

PORTLAND LANDSCAPERS

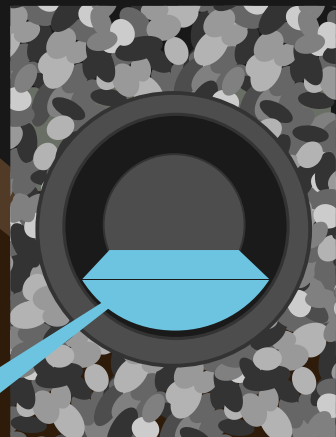
DISCUSS THE UNDERGROUND WORKINGS OF A FRENCH DRAIN

If you have standing water, a soggy yard or just overall poor stormwater drainage, a French drain may be the solution to your problems.

WHAT IS A FRENCH DRAIN?

French Drain: a buried perforated pipe within a gravel bed (perf side down), installed at a depth of 12 to 18 inches.

Gravity draws water into the drain system, preventing pooling and diverting the water as directed.



Four common French drain uses:

1

Shallow drains divert surface water

2

Built into a retaining wall to eliminate pressure build-up on the wall

3

Deeper drains keep water from seeping through foundation

4

An interior French drain stops water where it enters the home/basement

Advantages of an exterior French drain system:



Relatively low cost



Easy installation



Generally low maintenance (up to 10 years without maintenance)



Can be covered to maintain the aesthetic beauty of the landscape

Fun Fact:

The French drain is not named after European drainage practices, but after Massachusetts farmer, **Henry French**, who wrote about his techniques in his book on farming back in 1859.

