

2.4 Wetland Setback



Description

Wetland Setbacks are areas retained around existing or created wetlands in order to protect the natural functions of the wetland. Wetland Setbacks left in or restored to a “natural” vegetated state provide an enhanced level of wetland protection not currently afforded by state and federal wetland regulations.

This practice recognizes the valuable services that wetlands provide, while acknowledging that these wetlands have been formed under conditions of less stormwater pollution and imperviousness. Wetland Setbacks reduce wetland degradation associated with development by treating surface runoff for pollutants, transferring surface runoff to subsurface flow and providing a vegetated buffer from more intensive landuses.

By maintaining functional wetlands within their community, local governments and land-owners ensure that the natural services provided by wetlands are not lost or transferred out of their watershed.

Conditions Where Practice Applies

Wetland Setbacks are appropriate on all lands surrounding wetlands which receive runoff from development or redevelopment areas. Wetland Setbacks can be utilized in a low impact or conservation development design plan, as part of the regulatory permitting process or normal site design planning. Wetland Setbacks may be most appropriate on those wetlands that are hydrologically connected to other water sources such as springs or streams.

Wetland Setbacks are an appropriate best management practice in a community's Storm Water Program (e.g., NPDES Phase II) or as part of their land use planning. Wetland Setbacks can be incorporated into local zoning codes.

Wetland Setbacks are applicable where the site designer has the objective of mimicking the predevelopment hydrology, reducing the amount of stormwater and maintaining natural features. Establishing wetland setbacks and the associated protection of wetland resources may also be used to demonstrate avoidance of impacts as part of a wetland permitting process.

Wetland Setbacks are also appropriate for ponds, lakes and Water Quality Ponds; however, these features may need to have maintenance access incorporated into any setback area.

Wetland Definition and Value

Generally, wetlands are those areas near streams and in uplands that are inundated or saturated by enough water to be dominated by vegetation adapted for life in saturated soil. In Ohio, wetlands include swamps, marshes, fens, bogs and similar areas.

Wetlands are legally defined in section 40 Code of Federal Regulations (CFR) 232. The U.S. Army Corps of Engineers also has specific regulations covering activities in wetlands as well as technical guidance on determining the extent of wetlands.

Wetlands provide a variety of services to communities and landowners, including:

- **Flood Control:** Wetlands reduce peak flood flows, store floodwaters, and maintain stream base flows.
- **Erosion Control:** Wetlands minimize stream bank and bed erosion by regulating water volume and velocity. Note: natural wetlands are not to be utilized for construction site runoff control.
- **Ground Water Protection:** Wetlands minimize impacts on ground water quality by filtering pollutants from stormwater runoff. Many wetlands recharge ground water reserves.
- **Surface Water Protection:** Wetlands minimize impacts on surface water quality by reducing sediment pollution from stream bank erosion, and by trapping sediments, chemicals, salts and other pollutants from runoff.
- **Habitat:** Wetlands provide essential habitat, particularly for nesting and breeding for many aquatic and terrestrial organisms.

Planning Considerations

Existing Local Requirements

Some counties, townships and municipalities across Ohio have already adopted wetland setbacks. In the event that these setbacks differ from those described here, the larger of these requirements should be used.

Adjustments to the Setback Width

The **setback widths** given in this practice offer minimum protection and should be considered for expansion if any of the following conditions apply:

- Areas crucial to the hydrology of the wetland such as springs, floodplains or streams extend beyond the standard wetland setback. These areas should be considered for incorporation in the setback area, since maintaining the hydrologic support for the wetland is critical to its continuing function.
- The wetland is a rare, sensitive or high value wetland system. These systems need greater buffer widths to ensure protection of the current quality.
- Habitat protection, either of wetland species or species that utilize the wetland, is a major objective. Greater than 100 feet is recommended, but wildlife expertise may be necessary to determine the conditions and width needed for the particular species.
- Larger setbacks may be appropriate for drainage from a commercial or industrial facility that may require pretreatment and flow attenuation.
- Areas that are steep or sparsely vegetated will have lower effectiveness in providing water quality protection for adjacent wetlands and therefore should be expanded.

Storm water management and site planning needed in addition to setbacks

Wetland setbacks will help protect wetland systems, but more is needed as development occurs. Storm water controls will still be needed to control high-energy flows and to mitigate for increased pollution.

Encourage wetland protection through community support and planning

Wetland setbacks are a tool that can be used to protect water quality and water resources. Local planning officials should consider how to facilitate wetland setbacks through wetland identification tools (soils, wetland and land use maps), landowner assistance, zoning code and land acquisition.

Utilizing publicly available resources to produce planning or land use maps can help communities identify where wetlands and wetland setbacks are most likely to be applied. The Natural Resource Conservation Service and the local Soil and Water Conservation District provide soils maps and a list of hydric soils. National Wetlands Inventory (U.S. Fish and Wildlife Service) and Ohio Wetlands Inventory (Ohio DNR) maps may also be useful in finding wetland locations for planning purposes. Note these maps are not appropriate for making wetland delineations. Wetland delineation information is available from the Ohio EPA and the U.S. Army Corps of Engineers.

Finally protect wetland setbacks and the wetlands they surround by placing these areas under a conservation easement. Note that deed restrictions are much less protective since a judge can abolish them at the request of a landowner without public notice.

