



Welcome to *The Current*, the North Central Region Water Network's Speed Networking Webinar Series

From Research and Innovation to Implementation: Examples of Conservation Finance in Action: 2PM CT

1. Submit your questions for presenters via the Q&A panel. There will be a dedicated Q & A session following the last presentation. The Q&A panel can be found via the Q&A icon at the bottom of the webinar screen.
2. If you are experiencing technical issues or have questions about the North Central Region Water Network or *The Current* Webinar Series, please use the chat feature. The chat feature is accessible via chat icon at the bottom of the webinar screen.
3. A phone-in option can be accessed by clicking the up arrow on the mute icon and clicking 'Switch to Phone Audio'.

This session will be recorded and available at northcentralwater.org.





Today's Presenters:

- **Ricardo Costa**, Field Crops Educator and 4R Nutrient Management Specialist, Michigan State Extension
- **Alejandro Plastina**, Associate Professor and Extension Economist, Iowa State University
- **Keegan Kult**, Executive Director, Agricultural Drainage Management Coalition

Follow @northcentralh2o and #TheCurrent on Twitter for live tweets!





Ricardo Costa



Ricardo Costa joined MSU Extension in January of 2018 as a Field Crops Educator. Hailing from Brazil, Ricardo studied Agronomy at the Federal University of Mato Grosso and earned a master's degree in Plant Sciences at the University of Missouri. Based in Lenawee County, he works with growers and provides programming in 6 Michigan counties. He is part of the Cover Crops, Forage, Soybean, and Wheat teams. He also works closely with Michigan State University faculty on multiple research projects. As an FAA-Certified UAV pilot, Ricardo uses drone imagery to help growers make better farm management decisions. Ricardo holds 4R Nutrient Management Specialist and Certified Crop Advisor Certifications and teaches Plant Pathology at The Institute of Agricultural Technology (IAT) at Michigan State University. For the past few years, Ricardo has collaborated on multiple grants focused on expanding conservation practices to improve water quality in Lake Erie by reducing nutrient runoff and sediment loss from farm fields.



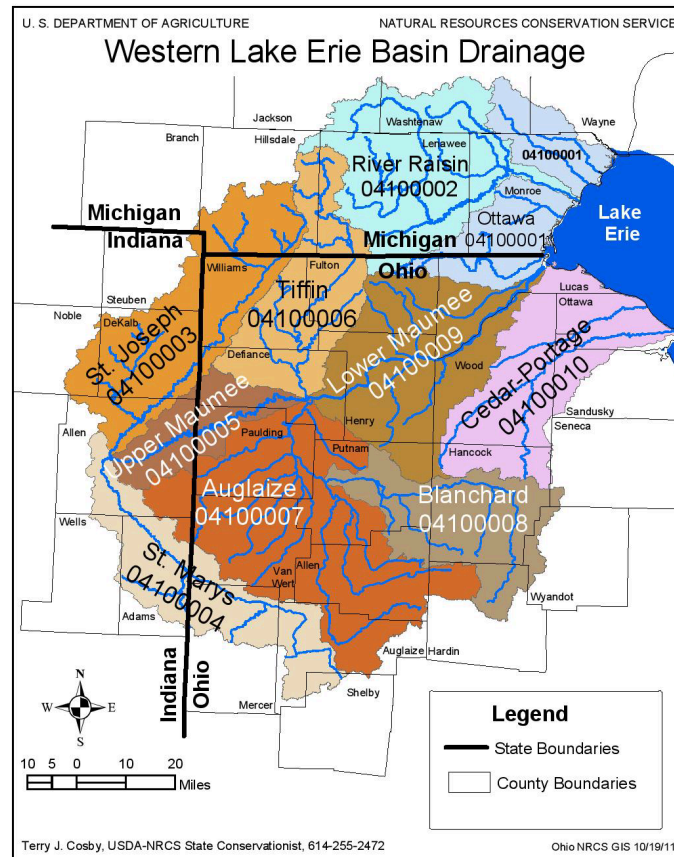
Ag focused efforts on reducing P losses in the WLEB

