



Stormwater
Innovation
Center

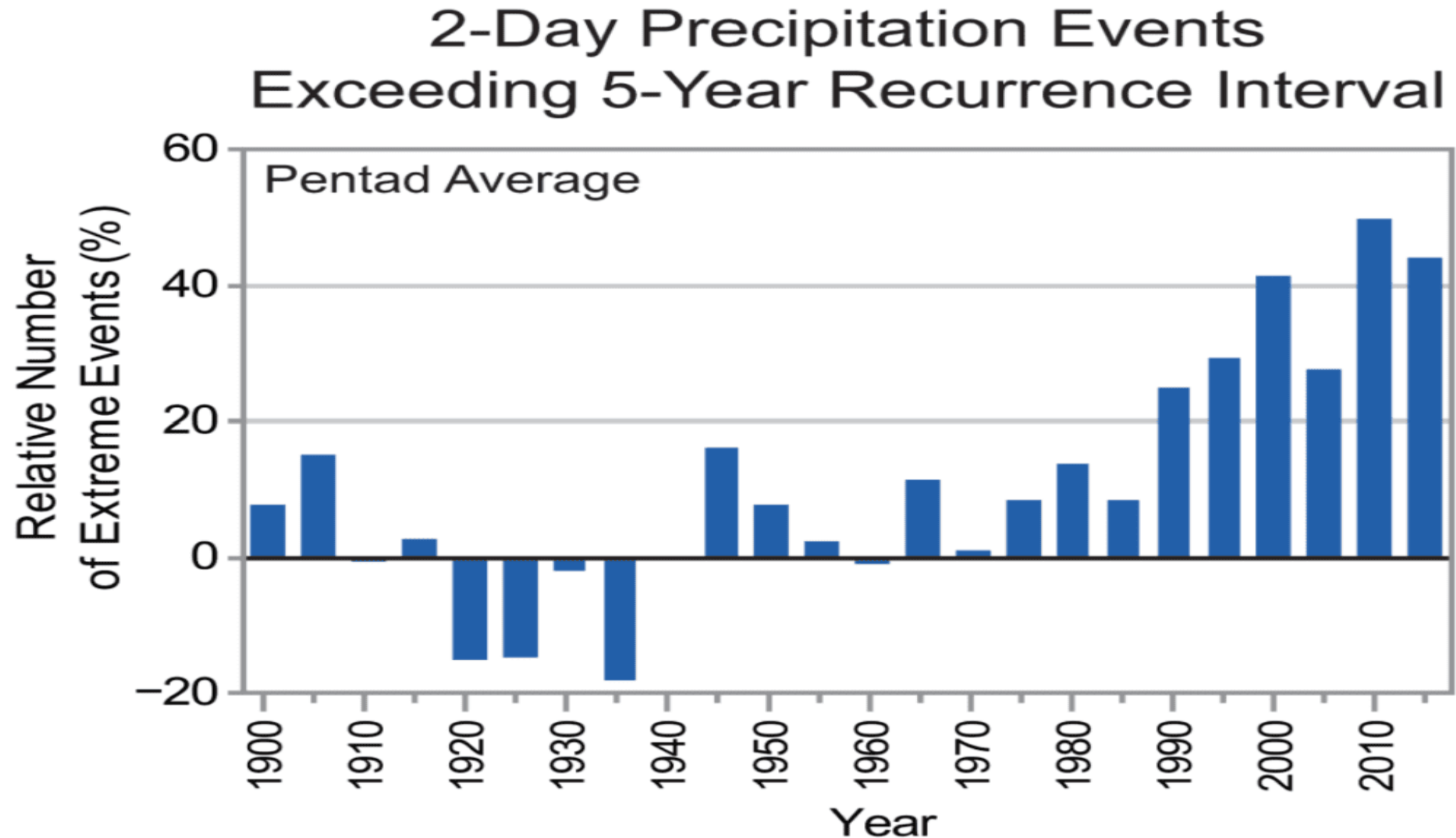


Audubon Society
of Rhode Island

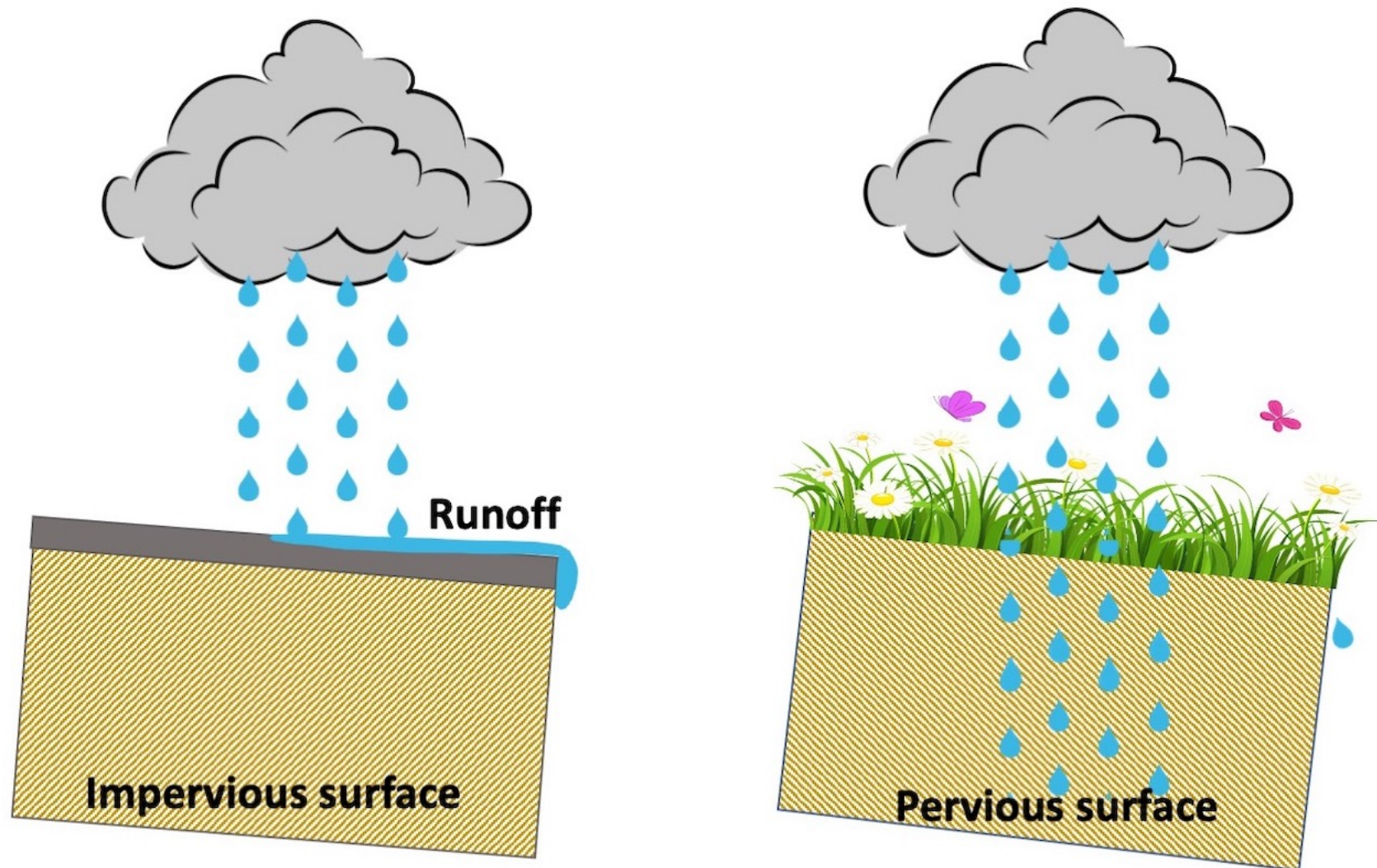
Managing Stormwater at Home

Ryan Kopp, Stormwater Innovation Center Director
Rebecca Reeves, Education & Outreach Manager

