

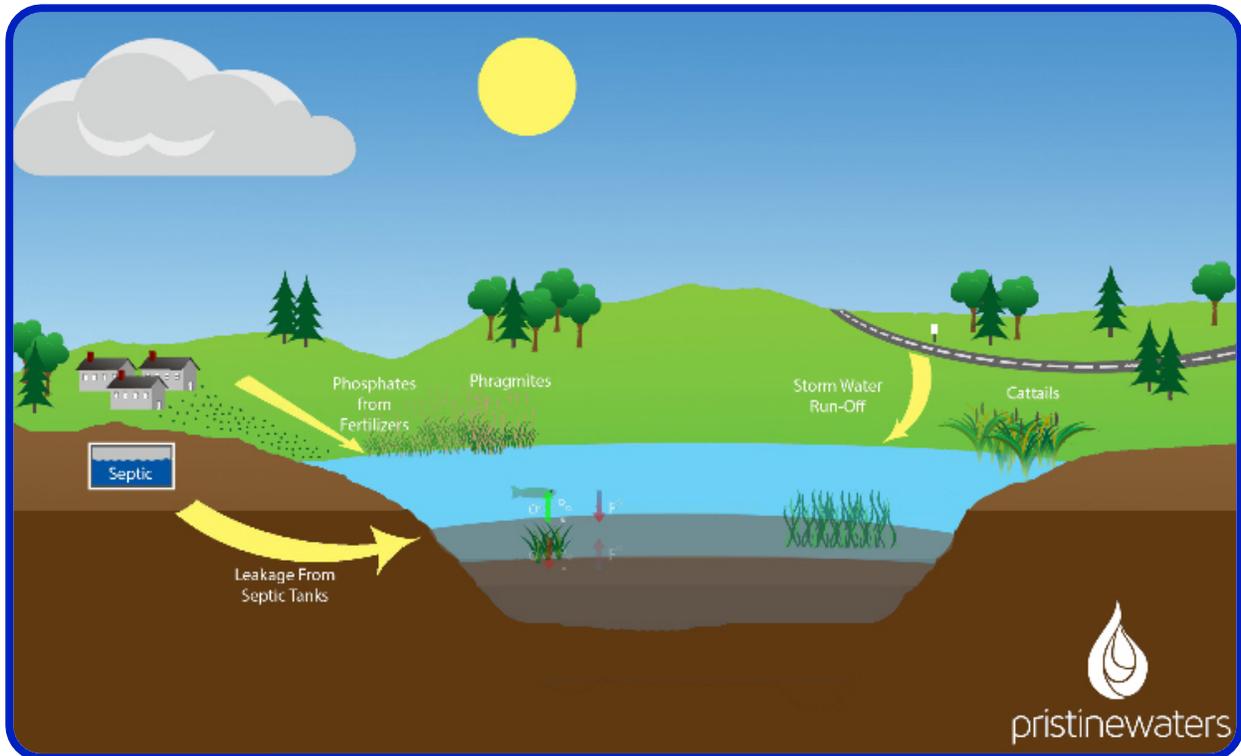


PristineWaters

1390 Old Logging Rd., Yorktown Heights, NY
Pond Assessment/Quote

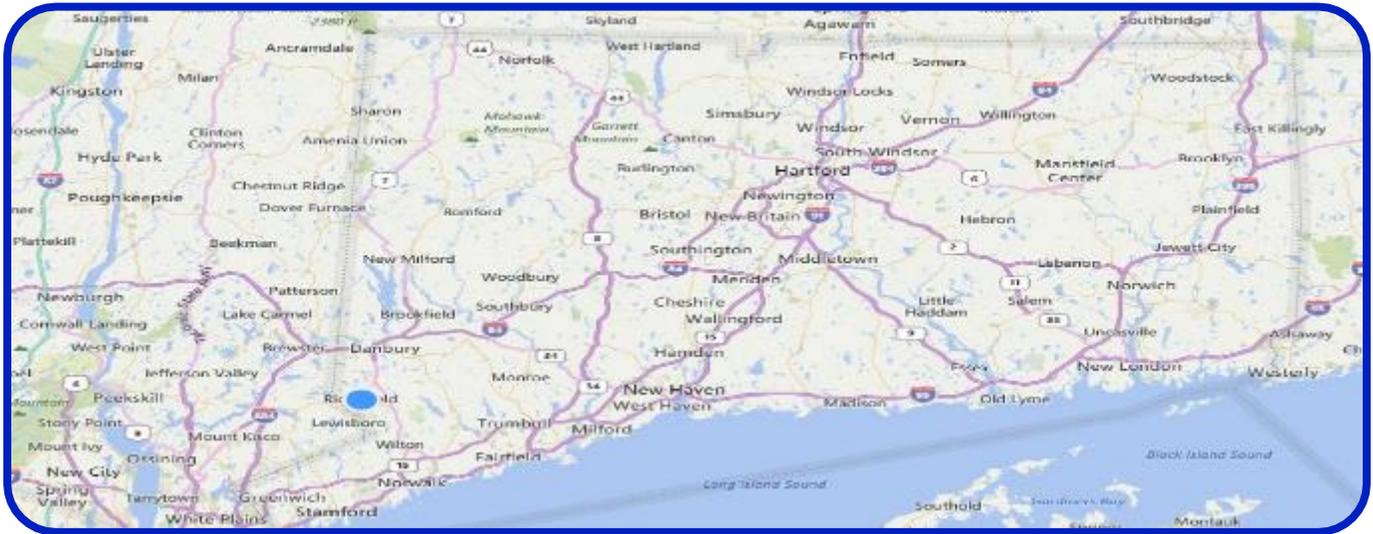


What Is Happening To My Pond?



Your pond, like many ponds in the region and throughout the United States, was not designed by nature or man to receive the nutrient inputs, storm water runoff, and urban development (pavement), that it currently receives. We have identified several significant issues that if left unabated, will gradually get worse. In this case, your pond has significant quantities of debris and sediment (both organic and inorganic). It is likely that some of this material is being swept in from the stream during heavy rain events. Additionally, due to the heavily wooded area in which you live, large quantities of leaves are finding their way into the pond.

About Pristine Waters LLC



- 💧 Pristine Waters LLC is owned by Andrew Winer and Mark Amler. Both Andrew and Mark are from the White Plains, NY area and currently reside in Southbury and Ridgefield, respectively.
- 💧 Andrew and Mark started the company when Mark moved to a lakefront property and saw the flawed and highly invasive methods used to remediate his lakefront property. His business background (An MBA and former director of marketing for a consumer products company) and research indicated that there was a market niche to be filled.
- 💧 While Pristine Waters LLC is technically a contract business, we conduct ourselves with great professionalism and deep respect for people's time, property, and money that you simply will not find elsewhere with companies our size within the dredging industry. We also have many happy former clients willing to attest to our results and way of conducting ourselves!
- 💧 Pristine Waters LLC was started under the premise of conducting business honestly, transparently, and with integrity. While every job is a bit different, we have a standard pricing model, which dictates the cost of services, whether we are looking at a small pond on a \$10,000,000 dollar backcountry estate in Greenwich, or similar pond on a \$400,000 property in Hartford. Our greatest source of new business is through referrals!
- 💧 Pristine Waters LLC maintains all necessary insurances. Should a job require additional insurance coverage, we are always willing to oblige. All methods of dredging are sensitive in nature and expensive. We want our clients to rest assured that in the unlikely event something goes wrong, we are all covered! We are happy to provide a certificate of insurance upon request.

