

Report for 2001MI2581B: Legal, Financial, and Institutional Frameworks for Watershed Planning and Management

There are no reported publications resulting from this project.

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TITLE OF PROJECT: Legal, Financial, and Institutional Frameworks in Watershed Management, Module 4 in the Virtual Watershed Management Program, (<http://h2oshed4.vu.msu.edu>).

Introduction

In order to be successful, watershed managers throughout the world must understand and work within complex legal, institutional, and financial frameworks. The breadth and variety of international, federal, state, sub-state, and local laws, policies, and programs can be overwhelming. This fourth module in the Virtual Watershed Program introduces the *key legal, financial and institutional dimensions* of watershed management in the United States. While we use many Michigan examples, the information and resources can be used in any U.S. state. We have also tried to make the course relevant for international learners by focusing course work around the completion of a key legal, financial and institutional dimensions *watershed strategy* that can be used anywhere in the world.

Objective

This course is designed to give students a practical understanding of:

- The types of information that need to be gathered to address watershed issues;
- The institutional structure surrounding watershed issues;
- A basic understanding of how to find the laws that apply to the issues-such as eutrophication, nonpoint source pollution, and habitat loss- that need to be addressed;
- How to reach and get information from federal, state and local decision-makers about problems in your watershed;
- The types and sources of funding you might be able to utilize for problems in your watershed;
- How to understand and address conflicts in watershed issues.

Approach

This isn't strictly a book-learning course. Students connect to the watershed in which they live or work. While we cannot be there we encourage students to contact others in the watershed community. We will do this through students' main unifying assignment by studying an actual watershed strategy for a river or lake of choice. In the process of

studying that strategy students will talk to others, learn about actual plans and issues facing the watershed, and critically examine the strategy in use. As students learn new concepts - or apply those from previous modules - they will integrate them into their study. Homework assignments will help students collect information and gather data that can be used in study and analysis.

For the first assignment students will pick a watershed and begin to determine the pressing issues in that area. For this module they will focus on addressing just one or two of those pressing issues. If the investigation shows that the watershed is pristine with no known problems, a student would focus attention on finding the institutions, laws, and programs to prevent problems. Alternatively, if a watershed is degraded or impaired students would want to examine those factors that led to that condition. However, if students find an effective ongoing management activity in the watershed they would want to examine that activity and possibly suggest ways the process might be improved. The student may even want to tackle something that is not being addressed. For example there may be an ongoing effort to address TMDLs associated with nonpoint source pollution, but no effort to address aquatic nuisance species.

The staff of the Institute of Watershed Research, with contributions from outside expert contributors, prepared and initiated the fourth and final course in the Virtual Watershed Management series. The course was offered as Resource Development 891, Special Topics with nine students enrolled. All nine students were experienced professionals in watershed management representing several agencies or were advanced graduate students in MSU's resource departments.

The course, entitled, "Legal, Financial, and Institutional Frameworks in Watershed Management" consisted of 13 weekly lesson units, a midterm and final examination. Weekly unit topics included A History of Water Pollution Control in Michigan, 1890-2002; Socioeconomic Issues in Watershed Management; Understanding Watershed Conflicts; Phase II Stormwater Rules; Developing Local Policies; and Great Lakes Policy and Institutions. The course also included an on-going assignment requiring the students to examine their home watersheds in terms of the topics of the weekly lesson then prepare a brief but thorough description of how the various socioeconomic issues, conflicts and local policies applied to their home areas.

Eight of the lesson units were prepared by expert professionals working in some area of watershed management. These experts included: Mr. David Dempsey, Michigan Environmental Council; Dr. John Kerr, MSU Department of Resource Development; Dr. Karen Vigmostad, MSU Institute of Water Research; Mr. Fred E. Cowles, P.E. of the Michigan Department of Environmental Quality; and Dr. Michael J. Donahue of the Great Lakes Commission.