

NJ's Stormwater Management Regulations

ANJEC Commissioner Training

March 22, 2023
Virtual Class



RUTGERS
New Jersey Agricultural
Experiment Station



2004 Stormwater Management Regulations

- Reduce peak flows and flooding
...and....
- Maintain infiltration and groundwater recharge
- Reduce pollution discharged to local waterways



ABC Action News, August 27, 2012



2021 Stormwater Management Regulations

- All major development must use green infrastructure to comply with the New Jersey Stormwater Regulations



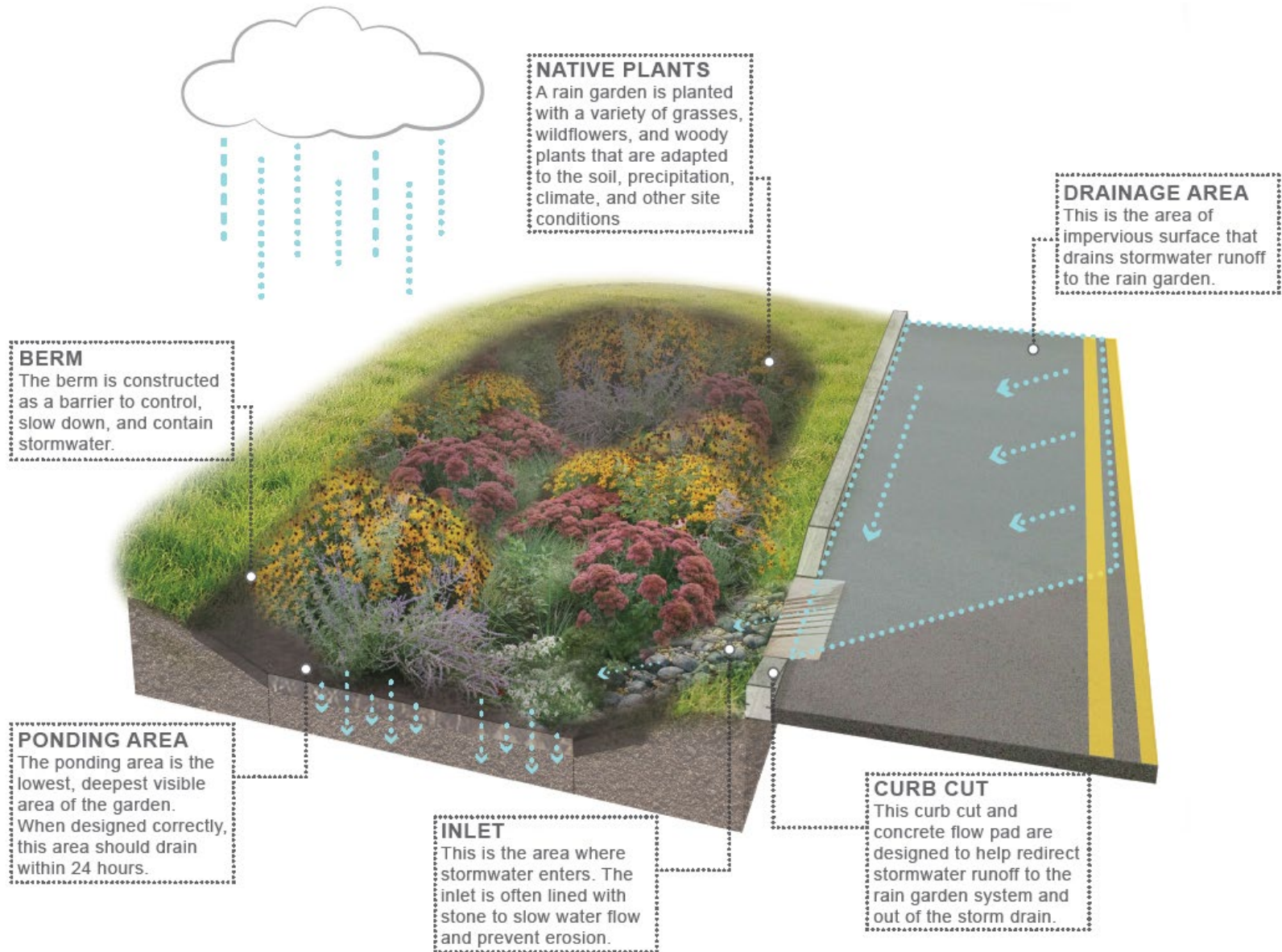
NJDEP Green Infrastructure Definition

A stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil
2. Treating stormwater runoff through filtration by vegetation or soil
3. Storing stormwater runoff for reuse

