

**MINUTES OF MEETING**

*Each person who decides to appeal any decision made by the Board with respect to any matter considered at the meeting is advised that person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which such appeal is to be based.*

**COPPERSTONE  
COMMUNITY DEVELOPMENT DISTRICT**

The regular meeting of the Board of Supervisors of the Copperstone Community Development District was held on **Tuesday, October 3, 2017 at 6:30 p.m.** at the Copperstone Clubhouse located at 8145 115<sup>th</sup> Avenue East, Parrish, FL 34219.

Present and constituting a quorum:

Amy Tran	<b>Board Supervisor, Chairman</b>
Dan Kiran	<b>Board Supervisor, Vice Chairman</b>
Gerard Litrenta	<b>Board Supervisor, Assistant Secretary</b>
Ryan Stulman	<b>Board Supervisor, Assistant Secretary</b>
Barry Schlotzhauer	<b>Board Supervisor, Assistant Secretary</b>

Also present were:

Joseph Roethke	<b>Regional District Manager, Rizzetta &amp; Company, Inc.</b>
Andy Cohen	<b>District Counsel, Persson &amp; Cohen, P.A.</b>
Denise Greer	<b>District Engineer, King Engineering, Inc.</b>
Kevin Plenzler	<b>Methodology Consultant, Fishkind &amp; Assoc. (via phone)</b>
Audience	

**FIRST ORDER OF BUSINESS**

**Call to Order**

Mr. Roethke called the meeting to order and conducted roll call.

**SECOND ORDER OF BUSINESS**

**Audience Comments on Agenda Items**

There were no audience comments.

**THIRD ORDER OF BUSINESS**

**Consideration of the Minutes of the Board of Supervisors' Regular Meeting held on August 24, 2017 and Special Meeting held on September 13, 2017**

On a motion by Mr. Kiran, seconded by Mr. Schlotzhauer, with all in favor, the Board approved the minutes for the regular meeting held on August 24, 2017 and special meeting held on September 13, 2017 for the Copperstone Community Development District.

**FOURTH ORDER OF BUSINESS**

**Consideration of Operation and Maintenance Expenditures for August 2017**

On a Motion by Ms. Tran, seconded by Mr. Kiran, with all in favor, the Board of Supervisors ratified the Operation and Maintenance Expenditures for August 2017 (\$14,480.59) for Copperstone Community Development District.

**FIFTH ORDER OF BUSINESS**

**Ratification of Agreement with Fishkind and Associates**

Mr. Roethke presented an agreement with Fishkind and Associates to the Board which was approved previously and needs to be ratified.

On a Motion by Mr. Schlotzhauer, seconded by Ms. Tran, with all in favor, the Board of Supervisors ratified the Methodology Consultant Agreement with Fishkind & Associates at a total cost of (\$20,000) for Copperstone Community Development District.

**SIXTH ORDER OF BUSINESS**

**Consideration of Resolution 2018-02, Declaring Special Assessments Related to Bond Refinancing**

Mr. Roethke presented Resolution 2018-02 to the Board which declares special assessments related to the bond refinancing for 2017. Mr. Cohen reviewed the details of this Resolution with the Board. Mr. Plenzler reviewed the details of the assessment allocation report and entertained various questions from the Board.

On a Motion by Mr. Kiran, seconded by Mr. Schlotzhauer, with all in favor, the Board of Supervisors adopted resolution 2018-02 for Copperstone Community Development District.

*(Ms. Greer left while the meeting was in progress at 6:50 p.m.)*

**SEVENTH ORDER OF BUSINESS**

**Consideration of Resolution 2018-03, Setting Public Hearing Related to Special Assessments on Bond Refinancing**

Mr. Roethke presented Resolution 2018-03 to the Board which sets the Public Hearing

related to special assessments on bond refinancing.

On a Motion by Mr. Kiran, seconded by Mr. Stulman, with all in favor, the Board of Supervisors adopted resolution 2018-03 which set the public hearing date related to special assessments on bond refinancing on November 15, 2017 at 6:30 p.m. to be held at Copperstone Clubhouse located at 8145 115<sup>th</sup> Avenue East, Parrish, FL 34219 for Copperstone Community Development District.

