



HISTORIC
FRANKLIN
TENNESSEE

ITEM #11
WRKS 01/10/2012

MEMORANDUM

December 22, 2011

TO: Board of Mayor and Aldermen

FROM: Eric S. Stuckey, City Administrator
Russell Truell, Assistant City Administrator / CFO
Mark Hilty, Water Management Director
Russell Sullivan, Water Treatment Superintendent
Brian Wilcox, Purchasing Manager

SUBJECT: Consideration of sole-source purchase from SolarBee, Inc. of Dickinson, North Dakota in the total amount of \$57,030.00 for a quantity of one (1) SolarBee SB10000 v18 floating solar-powered water circulation equipment to be installed at the City's raw water reservoir for the Water Treatment Division of the Water Management Department (not separately budgeted for fiscal year 2012; CoF Contract No. 2011-0192)

Purpose

The purpose of this procurement is to purchase a quantity of one (1) SolarBee SB10000 v18 floating solar-powered water circulation equipment to be installed at the City's raw water reservoir for the Water Treatment Division of the Water Management Department. The purpose of this equipment would be to circulate the water in the City's raw water reservoir in order to reduce algae blooms, to prevent stagnation, and to improve dissolved oxygen distribution and overall water quality. The new equipment would be an addition to the Water Management Department's fleet of equipment and is intended to permit the department to discontinue chemical treatment of the raw water before it enters the City's Water Treatment Facility.

Background

SolarBee, Inc. has submitted a December 8, 2011 proposal (attached) for the SB10000 v18 (for a subtotal of \$49,572.00), and for factory delivery, installation and startup (for a subtotal of \$7,458.00), with pricing totaling \$57,030.00.

Staff is of the opinion that the proposed purchase, if authorized, would be a justified sole-source purchase instead of a purchase that would be pursued by means of a formal solicitation for sealed competitive pricing pursuant to public notice. Evidence to support this opinion includes:

- The SolarBee SB10000 v18 is only available for purchase direct from the manufacturer SolarBee, Inc. of Dickinson, North Dakota. See the attached December 5, 2011 letter from the manufacturer.
- The SolarBee SB10000 v18 is unique and possesses specific characteristics required by its intended use that cannot be filled by another product on the market. See the attached December 9, 2011 letter from the manufacturer.
- Water Management staff indicates that it has searched and is unable to find any other floating solar-powered water circulation equipment on the market that would meet the needs of the department.
- Because installation includes final assembly of the components, the manufacturer and or its authorized representative would be required to install the equipment in order not to void the warranty and in order to ensure proper operator training.



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SolarBee, Inc. has indicated in writing “that the purchase price presented in the open quotation for this equipment is the lowest municipal pricing available in the State of Tennessee, after allowing for differences in delivery and installation charges per site location, and in the foreseeable future for the quantity (1) and model [of] SolarBee unit proposed.”

Staff is of the opinion that the quoted pricing is within what would be expected in the market place for this industry at this time.

Financial Impact

The purchase of water circulation equipment to be installed at the City’s raw water reservoir is not separately budgeted in the current fiscal year. Staff believes this can be accommodated within the existing budget.

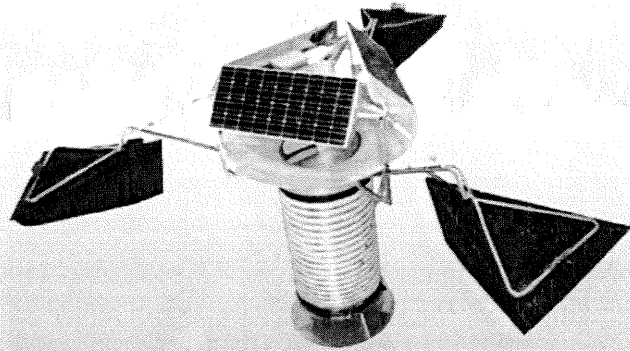
Options

The City could continue to use chemicals to treat the raw water at the City’s raw water reservoir. These chemicals are not considered best practice.

