

***The Value of Better Wetland Buffers***

***Part l – Defining Wetland and Water Natural Resources***

In Part l, SARG has taken the liberty to source the “opening introduction” from the Department of Natural Resource and Environmental Control – DNREC publication entitled **A Guidebook for A Guidebook for Public Participation in Public Participation in Wetland Decision Making & Permitting**.This excerpt indented below provides a good explanation of wetlands and the decision-making regulatory process.

**Wetland and Water Natural Resources**

**What is a wetland?**

Wetlands are part of the foundation of our nation’s water supply and are vital to the health of our communities. Wetlands feed into rivers, lakes and streams, reduce flooding, recharge groundwater supplies, remove pollution, clean our drinking waters and provide fish and wildlife habitat. Wetlands are very important habitats, but until recently they were thought to be of no use to man. Wet and buggy, they were considered wasted land. Developers drained them, filled them in with tons of soil and built houses, businesses, roads, farms, airports and parking lots. We now know that wetlands are actually very important natural communities. They provide valuable wildlife habitat, stabilize shorelines and protect the land from storm surges and flooding. They act as filters for pollutants that run off the land from farms, towns and cities.

Delaware's wetlands include salt marshes, brackish and freshwater tidal marshes, estuaries, tidal zones, forested swamps. Salt marshes and freshwater tidal marshes are vital, rich ecosystems and important habitat for many animals and plants. They act as a boundary between saltwater wetland habitats and dry land. They are rich with plants and animal life that can tolerate salt and the rising and falling tides. The matted roots of plants help protect the coast from erosion and storm surges while polluted runoff from land is filtered before reaching the ocean. They are also an important niche for fish and invertebrate nurseries.

Delaware is a state in which 25% of all of its land area is made up of wetlands with freshwater wetlands making up the largest category. No matter where you are in Delaware, you are no more than one mile away from a wetland. Most of Delaware’s wetlands are owned by private landowners, and are great natural resources that can provide lasting benefits. They are a middle ground where land and water meet and wildlife of all sorts come to play, eat, breed and rest. In some ways their worth is inestimable, and in others we are only now beginning to put a dollar value on the services they provide. It has been estimated that coastal wetlands alone have saved more than $625 million¹ in avoided flood damages from Hurricane Sandy across the northeastern USA. What we do know is that—when removed from the

landscape—the benefits wetlands supply is sorely missed and can cost significant amounts of time and money to replace or recover.

Delaware is thought to have lost as much as 54% of its original wetlands - much of that lost in the late 1900s when other states were already protecting their remaining wetland habitats.

From 1992 to 2007 the State of Delaware lost nearly 3,364 acres of wetlands primarily due to conversion of the land to agriculture, development or open water. An increase in pond creation was also seen during this time frame, and while beneficial, these ponds do not provide nearly the same level of benefits that natural wetlands provide. Despite improved public-private sector collaboration, increased research and successful restoration efforts, Delaware’s wetlands still face a myriad of challenges including weakened wetland jurisdiction, and increased pressure from development and infrastructure needs. In addition to directly affecting wetlands, these disturbances often produce indirect impacts including increased flooding and poor water. ²

1Narayan, S., Beck, M.W., Wilson, P., Thomas, C., Guerrero, A., Shepard, C., Reguero, B.G., Franco, G., Ingram, C.J., Trespalacios, D. 2016. Coastal Wetlands and Flood Damage Reduction: Using Risk Industry-based Models to Assess Natural Defenses in the Northeastern USA. Lloyd’s Tercentenary Research Foundation, London. 2Tiner, R.W., M.A. Biddle, A.D. Jacobs, A.B. Rogerson and K.G. McKuckin. 2011. Delaware Wetlands: Status and Changes from 1992 to 2007. Cooperative National Wetlands Inventory Publication. U.S. Fish and Wildlife Service, Northeast Region, Hadley, MA and the Delaware Dept. of Natural Resources and Environmental Control, Dover, DE 35 pp.

**What Wetlands Are Regulated**

A regulation is a law, rule or order established by an authority that governs a specific topic, in this case wetlands. These laws and regulations help determine jurisdiction, permitting processes, mitigation requirements and enforcement policies across the nation’s wetlands. In Delaware, wetlands are regulated at the state and federal levels, and there are many different types of wetlands. Generally, they can be grouped into two categories, tidal and nontidal. Tidal wetlands occur along the edges of the coast where oceans, bays, rivers and streams meet the land. They can range from freshwater to saltwater and have water pushed in and out daily by tidal cycles. These wetlands are commonly referred to as marshes or swamps. These wetlands may be regulated at the federal and state levels. “State-regulated” wetlands protected by law are defined as “those lands lying at or below two feet above local mean high water which support or are capable of supporting” certain plant species that are listed in the law and regulations. In short, if you would like to install a dock, stabilize your shoreline or other alterations in waters of the State of Delaware, you may need to gain permit(s). While tidal wetlands are well protected by State of Delaware regulations, many nontidal and isolated forested wetlands are threatened because of gaps in existing regulations. Nontidal wetlands are freshwater wetlands found around inland areas and do not have tidal influxes of water. They are fed by rain, snow or groundwater, and can be covered with water or have flooded soils close to the ground’s surface during the winter and spring months, and be dry during the summer or fall months. Approximately two-thirds of Delaware's freshwater wetlands are forested. They come in all different shapes, sizes and types, and have names such as swamps, bogs and fens. In Delaware, only nontidal wetlands of 400 or more contiguous acres are regulated by the state but, you may still need a permit when filling or building on smaller acreage wetlands:

 • Federal permit from the US Army Corps of Engineers

 • State permit from DNREC Surface Water Discharges Section when dealing with stormwater or wastewater The Clean Water Act provides the majority of federal regulatory protection for wetlands, but recent challenges question the extent of waters covered. Essentially, the further upstream and the further disconnected the wetland is from a navigable waterway the less it is protected by regulations.

**Why Regulate Wetlands**

Wetlands provide valuable benefits to each and every one of us, and because of this a national goal of “no net loss in wetlands” was established. To help keep this goal in action, certain regulations were put in place. Regulating wetland activities helps protect all of us by taking steps to ensure that we all have access to clean drinking waters, navigable water channels for boating, ample habitat for native species of waterfowl, fish and plants, and shoreline protection from storms.

**When are Permits Needed?**

Activities that happen in the wetland (direct impacts), and actions that happen next to a wetland (indirect impacts.) Both impacts have an effect on the services that a wetland provides. These impacts are only controlled if the wetland is regulated.

Examples of impacts to wetlands that may need a permit:

• Filling of wetlands

• Digging, construction or ditching in wetlands

• Disturbing the ground, i.e. removal of vegetation or tree stumps

• Stormwater input to wetlands

• Removal of buffer vegetation around wetlands

• Construction of roads, dams, or impoundments in wetlands

• Interference with natural drainage or diverting water away from wetlands

• Site access through a wetland

**Federal Level**
Federal Level Issues Permits U.S. Army Corps of Engineers ¹ ³ ⁴ Philadelphia District

• Ensures proposed activities do not violate the State Water Quality Standards

• Regulates proposed development, dams, levees, infrastructure development and mining near “navigable waters” and their “adjacent” wetlands

• Regulates the construction of any structure in or over any “navigable waters” of the United States including the excavation/ dredging or deposition of material or any obstruction or alteration

**State Level**

Issues Permits Delaware Department of Natural Resources & Environmental Control (DNREC) Wetlands & Subaqueous Lands Section1,4,6,7

• Ensures proposed activities do not violate the State Water Quality Standards, and addresses the discharge of pollutants into the surface waters of the state, including tidal and nontidal wetlands

• Regulates proposed activities taking place in state-regulated wetlands (tidal wetlands and nontidal wetlands greater than 400 contiguous acres)

 • Regulates proposed activities that dredge, fill or place structures in, on, over or under public and privately owned underwater lands (subaqueous) Issues Permits Delaware Department of Natural Resources & Environmental Control (DNREC) Surface Water Discharges Section²

• Under both state and federal laws and regulations, any discharge of pollutants from a point source to a state’s surface waters is unlawful unless sanctioned by a permit by the National Pollutant Discharge Elimination System (NPDES) program in Delaware Reviews Permits Delaware Department of Natural Resources & Environmental Control (DNREC) Delaware Coastal Programs.

• The entire State of Delaware has been designated as the Coastal Zone Management Area. Projects conducted directly by a federal agency, projects authorized by a federal permit, and some projects implemented with federal funds must be consistent with Delaware’s Coastal Zone Management policies

Please see the end of this document for a list of contacts for these organizations.

Information contained here is from the publication A Guidebook for A Guidebook for Public Participation in Public Participation in Wetland Decision Making & Permitting and compiled by the Delaware Department of Natural Resources & Environmental Control’s Wetland Monitoring & Assessment Program

Contacts for these organizations.

Regulations: 1Clean Water Act, Section 401 / 2Clean Water Act, Section 402 / 3Clean Water Act, Section 404 4Section 10 of the Rivers and Harbors Act of 1899 / 5Coastal Zone Management Act / 6The Wetlands Act 1973 / 7The Subaqueous Lands Act 1986

The concludes PART l in the SARG’s series on The Value of Better Wetland Buffers. The next in the series is Part ll which will explain **The Purpose and Science Behind Wetland Buffers.**

We encourage you to share this commentary with your family, neighbors, organizations and affiliations.

Thank you in advance for your interest and engagement in this critical topic!

