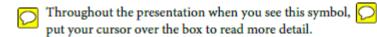
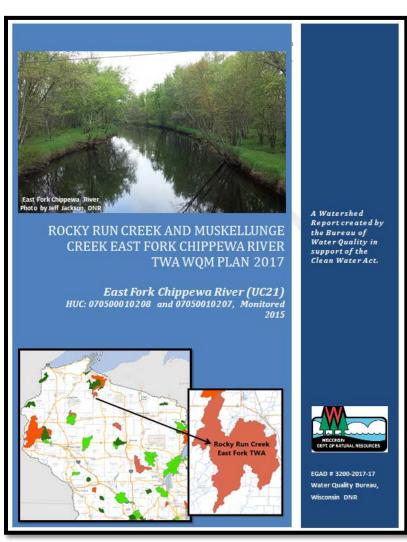
### Rocky Run and Muskellunge Creek East Fork Chippewa River TWA WQM Plan 2017

East Fork Chippewa River (UC21)



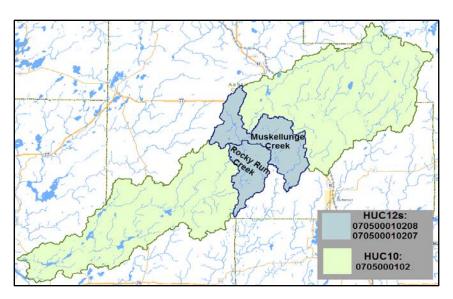
Jeff Jackson, DNR





Rocky Run and Muskellunge Creek TWA

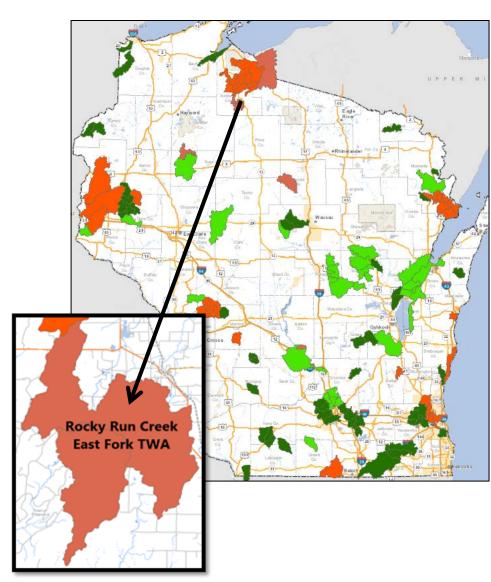
**Project Location** 



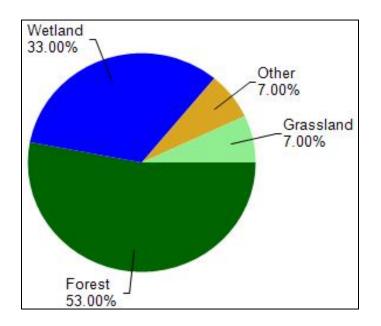
Rocky Run Creek
(HUC12: 070500010207)

 Muskellunge Creek (HUC12: 070500010208) TWA are shown within the

East Fork Chippewa River (HUC10: 0705000102).



### Land Use



The East Fork Chippewa River watershed (UC21) has 310.53 stream miles, 2,431.41 lake acres and 65,073.81 wetland acres. The landscape in the area is primarily forest (53%), wetland (33%) and a mix of grassland (7%) and other uses. The watershed has a small agricultural presence that is dominated by grass fields and few row crop fields.