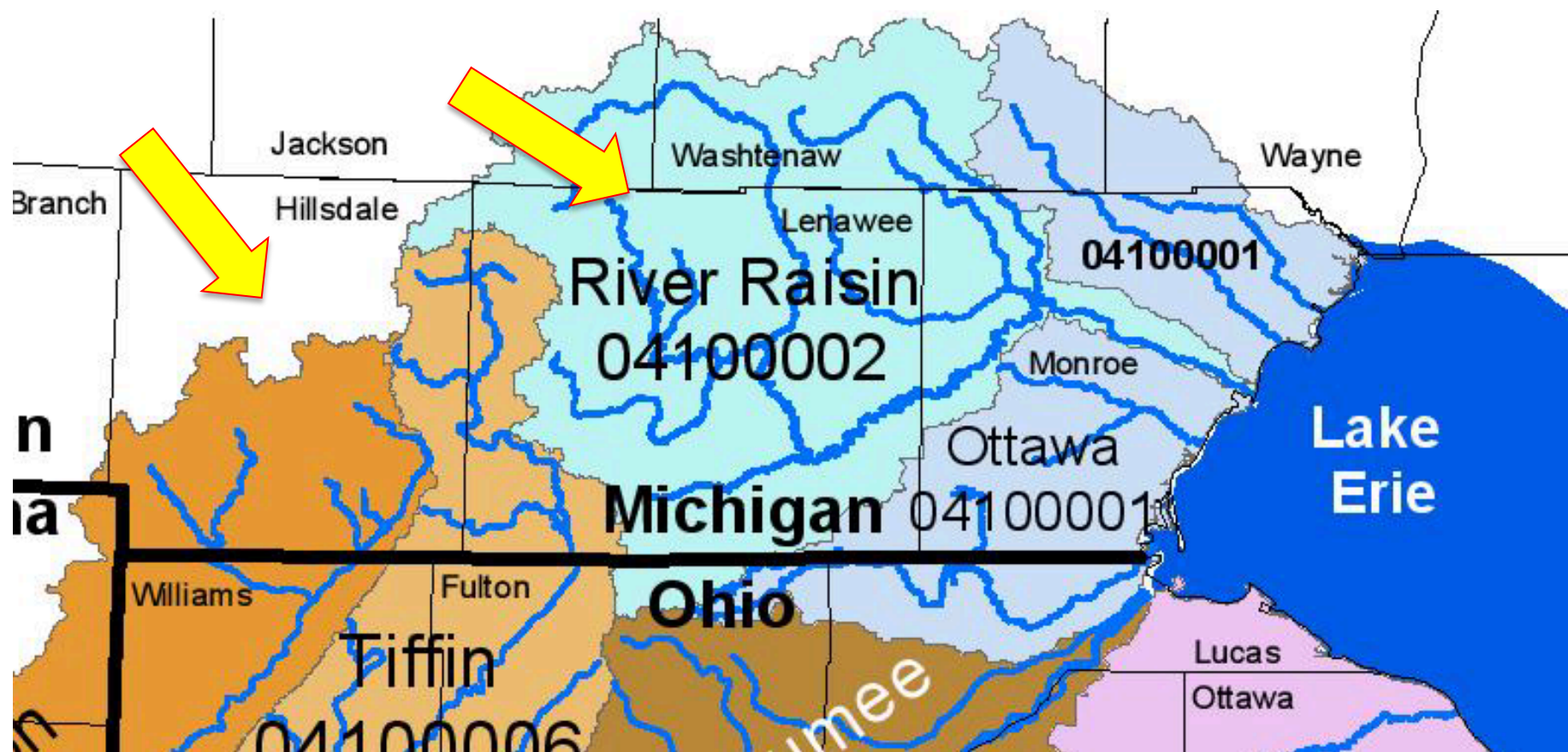
Ricardo Costa

MSUE Field Crops Educator
4R Nutrient Mgmt. Specialist









Michigan's Conservation Reserve Enhancement Program

A unique opportunity offering financial benefits to landowners and a healthy environment

What is CREP?

Michigan's Conservation Reserve Enhancement Program (CREP) was created to help protect our environment and wildlife. Michigan Department of Agriculture and Rural Development (MDARD) is partnering with the federal government to implement conservation practices of great significance to the state, and valuable to the nation, in matters of soil erosion, water quality, and wildlife habitat.



CREP is similar to the federal Conservation Reserve Program (CRP) yet different, offering enhanced financial incentives for participants. In Michigan's CREP, landowners in priority watershed areas agree to enroll eligible parcels of land for 15 years and establish prescribed conservation practices.

In return, landowners receive cost-share assistance in establishing conservation practices. Eligible practices include riparian buffers, field windbreaks, filter strips, wetlands, shallow-water wildlife areas, controlled livestock access and conservation easements.

Contact us:

Conservation District

Phone:

Email:

Any additional information/logo can go down here.

Do I Qualify?

CREP priority areas in Macatawa, River Raisin Watersheds. Eligible land has a cropping history of for 15 years (1996-2001).

Selected land within the watershed areas are eligible. Property owners in the watershed are encouraged to take part in eligible priority zones areas. The local Farm landowners identify suitable

Accelerating Conservation Adoption in the River Raisin

About the Project

IWR is working with producers and a variety of conservation partners to improve water quality in Lake Erie by reducing nutrient runoff and sediment loss from farm fields. This two year program offers online tools to farmers and conservation technicians to optimize soil health and retain sediment and nutrients in the field. Participating farmers are eligible to receive reimbursement for conservation practices through the Lenawee Conservation District. Computer models help track the cumulative benefits that farmers' activities are making toward improving water quality in the Western Lake Erie Basin. The program is working with the Farmer-led Watershed Conservation group, local conservation districts, MSU Extension and others. This program is funded through the Great Lakes Restoration Initiative.



River Raisin Watershed

Applications & Enrollment

Applications are accepted on a rolling basis, due the last Friday of the month, through September 27, 2019. Meet with a local conservation professional to submit an application. Applications will be reviewed within 15 business days of the application deadline. See project website - Enrollment Tools for details.

Conservation Practices

1. Conservation Crop Rotation
2. Residue and Tillage Management - No-Till
3. Residue and Tillage Management - Reduced-Till
4. Filter Strip
5. Nutrient Management
6. Phosphorus Management

Eligibility Requirements

1. Practice must be implemented within River Raisin Watershed
2. Funding may not support practices already under contract
3. Applicant must have control of land for duration of contract
4. Practice must be implemented within River Raisin Watershed



Conservation Program Process

1. Submit an application by enrollment deadline
2. Within 15 business days of enrollment deadline, applications will be selected
3. Finalize contract
4. Implement practice(s)
5. Verify practice(s) [may occur in spring]
6. Receive reimbursement through the Lenawee Conservation District

Project website

Visit www.raisinconservation.weebly.com for updates and more information



WE MADE GREAT PROGRESS IN REDUCING NUTRIENT INPUTS TO LAKE ERIE

Level and upgrade to the latest in precision nutrient technologies

by new and enhanced practices such as:

on) or subsurface placement - \$10/acre
ent management with Michigan State University Extension
(received a VRT nutrient application to be eligible)

QUICK APPROVAL AND NOTIFICATION.

