

# **Green Infrastructure: *How We Can Protect Our Communities and Our Waters***

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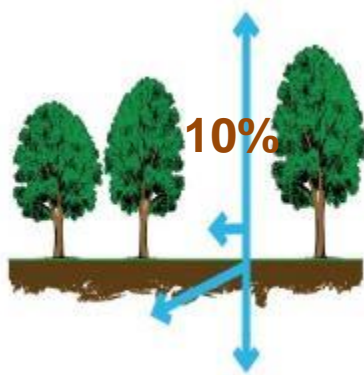
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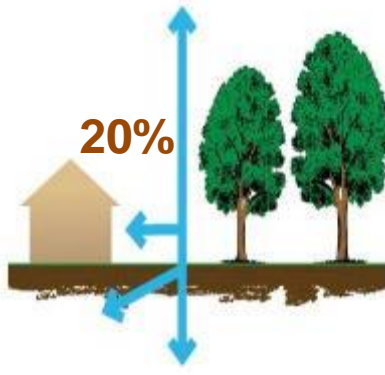
October 20, 2016  
*Rally for the Navesink River*



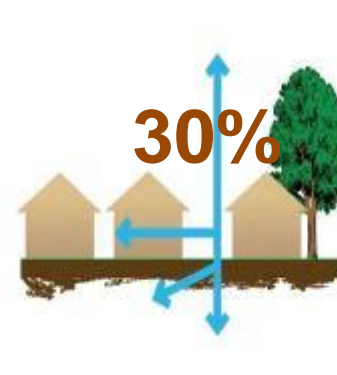
# The Impact of Development on Stormwater Runoff



