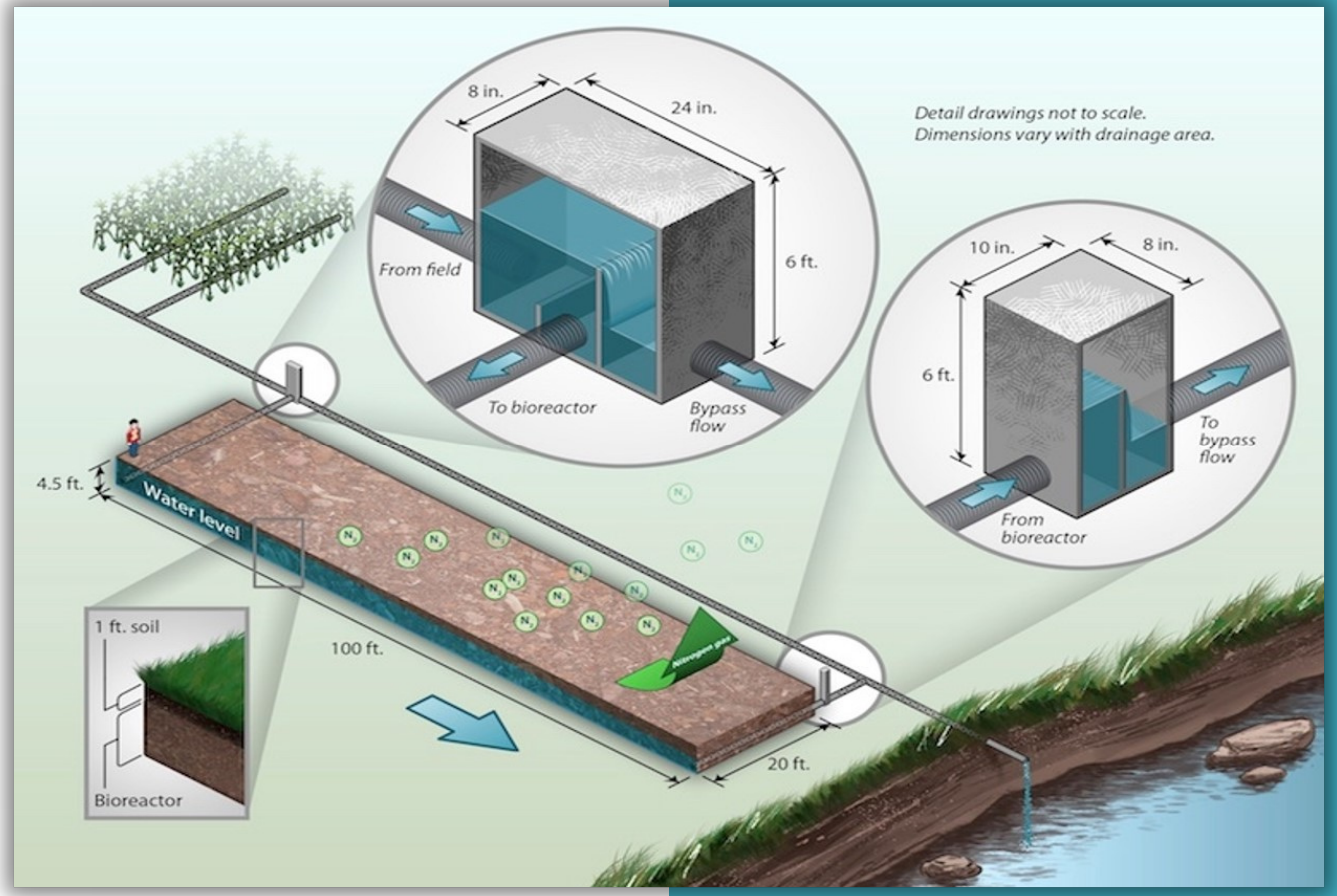
ABOUT THE PROJECT

The Iowa Department of Agriculture & Land Stewardship and local partners are scaling up efforts to implement the Iowa Nutrient Reduction Strategy to reduce nitrates lost through tile drainage. Bioreactors are a great option to treat tile water when a Saturated Buffer will not work.

We have secured funding to install Bioreactors at no cost to the landowners in the project area. Landowners will also receive a temporary construction easement payment of $1,000 per bioreactor.

WHY BIOREACTORS?

- Nitrate reduction (43% average reduction)
- No changes to current management
- No annual expense
- Designed to ensure proper field drainage
- Expected lifespan of 10-15 years



WHAT IS A BIOREACTOR?

A bioreactor is a buried pit filled with a carbon source such as wood chips. Tile water is diverted into the pit where nitrates are removed during the decomposition process. When tile flow exceeds the bioreactor's capacity, excess water flows directly to the tile outlet ensuring that field tiles function appropriately. Wood chips may need to be replaced every 10-15 years to ensure maximum nitrate removal.

SITE REQUIREMENTS

Fields with tile systems draining 40-100 acres

AND

an existing grass area at the pit location (most pits are 1/10 an acre or less) or interest in adding a grass area (CRP rental payment available)

OUR PARTNERS

- City of Cedar Rapids
- Linn County
- Iowa Department of Agriculture & Land Stewardship
- USDA Natural Resources Conservation Service
- Benton, Black Hawk, Buchanan, Grundy, Linn, & Tama County Soil and Water Conservation Districts
- Heartland Coop
- Agricultural Drainage Management Coalition

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tinyurl.com/cedarrivercleanwater

Cedar River
CLEAN WATER PARTNERSHIP

Bioreactors: Accelerating Nutrient Reduction in the Cedar River

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