Winnebago County

Land & Water Conservation Department

ARPA FUND PROPOSAL FOR WATER QUALITY IMPROVEMENT PROJECTS

Presented by: Chad Casper, Director,
Winnebago County LWCD

Proposal for the allocation of ARPA Funds in the Land & Water Conservation Department (LWCD)

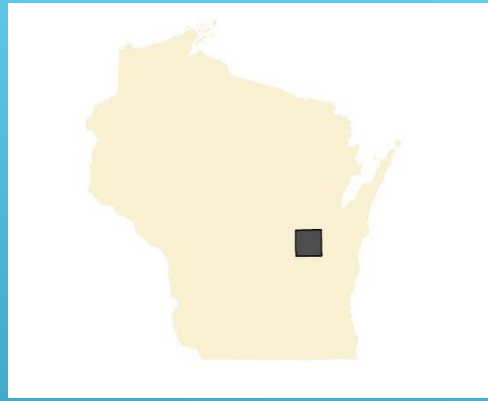
- Proposed amount of funds requested by the Land Conservation Committee (LCC) and the LWCD = $3,030,300
- Long-term project – 10 - 15 years.
- Estimated conservation practice numbers assumed a 90% cost-share rate.
- The LCC would set policy and approve how the funds are allocated in the LWCD.

Winnebago County

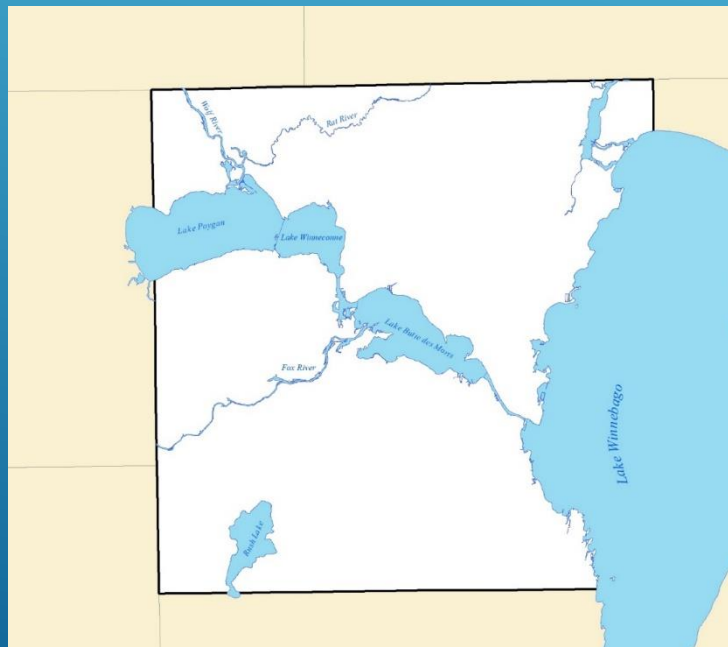
Land & Water Conservation Department

Land & Water Conservation Department Mission:

The Winnebago County LWCD is dedicated to provide competent, professional services in the planning, design, and implementation of programs and projects that protect, restore, and sustain the natural resources of Winnebago County.



- Winnebago County covers approximately 579 square miles with 25% being water and 75% being land area.
- This is the largest area of inland surface water (10%) of any county in Wisconsin.
- Winnebago County has approximately 151,000 acres of agriculture lands
- Receives heavy recreational use for fishing, boating , swimming, hunting and trapping.
- Lake Winnebago provides drinking water to over 200,000 people.
- All of Winnebago County is located in the Fox-Wolf Basin.