*More development*



*More impervious surfaces*



*More stormwater runoff*













# Disconnect It!



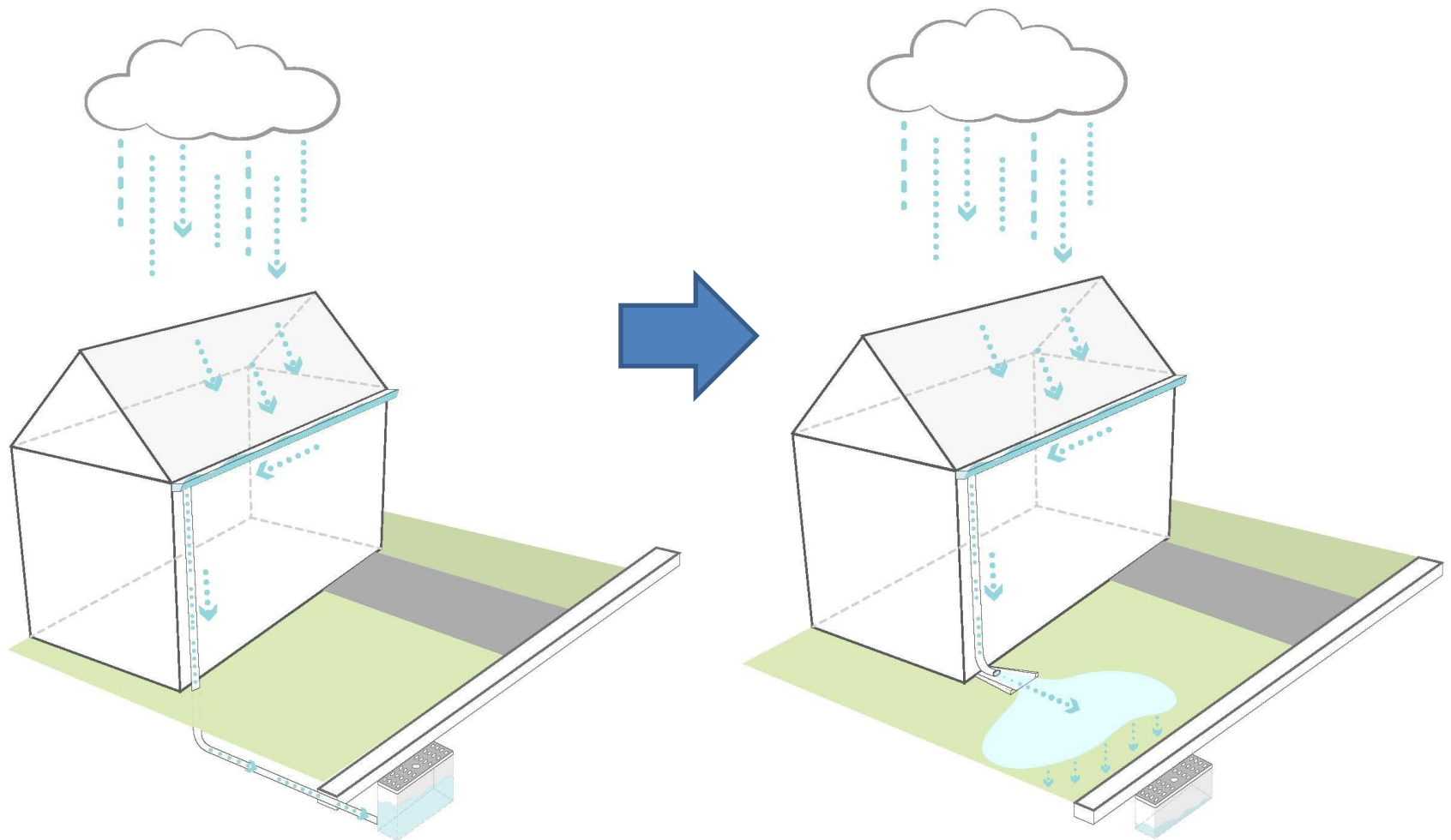
# **ACTIONS AND PRACTICES FOR SUSTAINABLE COMMUNITIES**

Managing Impervious Surfaces with Green Infrastructure





# Simple Disconnection



# Simple Disconnection

- Simply divert stormwater runoff to pervious area so it infiltrates
- Usually rooftop runoff is diverted to a lawn area