*(Mr. Plenzler left while the meeting was in progress at 6:58 p.m.)*

**EIGHTH ORDER OF BUSINESS**

**Presentation of Monthly Pond Inspection Report**

Mr. Roethke presented the monthly pond inspection report and reviewed the details with the Board. The Board requested updates on midge fly samples to be provided by Aquatic Systems.

**NINTH ORDER OF BUSINESS**

**Ratification of Midge Fly Proposal**

Mr. Roethke presented a proposal for midge flies to the Board which was already approved and needs Board ratification. The Board requested the schedule for these treatments to be provided by Aquatic Systems.

On a Motion by Mr. Tran, seconded by Mr. Kiran, with all in favor, the Board of Supervisors ratified the proposal from Aquatic Systems for midge fly treatments at a total cost of (\$3,540) for Copperstone Community Development District.

**TENTH ORDER OF BUSINESS**

**Consideration of Proposal for New Aquatic Plantings**

Mr. Roethke presented a proposal for new aquatic plantings to the Board. The Board did not approve this proposal at this time.

**ELEVENTH ORDER OF BUSINESS**

**Consideration of Proposal for Aeration System on Pond #22**

Mr. Roethke presented several proposals for an aeration system on pond #22 to the Board. The Board requested additional proposals to be presented at the next meeting.

**TWELFTH ORDER OF BUSINESS**

**Ratification of Insurance Proposal**

Mr. Roethke presented an insurance proposal from Egis to the Board which has already been approved and needs Board ratification. The Board asked about options for different named

storm deductibles to see how that will affect the premium, as well as, potential premium increases for additional property coverage for their bridges.

On a Motion by Mr. Tran, seconded by Mr. Kiran, with all in favor, the Board of Supervisors ratified the proposal from Egis for CDD insurance at a total cost of (\$9,048) for Copperstone Community Development District.

**THIRTEENTH ORDER OF BUSINESS**

**Consideration of Resolution 2018-01,  
Alternative Investment Guidelines**

Mr. Roethke presented Resolution 2018-01 to the Board regarding alternative investment guidelines. Mr. Cohen reviewed the details of this resolution with the Board.

On a Motion by Mr. Kiran, seconded by Mr. Schlotzhauer, with all in favor, the Board of Supervisors adopted resolution 2018-01 for Copperstone Community Development District.

**FOURTEENTH ORDER OF BUSINESS**

**Staff Reports**

**A. District Counsel**

Mr. Cohen discussed the next steps for the bond refinancing. Mr. Cohen discussed an additional liability defense Resolution that will be presented at the next meeting.

**B. District Engineer**

No report.

**C. District Manager**

Mr. Roethke stated that the next Board of Supervisor's meeting will be held on Wednesday November 15, 2017 at 6:30pm at the Copperstone Clubhouse located at 8145 115<sup>th</sup> Avenue East in Parrish, FL.

The Board would like to cancel this meeting on November 7, 2017 and will hold the regular meeting at the same time as the Public Hearing on November 15, 2017.

**FIFTEENTH ORDER OF BUSINESS**

**Audience Comments**

A resident asked a question about the public hearing on special assessments.

**SIXTEENTH ORDER OF BUSINESS**

**Supervisor Requests**

There were none.

SEVENTEENTH ORDER OF BUSINESS

Adjournment

On a Motion by Mr. Kiran, seconded by Mr. Stulman, with all in favor, the Board of Supervisors adjourned the meeting at 7:31 p.m. for Copperstone Community Development District.

  
Secretary Assistant Secretary

  
Chairman Vice Chairman

**COPPERSTONE CDD**

**EXHIBIT TO 10-3-17 MINUTES:**

**Solar Aeration Proposal for Lake 22**

September 27, 2017

Mr. Joe Roethke  
Copperstone CDD  
c/o Rizzetta & Company  
12750 Citrus Park Lane, Suite 115  
Tampa, Florida 33625

VIA EMAIL: [iroethke@rizzetta.com](mailto:iroethke@rizzetta.com)

**RE: Aeration Proposal  
Aeration Maintenance**

Dear Mr. Roethke:

Vertex Water Features is pleased to offer a truly superior lake aeration system. Please find enclosed our proposal option for your diffused aeration systems.