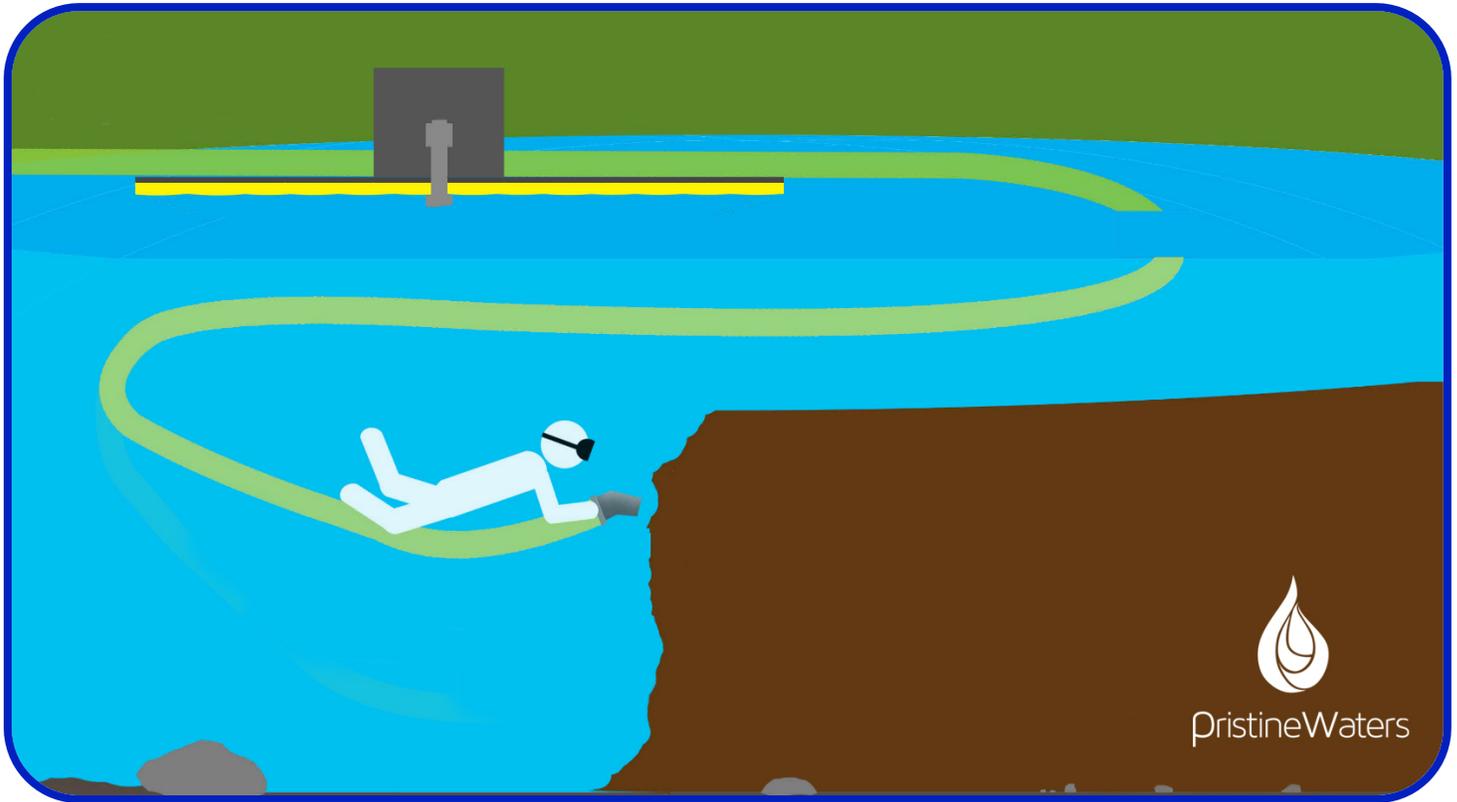
Our Equipment



- 💧 Our land based suction dredge (used for smaller projects) is a small land based mining pump combined with a 61 HP engine that is capable of passing 3.75" around solids. Our equipment complies with all relevant noise ordinances.
- 💧 We connect high pressure 4" EPDM hose from the dredge on land to a small 7' x 12' priming barge which also supplies oxygen to our diver. We use 4" or 5" discharge hose based on distance needing to pump the slurry (mixture of sediment and water).
- 💧 Our turbidity curtains are commercial grade Type II DOT sediment barriers, which we use to block all outlets from ponds, thereby insuring that downstream waters are not adversely impacted during the course of our work. Additionally, we are able to quadrant off areas so we insure turbidity is limited to a specific area (when necessary).