303 (D) IMPAIRED WATERS

- Total Phosphorus
- Suspended Solids
- Excessive algae growth

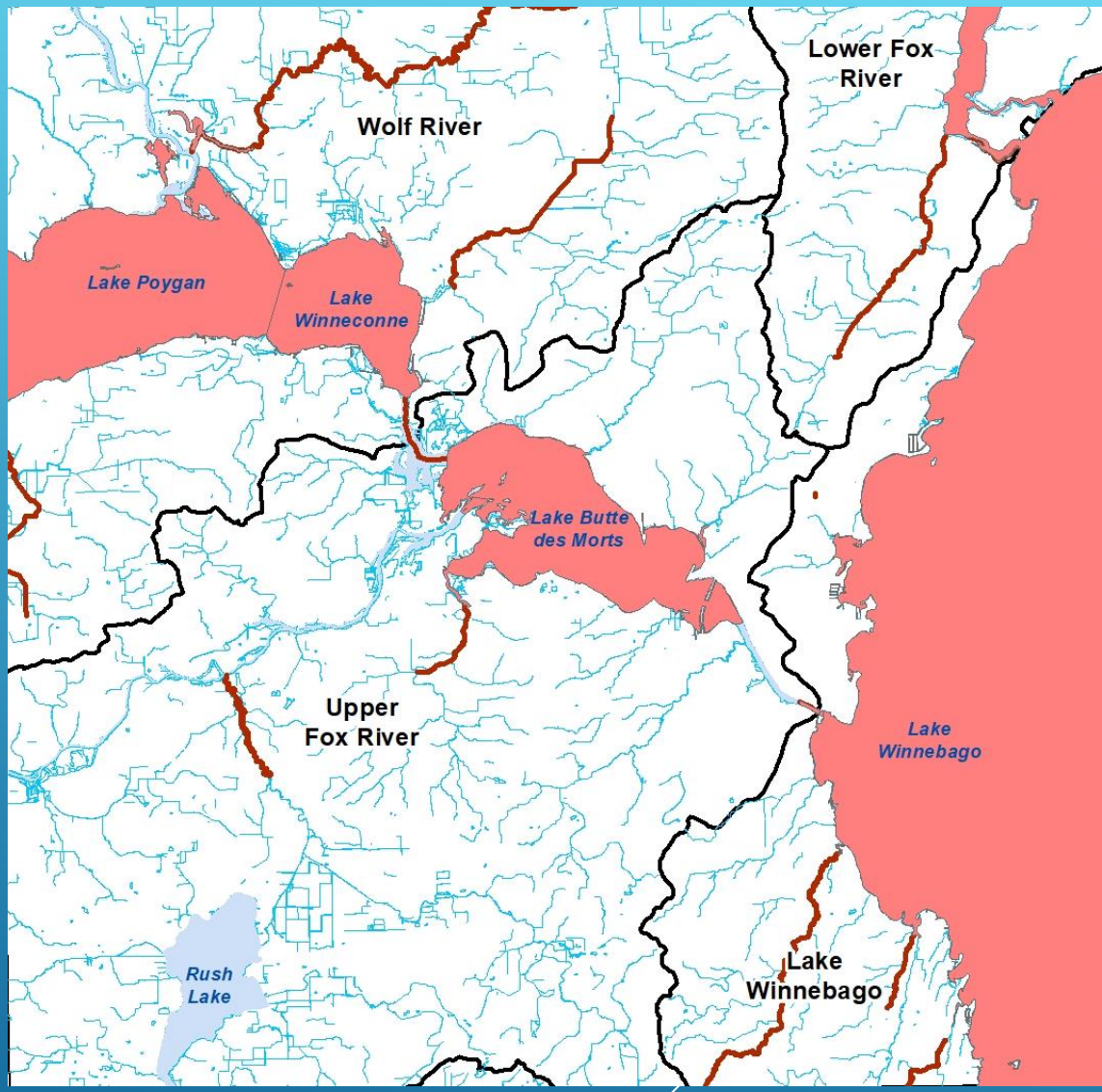
Agriculture

Urban land uses

Point-sources

Internal loading

Artificially high water levels



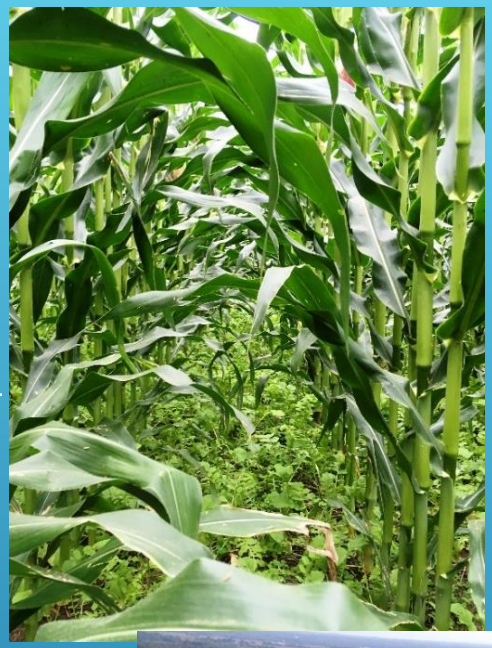
BEST MANAGEMENT PRACTICES THAT WILL HELP IMPROVE WATER QUALITY IN WINNEBAGO COUNTY WITH THE ALLOCATION OF FUNDS…

Create a Harvestable Buffer Program

- Strip of vegetation along marginal cropland adjacent to streams and ditches
- Payment per acre for a 10-15 year contract
- Can be harvested 2-3 times between May – September for livestock feed
- Harvesting removes accumulated nutrients and other contaminants resulting in improved water quality
- Reduces soil and nutrient loss from crop fields and reduces runoff from getting into the waterbodies
- Land stays in production for the farmer

Soil Health Program

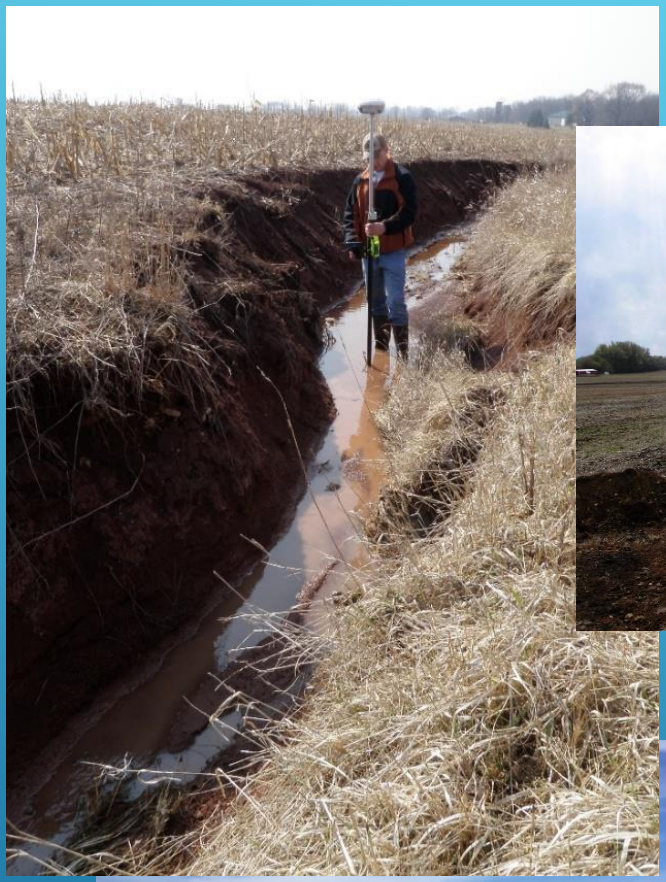
- Payment per acre for implementation of no-till and cover crops
- Learning curve for farmers transitioning from traditional farming
- New equipment or equipment modifications come at a cost
- Increases water infiltration & improves water quality by protecting the soil from runoff
- Sequesters more carbon
- Improves wildlife & pollinator habitat
- Improves microbial activity & organic matter
- Better profits and often better yields