With over 20 years' experience in lake management and aquatic biology, our professionals provide aeration systems constructed of the highest quality components in the industry. Proven technology, rugged dependability and high performance are the trademarks of Vertex Water Features. Our attention to detail and focus on quality insures our customers that Vertex aeration systems are the best in the business.

Your systems will operate using a shore-mounted compressor that will deliver air to flexible membrane diffusers, located on the lake bottom, via 1/2 inch self-weighted tubing. The air coming into the diffuser(s) will be broken into millions of small (1-3mm) bubbles, generating a lift of bottom water and creating a gentle boil at the surface. This "turning over" of your lake will vent harmful gases such as carbon dioxide and hydrogen sulfide, while allowing the absorption of beneficial oxygen - **the lifeblood of a healthy lake.**

Also, enclosed is an agreement for MAINTENANCE of your AERATION equipment. You will find that the benefits of this service will extend the life of your system(s) and will help prevent the high cost of repair work.

If you have any questions or need any additional information, please do not hesitate to call me at (844) 432-4303.

Sincerely,



Chris Byrne  
Sales Manager

CB/dk

Enclosure

**Aeration and Restoration**



**Custom Floating Fountains**

**Vertex Water Features**

1-844-432-4303

2100 N.W. 33<sup>rd</sup> Street  
 Pompano Beach, Florida 33069  
 www.vertexwaterfeatures.com

**BriteStar Solar Aerator System Agreement - Installed**

Mr. Joe Roethke #4681-8  
**Copperstone CDD**  
 c/o Rizzetta & Company  
 12750 Citrus Park Lane, Suite 115  
 Tampa, Florida 33625  
 (813) 933-5571  
 jroethke@rizzetta.com

**Date of proposal:** September 27, 2017 CB-AO

*See Attached Technical Specifications.*

**TAX EXEMPT:** Please provide a copy of your Tax Exemption Certificate.

*We are pleased to quote special pricing below and reserve the right to "progress bill" as units are installed.*

Quantity	Description	Amount
<u>Site #22</u>		
3	BriteStar 3 Aeration Systems Wired 24VDC Includes a Total of 1350 Feet of BottomLine™ Weighted Supply Tubing. Includes a Total of 75 Feet of Trenching <i>(Additional trenching will be priced per foot)</i>	\$15,548.44
<b>Total Due Net 30 Days</b>		<b>\$15,548.44</b>
		<b><u>TAX EXEMPT</u></b>

**Terms & Conditions of Aeration Agreement**

*The above price is effective for 6 months from the date of this proposal.*

*If you are tax exempt, please attach a copy of your Tax Exemption Certificate with contract.*

1. This transaction is subject to the terms and conditions quoted below, notwithstanding any conflicting provisions submitted by BUYER.
2. No claims of any kind, whether as to products delivered or for non-delivery of products, shall be greater in amount than the purchase price of the products in respect of which such damages are claimed, and failure to give notice of claim within sixty (60) days from date of delivery, or the date fixed for delivery respectively, shall constitute a waiver by BUYER of all claims in respect to such products. No charges or expenses incident to any claims will be allowed unless approved by an authorized representative of SELLER. Products shall not be returned to SELLER without SELLER's permission. The remedy hereby provided shall be the exclusive and sole remedy of the BUYER. **In no event shall the SELLER be liable for loss of production, damage to materials, injury to persons, or other remote or consequential damages resulting from breach of any warranty, whether express or implied, including any implied warranty of merchantability of fitness, or from any cause whatsoever.**
3. SELLER shall under no circumstances be responsible for failure or delay in filling any order or orders when due to fires, floods, riots, strikes, freight embargoes or transportation delays, shortage of labor; material unavailability, inability to secure fuel, material, supplies or power at current prices or on account of shortages thereof, acts of God, or the public enemy; governmental order and/or regulations, affecting the conduct of SELLER's business with which SELLER in its judgment and discretion deems it advisable to comply as a legal or patriotic duty or to any cause beyond the SELLER's reasonable control.
4. In the event of liability, for any reason, to supply the total demands for the material specified in BUYER's order, SELLER may allocate its available supply among any or all purchasers, as well as departments and divisions of SELLER on such basis as SELLER may deem fair and practical without liability for any failure of performance which may result therefrom.