Our Recommended Approach

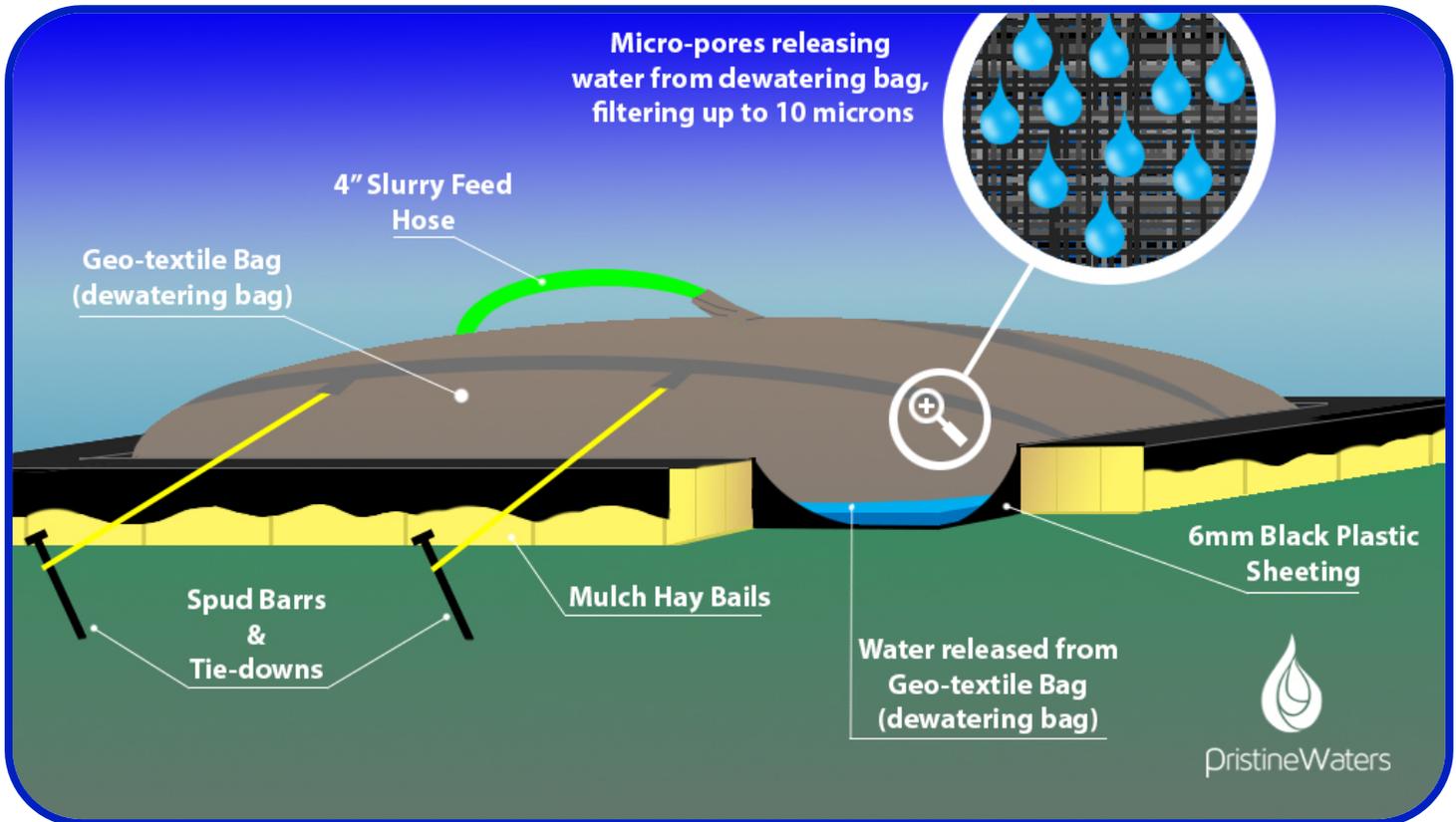


Diver assisted suction dredging is very effective and very precise. It is perfectly suited for small, urban set ponds and stagnant water, can become an issue, or where dewatering space and nuisance odors could become an issue. The nature of this methodical work, is such that we can only move at the speed of the diver.