Wetland Development and Restoration

- Reduces soil erosion
- Reduces flooding
- Filters pollutants before entering our lakes and streams
- Excellent wildlife habitat
- Recreational opportunities

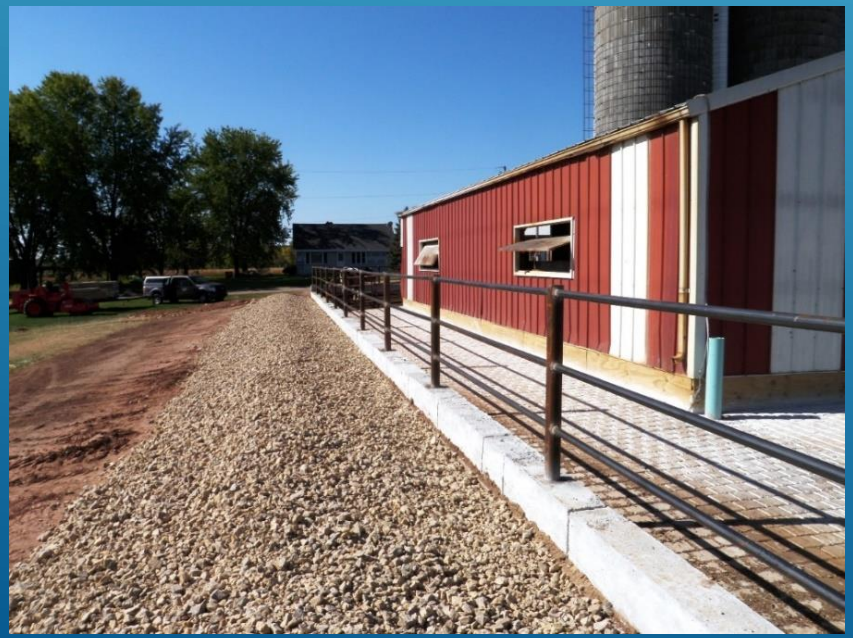
Waterway Systems



- Reduces soil erosion
- Reduces sedimentation and other pollutants from entering our lakes and streams
- Improves drainage

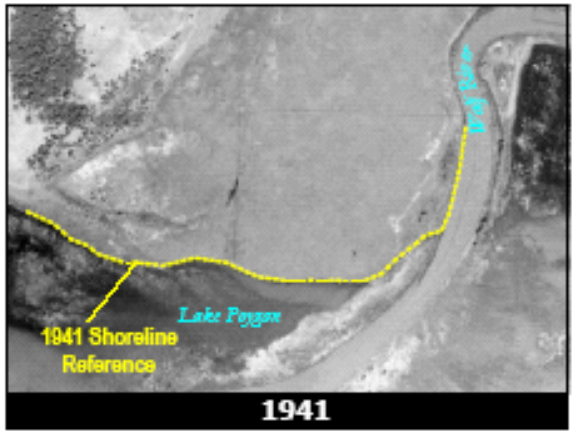
Barnyard Runoff Control Systems

- Improves water quality by controlling pollutants
- Prevent fish kills
- Improves livestock health

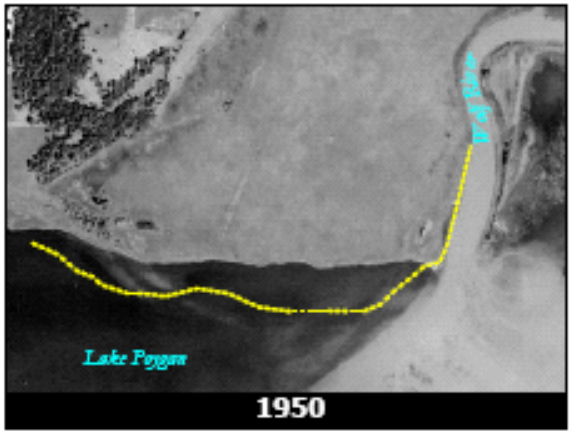


Manure Storage Closures

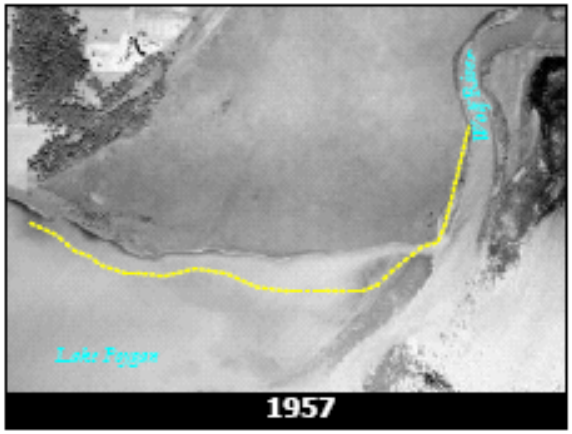
- Removes pollutants from potentially infiltrating to groundwater
- Seals the manure storage to prevent an pollutant concerns



