

# *Monroe County - Climate Change Task Force*



*Governor's Conference  
March 8<sup>th</sup>, 2022*

*Monroe County Administrator – Tina Osterberg  
Land Conservation Department, Director - Bob Micheel*

# Monroe County Land Use

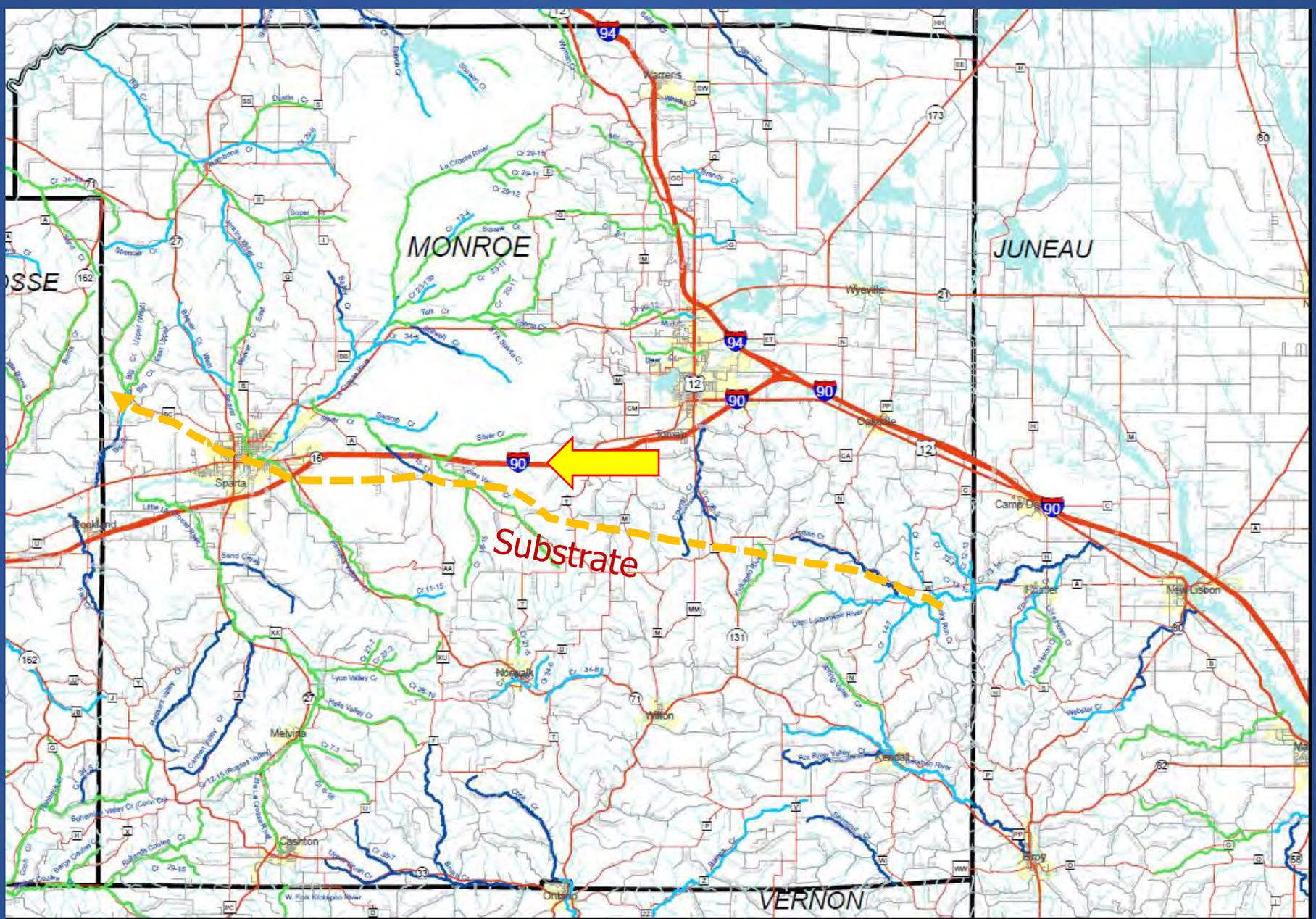


- Size - 581,300 acres (908 mi<sup>2</sup>)
- Population 46,274 (25% R)
- Land use:
  - Fort McCoy -60,000 acres
  - Central Wisconsin Conservation Area (16,000 acres in Monroe Co.)