Landowner Assistance

Several publicly funded organizations are available to assist interested landowners in managing wetlands on their properties, including:

- Soil and water conservation districts,
- Natural Resource Conservation Service
- Ohio Environmental Protection Agency
- Ohio Department of Natural Resources, and
- Ohio State University Extension Service.

These organizations can advise landowners on what to plant near wetlands, where to locate soil disturbing activities to minimize short and long term damage to these services, and any applicable local, state, or federal regulations that may apply to an activity the landowner wishes to undertake. The Ohio Environmental Protection Agency (Ohio EPA) and the U.S. Army Corps of Engineers are available to assist landowners in understanding specific regulations that may apply to proposed activities.

Communities can facilitate wetland setbacks and other wetland management by connecting interested landowners to available county, state, and federal conservation services. A list of conservation agencies is available in the Appendix Section. Conservation funding may be available for purchase of easements or for public land acquisition.

Land Acquisition

Communities may acquire properties that include wetlands that are providing flood control, erosion control, water quality protection, or habitat services either through direct purchase of land, conservation easements, or some other form of permanent preservation. This approach is appealing to communities because it is non-regulatory and enables direct community control over local wetland resources.

Incorporating Wetland Setbacks into Zoning

Zoning regulations that direct the location of development away from wetlands must detail the public health and safety functions of the community's wetlands including flood control, erosion control, and water quality protection, and must be built on technical information supporting these services from the lands being regulated.

Zoning for Wetland Setbacks, unlike landowner assistance or land acquisition, allows communities to directly influence the location of new development and redevelopment. The goal of any zoning code that incorporates Wetland Setbacks is to ensure lots remain buildable and subdivision lot yields are maintained to the extent possible, while pulling soil-disturbing activities back from wetland areas. Thus zoning setbacks should be flexible incorporated to allow variances to other zoning setbacks, such as front and side yard setbacks, to allow site designers to maintain development lot yields. The disadvantages of implementing Wetland Setbacks through zoning controls are that it is an additional regulation and requires community staff to develop and implement.

Regional planning agencies and watershed organizations may also be able to offer assistance in establishing local ordinances and resolutions that maintain wetlands within developing communities.

Permitting For Wetland Impacts

In Ohio, the regulatory permits required to impact “Waters of the State,” including lakes, wetlands and streams, may involve both the Army Corps of Engineers (Corps) and Ohio EPA through 404 Permits, 401 Water Quality Certification or Isolated Wetland Permits. Additional information regarding these permits can be found in the Appendix section.

The Corps and Ohio EPA both utilize a three-tier approach to proposals to impact water resources that consist of avoidance, minimization and mitigation. Wetland setbacks can and should be a vital part of these proposals.

Design Criteria

Define the Wetland Boundary

Wetland boundaries are determined by utilizing the delineation protocols acceptable to the U.S. Army Corps of Engineers at the time. Delineations must be submitted to the U.S. Army Corps of Engineers for concurrence. Wetland setbacks should be measured in a perpendicular direction from the defined wetland boundary.

Evaluate Wetland Quality Category

Ohio EPA wetland categories are used to determine the width of the wetland setback. These are general characterizations of a wetland’s quality and are determined using the most recent version of the Ohio Rapid Assessment Method as guidance (www.epa.state.oh.us/dsw/401/401.html).

Ohio EPA wetland categories are defined in the Ohio Administrative Code (OAC) 3745-1-54 (www.epa.state.oh.us/dsw/rules/01-54.pdf). They are:

Category 3 - wetlands are considered to be the highest quality;

Category 2 - wetlands are those of moderately high quality and may be good candidates for wetland enhancement;

Category 1 - wetlands are considered low quality wetlands and provide the least public health, habitat or safety services.

Maintain Hydrology

Determine the hydrologic inputs to the wetland, whether overland flow, streams, lakes, or springs. These inputs must either be maintained or substituted for other hydrologic inputs. Incorporating wetland hydrologic sources into the setback may be necessary to protect the integrity of the wetland resources.

Setback Width

The setbacks width differs with the functional capacity of the wetlands. See the Planning Considerations above for adjustments to the setback width. For most situations, Ohio EPA has concurred with the following guidelines.

- A minimum of 120 feet surrounding all Ohio EPA Category 3 wetlands, or current equivalent Ohio EPA classification,

- A minimum of 75 feet surrounding all Ohio EPA Category 2 wetlands, or current equivalent Ohio EPA classification, and
- A minimum of 25 feet surrounding all Ohio EPA Category 1 wetlands or current equivalent Ohio EPA classification.

NOTE: Category 1 wetlands often provide minimal habitat, hydrologic and recreational functions. Often times the degradation of these resources is due to the lack of setback, thus establishing setbacks from these resources may promote the restoration of these wetlands.

Vegetation

The Wetland Setback should be preserved in a natural state and established prior to any soil-disturbing activities. This area should not be mowed or disturbed in any way. If planting occurs within the setback, only native species should be utilized.

Maintenance

Wetland Setbacks should be inspected regularly to ensure that the Wetland Setbacks are being maintained in a natural state and have not been mowed, treated with herbicide (except as used to control invasive species), or developed. Wetland Setbacks and the wetlands they surround should be placed in a conservation easement to protect these resources in perpetuity. Easements should be regularly monitored and violations of easement agreements addressed in order to insure long-term protection.

References

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U.S. Army Corps of Engineers (ACOE). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, Final Report, January 1987, Wetlands Research Program, U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MI.

ODNR Invasive Species Information - http://www.ohiodnr.com/dnap/non_native/InvasiveSpecies.html

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