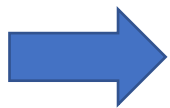
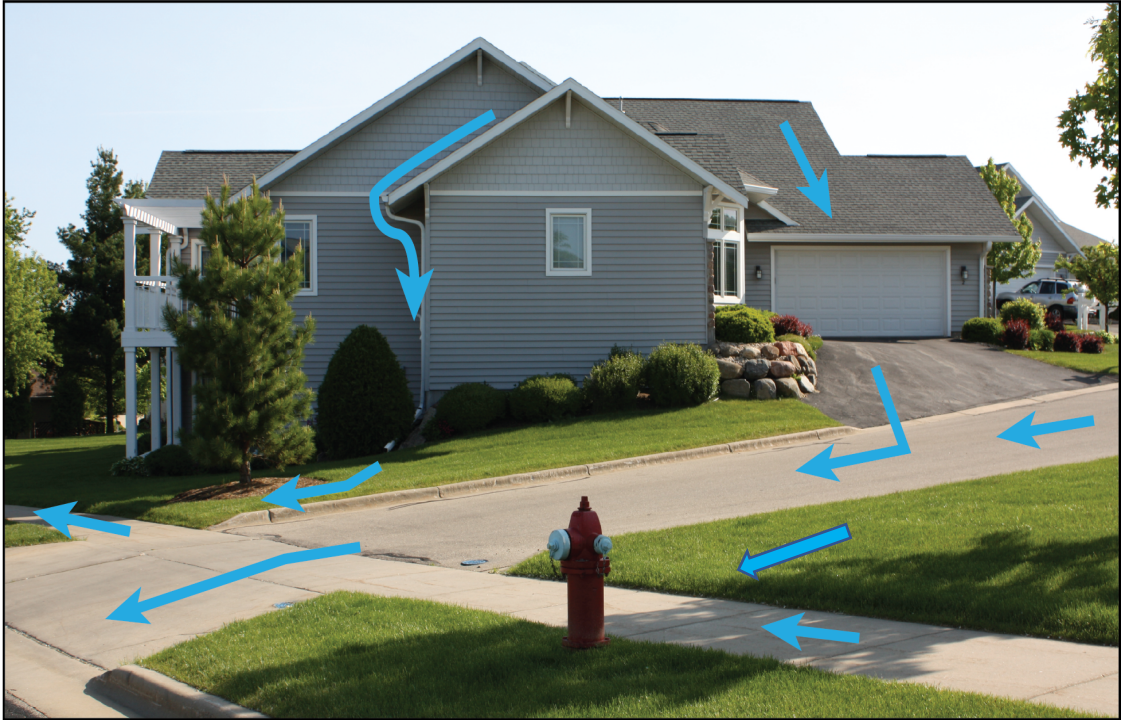
Climate Change – Increase in Rainfall Intensities



What is stormwater runoff?



With an impervious surface, all the water runs off. With a pervious one, most of it is absorbed by the soil. Ill.: Illustoon.com & favpng.com

