

# BOSTON GROUNDWATER TRUST

MINUTES OF TRUSTEE MEETING

AUGUST 2, 2007, 4 PM

Tim Mitchell, Co-Chairman called the meeting to order at 4:05 PM in the Patriot Room of the Lenox Hotel. Present were the following trustees:

Galen Gilbert  
Tim Mitchell  
Nikko Mendoza  
Gary Saunders  
Peter Sherin  
Michael Nairne  
Nancy Grilk

Staff, volunteers, and guests: Elliott Laffer, (BGwT Executive Director), Anne M Pistorio (North End Waterfront Residents Assoc., James Lambrechts (Wentworth Institute of Technology), Kerry Bowie, Special Assistant to Undersecretary of Mass. Office of Energy and Environmental Affairs), Karin Mathiesen (Director of Constituent Relations, Back Bay, Councilor Michael Ross), and Scott Darling (Massachusetts Bay Transportation Authority, legal counsel)

Peter moved and Nancy seconded the approval of the minutes of the April 24 meeting. PASSED.

Galen moved and Mike seconded that the Treasurer will buy a certificate of deposit for an investment of our funds. PASSED.

The trustees discussed the wording of our letters to applicants for building permits, and whether telling them that they were subject to certain ordinances that protect groundwater was our proper role. An alternative would be to describe the ordinances and their importance to groundwater preservation, and suggest they be studied. Elliot will circulate the letter.

The State Working Group is met recently. The members have said they could not calculate the amount of groundwater they are pumping in the city, as the BGwT had requested. At Gary's suggestion we will ask them to give of the locations of each permanent pump they own.

DCR is going to spend eight million dollars to make temporary improvements to the Storrow Drive underpass which will last until there is a new governor, rather than replace it now. They are studying whether they can afford two hundred fifty thousand dollars to build a pipe for the groundwater they pump from the tunnel into new recharging troughs the Boston Water and Sewer Commission has built under Back Street nearby.

Our research project to use remote sensing to determine the exact location of a water table or where wet portion or a wooden pile meets the dry portion thereof, has been unsuccessful, although there is one more trick the scientists want to try.

Professor James Lambrechts explained the status of our research project to use innovative methods for low value and low weight houses to strengthen their foundations when their piles have rotted. He is trying to construct a concrete slab under the bearing walls of such a house. They have gone into one house (owned by the city) and studied ways to punch holes from the inside of the basement through the walls, in which brackets can be attached to fasten the house to the new slab, which will then serve as a new foundation. Although this mat technology is well known in construction, the use it on an existing structure is unknown. In other words, once the slab is under the house, we are confident that it will bear the weight evenly and permanently.

Mysterious things are happening with groundwater on Fulton Street in the North End, where wells are high at one end and at the other, not far away the groundwater has dropped way below the pile tops. Mass Turnpike Authority is looking into this.

Scott Darling delivered the position of the MBTA on the St. Charles Street neighborhood. They are going to pump water from their Fulton Street Pump Station and put it into underground recharging troughs near the houses. The engineers are studying whether they also need underground barrier walls to slow down the flow of the water back to the pumping station and how the MBTA will arrange for permanent maintenance of this system. The Wentworth proposal for a complete surrounding wall which would capture enough precipitation and isolate the groundwater, from the railroad trench on their border, was rejected because of cost and political problems with other neighborhood outside the wall, even though this plan has no maintenance cost.

In answer to a question, Scott Darling explained that although he was hired as an attorney, he does no litigation, groundwater or otherwise, and works mainly on groundwater issues for the MBTA.

The Trustees went into executive session, excluding all non-trustees to discuss personnel issues.

The meeting was adjourned.

Respectfully submitted,

A handwritten signature in cursive script that reads "Galen Gilbert".

Galen Gilbert, Secretary

## EXECUTIVE DIRECTOR'S REPORT

August 2, 2007

1. **City-State Groundwater Working Group** – The Working Group met again on July 26. Attendance continues to be excellent. Details of the reports are under the agencies below.
2. **BWSC** – Construction is complete on the sections of the Back Street sewer that were being rebuilt; lining of the section from Exeter Street to Massachusetts Avenue will be complete very shortly. They have completed video inspection of 47,000' of sewer line, with 13,000' to go; at completion of the project they will prioritize for short and long term repairs.
3. **DCR** – Life of the Storrow Drive Tunnel will be extended at least five years after completion of about six months of repair at a cost of about \$8,000,000. They are still studying whether to provide recharge to the newly installed Back Street galleries during the interim before the major construction project. The long term project will include recharge to both Back Street and Mugar Way. The Draft Environmental Impact Report will be filed on August 31.
4. **MBTA** – Recharge wells on Cazenove, St. Charles, and Berkeley Streets have been temporarily turned off to further evaluate groundwater flow patterns. They will be back on by mid-August. There is a meeting scheduled among Steve Poulos, Jim Lambrechts, and John Sullivan on August 29 to consider final recommendations for the long term project for raising groundwater levels in the area. This will be followed by meetings with the Technical Advisory Committee to the City-State Groundwater Working Group, the project Action Team, and the public. Final presentation of the recommendation to the MBTA General Manager should take place by October.
5. **North End** – BWSC and the Massachusetts Turnpike Authority are investigating an area of very low groundwater between Fulton Street and the Callahan Tunnel approach. Our wells in the area show nearby zones with much higher levels. All parties are working to discover the cause and extent of the depression.
6. **New Wells** – We have installed two new wells on Beacon Street to help us define the extent of a depression between Clarendon and Berkeley Streets. We also installed a new well near the Battery Wharf project in the North End to watch for any changes in groundwater levels there. Unfortunately, we were unable to find locations where we could install new wells in the area around Fulton and Commercial Streets. However, we were able to activate a former Central Artery Project well in the alley behind Fulton Street that is helping us to better observe levels in the area.
7. **City Pilot Project** – The City is installing a pilot Low Impact Development project in Peabody Square in Dorchester in conjunction with the rebuilding of the Ashmont MBTA Station. Included will be permeable sidewalks and other measures that will allow DPW and the Parks department to study the viability of such measures in terms of installation and maintenance. Although not in an area of concern for wood pilings, the project will be helpful in understanding what can work and the costs involved.

- 8. Website** – We set an all time record for visits to the website in July. For the last few months, they have been averaging well over 300 per day, often exceeding 400. For comparison, in 2004 visits rarely averaged 150/day and some months averaged below 100.
- 9. Research Projects** – The project at Wentworth to study alternative methods of support has gotten off to a good start; preliminary work indicates the likelihood of a feasible less expensive method of repairing the foundations of some structures. Unfortunately, our remote sensing project is not turning out so well. Although we have yet to receive a final report, neither radar nor acoustic sensing was able to adequately distinguish pilecaps even in lab testing.
- 10. Press** – There is a new article from the Boston Courant that will be posted to the site shortly.
- 11. Comment Letters** – I filed letters on the Storrow Drive underpass, Emerson Colonial Residence Hall, and 368 Congress Street projects. All have been posted to the site or will be shortly.