

Stormwater and Sediment

Stormwater pollution comes from a variety of sources. The single largest contaminant in our waterways today is sediment (U.S. EPA).

Loss of wetlands removes protections from marginal lands and our waterways. With out them, sediment-laden waters carry other pollutants, unfiltered, into the rivers and groundwater.

This added burden contributes to ideal conditions and ample nutrient source for noxious Blue-green algae to form. .

Phosphorus is a **limiting factor**, which is to say that the growth of algae is more dependent on the amount of available phosphorus than any other contributing factor.

Wetland plants help to absorb or bond excess nutrients, heavy metals and other compounds , removing them from the flow of water.

This process is a strategy and a field of study known as **“phytoremediation.”**

Rain Gardens are yard-sized areas ideal for holding and processing stormwater. Using water-friendly plants, they also draw much of the nutrient-rich water deep into the soil.



For more information go to:
www.allencounty.us/education-materials

Wetlands are...

- ◆ **Stormwater sponges** that soak up the “first flush” of rain running across the ground. This takes stress off our waterways by reducing the energy and volume of the water. Wetlands can help reduce localized flooding.
- ◆ **A food source** that not only feeds the wildlife that call it home but also for humans. Cranberries, wild rices, some fruits and nuts but also fish, game and waterfowl.
- ◆ **Filters** that process the sediment and contaminant -rich stormwater and provide the means to slow the flow enough to allow the solids to settle out of the water. The soils and plants of the wetland also then filter the water flowing through them, producing cleaner water.
- ◆ **Areas of groundwater recharge** as they are the vertical channels that connect the surface to the underground storage areas (aquifers).

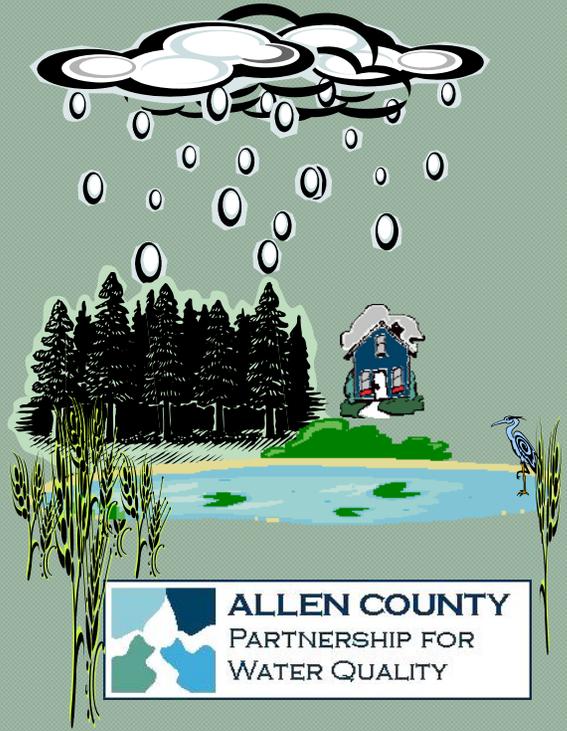
Local Wetland Sites:

- Eagle Marsh**-a complex of different types of wetlands. There are wet prairie (marsh); wet forest; sedge marsh and ephemeral wetlands.
- Arrowhead Marsh**-tall grass prairie with ephemeral wetlands.
- Little River Wetlands**-shallow water wetlands.
- Pigeon River Fen**-a type of mire that is closer to pH neutral. These hold carnivorous pitcher plants.
- Loblolly Marsh (Lamberlost)**-the historic marsh and wetlands made famous by Gene Stratton-Porter.
- Great Black Swamp**-a network of wetlands in the Maumee River Basin that covered roughly 1500 square miles (presently most has been drained).
- Camp Scott**-a stormwater mitigation wetland constructed as a part of Fort Wayne City Utilities.

What you should know about...

