

Summary Responses From 6 Lakes (Note not all questions were answered)

Questions Regarding Using Aeration To Restore Your Lake

1. Name of contact: _____
2. Contact phone number: _____
3. Lake name: Maple, Paradise, Wing, Shorewood, Sherman and Indian
4. Location of lake (city or county): Paw Paw Village, Cheboygan Cty, Bloomfield Twp, West Bloomfield Twp, Kalamazoo Cty and Cass Cty
5. Size of lake in acres: 172, 1942, ? treat 10 in lagoon, ?, 140 and 500
6. Weed control used before the aeration system implementation?
 - a. Chemical treatments: 10 years of many chemicals, yes until aeration
 - b. Chemical treatments: redundant, not answered
 - c. Harvesting treatments (# of days/# of machines): 60 days, no, stopped after aeration, 1 harvester, once in 10 years
 - d. Other: Suction harvesting for 60 days, milfoil weevils, none, researched weevils and dredging which were too expensive
7. Aeration Contractor: Lake Savers (5) and Pond Guy (1)
 - a. Please give us an evaluation of their services. Would you recommend them for us? Lake Savers: Yes, great service; Yes enthusiastically; Yes excellent; Yes definite; Yes highly recommend most informative in country. Pond Guy is recommended.
8. Date of installation (month and year): 2012, 2012, fall 2010, may 2013, June 2013 and south bay 2008 and rest of lake 2012
9. Contract type (lease, outright purchase with scheduled maintenance): Purchase (1), Lease (5)

other: Pond Guy had a one year guarantee also
10. Size of system (number of aerators): 25 (add 25 more 2915), 3 compressors with 57 aerators, 4 compressors with 28 aerators, 1 compressor with 6 aerators, 29 lake and 6 channel aerators.
11. Whole lake system or partial: If partial, what % of lake is aerated: 22%, 500 acres or 25%, 10 acre lagoon, ?, whole lake and whole lake
12. First year cost: \$5500, \$90000, \$15000, \$7000 purchase 1 compressor and 6 aerators
13. Ongoing cost: \$3500 Paw Paw pays electricity, \$70000, \$8800, \$500 plus \$600 electricity
14. Any offsetting costs?
 - a. Reduced harvesting: (% and cost savings) No more harvesting in aerated areas (5)
 - b. Reduced chemical usage (% and cost savings) None in aerated areas (4)
 - c. Other: Dredging not needed due to loss of muck
15. Annual fee per riparian to cover all costs of managing the lake: \$200, \$500 for businesses and \$259 riparians, \$820 in aerated area, \$250, \$4 per foot.
16. Cost for electrical drop, trenching and other set up costs: Paw Paw paid, \$9513, \$7743, \$1500 drop only

17. Where is compressor located (private or communal property/feet from lake)? Public, 1 public and 2 private, 4 private, private, private and 3 private @ 40 ft, 300 ft and 700 ft.
18. Is compressor noise a problem, if so describe: No (6)
19. Is the owner of the compressor location compensated, if so how much: No (6)
20. What was your reason for aeration and what are the results in % improvement or some other measure?
- a. Reducing muck: Yes 24" in first year, 1"-6" in first year, High priority – reduced 2 feet in 5 years, major reason, effective
 - b. Reducing nuisance aquatic plant growth: Yes, milfoil now 150 acres from 500 acres in one year, no milfoil or starry stonewort, yes 55-60%, Yes milfoil struggling to live – almost as effective as herbicides.
 - c. Reducing algal blooms: : Yes, minor concern (2), herbicides created blooms - declining algal blooms with aeration, gone.
 - d. Water clarity: Yes, improved, excellent
 - e. Better fishery: Yes, reduced muck increases rock bottom and increases spawning areas, improved, not losing lures – bass tournament has bigger fish – more bluegill, absolutely
 - f. Reduce odors: Yes, no past and no current odors
 - g. Other: reduced weed interference with boats and recreation
 - h. Other: reduced muck is reducing lily pads
21. Have you seen any side effects from your implementation? (negative or positive) not really, more native plant diversity, nothing negative, no negative, only positive, reducing muck causes milfoil to uproot and aeration makes milfoil drop.
22. Do you have a consultant working with you? Restorative Lake Services (5), none (1)
- a. If yes please evaluate them and would you recommend them for us? RLS: Yes – overall satisfied, 6 years with RLS – like scientific approach and recommendations – all other consultants seem to recommend chemicals, Absolutely yes. Pond Guy is highly recommended
23. Do you use any biological augmentation such as:
- a. Nualgi Lakes Aerobic, which is diatoms to clean the water of nutrients and feed fish.
No 3 Yes 1 Name of product ? Cost per year ?
 - b. C-Flo Beneficial Bacteria and Clean & Clear Enzymes, which are bacteria and enzymes to eat muck on the bottom. No ? Yes 5 Name of product ?
Cost per year ?
24. Because of your experience will you continue your program? Yes, explain: Yes – it works, Yes – reduces nuisance plants and sediment, yes, yes – got rid of algae, yes – positive thorough review after three years, no reason to stop, Yes - residents happy – no chemicals.
- No, explain no responses here
25. Describe your cost/benefit rationale and are the benefits worth the costs: Yes – property values, Yes – opposed to herbicides and harvesting is too expensive - ;like clean and green solution, Lagoon went from swamp to being swimmable and allowing access to lake in 2013 (3 years of

use) - aerators cheaper than fountains, reduced herbicide treatments from 3 times per year, benefits outweigh costs

26. Any other suggestions for us who are considering aeration: Wing Lake is not a SAD – payment is volunteer but no problems because most pay. Aeration is positive alternative to chemicals and harvesting, Many residents did not like chemical restrictions for swimming, irrigation and fishing bans. No suggestions because we are on the cutting edge of aeration with years of excellent results.
27. Investigator's name: Ron Cousineau and Jim Whalen
28. Date of report: November and December 2014