



# **The Stormwater Management Act of 2007**

## **Proposed Redevelopment Policy**

**Debbie Cappuccitti**  
**July 31, 2008**





# MDE Redevelopment Committee

- **38 Members comprised of Regulators, Engineers, Development Community, Environmental Organizations**
- **Questions were sent through a series of emails to gather perspective and ideas (Beginning April 25 though July)**





# MDE Redevelopment Committee

- **Initial email focused on suggestions and recommendations on MDE's current policy**

## **Current Policy:**

- 1. Reduce existing site impervious area by 20%;**
- 2. Provide water quality treatment for 20% of the existing impervious area; or**
- 3. A combination of 1. and 2.**





# MDE Redevelopment Committee

**The comments and recommendations we received were widely divergent!**

**Recommendation to keep the 20% standard:**

**“The current criteria is already seen by developers and stormwater designers as an impediment to redevelopment of urban sites. Demolition and removal of existing buildings, site contamination and other factors already make the economics of redevelopment sites difficult to reconcile.”**





# MDE Redevelopment Committee

## **Recommendation to relax the 20% standard:**

**“The threshold is high particularly as it relates to dense, urban sites with high degrees of impervious surfaces.”**





# MDE Redevelopment Committee

## Recommendation to make the standard more stringent:

**“We recommend that MDE apply the same planning and performance standards to redevelopment as new development... and require runoff reduction of the 1 year 24 hour storm.”**





# MDE Redevelopment Committee

- **Some areas of commonality/less controversy**
  - **Require more management in less densely developed sites.**
  - **Guidelines were needed to describe how ESD would be achieved to the MEP.**
  - **Keep requirements flexible and create incentives.**
  - **Policies need to provide an opportunity for wq improvement**

