

BOSTON GROUNDWATER TRUST (BGwT)  
BOARD MEETING  
September 16, 2010

The meeting of the Board of Trustees of the Boston Groundwater Trust held its meeting in Boston City Hall Room #603. The Executive Director posted a meeting notice at City Hall in accordance with provision of the Commonwealth's Open Meeting Law. Mr. Mitchell called the meeting to order at 4:09 pm. The following trustees were present, and the Chairman declared that there was a quorum:

Mr. Tim Mitchell, Neighborhood Association of the Back Bay  
Mr. Galen Gilbert, Fenway Community Development Corporation (CDC)  
Mr. Peter Sherin, Greater Boston Chamber of Commerce  
Ms. Molly Sherden, Beacon Hill Civic Association  
Mr. Peter Shilland, Ellis Neighborhood Association  
Mr. Jim Hunt, Mayor's Office  
Ms. Nancy Grilk, Mayor's Office  
Mr. William Onuoha, Mayor's Office

Also present:

Elliott Laffer, BGwT Executive Director; Christian Simonelli, BGwT Technical Coordinator; Paul Nelson, Resident 100 Fulton Street in the North End

**1. Adoption of the minutes of the July 29, 2010 Meeting**

Minutes were previously distributed to board members for review. Discussion followed.

Mr. Hunt, Trustee, moved to adopt the minutes. Ms. Sherden, Trustee, seconded the motion.

**Voted:** To accept the minutes of the July 29, 2010 meeting.

**2. Financial Report**

Ms. Sherden reviewed the BGwT *Financial Report and Reconciliation Detail*. Ms. Sherden reviewed the interest rates and maturation dates for all CD's. Discussion followed.

Ms. Sherden noted that the BGwT purchased a new computer and copier because the old ones had failed. Total cost was around \$1,500. Discussion followed.

Mr. Gilbert, Trustee, inquired if the BGwT has a credit card. Mr. Laffer noted that the BGwT does not. Mr. Gilbert asked if the BGwT should obtain a credit card. Discussion followed.

**3. Tufts Research Project**

Mr. Laffer reviewed the meeting he, Mr. Simonelli, and the BGwT Technical Advisory Committee attended. He noted that a draft report was distributed, and that it was reviewed by all who attended the meeting. Refer to Mr. Laffer's *Executive Director's Report: September 16, 2010* for additional details. Mr. Laffer noted that the report, based on a statistical study of all of the observation wells and recharge locations in

the Back Bay, showed that the recharge was having a statistically significant positive impact on area groundwater levels. The researchers have developed a model that can predict the impact of one or more recharge locations on any given observation well location in the Back Bay based on size of the recharge and distance from the observation well. While the model would vary somewhat in other neighborhoods because of variations in the composition of the fill, the general findings are transferable. Discussion followed.

Mr. Shilland, Trustee, also commented on the positives of the model. He noted that evapotranspiration has been added to the model to account for trees; most notably the Commonwealth Avenue Mall. Discussion followed.

Mr. Gilbert requested the BGwT obtain costs for the amount of money people spend on complying with GCOD where applicable. Discussion followed.

Mr. Gilbert requested that the BGwT issue a press release once the final report is received. Mr. Laffer noted that he will do that.

#### **4. Focus on Hot Spots**

Mr. Simonelli presented his analysis of 11 various deemed hot spots throughout the city.

Mr. Simonelli focused on annual average groundwater levels vs. annual rainfall for the OW's in a particular hot spot. He discussed changes that had occurred in the hot spot areas that could account for variations in groundwater levels that differ from those observed over the system as a whole. Discussion followed.

#### **5. Executive Director's Report**

BGwT Executive Director Mr. Elliott Laffer distributed his report. Discussion followed. Refer to the attached *Executive Director's Report: September 16, 2010* for a complete list of all activities.

#### **6. Technical Coordinator's Report**

BGwT Technical Coordinator Mr. Christian Simonelli presented his activities since last meeting. Discussion followed. Refer to the attached *Technical & Recharge Coordinator's Well Monitoring Update BGwT Meeting: September 16, 2010* for a complete list of all activities.

#### **7. Other Business**

Mr. Laffer noted that he met with the new Commissioner of Public Works and her key staff. He noted that it was an excellent meeting that included discussion of how to get more recharge through the DPW controlled sidewalk system. In addition, the BGwT well network will be put into the DPW's database of infrastructure. This will ensure protection of the wells in the network when work is being done in public sidewalks. Discussion followed.

Mr. Hunt suggested that Professor Vogel and Brian Thomas of Tufts present their results of the Research Project at the next BGwT meeting. Mr. Laffer will check with them for their availability.

**The meeting adjourned at 5:45 p.m.**

**NEXT MEETING: November 18, 2010 @ 4:00 pm at the Lenox Hotel.**

Notes submitted by Christian Simonelli, BGWT Technical Coordinator, on 9/17/10.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Galen Gilbert". The signature is written in a cursive, flowing style.

