Section 1:

Introduction

"You've got to protect the natural resources for the benefit of the state for years and years ahead of us … not just for my generation but for many, many future generations."

– *Willard Munger*

Volunteer citizen water monitoring is a critical component in understanding and educating Minnesotans about water quality issues. This guide provides information so you as a volunteer can play an important role in monitoring and protecting Minnesota's water resources.

A few decades ago, U.S. waters were becoming alarmingly impaired by pollutants. Then, in 1972, responding to citizens' pressure to clean up U.S. waters, Congress passed the Clean Water Act (CWA), with a mandate to protect and restore the physical, chemical, and biological integrity of our nation's water. That legislation gave agencies, local governments, environmental groups, universities, citizens and other organizations the clout to create legislation to implement and enforce the Act.

Progress has been made, but there is still a long way to go, especially in states like Minnesota, which has more surface water than any other state in the lower 48.

One of the challenges still facing water resource managers is a lack of the data necessary to understand the

Volunteer monitors supplement work of scientists

In Minnesota, volunteers have responded generously and enthusiastically with their time and energy. Information provided by volunteer water monitors, for example, helps scientists to use high-tech satellite imaging to determine how clear Minnesota lakes are. Computer researchers take digital satellite pictures of Minnesota and measure the light that's reflected off the lakes. But the information they gather from the satellite pictures would not be usable without the data provided by volunteer monitors. These volunteers lower a simple measurement device called a Secchi disk into the water at scheduled periods and report their findings to scientists at the University of Minnesota. Using these volunteer readings, the scientists can "ground-truth" the satellite results.

Source: ***http://www.water.umn.edu***