

Edge-of-Field Menu



Constructed "Treatment" Wetland

Treatment wetlands are constructed specifically to remove nutrients from tile water. They are placed in the landscape to maximize drainage area and nutrient removal. Treatment wetlands also provide valuable wildlife habitat and hunting opportunities.

Treatment wetlands can be constructed many different places in the landscape but there must be tile nearby.

Wetland Restoration

Wetland restoration takes place on land that has been, or still is, a wetland. Wetlands provide valuable wildlife habitat as well as protect and improve water quality.

Farmland in the 2-5-year floodplain or consistently wet spots in the field are good sites for restoration.

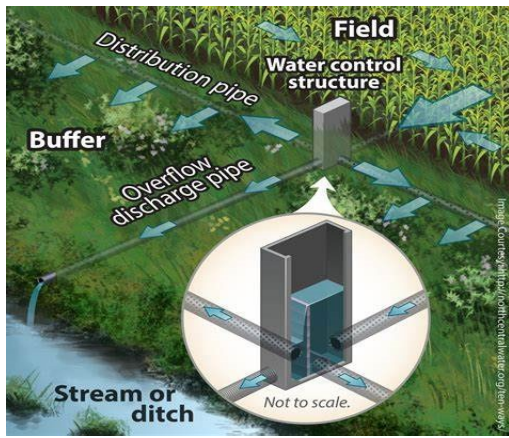


Oxbow Restoration

Oxbows are remnants of the creek meanders either cut off by the main channel or by human alteration. Restoration requires digging out the sediment that has partially filled in the old channel. Oxbows create great wildlife habitat and provide flood storage. Tile water can also be rerouted into an oxbow for treatment of nitrogen (denitrification.)

Good sites for oxbows are ones where there is tile nearby and where there is evidence of the old channel.





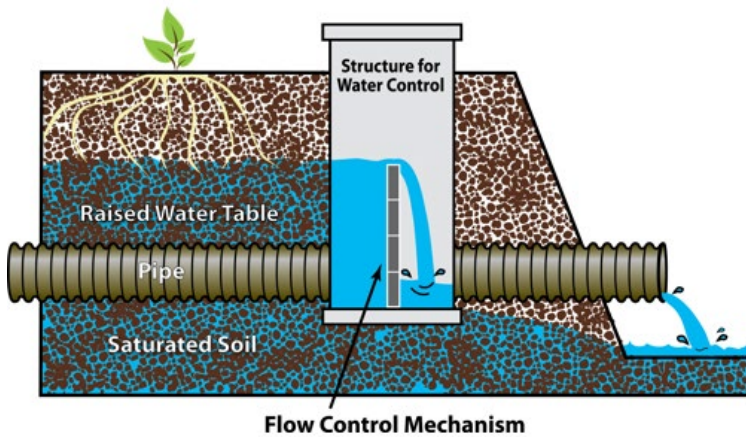
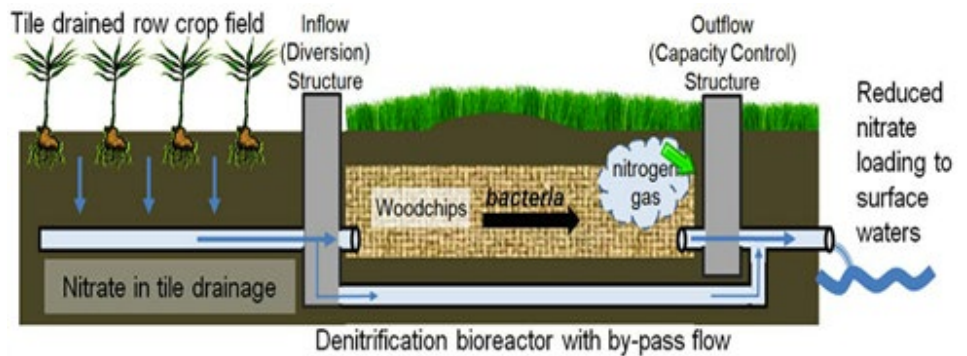
Saturated Buffer

Tile water is diverted to a lateral line parallel to the stream or ditch and nitrate is treated (denitrified) as it moves through the soil profile and drains into the stream or ditch. In high flow conditions the water can bypass the lateral line and discharge, preventing the water table from getting too high in the field.

An easy place to add a saturated buffer is in an existing filter strip.

Bioreactor

A bioreactor functions similarly to a saturated buffer but has less restriction in location. A portion of the tile water is diverted into the bioreactor chamber. The nitrate in the tile water is treated (denitrified) and returned to the drainage tile.



Drainage Water Management

Drainage water management uses a water control structure to raise the water table during the growing season. The height of the water table corresponds to the height of the stoplogs in the control box. In the spring and fall stoplogs can be removed to traffic the field.

Fields with little slope are good candidates for drainage water management.

Prairie Strips

Consider putting some of the unproductive areas in your field into a prairie strip. Prairie strips provide many ecosystem services including habitat for beneficial insects and wildlife. Prairie plants help protect and build the soil as well as reduce nutrient movement into waterways. The addition of pollinator habitat in soybean fields may boost yields.

Consider planting prairie strips on unproductive areas, erosive slopes and field edges.