Essentially, the diver is supplied with top side air while they guide a nozzle attached to high pressure hose (4") into the sediment layer to "vacuum" the sediment out of the work zone and transfer it to a "dewatering bag" or geotextile tube.

The geotextile tube allows water to separate from solids, pool in the above ground "berm", and be pumped back into the water body 90-95% cleaner than when it was removed in "slurry."

Our Recommended Approach

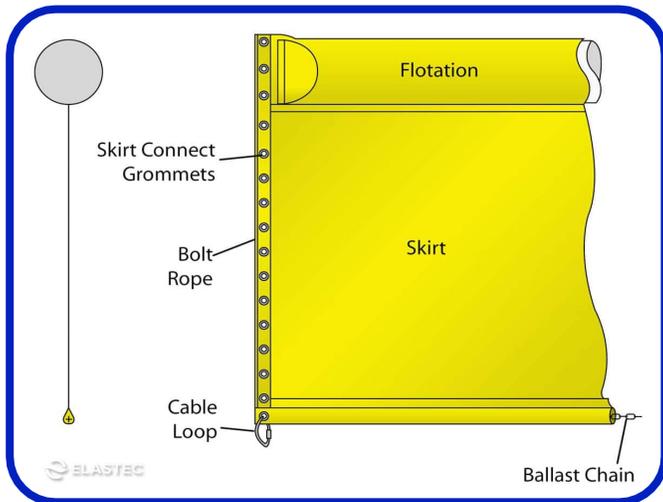


Cross-section of an above ground berm

The dewatering and spoils containment site consists of an above ground berm that is constructed and lined with plastic. Geotextile tubes are placed within the berm. In order to dredge this pond, it will be necessary to level and area in your back lawn (hill). As the pumped slurry is pumped into the tubes, water and solids separate. The solids are contained within the tube, while the water “weeps” through microporous (10 microns) opening within the woven polypropylene material. The resulting water will be directed either through the use of grading and gravity, or a dewatering pump, back to the pond over plastic or through hose. It will be necessary to regrade and reseed portions of your lawn (lawn) following the pond restoration (when they do removal they will use some heavy equipment, though we will try to have them keep it relatively small).



Our Recommended Approach



Images of Turbidity Curtains

Whenever working on a portion of a body of water (as opposed to working on a self contained pond), we utilize DOT grade “Turbidity Curtains”. These curtains are designed to prevent turbid (mixed water and suspended solids) from creating a migratory plume. Said plumes can slowly deposit sediment in different portions of a lake or pond, or be carried downstream, and lead to a myriad of other potential issues.

A turbidity curtain is comprised of a floating boom (made from foam) with a suspended skirt that hangs down into the water column. While the dimensions of these components vary based on the project, most of our curtains have a 6’ skirt. By the time the sediment plume gets below 5’ or 6’ of water depth, the suspended solids are generally travelling straight down and are no longer a risk for migration.

In your pond’s case, we will utilize our standard turbidity curtains in front of the spillways to contain any suspended solids. Additionally, we would strongly encourage you to create a “deceleration pool” to trap sediment prior to reaching the main pond body.

