

Contain Your Rain

To Protect Our Natural Resources

Passaic River Coalition's Homeowner Guide #4

Do you enjoy —

- SWIMMING, FISHING, AND BOATING?
- WILDFLOWERS AND GARDENS?
- PURE, HEALTHY TAP WATER?
- BACKYARD BIRD WATCHING?
- WILDLIFE AND GREENERY?
- CLEAN, FRESH AIR?

If so, then you need to help by CONTAINING YOUR RAIN!

To continue enjoying the many benefits of a natural environment, try landscaping with nature in mind.

Landscaping with Nature

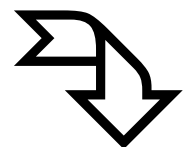
Landscaping your property in harmony with nature can significantly enhance the health of your environment. One of the simplest ways to begin is by replacing lawn areas with locally native trees, shrubs and perennial plants. Native plants naturally occur in the region in which they evolved. The structure, leaves, flowers, seeds, berries and other fruits of these plants provide food and shelter for a variety of birds and other wildlife. The roots of these larger plants are also deeper than those of typical lawn grass, so they are better at capturing rainwater.

Because native plants are adapted to local soils and climate conditions, they generally require less watering and fertilizing than non-native plants. Because they are often more resistant to insects and disease as well, native plants are less likely to need pesticides. Native species planted on slopes or along water bodies and drainage ditches help to prevent erosion and pollution by stabilizing the soil and slowing the flow of rainwater runoff.

To collect and filter runoff, depressions can be created and planted with native plants suited to temporary wet conditions. These "rain gardens" will capture water and hold it for a day or two and remove pollutants washing off the surrounding land. Instead of planting a tree in the middle of the lawn, group trees, shrubs, and perennials to create layers of vegetation. These layers provide the structure and variety needed to support wildlife. By redefining landscaping goals and gradually shifting to native species, you receive greater rewards in terms of environmental quality, improved aesthetics, cost saving, and bringing wildlife to your property.



You also protect your drinking water. The New Jersey Department of Environmental Protection suggests some ways that storm water may be managed to help rain water soak into the ground, and reduce nonpoint source (NPS) pollution. Turn this page over for techniques that may be useful for helping to contain your rain on your property.



Contain Your Rain ~ Backyard Stormwater Management

Simple and Inexpensive :

Vegetated Filter Strip—A *vegetated filter strip* is an area of perennial grasses or other low growing, dense vegetation designed to remove sediment and other pollutants from storm water runoff flowing through it as sheet flow. Can be used under disconnected downspouts as a receiving area for roof runoff.

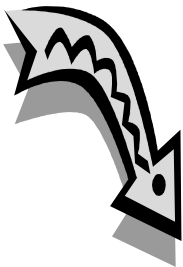
Beautiful and Functional (even in a small yard) :

Rain Garden—A *rain garden* consists of a soil bed planted with native vegetation located over a sand layer with an underground drain. It can be configured as a basin or a swale. Runoff entering the rain garden is filtered first through the vegetation and then a sand/soil mixture before being discharged through an underground drain system.



Best Suited for Areas with High Soil Permeability :

Dry Well—A *dry well* is an underground storage facility that receives and temporarily stores roof runoff. Gradual discharge of this stored rainwater occurs by infiltration into the surrounding soil. A dry well may be either a structural chamber and/or an excavated pit filled with crushed stone. Another type of dry well is a *soakage trench*, which is excavated lengthwise and filled with crushed stone.



Infiltration Basin—An *infiltration basin* is constructed in highly permeable soils and provides temporary storage of runoff during rain events. Outflow from the basin is through the surrounding soil.

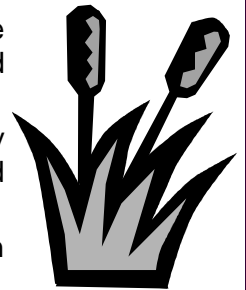
For Larger Properties and Pollution Control :

Sand Filter—A *sand filter* consists of a forebay and sand bed drained from below. It can be configured as either a surface or subsurface facility. The forebay removes trash, debris and coarse sediment from the runoff water. The sand filter removes smaller particles before the runoff is discharged to an outlet pipe. For use alongside a parking lot or long driveway.

Extended Detention Basin—An *extended detention basin* provides temporary storage of runoff during rain events. It has an outlet structure that detains and controls runoff and allows pollutants to settle out.

Wet Pond—A *wet pond* or retention basin provides both permanent and temporary storage of runoff during rain events. Pollutants are removed through sedimentation and biological processing.

Storm Water Wetland—Constructed *storm water wetlands* temporarily store runoff in relatively shallow pools that support conditions suitable for the growth of wetland plants.



Get Involved :

Get involved in the planning and zoning process in your community. That's where the decisions are made that shape the course of development and the future quality of your environment. Contact the NJDEP. Support the work of the Passaic River Coalition. For further information, inquire at the --



New Jersey Department of Environmental Protection
www.state.nj.us/dep/stormwater

and
Passaic River Coalition

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