

WETLANDS—THE TASK MASTER FOR FLOOD CONTROL AND WATER QUALITY

When our nation was originally settled, it became common place to drain “swamps” whether to farm the land or reduce the potential for transmission of disease. The localized function of this land was not well known, and the end result of those activities seemed more desirable at the time.

Pre-settled Indiana consisted of about 24 percent wetlands. Today, approximately 3.5 percent of the land in Indiana remains wetlands—equivalent to 85 of every 100 acres of wetlands lost.



Even today, there is a difference of opinion about the value of wetlands. Some of that confusion stems from identifying what wetlands are. A number of terms refer to a wetlands—swamp, marsh, vernal pool, fens, bog, riparian area, wet meadow or wet prairie. But it’s the characteristics they possess that categorize them as wetlands:

- The plants—most will have a high tolerance for wet conditions.
- The soils—usually formed under wet conditions or hold moisture for a long period of time.
- Surface water—usually wet or flooded at least part of the year.

WETLANDS—WHY PROTECT THEM?

We have discovered the true value of these water resources and laws have evolved to protect those remaining. In the event wetlands are impacted, the regulations also include a means of replacing or “mitigating” the impact.

Why are wetlands that important? A wetland is like a localized sponge that helps manage runoff during a storm event. The temporary storage process also serves as a filter in purifying the water that runs through it, infiltrating back into the groundwater. According to the National Association of Counties, it is estimated that the economic value of a single acre of wetlands is \$150,000 to \$200,000. The flood control function of wetlands reduces costly expenditures downstream associated with erosion, bank destruction, and property damage and loss.

Wetlands provide both aquatic life and wildlife habitat. Some aquatic species have adapted with a critical portion of their development dependent on wetlands habitat. For this reason, wetlands provide an opportunity for recreational activities such as fishing and hunting. The unique conditions and associated beauty of wetlands provide an aesthetic backdrop for photography opportunities, but also a quiet respite from hectic day-to-day living. Ecotourism associated with wetlands is estimated at well over \$59 billion annually.

THE COMPLEXITY OF WETLANDS PROTECTION

Protecting wetlands is not any easy task. In Indiana alone both the Indiana Department of Environmental Management (IDEM) and the Indiana Department of Natural Resources (IDNR) play a role in protecting water resources which includes wetlands.

Through its authority to regulate the discharge of dredged or fill material into the Waters of the United States, the U.S. Army Corps of Engineers (Detroit District for the St. Joseph River Basin) adds another layer of protection for certain “jurisdictional” wetlands.

The Indiana Department of Environmental Management is involved in the Section 401 Certification program and Isolated Wetlands Program that focuses on activities such as filling, dredging or excavating wetlands or waterbodies in the State.

The Indiana Department of Natural Resources focuses on activities where either fill or general excavation work will be involved in the floodway of a stream or river, as well as any alterations to banks, shorelines or lakebeds—prime wetland locations.

The Army Corps evaluates projects under the Section 404 process.

Permitting is the means by which these agencies place the protection needed to preserve our remaining wetlands. Every effort should be made to design a project where no dredging or filling of wetlands is needed. In the event that such cannot be prevented, adequate mitigation, particularly in the same watershed should be accomplished.

NEED HELP TO WADE THROUGH WETLANDS REGULATIONS AND THE PERMITTING PROCESS

The Indiana Department of Environmental Management recently published a series of documents and brochures that will help Indiana residents understand who is involved in wetlands protection, what permitting steps are necessary, and what regulations are involved in protecting the waters of Indiana.



The St. Joseph River Basin Commission has a supply of these publications for distribution:

Waterways Permitting Handbook; A guide to the permit process for activities that affect Indiana’s waters

Filling? Dredging? Excavating? Read this First!—A guide to state and federal permits required to work in or along Indiana’s wetlands, lakes, rivers, streams and ponds.

PROTECTING WETLANDS

The disappearance of wetlands can historically be associated with early settlers converting the land for agricultural use. Localized soils associated with wetlands have long been recognized as some of the most nutrient rich soils. As such, crop production was enhanced when tillage of drained wetlands occurred.

As early as 1985, the Wetlands Conservation provision--"Swampbuster"--was included in the Food Security Act requiring all agricultural producers to protect wetlands, or risk ineligibility for Department of Agriculture farm program benefits. In 1990, the value of natural wetlands came even further to the forefront when the Wetland Reserve Program was incorporated into the Farm Security and Rural Investment Act ("The Farm Bill").



The Program is completely voluntary, and provides producers technical and financial assistance to protect existing wetlands, enhance farmed wetlands, and restore previously impacted wetlands. Program priorities are given to restoring previously impacted wetlands.

Funding for the Program comes from the Commodity Credit Corporation and is administered by the local Natural Resources Conservation Service (NRCS). Participants receive financial incentives in exchange for retiring marginal land currently used for agricultural purposes.

The Wetlands Reserve Program has been included in the most recent version of the Farm Bill. Funding for the program has yet to be announced.

For more information regarding the Wetlands Reserve Program, including qualifying projects, funding limits and commitments, contact your local Natural Resource Conservation Service office.

2009 ST. JOSEPH RIVER BASIN COMMISSION MEETING

SCHEDULE:

March 3
June 2
September 1
December 1

Basin Bites and Technical Tidbits is a periodic publication of the
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THIS IS A WETLANDS?

Wetlands come in all shapes, sizes and unique characteristics often adding to the confusion. Listed below are just a few of the terms and characteristics that are used to define "wetlands".

Bogs are one of North America's most distinctive kinds of wetlands. They are characterized by spongy peat deposits, acidic waters, and a floor covered by a thick carpet of sphagnum moss.

Ephemeral wetlands are depressional wetlands that temporarily hold water in the spring and early summer or after heavy rains. Periodically, these wetlands dry up. They are isolated without a permanent inlet or outlet. Ephemeral wetlands are essential habitat for certain amphibians and invertebrates.

Fens are peat-forming wetlands that receive nutrients from sources other than precipitation; usually upslope sources through drainage from surrounding mineral soils and groundwater movement. Fens differ from bogs because they are less acidic and have higher nutrient levels.

Marshes are defined as wetlands frequently or continually inundated with water

Prairie potholes are depressional wetlands found most often in the Upper Midwest, This formerly glaciated landscape is pockmarked with an immense number of potholes, which fill with snowmelt and rain in the spring.

A **swamp** is any wetland dominated by woody plants. Swamps are characterized by saturated soils during the growing season, and standing water during certain times of the year.

Wet meadows commonly occur in poorly drained areas such as shallow lake basins, low-lying farmland, and the land between shallow marshes and upland areas.