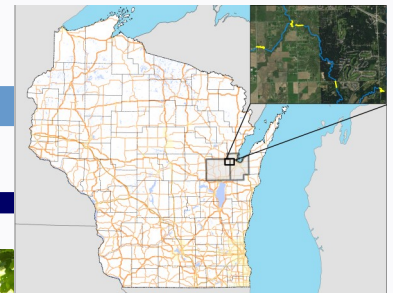


# Wisconsin Water Quality Handout

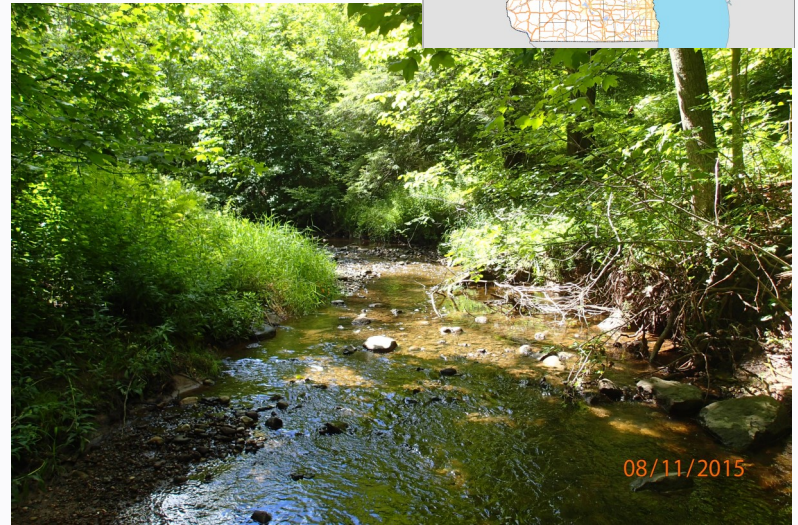
## Trout Creek 2015 (EGAD 3200-2018-73)



### Watershed Details

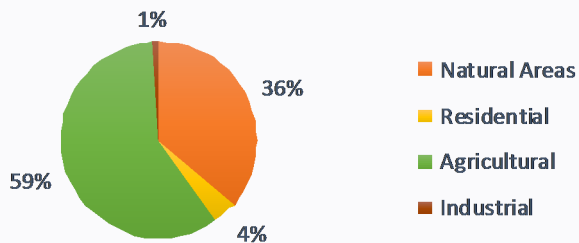
The Trout Creek watershed in Outagamie/Brown County has agricultural land use in the headwaters transitioning to residential in the lower reaches until it drains into Duck Creek. In 1996, a priority watershed plan was developed for the Duck, Apple, and Ashwaubenon Creek watersheds, to address potential non-point sources of phosphorus and sediment.

Monthly water chemistry samples were collected by citizen monitoring volunteers from May to October. In addition, habitat, fish and macroinvertebrates surveys were conducted by the Wisconsin DNR at sites throughout the watershed to assess the physical and biological conditions of streams in the watershed.



Trout Creek Upstream CTH FF.

### Trout Creek Watershed Land Use



### Physical Habitat

Habitat within the five sites of Trout Creek rated as fair to good. The sampled stations were generally shallow with no developed pools. Fine sediments dominated the substrate composition at all sites except CTH U and CTH FF which contained a few rock riffle areas. Cover for fish was lacking at all sites except CTH U where cover for fish was present in adequate amounts.

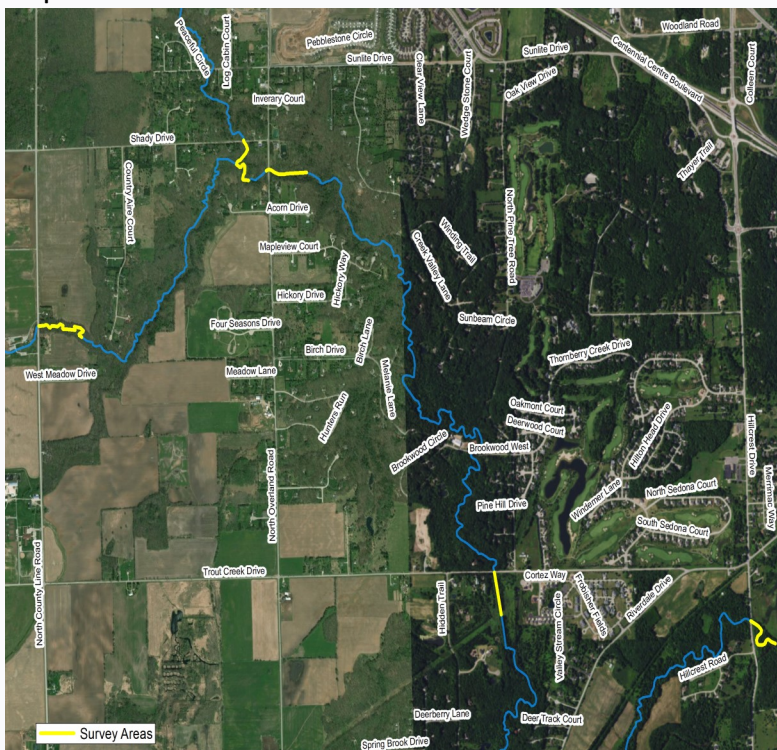
### Chemical

Total Phosphorus samples were collected at CTH FF and had a peak in June. During the growing season, Total Phosphorus concentrations exceeded Wisconsin's Water Quality Standard of 0.075 mg/L in five of the six samples.

### Biological

The five survey locations in the Trout Creek watershed yielded a total of 17 fish species. The Redside Dace, which were commonly captured, are intolerant to environmental degradation and are a special concern species. A small number of young of the year Largemouth Bass were captured at Trout Creek Road. Indexes of biological integrity (IBI) of fish data ranged from good to excellent. Macroinvertebrate samples were collected at two locations and Macroinvertebrate IBI scores were rated as fair to good.

### Map Of Trout Creek



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# Wisconsin Water Quality Handout

## Trout Creek 2015

### Management Recommendations

Hydrologic modifications and agricultural setbacks are two significant factors influencing water quality in the headwaters of the Trout Creek watershed. Opportunities should be taken to create natural stream meanders and provide undisturbed vegetated buffers. Soil Health principles should be adopted to improve infiltration along with sediment and nutrient retention on agricultural lands in the watershed. Throughout the urban development, landowners should perform soils tests before applying fertilizers and consider installing rain gardens to promote infiltration and reduce the rate of delivery of storm water to Trout Creek.

Trout Creek at CTH FF	May	Jun.	Jul.	Aug.	Sep.	Oct.	90% LCI-M*	WI WQ-STD
Total Phosphorus mg/L	0.0351	0.302	0.138	0.0766	0.0976	0.055	0.058	0.075

\*Wisconsin applies the lower 90% confidence interval around the median for Total Phosphorus impairment decisions.



Fish and Habitat Ratings			
Stream Site	Fish IBI	Habitat Rating	Macro invertebrate IBI
Trout Creek at CTH FF	Excellent	Good	—
Trout Creek at Trout Creek Road	Excellent	Good	—
Trout Creek at Overland Road	Excellent	Good	—
Trout Creek at CTH U	Good	Good	Fair
Unnamed Tributary to Trout Creek at Shady Drive	Good	Fair	Good

**Top:** Trout Creek above CTH U.

**Middle:** Eroded banks of Trout Creek upstream Overland Road.

**Bottom:** Trout Creek upstream CTH U.



Trout Creek upstream Overland Road.