BOSTON GROUNDWATER TRUST (BGwT) BOARD MEETING November 12th, 2020

The Board of Trustees of the Boston Groundwater Trust met virtually via the Zoom meeting platform. The Executive Director electronically distributed the meeting notice and agenda to the City Clerk at Boston City Hall. Mr. Mitchell, co-chair, read the following statement:

"I, Tim Mitchell, co-chair of the Boston Groundwater Trust, am calling this meeting to order at 4:07 pm. In accordance with the Commonwealth of Massachusetts Executive Order Suspending Certain Provisions of the Open Meeting Law, we are conducting this meeting on-line. To ensure public access to the deliberations of the BOSTON GROUNDWATER TRUST, the public may access this meeting through telephone and video conferencing. Members of the public will have an opportunity to ask questions and provide public comment. To do so please, "raise your hand" in the application via the Zoom meeting platform. If you are calling in and cannot use the platform, you can send your questions to staff via email at csimonelli@bgwt.org or via Twitter by tagging the Twitter handle @BOSTONGWT and using the hashtag #NOV2020MTG."

The following trustees were present:

- Mr. Gary Saunders, Back Bay Association
- Mr. Tim Mitchell, Neighborhood Association of the Back Bay
- Ms. Angie Liou, Asian Community Development Corporation
- Ms. Janine Commerford, Greater Boston Real Estate Board
- Mr. Greg Galer, Boston Preservation Alliance
- Mr. Robert Whitney, Beacon Hill Civic Association
- Mr. Peter Shilland, Ellis Neighborhood Association
- Ms. Leah Camhi, Fenway Community Development Corporation

Also present:

Mr. Christian Simonelli, Executive Director

1. Adoption of September 17th, 2020 Board Meeting Minutes

Board Meeting minutes were previously emailed to Board members for review. Discussion followed. Mr. Galer, Trustee, moved to adopt the minutes. Mr. Saunders, Co-Chair, seconded the motion.

Voted: To accept the Board Meeting minutes of the September 17th, 2020 meeting.

2. <u>2021 Meeting dates & Times</u>

Mr. Simonelli reviewed the meeting dates for the 2021 Board meetings. Mr. Galer noted that the September 16th meeting date conflicted with Yom Kippur. Mr. Simonelli will reschedule that meeting and will send out calendar invites to the Trustees for all future meetings. Discussion followed.

3. <u>Financial Report & Update from Treasurer</u>

Mr. Whitney, Treasurer, reviewed the Trust's financials. Discussion followed. Mr. Whitney stated that he is scheduled to meet virtually next week with Mr. James McCann of Fidelity Investments to review the investment portfolio and discuss purchasing suitable investments that are in line with the Trust's adopted investment portfolio policy. Discussion followed.

4. <u>Neighborhood Association of the Back Bay (NABB) Amicus Brief Review & Discussion</u>

Mr. Mitchell, Co-Chair, provided background on a project in the Back Bay that has been in litigation. The court's decision on the litigated case led NABB to draft an Amicus Brief in response to the court's interpretation of compliance with the Groundwater Conservation Overlay District (GCOD). Discussion followed. Ms. Camhi, Trustee, and Mr. Galer stated that it made sense for the Trust to sign on and join the filing of the Brief. Mr. Shilland, Trustee, asked what steps needed to be taken to join the Brief. Ms. Commerford, Secretary, asked when the Brief needed to be filed. Discussion followed. Mr. Whitney stated the Beacon Hill Civic Association voted to join and sign onto the Brief as well. Discussion followed.

Mr. Galer moved for the Trust to join the NABB Amicus Brief. Mr. Whitney seconded the motion.

Voted: To join the NABB Amicus Brief.

5. <u>Update on Review Regarding Relationship with the City</u>

Mr. Whitney updated the Board on his review of the legal documents provided by Mr. Christian Simonelli. Discussion followed. Moving forward Mr. Whitney will work with Mr. Simonelli and explore the best options to achieve the desired result as discussed. An update will be provided at the next Trustee's meeting. Discussion followed.