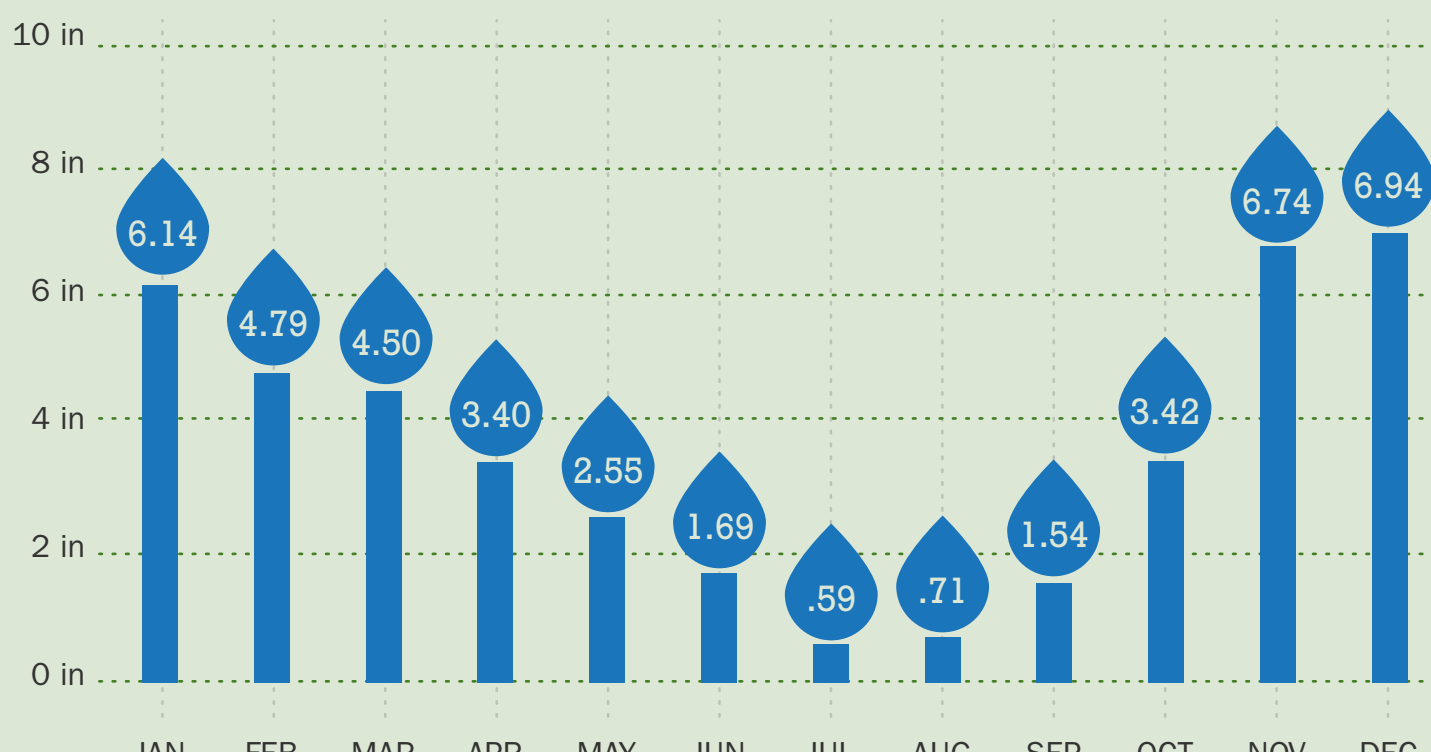
WATER, WATER EVERYWHERE



Of PORTLAND, OREGON'S **AVERAGE 40 INCHES** of annual rainfall, a staggering 55% occurs in just a four month span.

1.03"

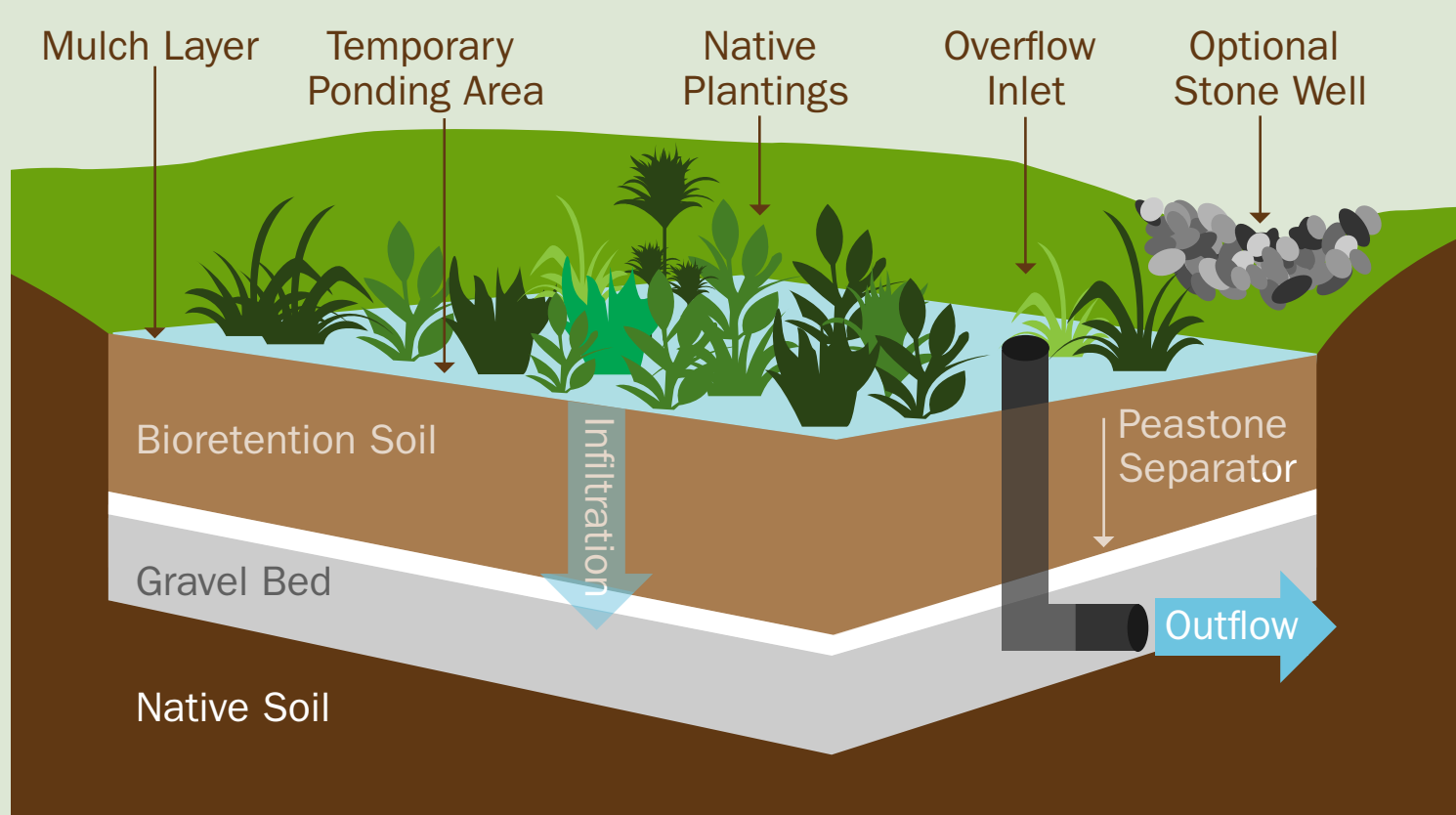
record amount of rain that fell during an hour long period on Sept. 7, 2010 (breaking the old record of .93")



