

Lake Agawam 2009 Management Plan, Action Plan Updates 2009 - 2019, 8.1 Shoreline Improvements, Riparian (Buffer) Area

Lake Management Recommendations	Actions	Priority	Target
1. Control waterfowl populations through management practices. 1a. - Discourage lawns fronting lake shore areas. 1b. - Discourage feeding of waterfowl populations.	Partially Implemented: Signage placed along Pond Lane to not feed waterfowl.		
2. Encourage homeowners to remove fertilizer dependent vegetation and establish native planting areas: Consider mandate for buffer zones with swale areas to eliminate direct run off, application of nitrogen and phosphorous-free fertilizers.	Partially Implemented	High Priority	
2a. - Naturalized meadow, woodland and shrub planting areas intercept and filter stormwater and reduce fertilizer/nutrient input: In 3/2019, Southamptn Town Board authorized purchase of 2.9 acre property at 111 Pond Lane as a park using Community Preservation Funds. Water treatment use may require a state-level change.	Consider natural water treatment center.	High Priority	
2b. - Village laws encourage natural plantings within 125 feet of wetlands through Zoning Board of Appeals issued wetland permits.	Village Code 116-19 enacted.		Completed
2c. - Place shade trees near shore that will provide soil stability, biological uptake and shading of surface water to maintain lower water temperatures and allow higher dissolved oxygen levels: Weeping willow trees suggested to Zoning Board of Appeals/Village Board of Trustees for Gin Lane.	Partially Implemented		After dredging is completed.
3. Remove invasive vegetation in favor of natural habitat areas under controlled re-vegetation restoration programs.	Not Implemented	Low Priority	After dredging is completed.
4. Examine municipally owned lakefront areas for improvement opportunities (control direct stormwater overflow from paved surfaces in close proximity to the lake; establish lake front walking trails in areas where public access can be provided; provide public education and interpretive signage in appropriate lakefront areas).	Partially Implemented. Bioswale proposals under consideration.		Funding has been approved from State and County for the Gin Lane corner Bioswale project
4a. - Consider installation of a drainage bioswale and subsurface detention along Pond Lane in connection with pedestrian walks, landscape improvements and sitting areas for lake enjoyment.	Bioswale installation under consideration.		
4b. - Consider potential for invasive species removal, stormwater control and lake front walking trails for Gin Lane area at south and southeast part of the lake. Several planting proposals are under consideration.	Partially Implemented	Low Priority	After dredging is completed.
4c. Work cooperatively with the Town Trustees to improve the Gin Lane and Bathing Corporation parking area by reducing pavement, installing a "rain garden" along the shoreline, installing a low sill bulkhead along the southern shoreline (to retain parking capacity), installing subsurface drainage improvements, pedestrian circulation/traffic calming and providing aesthetic improvements through landscaping.	Bulkhead, Rain Garden: Havemeyer Park		Completed 12/2013
5. Provide educational opportunities in form of pamphlets, newsletters, web site information and other media tools through the Village of Southamptn and the Lake Agawam Conservation Association.	"Owners Guide to Lake Agawam" pamphlet posted online.		Completed
6. Examine potential for removal of existing hardened shorelines; discourage expansion of new hardened shoreline structures.	Not Implemented		

Lake Agawam 2009 Management Plan, Action Plan Updates 2009 - 2019, 8.2 Stormwater and Watershed Improvements