6. <u>Insurance Coverage Update</u>

Mr. Simonelli updated the Board on his conversations and correspondence with an insurance advisor who reviewed the Trust's existing insurance coverage. Discussion followed. The Trustees instructed Mr. Simonelli to circle back with the broker for additional clarification on the existing Directors & Officers coverage limits and the Professional Liability Quote. Mr. Simonelli will provide an update at the next Trustee's meeting. Discussion followed.

7. BPDA GCOD Revision Update

Mr. Simonelli reviewed an additional proposed revision to the GCOD zoning. The original proposal was approved by the Trustees at the January 16th, 2020 Board meeting. The additional revision aims to provide abutting properties of proposed projects an opportunity to review recharge plans and no harm certifications prior to the Zoning Board of Appeals hearing.

Discussion followed. Refer to the attached revised Article 32 Zoning Modification Proposal for additional details.

Mr. Galer moved to adopt the additional revision to the GCOD zoning. Mr. Shilland seconded the motion.

Voted: To adopt the additional revision to the GCOD zoning.

8. <u>Update on Operating Manual</u>

Mr. Mitchell, co-chair, commented on a section of the operating manual, which was distributed with the meeting materials. Mr. Simonelli noted that he will continue his efforts to complete the operating manual. Discussion followed.

9. <u>Executive Director's Report</u>

BGwT Executive Director Mr. Christian Simonelli distributed his report. Discussion followed. Refer to the attached *Executive Director's Report November 12th, 2020* for a complete list of activities.

The meeting adjourned at 5:44 p.m.

NEXT MEETING: January 14th, 2021 @ 4:00 pm, via Zoom Meeting platform.

Notes submitted by Christian Simonelli, BGwT Executive Director, on 11/17/2020.

Approved 3 December 2020

J. Commerford, Secretary

EXECUTIVE DIRECTOR'S REPORT November 12th, 2020

1. **Readings** – Wrapping our seventh set of readings for 2020. Overall levels have recovered due to an increase in rainfall in the month of October.

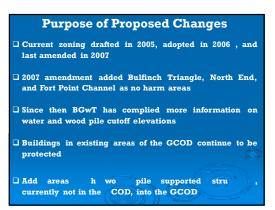
2. Virtual Meetings and Calls-

- a. Zoomed with BPDA and City agencies for the South End project located at 41 Berkeley Street (Benjamin Franklin Institute) scoping session. (9/28)
 - i. Followed up on a Zoom with Related Beal project team to review GCOD compliance for the project. (10/13)
 - ii. Attended Impact Advisory Group (IAG) Zoom meeting. (10/19)
- b. Attended BWSC's Projected Inundation Modeling Zoom meeting. (9/30)
- c. Zoomed with Abigail Chatfield, Project Manager, Boston Parks and Recreation Department, to discuss groundwater and Copley Square Renovations. (9/30)
- d. Attended a WebEx for Boards and Commissions Virtual Training Session Part I. (10/1)
- e. Zoomed with BPDA and City agencies for the Audubon Circle project located 819 Beacon Street scoping session (10/2) and wrote a comment letter (10/16).
- f. Zoomed with BPDA and City agencies for the Fenway Simmons University Institutional Master Plan (IMP) (10/5) and wrote a comment letter (10/14).
- g. Spoke with Ethan Lenz, Foley & Lardner, LLP, to review Trust insurance coverage. (10/5)
- h. Zoomed with co-chair Tim Mitchell and members of NABB to discuss Amicus Brief filing. (10/6)
- i. Attended the Century 21 Cityside Back Bay office Zoom sales meeting and led off with a presentation on our efforts. (10/13)
- j. Attended WebEx for Boards and Commissions Virtual Training Session Part II. (10/13)
- k. Along with Giuliana Zelada-Tumialan and Steve Keppel of Simpson, Gumpertz, & Heger (SGH) I participated in a virtual presentation to all SGH offices and discussed our role in monitoring groundwater. (10/15)
- 1. Attended BPDA Board meeting. (10/15)
- m. Attended ISD Workshop for Building, Permitting, Plans & Zoning and Board of Appeals Divisions. (10/16)
- n. At the request of Councilor Edwards, I presented to the City Council and provided an update on our efforts & reviewed our proposed changes to Article 32. (10/21)
- o. Spoke with Manuel Esquivel, BPDA Senior Infrastructure and Energy Planner, to review Article 32 and the BPDA Smart Utilities Policy. (10/28)
- p. Attended Climate Ready Boston Report Release for Coastal Resilience Solutions for Downtown, the North End and Dorchester. (10/29)
- q. Followed up with Ethan Lenz, Foley & Lardner, LLP, to review Trust insurance coverage. (10/30)
- r. Attended and testified at Zoning Board of Appeals WebEx hearings in September and October.
- s. Communicated with residents, engineers, & developers throughout the GCOD to discuss ZBA procedures and advised them on what they need to submit to meet the GCOD zoning.
- 3. **BWSC** An update on the following:
 - a. In the South End pipes and laterals at Clarendon & Gray Streets will be repaired as part of Capital Improvement Projects. Two manholes at Warren & Clarendon Streets were relined and groundwater levels have come up slightly. A 12" pipe will be