## ADVANTAGES

- Easy and inexpensive

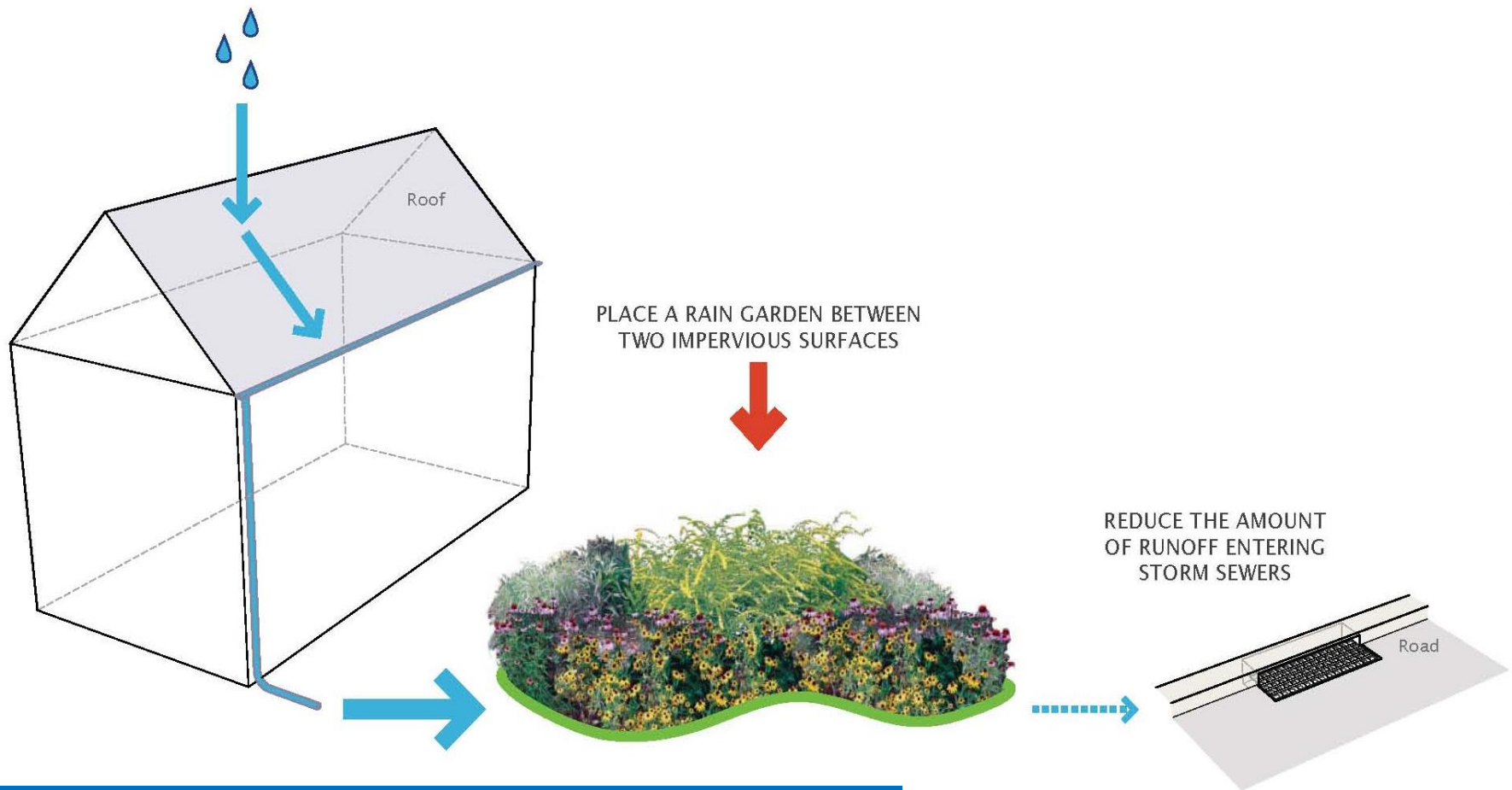
## DISADVANTAGES

- Only manage small amounts of rainfall



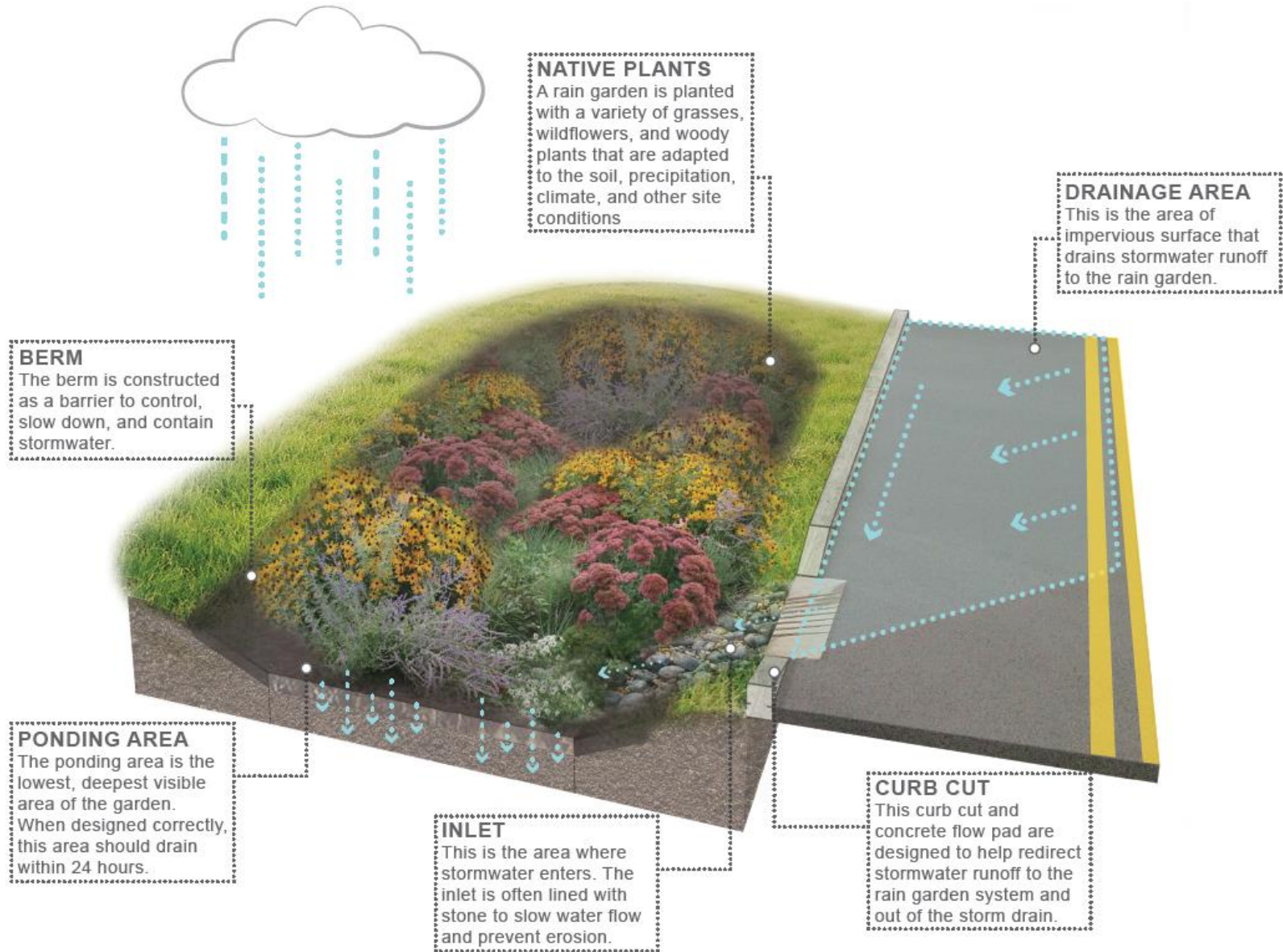


# Disconnection with Rain Gardens



Rooftop runoff is now *“disconnected”* from flowing directly into the storm sewer system

# Bioretention Systems/Rain Gardens











**Rain Garden**  
Rain gardens are a natural way to manage stormwater runoff. They are designed to absorb and filter rainwater, reducing the amount of water that enters the stormwater system. Rain gardens can also help to improve water quality by filtering out pollutants and sediments. They are a great addition to any landscape and can be installed in a variety of locations, including yards, parks, and public spaces.









