



*Stephanie Rawlings-Blake*  
Mayor

## PLANNING COMMISSION

*Wilbur E. "Bill" Cunningham, Chairman*



*Thomas J. Stosur*  
Director

### STAFF REPORT

**February 18, 2010**

**REQUEST:** City Council Bill #10-0434/Stormwater Management

For the purpose of modifying the provisions governing stormwater management to comply with new requirements of State law; requiring the development, review, and approval of phased plans for stormwater management; establishing certain minimum control requirements to manage stormwater by using environmental site design to the maximum extent practicable; requiring certain site design techniques and certain structural and nonstructural practices; requiring certain reports and inspections; providing for certain exemptions, waivers, and variances; imposing certain fees; defining and redefining certain terms; correcting, clarifying, and conforming related language; providing for a special effective date; and generally relating to the protection, maintenance, and enhancement of the public health, safety, and welfare through the management of stormwater.

**RECOMMENDATION:** Approval, with the understanding that DPW is currently working to formulate technical amendments that will be presented to the City Council. These amendments will not change or alter the intent of CCB #10-0434, which the Department of Planning fully supports. Rather, the amendments will put in place a two-tier approach to stormwater management that both DPW and Planning believe to be the best fit for Baltimore City.

**STAFF:** Kenneth Hranicky

**PETITIONER:** Administration (Department of Public Works)

**SITE/GENERAL AREA:** Citywide

#### **HISTORY**

- Ordinance 78-869 - Establishing a mechanism to enforce provisions of a Baltimore City Erosion and Sediment Control Manual, and to impose fines for violations of requirements of the Manual, under the jurisdiction of the Department of Public Works, Article 26 – Streets and Highways of the Baltimore City Code.
- Ordinance 84-84 - Establishing a Baltimore City Stormwater Management Program under the jurisdiction of the Department of Public Works, Article 26 – Streets and Highways of the Baltimore City Code.
- Ordinance 87-1130 – Amendment to the Stormwater Management Program to incorporate the Chesapeake Bay Critical Area regulations; placed Stormwater Management under the jurisdiction of the Department of Transportation.

- 2000 Code Revision - Placed the Stormwater Management Program in a new Article 7 – Natural Resources (Subtitles 21 through 26), under the jurisdiction of the Department of Public Works.
- Ordinance 02-367 – A major overhaul of Stormwater Management for the purpose of revising the laws governing stormwater management; requiring the development, review, and approval of stormwater management plans; establishing certain minimum control requirements; requiring certain structural and nonstructural practices; requiring certain reports and inspections; requiring easements for certain purposes; providing for certain exemptions, waivers, and variances; requiring certain permits; imposing certain fees; establishing certain maintenance requirements; defining certain terms; establishing certain penalties; and generally relating to the protection, maintenance, and enhancement of the management of stormwater.

### **CONFORMITY TO PLANS**

The proposed designation is found to be consistent with the following element of the Baltimore City Comprehensive Master Plan: LIVE Goal 2: Elevate the Design and Quality of the City's Built Environment. PLAY Goal 3: Increase the Health of Baltimore's Natural Resources and Open Spaces for Recreation and to Improve Water Quality.

### **ANALYSIS**

The State of Maryland requires jurisdictions responsible for administering stormwater programs to update their laws from time to time to reflect the changes made in State law. Baltimore City has had this delegated responsibility since July 1, 1984 when the City's Stormwater Management Ordinance was first established. The program was last amended in 2001. City Council Bill #10-0434 would overhaul the City's requirements for stormwater management (SWM). In 2007, the state legislature passed the Stormwater Management Act. This Act charged Maryland Department of the Environment (MDE) to adopt new regulations and update Maryland's Stormwater Design Manual to implement environmental site design (ESD) to the maximum extent practicable. Prior to the Act, environmental site design was *encouraged* through a series of credits found in the State's Design Manual. The Act now *requires* environmental site design to be implemented to the maximum extent practicable through the use of better site design techniques, alternative surfaces, non structural techniques, and micro-scale practices. The new regulations will be sweeping. The old way of handling stormwater involved collecting it in one spot and piping it away. The new rules will (wherever practical) require natural buffers--earth and plants--that mimic nature and allow rain to percolate slowly into the ground and back into the Bay. The Act, through environmental site design, addresses three issues relating to SWM: groundwater recharge, water quality, and channel protection volumes. These new regulations, as required by the Act, need to be adopted by local jurisdictions by May 4, 2010. Baltimore City Department of Public Works has made a concerted effort in working with MDE and stakeholders to meet the requirements of the Act while addressing the unique challenges of Baltimore's urban landscape.

Department of Public Works, Bureau of Water and Waste Water manages Baltimore's stormwater system and reviews SWM of development proposals. The City of Baltimore's SWM ordinance can be found in Article 7, Sections 21 through 28 of the City of Baltimore

Code. CCB #10-0434 is modifying that Code, in accordance with State requirements. The major bill provisions are as follows:

- Environmental Site Design is defined in the bill and it means using small-scale SWM practices, nonstructural techniques, and better site planning that, in accordance with methods specified in the State's Design Manual, are used to mimic natural Hydrologic Runoff Characteristics and minimize the impact of land development on water resources.
- Maximum Extent Practicable is defined in the bill and it means that SWM systems are designed so that all reasonable opportunities for using environmental site design planning techniques and treatment practices are exhausted and structural best management practice (BMP) is implemented only where absolutely necessary.
- CCB #10-0434 also includes the 2010 Baltimore City Stormwater Design Guidelines that will supplement the State's Design Manual as it relates to SWM principles, methods, and practices in the City. These stormwater design guidelines will need to be reviewed and approved by MDE.
- Redevelopment is defined in the bill as any construction, alteration, or improvement performed on sites where the existing land use is commercial, industrial, institutional, or multifamily residential and existing site impervious area exceeds 40%. When the total site impervious area under existing conditions exceeds the 40% threshold, redevelopment requirements will apply. Otherwise the project will be regulated as new development. The difference between 'new' and 'redevelopment' is the allowed use of 'other' approved water quality treatment measures.
- This bill will impact new development and redevelopment. The exemptions are: 1) If the development is a single-family dwelling that does not disturb more than 2,500 square feet and the parcel has not previously been the subject of an exemption; 2) Other than for single-family dwellings, the activity does not disturb more than 5,000 square feet of land; 3) agricultural lands; and other lands regulated under specific state laws that provide for SWM.
- Environmental site design techniques and practices and structural SWM measures used to satisfy the minimum control requirements must be recorded in the land records of Baltimore; must be binding on subsequent property owners; and may not be altered without the City's prior approval.
- For Redevelopment - After environmental site design to the maximum extent practicable is pursued without success, alternatives include Watershed or stream restoration; pollution trading; design criteria based on watershed management plans; off-set fees dedicated exclusively for SWM or other practices approved by the DPW. NOTE: For any net increase in impervious area resulting from the project, SWM must be addressed according to the new development requirements of the State's Design Manual. The aforementioned alternatives are not applicable to "new" developments.

Found in CCB #10-0434 §22-3(b) (1) & (2) are the sub-sections establishing a two-tier approach to SWM for the City. It is stated that “The criteria in the State’s Design Manual for environmental site design to the maximum extent practicable and the use of environmental site design planning techniques and treatment practices must be exhausted before any structural best management practice or alternative practice is implemented.” §22-3(b)(2) states that “Stormwater management plans for development projects subject to this Division II must be

designed using environmental site design sizing criteria, recharge volume, water quality volume, and channel protection storage volume criteria according to the State's Design Manual. The maximum-extent-practicable standard is met when channel stability is maintained, predevelopment groundwater recharge is replicated, nonpoint source pollution is minimized, and structural stormwater management practices or alternative practices are used only if determined to be absolutely necessary.”

Environmental site design to the maximum extent practicable is acknowledged in the City's legislation as the priority. The State already acknowledges that sometimes environmental site design will not attain the goals of the Act due to site limitations. A major part of the issue for determining appropriate SWM is knowing the geology of the site along with other underground infrastructure. The application of environmental site design to the maximum extent practicable for SWM measures, their selection, basic design criteria, methodologies, and construction specifications will comply with the State's Design Manual and the City's Design Guidelines. After all reasonable environmental site design options have been exhausted and the targets of groundwater recharge, water quality, and channel protection volumes have not been met then 'alternatives' can be considered. Alternatives include on-site and off-site structural best management practices (BMPs). They can also include retrofit projects, stream restoration, pollution trading, watershed management plans, or other approved practices.

Baltimore City is the most highly urbanized area affected by the State legislation and its impacts will be significant. Planning, design, and review workloads resulting from these new regulations will increase. In addition to the increased workload, the transition will require a paradigm shift in thinking. There will be a challenge of defining maximum extent practicable and achieving practical compliance coherence between newly required environmental site design and competing City land use and building codes and ordinances. In conflict with environmental site design, which would reduce impervious surface in an attempt to maximize infiltration and reduce stormwater runoff, such ordinances often require increased impervious surface area to accommodate citizens with disabilities, emergency response vehicles, and the like. Also, more stringent requirements might encourage developers to develop greenfield sites rather than redevelop in highly urbanized areas where construction activities are more complex and stormwater control may be difficult to achieve. To overcome these obstacles Baltimore's DPW has worked with MDE to create opportunities that will provide citizens with a greener, safer and more livable environment while meeting the goals of the 2007 SWM Act for a cleaner Bay. What is unique about the City's ordinance can be found in the second tier approach (i.e. after exhausting environmental site design to the maximum extent practicable). The key elements of this “second tier” approach include:

- Establishing a watershed approach to target restoration practices using offset fees when on-site stormwater controls are not feasible or sufficient. A decision matrix will followed to determine if development cannot support effective controls on site.
- Establishing a “small project” fee for developments disturbing between 2,500 and 5,000 sq. ft., to offset the cumulative effects of smaller projects that add to the impervious areas of the City.
- Developing a more progressive offset fee structure to be based on an average cost for stormwater management practices.

- Conducting a hydrology study to identify areas where stormwater management is needed or can be waived for flood control purposes.

There are still outstanding SWM issues that will need to be addressed. The 2010 Baltimore City Stormwater Design Guidelines still need to be written. Also, due to the necessity for coordinated site planning it is imperative that the DPW's review process of SWM include participation in the Site Plan Review Committee's meetings. Environmental site design measures also need to be reviewed for 'green building' credits.

CCB #10-0434 has been written to meet the requirements of the Stormwater Management Act of 2007 while addressing Baltimore's urban environment challenges. This effort is also in line with the City Master Plan and Sustainability Plan. The details are an ongoing effort but CCB #10-0434 does provide the legal framework for the City to move forward while meeting the requirements of the Act.

In advance of a hearing on this matter, staff mailed 269 letters to a diverse set of stakeholders, including community associations, environmental organizations and members of the development community.

**Thomas J. Stosur**  
**Director**