Galen Gilbert, Secretary

**EXECUTIVE DIRECTOR'S REPORT**  
**September 16, 2010**

1. **City-State Groundwater Working Group** – The Working Group will meet again on October 28.
2. **Well Installation** – We have been reimbursed by the contractor for the well that we had to install on Huntington Avenue to replace one destroyed during sidewalk installation work there.
3. **MBTA** – The MBTA continues to go forward with plans for the long term solution for low groundwater issues in the South End in the vicinity of Back Bay Station. They received letters of interest from six engineering firms for the tunnel rehabilitation project that includes the groundwater related work on July 14. They expect to complete the selection process and award a contract by September. Because the groundwater related work is one of the first items to be completed under the contract, they expect construction could start by Spring 2011.
4. **BWSC** – BWSC has completed repairs on the sewer on Richmond Street in the North End. Our initial readings of the observation wells after the repair are encouraging, with all of those in the immediate area rising generally more than others in the North End. We continue to work with BWSC and area businesses and residents to understand the reason for high groundwater levels in a section of the South End south of Washington Street; it appears from our data and anecdotal information that there is substantial tidal influence, and BWSC has identified a tide gate that appears to be leaking.
5. **MWRA** – MWRA has substantially completed their major sewer project in East Boston, including the siphon that goes under the Blue Line near Porter Street. We continue to see some improvements in groundwater levels in the area and will be watching this closely over the next few months.
6. **DCR** – The groundwater levels at the observation wells along Back Street that had dropped when DCR needed to turn off the recharge have largely recovered.
7. **GCOD** – In what is hopefully a sign of an improving economy, we are beginning to see an increase in cases coming before the Board of Appeals under GCOD. Compliance remains virtually 100%, thanks to the efforts of the Board, BWSC, and ISD.
8. **Research Project** – We have received a draft report and briefing from the researchers at Tufts on our funded research. They have identified a significant increase in groundwater levels from what would be otherwise expected that is associated with the GCOD mandated recharge. The effect clearly increases with the density of recharge.
9. **Christian Science Center** – Christian and I met with representatives of the CSC to go over the groundwater situation there. CSC has now pledged to share their internal readings with us.
10. **Website** – Traffic to the website was unusually high in August. We continue to receive positive comments on the site.
11. **Meetings** – I attended a scoping session on the revised project at 93 Massachusetts Avenue and also met with the proponents of 350 Boylston Street to make sure that their GCOD work was in order before they went before the Board of Appeals.
12. **Comment Letters** - I filed comments on the 93 Massachusetts Avenue Notice of Project Change. As always, they are posted on our website.

# **TECHNICAL & RECHARGE COORDINATOR'S UPDATE BGwT Meeting: September 16<sup>th</sup>, 2010**

## **WELL MONITORING**

The BGwT's latest set of readings are indicated below.  
Wells were read from Aug. 6<sup>th</sup> – Sep. 1<sup>st</sup>, 2010

There are currently 719 wells in the West network. Of the 719 wells read:

- 46 wells @ elevation >9'
- 105 wells @ elevation 7'-9'
- 329 wells @ elevation 5'-7'
- 200 wells @ elevation 3'-5'
- 20 wells @ elevation <3'
- 0 wells @ Dry
- 19 wells @ no reading
- 94 Recharge Locations

We have read 84 wells in the East network (East Boston Area).  
Wells were read in East Boston on Aug. 4<sup>th</sup> & 6<sup>th</sup>, 2010. Of the 84 wells read:

- 21 wells @ elevation >9'
- 23 wells @ elevation 7'-9'
- 13 wells @ elevation 5'-7'
- 10 wells @ elevation 3'-5'
- 7 wells @ elevation <3'
- 10 wells @ Dry
- 0 wells @ no reading

**NOTE:** We are continuously reading the well network and started a new set of readings on Sunday September 5<sup>th</sup>, 2010 with our returning co-op employee Robert Tully from Wentworth Institute of Technology.

## **LEVELLOGGERS**

- We continue to upload dataloggers at the following locations on a weekly basis:
  - 1 on Saint Charles St. and 2 on Cazenove St.
  - 5 along the Storrow Drive Underpass from Embankment Rd. Clarendon St.
- 4 loggers have been placed in wells in Back Bay closest to the alleys that BWSC are replacing lines and installing recharge systems
- Additional loggers have been placed in the Fenway, South End, and Back Bay
- 3 loggers have also been added on Plympton, East Brookline, and East Concord Street's in the South End New Market area. BWSC is currently investigating complaints by businesses and residents in the area of possible tidal influence flooding. Faulty tide gates appear to be the culprit so far in the investigation.

## **CONTOURS**

- We continue to generate contours for all areas of our well network. Elliott and I have reviewed them with our technical committee.
- We will continue to receive the contours from BWSC and will be sending them our contours for comparison.

## **RECHARGE**

- Have begun to look at different types of recharge systems that could be installed in the city. Tanks, point source, trenches, pipe, etc.
- Using Google Earth Pro to map and integrate the city's greenspace in our own database. Working to add it into our CAD and GIS maps.