1941



1950



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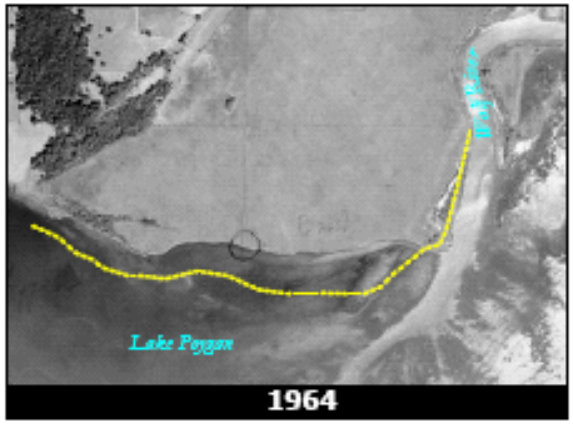
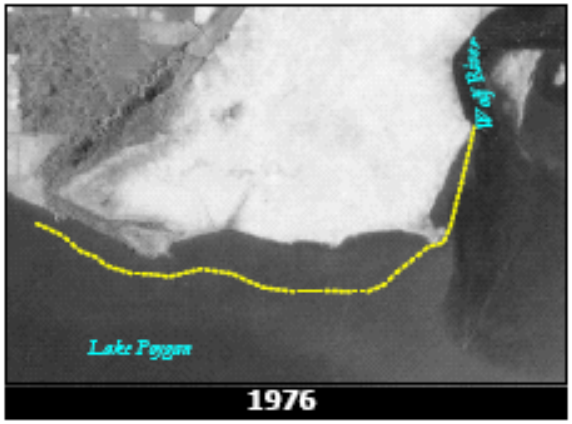
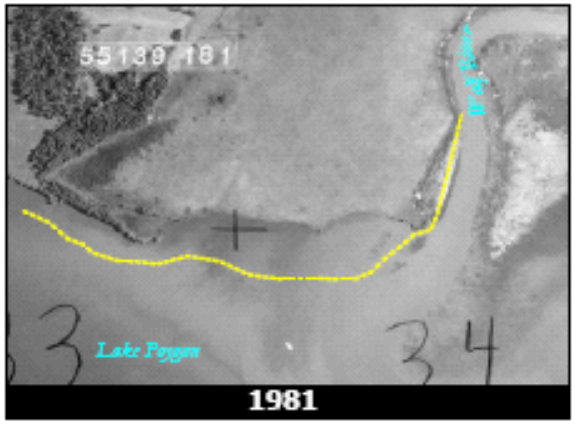


