

# TU CARES

A TROUT UNLIMITED  
VOLUNTEER BASED  
PROGRAM IN THE CENTRAL  
REGION OF WISCONSIN

Tom Lager

WI Lakes Partnership & Water Action  
Volunteers 20 April 2018  
(30 min)



# TU CARES

- ▣ T r o u t U n l i m i t e d C e n t r a l R e s t o r e s t r e s t i o n E f f o r S u s t a i n a b i l i t y (TU CARES)

Goal:

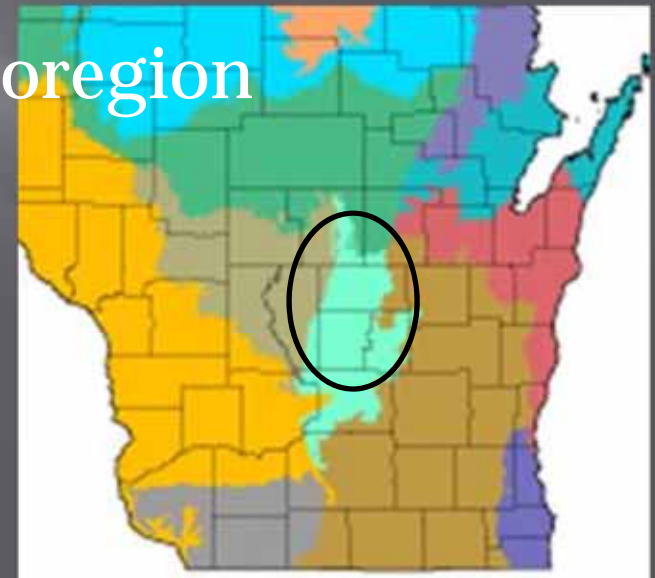
- ▣ To protect, restore and reduce the decline in habitat quality for fish, game and non-game species
- ▣ In those restoration projects completed over the last 40-50 years
- ▣ Within Wisconsin's Central Sand Hills Ecoregion and its connected watersheds.



**Bob Hunt**  
**Conservation Hall of**  
**Fame**

# Regional Projects

- ▣ Not to re-place individual TU Chapter projects but for:
- ▣ Large projects that exceed capability of a single TU chapter due large scope of work and high funding need
- ▣ Focused on Central Sands Ecoregion
- ▣ Four TU Chapters backyard
  - Hornberg TU
  - Shaw-paca TU
  - Central Wis TU
  - Fox Valley TU





# The People of TU CARES

## ▣ TU Members:

- Dennis Drazkowski
- Al Johnson
- Tom Lager
- Nate Ratliff
- Mike San Dretto
- Brandon Schmalz
- John Tucker
- Laura Tucker
- Matt (Hornberg) & Nate (Shaw-paca)

## ▣ DNR Support

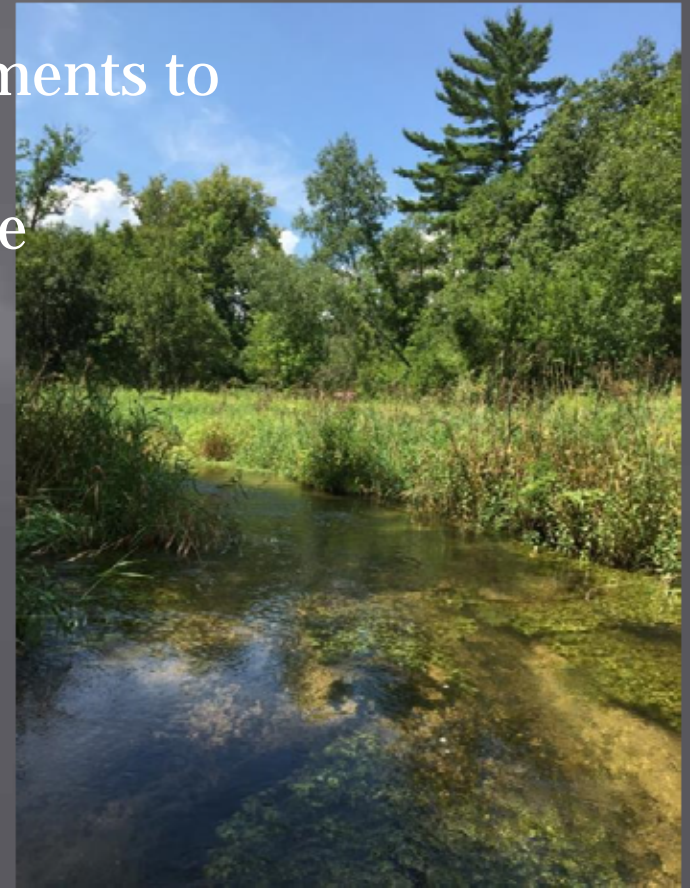
- Shawn Sullivan, Steve Devitt & Habitat Crew
- Dave Bartz, Scott Bunde & Fish Survey Crew
- Bobbie Jo Fisher and Dave Bolha