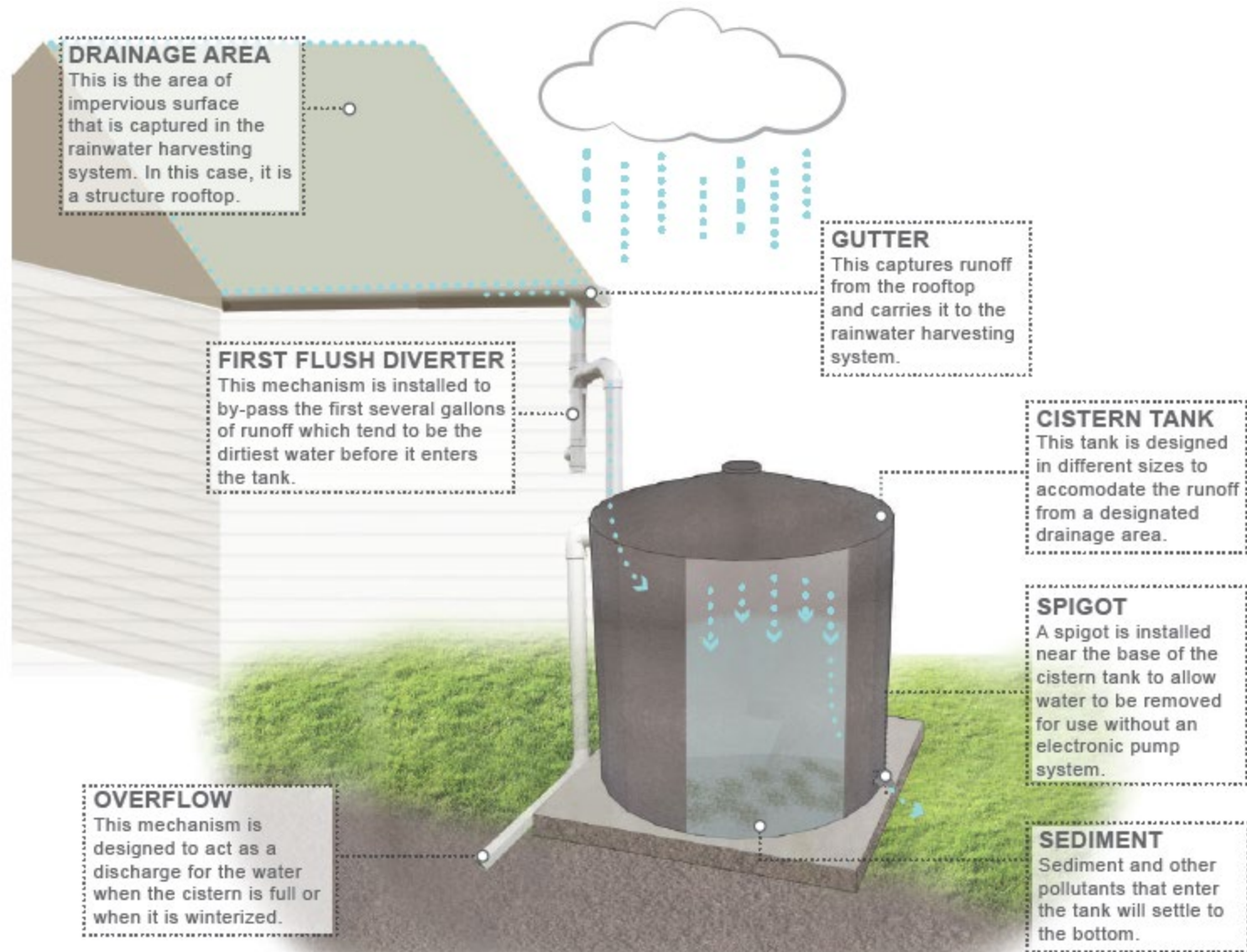


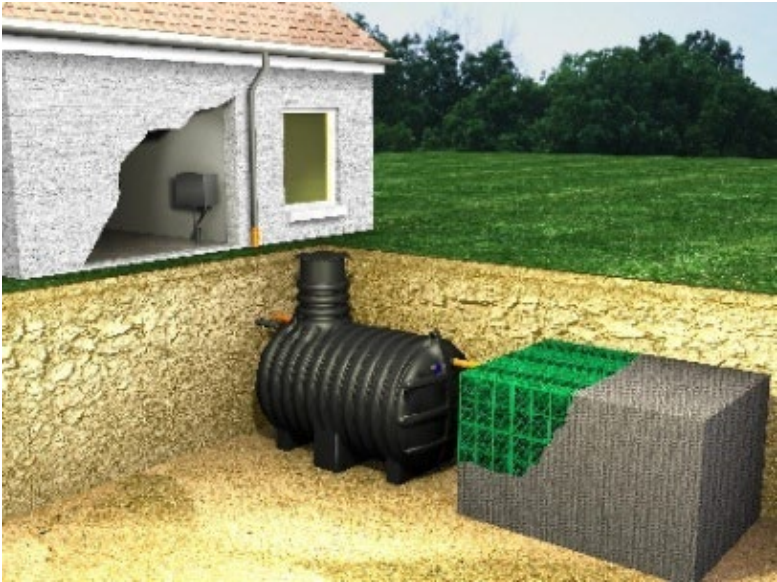
Bioretention Systems (Rain Gardens)



