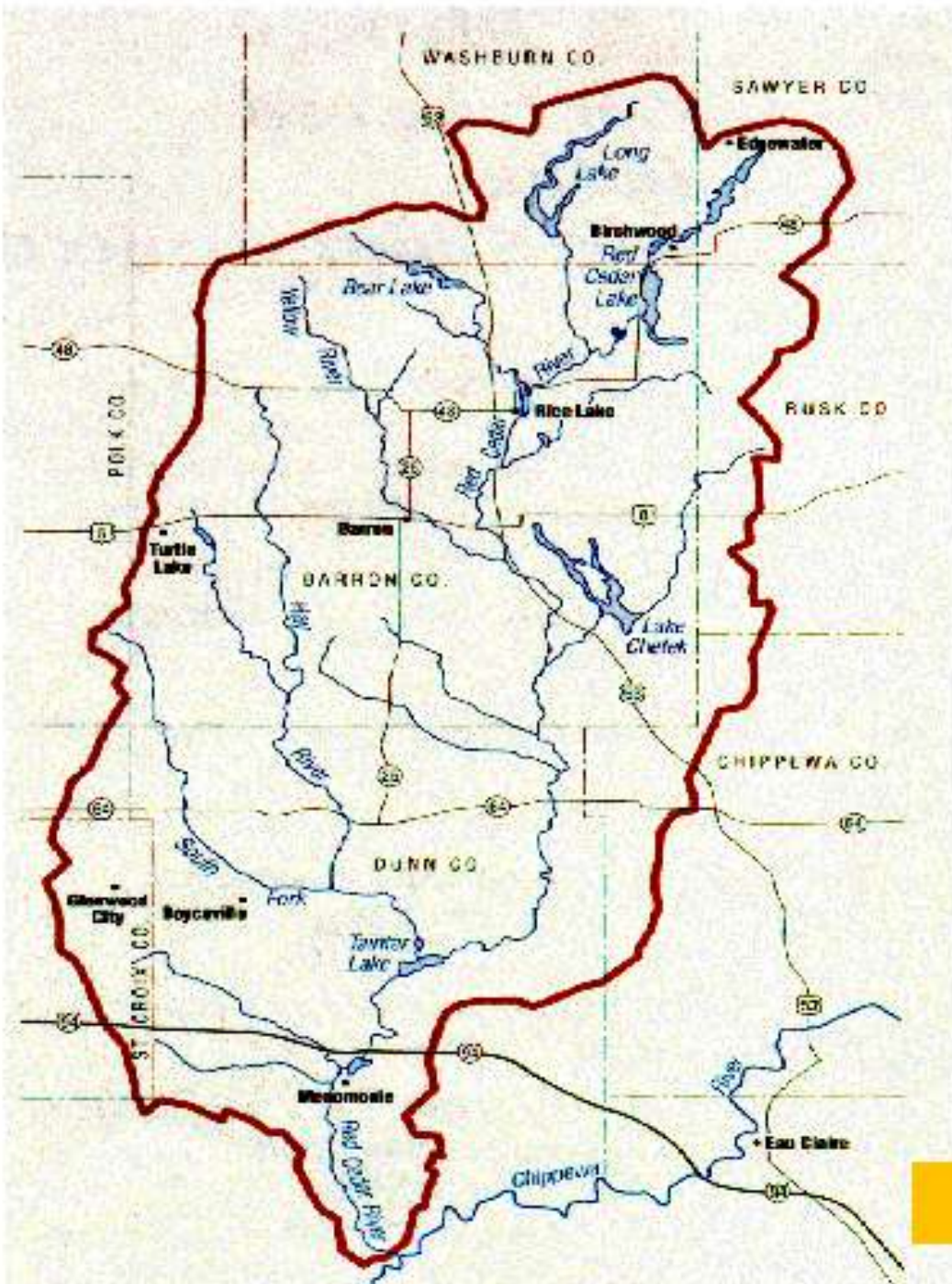


2012 Conference:  
*The Red Cedar*  
Land, Water and People  
Coming Together

# Healing a Sick Little Lake

Desair Lake Turns the Corner on Water  
Quality  
after Fifteen Years



### **BARRON CO**

Rice Lake  
Barron  
Chetek  
Cumberland  
Almena  
Cameron  
Dallas  
Haugen  
New Auburn  
Prairie Farm  
Turtle Lake

