

# LID Site Planning and Design Techniques: A Municipal Self-Assessment

*Luck Isn't Enough!*

*Working Toward  
An Even Better  
[Name of Town]*

[VENUE]

[DATE]

THE  
UNIVERSITY  
OF RHODE ISLAND  
COOPERATIVE  
EXTENSION



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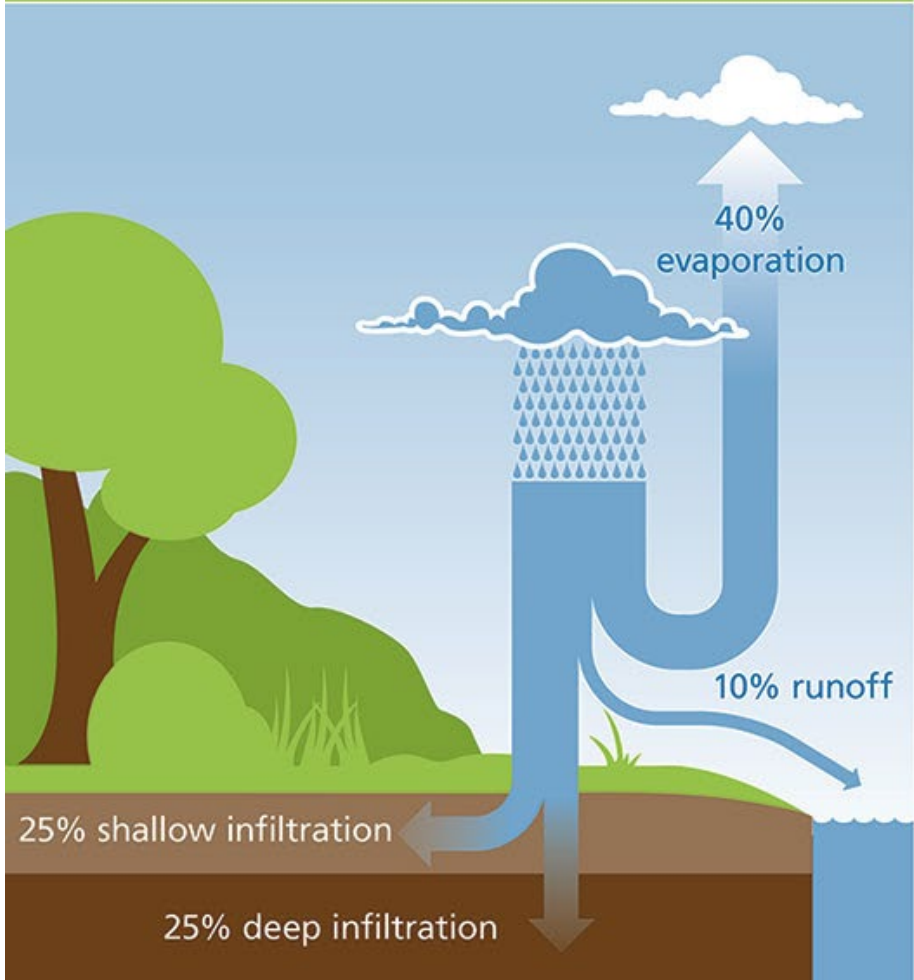
# Why Do We Need A Self-Assessment?