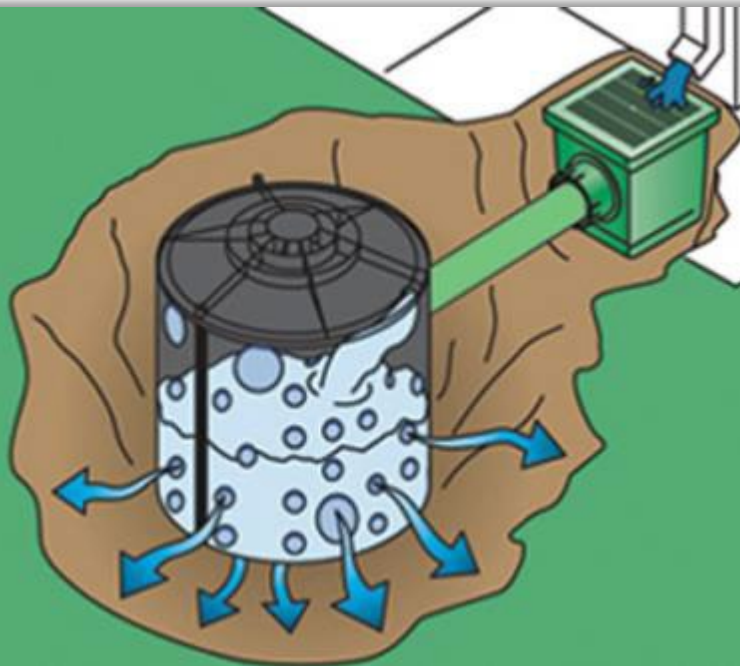
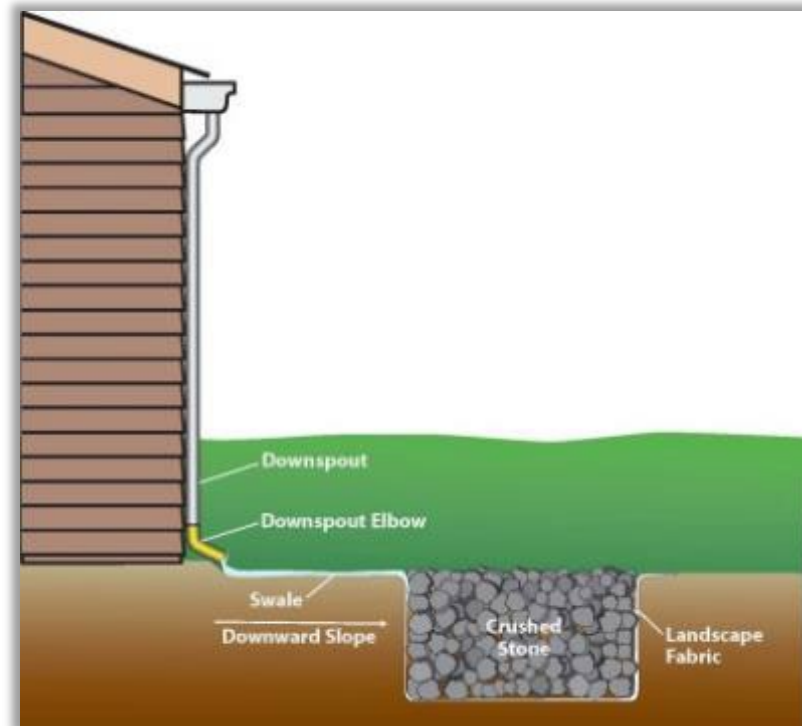