Recommendation

Staff recommends that the City accept the pricing quoted by SolarBee, Inc. of Dickinson, North Dakota and approve the sole-source purchase in the total amount of \$57,030.00 for a quantity of one (1) SolarBee SB10000 v18 floating solar-powered water circulation equipment to be installed at the City’s raw water reservoir for the Water Treatment Division of the Water Management Department. Purchasing Manager Brian Wilcox is of the opinion that the proposed sole-source purchase appears to be justified, and that the staff recommendation appears to be made in a fair and impartial manner based upon the information presented.

Proposal for:
City of Franklin, TN
c/o Russell Sullivan



December 8, 2011



Photo of Franklin Raw Water Reservoir provided by Google Earth

1.0 PROJECT DESCRIPTION

1.1 Name and Location of the Reservoir:

Franklin Raw Water Reservoir - Franklin, TN (GPS Coordinates: 35.903641°, -86.853887°)

1.2 Description of the Reservoir:

This is a 24-acre drinking water reservoir with a 14-foot maximum depth. All of the water is pumped in from the Harpeth River. The reservoir was recently cleaned out and a liner was installed. No recreation or boat traffic of any kind is seen on the reservoir. Copper sulfate was used in the past to treat the blue-green algae; however, since the liner was put in, hydrogen peroxide is currently dripped around the banks of the reservoir.

1.3 SolarBee Objectives, the Problems to Solve:

Epilimnetic deployment - Primary Objectives: To provide long-distance circulation in order to control harmful blue-green algae blooms, to prevent stagnation, and to improve dissolved oxygen distribution and overall water quality.

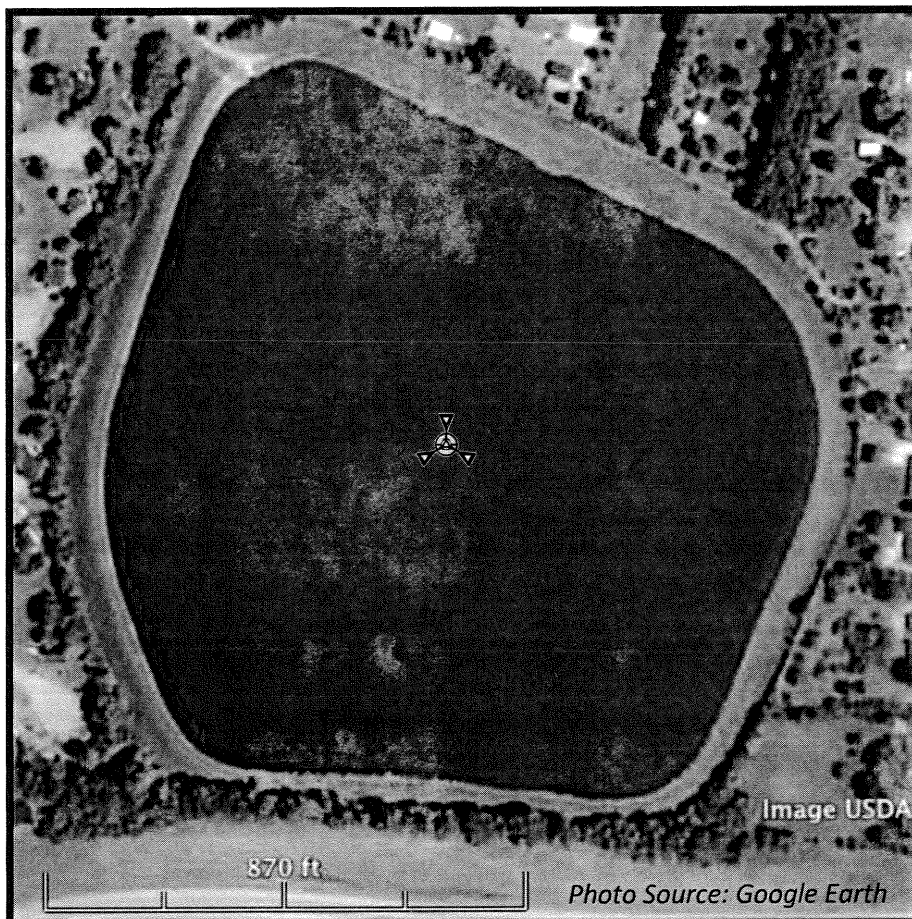
1.4 SolarBee's Recommendation:

To meet the above objective, we recommend the installation of one (1) SB10000 v18 machine.