### **DUNN CO**

Menomonie  
Ridgeland  
Downing  
Boyceville  
Wheeler  
Colfax  
Knapp

### **CHIPPEWA CO**

New Auburn

### **POLK CO**

Clayton

### **RUSK CO**

### **ST CROIX CO**

Glenwood City  
Wilson

### **SAWYER CO**

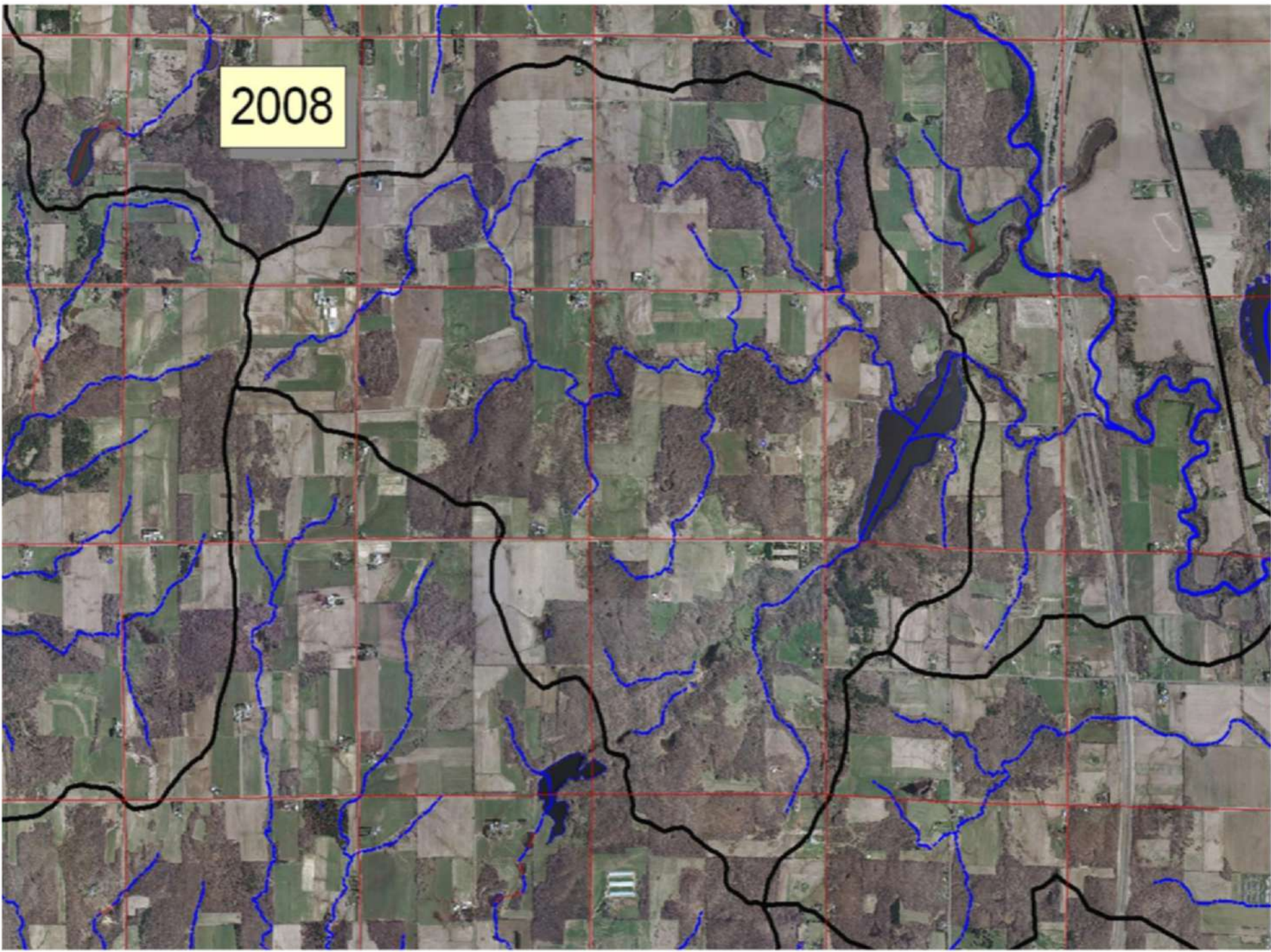
### **WASHBURN CO**

Birchwood  
Barronett

