

Filtering Our Way to Healthier Streams



Background

You are standing in the Potash Brook watershed. The brook was identified in 1998 by the Vermont Agency of Natural Resources as being adversely impacted by urban stormwater runoff. Melting snow and rainwater that travels over impervious surfaces, such as rooftops, streets, and sidewalks, picks up sediment and pollutants and flows into local streams. The fast-flowing Potash Brook carries this pollution into Lake Champlain.

The Advanced Wetland Stormwater Filter (AWSF) in front of you will reduce some of the pollutants carried by stormwater runoff that enters Potash Brook, including:

- dirt and debris from the gravel parking lot,
- harmful fluids from leaky vehicles,
- heavy metals that harm stream-dwelling creatures,
- and nutrients, such as phosphorus.



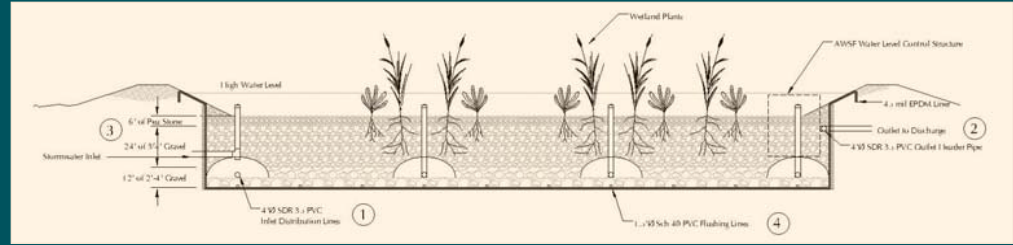
1937 aerial.
Notice the lack of development in 1937

UVM Spatial Analysis Lab



Current aerial.
Check out the amount of paving and rooftops. What effect does this have on the amount of stormwater runoff that enters Potash Brook?

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Treatment System

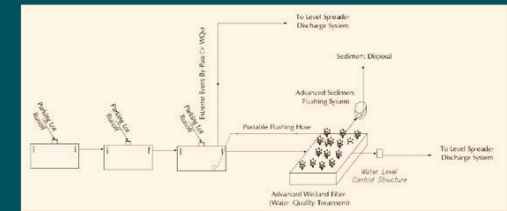
This “subsurface flow constructed gravel wetland” is equipped with an innovative stormwater treatment and extends the life of the system. There are four main components to the AWSF (refer to the Section View diagram above):

1. Inlet distribution system
2. Outlet collection system
3. Filter media (earth, gravel, pebbles)
4. Advanced flushing mechanism

Can you trace the path of stormwater through the AWSF?



Stormwater Magazine

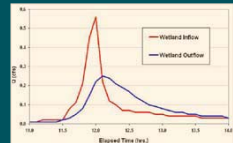


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Wetland Plants

The AWSF is home to wetland plants native to Vermont.

These plants are able to survive wet or dry conditions and to absorb pollutants in the stormwater. How many different species do you see growing in the wetland?



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Remember

New and creative designs that improve water quality such as the one demonstrated here can help reduce the amount of pollution flowing into our streams and lakes. Residents, however, must take matters into their own hands. Remember to use less fertilizer, fix automobile leaks, and pick up pet waste.



Special thanks to Vermont Wetland Plant Supply, Button Professional Land Survey, South Burlington High School, and the United States Environmental Protection Agency.

For design information please contact EcoSolutions, LLC (www.ecosolidsigns.com) or Fitzgerald Environmental Associates, LLC (www.fitzgeraldenvironmental.com).