This machine should prevent surface water stagnation and associated harmful blue-green algae blooms, which give off MIB and geosmin, and in turn reduce the amount of algal biomass (and biochemical oxygen demand) going to the bottom. By controlling algal blooms and enhancing the distribution of dissolved oxygen in the water column, the reservoir should be healthier with improved water quality.

Note: with SolarBee's ecological approach, we strongly discourage the use of algacides, including copper sulfate and hydrogen peroxide.

1.5 Proposed Layout:



SB10000 v18 machine is not drawn to scale, and final placement will be determined prior to installation.

2.0 INVESTMENT OPTIONS

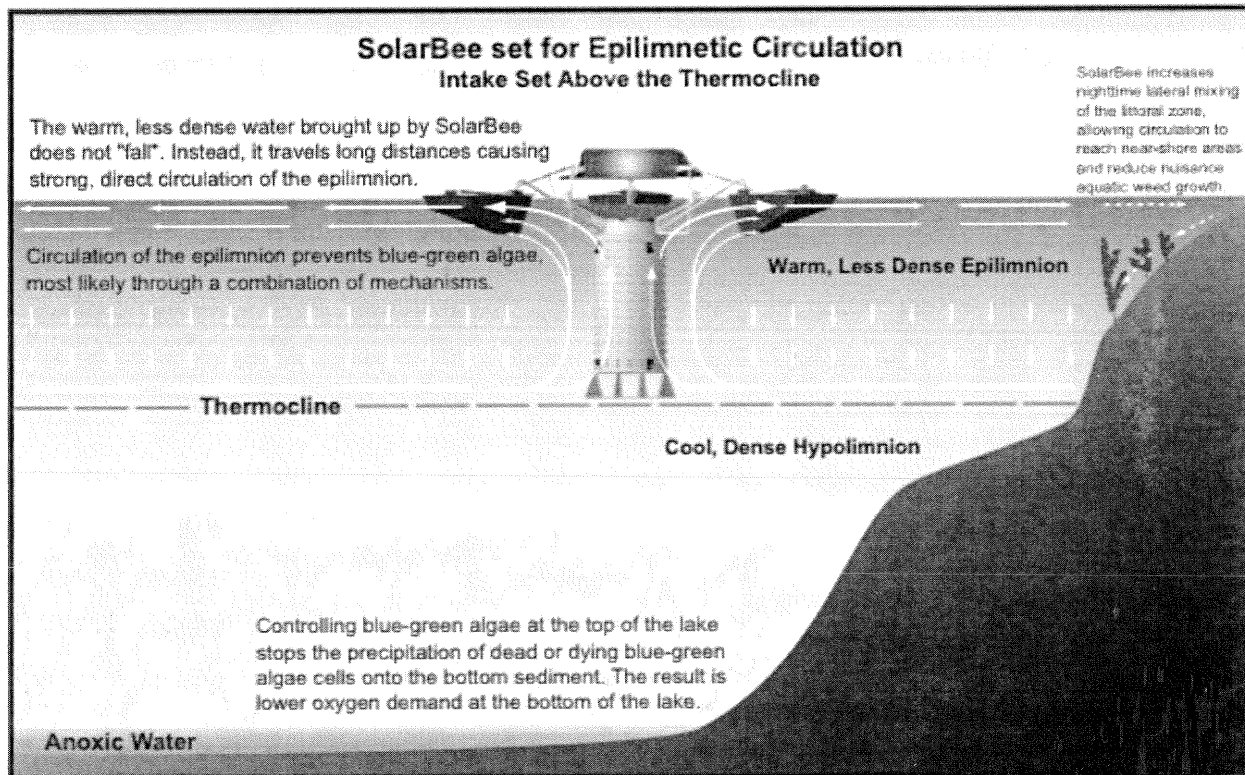
2.1 Recommended Machine:

Quantity	Description	Purchase Cost Total
1	SB10000 v18 machine per above, and factory delivery, installation, and startup:	\$57,030.00

Appendix A: Equipment

SB10000 v18 (Epilimnetic Circulation):

The SB10000 v18 features a 10,000 gpm (14.4 MGD) total flow leaving the machine, near laminar flow output for long distance circulation, 316 stainless steel and non-corrosion polymer construction, 25-year life high efficiency brushless electric motor design that provides day and night operation with a solar-charged battery power system, digital control system for intelligent power management with factory programmed reverse functions and anti-jam routines specific to this application, SCADA outputs, three (3) 80-watt solar panels, 36" diameter intake hose, anchoring system, and bird deterrent. See Appendix D - SolarBee Limited Replacement Warranty for information on the most extensive warranty in the industry.



Appendix B: Factory Delivery and Field Services

SolarBee, Inc. sends a factory trained Delivery & Field Services Team with specialized equipment to deliver, assemble, place, and start up your SolarBee machine(s). A training session on operation and maintenance is also provided for your personnel. Each Team member undergoes training such as Fall Protection, Confined Space Entry, Working Over Water, and Water Quality Testing.

As part of our standard operating procedures, the factory trained Delivery & Field Services Team will conduct vertical profiles with a YSI multi-parameter submersible probe, and at each test point measure dissolved oxygen, pH, temperature and specific conductance at every foot from the surface down to a depth of 25 feet, and at 5-foot intervals thereafter. A Secchi depth measurement will also be made at each test location. GPS coordinates are recorded for each machine and test point location.

Your water quality is our highest priority. Our commitment continues long after the Delivery & Field Services Team leaves your location and we strive to maintain contact with all our customers. Our Customer Service, Application Engineering, and Science Departments are available for any questions regarding machine operation and water quality.

Appendix C: Beekeeper Service Program

The Beekeeper is a program that utilizes Factory Crews to service and maintain proprietary designed equipment. The Beekeeper provides for more than just maintenance and service:

- It extends the warranty during the term of the Beekeeper
- It covers damage from Acts of God and vandalism
- It provides for power system upgrades and updates
- It provides hardware, firmware, and software for computer upgrades
- It provides scientific and technical support
- It provides for scheduled and unscheduled field service calls
- and much more, please request the Beekeeper brochure for more details

Appendix D: General Provisions

Purchase of the SolarBee circulation equipment in this quotation is an "Equipment Purchase," not a "Construction Project":

SolarBee circulation equipment is portable, and can be easily relocated or removed entirely from the premises at any time. They do not become an integral part of any building or other structure, and never become part of "real estate". Therefore, to purchase SolarBee circulation equipment, the city or other organization purchasing SolarBees should use the same procedure as for purchasing other portable equipment, such as a forklift, a drill press, or an office desk. SolarBee reserves the right not to accept an order if the purchase is incorrectly characterized as a "construction" project. SolarBee, Inc. has not found any state or other jurisdiction where construction or contractor statutes apply to portable equipment that is sold by a factory, with on-site final assembly and startup performed by factory personnel.

Assumptions:

This quotation may be based on worksheets and calculations that have been provided to the customer, either previously or else attached to this quotation. The customer should bring to our attention any discrepancies in data used for these calculations.

Quotation Validity Term:

This quotation replaces all prior quotations for this project. It is valid until replaced by a subsequent quotation, or for 60 days, whichever occurs first.

Delivery Time:

Delivery time varies, but is usually within 4-8 weeks from order date.

Payment Terms:

For governmental entities, and for homeowners associations that have pre-approved credit, payment is due 20 days after invoice date, and invoicing occurs when the goods leave the factory. For private individuals, payment is due by credit card or cashier's check before the goods leave the factory.