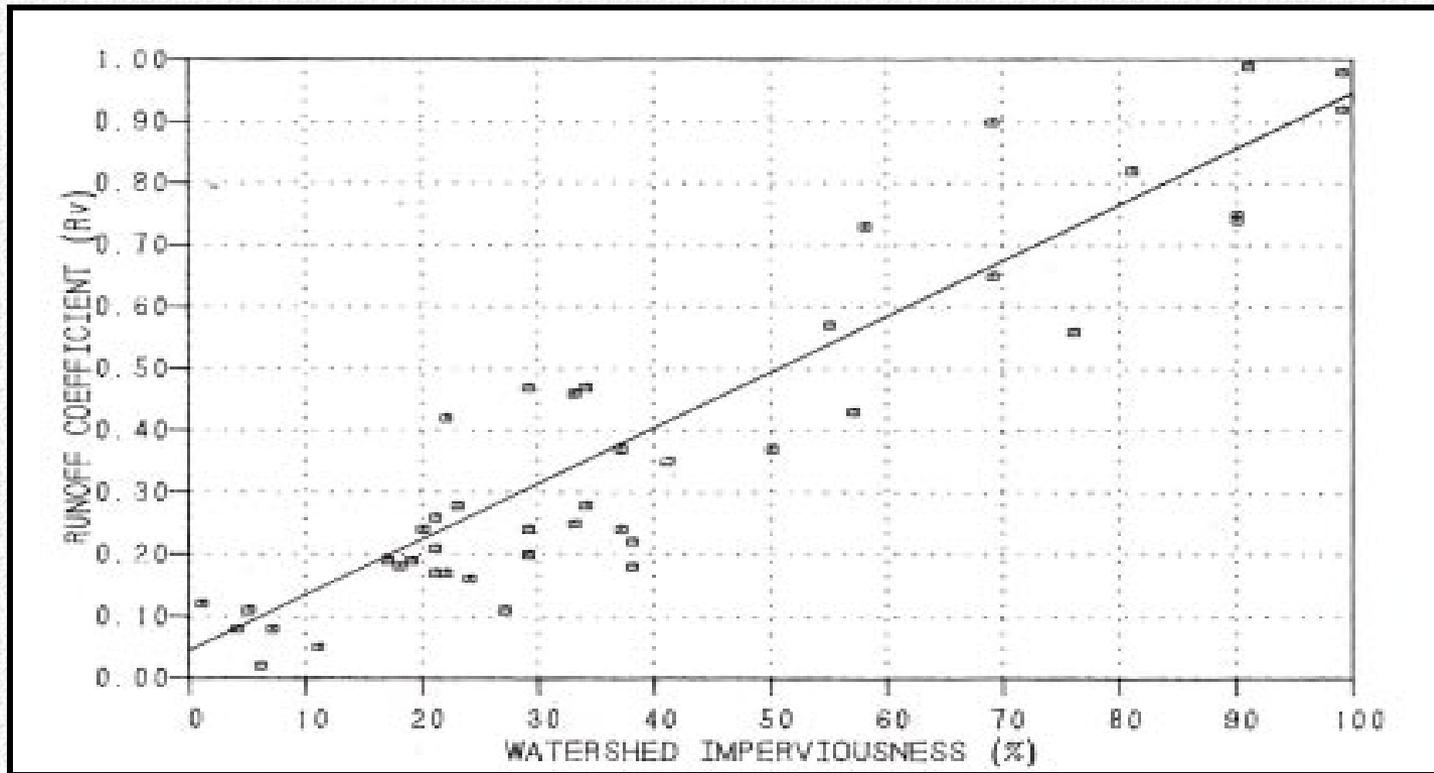




# Redevelopment Policy Considerations

**The problem is impervious area...**

**Impervious area reduction will reduce flows leaving the site and improve wq**





# Redevelopment Policy Considerations

## Reduce the impacts of impervious area by:

- **Requiring reduction of imperviousness on site;**
- **Requiring implementation of ESD practices through the ESD Design Process;**
- **Providing enhanced water quality treatment above existing criteria; and**
- **Providing flexibility in criteria to allow for integration of local initiatives**





# Redevelopment Concept Policy

Existing Impervious Cover	Management Requirements
0 – 40%	New development
41 - 65%	Reduce or treat 50% of existing impervious area
66 – 100%	Reduce or treat 20% of existing impervious area

Tiered approach:

more stringent requirements in less dense sites;  
incentives for redevelopment in ultra urban areas





# Redevelopment Concept Policy

Existing Impervious Cover	Management Requirements
0 – 40%	New development
41 - <del>65%</del> <b>100%</b>	Reduce or treat 50% of existing impervious area
<del>66 – 100%</del>	<del>Reduce or treat 20% of existing impervious area</del>

Need to simplify and provide greater management requirements for water quality treatment, while still recognizing the challenges in redevelopment projects in ultra urban areas





# Redevelopment Policy

**Require more management in less densely developed sites**

- 1. An approving agency shall require that stormwater management be addressed according to new development requirements when existing site impervious area is less than or equal to 40%.**





# Redevelopment Policy

- 2. Proposed redevelopment project designs shall:**
  - a. Reduce existing impervious area by at least 50% according to MDE's stepwise planning process;**
  - b. Implement ESD to the MEP to provide water quality treatment for 50% of the existing impervious area; or**
  - c. Use a combination a. and b.**





# Redevelopment ESD Design Process

## Step 1. Site and Resource Mapping

## Step 2. Project Layout & Planning

Determine Management Requirements

## Step 3. Design ESD Practices

Decision 1: Were all options for ESD explored?