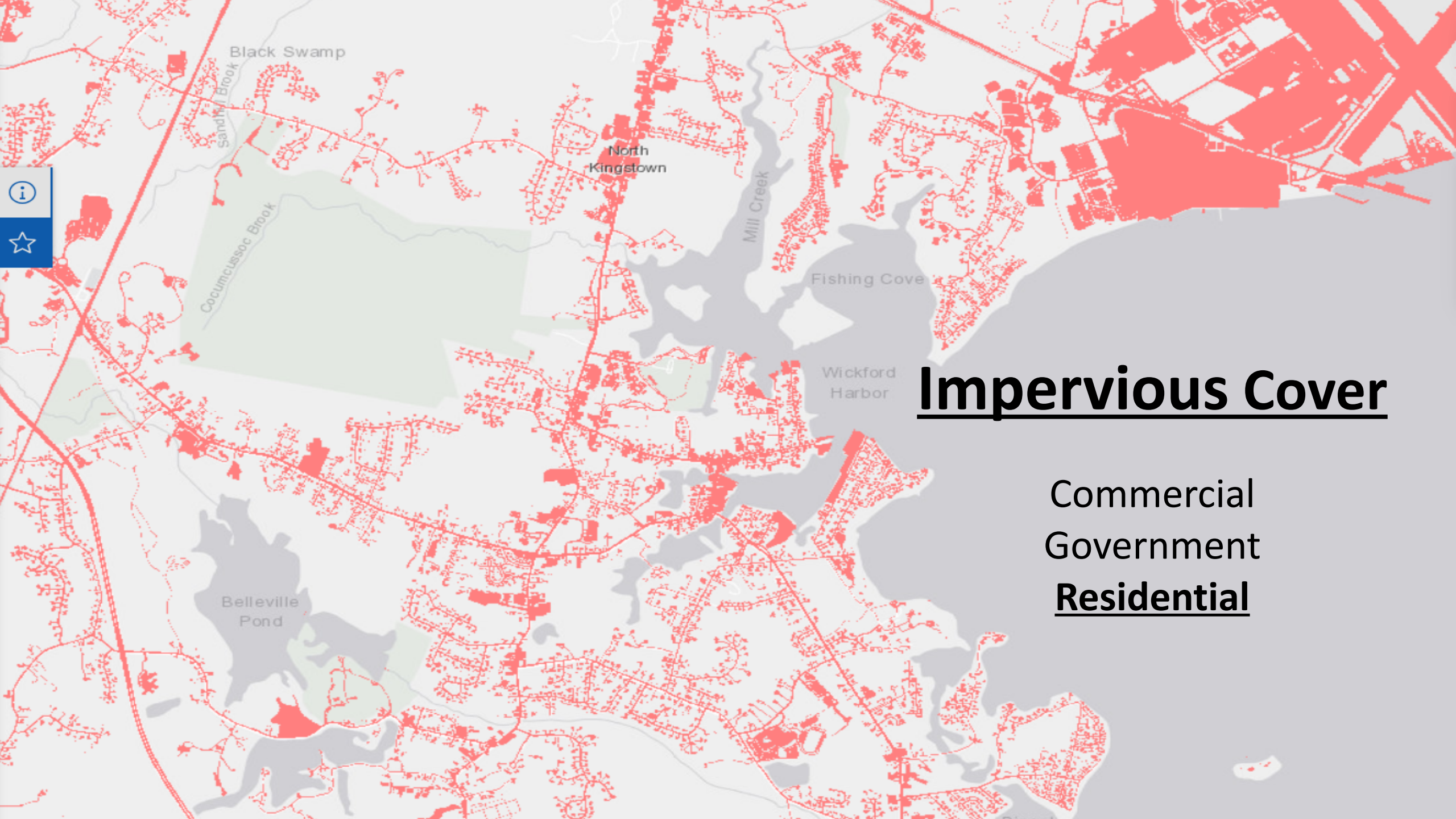


Water Quality



Water Quantity





Impervious Cover

Commercial
Government
Residential

Yard Chemicals – Fertilizers - Pesticides



Replace impervious
with more pervious