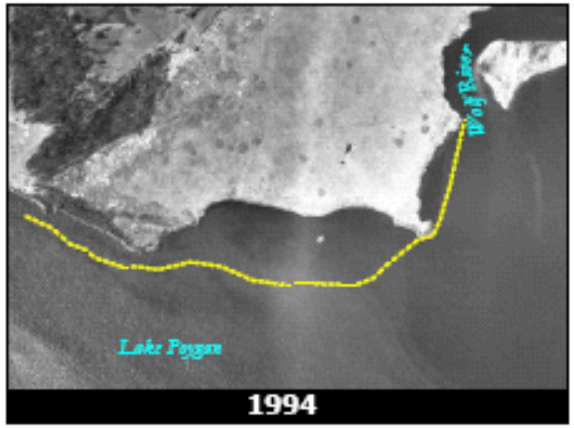
1964



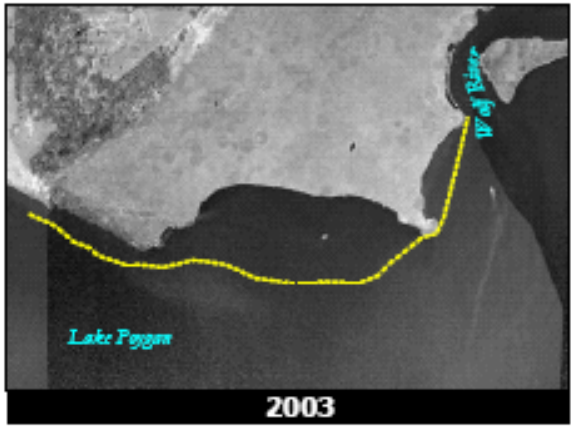
1976



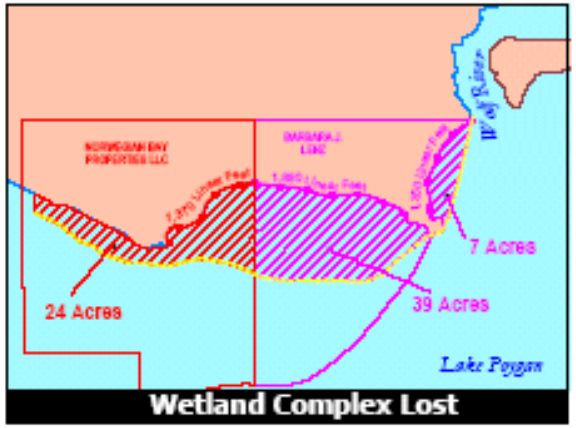
1981



1994



2003

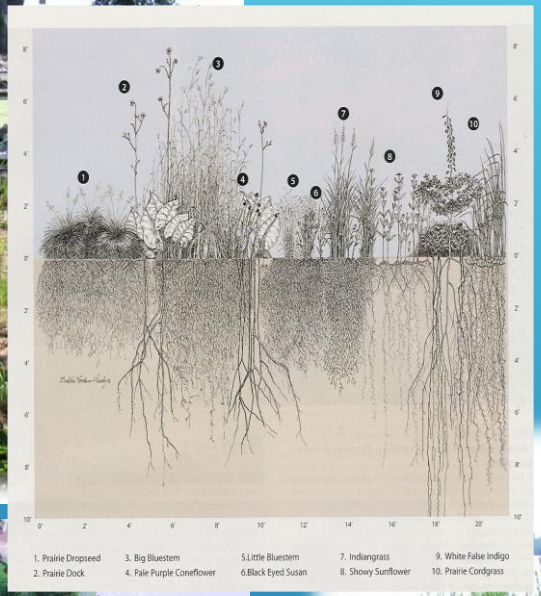


Wetland Complex Lost

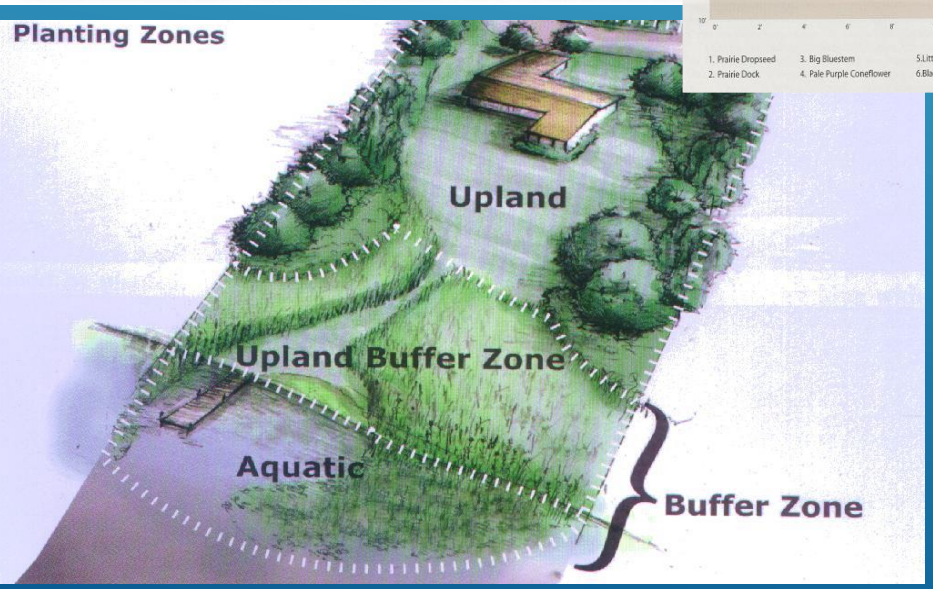
Off-Shore Breakwaters

- Prevents shoreline erosion and wetland losses from wind, wave and ice damage.
- Creates new lake adjacent wetlands
- Improves water quality and filters runoff
- Critical habitat for fish & wildlife

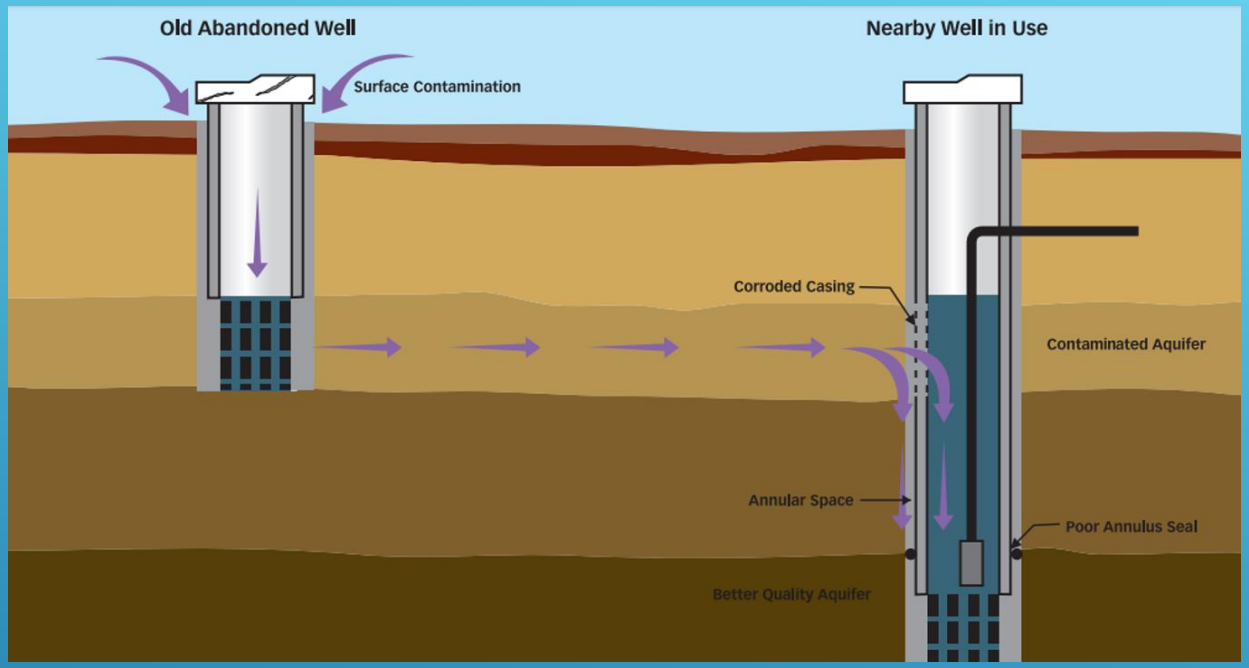
Shoreline Habitat Restoration



- Reduces shoreline/streambank erosion
- Filters fertilizers and pesticides from reaching our lakes and streams
- Better infiltration of rain water
- Great for pollinators and creates a seasonal array of colors