  - cranberries 3,654 acres
  - woodland 273,000 acres
  - cropland 185,800 acres
  - wetlands 56,000 acres
  - 5 Watershed Basins



# Driftless Area

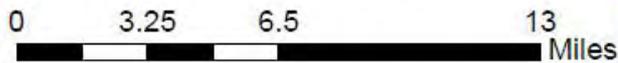




County



Map Updated: January 6, 2017



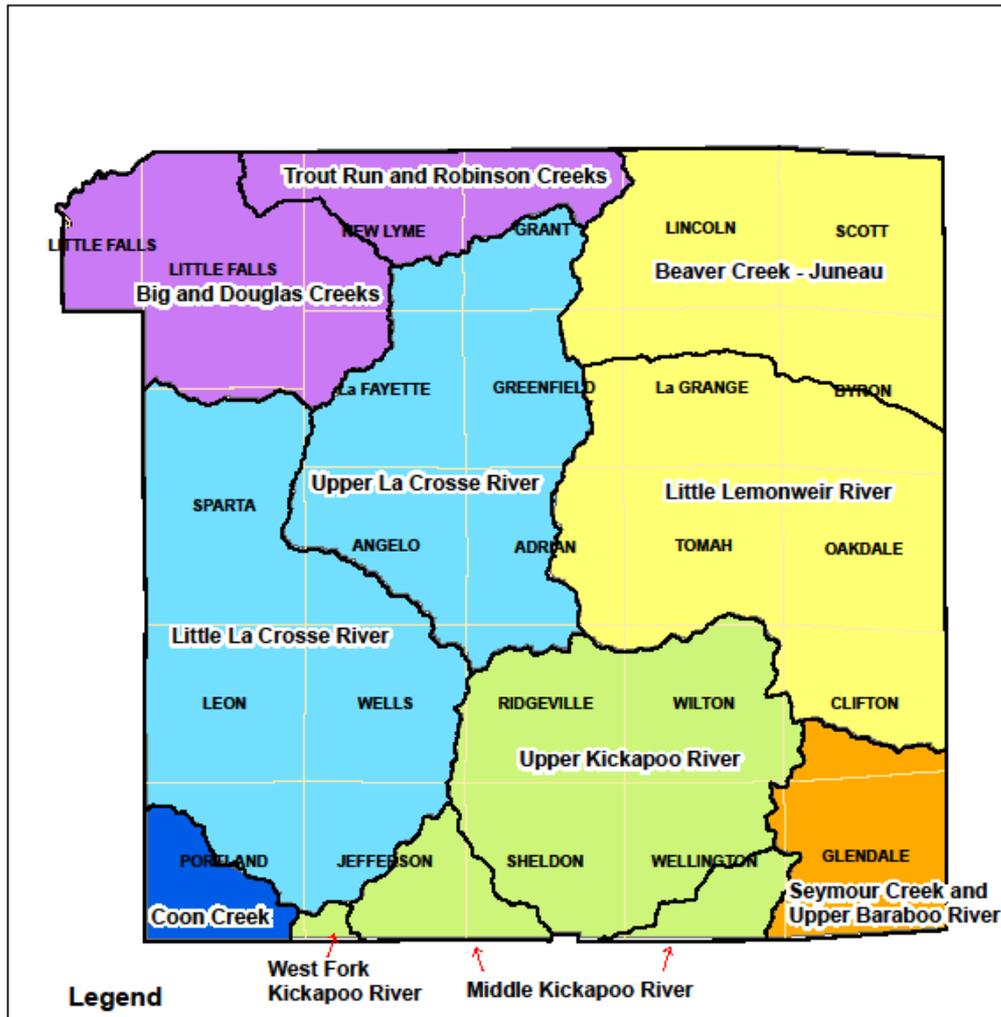
LEGEND		
<b>Trout Streams</b>	Interstate Highway	Other Streams
Class I	US Highway	Open Water
Class II	State Highway	Municipality
Class III	County Road	
	Local Road	