**1,209,466 acres / 1,889 mi<sup>2</sup>**



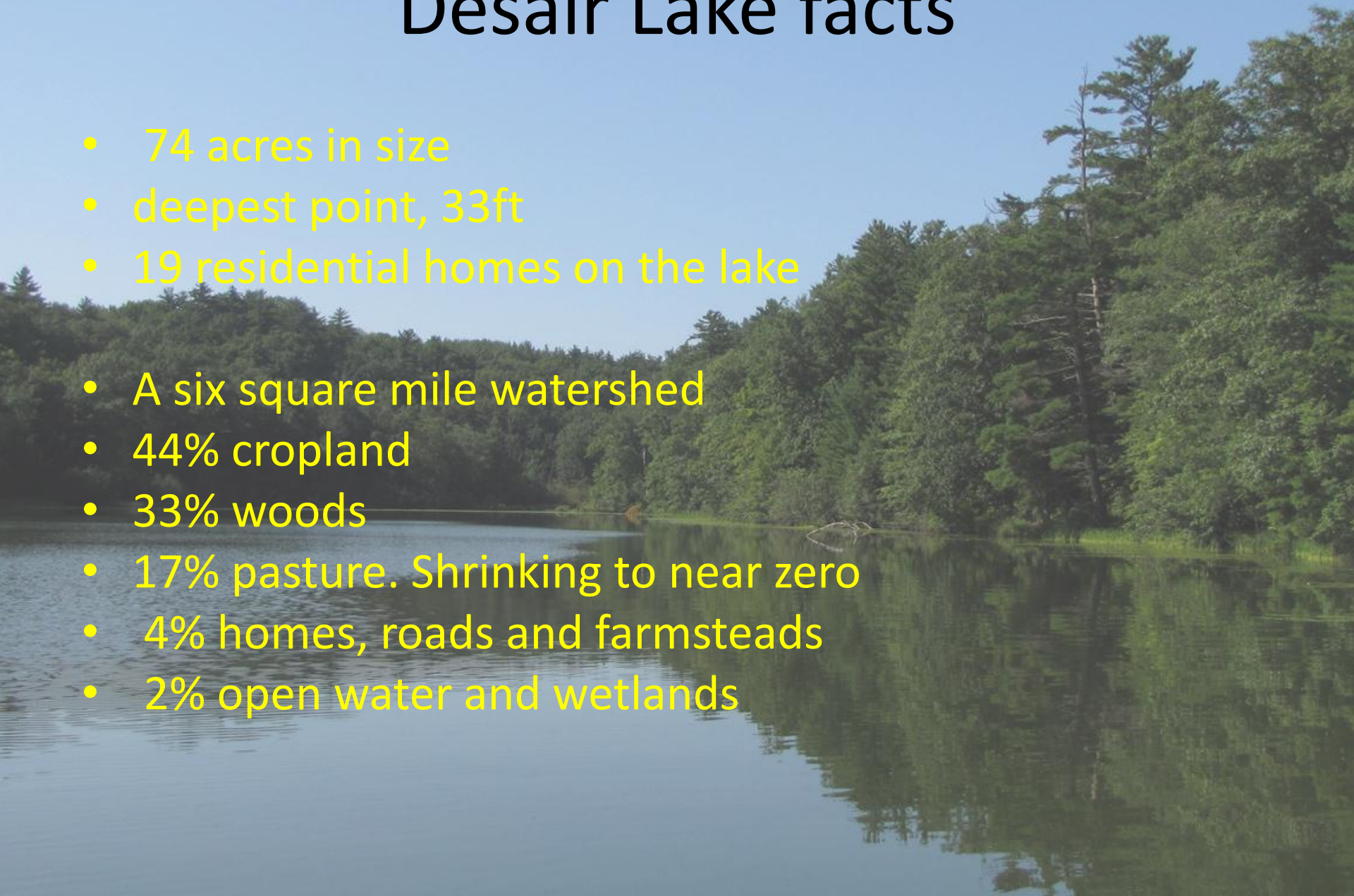
2008





# Desair Lake facts

- 74 acres in size
- deepest point, 33ft
- 19 residential homes on the lake
- A six square mile watershed
- 44% cropland
- 33% woods
- 17% pasture. Shrinking to near zero
- 4% homes, roads and farmsteads
- 2% open water and wetlands