Currency:

All prices shown are in U.S. Dollars, and all payments made must be in U.S. Dollars.

Add for Taxes, Governmental Fees, and Special Insurance Requirements:

Except as indicated above, no taxes, tariffs or other governmental fees are included in the quote shown above, nor are there any costs added for special insurance coverage the customer may require. It is the customer's responsibility to pay all local, state, and federal taxes, including, sales and use taxes, business privilege taxes, and fees of all types relating to this sale, whether they are imposed on either SolarBee, Inc. or the customer, or whether these taxes and fees are learned about after the customer orders the equipment. The customer's purchase order should indicate any taxes or fees due on equipment and/or services, and whether the customer will pay them directly to the governing body or include the tax payment with the purchase and SolarBee, Inc. will submit them to the governing body.

Regarding insurance, SolarBee, Inc. maintains adequate liability and workman's compensation insurance to generally comply with its requirements for doing business in all fifty U.S. states, and will provide at no charge certificates of insurance when requested. However, if additional insurance or endorsements beyond the company's standard policy are required by the customer, then the costs of those additional provisions and/or endorsements will be invoiced to the customer after the costs become known.

Maintenance and Safety:

The customer agrees to follow proper maintenance instructions regarding the equipment as contained in the safety manual that accompanies the equipment or sent to the customer's address. It is the customer's responsibility to make sure that the circulators are used in a manner that keeps the ponds safe for people that may access them.

Government Regulatory Compliance:

In all reservoir/tank systems the customer must comply with all applicable governmental regulations. It is the customer's sole responsibility to inquire about governmental regulations and ensure that SolarBees are deployed and maintained so as to remain in compliance with these regulations and guidelines, and to hold SolarBee, Inc. harmless from any liability caused by non-compliance with these regulations and guidelines.

SolarBee Limited Replacement Warranty:

All new and factory-refurbished SolarBee equipment is warranted to be free of defective parts, materials, and workmanship for a period of 2 years from the date of installation. In addition, the SolarBee brushless motor is warranted for a period of 10 years from the date of installation. Photovoltaic modules (solar panels) carry manufacturer warranties, some ranging up to 25 years (see manufacturers' warranty for details). This warranty is valid only for SolarBee equipment used in accordance with the owner's manual, and consistent with any initial and ongoing factory recommendations. This warranty is limited to the repair or replacement of defective components, at SolarBee's discretion. The first 2 years the warranty also includes both parts and labor. In lieu of sending a factory service crew to the site for minor repairs, SolarBee, Inc. may choose to send the replacement parts to the owner postage-paid and, in some cases, may pay the owner a reasonable labor allowance to install the parts.

Except as stated above, SolarBee and its affiliates expressly disclaim any and all express or implied conditions, representations and warranties on products furnished hereunder, including without limitation all implied warranties of merchantability or fitness for a particular purpose.

Please consult your state law regarding this warranty as certain states may have legal provisions affecting the scope of this warranty.

Limitation of Liability:

Many of the employees at SolarBee have extensive scientific and practical knowledge relating to solving water quality problems. From time to time, they may offer solicited or unsolicited advice, ideas, judgment or opinions on how to deal with certain situations, none of which offers a guarantee of future events. Due to the many factors, complexity and uncertainty involved in solving water problems, you agree to release and indemnify SolarBee and its affiliates, employees and agents from and against any and all claims, liabilities, costs and expenses which such indemnified party may incur or become subject to related to or arising out of any services or products furnished by SolarBee to you, except to the extent that any claim, liability or expense results from the gross negligence or intentional misconduct of an indemnified party as determined in a final judgment by a court of competent jurisdiction.

In no event will SolarBee or its affiliates be liable for any damages caused by failure of buyer to perform buyer's responsibilities or for following SolarBee advice.

In no event will SolarBee or its affiliates be liable for any lost profits or use or other punitive, special, exemplary, consequential, incidental or indirect damages, however caused, on any theory of liability, whether or not SolarBee has been advised of such damages, or reasonably could have foreseen the possibility of such damages, or for any claim against buyer by another party.

