



FISHERIES WARMWATER STREAM RECONNAISSANCE REPORT

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|--------------------------|--------------------------|---|---|-------------------------------------|
| REGION 5 | AREA Lake City | STREAM NAME Pearl Creek | TRIBUTARY NO. M-34-49-39 | LENGTH 3.7 mi. |
| COUNTY Goodhue | | WATERSHED NAME, NO. Zumbro River - 41 | SOURCE (T.R.S) T109N R18W S14 | MOUTH (T.R.S) 109N 18W S3 |

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| DATE(S) OF ASSESSMENT: 9/5, 9/6, and 10/22/02 |
| ASSESSMENT PURPOSE: Reconnaissance to assess non-game/minnow species presence-absence and to assess current stream conditions. |

| SIMILAR REACH * | STATION | STREAM MILE | LENGTH | AVE. WIDTH (ft) | ACRES |
|-----------------|---------|-------------|---------|-----------------|-------|
| I | Various | 0.0 -.84 | Various | 13.6 | ---- |
| II | Various | .84 - 2.2 | Various | 10.3 | ---- |
| | | | | | |

*From Initial Survey

DISCUSSION:

STREAM MILE 0.0 - .8 (abandoned trestle bridge): This portion of the stream gently meanders through a shaded corridor that has been encroached upon by old and new residential development. In-stream habitat for small non-gamefish is good, with a variety of pool/riffle sequences comprised of gravel, sand, boulder, and to a larger extent, ledge rock closer to the mouth. Overall, habitat is spatially small, limited to serving as perhaps some spawning and nursery habitat for gamefish such as smallmouth bass.

STREAM MILE .8 - 1.7: From the trestle bridge upstream to about mile 1.7, the stream was about 8-12 feet wide, with bottom substrates comprised mostly of sand, silt and boulders. Riffles were short and very steep, and almost always comprised of flat, fractured limestone. Between riffles, pools and slow moving runs were teeming with minnows. The immediate riparian corridor consisted of tall reed canary grass meadow - an excellent nutrient buffer from surrounding cropland. From these meadow areas, spring seepage was common. Fish cover habitat was usually in the form of overhead bank cover. In some cases, banks were undercut 2-3 feet, with reed canary grass overhanging and in the water.

STREAM MILE 1.7 - 2.4 (END): From mile 1.7 upstream to the NE quarter of section 15, the presence of flowing water is not evident unless you are standing in the channel. Reed canary grass and willow brush is so thick and overhanging that the stream is barely detectable. Channel width is no more than 2.5 feet wide, with substrates comprised mostly of gravel and rubble. Minnows are present, though not nearly as abundant as downstream. Tributary M-34-49-39-2 contributes the most flow to the main channel, as tribs 1 and 3 were dry.

Stream: Pearl Creek

Date: 2002

FISH SAMPLING SUMMARY

| Gear | 1 Backpack | 1 Backpack | | | | |
|---------------------|------------|------------|--|--|--|--|
| Date | 10/22/02 | 10/22/02 | | | | |
| Location (Mile) | .3 | .8 | | | | |
| Effort | 200 ft. | 70 ft. | | | | |
| Blacknose dace | 42 | 10 | | | | |
| Common shiner | 22 | 3 | | | | |
| Bigmouth shiner | 14 | | | | | |
| So. Redbelly dace | 59 | 29 | | | | |
| Fathead minnow | 5 | | | | | |
| Creek chub | 61 | 7 | | | | |
| Central stoneroller | 204 | 10 | | | | |
| Redside dace | 4 | | | | | |
| Bluntnose minnow | 13 | 11 | | | | |
| Hornyhead chub | 9 | | | | | |
| White sucker | 3 | 11 | | | | |
| Fathead minnow | 5 | 7 | | | | |
| Johnny darter | 5 | | | | | |
| Fantail darter | 2 | | | | | |
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SUMMARY

The landowner immediately downstream from the old trestle, LAB, maintains that Pearl Creek flows "year-round". He also claims to have caught trout in the creek (breeding male creek chubs?). Based on the habitat found during this survey, Pearl Creek could possibly hold brook trout if water temperatures could be improved. Good overhead bank cover is available, but current species present suggest this stream is of the "warmwater" variety. Better surrounding land use, and increased shading in similar reach II would improve water quality. The most important function of Pearl Creek at this time is low flow augmentation to the North Fork Zumbro River.

Credits and Signatures:

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|--|--|------|
| Field Crew: Al Schmidt, Eric Merten | | |
| Report Completed by: Al Schmidt | | |
| APPROVED BY: | | |
| Area Supervisor's Signature <i>Al Schmidt</i> 3-28-03 | Regional Fisheries Manager's Signature | Date |