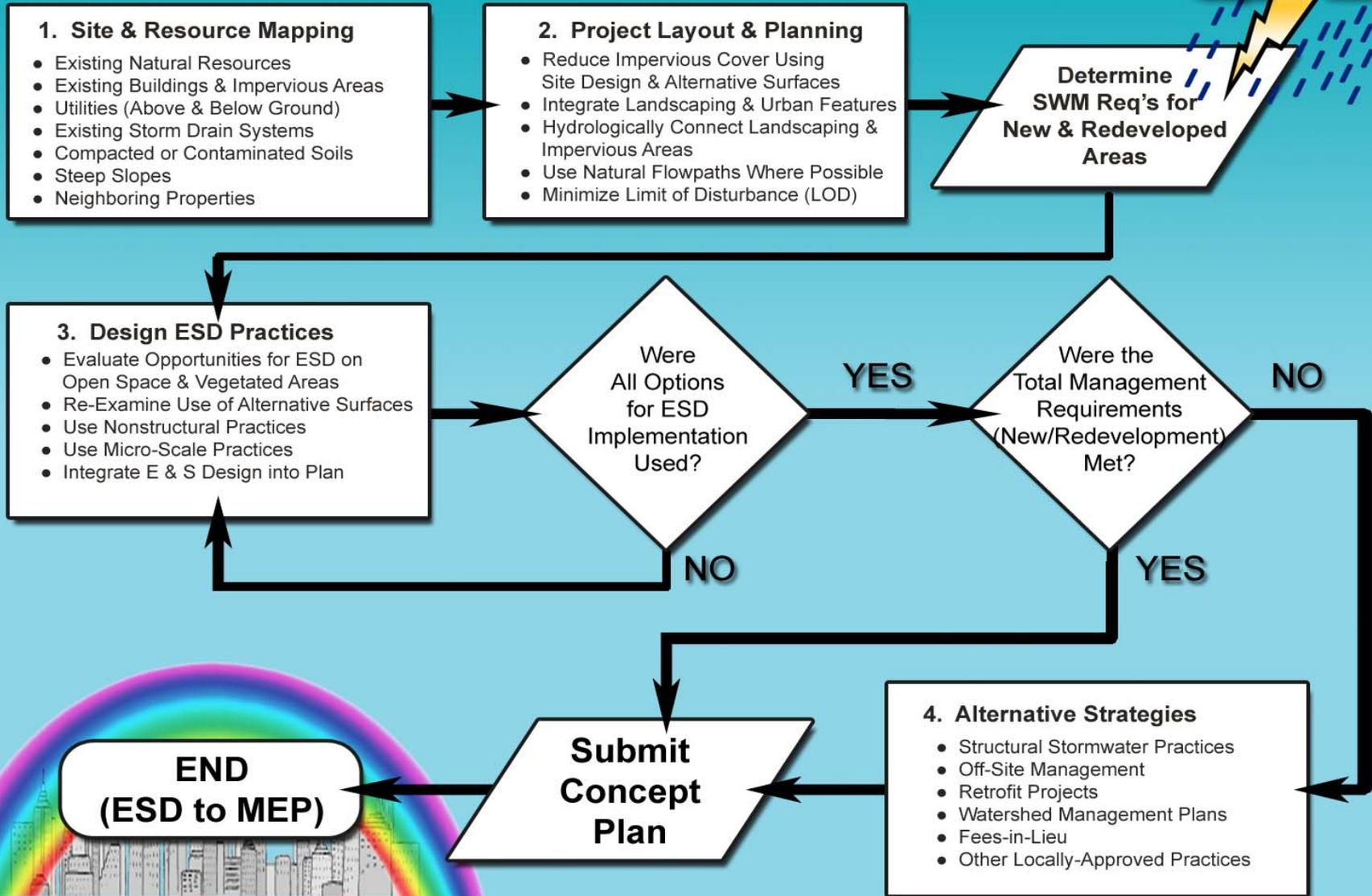
Decision 2: Are the total management requirements met?

## Step 4. Alternative Management Techniques

Preparation of a Concept Plan



# Redevelopment ESD Design Process





# Redevelopment ESD Design Process

**Guidelines were needed to describe how ESD would be achieved to the MEP on redevelopment sites**

**Finding the End of the Rainbow:**

**The ESD Design process will require that the developer preserve natural areas, reduce site imperviousness and implement ESD practices**





# Redevelopment Policy

- 3. Alternative stormwater management measures:**
  - a. Structural stormwater management measures to provide water quality for an equivalent area;**
  - b. Off-site BMP implementation to provide water quality treatment for an equivalent area; or**
  - c. Any combination of impervious area reduction, ESD implementation, structural practices or off-site treatment.**





# Redevelopment Policy

## Need to keep requirements flexible and provide incentive for redevelopment

4. An approving agency may develop other policies that may include:
  - a. Retrofitting existing structural BMPs;
  - b. Stream restoration;
  - c. Watershed management plans;
  - d. Trading policies that involve other pollution control programs;
  - e. Fees paid in an amount specified by the approving agency; or
  - f. Other practices





# North Bay Environmental Education Camp Redevelopment in Cecil County



06/02/2008 11:58 AM



06/02/2008 11:58 AM

# University of Maryland School of Nursing

University of Maryland  
at Baltimore  
University of Maryland  
Medical Center  
VA Medical Center

NO PARKING  
LOADING DOCK  
VEHICLES WILL  
BE TOWED AT  
OWNERS EXPENSE

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LOADING DOCK  
VEHICLES WILL  
BE TOWED AT  
OWNERS EXPENSE

07/10/2008 12:29 PM



# University of Maryland School of Nursing





# Alternative Stormwater Management Measures



**Martin Plaza  
Redevelopment**

**Baltimore County and  
Martin Financial Assoc.**



**Public – Private Partnership**

**WQ treatment of 85 acres  
of existing impervious**

# **Stony Run Stream Restoration**



**December, 2006**



# Stony Run Stream Restoration



February, 2007



July, 2008





# Off-Site Stormwater Management



Baltimore City School Retrofits:  
Impervious area reduction  
Rooftop disconnection to rain garden







# The Future in Redevelopment Policy...

- **Comments, questions and recommendations will be considered as we move toward a final policy**
- **Looking at redevelopment case studies; calculate requirements; and evaluate options for ESD to the MEP**

