



Nitrate Reduction Through Targeted Wetlands

IOWA Conservation Reserve Enhancement Program

Landowner Guide to CREP

What's it all about?

Nonpoint loads of nitrate-nitrogen in agricultural drainage to surface waters in the U.S. corn belt are among the highest in the country. These nitrogen loads can negatively affect human health where such water is used for drinking water supplies and are suspected to contribute to hypoxia in the Gulf of Mexico.

Strategically located and designed wetlands constructed through the Iowa CREP are one of the most promising off-site strategies for reducing surface water contamination. Research conducted at Iowa State University has demonstrated that targeted wetlands have the potential to remove 40-90% of the nitrate in tile drainage from upper-lying croplands. The effect of wetlands on watershed scale nitrate reduction is largely determined by the fraction of the watershed's total nitrate load that the wetlands intercept.

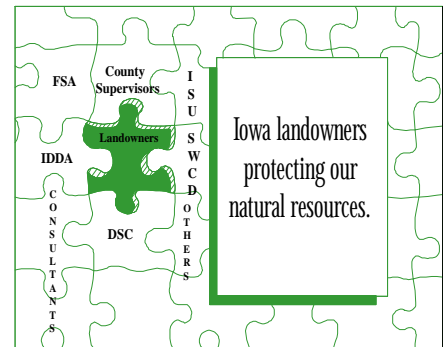


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Project Coordination:

The Iowa CREP utilizes contracted professional services for landowner contacts, topographic site surveys, preliminary wetland and final site designs, engineering, construction oversight, and easement boundary surveys. Landowners are introduced to all personnel providing technical services and receive continual updates during the enrollment and construction process.



Additionally, landowners are encouraged to keep frequent communications with a CREP Field Specialist, their county FSA office staff, and Soil and Water Conservation District representatives when questions arise.

Program Incentives:

Federal incentives include:

- Up to 15 annual rental payments of 150 % of the weighted average soil rental rate
- 50 % cost-share for eligible costs of establishing conservation practices
- 40% Practice Incentive Payment (PIP) of the eligible cost of practice installation

State incentives include:

- A one-time, up-front incentive payment to enter into either a 30-year or perpetual easement.
- 10% cost-share for construction costs

Landowner Planning Tips:

- ✓ Landowners receive a combination of state and federal incentives for a long-term easement, construction cost-share, Practice Incentive Payment (PIP), and annual payments for the life of the CRP contract.. Early consultation with a tax preparer to discuss how CREP incentives may affect the bottom-line is recommended. Note: The Assignment of Payment does not release the landowner from accounting for federal benefits received.
- ✓ All titleholders of record or their designated Power of Attorney will be required to sign the CREP easement. Early project involvement by all decision-makers may help avoid project delays.
- ✓ Timely discussions with cash rent or crop-share operators may help to avoid program enrollment delays.
- ✓ Full understanding of landowner maintenance responsibilities can make a difference with the success of buffer seeding establishment and minimal site repairs down the road.

Project Timetable:

CREP wetlands and surrounding buffers are strategically located, high performance water quality practices that are designed and engineered to function long-term with minimal maintenance. Extensive site investigation including tile-line locating, soil sampling as warranted, potential hazards identification, and an accounting of all affected property owners is tediously researched. Every effort is made to identify potential problems, minimize delays, and ensure the construction of a high quality end product.

A coordinated CREP wetland project begins with the identification of a potential site and proceeds through the development of a conceptual design, program introduction with all involved landowners, contracting services for topographic surveys, preliminary wetland design development, easement boundary negotiations, title information gathering, filing permit applications, cultural resources assessment, final design preparation, CRP contract approval, public bid letting, easement recording, and finally construction. Landowner involvement and decision making is extremely important in a process that may take 18-24 months to complete from the initial contact, especially when construction is dictated by weather conditions which can be quite limiting in Iowa.

Ultimately, the end product is a high quality nitrate reduction wetland that also provides wildlife, recreational, and environmental benefits for generations to come.

Water Quality

Another unique aspect of the Iowa CREP is that nitrate reduction will not simply be assumed based on wetland acres enrolled, but will be calculated based on the measured performance of CREP wetlands monitored by Iowa State University.

Some CREP wetlands will be monitored with landowner permission, and mass balance analyses will be performed to document nitrate reduction.

Water quality monitoring provides further refinement of modeling and analysis tools used in siting and design of CREP wetlands.

Questions?

- Contact DSC at 515-281-6146
- Contact your local FSA Office
- Contact your local SWCD Office
- Visit <http://www.iowaagriculture.gov>



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