NATURAL ENVIRONMENT



URBAN ENVIRONMENT

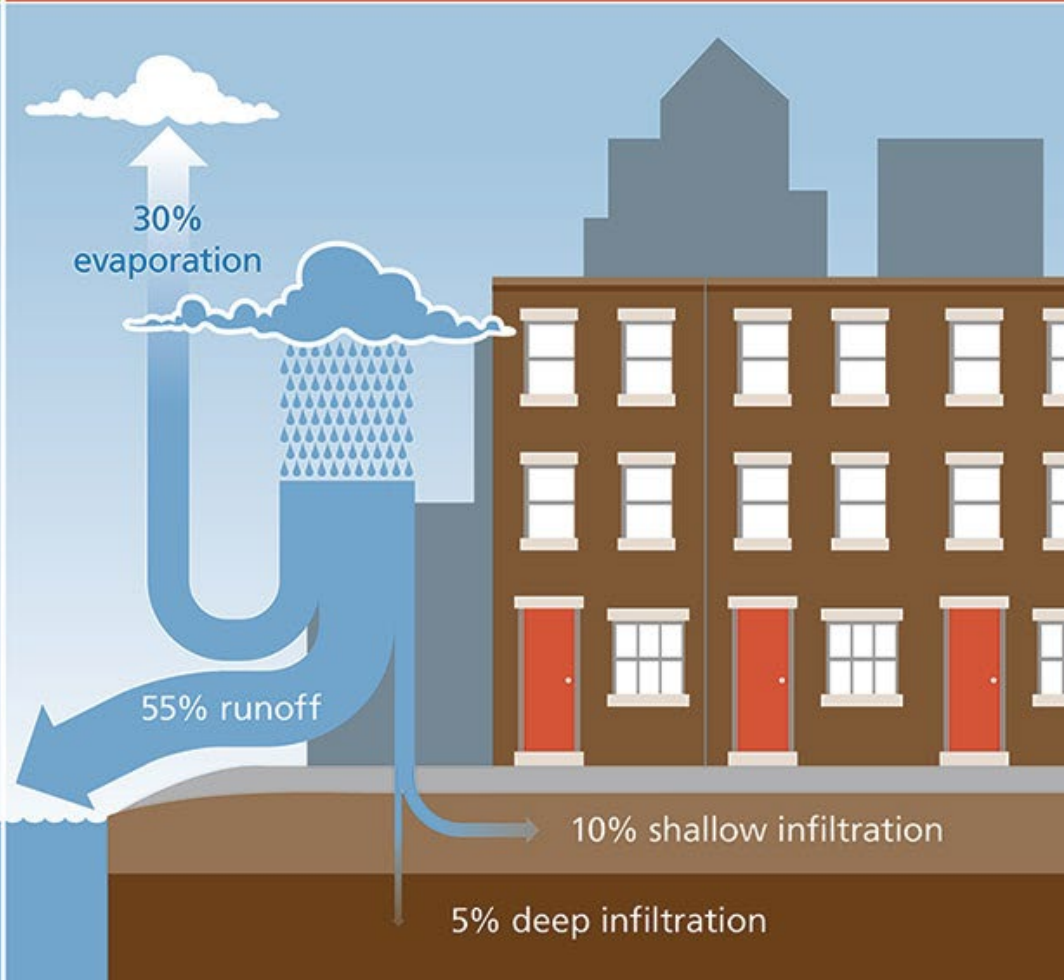


Image credit:  
naturalsuburbanrunoff\_Phila.gov.jpg







# What Does The Self-Assessment Have To Do With All Of This?





# Avoid



# Reduce



# Manage



# LID Site Planning and Design Techniques: A Municipal Self-Assessment

## GOAL #1: *Avoid the impacts of development to natural features and pre-development hydrology.*

**TIP** If more space is needed for notes, pages 24 through 34 are reserved for further comments.

[MORE INFO...](#)

### PROTECT UNDISTURBED OPEN SPACE

TOPIC A

**Objective 1:** *Protect as much undisturbed open space as possible to maintain predevelopment hydrology and allow precipitation to naturally infiltrate into the ground.*

#### 1. Has Conservation Development, or other types of compact development that require the preservation of natural resources, been adopted to protect open space and predevelopment hydrology?

TOPIC A

Yes, it is required unless proven infeasible  Yes, it is allowed  No  N/A to highly urban Action:  Leave as is  To be revised

Ordinance:  ZO  LDSR  SESC  SW  Other:  Section name & number:

Notes:

#### 2. Is it required to mark limits of disturbance on all construction plans with details?

TOPIC B

Yes  No Action:  Leave as is  To be revised

Ordinance:  ZO  LDSR  SESC  SW  Other:  Section name & number:

Notes:

#### 3. Is it required to have limits of disturbance installed prior to site work?

TOPIC B

Yes  No Action:  Leave as is  To be revised

Ordinance:  ZO  LDSR  SESC  SW  Other:  Section name & number:

Notes:

#### 4. Are there limits on lawn area for residential lots in order to protect undisturbed open space?

TOPIC C

Yes  No  N/A to highly urban Action:  Leave as is  To be revised

# Learning More About Each Topic

## LID Site Planning and Design Techniques: A Municipal Self-Assessment PRIMER ON LID DESIGN TECHNIQUES AND PRINCIPLES

### SESC CONTROL ORDINANCE

Most communities in Rhode Island have recognized the destructive consequences of erosion and sedimentation, as well as the municipal cleanup and repair costs. While most Rhode Island municipalities have some type of ordinance, often times the focus is on erosion issues after they occur. A more effective approach is to prevent erosion from the beginning of a development project during the site design process, and to ensure SESC measures are implemented throughout construction municipalities can hire third-party inspectors to assist with site visits and compliance.



LEFT: Sediment from this construction site has washed across the road, into the storm drain, and then directly into the waterway. A thick layer of straw mulch can dramatically reduce erosion (Tetra Tech). RIGHT: This storm drain cover is stopped by a grate, preventing sediment from entering the storm drain.

