

BOSTON GROUNDWATER TRUST (BGwT)  
BOARD MEETING  
July 30, 2009

The Board of Trustees of the Boston Groundwater Trust held its meeting in the Heritage meeting room, which is located in the Lenox Hotel. 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 4:00 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  
Mr. Peter Schilland, Ellis Neighborhood Association  
Ms. Molly Sherden, Beacon Hill Civic Association  
Ms. Nancy Grilk, Mayor's office  
Mr. Aaron Michlewitz, State Representative North End

Also present:

Elliott Laffer, BGwT Executive Director; Christian Simonelli, BGwT Technical Coordinator; Brain Thomas, Tufts University

**1. Adoption of the minutes of the May 28, 2009 Meeting**

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

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

**Voted:** To accept the minutes of the May 28, 2009 meeting.

**2. Budget Update**

Mr. Laffer noted that the BGwT has been level funded for FY 2010. The BGwT is expected to receive just over \$169K from the city. This is approximately \$12K more than was allowed for in the budget adopted by the Trustees in March. Discussion followed.

**3. Engaging Forensic Consultants**

Mr. Mitchell, Trustee, expressed interest in possibly engaging forensic consultants to look at groundwater levels that mystify the BGwT. In particular Mr. Mitchell noted OW 23J-1278 in front of 10 Newbury as being much lower than other OW's which surround it. Discussion followed.

Mr. Gilbert, Trustee, inquired about the possibility of using geo-probe OW's for problems like this. Mr. Gilbert would like the BGwT to consult with their in house Technical Committee for guidance. Discussion followed.

Mr. Schilland, Trustee, noted that it's difficult to pinpoint localized problems in the city because of so many infrastructures throughout. Discussion followed.  
Mr. Sherin, Trustee, like the idea of engaging such consultants when appropriate. Discussion followed.

**4. Finance Report**

Mr. Sherin, Trustee, reviewed the BGwT *Financial Report and Reconciliation Detail*. Discussion followed.

Ms. Sherden questioned the line item cost for Dig-Safe. Mr. Laffer noted that was a start and end cost for the BGwT's brief participation in Dig-Safe. Discussion followed.

**5. Tufts Research Proposal**

Mr. Laffer introduced Brian Thomas from Tufts University and discussed the proposed research project: "The Impact of Stormwater Recharge Practices on Boston Groundwater Levels. By: Richard M. Vogel and Brian F. Thomas" Discussion followed.

Mr. Thomas noted that his expertise lies in Groundwater Hydrogeology and he will be able to provide a detailed, real world applicable report. Discussion followed.

Mr. Mitchell asked what input members of the BGwT Technical Committee had. Mr. Laffer noted that 3 of the 5 members responded positively. Discussion followed.

Mr. Gilbert moved to contract with Professor Vogel of Tufts University to investigate Groundwater levels in the GCOD area according to their proposal dated June 2009, provided the BGwT has the right to publish the results of the research. Trustee Sherden Seconded. Discussion followed. MOTION PASSED.

Mr. Gilbert moved to issue a press release on the Tufts University contract. Ms. Griik seconded. Discussion followed. Mr. Laffer indicated he will draft the press release. MOTION PASSED.

**6. Neighborhood Focus: Lower Beacon Hill with Updated Piling Cutoff Data**

Mr. Simonelli reviewed current and historic groundwater levels in Lower Beacon Hill. Discussion followed.

Mr. Simonelli presented his findings for piling cutoff data. He noted high cutoffs in West Hill Place and Charles River Square. Discussion followed.

**7. Executive Director's Report**

BGwT Executive Director Mr. Elliott Laffer distributed his report. Discussion followed. Refer to the attached *Executive Director's Report: July 30, 2009* for a complete list of all activities.

Mr. Laffer passed around a map of the BWSC proposed and completed rebuild and relining sewer projects through out the city. Discussion followed

Mr. Laffer also updated the BGwT board on meetings concerning pending groundwater legislation and the MBTA long term and short term solutions to low groundwater levels in the South End near Back Bay Station. Discussion followed.

