

Your Custom Vertex Aeration System Design Specifications

Lake Solutions Ver. 17 May 2016

Customer Name: Solitude Lake Management
Contact Name: Joe Onorato
Site Name/Number: Duck Pond
Date: December 19, 2017
Vertex Biologist: Tamerra Jones

Surface Acres:	24.50
Perimeter Feet:	8,125
Slope Ratio Relative to 1	7.5
Average Center Depth:	4.0
Average Depth	3.5
Circulation Constraint Percentage	0.0
Total Acre Feet	86.8
Lake Volume (Gallons)	28,286,401
Monthly Influent Volume (Gallons)	0
Total Volume Requiring Aeration (Gallons)	28,286,401
GPM / XL5 AirStation	3,859
Gallons Pumped / Day	55,565,844
System Working Pressure (PSI)	11.8
Air Delivery Per AirStation at Depth(CFM)	3.0
Number of XL5 AirStations Specified:	10
Complete Turnovers / Day	1.96

Terminology

Surface Acres:	Total Surface Acres of Entire Water Body
Perimeter Feet:	Distance in Feet Along The Shoreline Around the Water Body
Bottom Slope Ratio :	Distance in Feet From Shoreline For Each Foot Increase in Depth
Average Center Depth:	Average of Depth Readings in Deepest Areas
Average Depth	Average Depth of Entire Lake in Feet
Circulation Constraint %	Reduced Circulation Due to Narrow Lake Areas, Islands, Etc.
Total Acre Feet:	An Acre Foot Equals One Acre One Foot Deep
Lake Volume :	Volume of The Entire Water Body Expressed in U.S. Gallons
Influent Volume:	Water Flowing into Lake that Requires Additional Aeration Capacity
GPM	Gallons of Water Pumped Per Minute
Gallons Pumped / Day:	Total Gallons of Water Pumped by All AirStations Per Day
PSI	Pounds Per Square Inch
CFM	Cubic Feet Per Minute
# of XL5 AirStations:	Recommended Number of XL5 AirStations For Proper Aeration
Turnovers / Day:	Number of Times Per Day the Entire Volume of The Water Body is Pumped From the Lake Bottom to The Lake's Surface



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