Entering  
the  
Driftless  
Area

*Welcome to  
Monroe County*

# Monroe County Watersheds



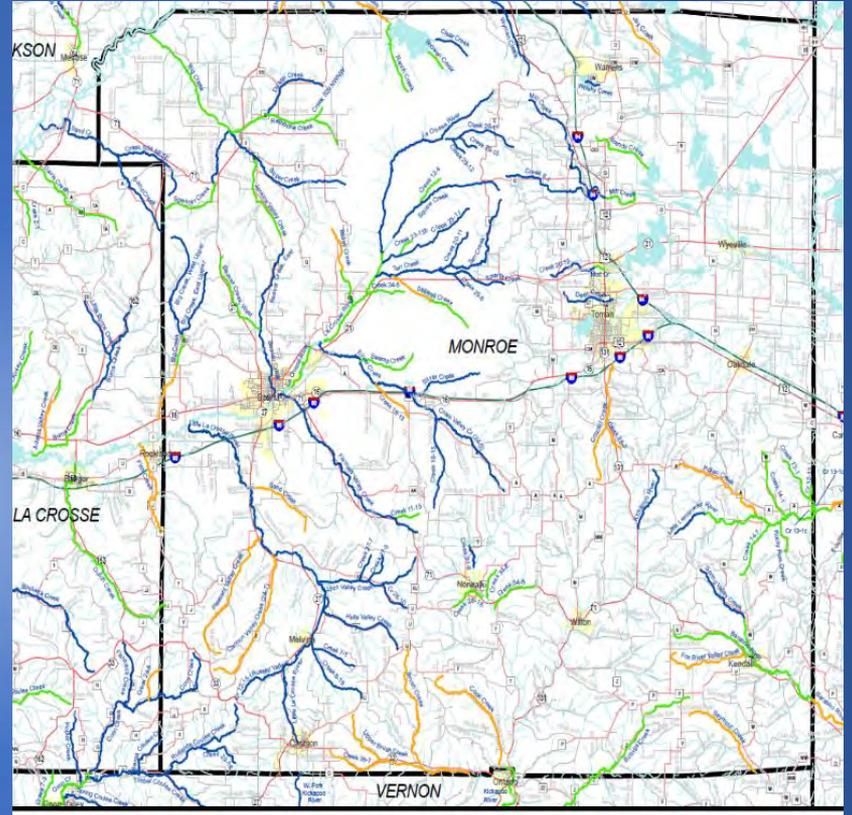
## Legend

- DNR\_Watersheds\_Monroe
- Bad Axe - La Crosse
- Coon Creek
- Kickapoo
- Baraboo
- Central Wisconsin
- Black

# Cold Water Streams



Trout Streams  
Class I - 92 miles  
Class II - 114 miles



# Recreational Opportunities



An aerial photograph of a rural landscape in Monroe County, Tennessee. The scene is dominated by rolling hills and fields. In the foreground, a two-lane asphalt road runs horizontally across the frame. Below the road is a large, vibrant green field. Above the road, a dense forest of trees displays autumn foliage in shades of orange, yellow, and brown. In the background, more rolling hills are visible, with patches of green fields and golden-brown harvested crops. The overall scene is a picturesque representation of the rural landscape of Monroe County.