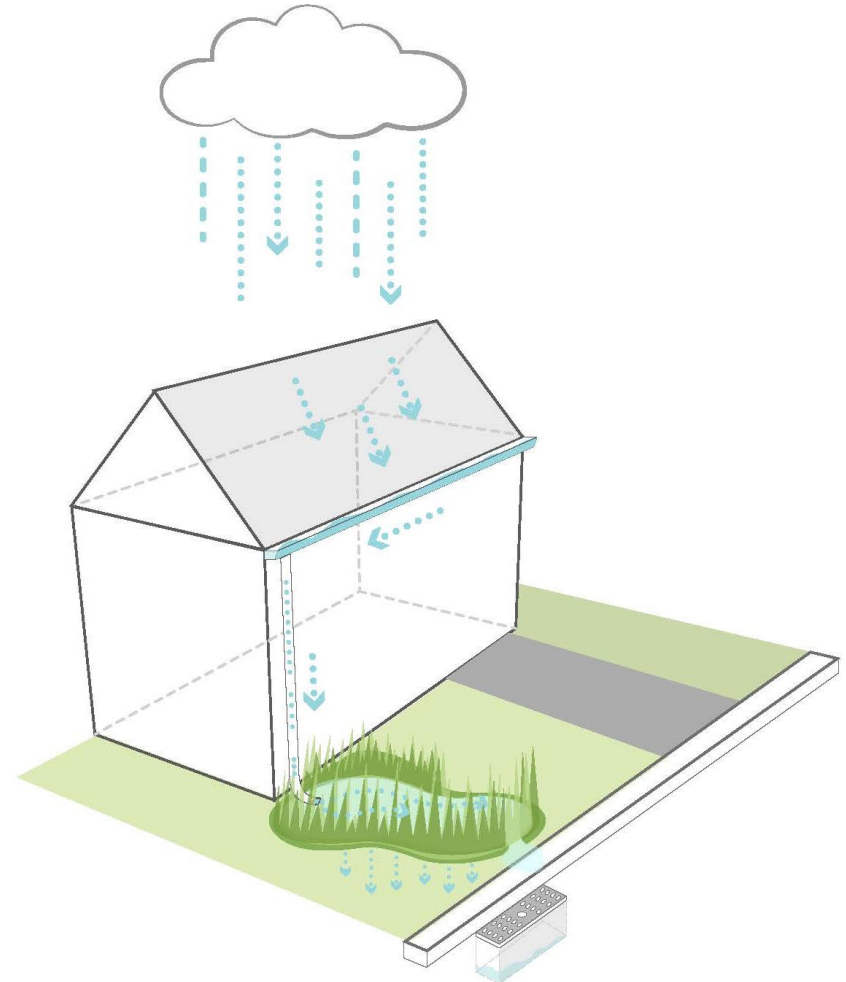






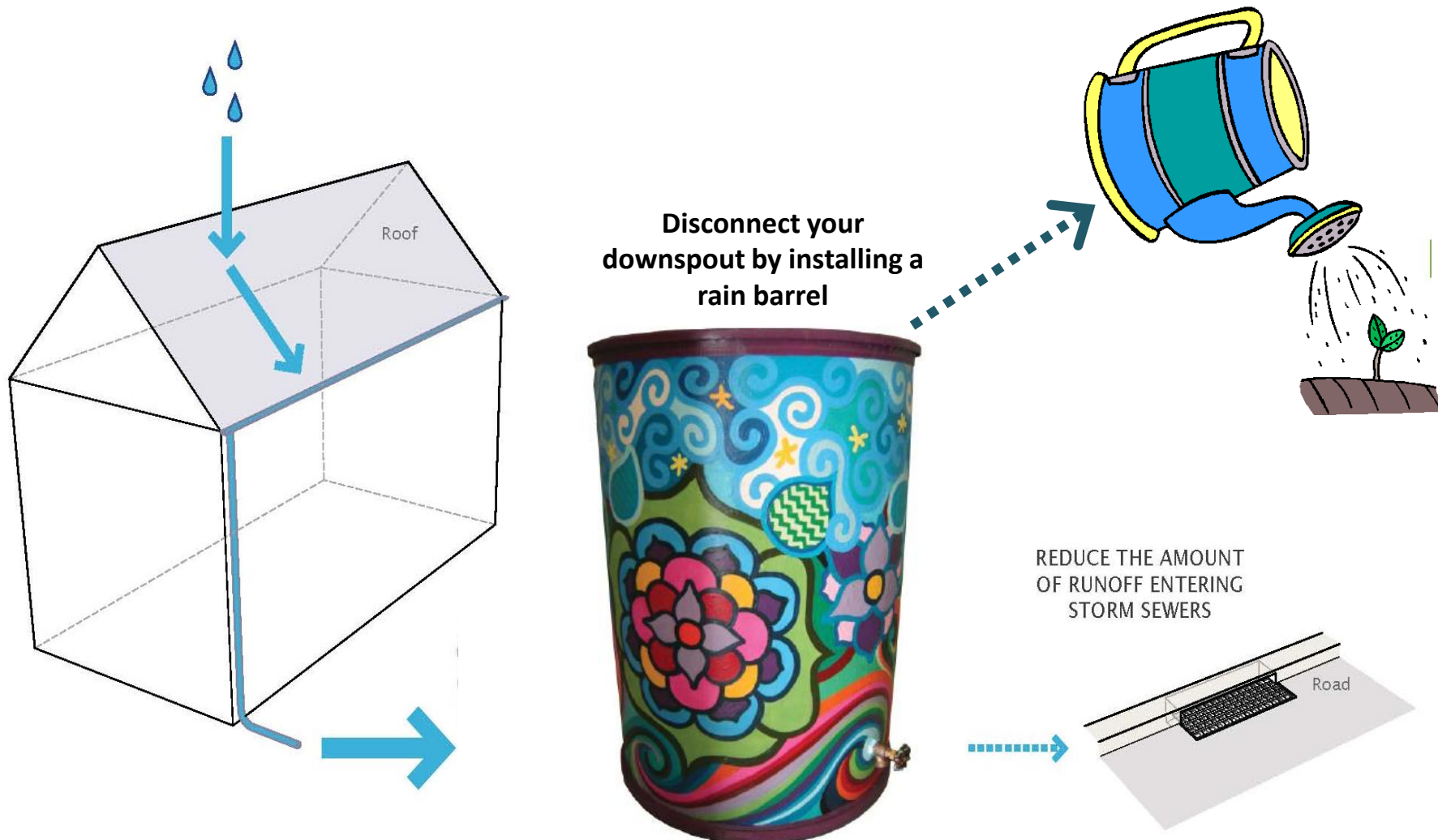
# Bioretention Systems/Rain Gardens

- Rain gardens can be implemented throughout communities to begin the process of re-establishing the natural function of land.
- They offer one of the quickest and easiest methods to reduce runoff and help protect our water resources.



