



A closed-system wash pad designed with a slow sand filtration system successfully captures, cleans and reuses equipment wash water.

AN EQUIPMENT WASH WATER SOLUTION

Locust Hill Country Club | Rochester, N.Y. 14534

Rick Slattery, CGCS, superintendent

ISSUE

Locust Hill Country Club was certified as an Audubon Cooperative Sanctuary by Audubon International in 2014. During the certification process, weaknesses were identified in the equipment wash area. Clippings would accumulate and develop an unpleasant odor and equipment washing consumed a significant amount of water. Superintendent Rick Slattery, CGCS, hoped to create a low cost and more sustainable closed system for the equipment washing area.

ACTION

Locust Hill partnered with the New York State Pollution Prevention Institute at the Rochester Institute of Technology and the University at Buffalo to design an affordable and improved equipment wash system. The design that was implemented is a two-part system. First, compressed air is used to clean clippings and other debris off the equipment. Next, the equipment is washed with water that is then collected in a trough and pumped onto a hydro screen to remove clippings and debris. The water then passes through a slow sand filtration system. The filtered water is discharged from the bottom of that tank into a smaller 55-gallon collection tank and eventually pumped to a 1,000-gallon storage tank where it is once again available to wash equipment. The prototype system was installed in October 2017 and is functioning well.

The cost of building this system included approximately \$1,500 for each of the larger tanks, \$1,500 for the hydro screen, and \$1,500 for the pumps, hoses and other hardware. The wash pad and trough cost approximately \$6,000 to build.

RESULTS

Tests from the fall of 2017 show that wash water filtered by the new equipment wash system meets drinking water standards. Odors from clippings accumulating in the wash area have been eliminated and on peak days, water use at the wash pad has been reduced from 1,500 gallons to 700 gallons. Locust Hill achieved their sustainability goals and the facility is looking forward to reducing its municipal water bill going forward. They will continue to gather data in the coming seasons to monitor the performance of the new system.

The New York State Pollution Prevention Institute [highlighted the work at Locust Hill](#) and provides additional information regarding the system.