Project funds will be available on a first-come, first-served basis. Project details remain confidential.

ropping Risk Assessment

ct at:

WASHTENAW CONSERVATION DISTRICT

7203 Jackson Road
Ann Arbor, MI 48103
Phone: 734.205.1219

MONROE CONSERVATION DISTRICT

1137 South Telegraph Road
Monroe, MI 48161
Phone: 734.241.8540 ext 5

WAYNE COUNTY

*Wayne county participants please contact the Monroe Conservation District

Great Lakes Restoration Initiative Grant in partnership with the Michigan Department of Agriculture and local conservation partners.

Institute of Water Research
MICHIGAN STATE UNIVERSITY

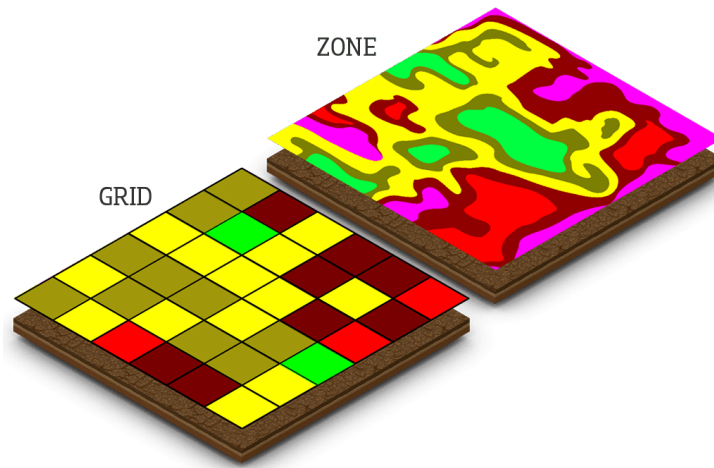
www.iwr.msu.edu
www.facebook.com/IWR.MSU/
517-353-3742



What have we been focused on?



Education



Nutrient Management



Conservation Practices



Practices	Payment (\$/acre)
Grid/Zone sampling	\$7
VRT	\$10
Yield Monitor Calibration	\$5
Cover crop	\$56
No-till	\$15.63
P management	\$2-10



What have we learned so far?

1. It's difficult to predict adoption rates



What have we learned so far?

2. Some practices more successful than others



What have we learned so far?

3. Reaching out to new prospects can be challenging



What have we learned so far?

4. Partnership is KEY



Thank You!!!

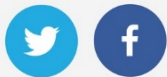




Alejandro Plastina



Dr. Plastina is an Associate Professor/Extension Economist in the Department of Economics at Iowa State University (ISU). His area of specialization is agricultural production and technology, with an emphasis on farm business and financial management. He enjoys collaborating with farmers, agronomists, lenders, rural appraisers, and others on a personal level while creating economic tools to help producers address real-life problems in the agricultural sector. His recent publications address the economics of conservation practices and agricultural productivity. He has been selected as the first Agricultural Economics Fellow by the Farm Foundation in 2021, and has received the Agricultural & Applied Economics Association Distinguished Extension Program Award in 2019; the ISU Office of the President Excellence in Remote Instruction Award in 2021; the ISU Extension and Outreach Creativity in Service to All Iowans Award in 2020; the ISU ANR Programming Innovation Award in 2018; and the ISU Extension and Outreach Impacting Iowa Award in 2014.



Incorporating conservation practices into farmland leases

Disclosure: This presentation is not intended to constitute legal advice, and each landowner and operator is encouraged to obtain advice of counsel regarding operation of farm leases.

Alejandro Plastina
Associate Professor of Economics

Why is leasing relevant to the conservation discussion?

- In the U.S., 31% of the farms and 65% of the farmland are operated by farmers who rent all or part of the land they operate.
- In Iowa, 53% of the farmland is leased:
 - Fixed cash rent 35%
 - Flexible cash rent 9%
 - Crop share 9%
 - Other 1%

69% of all Cash Rented Acres use Written Leases

How to add conservation practices to a farm lease?

1. Create New Lease. Terminate current lease and sign new one. Follow your state provisions: termination notice deadline, statutory termination language, etc.; or

2. Modify Existing Lease. Sign Lease Addendum or Insert

IOWA STATE UNIVERSITY

Extension and Outreach

Before creating or modifying a lease...

