EXECUTIVE SUMMARY

MILL CREEK FISHERY DEVELOPMENT: EDUCATION, RESEARCH, AND RECREATION: A PROPOSAL TO DEVELOP A TROUT FISHERY IN MILL CREEK

A PROJECT OF THE ANN ARBOR CHAPTER OF MICHIGAN TROUT UNLIMITED

A REPORT PREPARED BY THE MILL CREEK FISHERY DEVELOPMENT COMMITTEE:
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In 2006, the Ann Arbor Chapter of Trout Unlimited began a search in the chapter's home stream area, the middle reach of the Huron River and its watershed, for coldwater stream habitat where it could work to establish a public trout fishery. We initially focused our search on the Huron River because a MDNRE report characterized the Huron River between Baseline (Flook) Dam and Dexter as second-class coldwater habitat capable of supporting trout. Temperature recorders we set in this reach of the river in summer 2006 showed that water temperatures exceeded lethal limits for trout in July and August, however, a recorder set in Mill Creek near its confluence with the river suggested that if the Dexter Millpond Dam was removed trout could have survived over summer in the creek at Dexter.

The Dexter Millpond Dam was removed in 2008 and in summer 2009 we set temperature recorders in the Lower Main Branch of Mill Creek between the Huron River and Steinbach Road .This 4.5-mile reach of the creek is large enough to be easily waded or floated and to generally provide a pleasant angling experience. Access to the lower 2 miles of the creek is assured because land on one or both banks of the creek is in public ownership. Temperature data from these recorders showed this reach of the creek could have supported substantial numbers trout during summer 2009.

In 2010, we set temperature recorders in the Headwaters, Middle, and Lower reaches of Mill Creek and in the creek's East Branch. Although July 2010 was the 18th hottest on record since 1880, temperature data from these recorders showed that Sharon and M-52 South in the Headwaters Reach; M-52 North, Scio Church, and Dancer in the Middle Reach; and Jerusalem in the East Branch could have supported substantial numbers trout during summer 2010.

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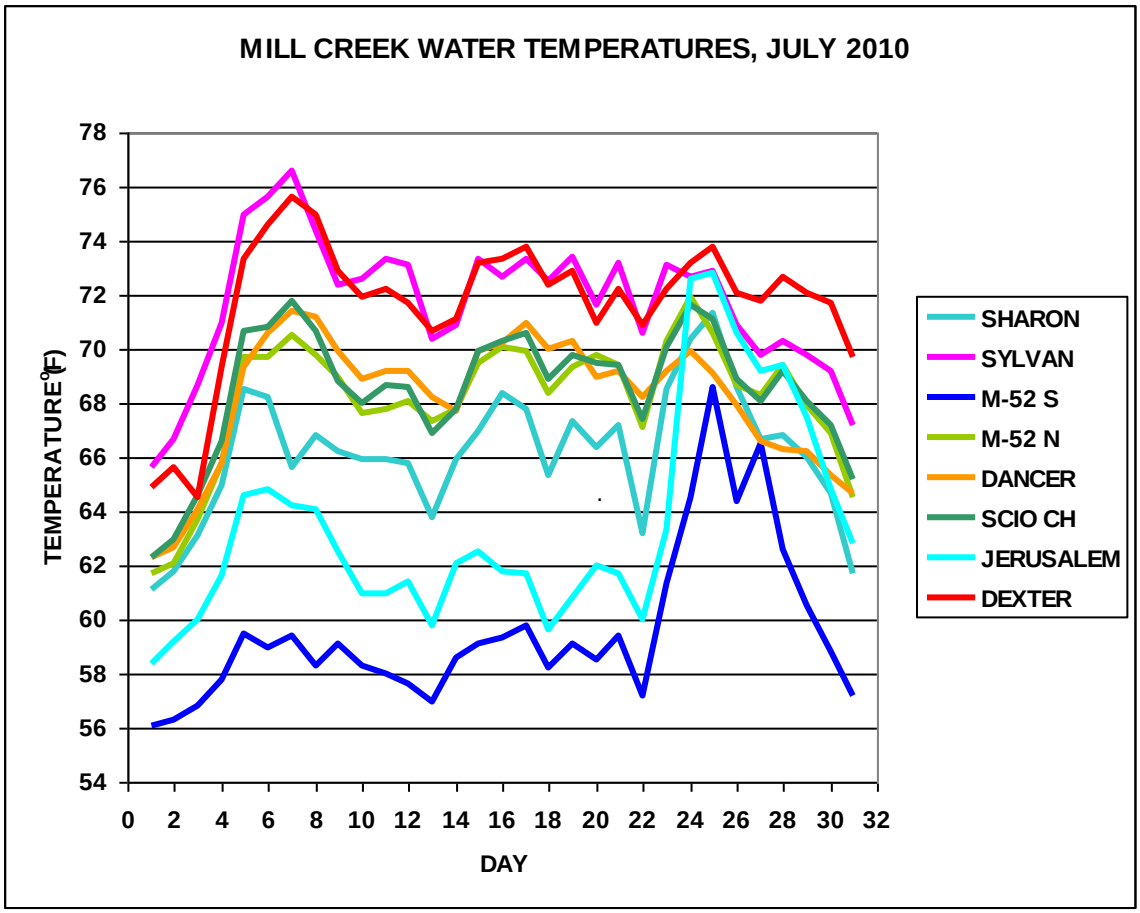

Exceptions were one Headwater site (Sylvan) below a millpond, and the Lower Reach site (Dexter), where temperatures exceeded those suitable for trout. However, trout occupying those sites had access to adjacent thermal refugia in the Middle Reach and the East Branch where their survival could be assured.

To expand our analysis of Mill Creek water temperatures we used the 2009 and 2010 Mill Creek water temperature data and air temperature data from the University of Michigan weather station in Ann Arbor to develop air-water temperature regressions that allowed us to estimate creek water temperature from air temperature for any previous year of record. This analysis, which we performed for the years 2001-2010, showed the Headwaters and Middle Reaches and the East Branch of Mill Creek could have supported substantial numbers trout in all 10 years, and that the Lower Reach and one Headwaters site could have supported fishable numbers of trout in at least 7 of those 10 years. Thus, we conclude that Mill Creek has substantial coldwater and coolwater habitat that could be managed to support an attractive public fishery based on stocked trout.

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