

Stream Classification of an Unnamed Tributary to
Trout Creek, Outagamie County

By: Dennis C. Weisensel

Introduction

A stream classification study was conducted on an unnamed tributary to Trout Creek in Section 16, T. 24 N., R. 19 E., Outagamie County on September 17, 1980. The purpose of the study was to classify the stream in accordance to Wisconsin Administrative Code NR 104 so that effluent limits could be determined.

Trout Creek begins its flow in Section 19, 1½ miles southwest of the proposed discharge area. Trout Creek is a hard water tributary to Duck Creek. Common substrate of the creek is silt, rubble and gravel. There is some history of a marginal trout fishery. Pasturing and agricultural row cropping occurs up to the banks in many areas and has a detrimental effect on the water quality.

Subject

Three stations were established on Trout Creek in the vicinity of the proposed discharge. Station #1 is located at CTH "U" downstream from the proposed discharge.

Stations #2 and #3 are located on Olson Road. Station #2 is on a tributary to Trout Creek.

Station #1

Above this station the creek is a ditched agricultural drainageway. It is rather straight lined curving only broadly as it was dredged. Below the station, the stream is buffered by wooded areas. It meanders naturally and creates distinctive pool-riffle areas. The stream at this point is 3' wide and ranges in depth from 6" to over 1' deep in the pool areas. Macroinvertebrates present were Simulium, Tabanus, Chironomids, and Baetis mayflies. Several minnows were also collected. The minnows that were present were Clinostomus elongatus (Red Side Dace), Pimephales vigilax (Bullhead Minnow), Chrosomus erythrogastor (Southern Red Belly Dace), and Etheostoma nigrum (Johnny Darter). Fisheries records indicate the presence of minnows, darters, white suckers, red side dace and green sunfish in Trout Creek. The flow at CTH "U" was 1.3 C.F.S.

Station #2

This station is located on Olson Road. It is a tributary to Trout Creek. The creek in this area was recently dredged. The flow was barely discernible and this portion of the creek would normally be dry during the summer time. The surrounding area was used for agricultural row crops which occurred up to its banks. The substraight was silt and fine sands.

Station #3

The stream in this location is a continuation of the dredged agricultural drainage ditch. It continued to be straight lined with uniform bottom failing to create natural pool-riffle areas. The bed of the stream contains heavy growths of cattails and sedges. The substraight is silt and organic detritus. Agricultural practices occur up to the streambank. The flow was .12 C.F.S. The creek is 3' wide and ranges in depth from 3" to 6".