5. The BUYER may terminate this contract in whole or in part upon notice in writing to SELLER. The BUYER shall pay the SELLER the contract price for all products which have been completed prior to termination, and the cost of material or work in process, applicable taxes, plus a reasonable profit thereon, but in no event more than the contract price, or less than \$25.
6. Notwithstanding the credit terms shown, all shipments are at all times subject to the approval of SELLER's Credit Department and if the financial responsibility of BUYER is or becomes unsatisfactory, or if BUYER fails to make any payment in accordance with the terms of this contract, then, in any such event, SELLER may defer or decline to make any shipment hereunder except upon receipt of satisfactory security or cash payments in advance, or it may terminate this contract.
7. SELLER warrants that the products sold hereunder shall be free from defects in material and workmanship. SELLER's liability shall be limited solely to replacement or repair, and SELLER shall not be liable for any consequential damages nor for any loss, damages or expenses directly or indirectly arising in connection with the purchase or use of the products.
8. SELLER may instruct that remittances shall be sent to a bank or other receiving agency or depository. No receiving agency or depository has authority to settle claims for SELLER or to accept payment tendered as payment in full. Therefore, BUYER agrees that notwithstanding any endorsements or other legend appearing on BUYER's checks, drafts or other orders for payment of money, constitute payment in full or settlement of account.
9. **Collection terms are as specified on the face of signed agreement.** All amounts remaining due and owing 30 days after billing by SELLER shall bear interest at the rate of 1.5% per month until paid in full. No retainage shall be withheld from any payment involving this contract.
10. Any of the terms and provisions of BUYER's order which are inconsistent or at variance with the terms and provisions hereof shall not be binding on the SELLER and shall not be considered applicable to the sale or shipment of the materials mentioned and referred to herein. SELLER's agreement with BUYER is hereby made expressly conditional on BUYER's assent to the terms and conditions hereof. Unless BUYER shall notify SELLER in writing to the contrary as soon as practicable after receipt of the acknowledgment by BUYER, acceptance of the terms and conditions hereof by BUYER shall be indicated and, in the absence of such notification, the BUYER's acceptance of the goods shall be equivalent to BUYER's assent to the terms and conditions hereof. No waiver, alteration or modification of any of the provisions hereof shall be binding on the SELLER unless made in writing and agreed to by a duly authorized official of the SELLER. Waiver by either party of any default by the other hereunder shall not be deemed a waiver by such party of any default by the other which may thereafter occur.
11. This Agreement shall be governed by the Uniform Commercial code as adopted in the State of Florida, in the United States of America and as effective and in force on the date of this Agreement. Any action for breach of the agreement must be commenced within one ( 1 ) year after the cause of action has occurred.
12. This contract is not assignable or transferable by BUYER, in whole or in part, except with the written consent of SELLER.
13. Any errors appearing on the face hereof or incorporated herein are subject to correction with the consent of both parties.
14. This contract may be amended or modified only by a written agreement signed by an authorized official of each party expressly referring to this contract.
15. We reserve the right to progress bill as units are installed.
16. In the event of any dispute arising hereunder, the prevailing party shall be entitled to an award of reasonable attorney's fees and court costs against the non prevailing party including appellate level.
17. The sole and exclusive jurisdiction and venue for the determination of any disputes arising hereunder between the parties hereto shall be the 17th Judicial Circuit in and for Broward County, Florida and the undersigned agrees that said court shall have jurisdiction over the undersigned for determination of any disputes between the parties to this agreement.

**Buyer's Responsibilities**

**TO PREVENT A FISH KILL, VERTEX HAS ESTABLISHED THE FOLLOWING START-UP PROCEDURE. THIS SHOULD TAKE 7 DAYS:**

- Turn on system and operate for 30 minutes.
- Turn off the system for remainder of the day.
- Restart the system the next day and operate for 60 minutes. Turn off system for the remainder of day.
- Each day double the operating time from the previous day until the system is running continuously.

Please initial here \_\_\_\_\_ if you would like Vertex to perform the above start-up procedure for a fee of **\$140.00**.

