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

Produced by URI Cooperative Extension with funding from the RI Department of Transportation and support from the Rhode Island Department of Environmental Management. *November, 2019.*

Luck Isn't Enough!

Working Toward An Even Better [Name of Town]

[VENUE]
[DATE]

Why Do We Need A Self-Assessment?


PROVIDENCE
PLACE


STOP

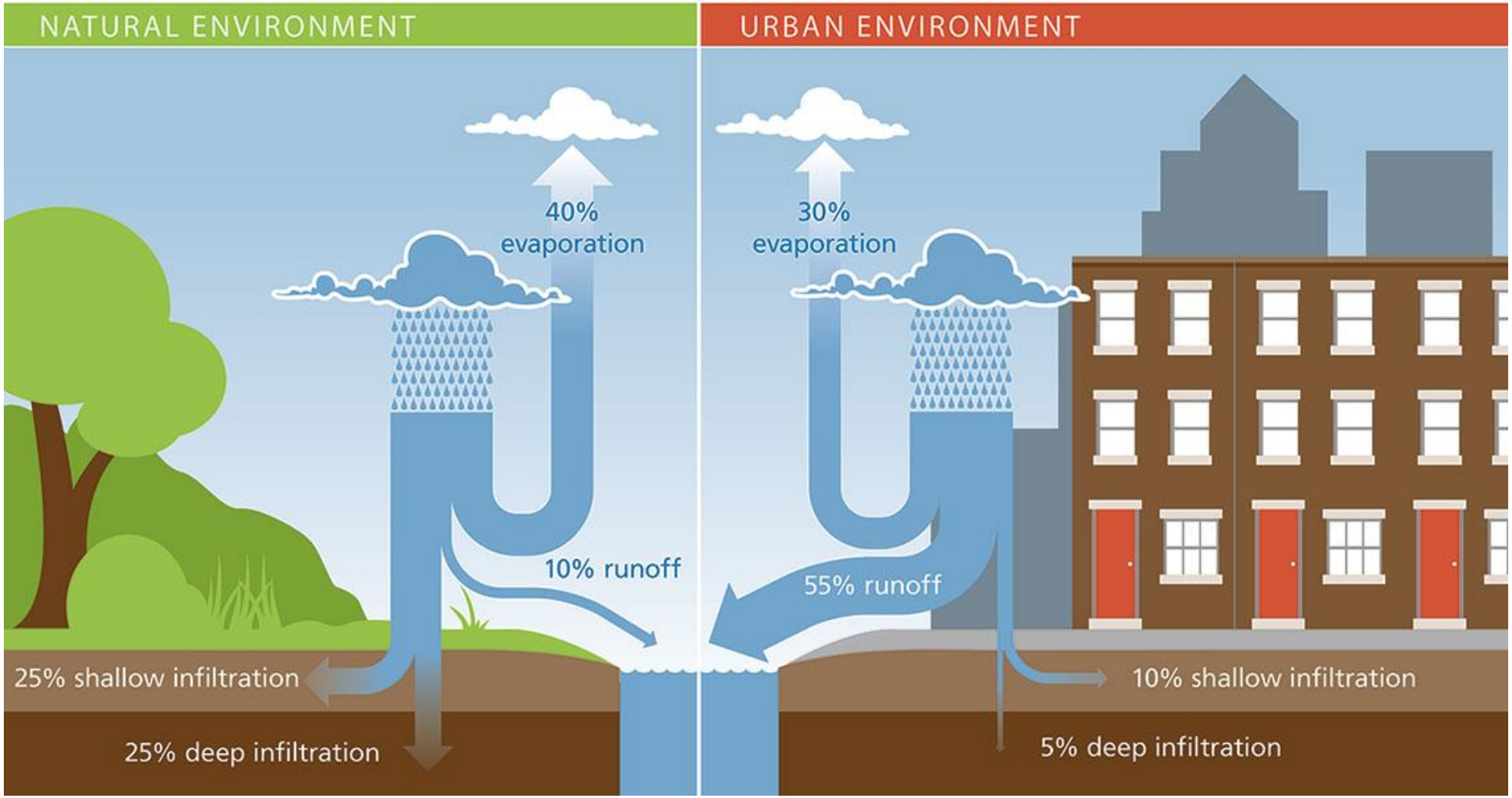


Image credit:
naturalsuburbanrunoff_Phila.gov.jpg


CVS
pharmacy
CVS/pharmac

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

Avoid

Reduce

Manage

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 I: *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

SESC CONTROL ORDINANCE

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

LEFT: Sediment from this construction site has washed across the road, into the stormdrain, and then directly into the
with a thick layer of straw mulch can dramatically reduce erosion (Tetra Tech). RIGHT: This storm drain cover is stopp
basin (US EPA).