replaced hopefully by the end of 2020 under emergency repair in the Dartmouth & Montgomery Streets area. In addition, one manhole in this area has also been relined but groundwater levels have not responded. Investigations along Tremont Street, from the West Canton to Herald Street corridor in the South End have started.

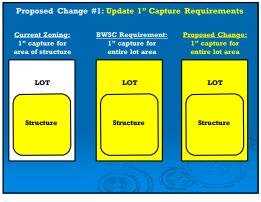
- b. In the North End additional CCTV inspections in Richmond & Commercial Streets revealed leaking joints. Repairs slated for a Capital Improvement Project with the timeline to be determined.
- c. In Lower Beacon Hill a leaking manhole at Brimmer and Beacon Streets was relined at the beginning of October, but groundwater levels have not responded. BWSC will go back and reinspect.
- d. In the Back Bay a deep sewer on Berkeley Street, between Beacon & Back Street, revealed leaks at the crown (top) of the pipe which is at approximately El. 5', where current groundwater levels have been measured. Additional inspections and repairs are scheduled.
- 4. **BluCloud Remote Monitoring Solution** –A new, custom device from their partner company has been connected and making successful readings in their BluCloud platform. Additional in house testing is being conducted over the next few weeks and if all goes well, they will deploy a new test unit in one of our wells to test signal strength and operational viability.
- 5. **MBTA** Approximately 44.3 gpm is being injected into recharge wells in the South End Ellis Neighborhood area along Appleton, Berkeley, Saint Charles, Cazenove, and Clarendon Streets. In addition to our manual monitoring we have 4 wells in the area with dataloggers recording a water level every 60 min.
 - a. The MBTA has committed to continue funding the current recharge well solution for the next 10 years.
 - b. In an effort to conserve water and limit operational costs, flow rates are slowly being reduced.
- 6. **DCR** Dataloggers are installed in 3 wells to monitor the levels along the Storrow Drive tunnel pump station groundwater recharge system.
 - a. Storrow Drive Tunnel Pump Station, recharge galleys, and flood control pumps operating normally with no anomalies.
 - b. The DCR will be putting in a new fence and repairing the seawall which runs adjacent to Storrow Drive in the Clarendon Street to Massachusetts Avenue section.
- 7. **MWRA** CCTV inspections indicated infiltration at the intersection of Bremen and Porter streets in East Boston. MWRA is working with BWSC on a design to replace the regulator at this intersection where low groundwater levels have been observed.
- 8. **DOT** Cleaning and lining of the Prudential tunnel eastbound stormwater drainage system; two 18" and 30" lines is underway. Camera and cleaning scheduled for Nov 8th & 9th, with subsequent pipe lining in early December.