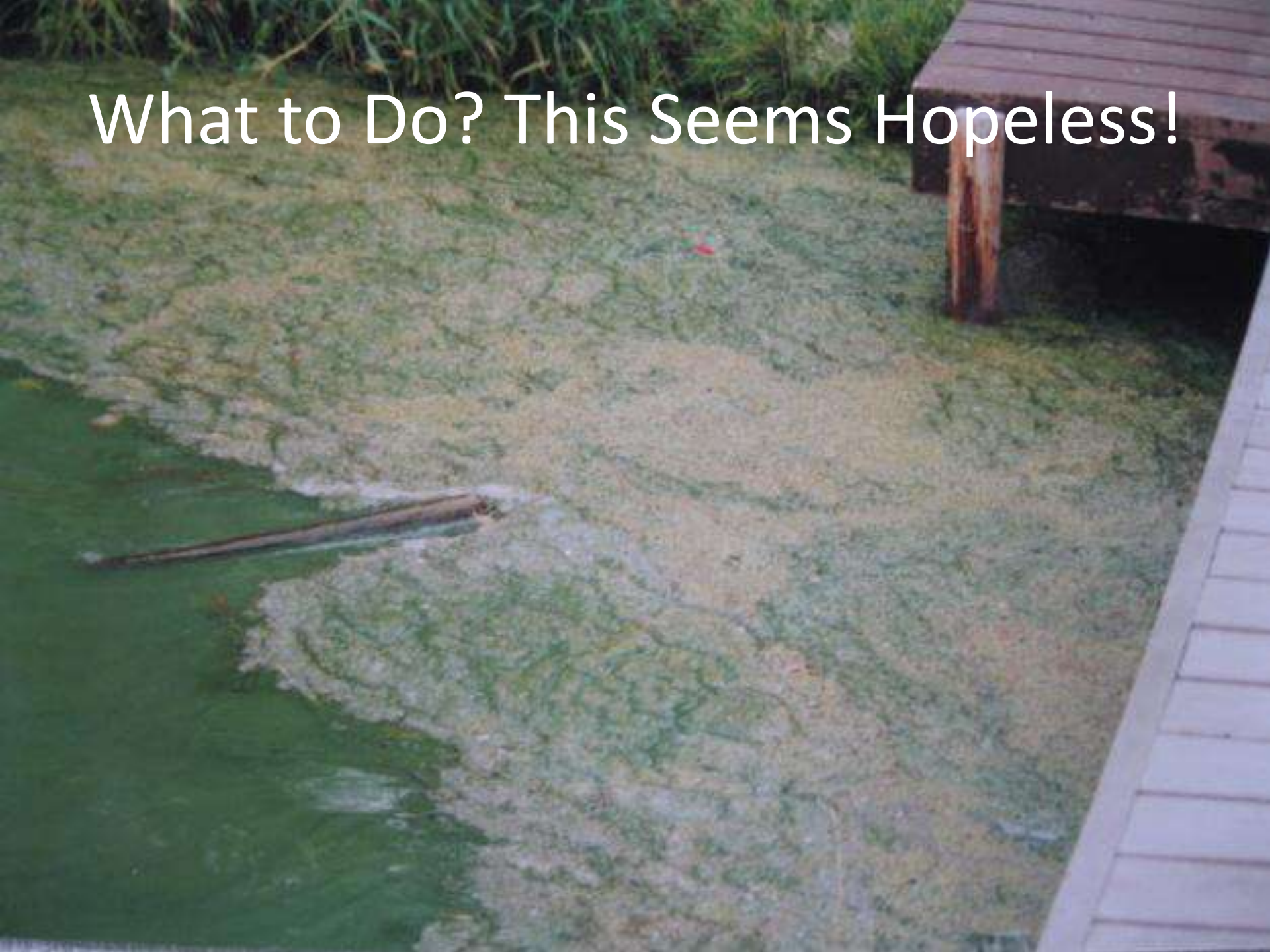


# Desair Lake's problem: Excess Algae Growth due to Phosphorus and Nitrogen overload

- Hilly terrain causes highly erodible watershed
- Minimal wetlands
- 120 years of dairy farming with cattle in barnyards and pastured in the waterways
- Only recent use of best management practices by resident farmers
- Cheese factory, dumped whey and other waste products in waterway from 1920-1970



What to Do? This Seems Hopeless!



