



BIO-ORGANIC CATALYST
THE POWER IN NATURE®

CASE STUDY

bio-organic.com

BOC Recommendations To Improve and Maintain Consistent Water Clarity

The Graydon Pool, Ridgewood, NJ

Aqua-Cat™ Water Clarifier

Aqua-Cat™ is non-toxic, biocatalytic water clarifier developed for fresh or salt water pools. Aqua-Cat™ works as a biological catalyst, causing contaminants like body oils, lotions, and other organic matter to biodegrade and return to carbon dioxide and water.

- Aqua-Cat™ catalytic biodegrading of organic contaminants will reduce the amount of sanitizer required for bacterial and microbial control and help maintain chemical balance. Regular use of the product will decrease or eliminate the need for scale removers, algacides, clarifiers, filter cleaners or acid washing.
- Aqua-Cat™ works by increasing dissolved oxygen levels and rapidly catalyzing organic contaminants, resulting in crystal clear water.
- Aqua-Cat™ can reduce the amount of chlorine required for bacterial and microbial control. It also helps maintain chemical and pH balance.



BOC Recommendations To Improve Graydon Pool Water Clarity

The critical factors in maintain and improving the Graydon Pool water clarity are:

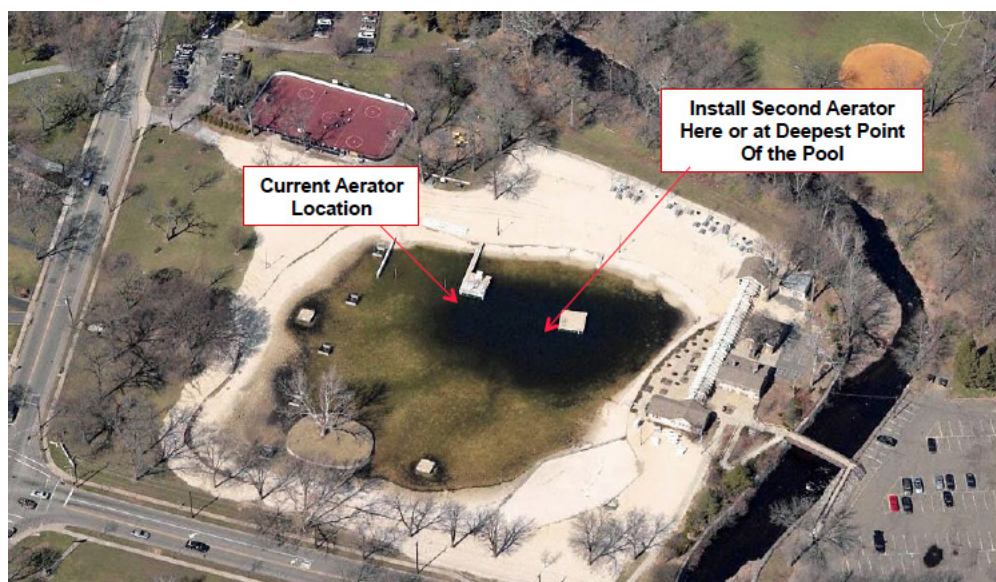
1. Maintenance of chlorine levels as regulated by NJ DEP.
2. Increase pool Dissolved Oxygen levels with aeration blowers and BOC. This will improve pool water circulation and biodegrade organic contaminants.
3. BOC's ability to breakdown of nutrient releases contained in anoxic in-pool bottom sediments.
4. Prevention of Organic contamination from storm water run off and or water foul from entering the pool.

BOC recommendations:

1. Since maintenance of Chlorine levels is critical in controlling algae, Install a Flow Monitor on Chlorine pumping system and or add a stand-by pump Flow monitors solve the age--old question, How do I know if my pump is pumping? This product is designed to be used with metering pumps to provide the user with verification of pump performance. *If the Flow Monitor detects output loss, it will shut the pump off and close a switch that may be tied to an alarm, which could be in turn be tied to a auto dialer--wireless or hard wired telephone. The alarm signal may also be used to trigger a stand-by pump.*

2. The Village will be installing a second aerator on the Southside of the pool this season.
 - Install the second aerator diffusers in the deepest part of the pool.
 - This will increase the DO levels substantially and will accelerate the biodegradation of organic contaminants contained in the pool bottom sediments and or when entering from stormwater runoff.
 - Consider installation of the third aerator as soon as possible to further improve the pool water circulation and DO levels. *Increased DO levels are a key element in the biodegrading organic contaminants and maintenance of minimal chlorine levels for the prevention of algae blooms, thus increased water clarity.*
3. Create and Discharge into the Sanitary sewage line on Northern Parkway.
 - This will allow the operation and maintenance of the chlorine levels at higher levels (With--in NJ DEP permit), which will prevent Algae propagation.
4. Pre-treat Pool Bottom with dilute solution of BOC prior to filling the pool for the season.
 - After the top layer of the pool bottom sand is removed and prior to it's replacement, spray a dilute solution of Aqua-Cat™ on to pool bottom. This will allow the BOC to come into contact with organic pool bottom sediments and it will naturally accelerate nutrient biodegradation process when the pool is restarted.

Aerial View Of Graydon Pool



Summary Of Results:

Use Of Aqua-Cat™ Water Clarifier In The Graydon Pool

Water Visibility - 2008

- June: Fluctuating 5 to 12 Feet
 - Sodium Hypochlorite usage: 744 gallons
- July: Fluctuating 2 1/2 to 12 Feet
 - Sodium Hypochlorite usage: 372 gallons

Water Visibility - 2009

- June: Consistent 12 Feet
 - Sodium Hypochlorite usage: 156 gallons
- July: Consistent 12 Feet
 - Sodium Hypochlorite usage: 96 gallons

In 2009 - Sodium Hypochlorite usage was reduced on average, 74% over 2008.