Cisterns





Dry Wells



Grass Swales



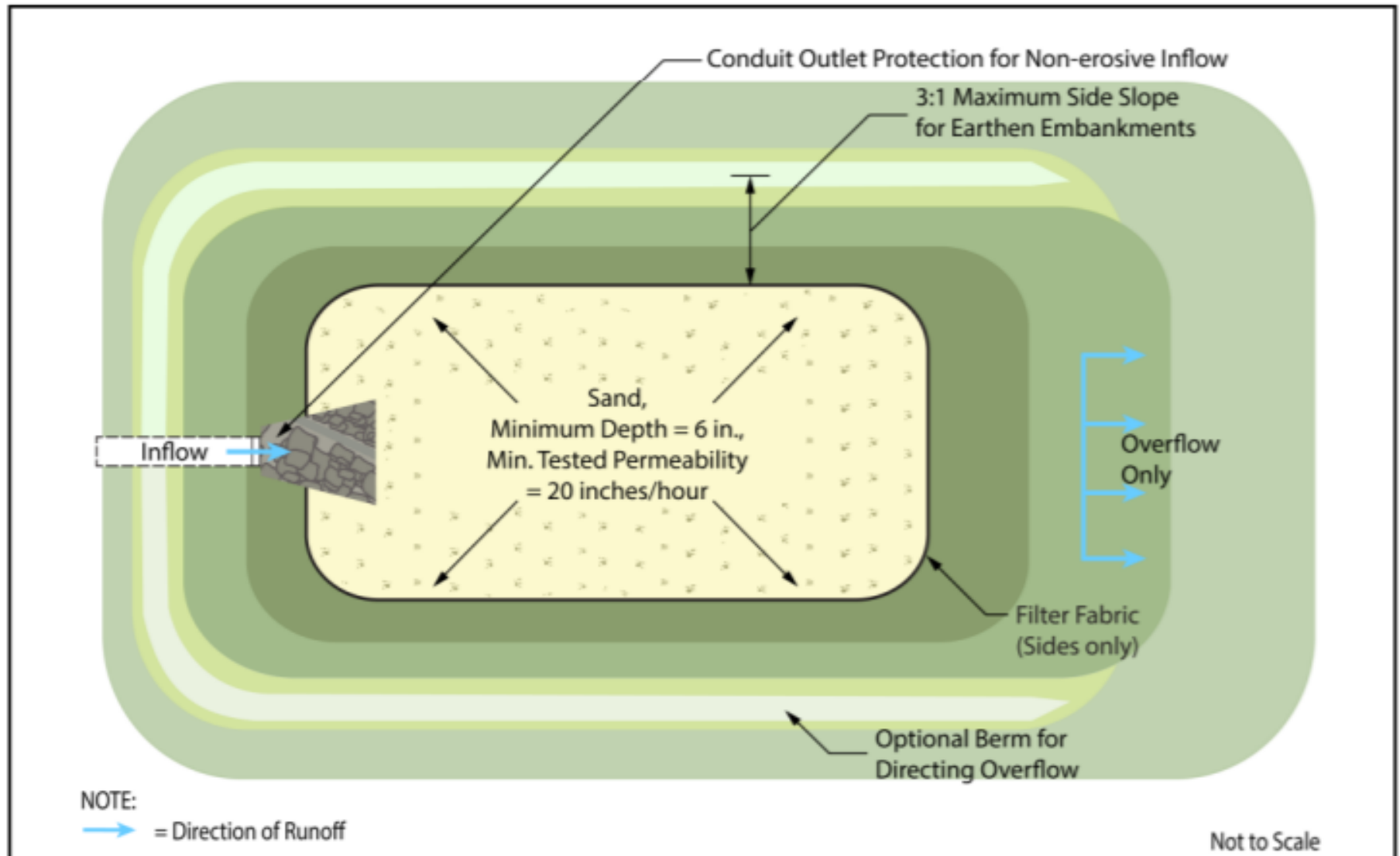
Green Roofs



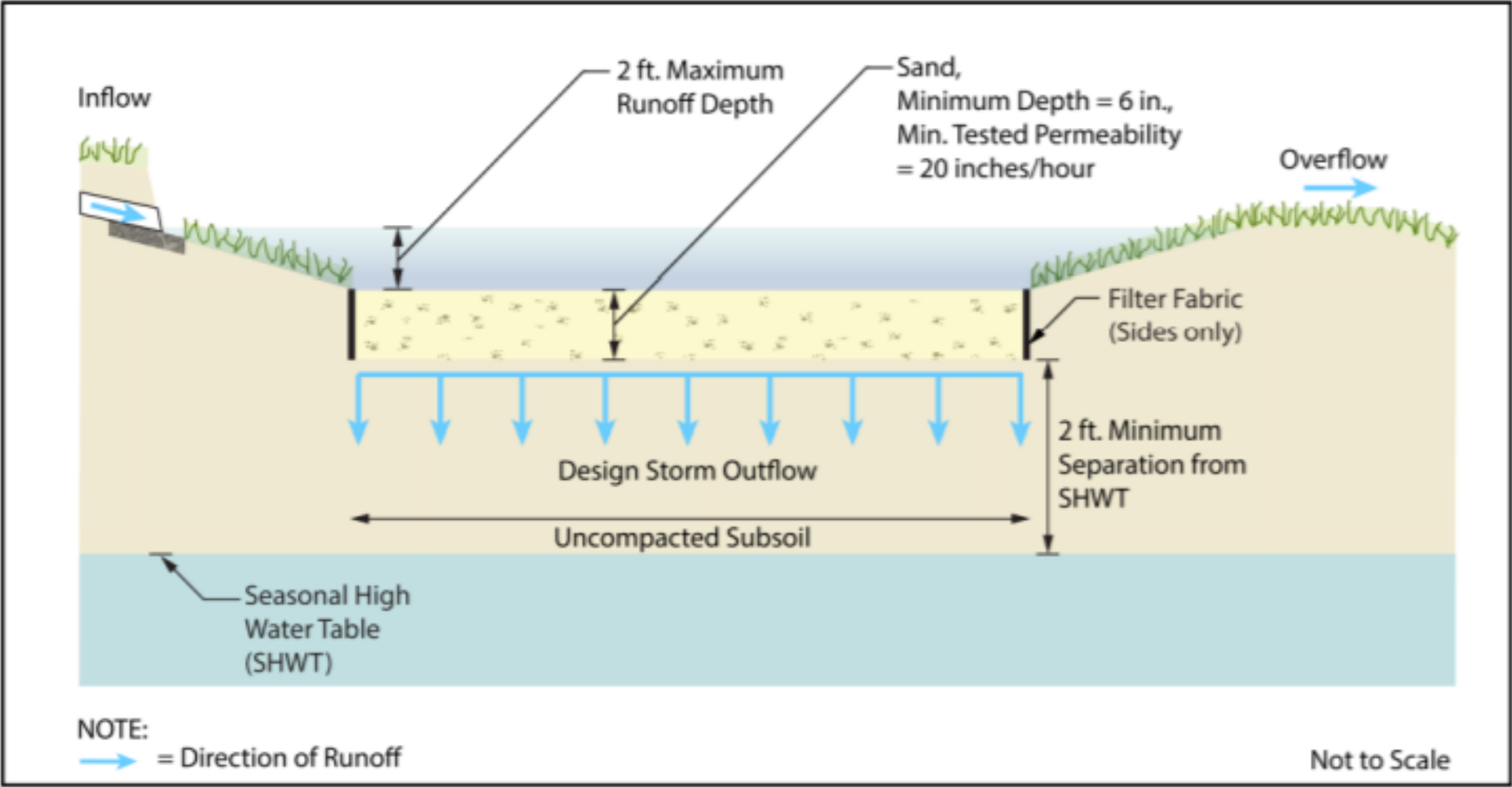


Infiltration Systems