Benefits to Suction Dredging vs Traditional Mechanical Dredging

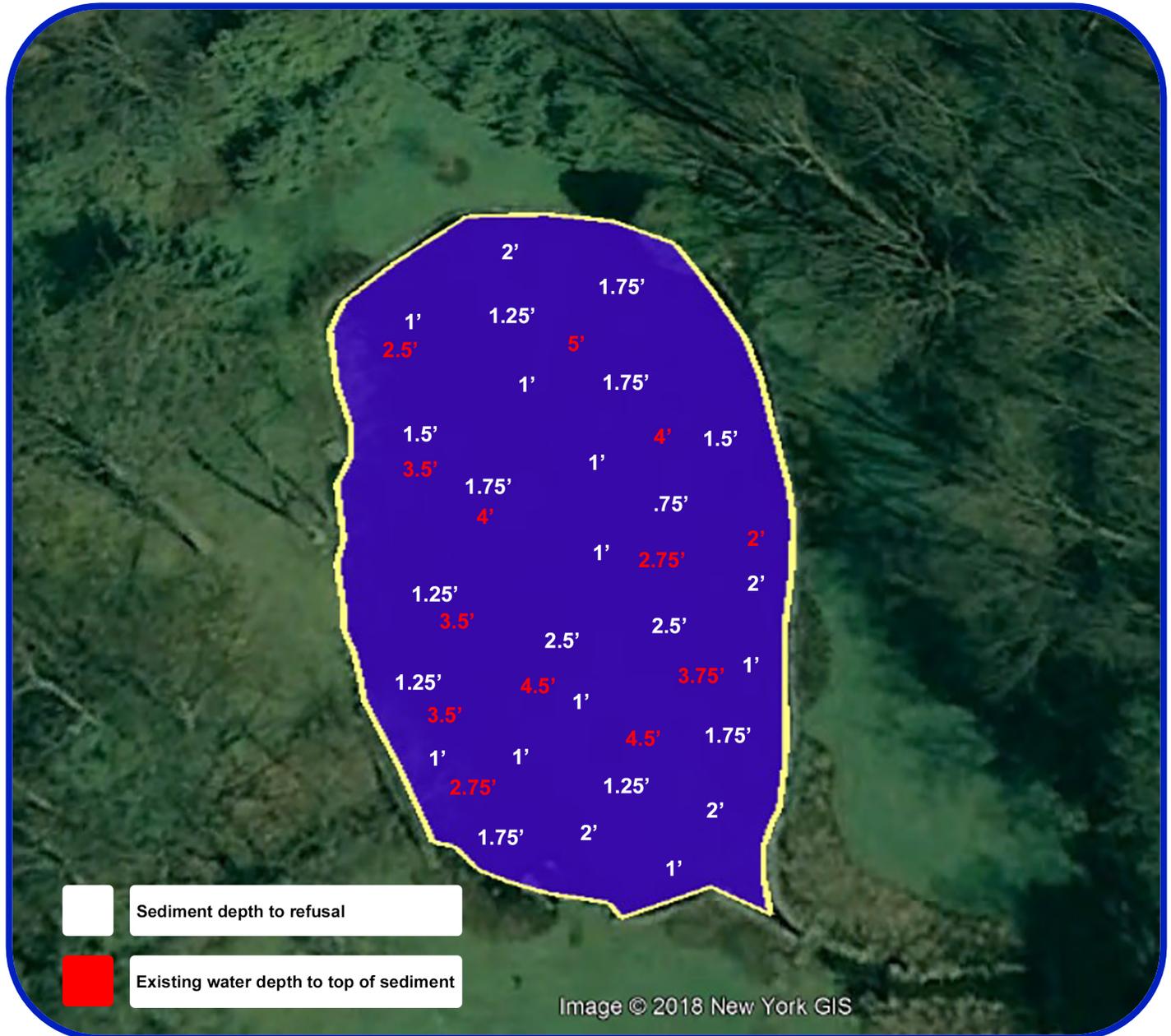


- 💧 Diver Assisted Suction Dredging, in many cases, allows the homeowner or client to avoid major landscaping repairs and enables us to get a more accurate and precise job done.
- 💧 Diver Assisted Suction Dredging is a relatively clean process. This means **no significant smelly messes!**
- 💧 Diver Assisted Suction Dredging does not employ heavy equipment, which can damage blacktop, crush septic tanks and destroy leaching field systems.
- 💧 Our method is relatively eco-friendly. We avoid indigenous flora and fauna – and they try to avoid us as well!
- 💧 Generally speaking, you will not need to wait for your pond/lake to fill back up as much.
- 💧 There is little to **NO CHANCE** of us rupturing the lake basin (natural clay lining at bottom of your lake).
- 💧 If you seek to increase the depth of the actual bottom of your pond or lake (beyond the accumulated sediment), than mechanical dredging is likely a better option.