- What conservation practice works for you and the farm?
- Communicate with your Landlord/Tenant. Evaluate:
 - Expectations (agronomic, easements, contract length, rights and duties)
 - Monetary and non-monetary incentives
 - Sharing risks → flex lease?
 - Contingency plan (early termination, death, bankruptcy, ...)
- File a Conservation Plan with the Farm Service Agency (FSA)
- Put the new lease or addendum in writing and have it signed by all parties

Tidgren, K. 2017. "IOWA FARM LEASES: A LEGAL REVIEW"

Conservation Language in Standard ISU Farm Lease Template

Sources: AgDM Files C2-12, C2-16



Operator agrees to:

- a. **Farm the land in an efficient and steward-like manner.** Land planted to corn, soybeans or other row crops shall not exceed _____ acres each year, unless by mutual agreement.
- b. Furnish to the Owner by December 15 an **annual report including 1) a summary of fertilizer, lime, and pesticide application records and 2) production or yield information about harvested crops** each year, such as may be required for participation in Farm Service Agency programs or for setting crop insurance actual production history yields, and to use measurement methods acceptable for these purposes.
- c. Do what is reasonably necessary to **control soil erosion** including, but not limited to, providing labor and normal farm equipment for the **maintenance of existing watercourses, waterways, ditches, drainage areas, terraces and tile drains, and abstaining from any practice which will cause damage to the Real Estate.** The Operator's responsibility does not include major reconstruction of such improvements made necessary by normal wear and tear or other natural causes.

Conservation Language in Standard ISU Farm Lease Template



Operator agrees to:

Sources: AgDM Files C2-12, C2-16

- d. **Protect all desirable vegetation**, such as grass field borders, grassed waterways, wildlife cover, shrubs and trees. **Refrain from the following practices** as they relate to the disturbance of permanent vegetation: _____
- e. Follow a **mutually acceptable tillage program** for each of the crops planted. Such **plan shall meet soil conservation and surface residue requirements as prescribed by the Natural Resources and Conservation Service (NRCS) conservation plan** and include the following additional crop management practices: _____
- f. At least every 4 years, conduct **soil tests** and provide copies of all soil test results to the Owner as follows: _____
- g. Comply with all local, state, and federal laws and **regulations governing all activities related to the application of pesticides, livestock manure and commercial fertilizers, and the cultivation of crops**. Follow label directions in the handling and application of all chemicals used on the Real Estate, and follow all applicator's licensing requirements. Comply with local, state, and federal laws and regulations pertaining to groundwater contamination, manure disposal, and hazardous waste storage or disposal.

Example of an Addendum

- Include:
- ✓ Agronomic details
 - ✓ Specify Acres
 - ✓ Specify dates
 - ✓ Describe any cost-share
 - ✓ Length of addendum validity
 - ✓ Signatures
 - ✓ Who pays for what?
 - Owner compensates operator
 - Lower rental rate
 - Longer lease
 - Operator bears all costs



Cover Crop Lease Insertion

Use this sample *Cover Crop Lease Insertion* to work with your farm operator and/or farm manager to incorporate cover crops into your lease.

The Owner and Operator agree to utilize a cover crop. Operator shall use best efforts to plant a cover crop by _____ (date) on _____ acres or _____ % of the leased acres. Specifics such as species composition, planting method, termination method and date will be determined by (Owner/Operator/Jointly), and/or with the input of a conservation professional, crop consultant, agronomist or other professional knowledgeable on local best practices for cover crops. [Optional: These methods shall be set forth in a written Cover Crop Plan.]

The cost to purchase seed, plant, manage and terminate cover crops is estimated at \$_____/acre. The parties may pursue cost-share from USDA, state government or other program to offset costs. Expenditures incurred by Operator related to the use of cover crops will be accommodated through:

_____ Compensate the Operator at \$_____/acre for the purchase of seed, planting, management and termination of cover crops. Payment from Owner shall be made within 120 days after cover crops are established.

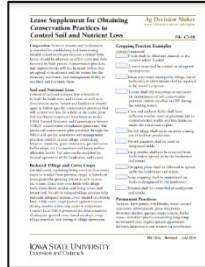
_____ Reduce the per acre rental rate set forth above by \$_____/acre in year(s) _____ of the lease agreement to compensate for the cost of cover crop implementation. Final lease rental rate is \$_____/acre for the year(s) identified above.

_____ The Operator shall bear all costs.

Owner	Date
Operator	Date

Lease Addendum for conservation practices, improvements

Source: AgDM Files C2-08



- **Description of Farm:** County _____ Township ____ Section _____ Acres _____
- In consideration of the agreements herein contained, the signers agree that the **improvements listed in Section A** (below) will be completed on the above-described farm **on or before the date listed in Section B**.
- It is agreed that the signers will **share contributions and costs** necessary to the completion of these improvements as set forth in **Sections C-E**.
- It is agreed that the **estimated cost borne by the tenant** will be listed in **Section F**.
- The **years of amortization** will be listed in **Section G**.
- The **annual amortization** will be listed in **Section H**.
- The **year when the amortization begins** will be listed in **Section I**.
- If for any reason the **tenant leaves the farm** before the estimated cost borne by the tenant is fully recovered through annual use, then **the owner will pay the tenant for the remaining value of the tenant's investment (Section M)** by the date the lease terminates.

