




IMPLEMENTING GREEN INFRASTRUCTURE: ATLANTA'S POST-DEVELOPMENT STORMWATER MANAGEMENT ORDINANCE

PROPOSAL

The Department of Watershed Management has proposed revisions to the Post-Development Stormwater Management Ordinance to promote the use of Green Infrastructure techniques on new and redevelopment projects in the City, and to address specific problems that have emerged since the original ordinance was adopted in 2004. *The ordinance was presented to City Council's Utilities Committee on January 15, 2013, and will be considered again on January 29, 9:30 a.m. at City Hall.*


WHAT IS GREEN INFRASTRUCTURE?

Green infrastructure is an alternative approach to managing stormwater runoff that emphasizes infiltration, evapotranspiration (uptake of water by plants), and reuse. The goal of green infrastructure is to mimic the natural hydrologic function of our watershed. Examples of this approach on development sites include preserving conservation areas, reducing impervious surfaces, and installing structural measures such as green roofs, vegetated swales, permeable pavement, infiltration planters, cisterns, and rain gardens.




KEY CHANGES


Adds a Runoff Reduction requirement that promotes the use of Green Infrastructure. Projects must treat the first 1.0" of stormwater runoff with green infrastructure. This will replace the current Water Quality (WQ) requirement of capturing 1.2" of runoff and removing 80% of the total suspended solids (TSS).



Revises Detention Pond Requirements: The existing ordinance requires new and redevelopment sites to reduce the peak flow rates leaving the site by 30%, up to the 100-year storm event. This requirement is much more stringent than other municipalities and results in large dry detention ponds which pose aesthetic and safety issues. The proposed ordinance shifts focus to the management of the more polluted runoff generated from the first flush of all storms, while still providing protection for major storm events.



Revises requirements for Single Family Residences: New homes and large additions (>1,000 ft² of impervious surface) will be required to manage the first 1.0" of runoff on their site. Detention requirements do not apply. The City has developed Stormwater Guidelines entitled *Green Infrastructure for Single Family Residences* that lists the acceptable stormwater practices for SFR development, provides tear-off details and construction specifications, and simplifies the review and approval process. Examples of Runoff Reduction techniques for SFR development include installing a rain garden, replacing traditionally impervious surfaces (parking areas, patios, etc.) with pervious pavers, routing downspouts to underground dry wells or modified french drains, utilizing cisterns for reuse or irrigation, directing sheet flow to adequately vegetated buffers, or any appropriate combination of techniques.



Maintenance of Existing Detention Ponds: Stormwater facilities permitted and installed prior to the current Post Development Stormwater Ordinance (2004) must be maintained in accordance with recorded indemnity agreements.

Stormwater Concept Plan and consultation meeting: Prior to submitting for a building permit, a concept plan meeting will be required in order to promote Better Site Design practices and the use of Green Infrastructure earlier in the permitting/design process.

“It is my goal for Atlanta to become one of the top tier sustainable cities in the nation”

-- Mayor Kasim Reed

STAKEHOLDER INVOLVEMENT

<p>Technical Advisory Committee (began meeting in March 2012)</p> <p>Engineers: URS, Kimley-Horn, Eberly & Associates, Long Engineering, Watts & Browning, Campbell Civil Consulting, Planners & Engineers, Southern Civil Engineers, and Lancaster Associates</p> <p>NGOs: Chattahoochee Riverkeeper, Southface</p>	<p>Other Outreach</p> <ul style="list-style-type: none"> • Council for Quality Growth • Greater Atlanta & National Homebuilders Association • BOMA • Atlanta Board of Realtors • NAIOP • IFMA • APAB and NPUs • InvestAtlanta and Beltline • American Rivers • US EPA • Metro N. Ga. Water Planning District • Other City Departments and Offices • Fulton Co Soil & Water Conservation District
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BENEFITS OF GREEN INFRASTRUCTURE

Green infrastructure offers a broad range of advantages over traditionally engineered stormwater drainage infrastructure and management approaches, including:

Addressing stormwater at its source: Green Infrastructure is designed to capture the first 1.0” of stormwater runoff and infiltrate, evapotranspire, or reuse the runoff through rainwater harvesting techniques. The effect is lower levels of pollutants entering the streams and reduced amounts of streambank and streambed erosion associated with high peak flows of stormwater runoff from impervious surfaces.

Flood Protection: Green Infrastructure reduces the magnitude and frequency of flooding and combined sewer overflow events by reducing the volume of water that enters into our combined sewers and streams during rain events.

Promoting Sustainability: Green Infrastructure alleviates the impacts of urban heat islands, reduces energy demand by decreasing the amount of energy used for heating and cooling, improves air quality, and increases carbon sequestration.

Cost savings: Numerous case studies have shown that green infrastructure can cost less than traditional stormwater management. By using “Green” techniques over traditional “Gray” infrastructure, developers, builders, and property owners can lower the cost of development by reducing the need for oversized pipes, curb & gutter, vaults, and detention ponds.

Enhancing aesthetics and public access/use: Well-designed, vegetated practices can provide a visual amenity, particularly when compared with hardened drainage infrastructure or large detention ponds. Some practices can double as park space, offering recreational amenities.

For more information, contact Cory Rayburn, (404)546-1334 crayburn@atlantaga.gov or Susan Rutherford (404)546-1251 srutherford@atlantaga.gov