Lake Management Recommendations	Actions	Priority	Target
<p>7. Intercept and recharge stormwater runoff in higher elevations of the watershed.</p> <p>Gin Lane Stormwater Drainage Improvements: Suffolk County Water Quality Protection and Restoration Program grant award & New York State Department of Environmental Conservation, Water Quality Improvement Program grant request. Suffolk County Grant: \$116,697 requested with matching funds to total \$233,394. DEC WQIP: \$186,714/\$46,679 matching funds to total \$233,393. Project utilizes rain garden & installation of 13 leaching basins at the south end of Lake Agawam.</p> <p>Outfall eliminated at Lake Agawam playground pipe; outflow reduced 50% at culvert on Pond Lane. The Gin Lane stormwater drainage improvement project at the south end of Lake Agawam will eliminate outflow at Gin Lane pipe.</p> <p>Suffolk County Grant - Culver/Ox Pasture/Pond Lane Drainage: \$111,224 with matching funds to total \$222,448.</p> <p>Suffolk County Grant - Bowden Square Drainage: \$98,458 with matching funds to total \$256,448.</p> <p>Suffolk County Grant - Hill Street Drainage: \$100,000.</p>	<p>Drainage installations on Hampton Road and Meetinghouse Lane corridors</p> <p>WQPRP award approved 7/11/19; WQIP request 7/26/19, award approved 12/19/2019.</p> <p>Playground outfall drainagae installed</p> <p>2016 Award</p> <p>2013 & 2011 Awards</p> <p>2010 Award</p>	<p>High Priority</p>	<p>January 2020</p> <p>Spring 2020</p> <p>Completed</p> <p>Completed</p> <p>Completed</p>
<p>7a. - Install more street catch basins along Hill Street, and other streets where feasible.</p>	<p>CPF Application 7/11/2018</p>		<p>Completed</p>
<p>7b. - Examine Village/Town owned land opportunities for recharge facilities such as Windmill Lane and Nugent Street; the west side of Windmill Lane; and north of Bowden Square.</p>	<p>CPF Application 7/11/2018</p>		<p>Completed</p>
<p>7c. - Cordinate with CPF Stormwater for future grants.</p>	<p>Partially Implemented. West Main St. parking area targeted for future stormwater action.</p>		
<p>7d. - Consider maximum stormwater retention and on-site recharge for any site plans and subdivisions in the watershed area; ensure compliance with SPDES GP 0-08-01</p>			
<p>7e. - Review Village parking areas for potential subsurface stormwater detention installation in connection with parking lot improvement plans.</p>	<p>Partially Implemented</p>		
<p>8. Maintain catch basins and leaching pools on a regular basis by removing accumulated sediment.</p>	<p>Vacuum truck cleans catch basins twice a week.</p>		<p>Ongoing</p>
<p>9. Maintain roads on a regular basis through street sweeping to reduce potential for sediments to accumulate and/or enter the lake: Cleaning of the business district sidewalk area and sweeping of the Village occur 7 days a week in summer and weather permitting 5 days a week in winter.</p>	<p>Implemented</p>		<p>Ongoing</p>
<p>10. Explore potential for sewerage in areas of the watershed with commercial downtown development and shallow depth to groundwater.</p>	<p>Partially Implemented</p>	<p>High Priority</p>	
<p>11. Encourage homeowners to regularly inspect and maintain sanitary systems in high groundwater areas and elsewhere in the watershed.</p> <p>12. Encourage, and enforce when appropriate, upgrade of malfunctioning sanitary systems: Innovative & Alternative On-Site Wastewater Treatment System legislation for new residential construction & certain high priority areas, with rebate program.</p>	<p>Partially Implemented</p>		<p>Completed 9/2017</p>
<p>13. Ensure appropriate land use density within the Village and the watershed area for Lake Agawam through coordination with SCDHS on the implementation of Article 6 of the SCSC; sanitary credit transfers to the Lake Agawam watershed area should be reviewed and limited based on nitrogen load.</p>	<p>Partially Implemented</p>		
<p>14. Encourage and facilitate "pick up after your pet" practices.</p> <p>14a. - Educational pamphlets, Village newsletter and public information media.</p> <p>14b. - Install dispensers in Village parks and key areas for convenience.</p>	<p>Partially Implemented</p> <p>Mutt mitt dispensers installed throughout Village.</p>		

