City of Newton

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Mayor

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To: Public Facilities Committee

From: James McGonagle, Commissioner DPW

Date: April 15, 2022

Subject: Docket #111-22 - Supplemental Information
Stormwater Management and Erosion Control Ordinance

To summarize, this ordinance and the accompanying rules and regulations:

- Provides the regulatory mechanism needed to achieve compliance with the "*Stormwater Management in New Development and Redevelopment*" and *"Construction Site Runoff"* provisions of our NPDES MS4 Permit;
- Establishes a stormwater management permit system;
- Describes in detail our requirements to mitigate the impacts of stormwater runoff generated from new development and redevelopment – in terms of volume reduction and water quality;
- Provides an enforcement mechanism to better protect our MS4 (storm drainage system) and abutters from the unintended consequences of construction projects (e.g., soil erosion, sediment laden stormwater runoff, increased runoff to an abutter);
- Establishes protocols to ensure the longevity and continuous function of stormwater management systems installed.

Our proposed ordinance applies to construction activities on *all* properties, whether by-right, special permit or comprehensive permit, wherever 401 square feet or more of new impervious surfaces are proposed. This threshold for oversight and permitting is significantly more stringent than "*the greater than or equal to 1 acre"* permit threshold required by our MS4 Permit. The lower threshold aligns with our department's current policy and practices, which have been in place for decades and it significantly increases the number of projects with phosphorus reduction control measures.

We have reviewed the Charles River Watershed Association's (CRWA) comments and have incorporated some of the suggested edits. We did not stipulate higher phosphorus load reduction percentages than required for multiple reasons. We need to see how the implementation of these targets proceed before going above the EPA requirement. There are additional initiatives underway that will help municipalities with phosphorus goals, including: credits for leaf litter collection and street sweeping, and the petition to EPA by CRWA and the Conservation Law Foundation to enact Residual Designation Authority (RDA) over large private landowners in the Charles River watershed. If implemented, RDA would incorporate more landowners into the NPDES permitting program – thus allocating a portion of the City's phosphorus reduction goals to them and subsequently reducing our total phosphorus reduction goal.

The key differences between our current stormwater management policy and this ordinance include:

- Permit application and an application fee will be collected.
- Land disturbances greater than 5,000 SF will require a permit.

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- The stormwater report that accompanies plans will need to be more robust for Major Stormwater Projects. Documentation on how the project meets the standards in the MA Stormwater Handbook, and supplemental calculations for pollutant load reductions will be required.
- Design standards, plan submission and drainage calculations requirements are outlined in detail to ensure *consistent* permit applications for qualifying projects.
- Preparation of an Operations and Maintenance (O&M) Plan for all proposed stormwater management systems.
- Recording of the O&M Plan at the Registry of Deeds.

The following examples from recent projects in Newton illustrate the kinds of projects that would fall into the minor and major permit categories. We also present approximate differential costs associated with compliance with the proposed ordinance versus current policies and practices.

Please note in Section 29-148, paragraph (c) (2) (c) states *"The construction of any new retaining wall required due to proposed changes in grade, unless already approved by Special Permit (per Chapter 30 Sec. 5.4.2)."* This will address the stormwater management and drainage aspects of the proposed retaining wall in relation to existing and proposed drainage and grading, and in relation to proposed drainage infrastructure behind and/or in front of the retaining wall. It does not address zoning issues, structural stability, construction techniques, or aesthetics of proposed retaining walls.

Please also note in the proposed Rules and Regulations, Section 5 Design Standards, Paragraph 6, Groundwater Intrusion, the language regarding "lowest foundation footing for habitable space must be 1-foot above…the groundwater table" was clarified to read: "The bottom (underside) of the basement slab must be 1-foot above the seasonal high groundwater elevation as determined by a Soil Evaluator licensed in Massachusetts or by determining the seasonal high groundwater table using Frimpter Method." This section may have implications in areas of the city where the seasonal high groundwater table is high in relation to proposed basement slabs, such as Oak Hill Park, and other areas along the Charles River and other brooks, streams, ponds, and lakes in Newton. Currently, existing homes in Oak Hill Park, for instance, are constructed with a concrete slab on grade, above the groundwater table. Developers are now demolishing these structures, and building homes with full, deep basements. These basement concrete slabs are below the seasonal high groundwater table, requiring the installation of sump pumps or other dewatering means. These additional sump pumps put a strain on the city's existing drainage infrastructure. These proposed rules and regulations will require future construction to have the basement slab a minimum of 1-foot above the seasonal high groundwater table. This may restrict or prohibit the construction of habitable basements for these new homes.