Lease Addendum for conservation practices, improvements

Source: AgDM Files C2-08

A. Type and location of improvement	B. Date to be completed	Cost of improvements and percent paid or contributed by tenant						F. Total cost borne by tenant
		C. Materials		D. Machine Work		E. Labor		$C1 \times C2 + D1 \times D2 + E1 \times E2$
		C1. Total cost	C2. % - Tenant share	D1. Total cost	D2. % - Tenant share	E1. Total cost	E2. % - Tenant share	

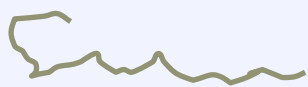

Net of cost-share

G. Years over which improvement will be amortized	H. Annual amortization (F / G)	I. Year amortization begins	J. Signatures		Use to calculate remainder after lease has ended.		
			I hereby accept the indicated values and depreciation rates.		K. Year lease ends	L. Total cost to deduct $H \times (K - I + 1)$	M. Remaining value to be repaid to tenant (F - L)
			Landowner	Tenant			

Example of Early Termination of Farm Lease with Long-Term Conservation Practice

A. Type and location of improvement	B. Date to be completed	Cost of improvements and percent paid or contributed by tenant						F. Total cost borne by tenant
		C. Materials		D. Machine Work		E. Labor		$C1 \times C2$ $+ D1 \times D2$ $+ E1 \times E2$
		C1. Total cost	C2. % - Tenant share	D1. Total cost	D2. % - Tenant share	E1. Total cost	E2. % - Tenant share	
Bioreactor (100'x30') in Home Farm (FSA#00001), draining 40 acres into Green Creek	12/1/2021	\$10,000	25%					\$2,500

➔

G. Years over which improvement will be amortized	H. Annual amortization (F / G)	I. Year amortization begins	J. Signatures I hereby accept the indicated values and depreciation rates.		Use to calculate remainder after lease has ended.		
			Landowner	Tenant	K. Year lease ends	L. Total cost to deduct $H \times (K - I + 1)$	M. Remaining value to be repaid to tenant (F - L)
10	\$250	2022			2025	\$1,000	\$1,500

➔

Thank you for your attention!

What questions do you have?

plastina@iastate.edu

<https://www2.econ.iastate.edu/faculty/plastina/>

Additional Information

- <https://www.extension.iastate.edu/agdm/wdleasing.html>
- <https://store.extension.iastate.edu/product/6492>
- <https://store.extension.iastate.edu/product/15823>
- <https://www.extension.iastate.edu/agdm/articles/plastina/PlaOct18.html>
- <https://www.extension.iastate.edu/AgDM/articles/others/SawSep20.html>
- <https://www.calt.iastate.edu/article/iowa-farm-leases-legal-review>
- <https://www.laporteswcd.org/wp-content/uploads/2020/05/Cover-Crop-Lease-Insertion.pdf>



Keegan Kult



Keegan was hired as the Executive Director of the Agricultural Drainage Management Coalition in the fall of 2018 with the goal of speeding the implementation of conservation drainage practices throughout the Midwest. ADMC is an industry led organization which has contributed to the development of best management practices such as drainage water management, saturated buffers, and bioreactors. Keegan has been a part of 30+ bioreactor or saturated buffer installations. Drainage practice research that Keegan has contributed to the science has led to the development of NRCS conservation practice standards and the inclusions of the practices in state nutrient reduction strategies. Prior to joining ADMC, Keegan spent the previous 10 years with the Iowa Soybean Association as an Environmental Scientist where he focused on the development of conservation drainage practices.