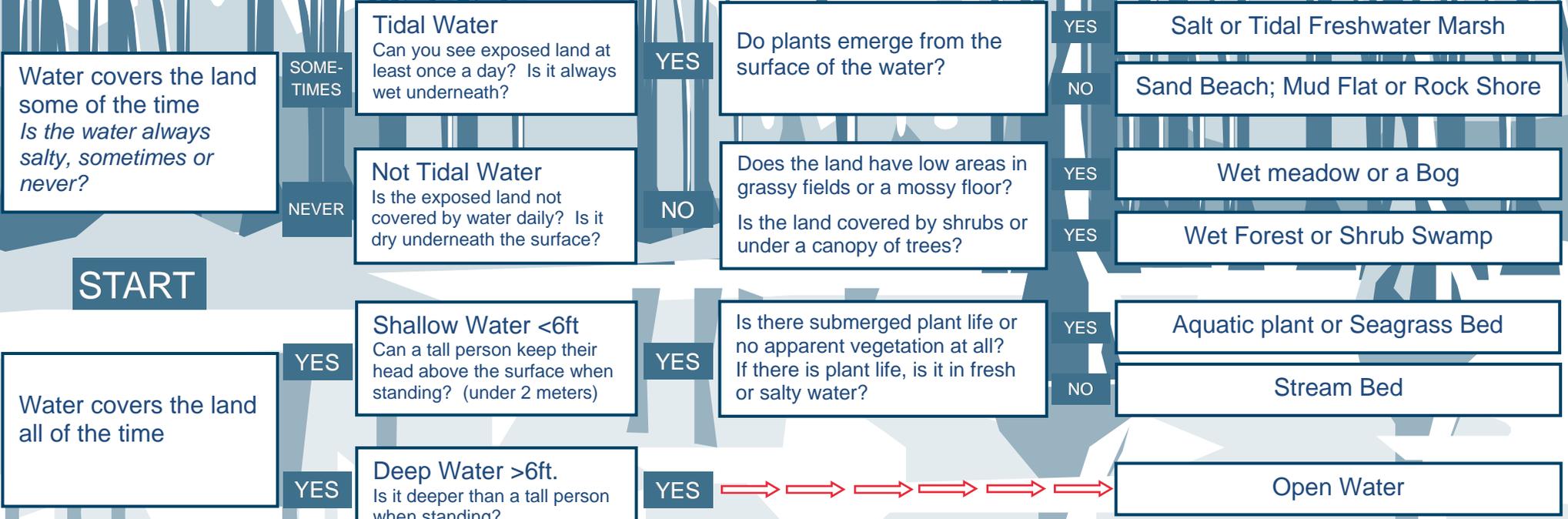
Wetlands

A Reference Guide for Residents



www.acwater.org

You Are the Solution to Storm Water Pollution!



START



Concepts adapted from "Wonders of Wetlands"-The Watercourse and Environmental Concern, Inc.

Other names for wetlands:

Bayou	Bog	Billabong
Brac	Barren	Swale
Swamp	Slough	Seep
(Quag) Mire	Moor	Marsh
Fen	Flooded grassland	
Pothole	Peat (bog)	Patty
Vernal Pool	Oxbow	

Stormwater Mitigation- Wetlands of various types are used as tools for helping to process excessive nutrient and chemical loads while helping to filter solid waste pollution, too. These wetland types are not typically identified as such but are wetlands by definition. The difference between these and natural ones is that they are man-made.

Natural wetlands are not used in the deliberate strategy of processing human-caused stormwater pollution.

We use wetland strategies as tools:

Artificial and Constructed Wetlands-these are not naturally occurring wetlands but are created to process runoff from development and agriculture. They operate much the same as natural wetlands.

Although not technically wetlands, we employ elements of wetlands in the following strategies:

Bioswales-for filtering and draining open land.

Filter strips-for reducing nutrients and sediment from the runoff of farm fields.

Rain gardens-for infiltrating and filtering stormwater runoff from houses.