# TU CARES Inaugural Project

West Branch of the White River  
(WBWR):

- ▣ Objective:
  - Assess and implement improvements to the WBWR representing the possibilities achievable across the Central Region streams





# West Branch of the White River (WBWR) Project

## WBWR Selection Rationale:

- ▣ Biodiversity and hydrogeography commonality
- ▣ Unique features
  - Brook, rainbow and brown trout
  - Habitat improvements since 1930's WPA
  - Highway 21 bridge
- ▣ Ground water dependent stream
- ▣ Has agriculture, rural housing and wooded and wetland wildlife management land practices
- ▣ Provides public multiple use benefits
- ▣ Many DNR maintained public accesses

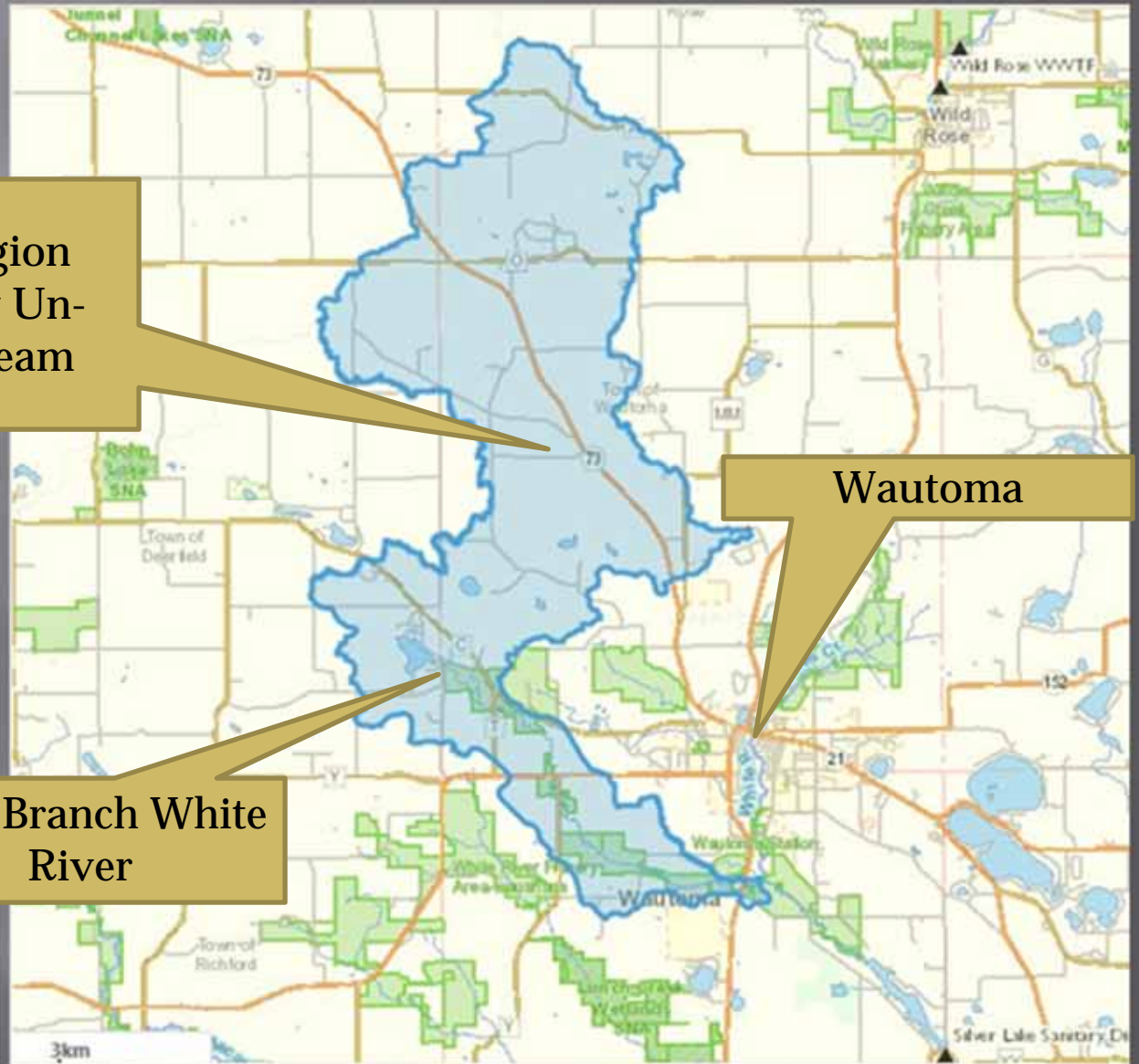


# West Branch White River Watershed

Upper Region  
Drained by Un-  
named Stream

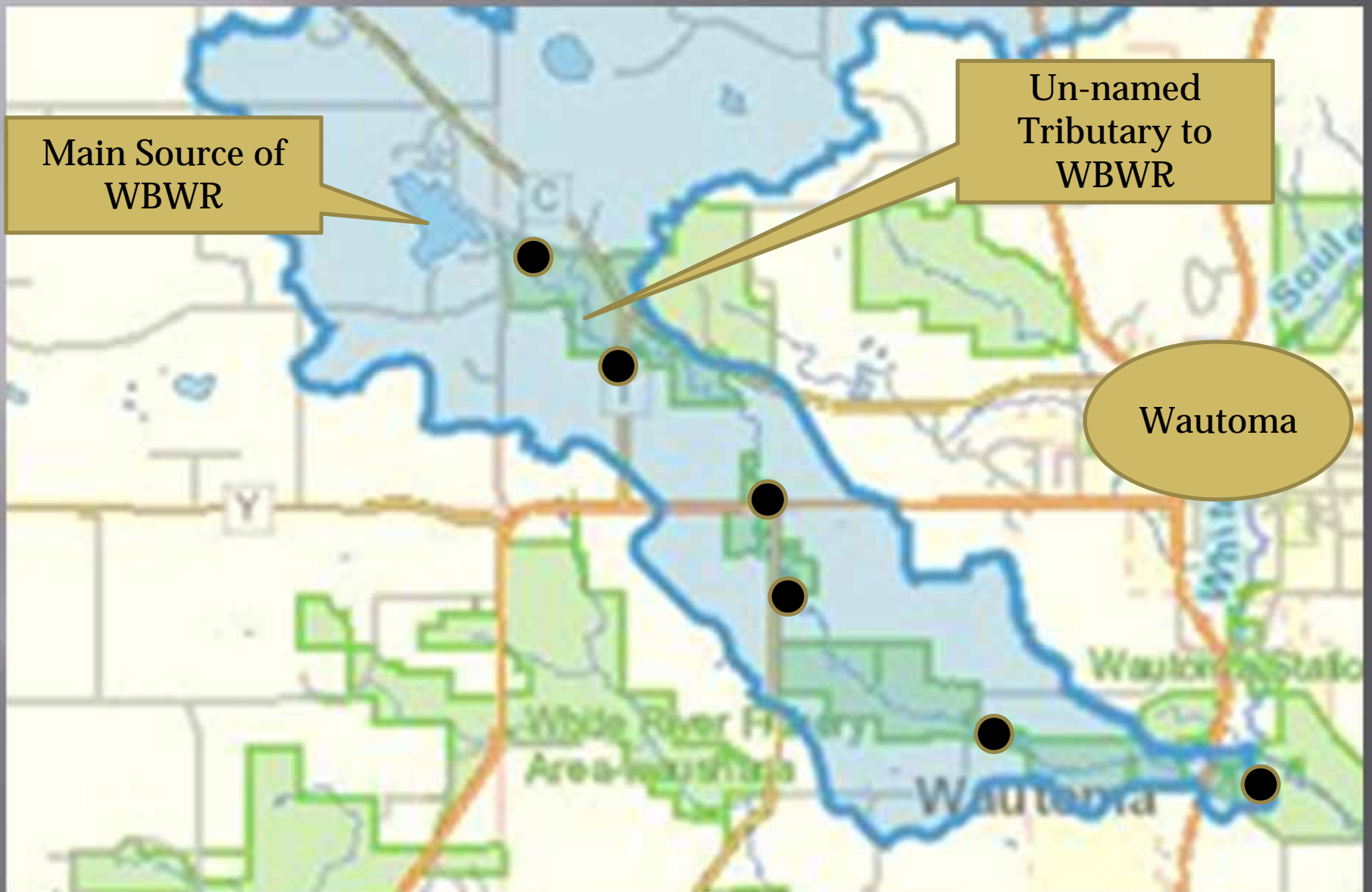
West Branch White  
River

Wautoma





# Monitoring Sites on WBWR





# 2017 Accomplishments

- ▣ Stream habitat assessments
- ▣ Level I WAV Water monitoring May – Sept  
Data in SWIMS
- ▣ Macroinvertebrate survey
- ▣ Nine Stream Crossing Assessment completed
- ▣ Trout population survey via electro-shocking
  - Un-named tributary
- ▣ Habitat improvement and fishability
- ▣ Survey of old in-stream structures
- ▣ Publicity plan
- ▣ Grant writing training