# Monroe County

# Climate Change

Wisconsin's climate is changing. A wealth of temperature and precipitation data gathered over more than half a century, along with records from a variety of other periods and sources, paint a consistent picture of our state becoming generally warmer and wetter. The decades ahead are likely to bring changes much more profound than those seen so far, according to climate models.

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The warming Wisconsin has experienced to date is consistent with the global trend. The past three decades have been Earth's warmest since reliable surface temperature records began to be kept in 1850, with a global average increase of about 1.5 degrees Fahrenheit over that period (see figure 1). In fact, temperature trends based on Arctic ice cores and other evidence indicate that the Earth's temperature

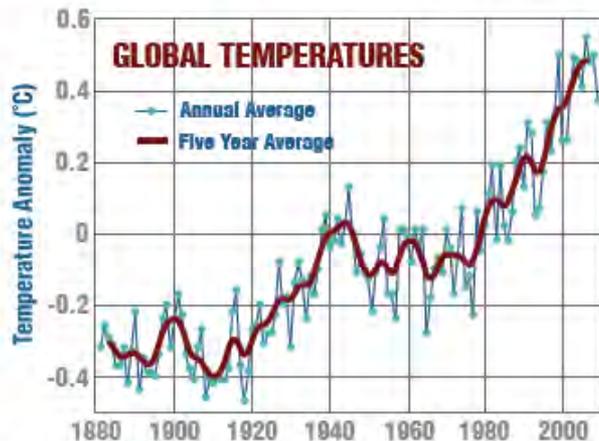


Figure 1. Global average temperatures have been steadily rising since reliable records began being kept in 1850.

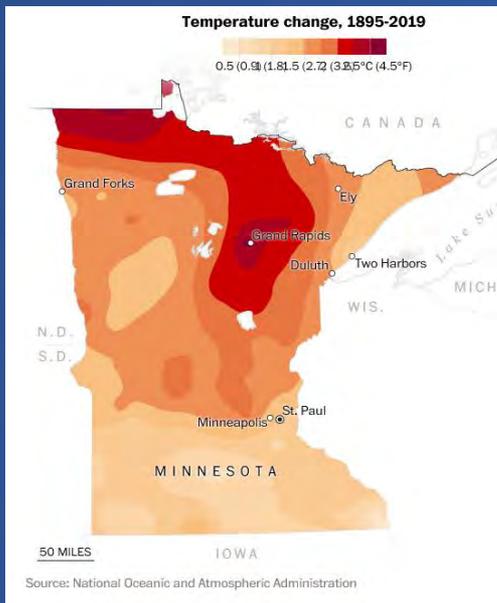
Source: Intergovernmental Panel on Climate Change, 2007.

The greatest warming is occurring during winter and spring, with nighttime temperatures increasing more than daytime temperatures.

- Last 34 years – Warmest Years (temp) on Record
- 2021 – 109 days above 80 degrees
- Average Temperature is +2 degrees
- Increase Evaporation
- Rainfall Intensity 2-6" hour
- Since 2007 – 20+ Major Flood Events



# Symptoms of Climate Change?



**Localized Temp Regimes**

**Well Water - Contamination**

**Invasive Species**



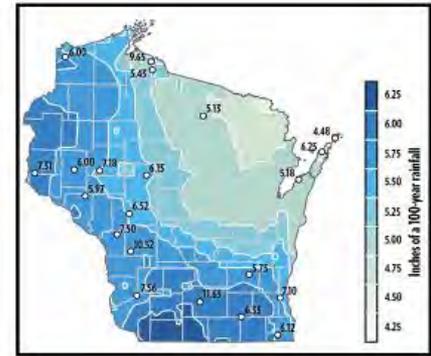
**Oak Wilt**



**Wildlife & Human Diseases (CWD)**

Coronavirus has changed our lives, but as you see, diseases caused by a virus, a bacteria, or a fungus, have seriously impacted our wildlife. There is much speculation as to why we're seeing a resurgence in these serious wildlife diseases. Climate change, more urban interaction of wild and domestic animals, more use of chemicals in food production, and more water and ocean pollution, have all been discussed as possible reasons. We really are in this together, and relative to humans and wildlife, we need to clean up our act. Dr. David Samuels

