# Rock County Land Cons. Dept.

# YAHARA RIVER WATERSHED PHOSPHORUS REDUCTION PROGRAM

Chris Murphy
Conservation Specialist

#### SUMMARY OF 2020 PROJECTS

- 2 HARVESTABLE BUFFERS = 3 ACRES
- 1 GRASSED WATERWAY = .62 ACRE
- 2.45 ACRES OF ANNUAL CROPLAND PLANTED TO PERENNIAL VEGETATION
- 1 WETLAND DEVELOPMENT = .5 ACRE
- 10.4 ACRES OF DRYLOT PASTURE TO PERENNIAL VEGETATION (Wildlife Habitat) AND REPAIR 380 FEET OF GULLY EROSION WITH ROCK LINED WATERWAY

#### BMP INSTALLED IN 2020: PASTURE - WATERWAY



 SOUTH OF COUNTY HIGHWAY M

• 176 ACRE WATERSHED

# BMP INSTALLED IN 2020: PASTURE - WATERWAY



# SOIL TEST OF DRYLOT PASTURE



To: HELENA AGRI-ENTERPRISES 156 CO RD N

For: DAVE WELNITZ Farm: HOME

County: ROCK Soil: UNKNOWN

Date Received: 4/8/2019

EDGERTON, WI 53534-0067

Plow Depth: 7 Acres:

SOIL TEST REF												PORT				Date Reported: 4/10/2019					Page: 1 of 1		
Sample ID	Lab Number	OM *	ppm P	K *	Mg"		Soil pH	Buffer pH	CEC ** meq/100g				5"	Zn "	Mn"		Cu	в"	Bicarb-P	NO3-1			
						ppm				%K	%Mg	%Ca	%Н	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
1	29947	9.5	474	1243	835	2450	8.0		22.4	14.2	31.1	54.7		29	12.0	49			3.6				
					=															*			
Average		9.5	474^	1243^	835	2450	8.0		22.4	14.2	31.1	54.7		29	12.0	49			3.6				

<sup>\*</sup> Soil Test Recommendations for Field, Vegetable and Fruit Crops, UW A2809, 2012. \*\* Recommended Chemical Soil Test Procedures for the North Central Region, NCR No. 221, 2012. ^ Weighted average, UW-A2809.

474 PPM PHOSPHORUS

### BMP INSTALLED IN 2020 – ROCK LINED WATERWAY



#### BMP INSTALLED IN 2020 – PERENNIAL VEGETATION



### PARCEL 6-16-201 BREAKDOWN

- REPAIR 380 FEET OF GULLY EROSION WITH ROCK LINED WATERWAY
  - Annual P reduction = 266.2 pounds
  - Actual cost = \$46,000\* estimated 15 year P reduction = 3,993 pounds
    - Cost per pound of P reduction = \$11.52
- 10.4 ACRES OF DRYLOT PASTURE TO WILDLIFE HABITAT
  - Annual P reduction = 1,155.4 pounds
  - Estimated cost = \$53,087\* estimated 15 year P reduction = 17,331.6 pounds
    - Cost per pound of P reduction = \$3.06

# SUMMARY OF ACTIVITES 2017 - 2020

- 12 HARVESTABLE BUFFERS = 29.6 ACRES
- 321 FEET STREAMBANK RESTORATION ON BADFISH CREEK
- CROPLAND TO PERENNIAL FORAGE = 30.4 ACRES

1 UPLAND WATER BASIN, 1,200 FEET OF UNDERGROUND OUTLET

- 1 ROCK LINED WATERWAY = .4 ACRE
- DRYLOT PASTURE TO PERENNIAL FORAGE = 10.4 ACRES
- 1 WETLAND DEVELOPMENT = .5 ACRE
- 1 GRASSED WATERWAY = .62 ACRES

#### SUMMARY OF ACTIVITES 2017 - 2020

ANNUAL POUNDS OF PHOSPHORUS REDUCED = 2,964.1

15 YEAR TOTAL POUNDS OF PHOSPHORUS REDUCED = 44,461.5

TOTAL COST OF PROJECTS = \$637,775

COST PER POUND OF P REDUCED = \$14.34\*

\*includes staff costs

### PLANNED 2021 PROJECTS

Roof Runoff System – Settling Basin with seasonal storage – Vegetative Treatment Area

• 2 Harvestable Buffers = 6 acres

• 5.2 acre Wetland Development

# Roof Runoff System – Settling Basin with seasonal storage – Vegetative Treatment Area





# Roof Runoff System – Settling Basin with seasonal storage – Vegetative Treatment Area







Questions?