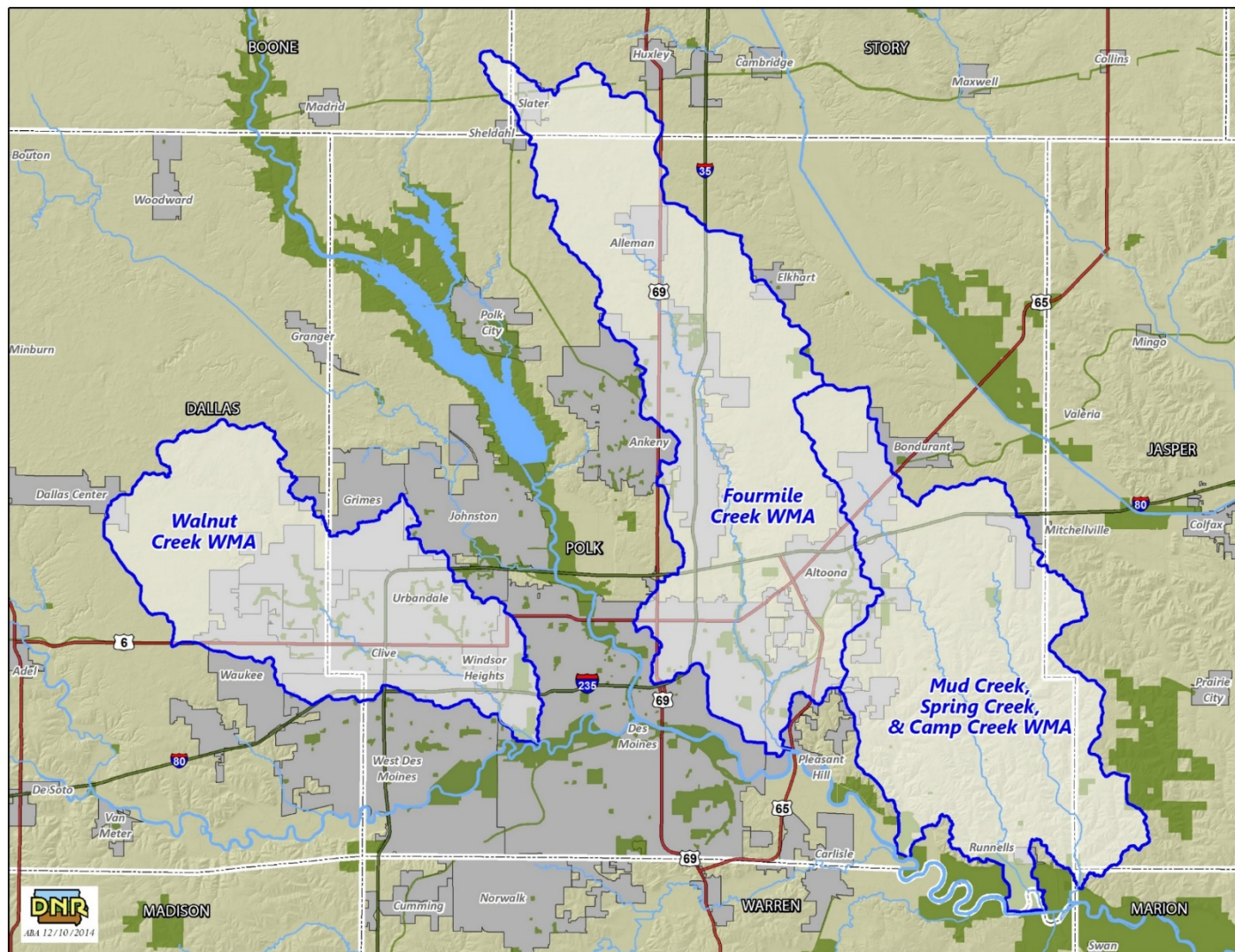


Polk County Saturated Buffer Project

Keegan Kult

Executive Director

Agricultural Drainage Management Coalition



Treating Tile Outlets in Polk County

- Water Quality Initiative Funding
- NRCS-EQIP Funding
- Traditional Cost-Share Model
 - Conservation Planning
 - Opportunity Based
- 6 Outlets Treated 2015-2019



Polk County Barriers

- Outlets lost in the conversation around other practices
- “Hassle Factor”
- Working within CRP program
- Lack of interest from contractors
- Tax issues
- Not reaching local goals



Polk County (IA) Project

Agency/Non-profit partnership to increase the rate of adoption to a rate of 25+ saturated buffer sites a year.

Framework

- Group and prioritize ACPF identified saturated buffer sites
- Direct outreach campaign
- Create demand by incentivizing participation & streamlining the process
- Recruit landowners/farmers to install multiple saturated buffers
- Utilize innovative fiscal agent model to bundle multiple sites

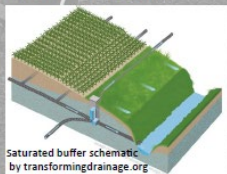
Bringing Conservation Drainage to Scale in Polk County

Project details

The Iowa Water Quality Initiative has had successful pilot projects which have demonstrated effective practices. Within the WQI, saturated buffers have been identified as one of the most cost effective methods to improve water quality. Project partners have come together to secure funding as well as technical expertise in order to see saturated buffers installed at a scale large enough to have an impact. The Polk County Project has an aggressive goal of installing a minimum of 25 saturated buffers by December of 2020.

Practice basics

Saturated buffers modify the outlet of a tile system to distribute the water below ground, through the soil profile of a buffer or grass filter strip. A tile line, typically 500-1,000 feet long, distributes the water in a buffer that is at least 30 feet wide.



- 44% average nitrate load reduction
- Minimal or no learning curve
- Doesn't require changes to current management or equipment
- Up front costs eliminate annual expenses

Landowner overview:

- 100% Cost share available for saturated buffers
- Project \$1,000 incentive payment
- Assistance with working through program sign-up
- Establish Polk County as a national leader in conservation drainage
- Be a champion in Iowa's nutrient reduction strategy

"My saturated buffer was designed by the Polk County NRCS, and installed by a local contractor. The project was a cooperative effort between neighboring landowners which does not benefit us directly, but does benefit the downstream water quality by reducing the nitrate concentration by 92%."

-Lee Tesdell, Fourmile Creek Landowner

Project partners

Agricultural Drainage Management Coalition
Farm Services Agency
Iowa Department of Agriculture and Land Stewardship
Natural Resource Conservation Service
Polk County
Polk County Soil and Water Conservation District



1513 North Ankeny Blvd Ste 3
Ankeny Iowa 50023
515.964.1883 x3
www.polk-swcd.org

Dear (mr/ms) (Blank),

The Polk Soil & Water Conservation District and local partners are currently scaling up effort to implement the Iowa Nutrient Reduction Strategy. We are focusing on practices that reduce nitrates by treating tile outlets near streams, our primary practice is saturated buffers. We are reaching out to you because we have identified a potential site on your property at (blank) based on soil types and proximity to the stream.

Through efforts of our partners, funding has been secured to provide 100% cost share for the construction of these saturated buffers. For your participation, we are offering a \$1000 incentive per tile outlet treated.

This Letter includes a map showing fields that contain potential saturated buffer sites. We have also included a document providing a brief overview of saturated buffers and the project itself.

