

Decline of a Primary Weed Nutrient in Cedarville Bay

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Summary: The concentration of phosphorus dropped fivefold in Cedarville Bay between 2003 and 2011. This significant decline in phosphorus was observed at three sites of a transect used during studies in 2003 and in 2011. Decreased phosphorus availability reduces the density of weed growth and improves water ecology as well as the recreational quality of Cedarville Bay waters. These findings reinforce that long term efforts to reduce nutrient contamination from the Clark Township Sewer Treatment Plant (STP) have been effective.

Three factors most likely contributing to decreased phosphorus levels are: (1) Use of iron chloride to efficiently bind with phosphorus and remove it from lagoon water at the Clark Township (STP); (2) Continued STP process improvement and (3) a 2010 dredge operation whereby several hundred tons of phosphorus-laden sediment were removed from navigation channel and boat launch area (Smith 2011).

Although phosphorus concentrations have dropped in Cedarville Bay the level needs to be decreased at least tenfold more to bring the trophic status to a desirable range for improved ecology and recreational use.

(To view the complete report, go to the Les Cheneaux Watershed web site “Resource Library”. The report is available under “Reports and Studies – Water Quality”).