**8. Technical Coordinator’s Report**

BGwT Technical Coordinator Mr. Christian Simonelli presented his activities since last meeting. Discussion followed. Refer to the attached *Technical Coordinator’s Well Monitoring Update BGwT Meeting: July 30, 2009* for a complete list of all activities.

**9. Other Business**

Mr. Gilbert requested an update from Mr. Simonelli in response to the four tasks related to recharge he inquired about at the last board meeting. Mr. Simonelli updated Mr. Gilbert and the board on his findings indicated in the list below. Discussion followed.

- 1.) Conduct a survey of all the paved area’s throughout the city of Boston.
  - He has been in touch with Bryan Glascock to try and obtain an accurate number.
- 2.) Quantify the GCOD data to see how much water is going into the ground
  - Below is a breakdown of approved vs. installed GCOD systems by neighborhood.

<b>Beacon Hill</b>	
Approved (cu. ft.)	Installed (cu. ft.)
5,531	3,647
<b>Back Bay</b>	
Approved (cu. ft.)	Installed (cu. ft.)
12,323	1,949
<b>South End</b>	
Approved (cu. ft.)	Installed (cu. ft.)
21,270	5,263
<b>Fenway</b>	
Approved (cu. ft.)	Installed (cu. ft.)
37,962	1,488
<b>BU/Audobon</b>	
Approved (cu. ft.)	Installed (cu. ft.)
466	274

<b>Chinatown</b>	
Approved (cu. ft.)	Installed (cu. ft.)
3,827	1,878
<b>Leather District</b>	
Approved (cu. ft.)	Installed (cu. ft.)
46	0
<b>Bay Village</b>	
Approved (cu. ft.)	Installed (cu. ft.)
2,350	0

3.) Develop expertise on the technology of recharging through Porous Pavements

- Along with Elliott he attended a porous pavement tree pit installation on Huntington Ave. KBI Industries, Inc., (a Florida based company) installed the porous pavement.
- He continues to look at these types of technologies and how they may be applicable in the city.

4.) Work on Engineered sidewalks with the city

- While attending the porous pavement tree pit installation he spoke at length with Robert Astrella from the DPW about future porous pavements projects.
- Mr. Astrella noted that he liked the idea of porous pavements for tree pits and wants to see how these perform before committing to additional projects.

Mr. Gilbert suggested Mr. Simonelli continue to gather data on the technology of Porous Pavements and publish a paper about those various technologies in a popular magazine or a technical journal. Discussion followed.