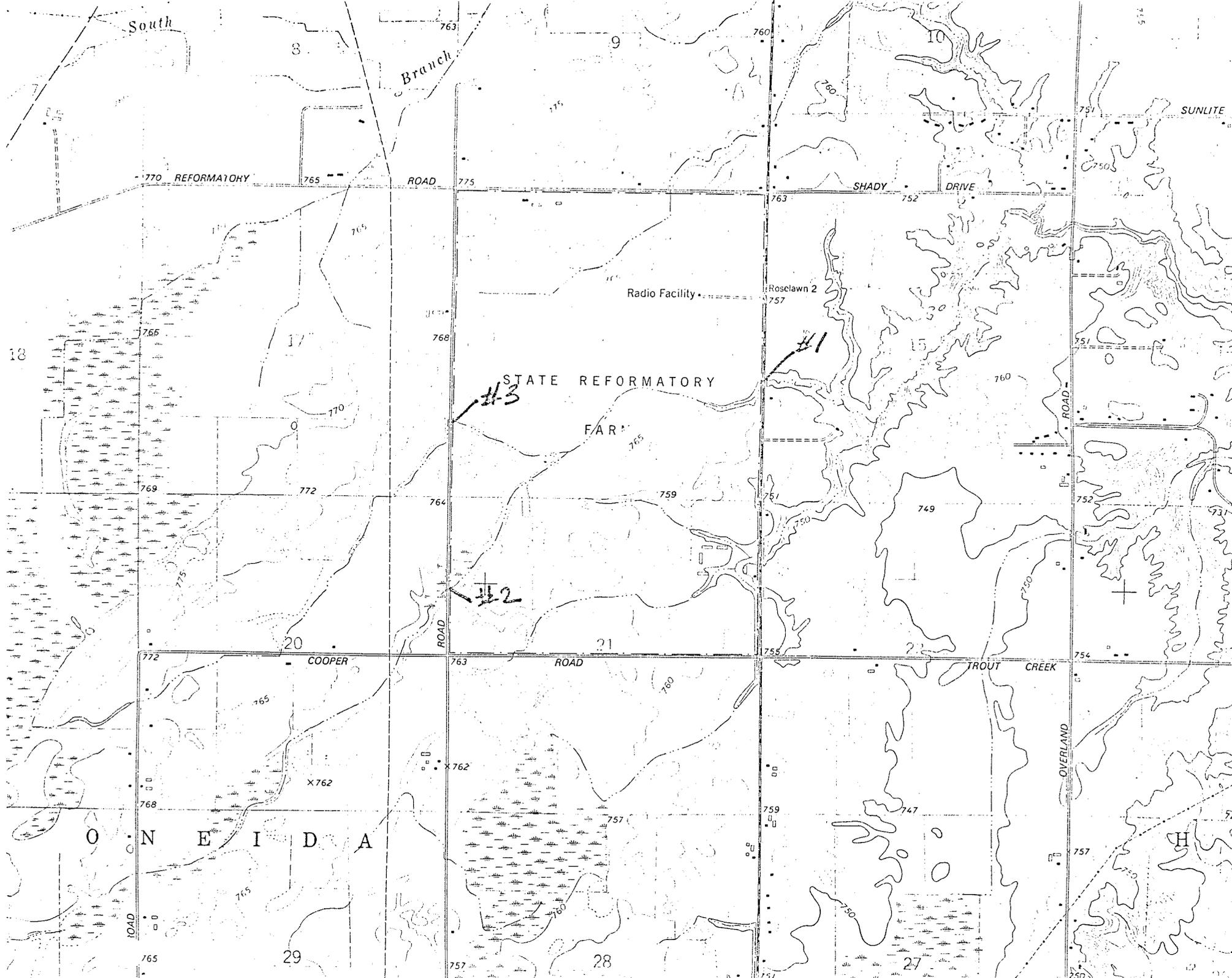
Conclusion

Trout Creek has a significant flow in the area of the proposed discharge. The presence of Clinostomus elongatus indicates that cool water temperatures prevail throughout the year. This species is considered rare and intolerant of fluctuations in water temperatures. The Department of Natural Resources Office of Endangered & Nongame Species has Clinostomus elongatus on Wisconsin's species watch list. Any change in water quality or fluctuation in water temperatures could have a detrimental effect on the Clinostomus elongatus population in Trout Creek.

Recommendation

I am recommending that no discharge of any type be allowed to the headwaters of Trout Creek. All portions of Trout Creek from the beginning of the headwaters to its confluence with Duck Creek shall meet stringent fish and aquatic life criteria under continuous flow conditions.

DCW:sh
9/30/80



South

Branch

770 REFORMATORY

ROAD 775

SHADY DRIVE

Radio Facility

Roselawn 2
757

STATE REFORMATORY

FARM

18

17

20

21

COOPER

ROAD

TROUT CREEK

OVERLAND

O N O N D A

H

ROAD

29

757

28

27

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: September 23, 1980

File Ref: 3200

To: Central Office-Madison

(Tom Bennwitz - WR/2)

From: Dennis C. Weisense



Subject: Classification of an Unnamed Tributary to Trout Creek in Outagamie Co.

On September 17, 1980, I reviewed the tributary stream to Trout Creek in Section 16 and 21, T24N, R19E, Outagamie Co. Three stations were examined. Station #1 is located at CTH "U" and Stations #2 and #3 are located on Olson Road.

The flow at Station #1 was 1.3 CFS. Station #3 had a flow of .12 CFS. Macro invertebrates present at Station #1 were Simulium, Tabanus, Chironomids and Baetis. Foraging minnows were also found at this Station. Those present but not a complete list were Bullhead minnow, Johnny Darter, Southern Red belly dace and Redside dace. Redside dace is on Wisconsin's species watch list. It is considered rare in the Lake Michigan drainage area and needs exacting habitat requirements.

I am recommending that no discharge of any type be allowed to the head waters of Trout Creek. All portions of Trout Creek from the beginning of the head waters to its confluence with Duck Creek shall meet stringent fish and aquatic life criteria under continuous flow conditions.