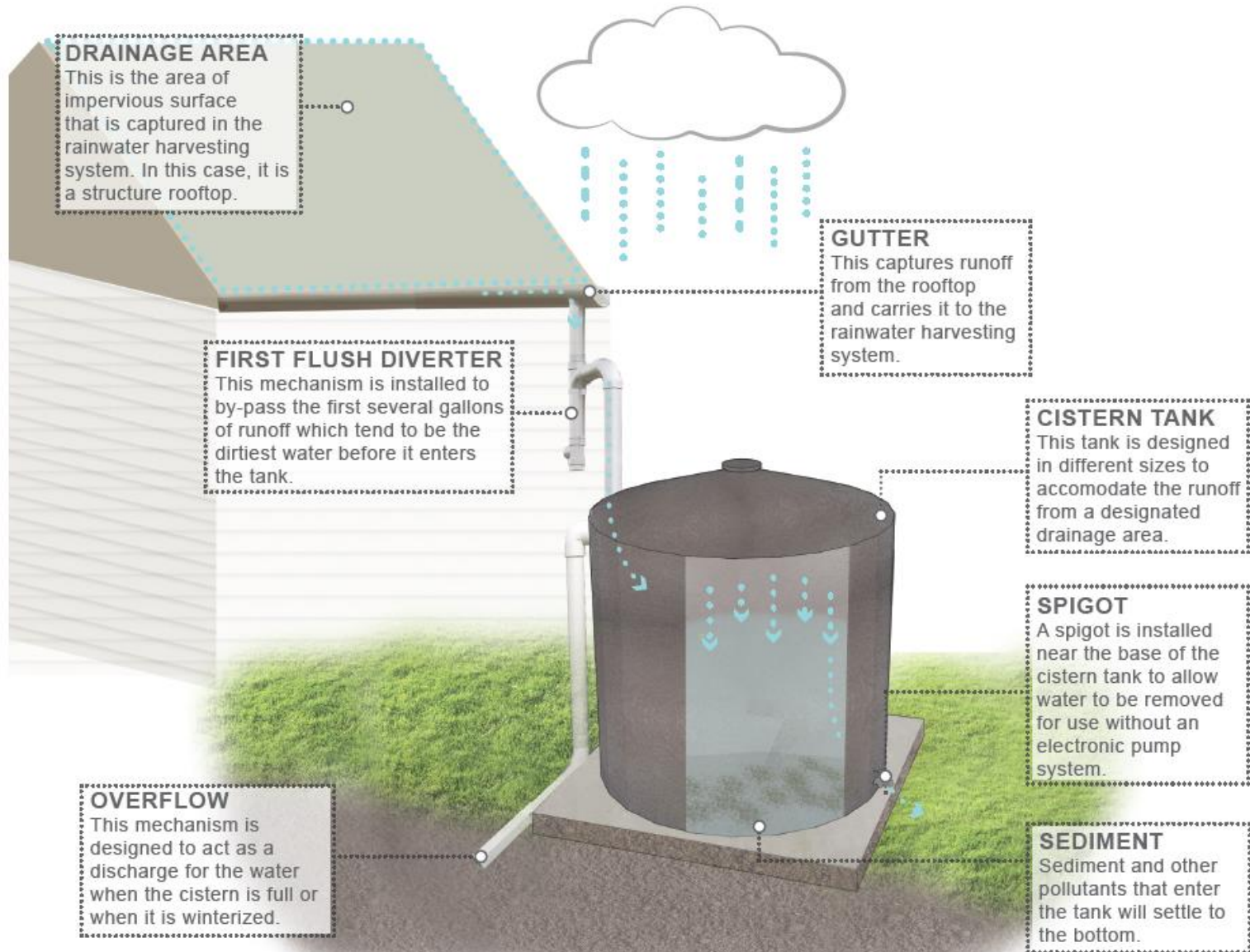


# Disconnect with a Rain Barrel



Impervious area is now **“disconnected”** from flowing directly into the storm sewer system