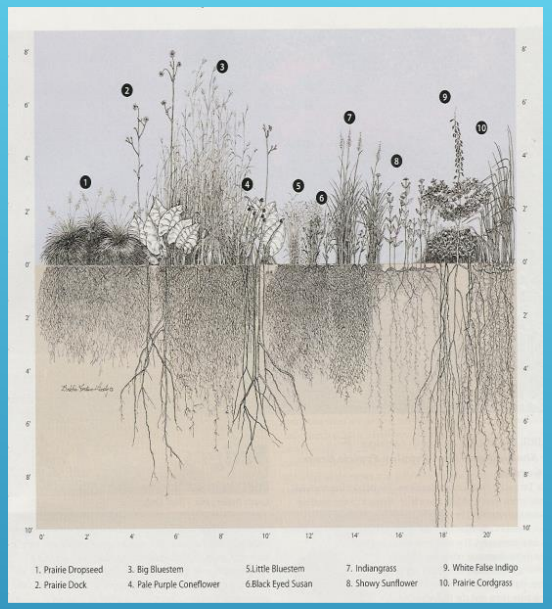


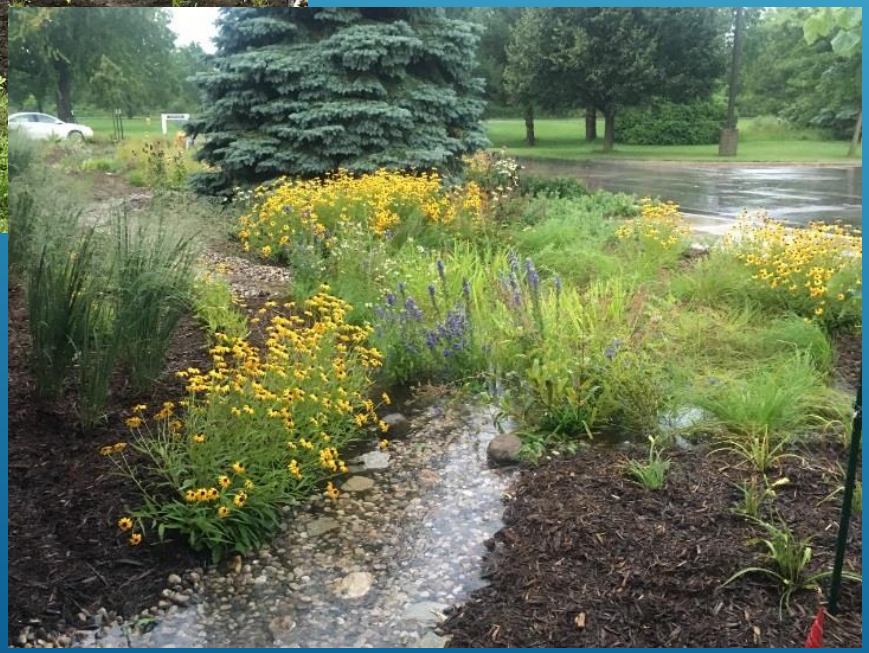
Well Abandonments



- Old wells left unused are at risk of contaminants entering into them and groundwater
- Contaminants will migrate to other wells drawing water from that aquifer