## "100-year" Daily Rainfalls during Past Decade



*21 events affected most parts of Wisconsin*

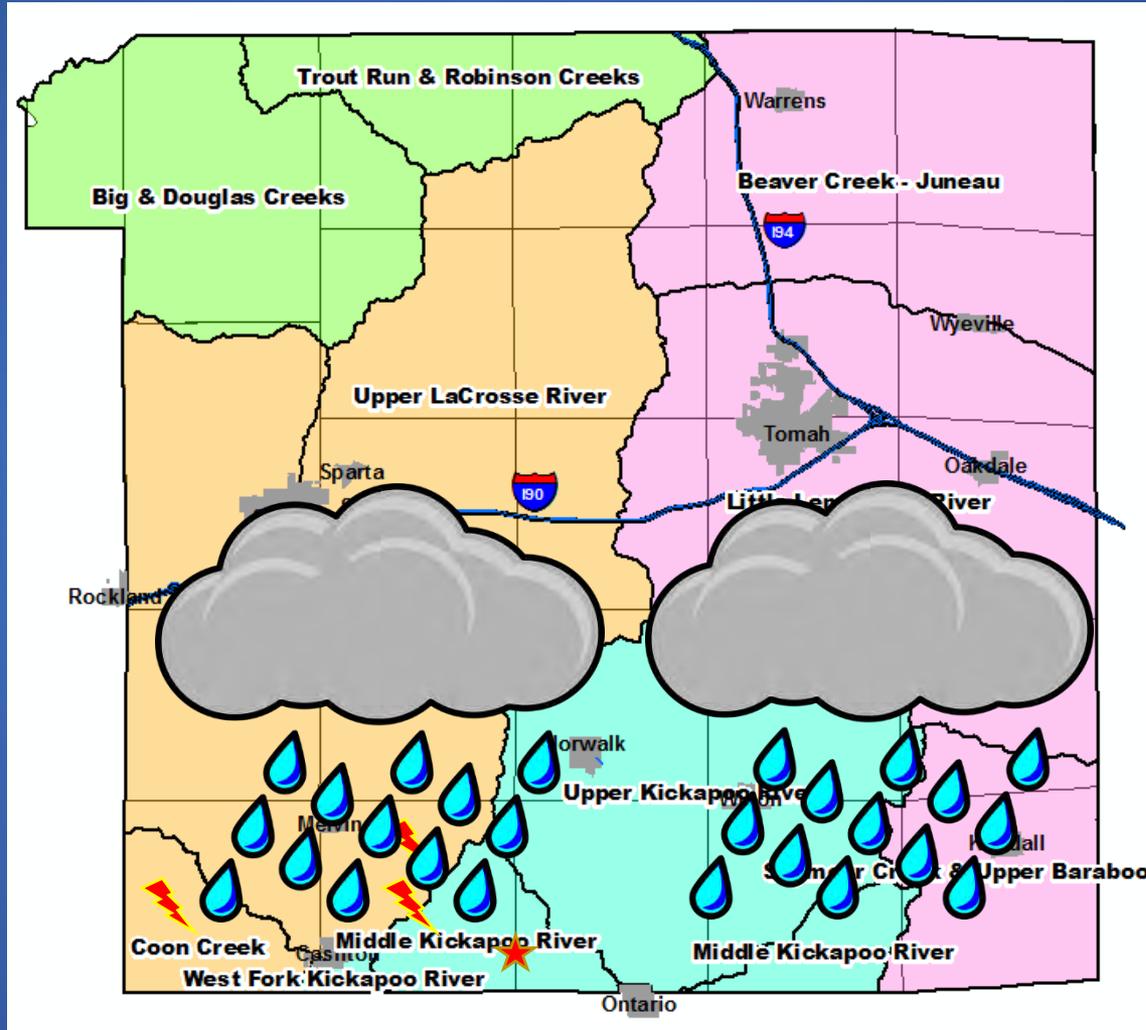


# 100 year flood event - every year!!

# Localized Rain Events

Ave. Annual Rainfall = 33"  
April 3<sup>rd</sup> – Dec. 31, 2018

★ 60.79"



Monroe County - Watersheds



2019

July 3<sup>rd</sup> (4-5"/1.5 hrs.)

July 9<sup>th</sup> (1"/20 min)