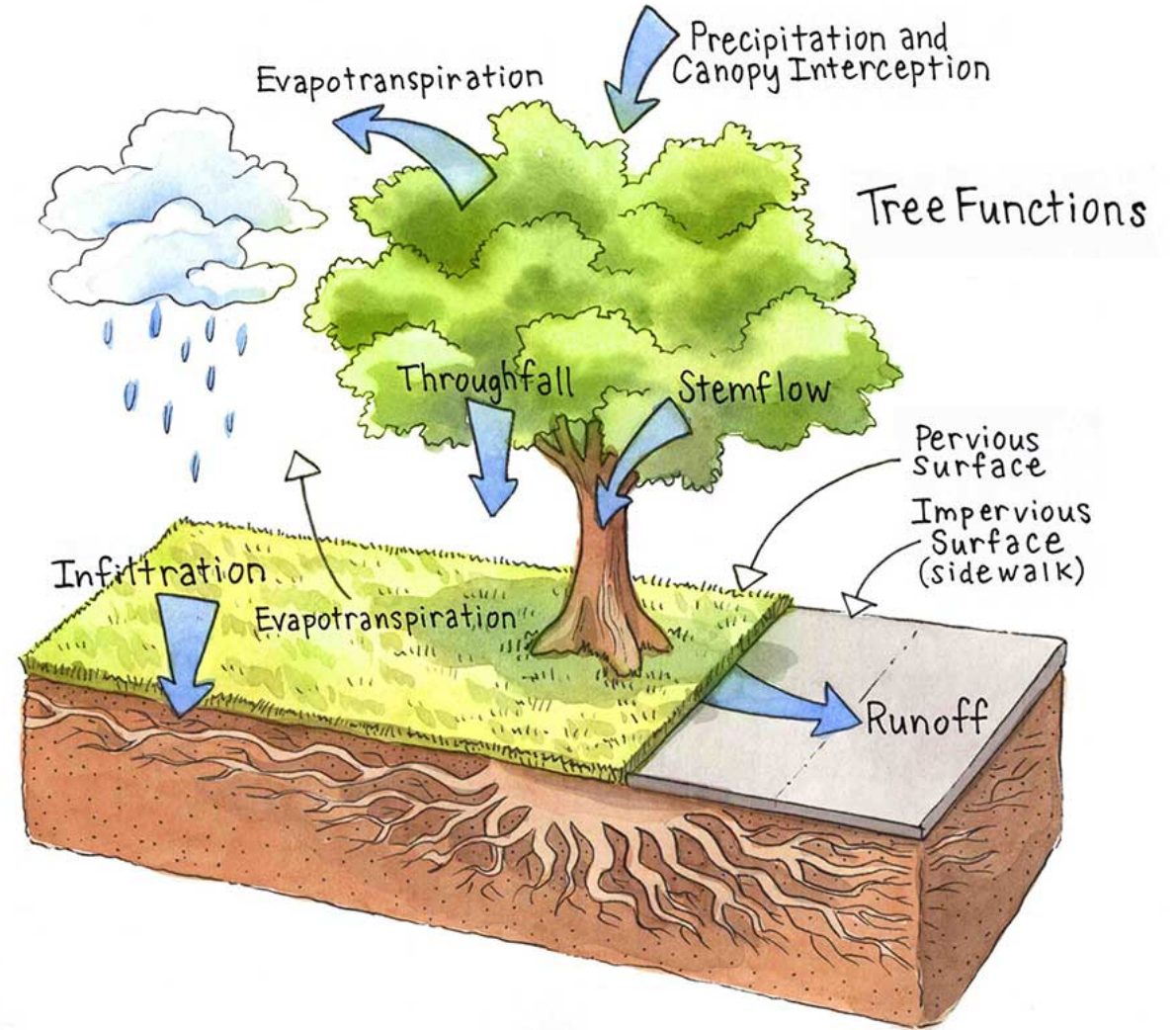




Permeable Pavers



Plant Trees – 1000 gallons of stormwater per year



Good Housekeeping

Pet Waste



Chemical Disposal



Car Washing



Cover Trash



Rain Barrels



Cisterns