Fun Fact: French drains can also be known as weeping tile drains, soakaways, rock drains, rubble drains, perimeter drains and even French ditches.

GO WITH THE FLOW: FRENCH DRAINS & STORMWATER MANAGEMENT

You can use the runoff from a French drain to be environmentally proactive by creating: **Rain Garden**



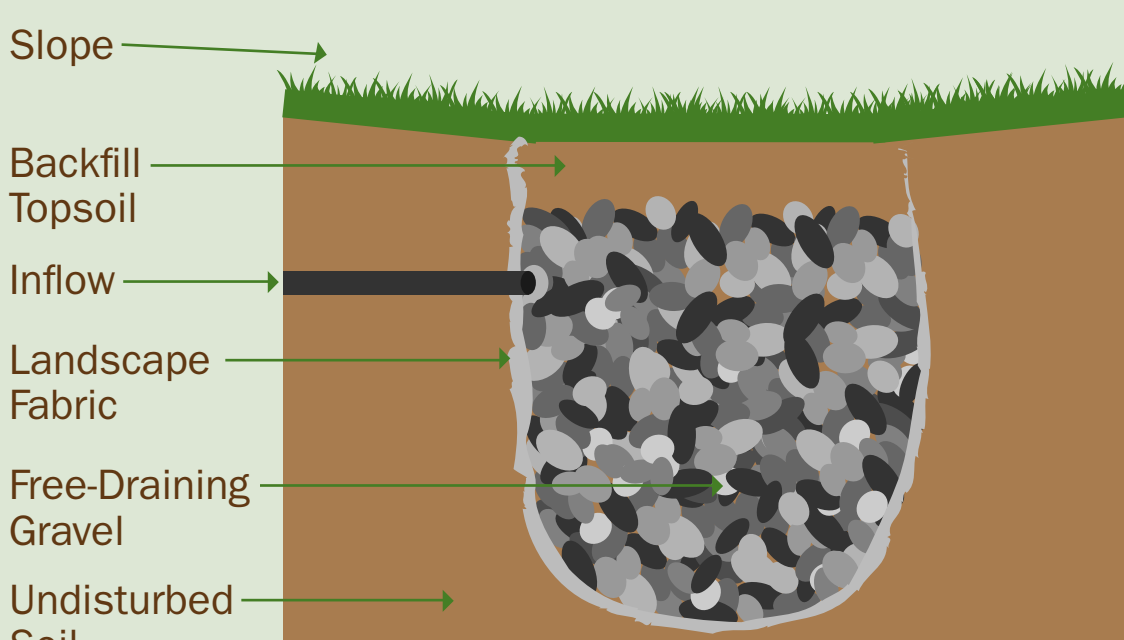
A large, shallow bed situated at the end of a French drain run filled with gravel and deep rooted, moisture-loving plants