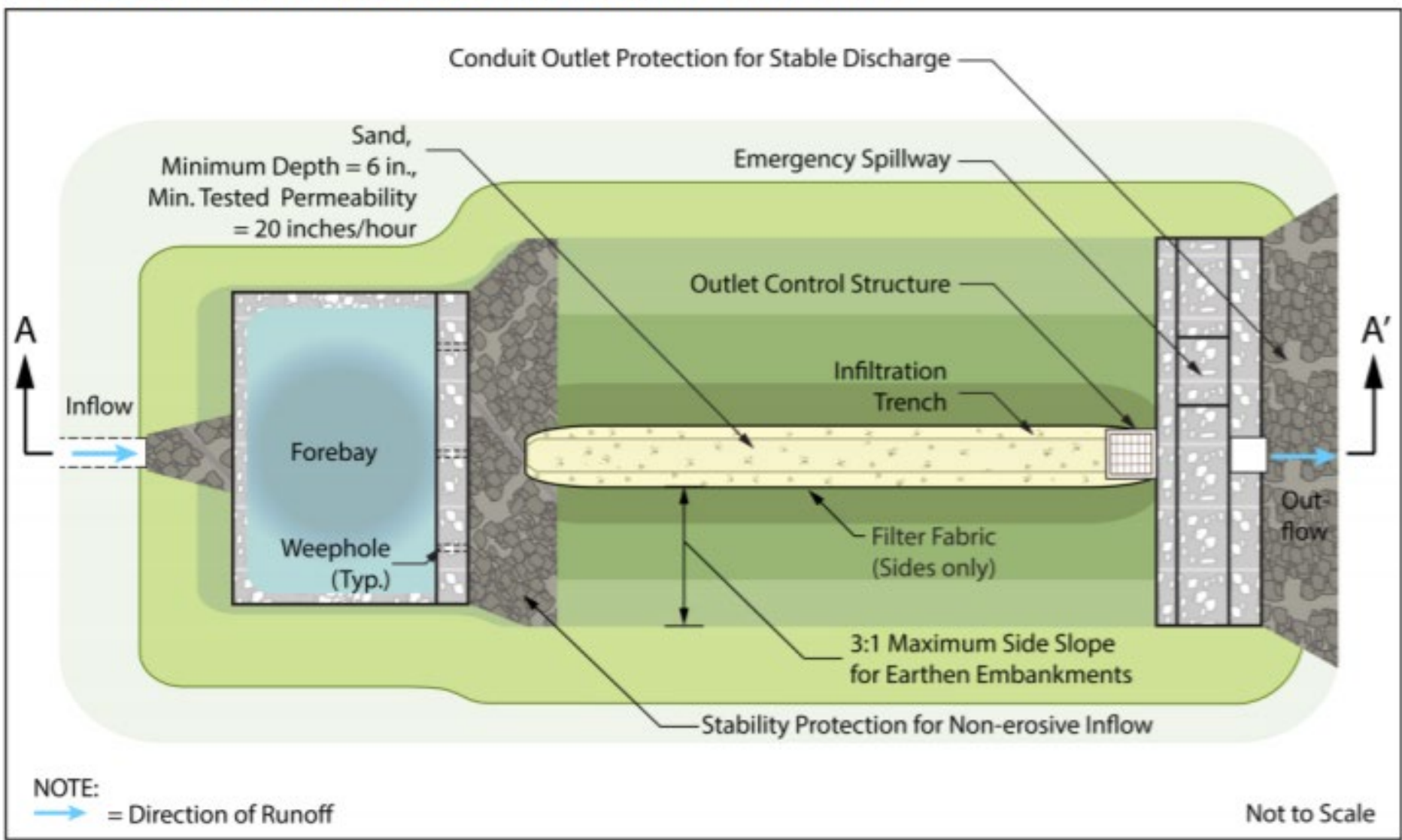
Surface Infiltration Basin – Plan View



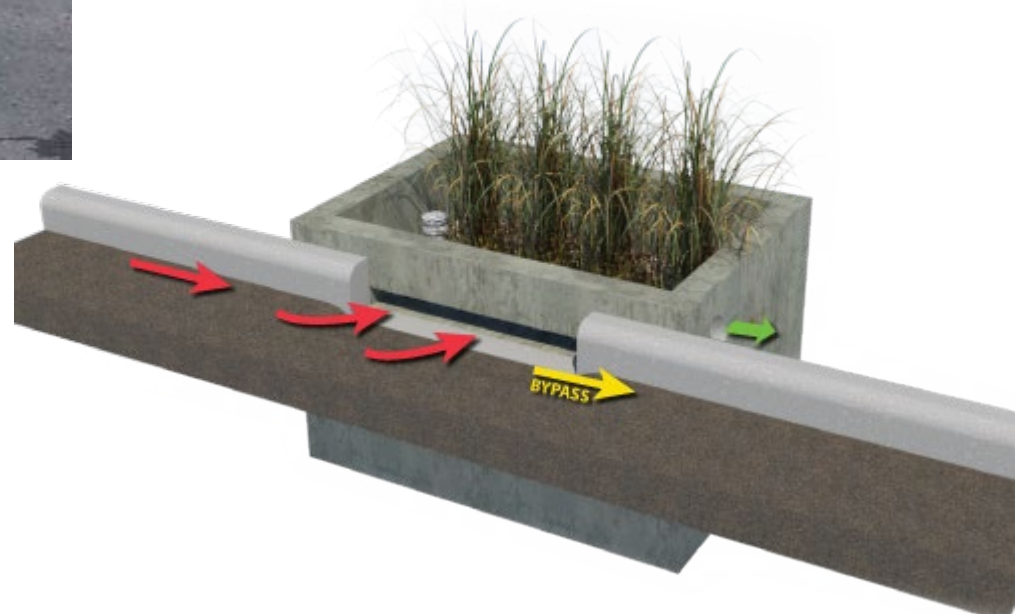
Surface Infiltration Basin – Profile View



