

BOSTON GROUNDWATER TRUST (BGwT)
BOARD MEETING
March 15th, 2018

The Board of Trustees of the Boston Groundwater Trust met in the Heritage Room at the Lenox Hotel located at 710 Boylston Street, Boston, MA. The Executive Director electronically distributed the meeting notice and agenda to the City Clerk at Boston City Hall in accordance with the provisions of the Commonwealth of Massachusetts' Open Meeting Law. Mr. Mitchell, co-chair, called the meeting to order at 4:08 pm. The following trustees were present:

Mr. Tim Mitchell, Neighborhood Association of the Back Bay
Mr. Gary Saunders, Boston Back Bay Association
Mr. Andre Jones, Fenway Community Development Corporation
Mr. John Hemenway, Beacon Hill Civic Association
Ms. Janine Commerford, Greater Boston Real Estate Board
Ms. Angie Liou, Asian Community Development Corporation
Mr. Peter Shilland, Ellis Neighborhood Association

Also present:

Mr. Christian Simonelli, Executive Director; Mr. Rory Cuddyer, Chief of Staff, City of Boston, Office of Environment, Energy, & Open Space; Mr. Steve Moore, Chief of Staff for Boston City Councilor Ed Flynn; Mr. Daniel McCormack; CEO, BluCloud Tech, Inc., Mr. Ian Sloan, Emerson College Student; Mr. Michael Cerullo, Emerson College Student

1. Presentation by Daniel McCormack of BluCloud Technologies

Mr. Simonelli introduced Mr. Daniel McCormack, CEO of BluCloud Tech Inc. Mr. McCormack presented a potential remote monitoring solution for the Trust's observation wells. He covered the following points during his presentation to the Board:

- What BluCloud offers
- How a remote monitoring solution can benefit the Trust
- Description of devices that can be used in Trust wells/how they connect to the internet to transmit data
 - Batteries that power cellular gateway device can last approx. 5 years
 - Sensors (dataloggers) can last between 5-10 years
 - Calibration for sensors every 2-5 years
 - Low power consumption
- Can remotely adjust and fix units if a problem arises
- Tech team available anytime if insurance option is purchased
 - All work and all gateway materials are covered under the insurance
- Reviewed the pilot device deployed in BGwT well
 - Installed on 12/12/17 & has been recording 4 readings per day
 - Water level data plotted on graph vs. rainfall is posted on remote website
 - Water level data available to be downloaded into Excel spreadsheet

Mr. McCormack took questions following his presentation. Refer to the attached presentation for additional details. Discussion followed.

2. Adoption of the minutes of the January 11th, 2018 Meeting

Minutes were previously emailed to Board members for review. Discussion followed. Mr. Hemenway, Trustee, moved to adopt the minutes. Ms. Liou, Trustee, seconded the motion.

Voted: To accept the minutes of the January 11th, 2018 meeting.

3. Financial Report & FY 2019 Preliminary Budget Discussion

Mr. Hemenway reviewed the BGwT's financial reports. Discussion followed.

Mr. Simonelli and co-chairs Mr. Saunders and Mr. Mitchell reviewed the draft FY 2019 Budget. Discussion followed. Mr. Simonelli will follow up on the recommendations made by the Board for the Executive Director's health and dental insurance options, City Appropriation number for FY19, and expense numbers in the reserves budget. The board will review the budget at that time, suggest any edits, and bring it to a vote at the May 17th Board meeting.

4. Board Meeting Formats

Mr. Mitchell reviewed the results of Mr. Simonelli's individual meetings with Trustees. Mr. Mitchell discussed Board meeting length times and frequency, presentations made to the Trustees by outside experts, and frequency of executive sessions. Discussion followed.

5. Executive Director's Report

BGwT Executive Director Mr. Christian Simonelli distributed his report. Discussion followed. Refer to the attached *Executive Director's Report March 15th, 2018* for a complete list of activities.

6. Executive Session

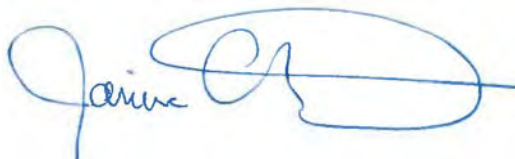
At 5:25 pm the board entered into an Executive Session to discuss a personnel matter. At this point Mr. Simonelli left the room. Discussion followed.

The discussion ended at 5:43 pm. At this time the Trustees returned to open session and Mr. Simonelli re-entered the room. Discussion followed.