Water that isn't absorbed by the plants percolates back down into the ground water supply

Reduces the amount of pollutants that wash into lakes, streams, ponds and wetlands

Reduces strain on water treatment plants

Dry Well



A large hole lined with landscaping fabric and filled with gravel

Sometimes a perforated barrel is used in the well to aid in water collection and to slow dispersion

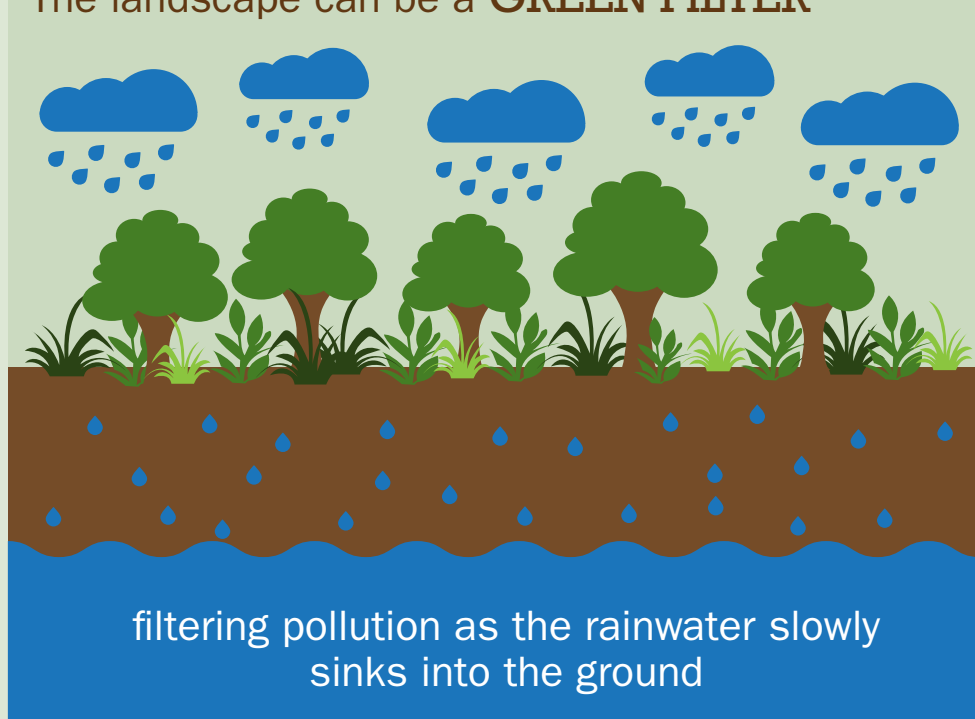
Creates an area where water will collect and filter down into the soil

Often placed at the junction of several French drains

CLEANING UP DIRTY WATER

Did you know that stormwater runoff is the single biggest pollutant source within Portland? The runoff contains a significant amount of oil, grease, and metals. However...

The landscape can be a **GREEN FILTER**



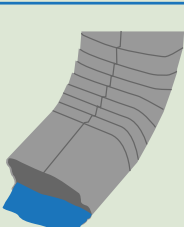
or a **GRAY FUNNEL**



PORTLAND'S GREEN INFRASTRUCTURE INITIATIVES AT WORK

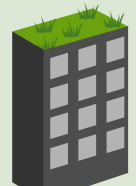
1993 – 2011

Portland disconnected more than **56,000** downspouts, allowing more than 1.2 billion gallons of stormwater to infiltrate into the ground annually



2008

Portland budgets \$50 million in stormwater management fees to invest in green infrastructure over the next five years, to result in:



43 acres of ecoroofs



Over 80,000 newly planted trees



920 "green street" components



The purchase of 419 acres of "high priority" natural areas