Infiltration - Extended Detention Basin: Plan View



Green Infrastructure Manufactured Treatment Device



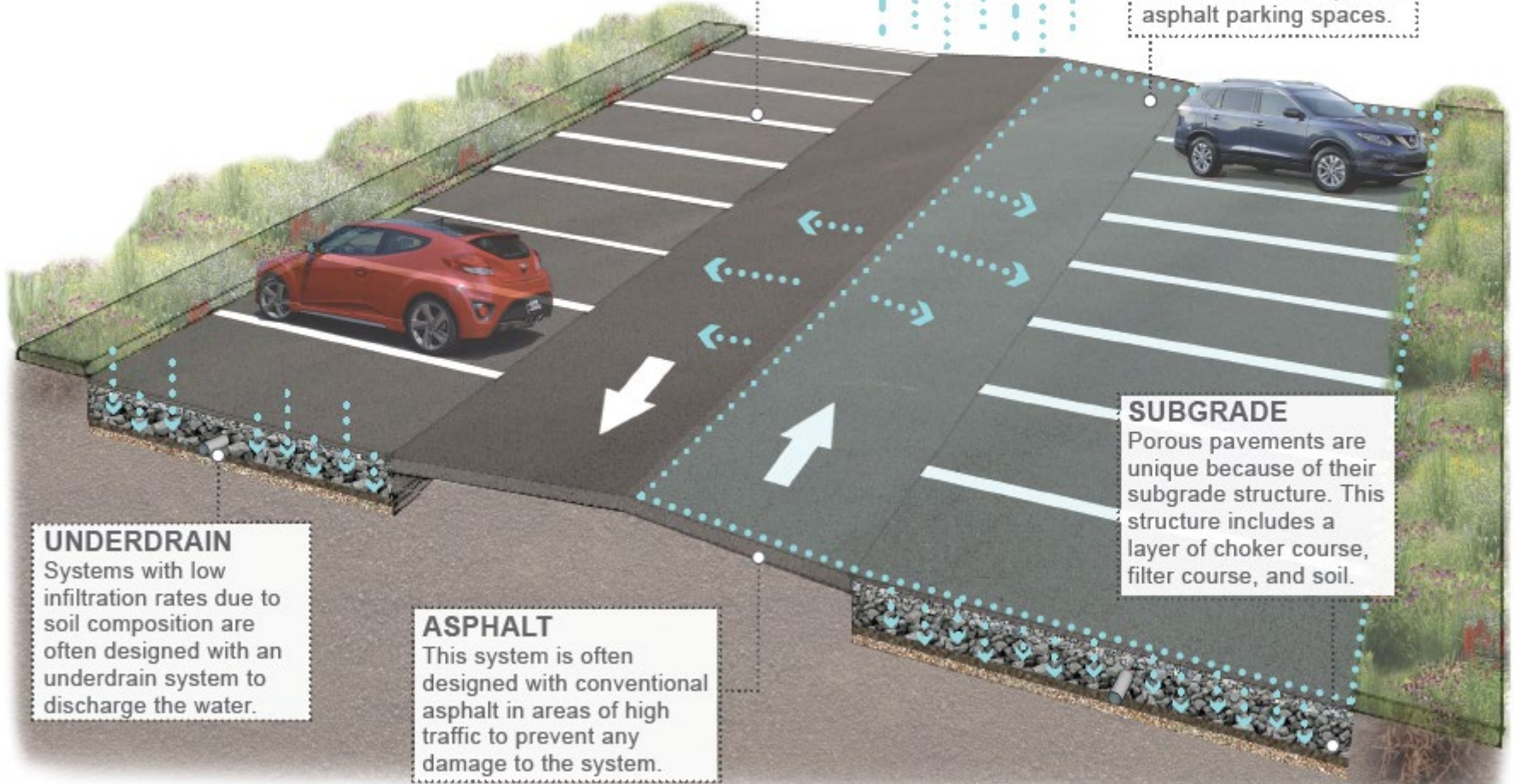
Permeable Pavement

POROUS ASPHALT

It is common to design porous asphalt in the parking stalls of a parking lot. This saves money and reduces wear.

DRAINAGE AREA

The drainage area of the porous asphalt system is the conventional asphalt cartway and the porous asphalt in the parking spaces. Runoff from the conventional asphalt flows into the porous asphalt parking spaces.



UNDERDRAIN

Systems with low infiltration rates due to soil composition are often designed with an underdrain system to discharge the water.

ASPHALT

This system is often designed with conventional asphalt in areas of high traffic to prevent any damage to the system.

SUBGRADE

Porous pavements are unique because of their subgrade structure. This structure includes a layer of choker course, filter course, and soil.

Porous Asphalt



A photograph showing a sidewalk made of pervious concrete, which has a light gray, porous, and textured appearance. The sidewalk runs parallel to a brick building on the left, which has a metal railing. To the right of the sidewalk is a dark asphalt road. The scene is outdoors with trees and a clear sky in the background.

