# Draft RI Stormwater Manual

**DEM.RI.GOV** 

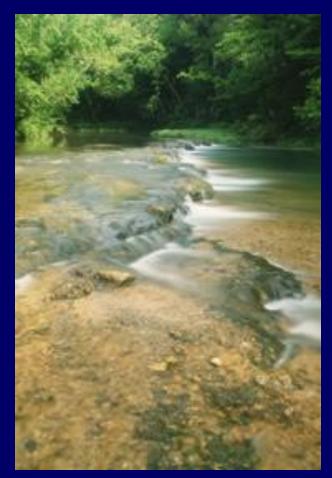
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# **Smart Development for a Cleaner Bay Act of 2007**

- Maintain predevelopment groundwater recharge
- Control stormwater runoff and peak rates
- Use low impact design techniques as <u>primary</u> control method





## **Low Impact Development**

- Reduce impervious cover
- Maintain natural drainage and wetland features
- Reduce clearing and grading
- Manage stormwater at source
- Disconnect Impervious Areas-
  - Qualifying pervious area



# Manage Hydrology

Increased Storm Intensities – e.g. 8.9" – 100 yr storm

- **Channel Protection** 
  - Detain the 1-yr storm (2.3")
- **Conveyance Protection** 
  - Peak runoff attenuation
  - **Emergency outlet sizing**
  - downstream analysis 10% rule



- 1" X soil factor x area
- Infiltration basins; QPAs
- Subdraining land?





### **Water Quality**

- Improved Practices
  - Wet vegetated treatment systems
  - Infiltration (basins, alternative paving)
  - □ Filtering (bioretention)
  - Open channels or swales
  - Green roofs
- Cold Water Fisheries
  - New rules effective June 2, 2009



#### **Other Provisions**

- Redevelopment
  - □ Disturbs 10,000 SF or more impervious
  - Options
    - □ Reduce impervious by 50% or more
    - □ Use other LID to reduce 50% runoff
    - Provide WQ treatment for 50% area
    - Off-site mitigation
- Erosion Controls





Stormwater management system operation and maintenance plan

### **Draft Schedule**

Public workshop
June 4<sup>th</sup>

Comment Deadline June 30<sup>th</sup>

Address commentsJuly – August

Public Notice September '09

Adopt New Manual Fall '09

Training Sessions
Fall - Winter