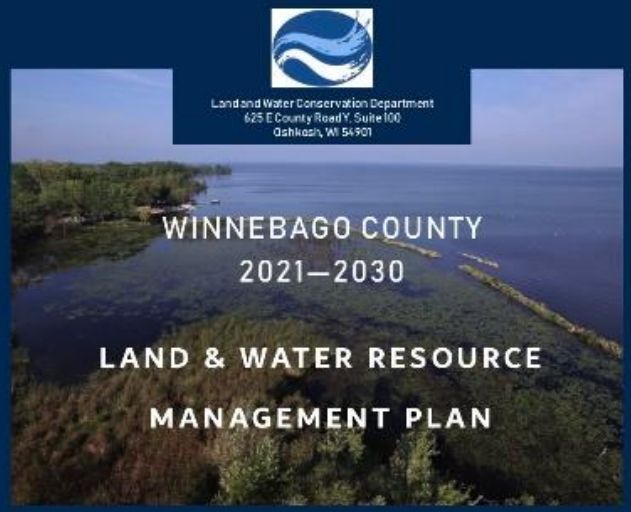
Rain Gardens

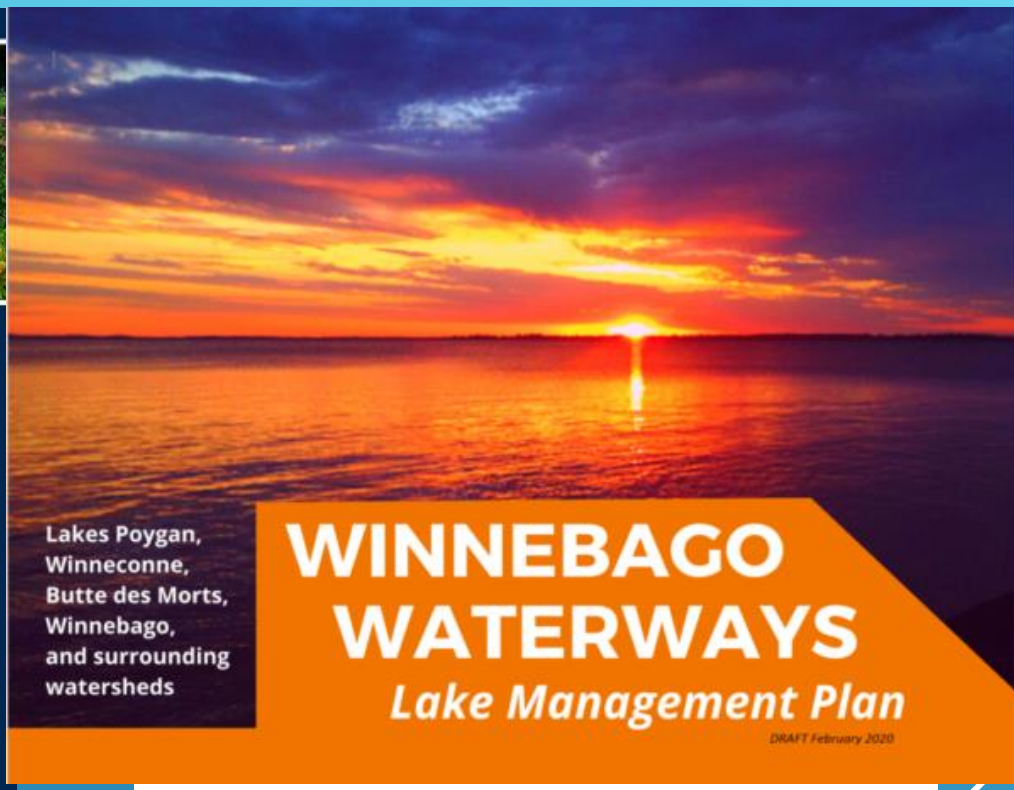




- Improves water quality
- Provides flood storage by creating better infiltration of rain water
- Typical rain gardens can collect over 1,500 gallons of water in only a 1" rainfall
- Great for pollinators and creates a seasonal array of colors

