



A.T. Smithson: *Passages*, 1992

Lake Management Plan for VanVliet Lake, Vilas County, Wisconsin

June 2005

Prepared by Steve McComas, Blue Water Science
with contributions from Wisconsin Department of Natural Resources
and the VanVliet Lake Association

Funded in part by the Wisconsin Lake Management Planning Grants Program

ACKNOWLEDGMENTS

Members of the VanVliet Lake Association and many others contributed in various ways to the work effort on the projects that formed the basis for this Management Plan. They include:

VanVliet LAKE CONTRIBUTORS TO THIS STUDY:

Steve and Linda Smithson
Tom Olson
Steve and Nancy Frank
George Kupfer
Jeff Burke
Jill Wilm
Dick and Carol Novak
Jim and Kathy Sprester
Barb Novak

OTHER CONTRIBUTORS:

Wisconsin DNR
Jim Vennie

University of Wisconsin - Trout Lake Station

Lake Management Plan for VanVliet Lake, Vilas County Wisconsin

Table of Contents

	page number
Summary	i
1. Introduction and Project Setting	1
2. Glaciers and soils	2
3. Watershed Features	3
3.1. Drainage area and land use of VanVliet Lake	3
3.2. Source of water and nutrients to VanVliet Lake	5
3.3. Shoreland inventory	6
3.4. Wildlife inventory	11
3.5. Groundwater and on-site wastewater treatment systems	12
4. Lake Features	16
4.1. Lake map and lake statistics	16
4.2. Dissolved oxygen and temperature	18
4.3. Lake water quality summary	20
4.3.1. Secchi disc transparency	21
4.3.2. Total phosphorus	22
4.3.3. Chlorophyll	23
4.4. Algae	24
4.5. Zooplankton	25
4.6. Aquatic plant status	27
4.7. Fishery status	35
5. Lake and Watershed Assessment	36
5.1. Lake questionnaire results	36
5.2. VanVliet Lake status	38
5.3. Nutrient inputs to VanVliet Lake	40
5.4. Setting water quality goals for VanVliet Lake	41
5.5. Significant findings and water quality strategy	44
6. Lake Management Plan for Protecting the Lake Environment	45
1. Watershed projects	45
2. On-site system maintenance	46
3. Aquascaping projects	47
4. Aquatic plant projects	53
5. Fish management options	57
6. Ongoing education program	58
7. Watershed and lake monitoring program	60

Appendix

Appendix A: Special Project: Lake Sediment Testing