Pervious Concrete



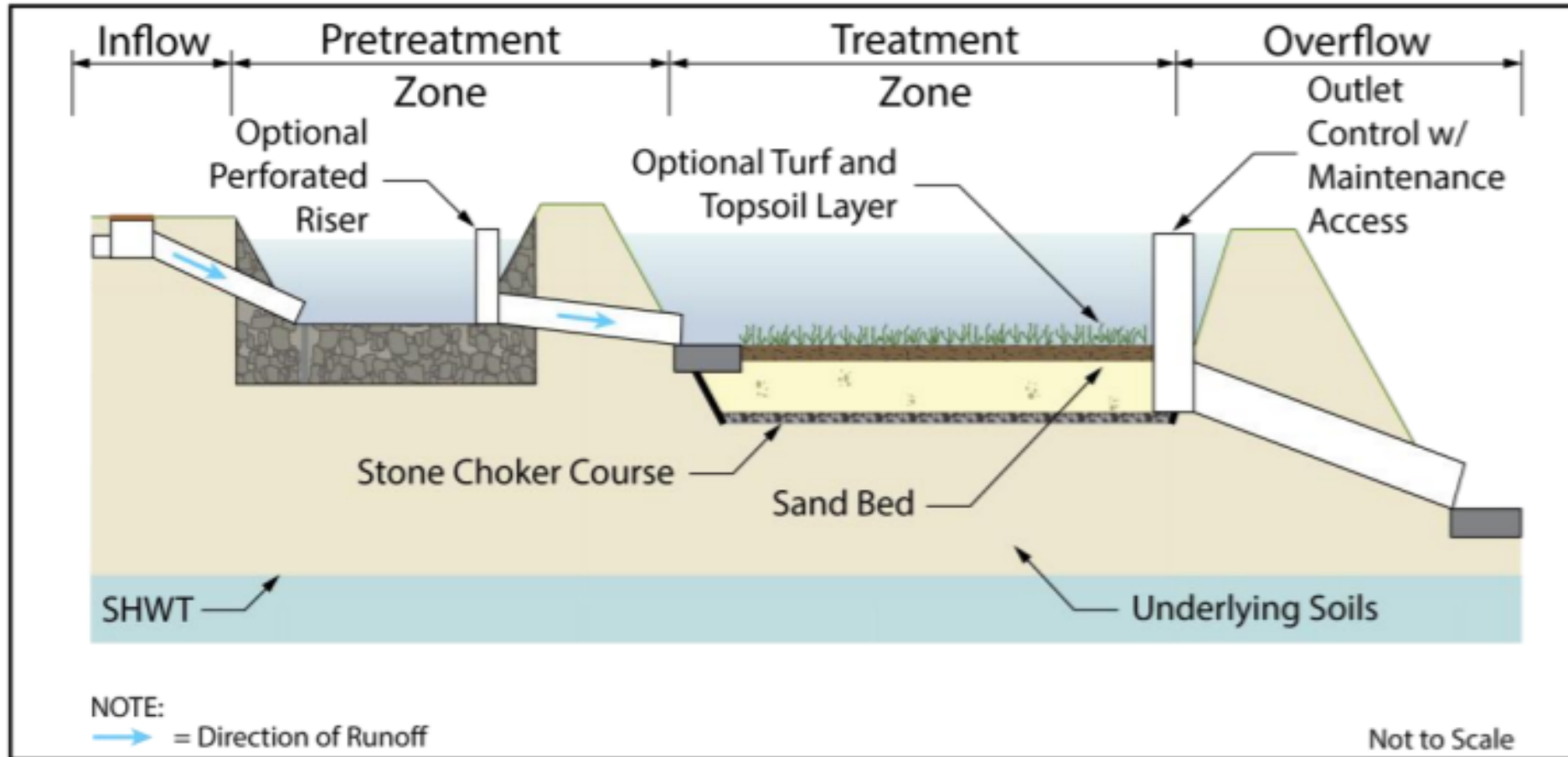
Permeable Pavers

A photograph showing a driveway paved with interlocking concrete pavers in a diamond pattern. The pavers are covered with green grass and fallen autumn leaves. A black vehicle is partially visible on the left, and a pile of straw or hay is on the right. A white text box is overlaid at the bottom center.