**PERMITTING:** It is the PURCHASER's obligation to secure required permits and/or approvals from local authorities prior to installation of the diffuser.

**WARRANTY:** VERTEX will repair or replace, from date of install, any defective parts for a period of 1 year, diffuser unit 5 years and solar panels 5 years.

<p>Please provide the legal name and address of the owner of the property where the contracted work will be completed. Sign and print your name.</p>			
<p>The information below will be used to file a Notice to Owner (NTO) of the property. This formal notice is a standard procedure and explains that the owner is responsible for payment of the contracted services. If the Vertex Water Features invoice is not paid within 60 days from the completion of the work a lien may be filed against the owner of the property.</p>			
Property Owner(s):			
Owner Address:			
Owner Phone #:			
Vertex Water Features' Signature	Date	Authorized Customer's Signature	Title
		Print Name	Date
		Print Company Name	

**Vertex Water Features**  
 2100 N.W. 33<sup>rd</sup> Street  
 Pompano Beach, Florida 33069  
 www.vertexwaterfeatures.com

**BriteStar Solar Aeration Maintenance Agreement--Addon**

This Agreement made the date set forth below, by and between Vertex Water Features, a Florida Corporation, hereinafter called "Vertex", and

Mr. Joe Roethke  
 Copperstone CDD  
 c/o Rizzetta & Company  
 12750 Citrus Park Lane, Suite 115  
 Tampa, Florida 33625  
 (813) 933-5571  
 jroethke@rizzetta.com

Addon To Master Agreement: #0129-8  
 Master Agreement's Anniversary Date: 08/31/18

*NOTE: Vertex will schedule ADDON maintenance to coincide with current Aeration Maintenance Schedule.*

**Date of proposal:** September 27, 2017 CB-AO

hereinafter called "Customer". The parties hereto agree as follows:

1. Vertex agrees to perform aerator maintenance in accordance with the terms and conditions of this Agreement at the above-named site.
2. **Treatment Schedule Per Master Agreement.**  
 SEMIANNUAL (2) maintenance visits, as required (approximately once every 180 days).  
 Additional visits will be billed at time and materials.
3. CUSTOMER agrees to pay Vertex, its agents or assigns, the following sum for aerator maintenance:

**Site #22:** Three (3) BriteStar 3 Solar Aeration Systems    \$327.00    Semiannually  
 Includes Management Reporting

**TAX EXEMPT**

**Vertex Maintenance Agreement includes the following:**

**Our service includes the maintenance of the following:**

Compressor Services	QuietAir™ Cabinet Services
<ul style="list-style-type: none"> <li>◆ Replace compressor head gasket, piston cups as needed to maintain required air volume &amp; pressure output.</li> <li>◆ Adjust air manifold and pressure relief valves to insure optimal performance.</li> <li>◆ Clean or Replace air filter.</li> <li>◆ Check and adjust compressor, CFM and PSI.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Check cooling fan operation.</li> <li>◆ Remove excessive grass/weed growth from around compressor cabinet(s) to maintain optimal air flow and operating temperatures.</li> <li>◆ Application of fire ant bait around cabinet, if necessary.</li> <li>◆ Clean cabinet interior.</li> <li>◆ Lubricate cabinet hinges and barrel lock.</li> </ul>
AirStation™ Diffuser Services	Solar Components
<ul style="list-style-type: none"> <li>◆ Flex clean and adjust each AirStation™ diffuser assembly, for proper air flow and optimal performance.</li> <li>◆ Inspect and repair, airline supply tubing and fittings</li> </ul>	<ul style="list-style-type: none"> <li>◆ Inspect and clean terminals and connections</li> <li>◆ Inspect panel mounting system</li> <li>◆ Check for panel shading issues</li> <li>◆ Inspect panels for damage</li> <li>◆ Clean solar panel for maximum power output</li> <li>◆ Adjust panel orientation for maximum power output</li> <li>◆ Check and record voltage and amperage</li> </ul>
<p>No parts or special repairs are included in our service other than those parts specified above.                  Additional repairs will be invoiced separately.                  By charging for maintenance, Vertex does not assume responsibility for parts failure and repair costs not covered above.</p>	

No parts or special repairs are included in our service other than those parts specified above. Additional repairs will be invoiced separately. By charging for maintenance, Vertex does not assume responsibility for parts failure and repair costs not covered above.