Method of acceptance of this quotation:

To accept this quotation, please issue a purchase order to SolarBee, Inc., 3225 Hwy. 22, Dickinson, ND 58601. The purchase order can be mailed, or it can be faxed to 701-225-0002 at the home office. The purchase order should refer to the date of this quotation, and will be assumed to include this entire quotation by reference.

If purchase orders are not utilized, please sign and date the last page of this proposal, provide billing information, and either fax to 701-225-0002 or email to Orderprocessing@SolarBee.com



Solar-Powered Reservoir Circulator

"Quality Water, Naturally"

http://www.solarbee.com

Main Office and Service Center
SolarBee, Inc.

3225 Hwy 22, PO Box 1930, Dickinson, ND 58602
(866) 437-8076 • (701) 225-4495 • Fax (701) 225-0002

December 05, 2011

Mr. Brian W. Wilcox
Purchasing Manager
City of Franklin, TN

Ref: SolarBee Sole Source

Dear Mr. Wilcox,

This letter is to certify that the SolarBee Model SB10000 v18 solar-powered circulator, which the City of Franklin, TN is considering purchasing for the Franklin Raw Water Reservoir, is only available through SolarBee, Inc. of Dickinson, ND. SolarBee, Inc. is the manufacturer of this equipment and the sole licensee of this technology, and the Eshelman Co. is SolarBee's exclusive representative for the State of Tennessee.

Also, SolarBee, Inc. certifies that the purchase price presented in the open quotation for this equipment is the lowest municipal pricing available in the State of Tennessee, after allowing for differences in delivery and installation charges per site location, and in the foreseeable future for the quantity (1) and model SolarBee unit proposed.

Sincerely,

SolarBee, Inc.

Printed Name and Title: Jed Hertz-Pros

KRISTY HINTZ
NOTARY PUBLIC, STATE OF NORTH DAKOTA
MY COMMISSION EXPIRES JULY 10, 2014
(Notary Seal)

The above individual signed this letter in my presence on December 5, 2001.

Attested to by Kristy Hintz, Notary Public, Stark County, State of North Dakota.



Darren Tessier – Applications Engineer

Main Office and Service Center
SolarBee, Inc.
3225 Hwy 22, Dickinson, ND 58601
(866) 437-8076 • (701) 225-4495 • Fax (701) 225-0002

December 9, 2011

Russell Sullivan
City of Franklin, TN
838 Lewisburg Pike
Franklin, TN 37064

Re: SolarBee unique machine specifications

Dear Mr. Sullivan,

Aside from providing water circulation treatment in over 300 lakes and raw water reservoirs, there are many features that make the SolarBee Model SB10000 v18 unique. The most significant specifications are:

- High flow rate (14.4 MGD)
- Runtime hours – SolarBees have a power management system that calculates how much energy the battery has remaining to make certain the machines run at least 98% of the time at most latitudes in the United States.
- Anti-Jam Reverse mechanism, which allows for automated self-clearing for locked rotor, triggered by high-current occurrences caused from a jammed impeller.
- Adjustable Horizontal Water Intake that is capable of being field adjusted to a set level below the water surface without requiring machine removal and reinstallation.
- The brushless, direct-drive (no gearbox), low-voltage motor, which uses less than 40 watts of power, is not submerged and comes standard with a 10-year warranty.
- The solar panels are of the monocrystalline type with an anti-reflective SiN coating; they come with a 25-year manufacturer's warranty to provide at least 80% of minimum warranted power output and 90% of minimum warranted power output over 12 years.
- 316 stainless steel construction
- Teflon freeze sleeve and positive pumping under distribution dish to maintain circulation.
- Digital solid-state controller, mounted in weather-tight (NEMA 4X) enclosure with externally fused disconnect. SCADA output through RS-232 serial communication (Modbus RTU), DB9 male connection point inside enclosure.

Best Regards,

Darren Tessier, Applications Engineer
SolarBee, Inc.