Lead project staff:

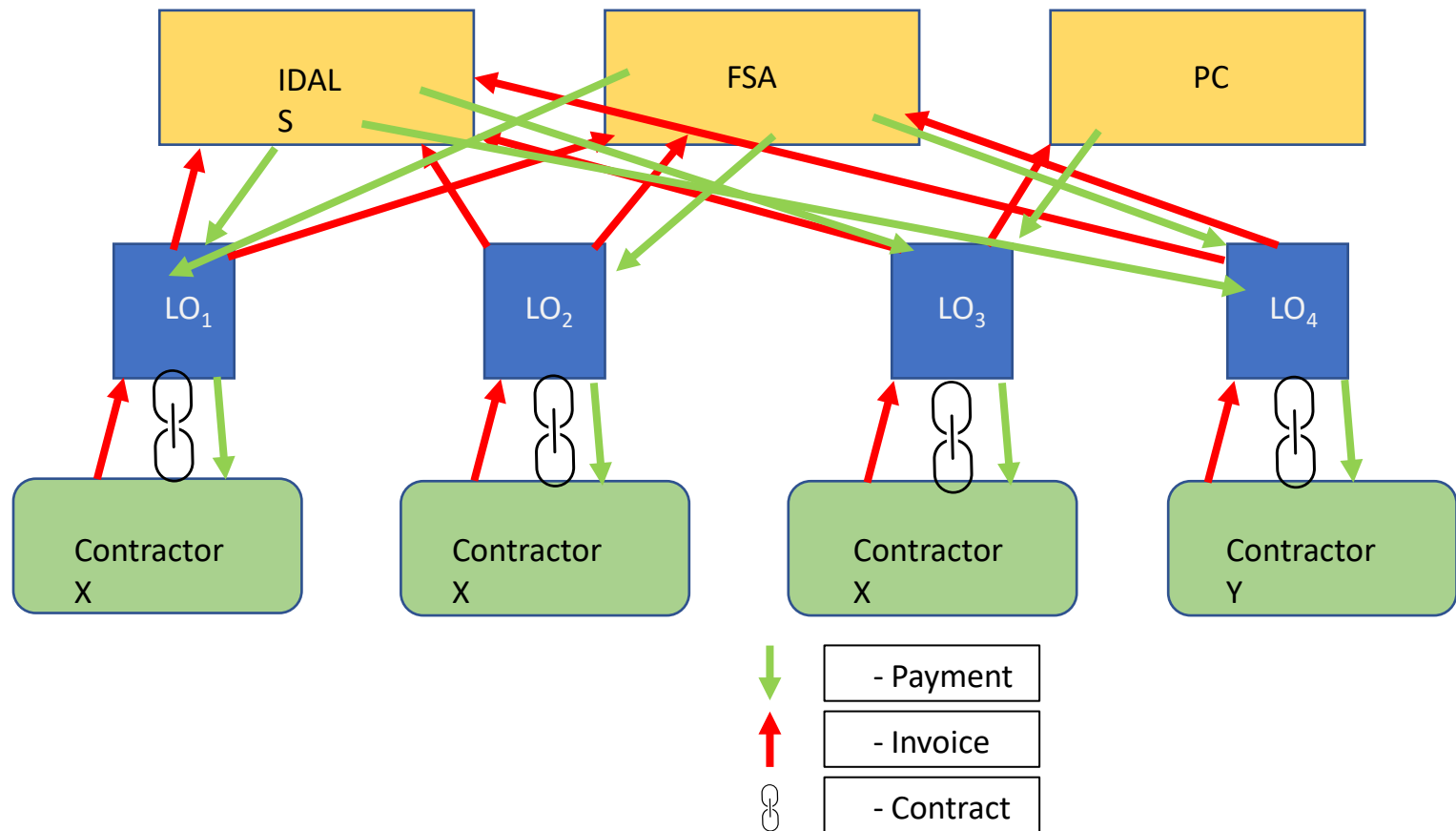
Tanner Puls- Watershed Coordinator
Polk Soil & Water Conservation District
515-964-1883 ext. 3
tanner.puls@usda.gov

Keegan Kult- Executive Director
Agricultural Drainage Management Coalition
515-291-2350
kkult@admcoalition.com