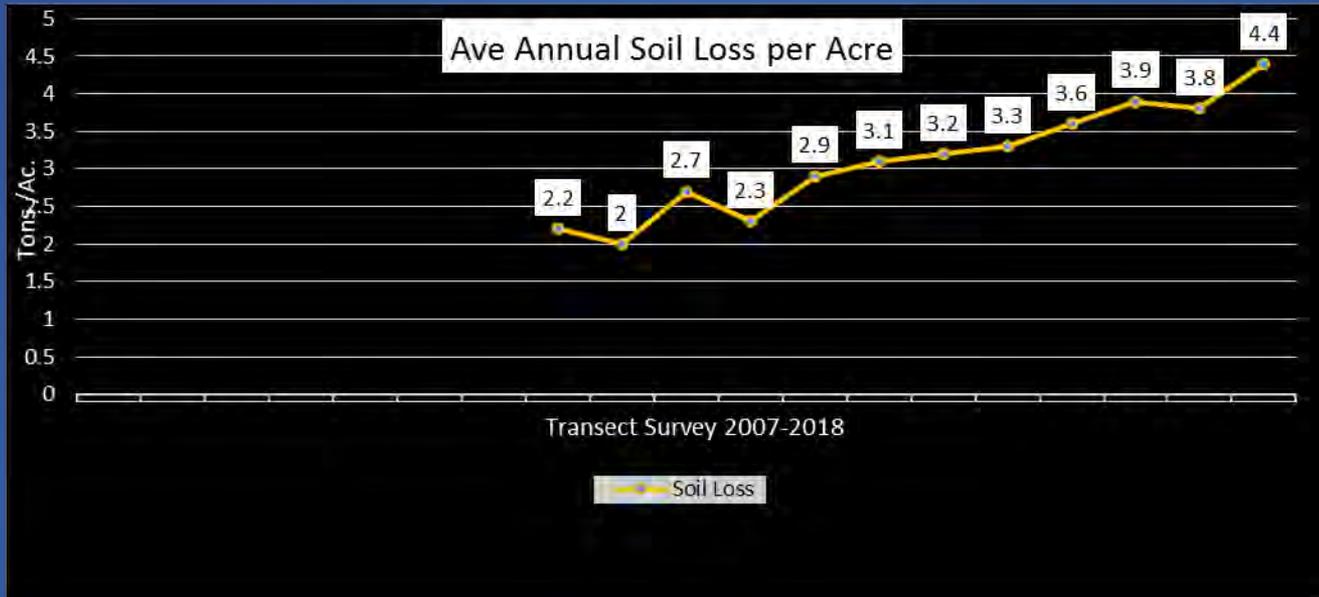
July 18<sup>th</sup> (6-8"/2 hrs.)

# Agriculture – Rill & Gully Erosion



Saturated & Flooded Cropland

# Soil Erosion & Delivery - Cropland



Soil Loss = 649,057 tons/year



Mono-Culture Farming



Sediment Delivery

# Infrastructure Failure



# Private Property



Flooded Basements & Lawns

# Reclaiming the Valley Floor



# Farmstead Before & After

