

STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-80-R-4

Study No.: 722

Title: Implications of lakeshore development for fishery resources in Michigan

Period Covered: October 1, 2002 to September 30, 2003

Study Objectives: Develop models integrating information from the literature and from new data collections to predict the response of fish populations and communities to lakeshore development.

Summary: A review of the literature indicates that very little peer-reviewed information is available on this topic. The current literature provides a weak scientific basis for making regulatory recommendations for proposed shoreline development. An initial modeling framework to address this issue has been developed, and will continue to be refined.

Findings: Jobs 1, 2, and 5 were scheduled for 2002-03, and progress is reported below.

Job 1. Title: Review literature.—A literature search was conducted using the Aquatic Science and Fisheries Abstracts (ASFA) database. Very few references were found focusing on the impacts of lakeshore development of fish or fish habitats. The principle topics addressed include effects of lakeshore development on woody material, and the impact of shoreline modification on littoral fish community composition.

Job 2. Title: Develop initial modeling framework.—Conceptual modeling and past experience has led to the development of a draft manuscript, outlining a modeling approach for linking fish population dynamics to habitat conditions.

Job 5. Title: Prepare annual report and communicate program results.—This progress report was prepared. A draft manuscript will be submitted for publication in a peer-reviewed journal.

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Dated: September 30, 2003