



Surface Filtration

Showing off in the daylight!

PROJECT OVERVIEW

In more open areas, performing surface filtration is a great option as it creates a interesting point of interest and allows community members to see the treatment practice! At the Reis Park athletic fields in the town of Somers, there was enough open green space to convert some grass into a bioretention system to treat the excess amount of stormwater running through the area. This project managed to remove 3.64 pounds of Phosphorus each year, which removes up to 1,820 pounds of algae annually from the nearby Muscoot Reservoir.

DRAINAGE AREA	PHOSPHORUS REDUCTION	ALGAE REMOVAL
5.19 acres	3.64 lbs/year	1,820 lbs/year



THE PROBLEM

Even areas with reduced amounts of impervious coverage can still generate a large amount of Phosphorus. Fertilizers, soil erosion, manure runoff and vehicular contaminants can all be sources of nasty pollutants which will be carried to the nearest waterbody after a rainstorm. At Reis Park, the upper baseball fields acted as a bucket, gathering all these wastes. This runoff needed to be treated before it flowed to the Northeast, where it would quickly enter the Muscoot Reservoir.

Treating pollution that has no obvious source, which is called non-point source, is difficult. Thus, a treatment method had to be designed that would gather all the runoff from the fields for treatment, prior to being released back towards the Muscoot.

THE SOLUTION

The best way to treat stormwater is locally and with native and natural methods. Most surface filtration systems gather the stormwater on site and treat in-place. In all methods, the water goes through a specialized soil which helps remove Phosphorus. Bioretention also uses this soil, but adds in plants at the surface, whose roots help extract even more Phosphorus. Once the water has filtered through the system, it either enters the groundwater, or enters a pipe where it flows to the nearest waterbody.

The usage of bioretention at this site was ideal as there was plenty of open space and it worked as an education opportunity for the community that utilizes the park! Bioretention practices work are You can even help filter stormwater. If you want to get involved, rain gardens utilize the same ideas as bioretention, meaning you can help treat stormwater runoff at your house. Contact us if you have any questions!

Surface Filtration Benefits:

- Provides great aesthetic and community value
- Helps reduce amount of flooding
- Can help in the removal other contaminants
- Extremely flexible in design, style and shape
- Low maintenance requirements