Beware of pretenders armed with trash pumps and excavators!

Our equipment is highly specialized and it enables us to do a much faster, thorough and precise job in cleaning your pond or waterfront area, with far fewer site restoration repairs needed and far less disruption to your lives! Additionally, there are no aggressive augers employed as there are with traditional hydraulic dredges.

Pond Area and Sediment Map



The total pond size is approximately 9,212 square feet (or ~0.21 acres). We recorded sediment depths throughout the pond, in a range of 0' to 5'. This results in an average sediment depth of approximately 1.5', and a total of approximately 520 cubic yards of sediment to be dredged out. Maximum attainable water depth is approximately 6' – 7'.

Project Steps



- Spoils site is prepared for geotextile tube and berm, including levelling when necessary.
- Set-up Geotextile De-Watering Tube and above ground berm to capture sediment and contain water for return to the pond.
- Set dredge on property.
- Connect hard-coil EPDM hose and soft hose to transfer slurry.
- Create a working grid to systematically move the project throughout the work zone.
- Set up our turbidity curtain(s) around the work zone to contain sediment and prevent migration of turbidity.
- Launch and set up our dredge and priming barge to remove aquatic vegetation (and their associated root structures) and sediment throughout the work zone, along with leaves, sticks, and detritus.
- Perform the restoration using diver-assisted suction dredging.
- Break down equipment and transfer offsite.
- Remove material from geotextile tube and restore lawn area.

Site Preparation (The Glass House, New Canaan, CT, 2014)



Flat "pad" being built for 120' x 30' dewatering bag (geotextile tube)

Excavators are fine for land work. Where they fall off is in their performance on lake or pond bottoms. Equipment this heavy and imprecise can rupture the pond bottom resulting in ponds that no longer hold water. That said, they are used on many of our job sites to manipulate grades and pitches (when absolutely necessary), as well as for removing sediment when it has dried out (or regrading material recycled for on site use).

Mid-Job (The Glass House, New Canaan, CT, 2014)



Glass House project underway

While there is temporary disturbance to your property, this is a temporary inconvenience. Throughout the project, we make every effort to minimize the inconvenience you experience. We only work during the week and operate our equipment within the times specified in the municipal noise ordinance.

After Site Restoration (The Glass House, New Canaan, CT, 2015)



Site restoration complete at the Glass House

Once restoration (both land and beach area) is complete, your property is enhanced both on a functional and an aesthetic level. This pond had approximately 1' of standing water when we began and now has anywhere from 6'-10' of depth throughout the pond. Aquatic plants have been removed and the site has been restored to its original condition.

Our goal is to make sure that when we leave a job site, it looks like it did before we began...but with a much healthier and clean pond!

Disclaimers Regarding Aquatic Plants & Dredging Services:

- ❖ Pristine Waters LLC's services will greatly reduce and substantially thwart re-growth of new and/or old vegetation. Due to the nature of aquatic vegetation growth, vegetation may continue to reoccur and should be maintained by the customer through manual raking or in some instances, a manageable ongoing maintenance schedule with Pristine Waters LLC.
- ❖ Pristine Waters LLC makes no representation to the length of time before vegetative re-growth will commence and/or to what extent (when applicable). The environment and the ecosystem is not something we feel anyone can control - and at best the work zone may be maintained if done properly.
- ❖ Pristine Waters LLC makes no warranty as to the amount of time it will take for sediment to re-accumulate. In most instances, sediment has built up over a substantial period of time and absent environmental/human factors, it is likely to take a significant period of time to re-accumulate to the extent it has. Regular maintenance and deterrents, such as catch basins, should significantly retard the re-accumulation of sediment in the greater water body.
- ❖ While Pristine Waters LLC provides a fixed price, all third party services quoted (when applicable and desired) in this proposal are subject to change based on conditions encountered. While its is rare, there are some instances where these prices may need to be adjusted based on unknown conditions.