RI LID Planning and Design Guidance Manual *See Chapter 4 & Chapter 9 –* http://www.dem.ri.gov/progra
stwater/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 O

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).

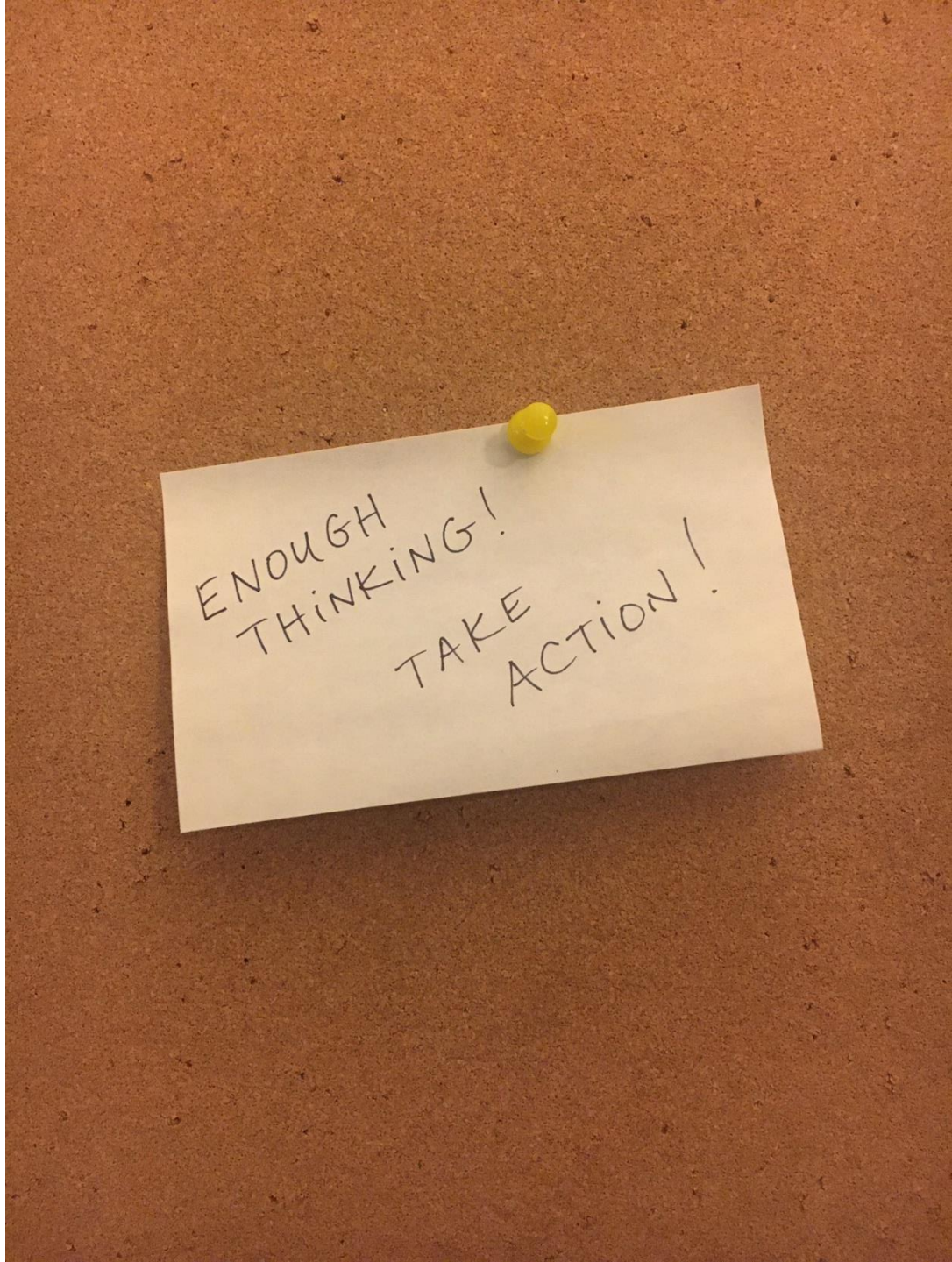
Return to ***question 20.***

INSERT A PHOTO OF YOUR COMMUNITY

What Happens Now?

Action Items:

- ❑ INSERT TOP GOAL
- ❑ INSERT SECOND GOAL
- ❑ INSERT THIRD GOAL, ETC.



For Additional Answers To Your Questions…

www.uri.edu/nemo

www.dem.ri.gov/programs/water

Lorraine Joubert
ljoubert@uri.edu
401.874.2138

Jenny Paquet
Jenny.Paquet@dem.ri.gov
401.222.4700 x 7263