

Why Remote Sensing of Water?

Protecting the quality of our lakes and rivers is an important societal goal, but because of high costs, only a small fraction of these resources can be monitored by ground-based methods. Satellite imagery can measure such key water quality metrics as chlorophyll, turbidity, dissolved organic matter and water clarity (Secchi depth) on virtually all lakes at low cost, greatly expanding on information available from ground-based monitoring. This site describes on-going and past studies by our interdisciplinary group to develop effective satellite imagery procedures for surface water quality assessments. Our work seeks to greatly expand the use of these procedures, not only by research scientists but also by water management agencies and interested members of the public, with the long-term goals of improving societal knowledge and understanding of Minnesota's surface water resources and helping to improve data-driven resource management.