**The above price is effective for 6 months from the date of this proposal.**

This Agreement shall have as its effective date the first day of the month in which services are first rendered to CUSTOMER.

This Addon Aeration Maintenance Agreement and its Terms & Conditions (as per your Master Agreement) are entered into in Broward County, Florida, which the parties agree is the place of payment and the situs jurisdiction in the event of dispute.

\_\_\_\_\_  
 Vertex Water Features' Signature      Date

\_\_\_\_\_  
 Customer/Authorized Agent's Signature      Title

Checks made payable to Vertex Water Features, Inc.  
**TAX EXEMPT:** If you are tax exempt, please provide a copy of your Tax Exemption Certificate

\_\_\_\_\_  
 Print Name      Date

\_\_\_\_\_  
 Print Company Name



## Your Custom Vertex Aeration System Design Specifications

Lake Solutions, BriteStar Ver. 5.1 12/07/16

Customer Name:	Copperstone CDD
Contact Name:	Mr. Joe Roethke
Site Name/Number:	Site 22 Solar
Date:	September 25, 2017
Vertex Biologist:	Tamerra Jones

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Surface Acres:	2.50
Perimeter Feet:	1,555
Slope Ratio Relative to 1	3.0
Average Center Depth:	13.5
Average Depth	9.6
Circulation Constraint Percentage	0.0
Total Acre Feet	24.0
Lake Volume (Gallons)	7,817,304
Monthly Influent Volume (Gallons)	0
Total Volume Requiring Aeration (Gallons)	7,817,304
GPM Per Diffuser Disk	1,782
Gallons Pumped / Day	9,620,794
System Working Pressure (PSI)	8.1
Air Delivery Per Diffuser Disk at Depth(CFM)	0.7
Number of Diffuser Disks Specified:	9
Complete Turnovers / Day	1.23

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### 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 Diffuser Disks Per Day
PSI	Pounds Per Square Inch
CFM	Cubic Feet Per Minute
# Diffuser Disks:	Recommended Number of Diffuser Disks 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



### Vertex Water Features

2100 NW 33rd Street, Pompano Beach, Florida 33069

Tel:800-432-4302 / Fax:954-977-7877

[www.vertexwaterfeatures.com](http://www.vertexwaterfeatures.com)

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# Vertex Water Features

Lake Aeration Systems & Floating Fountains  
Tel: (800)432-4302 / Fax (954)977-7877

## Copperstone CDD

Site 22 Solar

### (3) Britestar 3



#### Legend

Compressor Cabinet  
AirStation  
BottomLine Tubing

#### Optional Equipment

Shoreline Valve Box  
1" PVC Pipe

#### Site and System Specifications

Surface Acres:	2.5
Perimeter Feet:	1,555
Lake Volume, Gal.:	7,817,304
Total Acre Feet:	24.0
# Diffuser Disks:	9
CFM / Disk:	0.73
GPM / Disk:	1,782
Daily Pumpage:	9,620,794
Turnovers/Day:	1.23
System PSI:	8.1