RI LID Planning and Design Guidance Manual See Chapter 4 & Chapter 9 – <http://www.dem.ri.gov/programs/water/t4guide/lidplan.pdf>

## LID Site Planning and Design Techniques: A Municipal Self-Assessment PRIMER ON LID DESIGN TECHNIQUES AND PRINCIPLES

### MAXIMUM LOT IMPERVIOUS COVER LIMITS

### TOPIC 0

Impervious cover refers to any constructed hard surface (such as asphalt, concrete, rooftops) as well as compacted soil that water cannot penetrate. Impervious cover limits attempt to reduce the water quality impacts of future development, maintain groundwater recharge, avoid localized drainage problems, and minimize polluted runoff to municipal storm drains and local waters. Research shows that 10% watershed impervious cover is the benchmark to protect stream habitat quality but as low as 4% for cold water trout streams. Impervious cover limits work best when related to a specific resource, such as a drinking water supply watershed, or to address a land use problem, such as preventing conversion of urban front yards for parking (considered unsightly and increases runoff to storm drains).

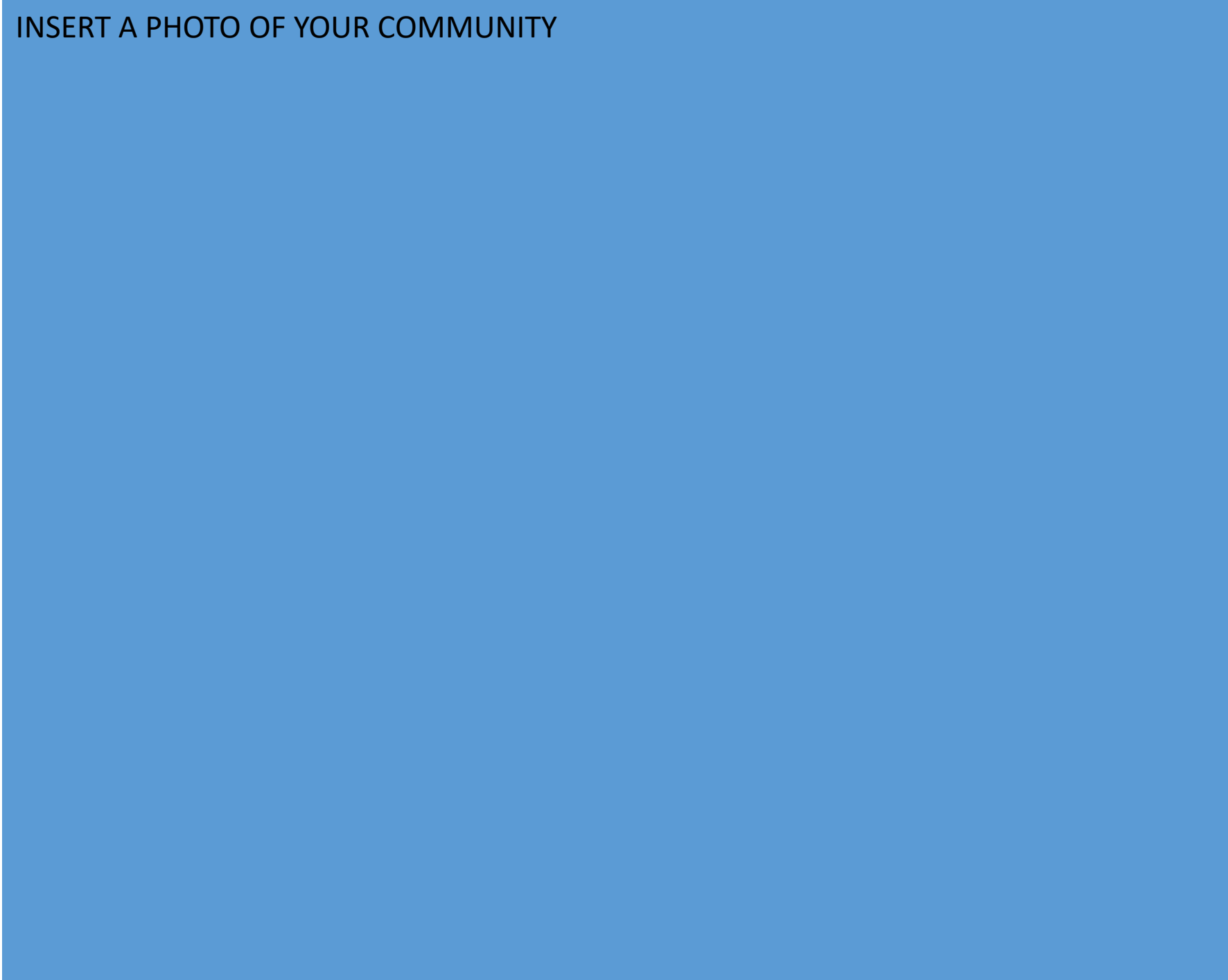


LEFT: A variety of LID techniques can be used to decrease impervious cover on a residential lot. CENTER: Jamestown's High Groundwater Ordinance prevents increased runoff to roadways and adjacent properties where the water table is less than 3 feet; the residential rain garden and gravel driveway on this lot help to offset the already reduced impervious cover created by this moderate-sized house. RIGHT: Reduced impervious cover is the key to reducing runoff on wet sites. To ensure adequate area for stormwater infiltration, the maximum lot impervious cover ranges from 8-15%, depending on lot size and water table depth (J. Jobin).

