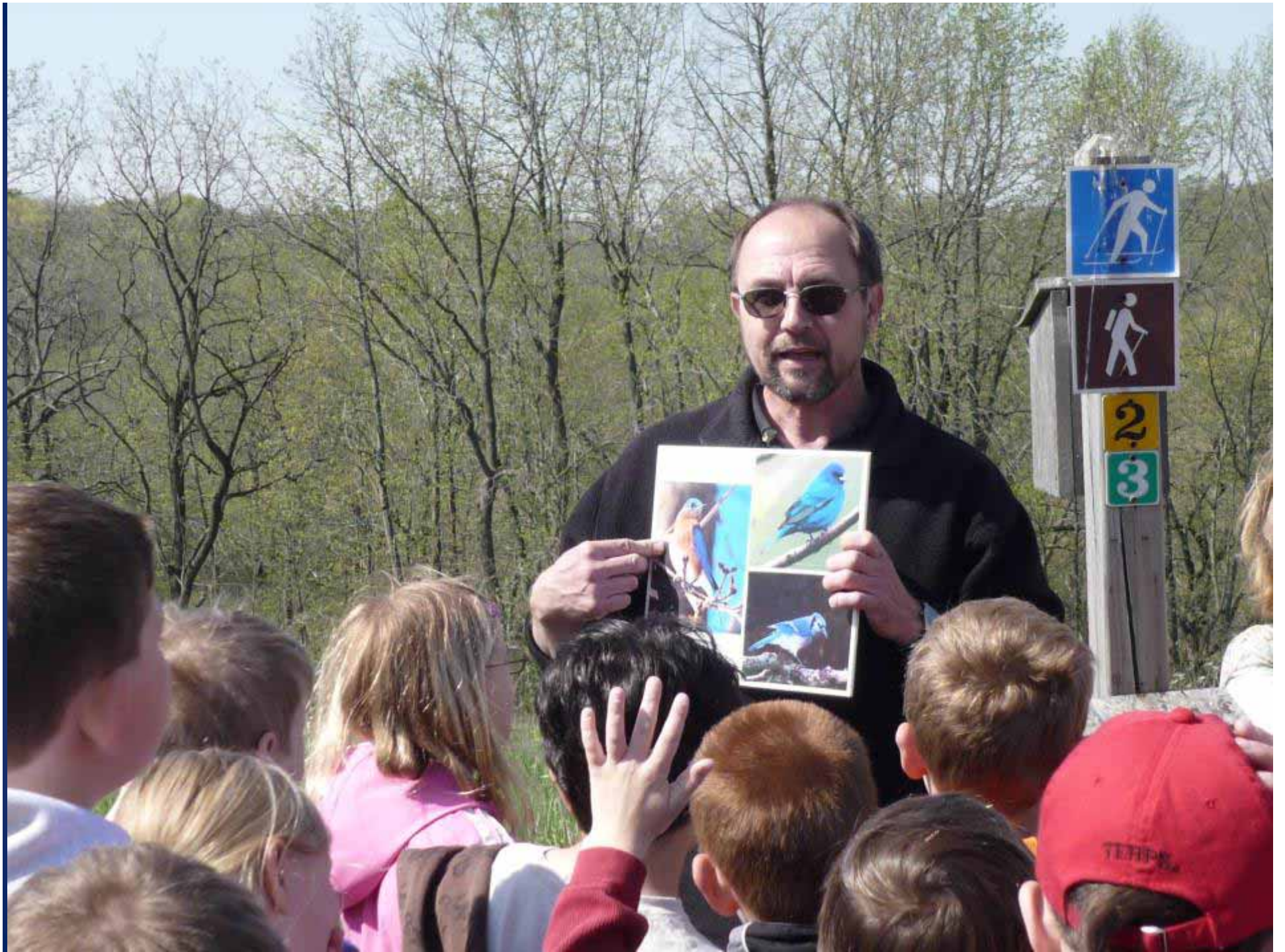
DNR Conservation Aids

MHHS Constructed Platforms















Lessons Learned

- **Sound science and planning**
- **Engaging local stakeholders from Day 1**
- **This is Your Resource.....Not Mine**
- **Leverage funding opportunities with volunteer labor**
- **Involve local schools**
- **Commitment doesn't stop once the project is complete**

“It seems to us that this just doesn’t make good sense (to pass up on this opportunity) when we have the finest spot in the entire state in our backyard. We appeal to the public to join with us and cooperate in this project. The future will thank us for our thoughtfulness in providing a recreational and playground facility that will be the envy of every youngster who is deprived of these pleasures.”

Joe Buechner, Commander of the Legionnaires, 1935