DCW:cs

cc: David A. Hildreth

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

June 3, 1980

File Ref: 3200

To: Charles Higgs - L.M. District, Green Bay

From: Tom Kroehn - Administrator,
Division of Environmental Standards

Tom

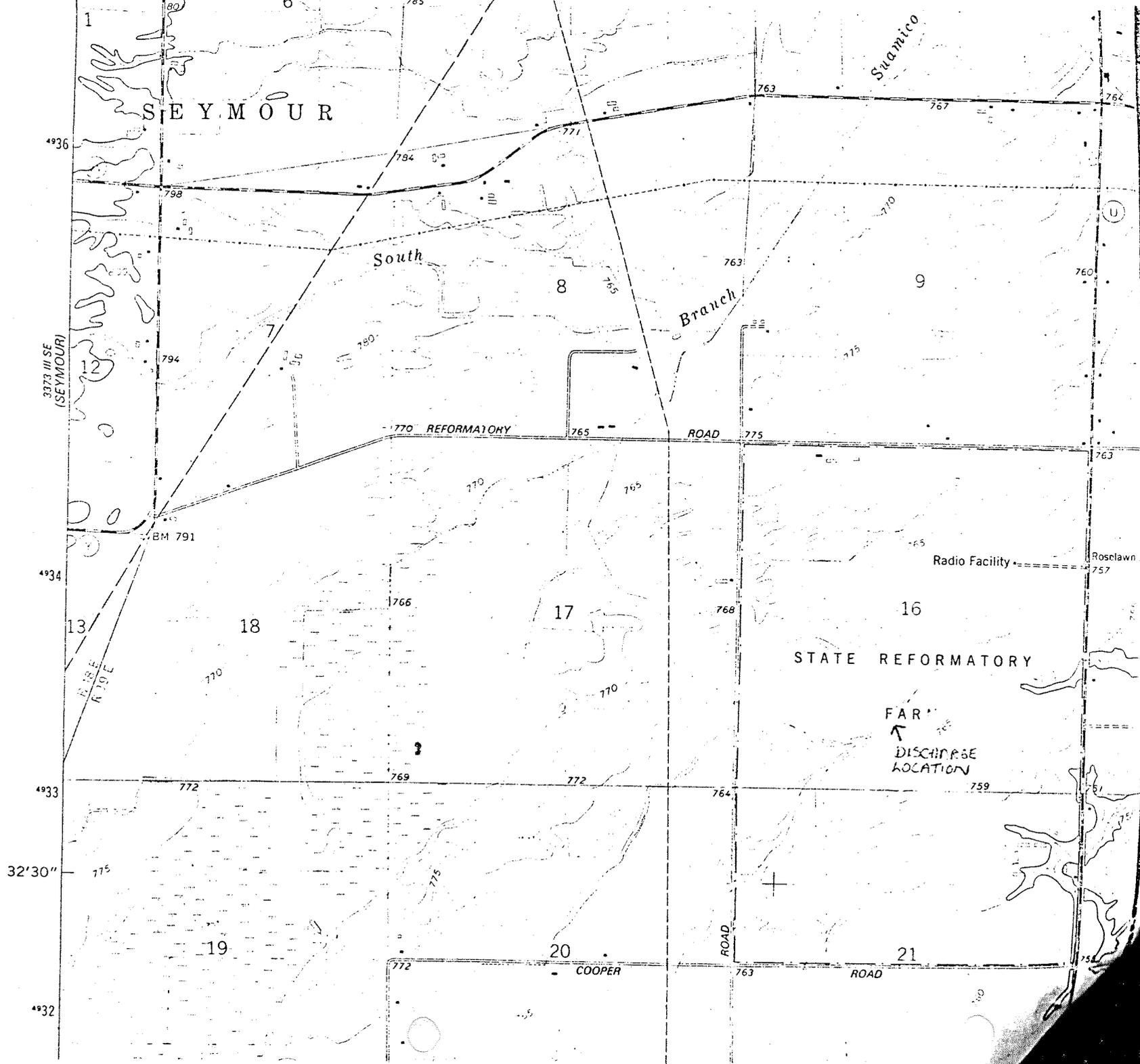
Subject: Classification of an Unnamed Tributary in Outagamie County

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Lake Mich. Dist.

In order to determine effluent limits for a proposed discharge to an unnamed tributary, it will be necessary for the Lake Michigan District to conduct a classification for this tributary. The stream is located in Sections 16 and 21, T24N, R19E, Outagamie County. The enclosed map will show the stream and proposed discharge site.

Please have results sent to Becky Wallace of the Water Quality Evaluation Section.

Attachment



STATION #1 FACING UPSTREAM

