



MASTER PLAN FOR CLEANSING SALISBURY POND

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Worcester's Salisbury Pond, a body of approximately 16 acres of water located near the campus of Worcester Polytechnic Institute, is ready for the next chapter in its remarkable history. Once pristine, the pond's water is now significantly polluted. The pond is an artificial lake that was created when a dam was constructed in the 19th century to supply power to the Washburn and Moen factory situated along nearby Grove Street. That factory was one of the largest facilities of its kind in the United States and produced wire for a number of uses. Fortunately, the last half century of remediation efforts has produced significant information on how to address the pond's rehabilitation. More recently, the City of Worcester commissioned engineering firm Weston and Sampson to produce a master plan for cleansing Salisbury Pond. That plan appears with these materials.

In the early 1970s, a group of WPI students formed the Salisbury Pond Task Force. Progress was made in 1974 when Worcester enlisted the help of the U.S. Navy to dredge approximately 5,000 cubic yards of polluted sediment. Unfortunately, another 15,000 cubic yards also needed to be dredged to make the effort effective.

In 2002, the Mill Brook Task Force, in conjunction with the Massachusetts Audubon Society, secured funds totaling approximately \$500,000 from the Massachusetts Department of Environmental Protection along with the City of Worcester to design a forebay that would be placed in the headwaters of Salisbury Pond to serve as a continual water purifier for the pond. That effort also included the installation of two vortech units off of Salisbury Street as part of a larger master plan for cleansing Salisbury Pond. A forebay, designed by engineers Camp, Dresser & McKee, was slated to cost approximately \$1 million. As updated by that firm, the forebay would now cost approximately \$1.4 million. Unfortunately, the forebay was never built, but the plans (along with some updating) are still ready to be used to create an effective forebay for the pond.

In 2005, the non-profit Friends of Institute Park, Inc. was formed to serve as a catalyst for positive change in Worcester's Institute Park and Salisbury Pond. The group prevailed upon the City of Worcester to fund, at a cost of approximately \$25,000, a Master Plan for the rehabilitation of the park and the pond. Many of



the recommendations for improving Institute Park were made. Beginning in 2013 and extending through 2017, at a cost in excess of \$100,000, engineers Weston and Sampson produced a comprehensive plan entitled “Salisbury Pond Dredging Feasibility Study.” The study initially included three test samples taken from the pond but later that number was augmented to some 50 test samples of sediment taken uniformly throughout Salisbury Pond to determine toxicity and other attributes. In 2017, Weston and Sampson also produced, at a cost of approximately \$20,000 a further analysis of the pond’s soil samples to determine the best method for dredging the pond. That study, entitled “Salisbury Pond Bench-Scale Study” also appears with these materials.

In 2014, WPI students produced a study of Salisbury Pond’s distressed conditions. Entitled “Effects of Phosphorus in Salisbury Pond,” this study makes the case for implementing various aeration activities to begin addressing the high levels of phosphorus and algae contained in Salisbury Pond’s sediment.

Salisbury Pond currently contains approximately 50,000 cubic yards of sediment. The pond is now so overgrown with polluted sediment that there are sections of the pond that are only inches deep. When fully remediated, the pond is to have a uniform depth of four feet. Once that is accomplished, Salisbury Pond will again be able to host paddle boating, canoeing, and other recreational activities. The City of Worcester has coordinated Weston and Sampson’s efforts with those of the Massachusetts Executive Office of Environmental Affairs. Salisbury Pond, after approximately five decades of efforts to improve this beautiful body of water in downtown Worcester, is now poised to reclaim its storied history. When fully restored, Salisbury Pond will be a place where countless local residents and tourists alike can once again fully enjoy one of Worcester’s most picturesque settings.