

STUDY FINAL REPORT

State: Michigan

Project No.: F-80-R-6

Study No.: 230736

Title: Response of an aquatic invertebrate community to reduced summer streamflows in a northern Michigan stream

Period Covered: October 1, 2004 to September 30, 2005

Study Objective: The objective of this study is to evaluate the response of the aquatic invertebrate community in Hunt Creek, Michigan to simulated irrigation withdrawals. Specifically, we wish to determine the effects of dewatering on aquatic invertebrate density, taxon richness, and functional feeding group composition. In addition, we wish to compare predicted changes in weighted usable area (WUA) from an Instream Flow Incremental Methodology (IFIM) model (Baker and Coon 1995) to observed changes in the abundance of invertebrate families.

Findings: Only jobs 5 and 6 were scheduled for 2004-05, and progress is reported below.

Job 5. Title: Publish research manuscript(s) as journal article or Fisheries Division technical document.—Results of this study are published as:

Wills, T. C., E. A. Baker, A. J. Nuhfer, and T. G. Zorn. 2005. Benthic macroinvertebrate responses to reduced summer streamflows in a northern Michigan stream. Michigan Department of Natural Resources, Fisheries Research Report 2081, Ann Arbor.

Job 6. Title: Write final report.—This report was prepared.

Literature Cited:

Baker, E. A., and T. G. Coon. 1995. Comparison of predicted habitat change and benthic macroinvertebrate response to a simulated irrigation withdrawal in Hunt Creek, Michigan. Michigan Department of Natural Resources Fisheries Research Report 2019, Ann Arbor.

Prepared by: Todd C. Wills

Date: September 30, 2005