Get On Your Boots.  
There's Work to Do!





# Desair Lake Restoration, Inc.

## formed in 1993 by 22 lake residents

- **DLR works to:**
- Monitor the water quality
- Keep the shoreline natural
- Avoid disturbing the lake bottom that recycles the nutrient rich silt
- Minimize impact of home construction and shoreline disturbance
- Aeration to prevent fish winter kill
- Educate property owners and fishermen on how to reduce their negative impact on the lake
- Encourage upland farmers to use Best Management Practices
- Create educational opportunities for school children to learn lake ecology



# Lake Aeration to stop fish kills



# Slow No Wake and Natural Shorelines

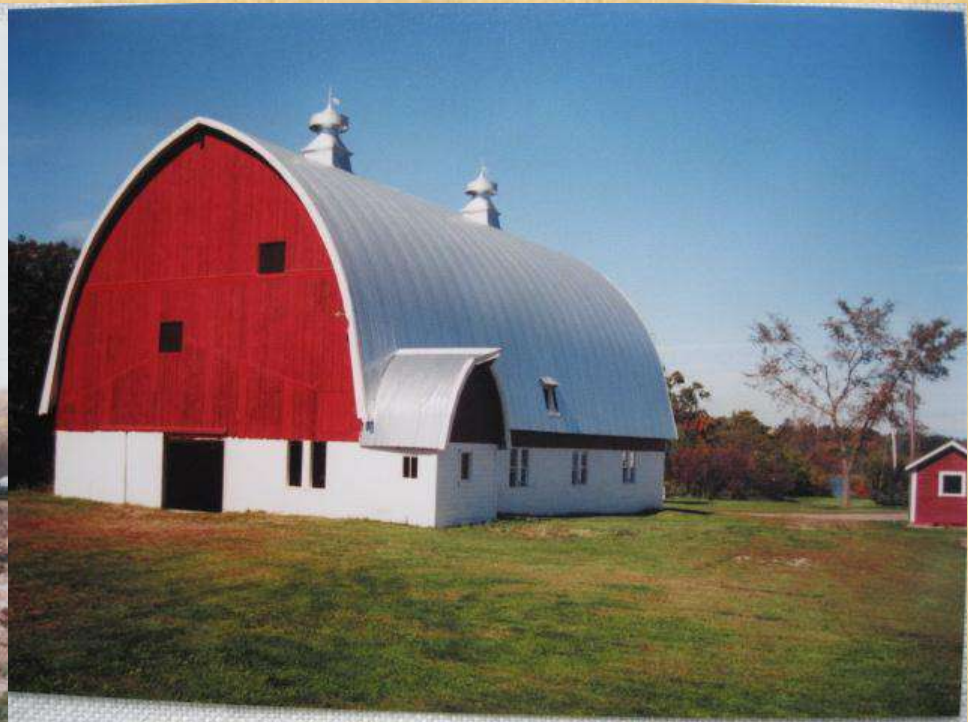




# Restore old farms, repurposed without cattle

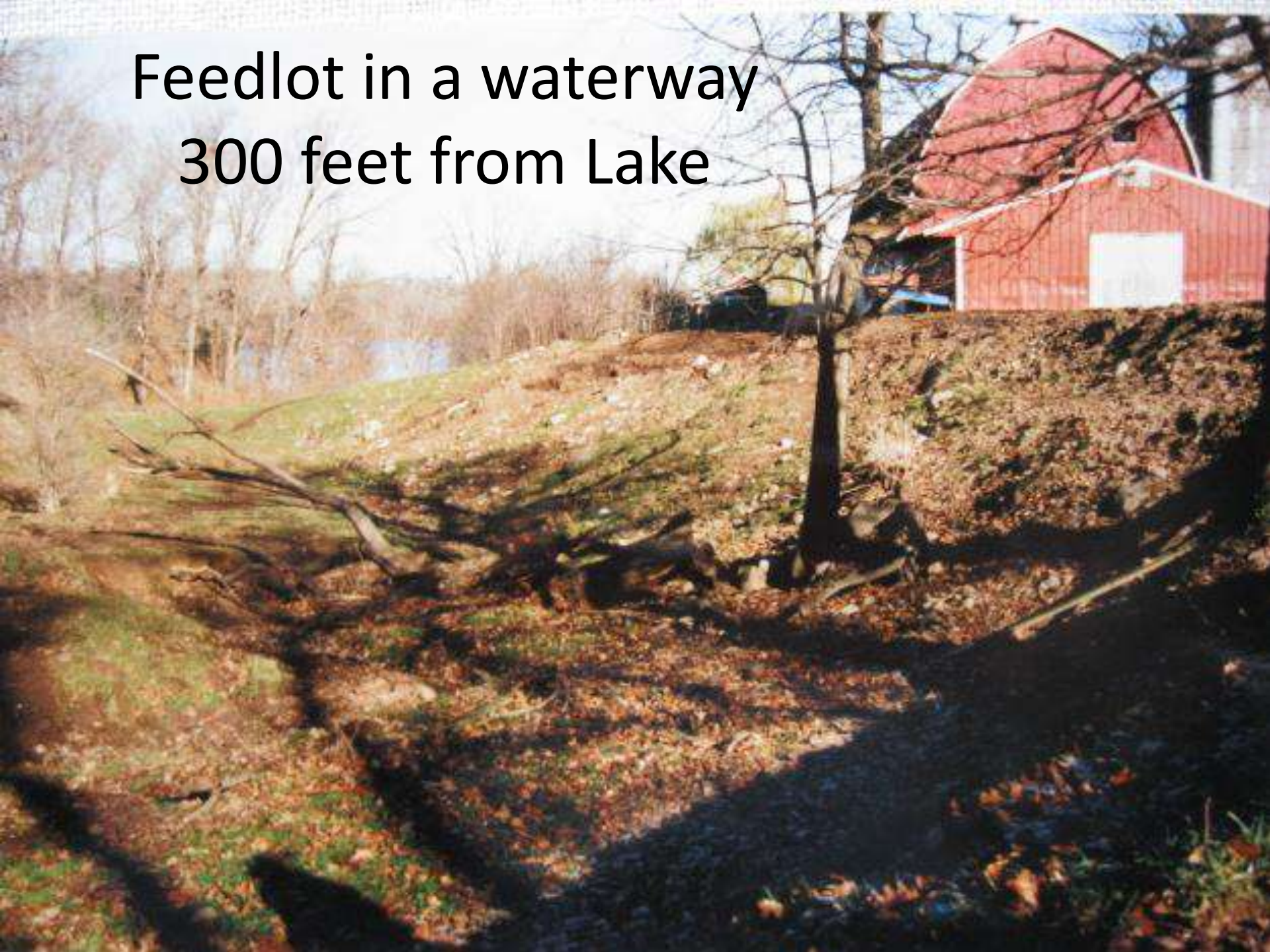


# 1996-2000 restoration of this farm on Shores of Desair Lake



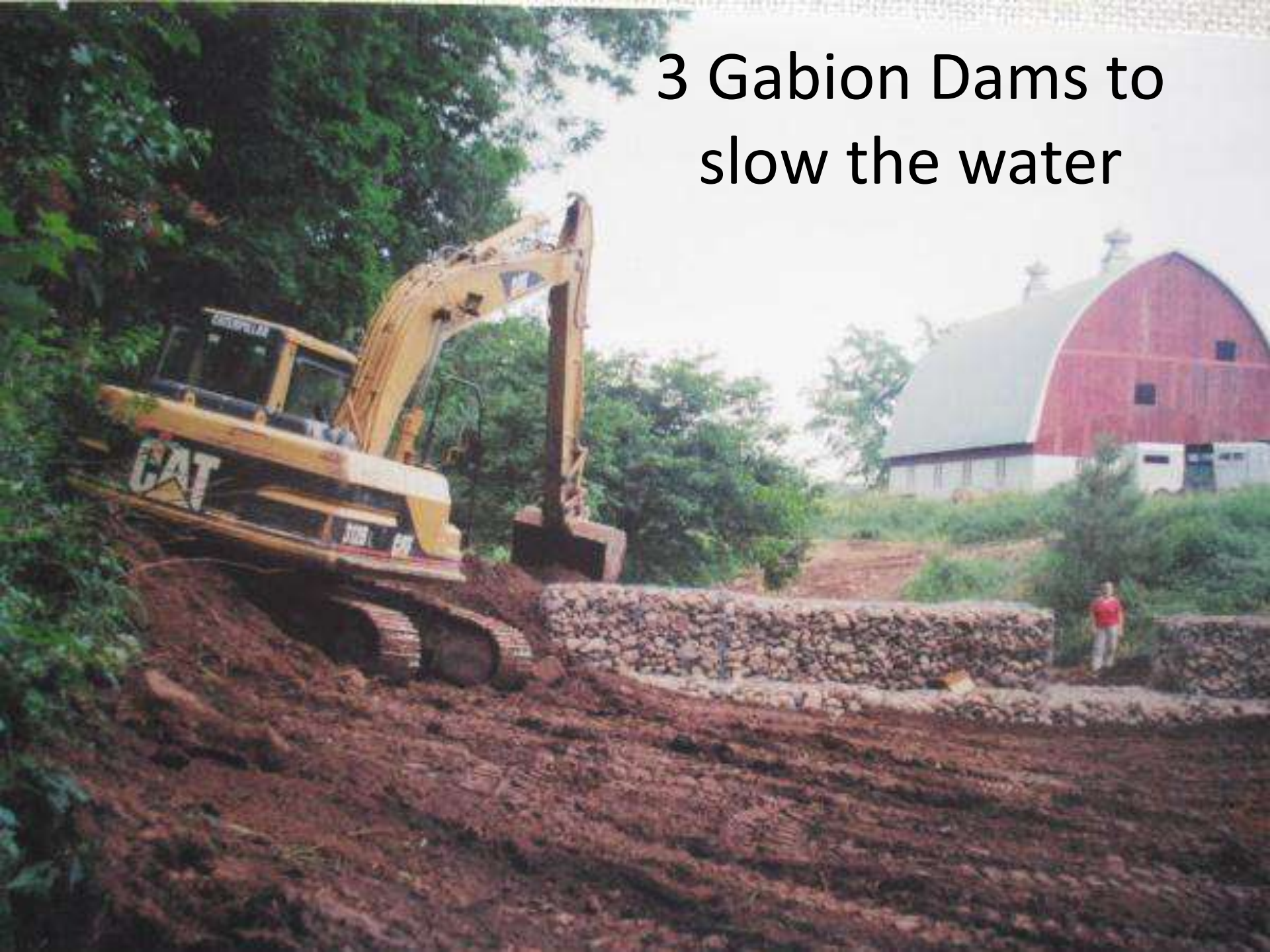


Feedlot in a waterway  
300 feet from Lake





# 3 Gabion Dams to slow the water







Helping Running  
Water to "Walk"



# Re Vegetated Waterway





No More Sediment and Manure  
from this Waterway









# Actions from 1993-2012

- **What has been done:**
- For economic reasons over the past 25 years , dairy herds on the watershed have been reduced from 13 to 1; same number of cows but now enclosed
- All lakeshore farms have stopped operating
- Marsh and stream areas, once pastured, have grown back to forest
- Some highly erodible fields have been placed in CRP
- Stream ravines, once used for dumps, have been closed by DLR action
- Four open wells have been closed by DLR members, more are still open
- DLR sponsored a “slow no wake” Township ordinance on Desair Lake
- DLR supported increased lake lot sizes from 100’ to 250’ with set backs increased from 50’ to 100’.
- Three gabion dams constructed where once was a feedlot.
- Two large detention ponds constructed.
- DLR grant helped build over 700 feet of streambank restoration.