MANAGEMENT PLANS

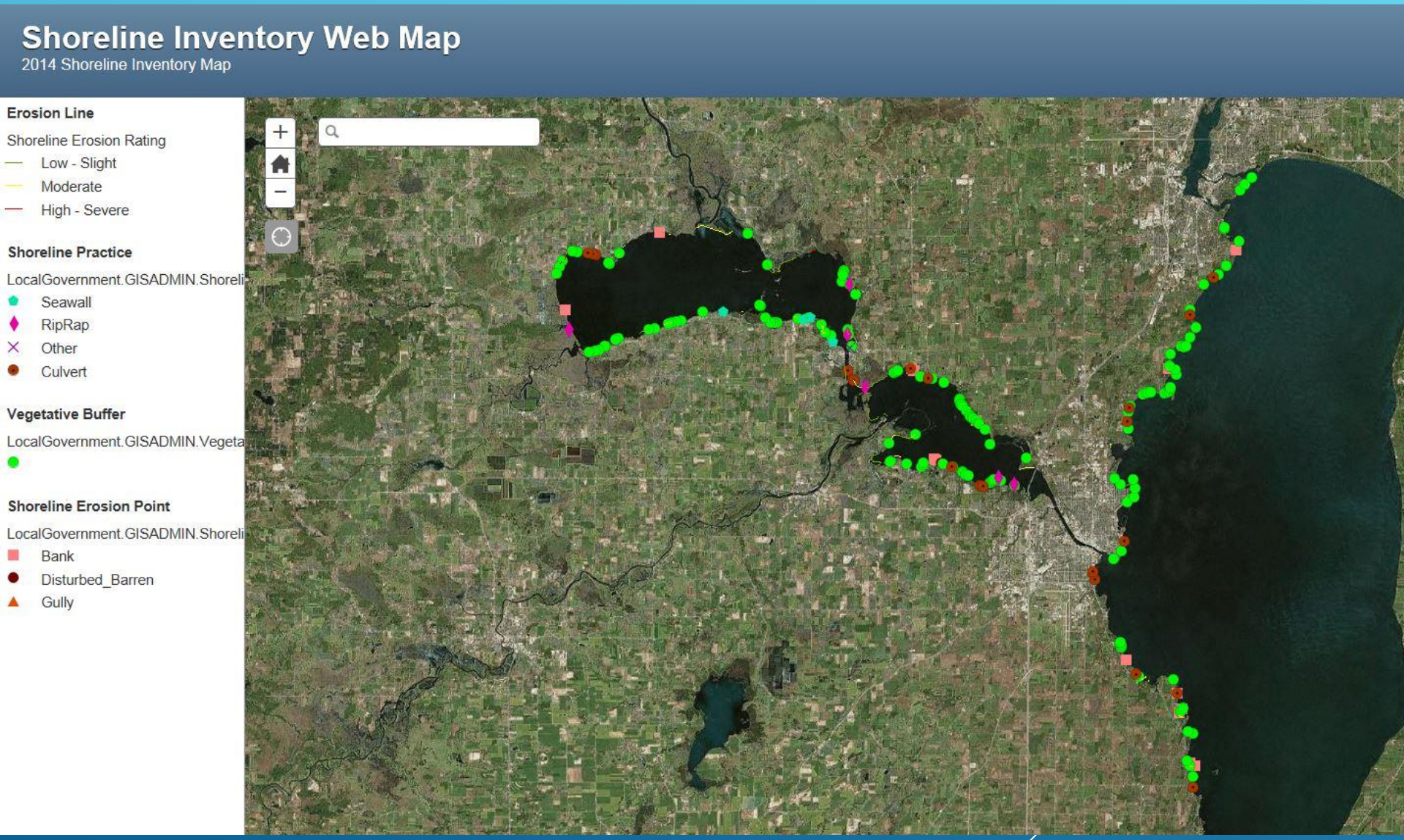




FOX-WOLF WATERSHED ALLIANCE · FOND DU LAC COUNTY WISCONSIN est. 1836 · WISCONSIN Calumet County · Winnebago County · WISCONSIN DEPT. OF NATURAL RESOURCES

Winnebago Waterways
A Fox-Wolf Watershed Alliance program
www.winnebagowaterways.org

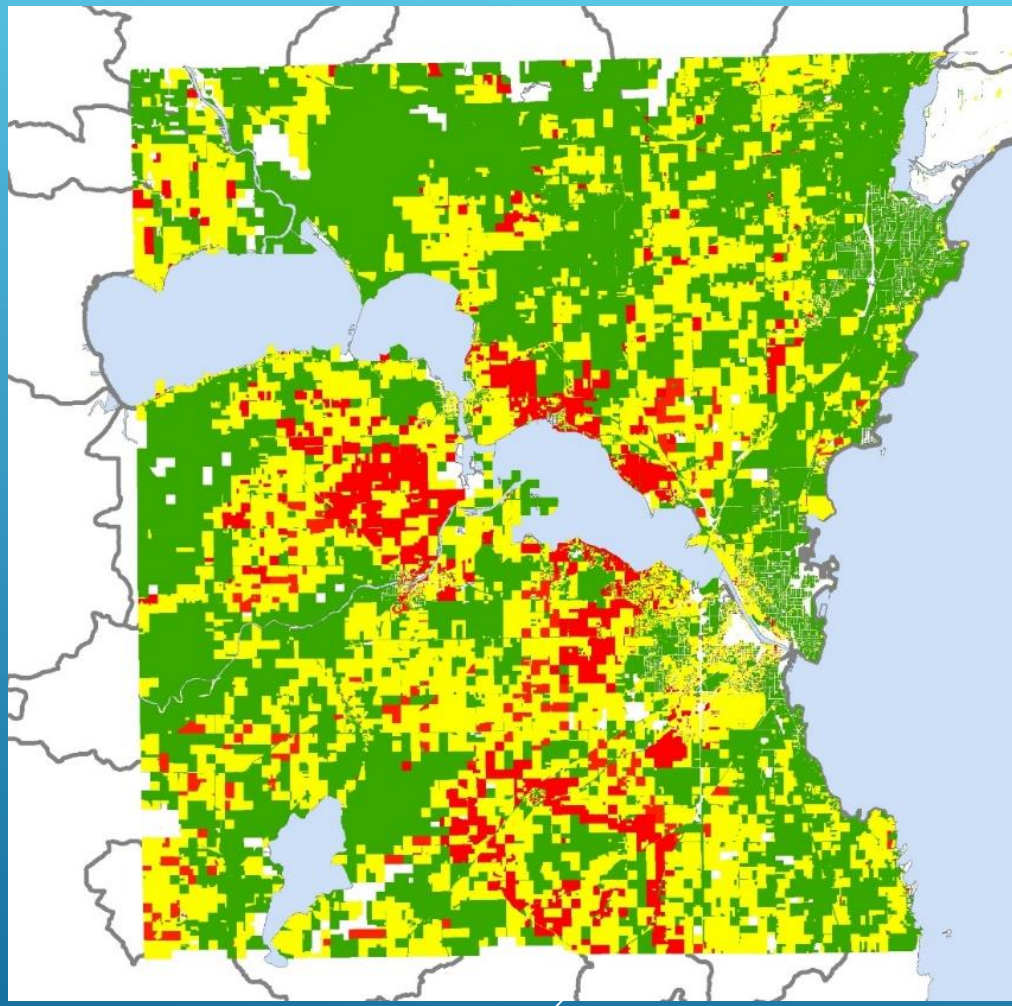
SHORELINE INVENTORY



"HEALTHY LAND, HEALTHY WATER" NINE-KEY ELEMENT WATERSHED PLAN

EROSION **V**ULNERABILITY **A**SSESSMENT FOR **A**GRICULTURAL **L**ANDS (EVAAL)

- A GIS-based tool created by WI-DNR for assisting watershed managers to prioritize areas that may be vulnerable to erosion.
- The tool is run on HUC-12 watersheds to generate a map of high risk lands.
- Landowner's are then contacted to provide information on potential conservation practices to implement.



LWCD conservation projects take time….

- Secure funds (limited funding & higher costs)
- Outreach & Education
- Landowner/Farmer Commitment
- Survey & design
- Secure permits
- Requests for Proposals from local contractors
- Construction (weather can cause delays)
- Monitoring

CONCLUSION

- Use of the ARPA funds would be a long-term project (10-15 years) working towards the goals set in existing management plans.
- The allocation of funds to the LWCD would be used on legacy projects with the primary focus being to improve water quality in Winnebago County.
- Future generations would benefit from these investments made in the County if a portion of funds were allocated to the LWCD.

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Thank You!