Lake Agawam 2009 Management Plan, Action Plan Updates 2009 - 2019, 8.3 Lake Aeration and Water Quality Improvements			
Lake Management Recommendations	Actions	Priority	Target
<p>15. Provide water circulation equipment to improve dissolved oxygen levels in the lake.</p> <p>15a. - Maintain and install forced air bubblers to improve dissolved oxygen levels and further the coverage already achieved by this cooperative Town/Village effort.</p> <p>15b. - Consider discontinuing fountains in favor of bubblers, particularly during algae blooms.</p>	<p>Village installed 6 air stations 2014-2019 (Town installed one air station). Lake fountain removed in 2010. Find two private homeowners to provide power for install two bubbler systems for the center of the lake.</p>		<p>Partially completed</p>
<p>15c. - Algae Harvester 10-day pilot program to reduce Harmful Algal Blooms.</p>	<p>DEC Pilot completed October 2019</p>	<p>High Priority</p>	<p>Completed 10/19/2019</p>
<p>16. Improve fish populations in the lake favoring native fish assemblages.</p>	<p>Not Implemented</p>		
<p>16a. - Stock bass, perch and bluegill fish assemblages, if necessary.</p>	<p>Not implemented</p>		
<p>16b. - Remove or reduce carp populations in the lake, if necessary, ensuring that harvested fish are managed in a manner that considers public health and safety.</p>	<p>Under consideration: Carp traps for Lake Agawam.</p>		
<p>17. Maintain, but do not expand areas of aquatic vegetation on the west side of the lake; such vegetation provides fish habitat, food source and shading.</p>	<p>Not Implemented</p>		
<p>18. Examine wetland biological treatment options for north end of lake near stormwater outfall.</p>	<p>Village has installed Fabco canisters in catch basins for Railroad Plaza drainage project.</p>		
<p>19. Evaluate potential for removal of organically enriched surface sediments from the lake bottom in order to reduce the release of nutrients into the water column:</p> <p>Dredging of Sediments: New York State Department of Environmental Conservation, Non-agricultural Nonpoint Source Planning Grant Program request, Lake Agawam Dredging Feasibility Study. Nelson & Pope conducted survey of Lake Agawam sediment in Summer 2019. Sediment has large sand content, will consider options for sediment removal. Suffolk County WQPRP Survey: \$30,000/\$3,000 Total Cost: \$33,000.</p>	<p>Lake Agawam sediment testing overview presented to Trustees 9/24/2019. NYS DEC request 7/26/19, NPG Award Notification 12/19/2019; Overview presented to Trustees 9/24/2019.</p>	<p>High Priority</p>	<p>In process</p>

Lake Agawam 2009 Management Plan, Action Plan Updates 2009 - 2019, 8.4 Water Quality Monitoring and Research			
Lake Management Recommendations	Actions	Priority	Target
<p>20. Continue water quality and cyanobacteria monitoring to determine effectiveness of implemented management recommendations and to track trends in water quality:</p> <p>Village Board of Trustees agreed to share the costs of in-water monitoring buoys with the Southampton Town Trustees; installation July 2019.</p>	Partially Implemented		
<p>21. Continue associated ecological-based studies and research (e.g. chemical, physical and biological factors) to further elucidate the factors which promote the presence of cyanotoxins.</p>	Partially Implemented		
<p>22. Implement an adaptive management approach for Lake Agawam as the understanding of cyanotoxins is expanded, and strive to improve water quality while minimizing health risks to humans and animals.</p>	Partially Implemented		

Lake Agawam 2009 Management Plan, Action Plan Updates 2009 - 2019, Community Preservation Funds			
Water Quality Improvement Project Plan, Lake Agawam Stormwater Improvements. Lake Agawam is included in NYS Section 303(d) List of Impaired Waters. These improvements could result in a potential reduction of 28.2 pounds-per-year of nitrogen (42% reduction), and a reduction of 4.8 pounds-per year of phosphorous (44% reduction) going into Lake Agawam.	Actions	Priority	Target
Remove dated catch basins at Meeting House Lane/Oak Street and replace with curb inlet catch basins.	Village Matching Funds: \$54,555		Completed May 2019
Install two new catch basins at Meeting House Lane/either side of SH Village volunteer Ambulance driveway.	Village Matching Funds: \$34,836		Completed May 2019
Install 19 leaching pools along Jobs Lane	Town CPF Recommended Funds: \$292,040		Completed May 2019
O'Connell Drive Parking Lot, install replacement pipe, with catch basins and 14 10' leaching pools along the pipe.	Village Matching Funds: \$166,495		Completed 1/2018
Total Project Cost	\$547,926		
Southampton Town CPF Recommended Funds		\$292,040	
Village Matching Funds Committed		\$255,886	
Railroad Plaza drainage, WQIP proposal 3/15/19 for capture and treatment of stormwater runoff to reduce contaminants entering Lake Agawam. Construction of drainage improvements began 8/05/2019. Board of Trustees Village of Southampton accepted Southampton CPF award 8/8/2019.	Town CPF request: \$211,600 Village match: \$21,160	High Priority	Completed August 2019
Total Project Cost	\$232,760		
Southampton Town CPF Recommended Funds		\$211,600	
Village Matching Funds Committed		\$21,160	