SIS.bio

We Are Leading The World To Renewable Water

Case Study Summary:

Roland Farm Lake, The Plains, Virginia 20198 USA

Background

Roland Lake is a 30 acre lake in the State of Virginia, USA.

The management of Roland Farm was concerned about sediment accumulation, excessive weed growth and prolific algae blooms and began looking for solutions to their problem. Weed growth had become so excessive that weeds that were growing from the accumulated sediment and topping out at the surface in all sections of the lake 10 feet deep or less. This dense aquatic vegetation occupied 44% of the total water volume of the lake. The deepest point in the lake was 16 feet (4.87m).

It was virtually impossible to get a boat out onto the lake unless it was launched at the deepest part near the dam wall.

Dredging would have been far too expensive, so management of Roland Farm began looking for more economic and effective options. SIS.bio was commissioned to deliver a solution.

Results

Sophisticated bathymetric survey showed that in the first 6 months of operation 42.48 acre feet of sediment was digested and eliminated from the lake. This is the equivalent of 68 534 cubic yards or 52,398 cubic meters. Has this “Bio-dredging” been done the conventional way, it would have taken over 4,500 dump trucks to haul this sediment away. The deepest point in the lake was 18 feet (5.48m).

Over the first 12 months (so as to compare like with like seasonally) the aquatic biovolume had decreased from 44% to 23%.

“We are very pleased with the SIS.bio program thus far. The density of weed growth and reduction in depth due to sediment accumulation had made it very difficult to swim and boat on Roland Lake prior to implementing the SIS.bio program. The reduction in sediment and weeds in the first six months has been phenomenal. And the bathymetric monitoring report confirms the weed reduction and sediment reduction. Swimming was enjoyable for the first time in quite a while due to less weed growth.”

Michael Hochstetler – Lake Manager