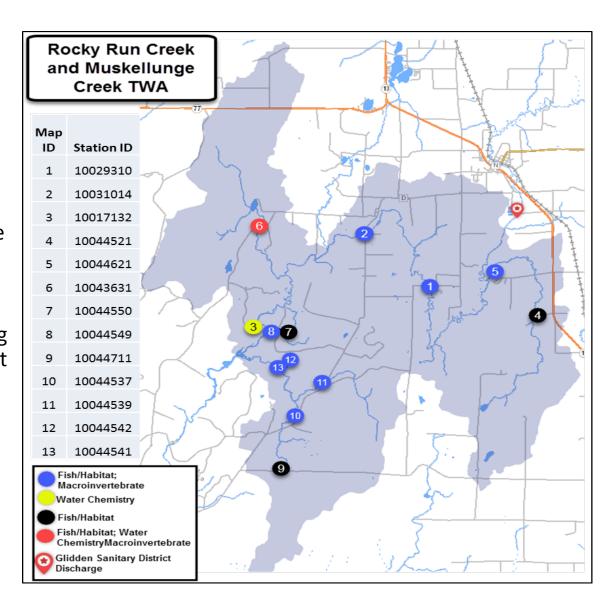






## Purpose

- Collect baseline physical, biological, and chemical water quality data in Rocky Run and Muskellunge Creek to fill gaps for assessments and to verify the health and condition of the watersheds.
- The data will be used for management activities including updating waterbody assessment status (i.e. future monitoring work for 303(d) or ERW/ORW recommendations), making management (restoration or protection) recommendations, updating water and watershed narratives and for watershed planning.





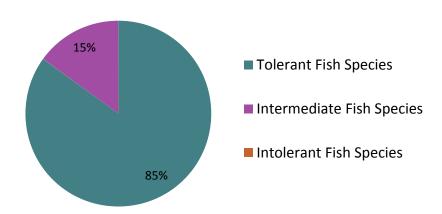
# **Overall Study Results**

| Map ID | Station<br>Number | Station Name   | Natural<br>Community   | Fish IBI | Fish<br>Rating | Habitat<br>Score | Habitat<br>Rating |
|--------|-------------------|--|------------------------|----------|----------------|------------------|-------------------|
| 1      | 10029310          | East Fork of Chippewa River 55m US<br>Bay Rd                   | Cool-Warm<br>Main Stem | 70       | Excellent      | 53               | Good              |
| 2      | 10031014          | East Fork of Chippewa River US Bay<br>Rd                       | Cool-Warm<br>Main Stem | 100      | Excellent      | 95               | Excellent         |
| 4      | 10044521          | Dorns Cr. US Hank<br>Bucheger Road.                            | Cool-Warm<br>Headwater | 50       | Fair           | 53               | Good              |
| 5      | 10044621          | Dorns Creek 575m US E.F. Chippewa<br>River Confluence          | Cool-Warm<br>Headwater | 30       | Poor           | 72               | Good              |
| 6      | 10043631          | Muskellunge Creek DS<br>Forest Road                            | Cool-Warm<br>Headwater | n/a      | n/a            | 65               | Good              |
| 7      | 10044550          | Unnamed Trib to East Fork Chippewa<br>River 10m US Kenyon Road | Cool-Warm<br>Headwater | n/a      | n/a            | 58               | Good              |
| 8      | 10044549          | Unnamed Trib East Fork of Chippewa<br>River 110m DS Kenyon Rd  | Cool-Warm<br>Headwater | 20       | Poor           | 63               | Good              |
| 9      | 10044711          | Unnamed Trib to Rocky Run Creek<br>130m DS Bear Lake Road      | Cool-Warm<br>Headwater | 0        | Poor           | 68               | Good              |
| 10     | 10044537          | Rocky Run 1280m DS of<br>Right of Way Road                     | Cool-Warm<br>Headwater | 90       | Good           | 63               | Good              |
| 11     | 10044539          | Unnamed Trib Rocky Run Creek<br>DS Right of Way Road           | Cool-Warm<br>Headwater | 50       | Fair           | 53               | Good              |
| 12     | 10044542          | Unnamed Trib to Bay<br>Spring 20m us Confluence                | Cool-Cold<br>Headwater | 80       | Good           | 58               | Good              |
| 13     | 10044541          | Bay Spring Creek DS<br>Bay Spring Pond                         | Cool-Cold<br>Headwater | 60       | Fair           | 38               | Fair              |



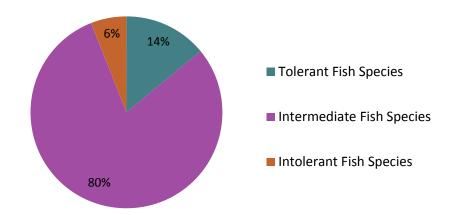
## Study Results – Fish Assemblage

#### Fish Assemblage in Tributaries



The most common fish species collected from the headwater tributaries were creek chub, brook stickleback, white sucker, central mudminnow and fine scale dace.