**The meeting adjourned at 6:05 p.m.**

**NEXT MEETING: September 24, 2009 @ 4:00 pm at the Lenox Hotel.**

**Notes submitted by Christian Simonelli, BGwT Technical Coordinator, on 7/31/09.**

Respectfully submitted,



Galen Gilbert, Secretary

**EXECUTIVE DIRECTOR'S REPORT**  
**July 30, 2009**

1. **City-State Groundwater Working Group** – The Group met on July 23. Participation remains excellent. Details from participants are listed below.
2. **MBTA** – I attended a stakeholders meeting with the T general manager to update the short and long range plans for raising groundwater levels in the South End near Back Bay Station. Because groundwater levels on Cazenove Street have stayed consistently below El 5 despite the current recharge well there, the T will work with BWSC to increase the flow and, if necessary, add a second recharge well. The T will be assigning engineering of the long term solution to a general engineering firm with which they have an existing contract. This will be for the system to capture and reuse the water pumped at Follen Street. We will have a further update in about six weeks. The MBTA has resumed work along Dartmouth St north of Boylston at Copley Station. They have pledged to resume reporting groundwater levels at the wells near the site. They will be replacing the observation well that was destroyed during construction of the emergency exit in front of CVS.
3. **DCR** – The connection between the Storrow Drive West Pumping Station and the recharge galleys under Back Street was completed on July 9. DCR is studying the operation and its impact to make sure that it is operating properly.
4. **BWSC** – BWSC has completed most of the sewer relining work in the South End, along with some in the Back Bay and Beacon Hill. The relining project should be complete this summer. They have done repairs at sewer crossover points at Dartmouth/Beacon and Fairfield/Beacon Streets. They expect to complete sewer repairs in several Back Bay alleys this year. Repair of a leaking sewer under Blagdon Street is scheduled for October. Repairs of sewers under Lime and River Streets are scheduled for next spring.
5. **MTA** – The MTA will be conducting a dry weather inspection of the North End repairs in August to assure that they have solved the leak. The repair at Columbus Ave and Clendon St was only partially successful; MTA and their contractor are working on a further solution. MTA will be setting up an advisory committee on groundwater implications of their planned Central Artery drainage changes in September.
6. **MWRA** – MWRA construction work on replacing their sewer system in East Boston continues. They will be doing some open cut work near the intersection of Breman and Porter Streets that will allow further inspection and possible repair to any leaking infrastructure near that very low groundwater area. The old sewer along Porter Street will be discontinued next spring. They will be inspecting connections along the Boston Marginal Conduit in Back Bay to check for possible leaks.
7. **GCOD** – Compliance with GCOD remains excellent. Although the recession has slowed the number of applications, there still are very few Board of Appeals sessions without at least one GCOD case.
8. **Legislation** – I met with Reps. Walz, Rushing, and Michlewitz to discuss pending groundwater legislation. They expect a hearing to be held in the fall, but timing is uncertain.
9. **Website** – We have upgraded the information on the website to include more details about puling cutoff elevations and their implications. We have posted maps and spreadsheets with cutoff elevation information that Christian has been able to gather from

ISD files for Back Bay and Beacon Hill. He will be going through the building jackets for the other neighborhoods where groundwater and wood pilings is an issue, and they will be posted as they are completed. The next to be done is the Fenway. Because of a server problem, we have been unable to get data on website usage since June. Our provider is working on a solution.

10. **Research Project** – I received a proposal from Professor Rich Vogel at Tufts for a statistical study to determine the impact of recharge systems installed under the GCOD. The trustees will evaluate the proposal at the July meeting.
11. **Budget** – The City Council approved the budget in June including the appropriation for operating funds, level funded from FY09 as proposed by the Mayor, for the Trust.

## **TECHNICAL COORDINATOR'S WELL MONITORING UPDATE BGwT Meeting: July 30, 2009**

### WELL MONITORING

The BGwT's latest set of readings are indicated below.

There are currently 722 wells in the West network. Wells were read between May 15 – June 19, 2009. Of the 722 wells read:

- 49 wells @ elevation >9'
- 102 wells @ elevation 7'-9'
- 301 wells @ elevation 5'- 7'
- 204 wells @ elevation 3'-5'
- 38 wells @ elevation <3'
- 1 wells @ Dry
- 27 wells @ no reading

We have read 85 wells in the East network (East Boston Area). Wells were read in East Boston on May 12, 13, & 15, 2009. Of the 85 wells read:

- 23 wells @ elevation >9'
- 20 wells @ elevation 7'-9'
- 12 wells @ elevation 5'- 7'
- 10 wells @ elevation 3'-5'
- 12 wells @ elevation <3'
- 6 wells @ Dry
- 2 wells @ no reading

NOTE: We are continuously reading the well network and started a new set of readings on Tuesday June 26, 2009.

## PART-TIMER

- I have re-hired Xavier D'Ambrosio, from Wentworth Institute of Technology for the fall semester. Xavier will be on co-op this semester and will be splitting his duties between the BGwT (15 hrs.) and Professor Lambrechts (10 hrs.) to full fill his 25 hr. requirement.

## LEVELOGGERS

- We continue to upload dataloggers at the following locations on a weekly basis:
  - 1 on and around Saint Charles St. and 2 on Cazenove Street
  - 5 on Beacon St., in the Berkeley to Clarendon St. block
- 12 dataloggers have also been installed in the Back Bay, South End, and the Fenway
- The MBTA has agreed to send me down on their tracks with a couple of their flagmen for me to access the OW's adjacent to the alignment. I'm in contact with Terrence McCarthy of the MBTA and hope to gain access within the next couple of weeks.

## 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.

## ISD RESEARCH

- We continue to look for building permits and any underpinned buildings.
- I have completed all of Back Bay and Lower Beacon Hill. I am now working on the Fenway.