ADMC Agricultural Drainage Management Coalition

FACT SHEET

Multi-purpose Oxbow

ABOUT

An Oxbow is an abandoned stream meander which provides valuable ecosystem services including wildlife habitat, flood water storage, and nutrient processing. A multi-purpose oxbow is designed with the intent of being shallow enough to remove nitrogen, but deep enough to ensure that fish species can over-winter in its pool while receiving drainage water.



Restored mult-purpose oxbow, image courtesy of IA TNC.

Mullt-purpose Oxbow

BASICS

Site requirements

- Near a stream in marginal land
- Paired with a tile outet to remove a significant amount of nitrogen
- In a floodplain that connects on a 1 to 2 year interval

Footprint

The multi-purpose oxbows are sized based on the size of the historic oxbow. To maximize nitrate reduction the pool size should follow the recommendations of 1-2% pool to drainage area that constructed wetlands follow. To minimize predatory fish presence, oxbow pools larger than 0.5 acres should be broken into smaller cells.

Performance

62% average nitrate reduction

Maintenance

Oxbows are relatively easy to maintain once established. The outlets should be monitored after floods to ensure they are clear of debris.

Reduces nitrates by an average of 62%

Half acre restorations range from $10,000-$12,500

- Flood water storage
- Critical wildlife habitat
- Off-channel water source for livestock

INTERACT WITH ADMC

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For more information visit us at www.admcoalition.com

[NRCS CPS 657 Wetland Restoration]