# Severe erosion abated by streambank restoration, 2010





# Desair Creek before and after streambank restoration, 2010





# What Happened to Our Farms?

## Kodesh Dairy 1976 to 2008













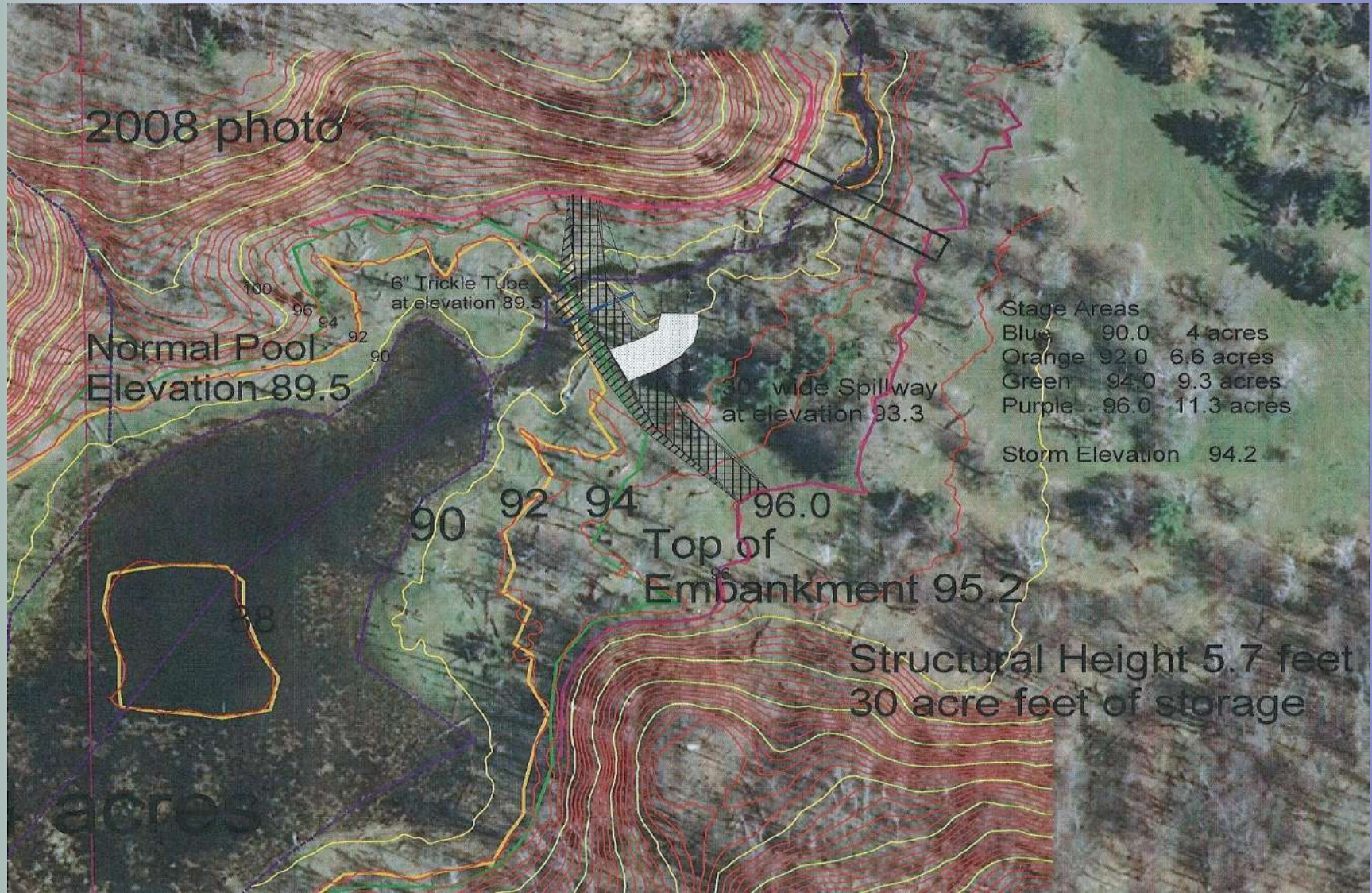




What's yet to do?



# Henkel Wetland Enhancement and Three Additional Detention Ponds





# Alum Feasibility Study to block lake bottom phosphorus from recycling





# Build Rain Garden at Public Landing





# And There Is Still More?

Continue erosion control efforts on  
every square foot of watershed

Monitor for exotic plants and animals

Keep all residents up to date and  
involved in lake issues

**And there is lots of time to have fun  
on the lake**



# Fishing





Track the extensive wildlife in and  
around the Lake





Enjoy the loon family





“Chill” out  
by a campfire





# What Have Our Efforts Reaped?

Vast reduction of Lake sediment exposure

Stabilizing of the water quality

A resident sense of pride in **caring for** and not just using the Lake

More efficient and productive farms holding onto their soil



**When we were kids the water  
was clean.**

**We used the water until it  
turned green.**

**Now, there's something we  
can do.**

**To turn the water green to  
blue.**



