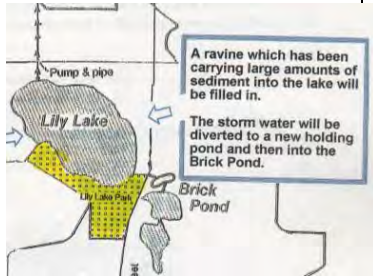


APPENDIX B. TABLE OF PREVIOUS STUDIES & RECOMMENDATIONS

| Number | Citation | Recommended Action | Further Description of Recommendation | Results |
|--------|-----------|---|--|---|
| 1 | SEH, 1996 | NW Diversion and Treatment System: settling pond and pump | Constructing the NW Diversion and Treatment System would reduce Phosphorus loading by 53 pounds, or 51.5% for the goal. | Complete |
| 2 | SEH, 1996 | Churchill Street Diversion and Treatment System | Diversion of stormwater from Churchill through a storm pipe under Greeley to new settling pond by Brick pond. | Settling pond complete. Churchill drainage will be treated with future BMPs |
| 3 | SEH, 1996 | Brick Pond Treatment or Diversion | Brick pond chemical treatment system or a diversion. The study estimated alum treatments for Brick Pond would remove 27 lbs. of Phosphorus loading | Deferred until adequate control of stormwater P inputs is achieved |
| 4 | SEH, 1996 | Olive Street Diversion | Diversion of stormwater from Olive Street out of the Lily Lake watershed | Not pursued. Drainage will be treated with future BMPs. |
| 5 | SEH, 1996 | Phosphorus fertilizer prohibition ordinance | | Complete |
| 6 | SEH, 1996 | Alum treatments for Lily Lake | To remove internal phosphorus out of the lake water column | Deferred until adequate control of stormwater P inputs is achieved. |
| 7 | SEH 1997 | NW Stormwater Diversion Detention Pond | NW Stormwater Diversion Detention Pond | Complete |
| 8 | SEH, 1997 | Churchill Street Diversion South | Churchill Street Diversion South (\$97,100) | |
| 9 | SEH, 1997 | Erosion control and extension of the existing 24 | Provide erosion control and extension of the existing 24 | Complete |

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| | | inch diameter outlet on Lake Street from Greeley Street to Lily Lake | inch diameter outlet on Lake Street from Greeley Street to Lily Lake (\$49,900) | |
| 10 | SEH, 1997 | Comprehensive educational program for lakeshore homeowners | | Complete and Ongoing |
| 11 | Save Lily Lake, 1998 | Sediment removal from the west side of Lily Lake | | Not pursued. |
| 12 | Save Lily Lake, 1998 | Sedimentation basin construction at the stormwater outlet at Brick Street | | Complete |
| 13 | Save Lily Lake, 1998 | Ravine stabilization  | | Complete |
| 14 | Save Lily Lake, 1998 | Diverting stormwater to a new holding pond before entering Brick Pond | | Complete |
| 15 | Bonestroo, 1999 | Diversion of runoff from Hwy 36 right-of-way and Oak Park Heights | Diversion of runoff from Hwy 36 right-of-way and Oak Park Heights out of Lily Lake Watershed would achieve a 13 lbs. load reduction of phosphorus. | Complete |
| 16 | Bonestroo, 1999 | Diversion of stormwater at West Olive Street from Brick Street storm sewer | Diversion of stormwater at West Olive Street from Brick Street storm sewer | Not pursued |
| 17 | Bonestroo, 1999 | Developing an aquatic plant management strategy to minimize herbicide use | | Complete |
| 18 | Bonestroo, 1999 | Completing an internal nutrient cycling potential assessment | | Complete |
| 19 | Bonestroo, 1999 | Carrying out an alum treatment for Lily Lake and/or the Brick Pond | | Deferred until adequate control of stormwater P |

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| | | system | | inputs is achieved. |
| 20 | Bonestroo, 1999 | Implementing street sweeping in the spring and fall in the Lily Lake watershed | | Complete |
| 21 | Bonestroo, 1999 | Continuing to monitor Lily Lake | | Complete and ongoing |
| 22 | Bonestroo, 1999 | Stabilize the Lake Street Ravine | | Complete |
| 23 | Bonestroo, 1999 | Increase capacity of Everett Drive catch basin by adding a second basin | | Complete |
| 24 | Bonestroo, 1999 | Resolve ponding conditions at Linson Circle | | Complete |
| 25 | Bonestroo, 1999 | Stabilize Trotter Court Ravine | | Complete |
| 26 | Bonestroo, 1999 | Stabilize Benson Ravine | | Complete |
| 27 | Bonestroo, 1999 | Remove impending vegetation to allow for discharge from Feeley's pond | | Complete |
| 28 | Wenck, 2007 | Parking lot improvements to reduce phosphorus loading | | Complete |
| 29 | Wenck, 2007 | Rain garden installations to reduce phosphorus loading | | Complete and ongoing |
| 30 | Wenck, 2007 | Wet pond excavations to reduce phosphorus loading | | Complete and ongoing |
| 31 | Wenck, 2007 | In-Lake Alum treatments to reduce phosphorus loading | | Deferred until adequate control of stormwater P inputs is achieved. |
| 32 | Wenck, 2007 | Infiltration basins to reduce phosphorus loading | | Complete and ongoing |

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| 33 | Wenck, 2007 | Shoreline restoration to reduce phosphorus loading | | Due to the bounce of Lily Lake, non-woody shoreline restorations have been unsuccessful. |
| 34 | Lily Lake Stormwater Retrofit Analysis, 2012 | Targeted projects from 9 catchments. | | 32 projects installed. Retrofit Analysis updated in 2018. |
| 35 | Lily Lake Aquatic Management Plan, Wenck, 2013 | Minimizing nuisance algae blooms, mats, foul odors, trash, and nuisance plant abundance by reducing nutrient loading and build up in the sediment | | Ongoing |
| 36 | Lily Lake Aquatic Management Plan, Wenck, 2013 | Improving the recreational use of the lake by creating access to open water areas through mechanical plant control | | Not pursued |
| 37 | Lily Lake Aquatic Management Plan, Wenck, 2013 | Improving and maintaining a healthy fishery by working with the DNR | | Not pursued |
| 38 | Lily Lake Aquatic Management Plan, Wenck, 2013 | Maintaining the wildlife habitat of the lakes through increased plant diversity by minimizing the nutrient build up in the sediments | | Ongoing |
| 39 | Lily Lake Aquatic Management Plan, Wenck, 2013 | Protecting the lake from invasive species through education and outreach, monitoring, and signage | | Ongoing |
| 40 | Lily Lake Aquatic Management Plan, Wenck, | Access paths created through mechanical harvesting (up to 9.8 acres which is the DNR permit | Contract harvesting was found to be the cheapest option, followed by City Run harvesting, and finally | Herbicide treatment was ongoing, but halted in 2018 |

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| | 2013 | limit of 50% of the littoral zone) or herbicide applications (to an area of 1.5 acres or up to 2.9 acres in navigation channels) could be done twice a year between late May and early August with alternative logistics for the operations and funding | Herbicide treatment. The focus would be on creating access paths to open water from residences. Past management has included herbicide application parallel to the shoreline to create a navigation channel. This would need to be approved by the DNR as it is not traditionally a permitted activity. Diquat is a contact herbicide and is an industry standard for controlling aquatic vegetation. | due to potential negative impacts to Chl-a and secchi depths. Vegetation control will require closer analysis to avoid negatively impacting the recovery of water quality. |
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