The meeting adjourned at 5:46 p.m.

NEXT MEETING: May 17th, 2018 @ 4:00 pm at the Lenox Hotel.

Notes submitted by Christian Simonelli, BGwT Executive Director, on 3/20/18.
Approved 28 March 2018



J Commerford, Secretary

EXECUTIVE DIRECTOR'S REPORT
March 15th, 2018

1. **Readings** –I have hired a new part time Field Engineer from Wentworth Institute of Technology and he is wrapping up our first set of well readings of 2018.
2. **Meetings/Presentations** –
 - a. Along with Noel Dicarolo of Warsaw, Dicarolo & Associates I presented to the Re/Max Leading Edge brokerage Newbury street office. (1/18)
 - b. I wrote a comment letter for the 1241 Boylston Street Project (1/26).
 - c. I was deposed for Samuel D Perry vs. Board of Appeals case (1/23). In addition, I reviewed the recording of my deposition and provided the corrections to the Errata Sheet. (2/1)
 - d. I met with Bashir Madamidola of the MBTA to discuss the reactivation of the groundwater action plan team and finding a permanent solution for the low water levels in the South End Ellis Neighborhood. (2/5)
 - e. Along with Councilor Josh Zakim, I presented the groundwater issue to newly elected Councilors Lydia Edwards, Edward Flynn, and a representative from Councilor Kim Janey's staff. (2/7)
 - f. I've met weekly with Professor James Lambrechts and Vincent Umipig of Wentworth. We reviewed an outline to begin writing a follow-up to Professor Lambrechts 1986 paper on Groundwater in the Back Bay.
 - g. I spoke & met with residents & developers throughout the GCOD to discuss ZBA procedures and advised them on what they need to provide us to satisfy the zoning.
3. **Project LightWell** – I'll be meeting with Michelle Laboy and Josh Fiedler in the coming weeks to discuss relaunching the program along Boylston Street in the spring of 2018. I'm coordinating with the Boylston branch of the Boston Public Library to display our interactive map and interactive cover currently on display at the AutoDesk facility.
4. **Video Project** – I continue to work with Don Schechter of Charles River Media and Mike Atwood of Haley and Aldrich to develop our video project. I anticipate having a deliverable by our next Board meeting in May.
5. **MBTA** - Approximately 43 gpm is being injected into recharge wells in the South End Ellis Neighborhood area along Appleton, Berkeley, Saint Charles, Cazenove, and Clarendon Street. In addition to our manual monitoring we have 4 wells in the area with dataloggers recording a water level every 60 min. The MBTA has confirmed that funds set aside for the ongoing recharge efforts in the South End will be made available to them through the Mass DOT FY2018-2022 Capital Investment Plan. At the last City-State Groundwater Working Group meeting the MBTA's consultant updated the group on the history of the depressed levels in the Ellis neighborhood. Going forward I'll be working with the MBTA, members of the City-State, residents, and the appropriate elected officials to find a permanent solution for the South End Ellis Neighborhood.
6. **DCR** – I have dataloggers installed in 3 wells to monitor the levels along the Storrow Drive tunnel pump station groundwater recharge system. Levels are within their usual range and the system continues to work as designed. The DCR and their consultants are working with the DOT on traffic studies in support of a redesign effort for the underpass. Recharge will be part of that plan and will be targeted for upgrade.

7. **BWSC** – An update on the following:
 - a. Repairs along Fairfield Street, in the vicinity of Beacon and Marlborough Streets in the Back Bay, have continued to have a positive effect on groundwater levels. Around a half a dozen wells in the area have hit all-time highs. We continue to datalog 3 wells in the area to verify that the repairs hold.
 - b. BWSC and their contractor did an excellent job of performing the work in a timely manner and coordinated with abutters in the neighborhood to help minimize impact of the repairs to their daily activities.
 - c. BWSC continues their investigations in the South End, North End, and Stuart Street area of the Back Bay between Berkeley and Dartmouth Streets.
8. **MWRA** - Inspected approximately 4,000-ft. of the Boston Marginal Conduit (BMC), which runs along the Storrow Drive embankment. Minor signs of infiltration at four spots were discovered during the inspection. Those four spots will be repaired. Additional inspections were conducted this past July and no new leaks were observed. A final investigation will be conducted once groundwater levels rise and repairs are scheduled for the spring of 2018.
9. **MassDOT** - Repairs to 60' of the 30" reinforced concrete pipe, which runs parallel along the Turnpike and terminates at the prudential garage, were made this summer. So far there has been no benefit to area groundwater levels. The plan is inspect during dry weather this fall to verify that the repairs have held. Additional investigations will be conducted.
10. **Website** – Traffic on the website remains steady. We have around 150 visits/day and just over 300 page-views/day.