Date: 9/25/17

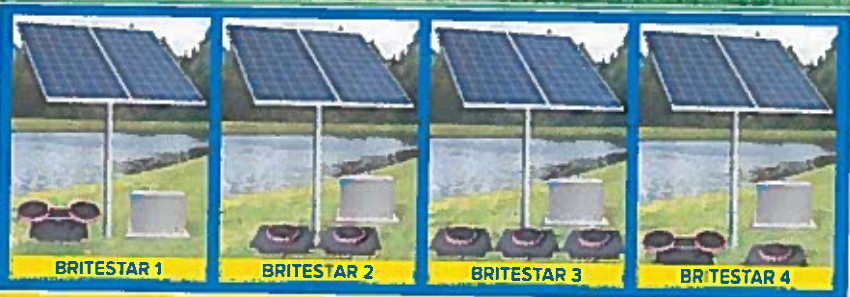
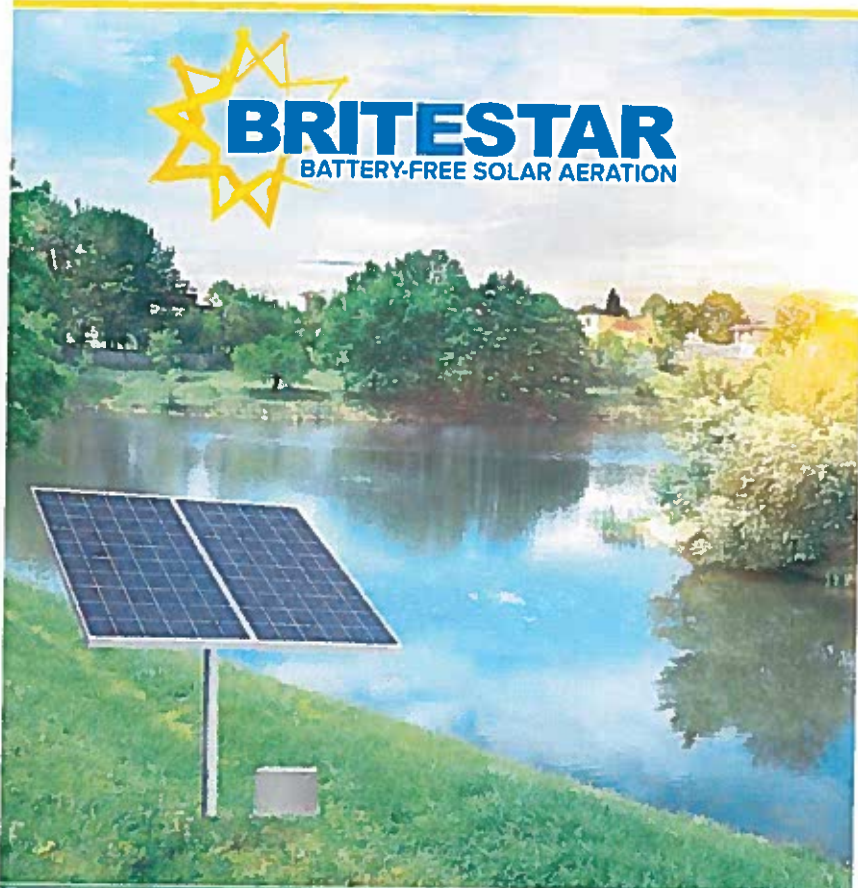






# BRITESTAR

BATTERY-FREE SOLAR AERATION



## Clean, Healthy Pond Water



Vertex Water Features has been the leader in aquatic aeration for over 30 years. Our new line of BriteStar battery-free solar aeration is the better choice for the environment and your wallet. It reduces the need for a power source to run the system and chemicals to combat the many problems caused by low oxygen, muck and high nutrients.

Microorganisms, plants, fish and other animals in your pond need oxygen to live, and nature may not be providing enough to keep everything healthy and in balance. Vertex aeration systems have been shown in INDEPENDENT TESTING to aid in pond restoration.

### BATTERY-FREE SOLAR SAVES TIME AND MONEY

Vertex's new lines of affordable, battery-free, high efficiency solar aerators are an environmentally and financially responsible solution for your pond or lake aeration needs.

Our economical break-through solar technology provides more aeration at both a lower purchase price and lower long term maintenance cost than battery operated systems.

By running earlier in the day and longer into early evening, BriteStar aeration systems provide ample night time dissolved oxygen to the aquatic ecosystem while offering a turnkey solution that saves you expensive battery purchase and replacement costs, monthly electrical costs, electrical power installations and long airline tubing runs.