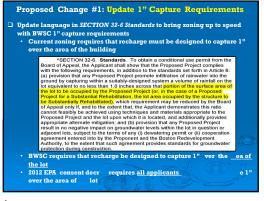


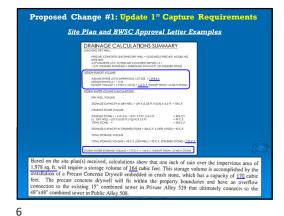








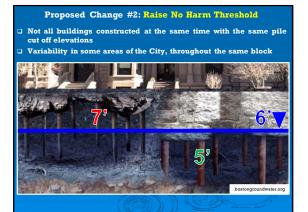




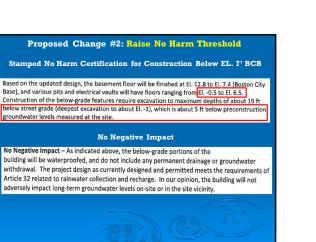


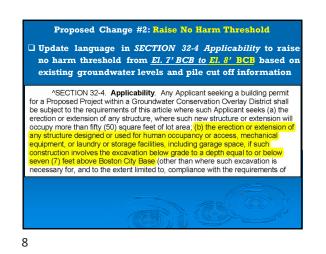
3 - The BPDA, in consultation with BWSC, shall recommend the use of Green Infrastructure to retain, on site, a volume of runoff equal to <u>1.25 inches</u> of rainfall times the total impervious area, prior to discharge, and in compliance with any applicable BWSC stormwater mitigation requirements.

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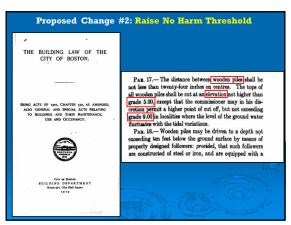
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Proposed Change #2: Raise No Harm Threshold

JOURNAL OF THE BOSTON SOCIETY OF CIVIL ENGINEERS Volume 57 JANUARY 1970 BACK BAY BOSTON PART 1

By: HARL P. ALDRICH, JR.,* Member Number I

It was common practice in Boston to cut off wood piles at the **average tide level**, **EL 5** Boston City Base, with entire safety. After the Back Bay was filled and through the remainder of the nineteenth century, the **ground water level** in the **Back Bay was approximately EL 8** and as a result many buildings were constructed on **piling cut off above EL 5**.

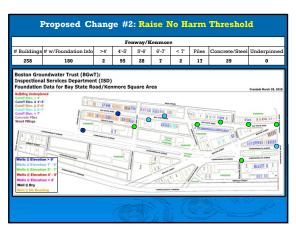
Although there was ample evidence by 1914 that <u>sewers and drains</u> in the Back Bay were affecting the ground water table, Worcester (18,p.6) felt that <mark>EL 5 was too low</mark> and suggested a <u>cutoff as high as EL</u> 8. Wisely, most engineers at the time disagreed with him, believing that EL 5 or 6 should be maintained. Frederick P. Stearns (18, p.201) reasoned that with the presence of an increasing number of <u>floor drains and decreased infiltration of surface water as the land was built upon</u>, "... piles to support important structures should be <u>cut off below rather than above grade 5</u>."

In final discussions, Worcester (18, p.415) challenged his fellow engineers to cite a case where rotted piles had been found below El. 8. Although no examples were forthcoming, he changed his recommendation to El. 6. In 1931, following the discovery of rotted wood piles below the Boston Public Library, the BSCE Committee on Boston Subsoils (14, p.244) was of the opinion that untreated wood piles should be <u>cut off not higher than El. 3 in the Back Bay</u>.

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Proposed Change #2: Raise No Harm Threshold											
South End											
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
2553	265	1	57	6	4	0	142	42 13			
	Back Bay										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
1390	271	12	186	3	6	10	0	38 16			
	East Fenway										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
373	142	1	109	3	5	1	0	6 17			
	East Boston										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
371	155	0	74	5	1	1	66	8 0			
Lower Beacon Hill											
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
332	123	0	14	18	15	0	5	6 65			
	Frederick Douglas Square										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underpinne			
294	51	0	8	0	2	0	34	Z	0		
Fenway/Kenmore											
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel	Underpinned		
258	180	2	95	28	Z	2	17	29	0		

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Proposed	Change	#2: Raise No	Harm Threshold

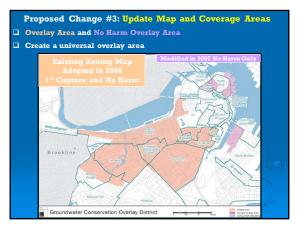
So what do we know?

