



Appendix F. Management Plan Costs

Management Costs

Priority	Management Technique	Management Target	Location	Estimated Costs			
				Studies	Design/Permitting†	Implementation/Activity	Ongoing Costs
1	Stabilize Areas of Recurring Erosion	Eroding slopes near pond shoreline	Town lands on parcels 3412-1 and 3416-1 Stone Root Common land White Pond Associates, Inc. land	None currently required	Erosion controls in the buffer zone or within a Priority Habitat of Rare Species would require filing an NOI and coordinating with NHESP (MESA). Development of permitting level designs and filing permit applications likely \$10,000 to \$15,000.	Implementation costs vary depending on specific action but could be expected to range from \$15,000 to \$30,000 for the currently identified erosional areas.	Variable maintenance costs
2	Manage Access through Town Lands	General impact of public use	Town lands on parcels 3412-1 and 3416-1	Trail management plan to identify official trails and prohibited areas. Should provide steps for managing increased traffic from Bruce Freeman Rail Trail. Signage should be “branded” so that users clearly recognize it as authoritative. \$5,000 to \$15,000 depending on complexity desired	Minimal for signage or fencing in upland areas away from Priority Habitats NOI and MESA for physical actions in the buffer zone and Priority Habitats \$5,000 - \$10,000.	Prohibited area/trail closure costs may vary widely depending on whether permanent fencing is installed Visitor park pass or parking permit program could actually generate funding for maintenance and enforcement. Passage of by-laws to restrict use may not have a direct monetary cost.	Variable maintenance and enforcement costs.



Appendix F. Management Plan Costs

Management Costs

Priority	Management Technique	Management Target	Location	Estimated Costs			
				Studies	Design/Permitting†	Implementation/Activity	Ongoing Costs
3	Provide Public Toilet and Trash Receptacle at Public Access	Nutrients, bacteria and floatables	State boat launch and adjacent parking area	None for trash receptacle or temporary toilet	<p>Coordination with White Pond Associates and the Office of Fishing and Boating Access</p> <p>If permanent structure is desired, further design and permitting will be required.</p>	<p>Portable toilets can be rented for as little as \$100/month, up to \$300/month or more for models with more amenities. Delivery and weekly maintenance are typically included in the monthly costs.</p> <p>Heavy-duty commercial trash receptacles usually cost between \$500 and \$800 each. Additional costs would be associated with anchoring the receptacle.</p>	<p>Weekly maintenance included in monthly fee</p> <p>Nominal maintenance costs associated with pick-up.</p>
4	Public Education	No specific target. However, issues associated with septic systems, pet waste management, invasive species and residential stormwater management could be useful to address.	Varies	No cost	Permit not usually required but varies by activity. Actions that require fill, excavation, structural components, etc (e.g., kiosk) may require local and even state permits.	<p>Costs vary widely for educational materials and training.</p> <p>The cost for design and production of a brochure or basic interpretive sign is \$2,000 to \$3,000.</p>	<p>Costs are generally low for maintenance of signage. Ongoing costs vary widely for educational materials and training</p>



Appendix F. Management Plan Costs

Management Costs

Priority	Management Technique	Management Target	Location	Estimated Costs			
				Studies	Design/Permitting†	Implementation/Activity	Ongoing Costs
5	Implement/ Upgrade Stormwater BMPs	Stormwater runoff, erosion and associated pollutants	Public access road and launch area (on White Pond Associates, Inc. parcel)	May conduct study to prioritize BMP locations by potential to remove contaminants. Cost for such a study would be \$5,000 to over \$15,000 depending on scope.	Design and permitting of stormwater BMPs (Local NOI and possible MESA coordination) \$10,000 - \$15,000	Varies widely depending on final design of BMPs and site constraints. A minimum of \$25,000 should be expected	Quarterly to annual maintenance costs typically associated with most BMPs
*Optional	Low-dose Nutrient Inactivation (alum, Phoslock or other agent)	Nutrients and algae	In-pond	\$2,000 - \$3,000 for jar testing of water to determine appropriate dosage	\$5,000 to \$7,000 to file NOI with the Town and NHESP (MESA) coordination	\$5,000 - \$30,000 depending on formulation, dosage, and monitoring required by Order of Conditions (and/or NHESP)	Repeat treatments as needed. Costs similar to initial study and implementation.
*Optional	Biomanipulation	Algae	In-pond	A fish and plankton-based quantitative, identification and enumeration would be required	Local NOI and NHESP (MESA) coordination \$5,000 to \$7,000	Cost varies widely depending on approach.	Biomanipulation typically requires an iterative process of stocking, harvesting and monitoring over several years, each with an associated cost.



Appendix F. Management Plan Costs

Management Costs

Priority	Management Technique	Management Target	Location	Estimated Costs			
				Studies	Design/Permitting†	Implementation/Activity	Ongoing Costs
Monitoring Action	Water Quality Monitoring	Pond water quality	Deep hole and Sachem's Cove recommended, at a minimum	No cost	No permit required	Year 1 Costs: Assumes continuation of volunteer monitoring program to measure Secchi transparency on a more frequent basis \$5,000 for three visits to measure the following <ul style="list-style-type: none"> • Secchi transparency • Temperature, specific conductance, pH, turbidity and dissolved oxygen vertical profiles • Total and dissolved phosphorus (surface, thermocline and bottom) • Phytoplankton ID/enumeration (surface and thermocline or depth-integrated) Optional (at laboratory cost): <ul style="list-style-type: none"> • Total nitrogen (surface, thermocline and bottom) • Chlorophyll a 	Assumes continuation of volunteer monitoring program to measure Secchi transparency on a more frequent basis \$3,500/year for two visits to continue measuring Year 1 analytes



Appendix F. Management Plan Costs

Management Costs

Priority	Management Technique	Management Target	Location	Estimated Costs			
				Studies	Design/Permitting†	Implementation/Activity	Ongoing Costs
Monitoring Action	Pond Check-up and Adjustment of Management Plan	No specific target	In-pond	Use Watershed Management Plan as basis. No additional studies required at this time.	No permit required	See ongoing costs	\$4,000/year
Monitoring Action	Water Level Monitoring	Pond water level	Fixed in-pond location	No cost	No permit required	Year 1 Costs: \$800 to \$3,000 for equipment costs, depending on the transducer model used. Professional installation costs, including survey, of \$3,000 to \$4,500. Data download costs would vary depending on participation of volunteers and whether transducer transmits wirelessly. Data manipulation and analysis costs of \$500.	Maintenance costs minimal if data downloaded by volunteers. Annual cost for data manipulation and analysis of \$500. Replacement of transducer every two to five years at \$800 to \$4,000, depending on model.
Monitoring Action	Volunteer Boat Monitor or Weed Watchers Program	Aquatic invasive species, especially macrophytes	In-pond/ public access ramp	No cost	No permit required	No mandatory costs	No mandatory costs.
NR	No-action Alternative	None	NA	No monetary cost	No monetary cost	No monetary cost	No monetary cost

*Management action recommended as a contingency only if recurring problem arises

†Cost savings may be achieved by permitting more than one action at a time, where possible.

NR = Not Recommended