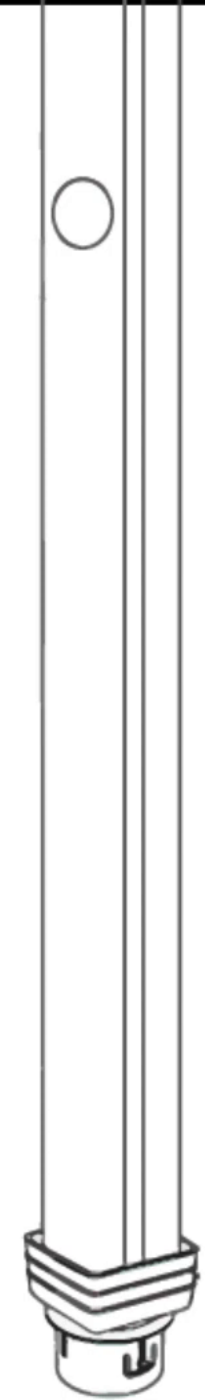


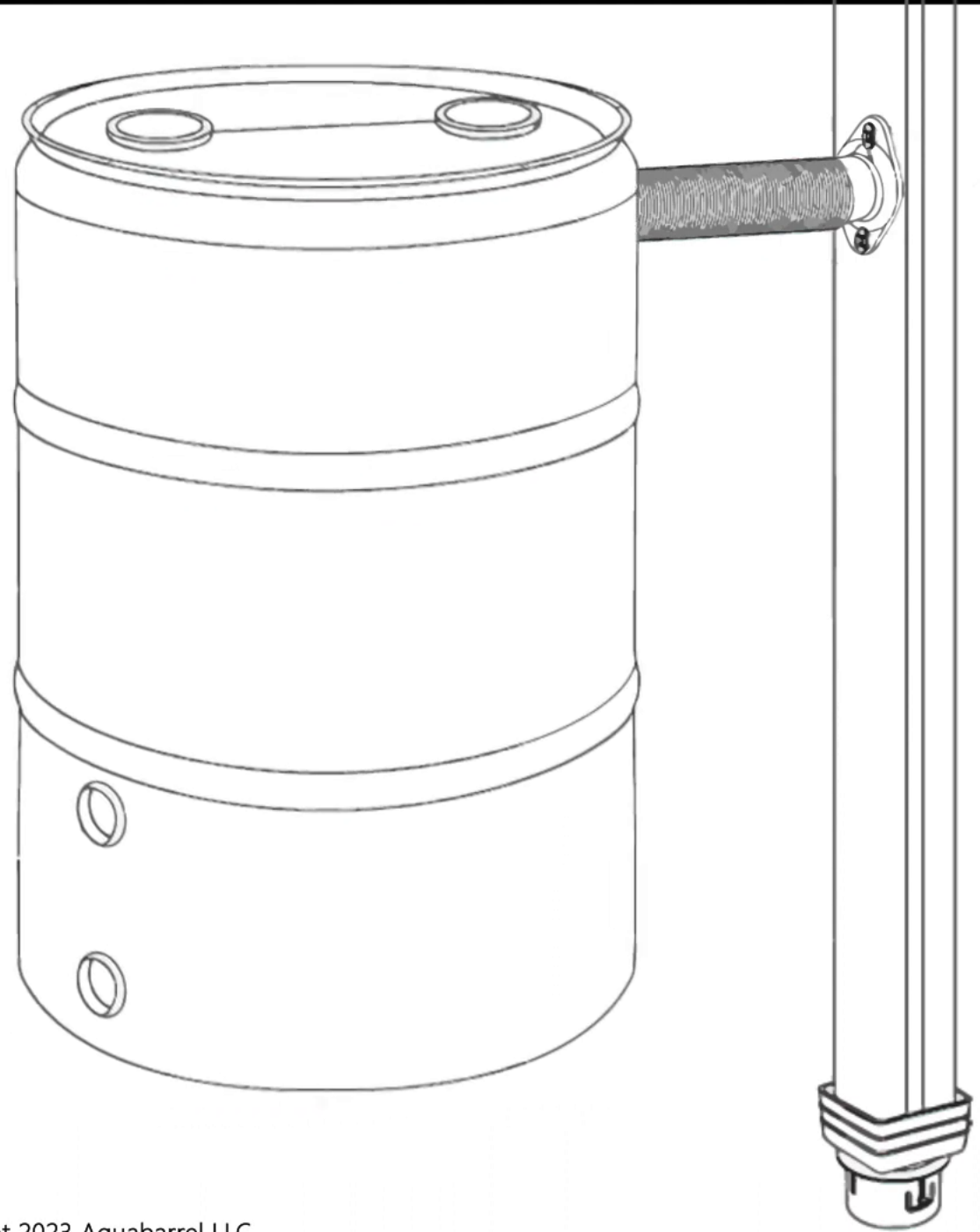
Rain Barrel Retrofit Kits



2 1/8" hole











Rain Gardens



Step 1 – Identify your downspouts





Step 2 – Is there a good rain garden location nearby?