### POND AERATION BENEFITS

- High pumping rate easily penetrates stratification layers
- Circulates entire water column
- Increases oxygen levels throughout water column
- Promotes beneficial bacteria growth
- Prevents low oxygen fish kills
- Reduces nutrient levels and associated algae growth
- Oxidizes/reduces bottom muck
- Expands oxygenated habitat for improved fisheries
- Reduces aquatic midge and mosquito insect hatches
- Eliminates foul odors from undesirable dissolved gases
- Safe entry – no electricity in the water

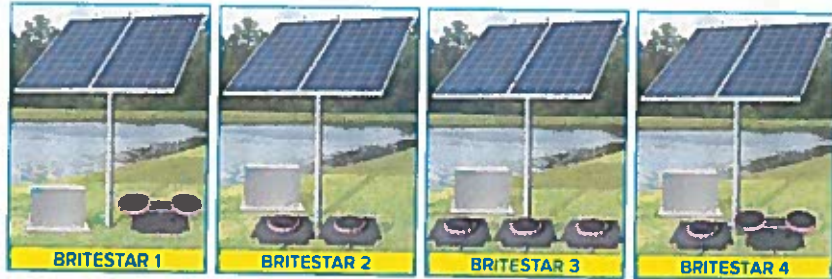
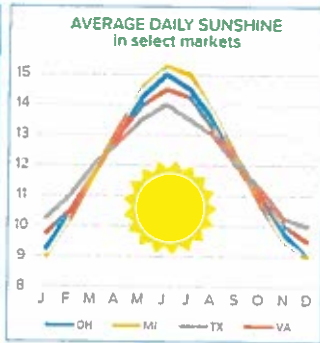
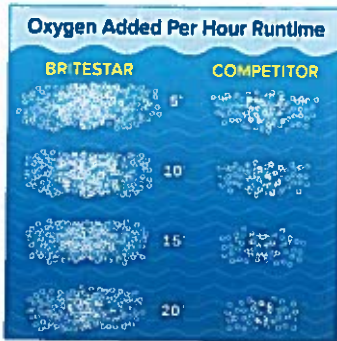


800-432-4302 • [www.vertexwaterfeatures.com](http://www.vertexwaterfeatures.com)  
2100 NW 33rd Street • Pompano Beach, FL 33069

# BRITESTAR™ BATTERY-FREE SOLAR AERATION SYSTEM SPECIFICATIONS



Longer runtimes when oxygen is needed the most



## Compare Our Systems to the Competition!

Model	BriteStar 1	BriteStar 2	BriteStar 3	BriteStar 4
Solar Panels with Racking	Two 260W Panels	Two 260W Panels	Two 260W Panels	Two 260W Panels
Minimum Sunlight Required	20%	20%	20%	20%
Digital 24V BLDC Motor	120W	120W	120W	120W
Max/Running Amps	5.0	5.0	5.0	5.0
Air Output (CFM) @ 5PSI	1.7	1.7	1.7	1.7
Maximum Depth	20'	20'	10'	10'
Restarts Under Pressure	✓	✓	✓	✓
Powder Coated Aluminum Cabinet	✓	✓	✓	✓
Super Quiet Operation	✓	✓	✓	✓
AirStation Model (Quantity)	One XL2	Two XL1	Three XL1	One XL1 and One XL2
Independently Tested AirStations	✓	✓	✓	✓
Self cleaning membrane diffusers	✓	✓	✓	✓

## High Torque 24 volt BLDC Digital Motor

- Powerful brushless motor design minimizes pressure loss to provide more air to your pond at depths greater than 5 feet
- Digital motor controller constantly balances solar power for maximum air flow at deeper depths
- Provides superior durability and reliability over ordinary (PM) permanent magnetic motors
- Has over 3X the life expectancy of a PM motor, about 10,000 hours versus about 3,000 hours for a PM motor
- Balanced components for a low noise and vibration free environment
- BriteStar compressors are backed by Vertex with a two year warranty



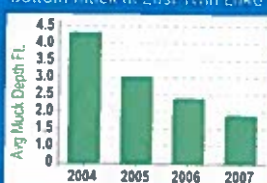
Reduced phosphates - a leading cause of algae at Heron Cay\*



Secchi disc showed improved water clarity at Heron Cay\*



Aeration decreased the depth of bottom muck at East Twin Lake\*



Wedge Flies were controlled at Hibbs Grove\*



Aeration provided higher levels of oxygen at Winston Park\*



\*Complete case studies: [www.vertexwaterfeatures.com/aeration/lake-restoration-and-aeration-case-studies](http://www.vertexwaterfeatures.com/aeration/lake-restoration-and-aeration-case-studies). Vertex reserves the right to improve/change our designs/specifications without notice. © 2015 Vertex Water Features