# Rainwater Harvesting Systems























WARNING  
NEIGHBORHOOD  
WATCH  
PROTECTED AREA

NO  
PARKING  
THIS  
SIDE







# So Many Barrels to Choose From...



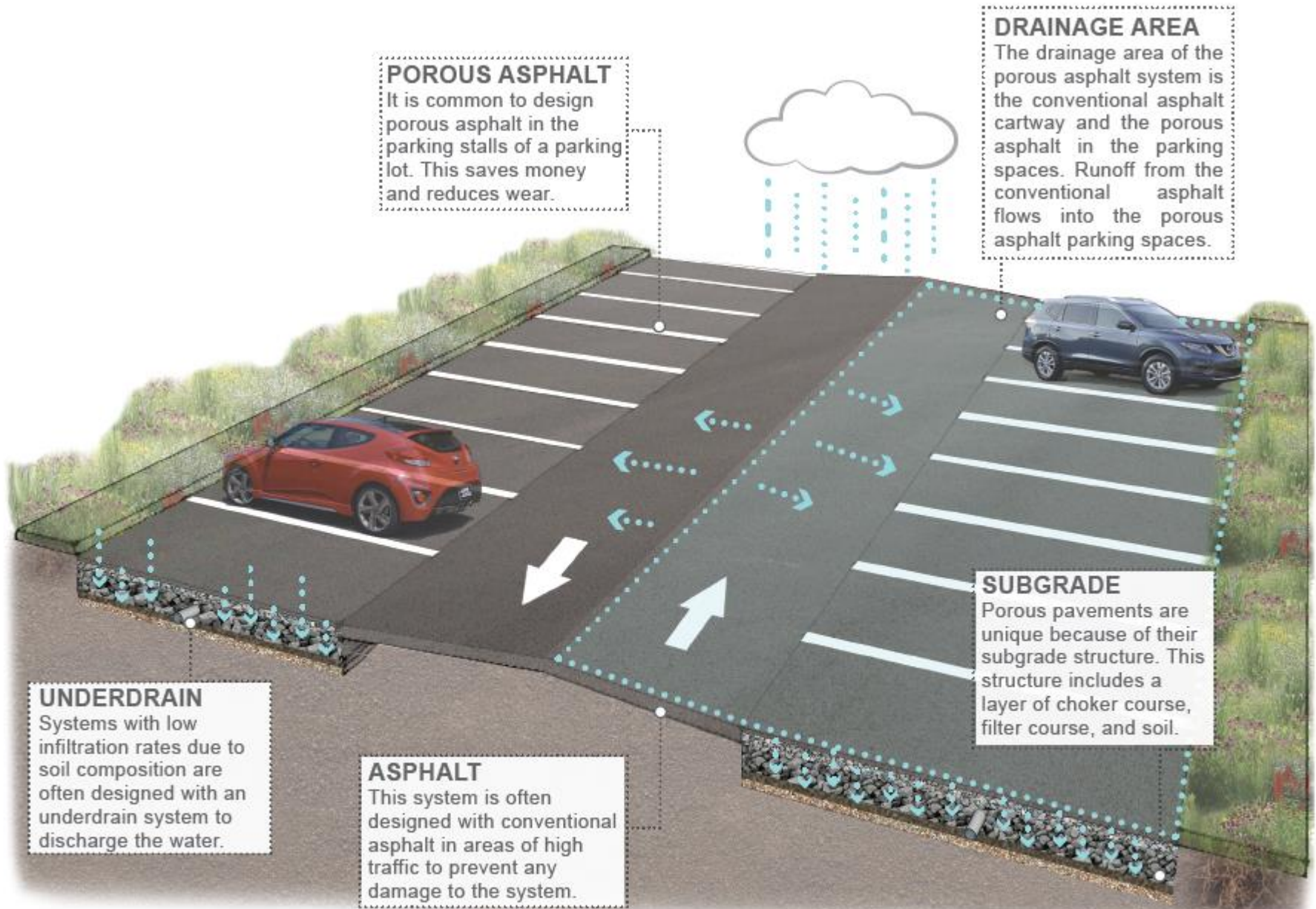


# Combining Strategies





# Permeable Pavements





# Permeable Pavements

- Underlying stone reservoir
- Porous asphalt and pervious concrete are manufactured without "fine" materials to allow infiltration
- Grass pavers are concrete interlocking blocks with open areas to allow grass to grow
- Ideal application for porous pavement is to treat a low traffic or overflow parking area

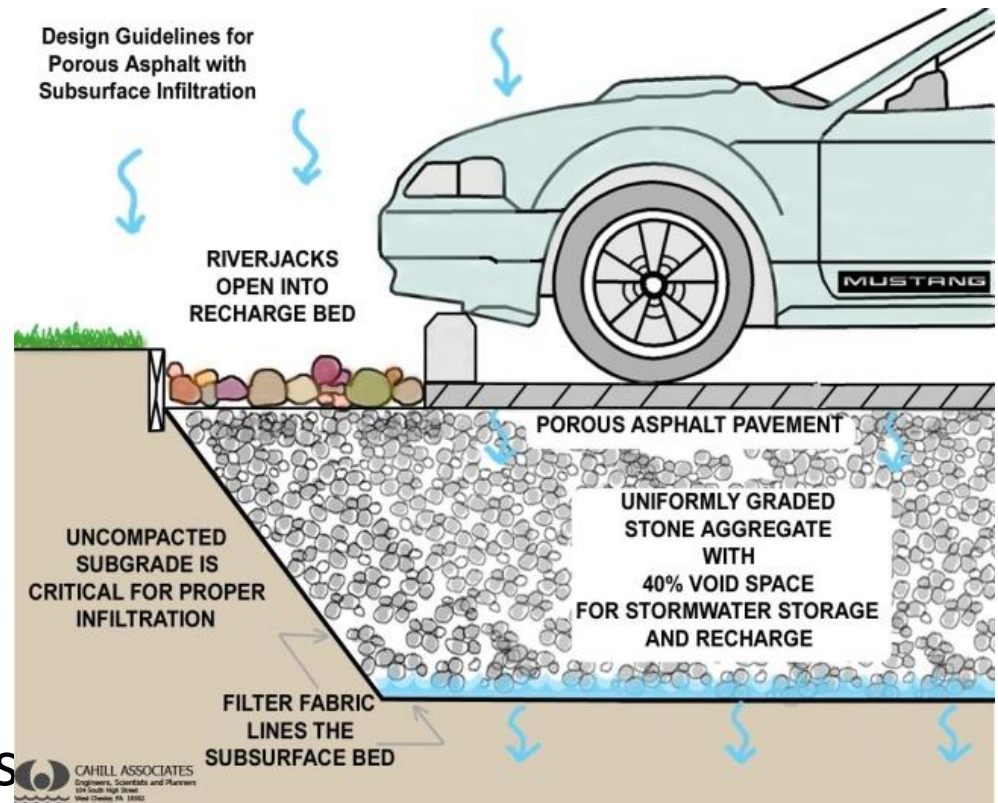




## ADVANTAGES

- Manage stormwater runoff
- Minimize site disturbance
- Promote groundwater recharge
- Low life cycle costs, alternative to costly traditional stormwater management methods
- Mitigation of urban heat island effect
- Contaminant removal as water moves through layers of system

## COMPONENTS





# Porous Asphalt





# Grass Pavers





# HOW CAN I HELP MY COMMUNITY?

The Road to Sustainable and Environmental-Friendly Communities





# Remember, it's about managing impervious surfaces!



**Eliminate it!**



**Change it!**



**Disconnect it!**



**Reuse it!**





# Ways You Can Help



*Install a Rain Garden!*



*Install a Rain Barrel!*



*Plant a Tree!*



# Ways You Can Help



## GREEN INFRASTRUCTURE GUIDANCE MANUAL

FOR NEW JERSEY



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# Questions and/or Comments

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