Return to question 20.



INSERT A PHOTO OF YOUR COMMUNITY





# What Happens Now?



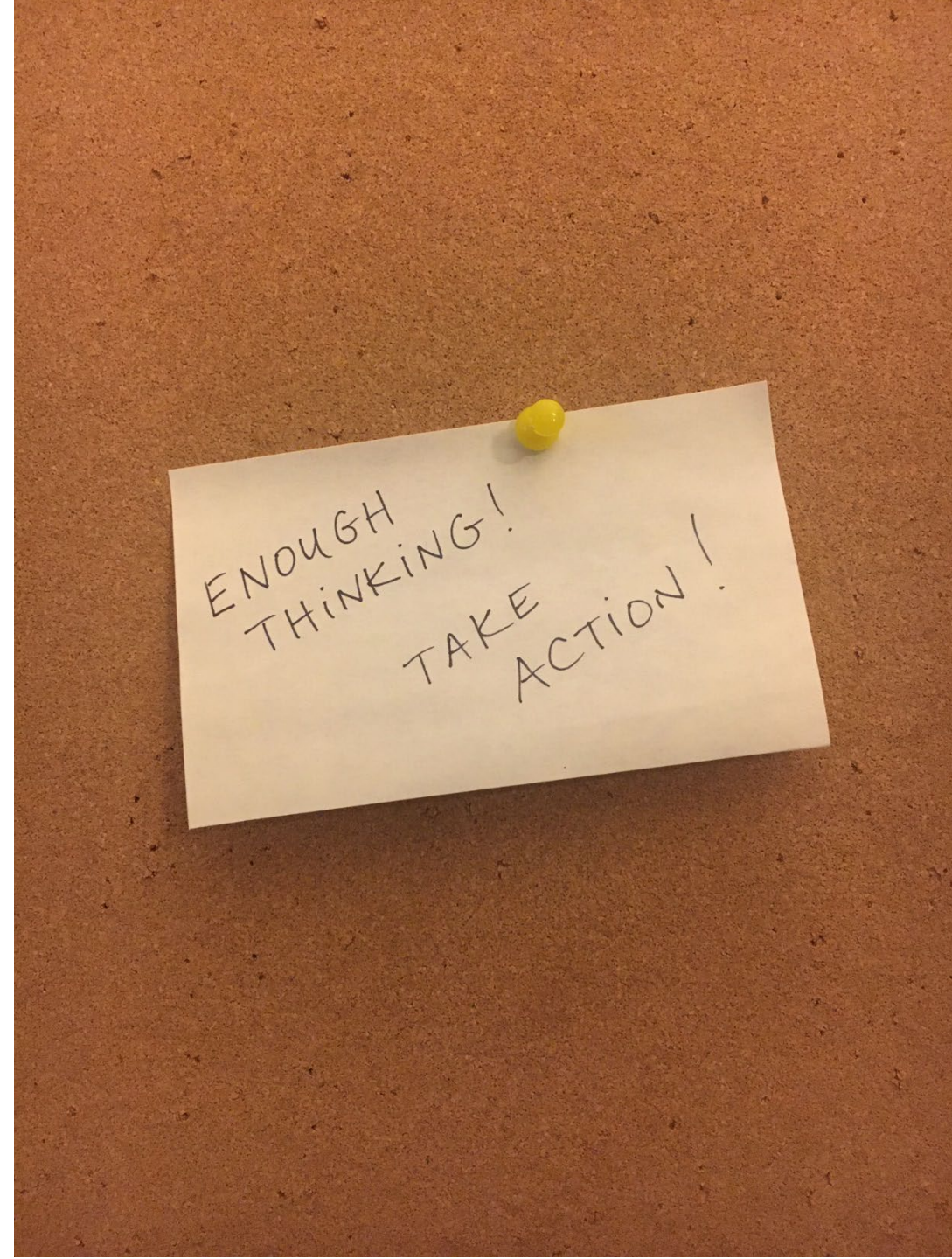
Action Items:

## SUGGESTED STEPS:

1. *Identify all the development rules in your community.*
2. *Identify the local authorities who administer the rules.*
3. *Work through the assessment with a team of staff.*
4. *Share results and finalize recommended actions with other staff and boards.*
5. *Submit the completed assessment to RIDEM with the MS4 Annual Report.*



Where  
We're At!



ENOUGH  
THINKING!  
TAKE  
ACTION!



# For Additional Answers To Questions...



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Thank You