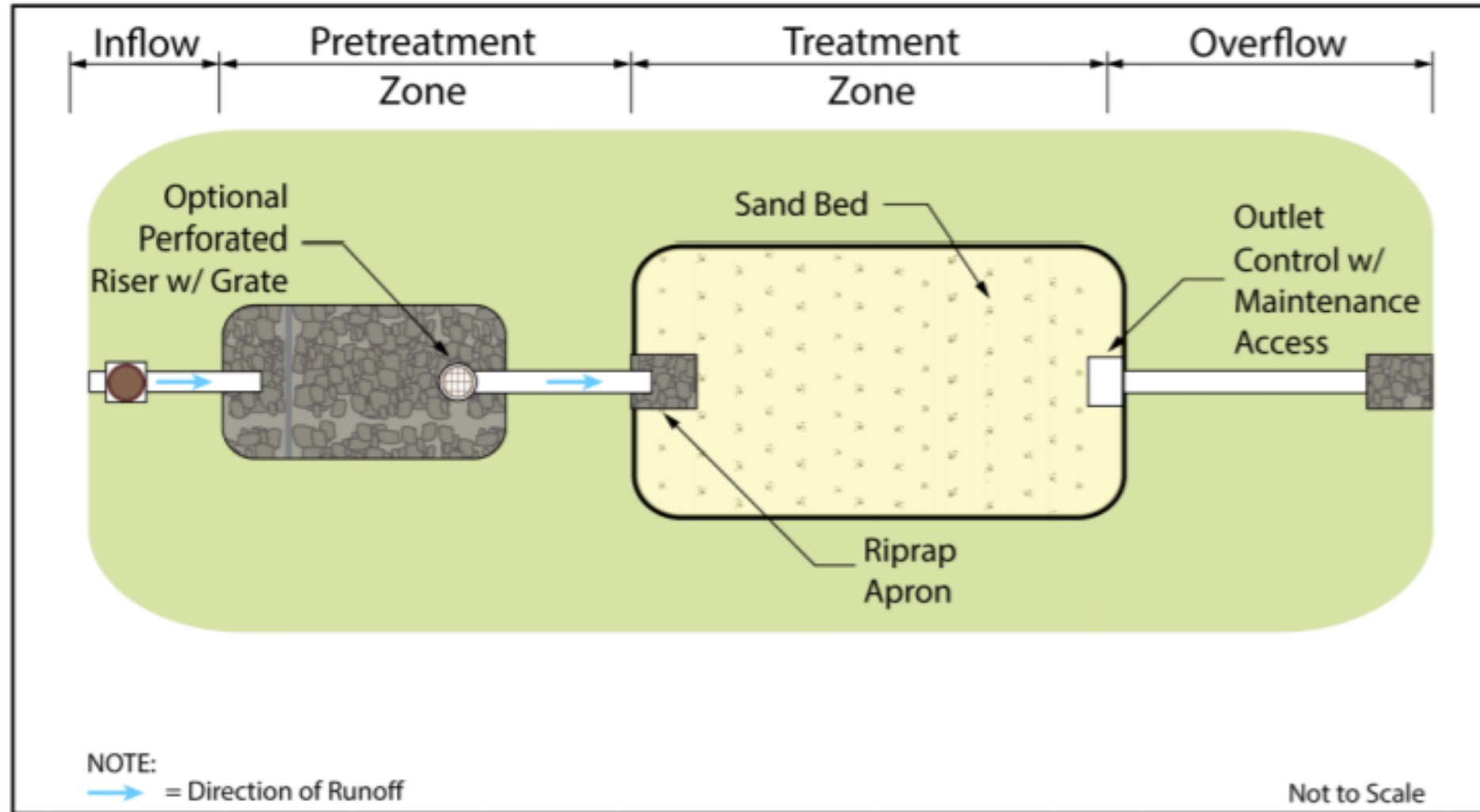
Grass Pavers

Sand Filter

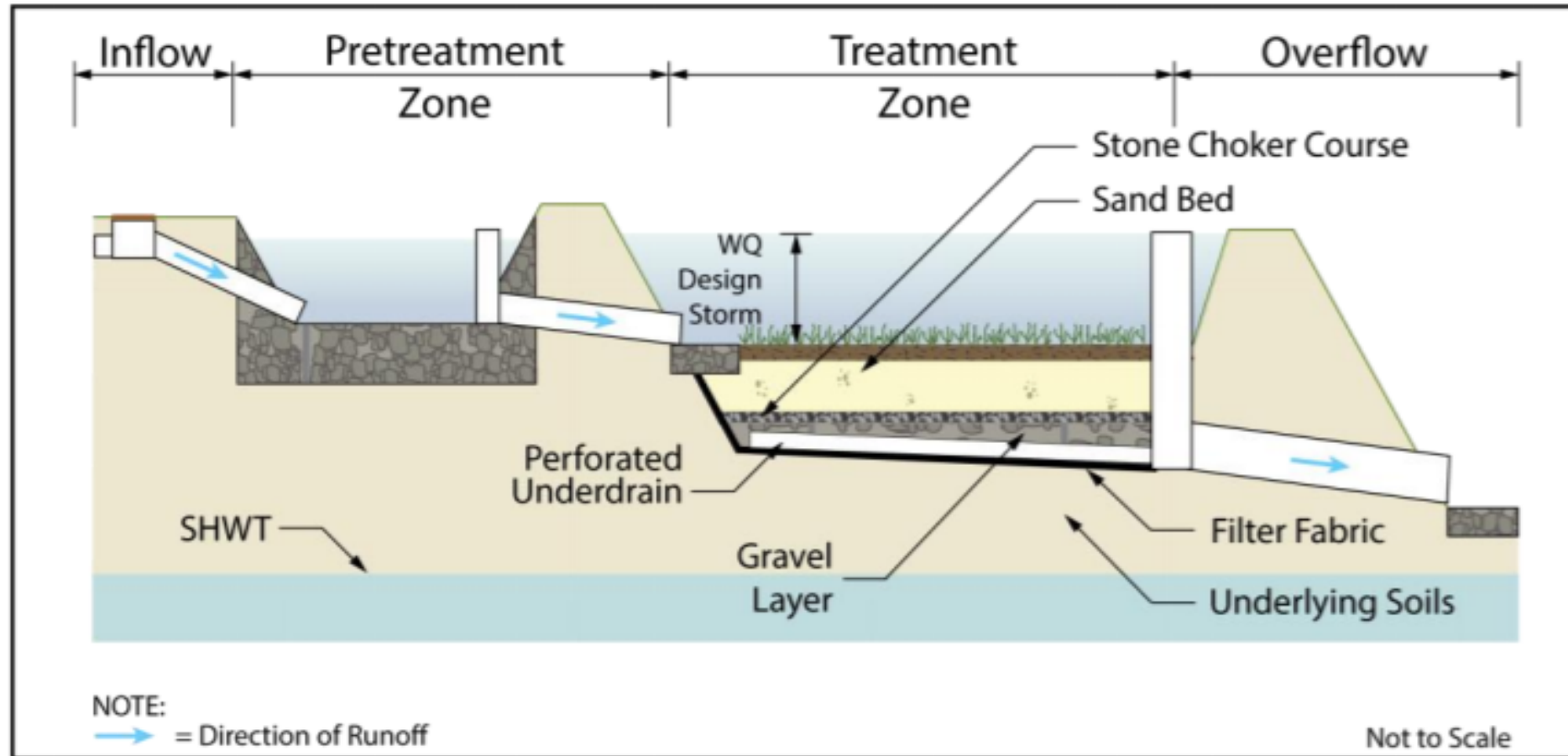
Profile View – Sand Filter Basics



Plan View – Sand Filter Basics



Profile View – Sand Filter with Underdrain



Plan View – Sand Filter with Underdrain