BGwT

Remote Groundwater Monitoring Solution

What We Do

We Specialize in Remote Monitoring Solutions

Remote Monitoring Systems



Cellular Gateway



Depth Sensor

**We make devices to connect sensors to the Internet.
That's what we do.**

Data Analytics and Reporting

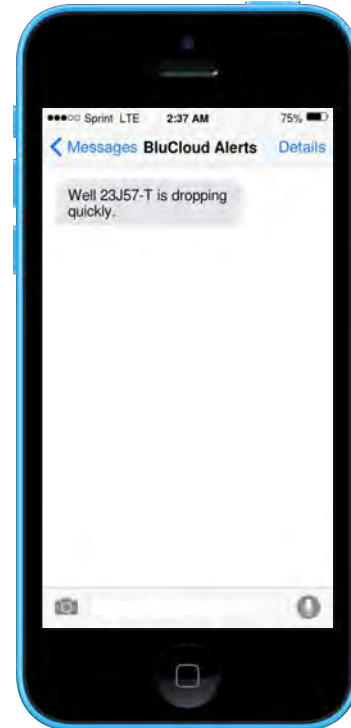


What You Need

Turnkey Remote Monitoring Solution with Low Overhead

Groundwater Level Monitoring

- Digital monitoring reduces manual monitoring
- BluCloud's solution reduces need to visit well sites
 - Data anytime, Anywhere, Any weather
 - Compiles data automatically
 - Provides alerting capabilities



Cellular Well

Measure, Alert, Maintain

Rugged Cellular Gateway

Streams sensor readings via SMS

- Waterproof
- Rugged ABS construction
- Non-metallic
- Secure
- Low Power
- Battery Powered



Depth Sensor

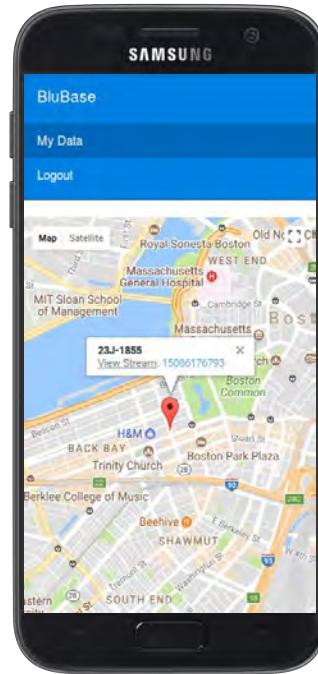
Takes reliable measurements

- Current “gold standard”
- Scalable and reliable
- Stainless steel construction
- Accuracy: $\pm 0.2\%$



BluBase

Stores data and sends alerts



- Real-time check ins
- Multiple sensor types
- Location correlation
- Effortless data export
- Instant data streaming
- Accessible anywhere

Data Summaries

Converts data into insight

- Data comparison across devices
- Intelligent descriptions
- Correlational data projections



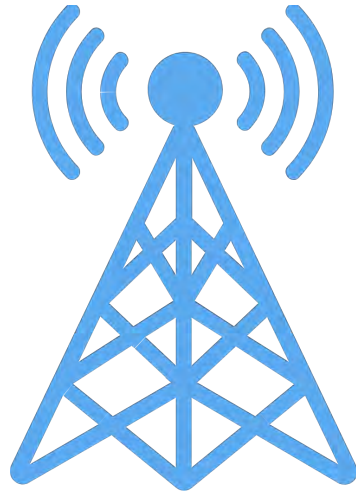
Certified Field Technicians

1. Available anytime
2. All work covered under insurance policy
3. All gateway replacement materials are covered under policy