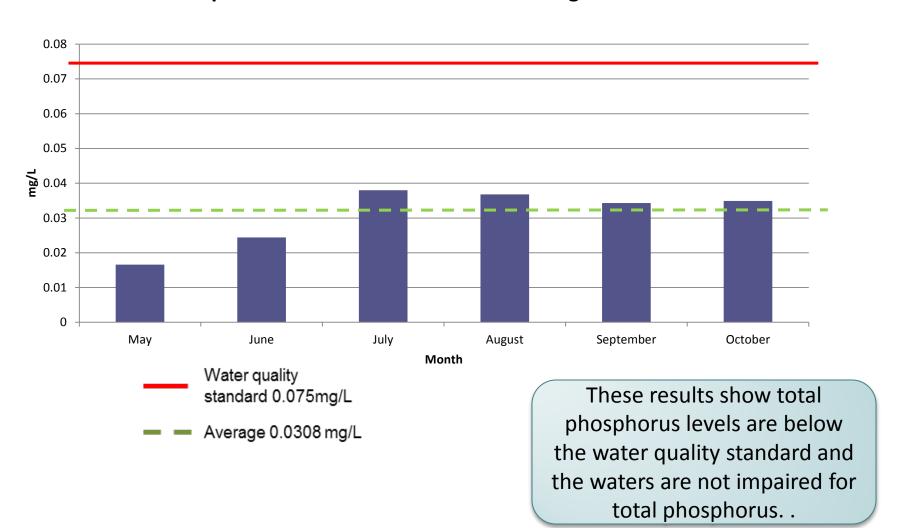
#### Fish Assemblage in E.F. Chipewa River



The most common fish species collected from the two mainstem sites were burbot, blackside darter, common shiner, central mudminnow, fantail darter and longnose dace.

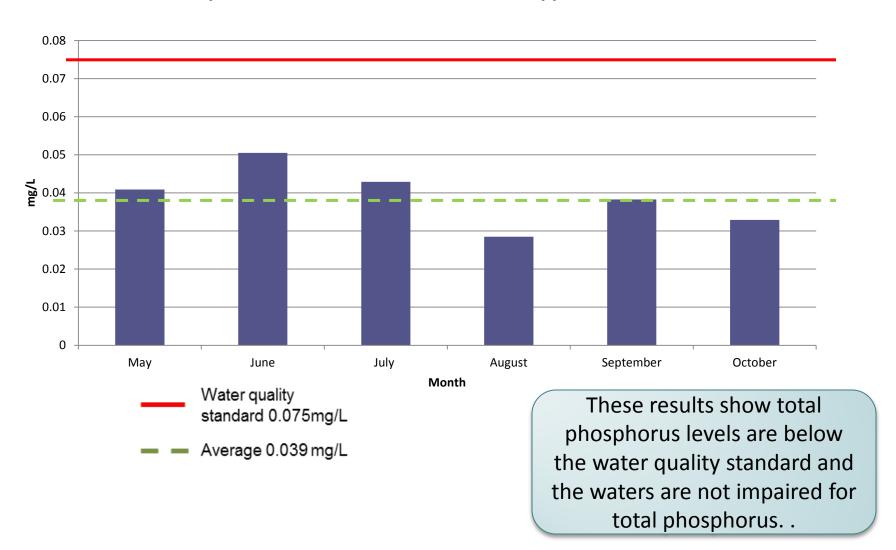
## Study Results – Phosphorus

#### **Phosphorus Concentration on Muskellunge Creek**



## Study Results – Phosphorus

#### **Phosphorus Concentration at East Fork Chippewa River**





### Recommendations

- Ensure that <u>Wisconsin's Forestry Best Management Practices</u> (BMPs) for Water Quality are implemented with partners.
- Maintain culverts and conduct periodic culvert audits to verify adequate water flow, confirm the avoidance of excessive sedimentation, and determine allowable fish passage.
- Manage Beaver populations in designated trout waters with potential partners DNR, US Forest Service.

## **DNR Monitoring Recommendations**

- DNR should re-assess waters managed for trout within these watersheds. No trout were collected during this study.
- DNR should consider a thermal study with continuous temperature probes to evaluate the cold water potential of managed trout waters in these watersheds.
- DNR should re-survey Muskellunge Creek for fish to reevaluate the fish community.
- DNR should re-survey Dorn's Creek for fish to re-evaluate the fish community.

### For more information

#### **Contact:**

- Tom Aartila, Jon Kleist, or Jeff Jackson, Northern District
- Link to the <u>TWA WQM Plans website</u>
- Link to <u>Draft Report</u>