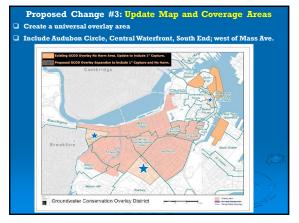
Foundation Data Totals									
Number of Buildings	Number of Buildings with Foundation Data	< 4'	4'-5'	5'-6'	6'-7'	> 7'	Piles	Concrete /Steel	Underpinned
6458	1427	20	638	96	45	14	275	216	123

- □ Foundation information for <u>22%</u> of the buildings in the filled land areas of the City
- □ Majority have cutoff's between EL. 4'-5'; accounts for <u>45%</u> of foundation information we do have
- □ Groundwater levels are high (above EL. 5') in most areas where we have high cutoffs

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Proposed Change #2: Raise No Harm Threshold										
	Chinatown/Leather District									
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel	Underpinned	
199	27	1	10	2	1	0	0	4	9	
Audubon Circle										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< T	Piles	Concrete/Steel Underping		
173	39	0	1	1	0	0	1	36	0	
West Fenway										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< 7'	Piles	Concrete/Steel Underping		
159	92	1	60	3	2	0	0	25	1	
Bay Village										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< T	Piles	Concrete/Steel Underpinn		
159	11	0	1	0	0	0	3	Z	0	
North End Flats										
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< T'	Piles	Concrete/Steel Underpinn		
71	8	0	3	0	1	0	1	1	2	
	Fort Point Channel									
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< T'	Piles	Concrete/Steel	Underpinned	
66	41	1	9	25	1	0	4	1	0	
	Bulfinch Triangle									
# Buildings	# w/Foundation Info	>4'	4'-5'	5'-6'	6'-7'	< T	Piles	Concrete/Steel	Underpinned	
60	22	1	11	2	0	0	2	6	0	

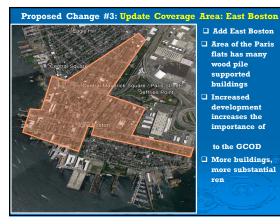




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Proposed Change #4: Amendment to Section 32-6 Standards

- □ Amend Section 32-6 Standards to include the following language:
- The Applicant shall demonstrate that the Proposed Project meets the requirements of this section by certification from a Massachusetts registered engineer or other expert or authoritative body recognized by the Board of Appeal. The certification, together with the drawings and specifications for the Applicant's proposed rainwater infiltration system, shall be submitted by the Applicant's proposed rainwater infiltration system, shall be submitted by the Applicant's proposed rainwater infiltration system. Shall be submitted by the Applicant's proposed rainwater infiltration system, shall be submitted by the Applicant's proposed rainwater infiltration system, shall be submitted by the Applicant's property of a sone, two, or three-family residence, the Applicant may demonstrate to the Board of Appeal presumptive compliance with the rainwater capture requirements of Subsection (a) of this Section 32-6 by designing and constructing such system pursuant to perfunct sec.
- □ This amendment will ensure all required documentation is submitted at the appropriate time and provide abutters an opportunity to revie proposed work



	Proposed Changes: Summary
1. Up	date 1" Capture Requirements
	Capture 1" over the area of the lot
2. <mark>R</mark> a	ise No Harm Threshold
	Raise no harm threshold from El. 7' BCB to El. 8' BCB
3. U	date Map and Coverage Areas
	Make all a universal overlay area
	End; west of Mass Ave, & sections of East Boston
4. <mark>A</mark>	nendment to Section 32-6 Standards
	Ensure all required documentation is at
	the appropriate and provide abutters
	opportunity to r w the proposed work