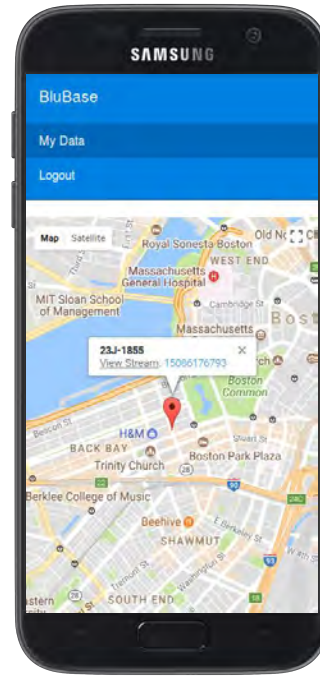
Why BluCloud



Hardware



Data



Web Platform



Service

Our Hardware/Services

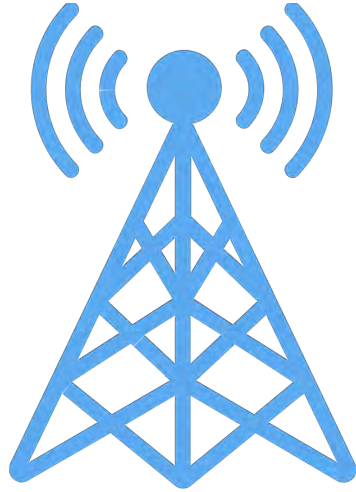


\$650/device

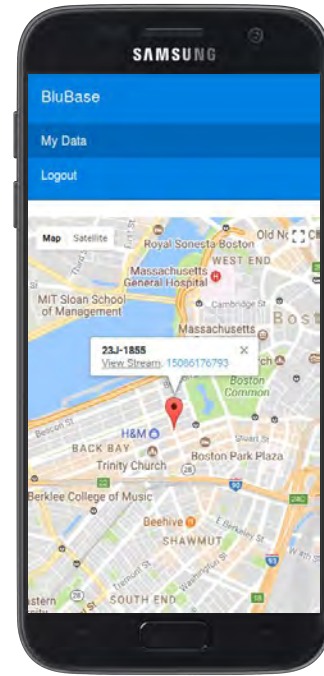


\$99/device/yr

Our Software



\$1.25/device/mo



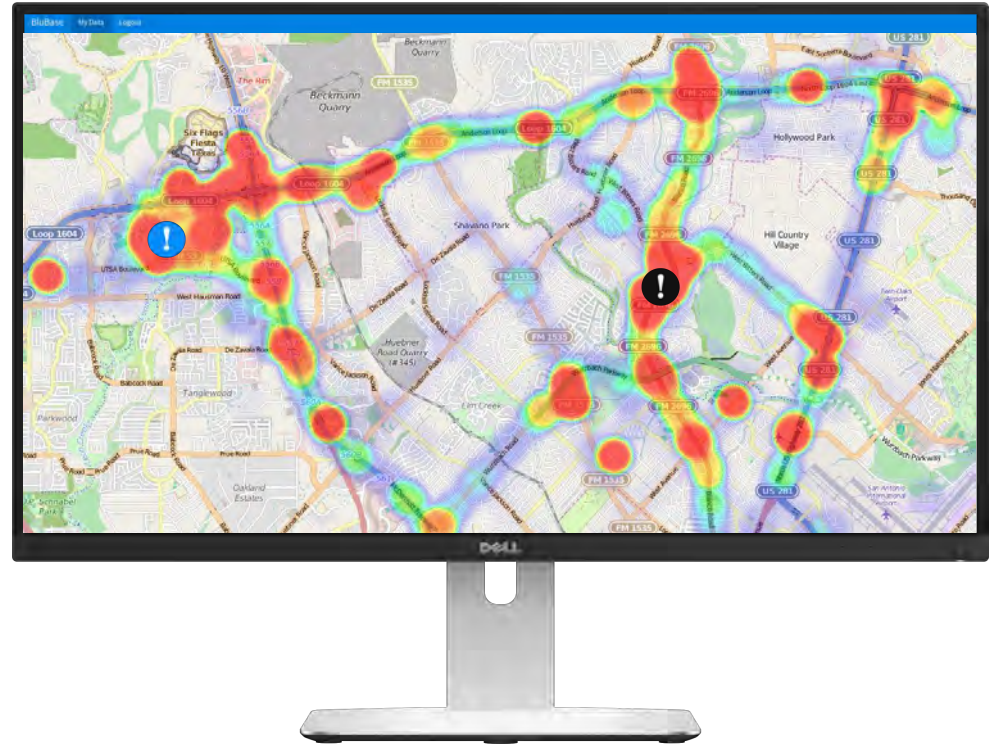
\$300/year

Unlimited Devices

Value-Adds

Hardware reusable for future
City of Boston projects, such as:

- Traffic monitoring
- Environmental data
- Water table stability
- Noise detection
- “Smart city” networking





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