STUDY FINAL REPORT

State: Michigan **Project No.:** F-81-R-1

Study No.: 678 **Title:** Development of location-specific reference conditions for stream biocriteria

Period Covered: October 1, 1999 to September 30, 2000

Study Objectives:

1) To develop location-specific, predictive models for biocriteria metrics (e.g., characteristics of fish or invertebrate communities) for Lower Peninsula streams. Models will link response variables to landscape variables using comparative analyses across a geographically-broad data set; similar to the approach used in earlier Study 631 (Seelbach and Wiley 1997; Zorn et al. 1997).
2) To demonstrate the development of predicted reference conditions for a selected set of river valley segment units, as delimited by Seelbach et al. 1997.

Summary: Development of an approach for modeling location-specific reference conditions for stream biocriteria using landscape data (Objective 1, Jobs 1-4) was completed and reported in the following report to the U.S. EPA (who provided partial funding):

Wiley, M.J., P.W. Seelbach, and P. Rentschler. 2000. Feasibility of explicitly modeling ecological reference conditions for Michigan streams using landscape data. Final Report to U.S. EPA, Water Quality Criteria Program, Grant X985499-01-0.

Estimation of reference conditions for specific river valley segments (Objective 2, Jobs 5-6) was not completed, due to re-assignment of the principle investigator to other duties.

Prepared by: Paul W. Seelbach
Date: September 30, 2000