Step 3 – Test your soil



Step 4 – Measure your roof area



$$\text{Area} = \text{Length} \times \text{Width}$$

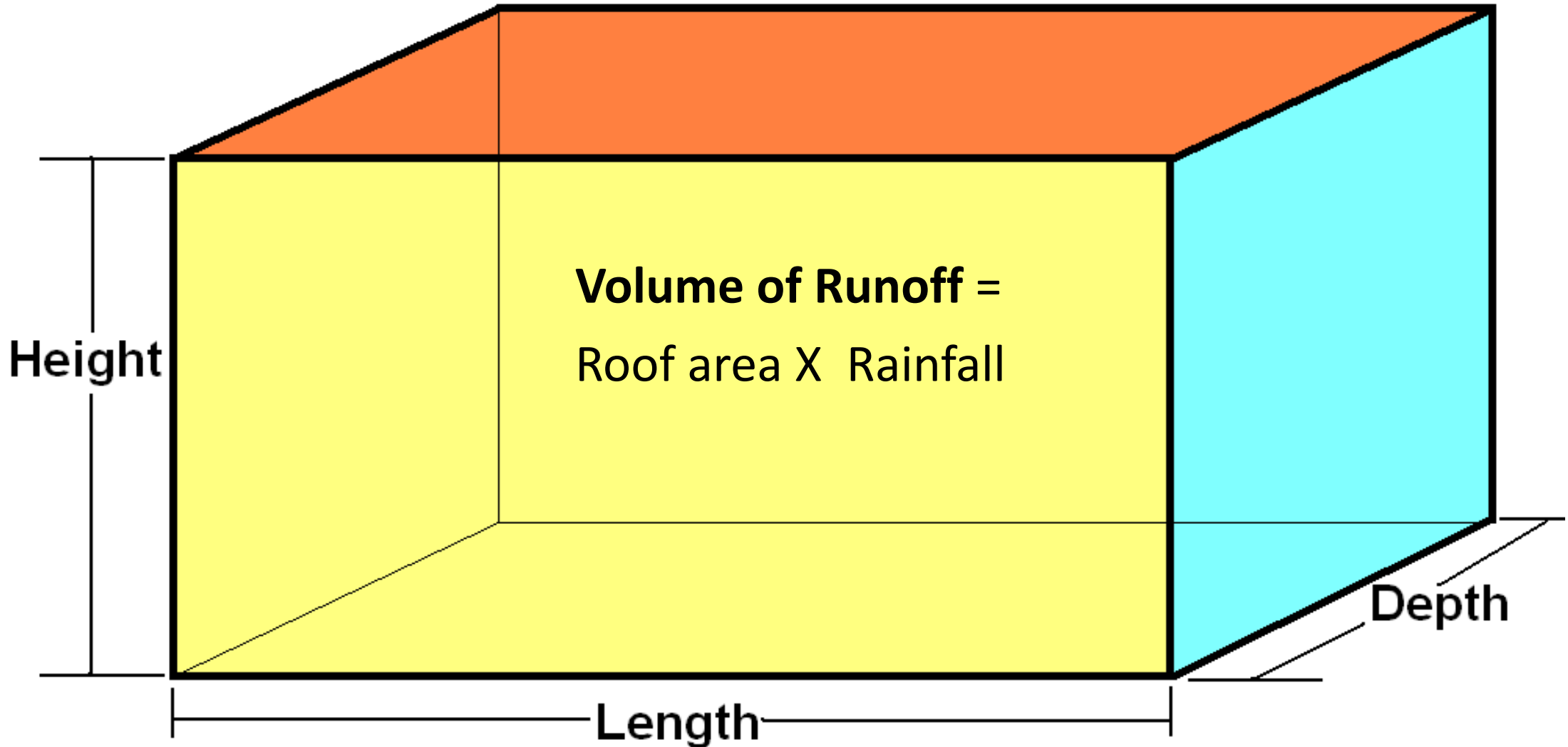
Step 5 – Depth of rain to capture



1-3 inches advised

Dependent on
available space

Step 6 – Calculate Runoff Volume

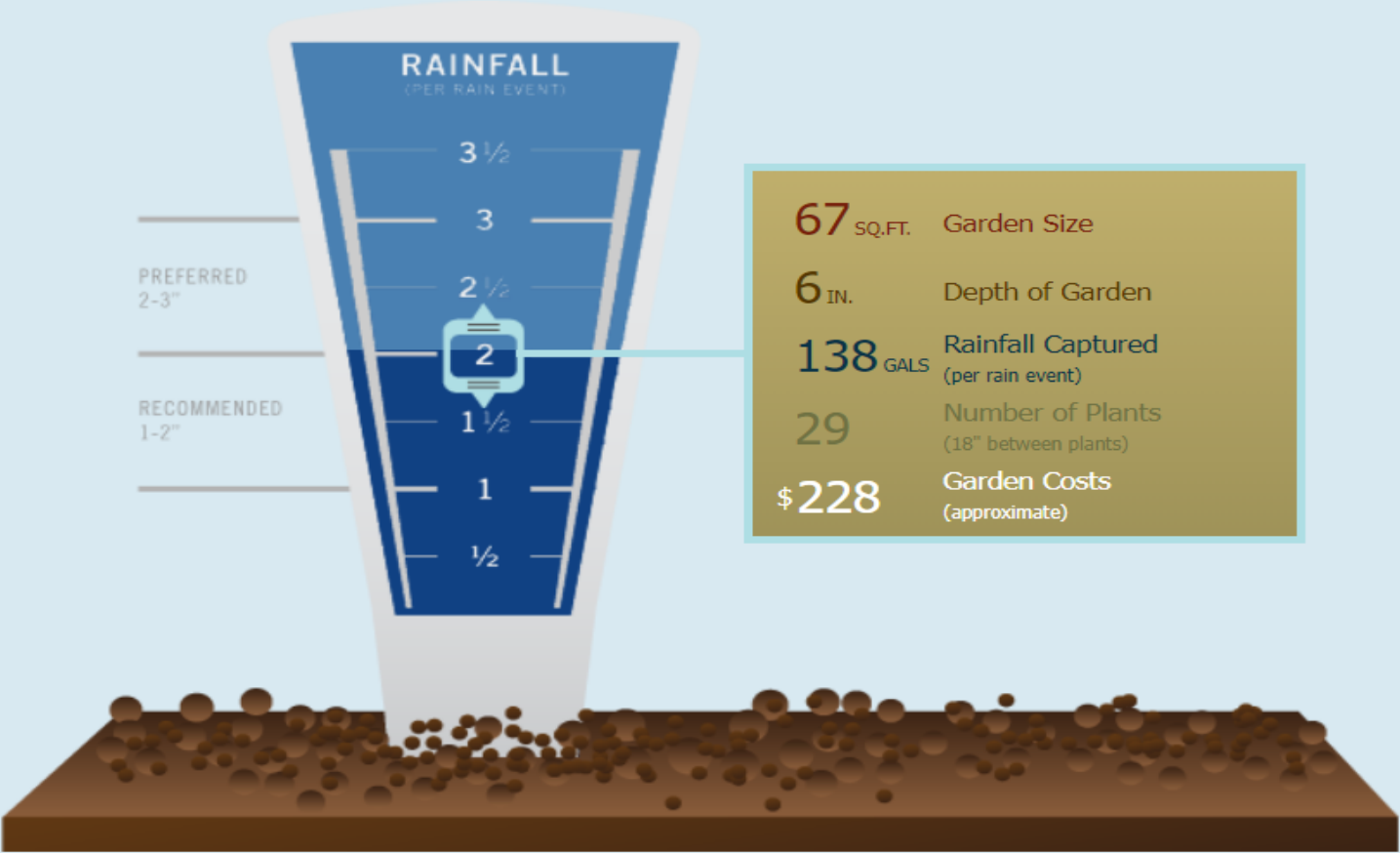


Step 7 - Dig rain garden to match calculated volume



What size garden do I need?

Before using our garden calculator below, read these guidelines to get you started. The size of your garden is determined by a number of variables. Some of these are established by the conditions of your yard (such as soil type and yard slope), while others are determined by you (such as amount of roof top to be addressed or rainfall to prepare for). Enter information for the four items across the top (surface area, downspouts, soil type, and slope) then slide the rain gauge up and down to see how rainfall capacity influences the size and cost of your garden.



Surface area

10

ft.

10

ft.

Length

Width

OR

100

sq ft.

Downspouts

1

Soil quality

☐



Sandy

☐



Silty


☒



Clayey


Slope

☐




Flat
(4 in.
in 100 ft.)

☒



Moderate
(6 in.
in 100 ft.)

☐



Steep
(8 in.
in 100 ft.)

Step 8 – Extend downspout to rain garden



Step 9 – Plant with natives



TEACHING TUESDAY

How to Make a **RAIN GARDEN**

**10-STEP
GUIDE!**



Stormwater
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Center



Stormwater at Home



Rain Garden Guide



Thank you!

Questions?

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Find us at **stormwaterinnovation.org**