

Improving Your Land By Restoring Wetlands

The Benefits of Plugging Drainage Ditches

Discourages Invasive Species Establishment

Ditching creates disturbed soils and dredge piles that are favored by weedy non-native invasive species like Phragmites, Japanese stilt grass, and many others. Ditches also provide conduits for invasive plants to spread quickly and easily while disturbing the natural flood cycles that discourage invasive plant establishment.

Improves Water Quality

Ditches bypass the natural filtering capabilities of wetlands and channel pollutants directly into larger water bodies. Once ditches are blocked, runoff slowly drains through wetlands allowing natural uptake of nutrients by wetland plants and sediments to be reduced before reaching bays and rivers, enhancing growth of submerged aquatic vegetation.

Reduces Flood Damage

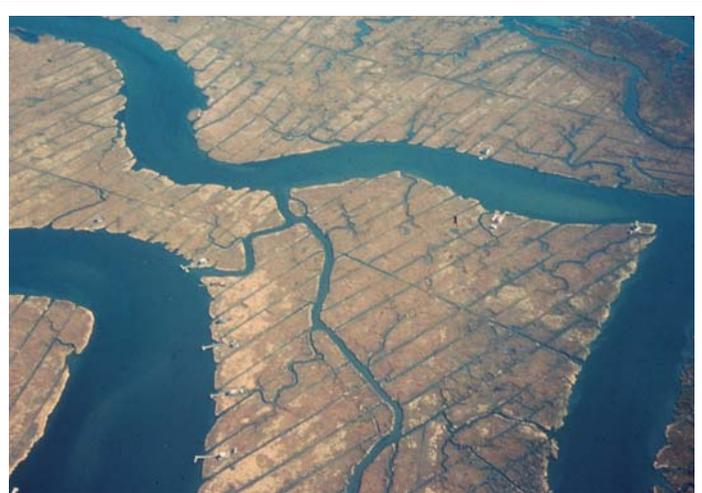
Ditches and canals draining coastal area wetlands permit rising waters from major storms and hurricanes to inundate inland areas more rapidly than would otherwise occur. A recent example of this effect is the Mississippi River Gulf Outlet or "Mr. Go" which acted as a giant funnel focusing flood waters from Hurricane Katrina into New Orleans while bypassing coastal wetlands. Plugged ditches slow the entry of storm surge to inland areas permitting additional time for evacuations and restore the ability of wetlands to absorb and reduce storm damage from flooding.

Enhances Wildlife Habitat

Plugged ditches filled with water act as shallow ponds that attract waterfowl and other aquatic dependent species, especially during periods of drought. Wetlands also provide critical nursery and foraging habitat for commercial and recreational fisheries. Wetland function and values usually return quickly once drainage ditches and canals are blocked with earthen plugs or water control structures.



Wetlands filter and clean water through natural processes, provide habitat for wildlife, act as carbon sinks to reduce global climate change, and provide basins for flood storage.



Wetlands have been ditched with the best intentions but not always the best results. Ditches promote the establishment of invasive plant species like Phragmites, increase soil loss and erosion; degrade water quality, and increase flood risks and property loss during hurricanes.

Promotes Sustainable Forests

Forested wetlands need periods of drought to permit seed germination and seedling establishment before flooding returns. Ditches connected to wind-driven tidal bays in the Back Bay area of Virginia Beach, Virginia permit flooding to occur throughout the year regardless of rainfall. Blocking these ditches returns forested wetlands to the seasonal wet-dry cycles observed in precipitation-dependent wetlands and reduces flood stress during the active growing season.

Improves Land Productivity

Ditches placed in erodible soils may head cut and incise causing a drop in the local water table. This renders land less productive when the receding water table exceeds the rooting depth of row crops, pasture grasses and other plants. Even partially blocked ditches can restore land to more productive states without inundation.

For More Information, Financial, or Technical Assistance: Contact the U.S. Fish and Wildlife Service Virginia Field Office at 804-693-6694 extension 124 or 133.