# West Branch 2018 Plan

- ▣ Enhance water monitoring to Level II
  - DO meters, expanded range, total stream continuous temperature profile & flow assessments



# Water Monitoring & Bug Populations Results

- ▣ **High quality stream**
- ▣ Cold temperature, well oxygenated and high ground water flow
  - ▣ Maximum: 64F; except 72F down-stream of impoundment
  - ▣ Oxygen saturation: >100%
  - ▣ Ave. Flow 12 – 22 cfs; Min. flow: 7 – 20 cfs
- ▣ Bug population:
  - ▣ Biotic Index Score April-June: 2.8 (Good)



Data: Mike San Dretto; Dennis Drazkowski; Nate Ratliff



# Bug Populations

|                     |    | Central Wisconsin Hatch Chart |       |   |   |     |   |   |      |   |   |                      |   |
|---------------------|----|-------------------------------|-------|---|---|-----|---|---|------|---|---|----------------------|---|
|                     |    | Common Name                   | April |   |   | May |   |   | June |   |   |                      |   |
| Kinds of            | Nu | Blue Winged Olive             | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
|                     |    | Midge                         | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Kind                |    | Winter Black Stoneflies       | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Stoneflies          |    | Little Black Caddis           | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
|                     |    | Hendrickson                   | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Mayflies            |    | American Grannon              | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Dragonflies         |    | Slate Drake                   | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| True Bugs           |    | Sulphur                       | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
|                     |    | March Brown                   | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Caddisflies         |    | Spotted Sedge                 | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Fish and Alderflies |    | Yellow Crane Fly              | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
|                     |    | Brown Drake                   | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Beetles             |    | Gray Drake                    | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Flies               |    | Hex                           | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Scuds               |    | Little Sister Sedge           | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
|                     |    | Scuds                         | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Other               |    | Terrestrial Bugs              | ■     | ■ | ■ | ■   | ■ | ■ | ■    | ■ | ■ | ■                    | ■ |
| Total Kinds         |    |                               |       |   |   |     |   |   |      |   |   |                      |   |
|                     |    |                               |       |   |   |     |   |   |      |   |   | Hatch period         |   |
|                     |    | Color Key                     |       |   |   |     |   |   |      |   |   | Peak numbers of bugs |   |
|                     |    |                               |       |   |   |     |   |   |      |   |   | Most common bugs     |   |

Data: Tom Lager

# West Branch 2018 Plan Cont'd

- ▣ Investigate rainbow trout population decline
  - Partner with DNR Fisheries for solutions
  - DNA collected from 51 trout in April
  - Form a communication plan to inform local and regional public



Data: John Tucker & Scott Bunde

# West Branch 2018 Plan Cont'd

- ▣ Develop plan to refurbish aging in-stream structures and habitat improvements
  - Planning development integrated with rainbow trout habitat needs
  - Work with Shawn's habitat crew





# West Branch 2018 Plan Cont'd

- ▣ Replace Un-named tributary culvert under Lake Dr
  - Culvert barriers 3.2 miles of up-stream trout habitat
  - Work with Bobbi Jo and Matt Diebel at DNR



# Justifying Culvert Replacement

- ▣ Fish survey via electroshocking
  - Up & downstream of culvert
  - 100 m sections
  - All fish species documented





# Fisheries Survey Results

- ▣ Fish assembly rated Excellent (IBI 90)
- ▣ Brook and brown trout, scuplin and white sucker
- ▣ Moderate to high population levels in tributary

▣ Brook

Down-stream  
Trout Count

45

▣ Brown

20

Culvert



Up-stream  
Trout Count

94

4

Data: John Tucker; Scott Bunde; Joe Dax



# West Branch 2018 Plan Cont'd

- ▣ Grants are needed to fund the work just presented
- ▣ Develop brochure for TU CARES
- ▣ Search for funding sources
- ▣ Apply for grants



Grants and Out Reach: Al Johnson; Laura Tucker

# Expanded Plans 2018-19

- ▣ Crystal River habitat improvements
  - Site of former New Hope Dam
  - Temperature monitoring
  - Out reach to land owners
  - Planning with Shawn's Habitat Crew



Before Dam Removal



After Dam Removal



# Expanded Plans 2018-19

- ▣ Erosion control
  - ▣ Waupaca River at River Side Park in the City of Waupaca