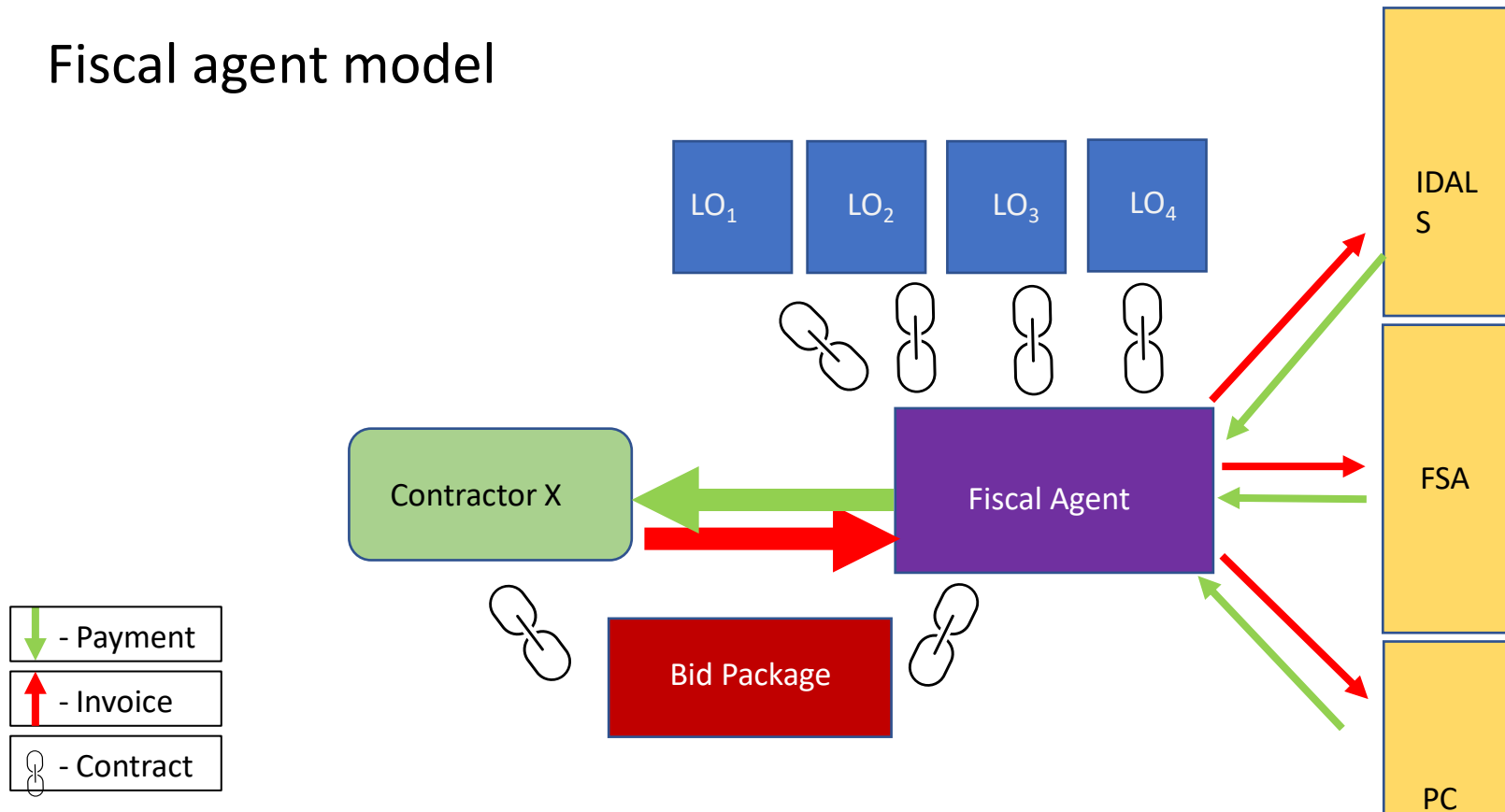
In a few days a project lead will be following up with you at (blank) to discuss this opportunity further.

Best regards

Conventional financial assistance model



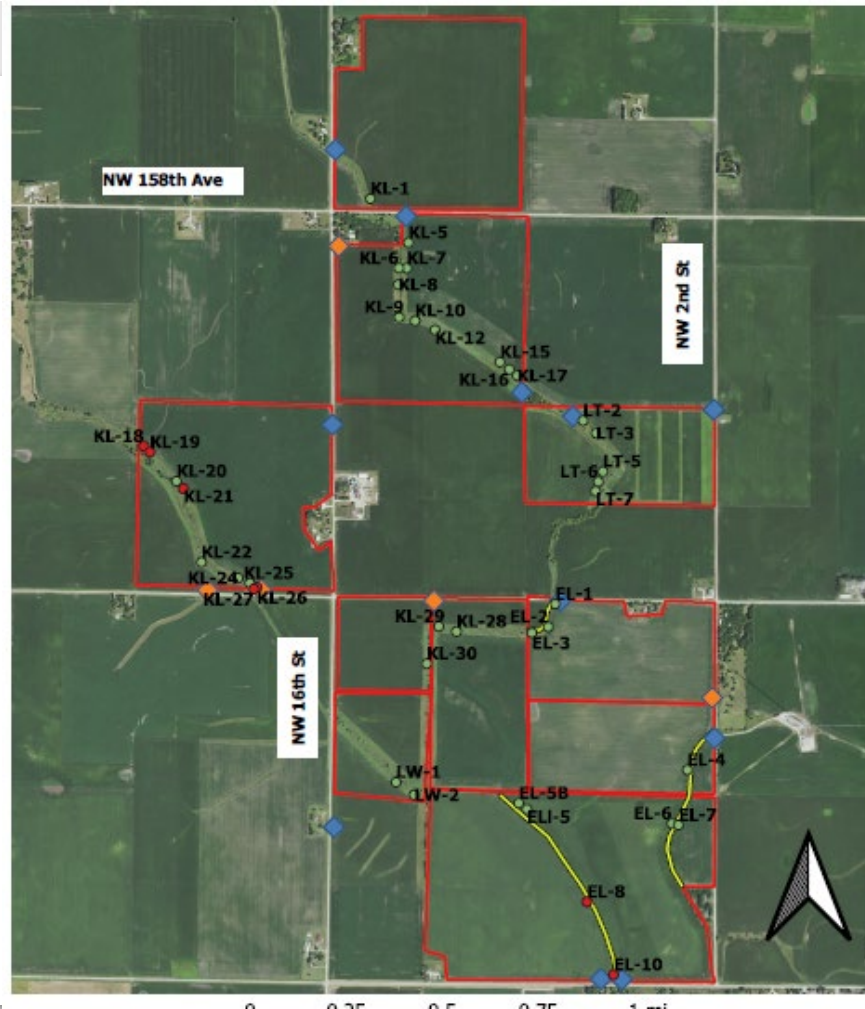
Fiscal agent model



Status

- 41 saturated buffers
- 10 bioreactors
- Access to 105 tile outlets
- Working with 15 landowners
- Bids were due April 1





Major Takeaways

- direct outreach model worked- surveyed over 120 outlets
- Survey Tactics
 - Tile Maverick, two stream cross sections, topo survey, soils sample and documentation
- Had to develop new organization tools
 - Outlet Code System, spreadsheets, soil documentation
- Coordination between designer and survey crew is crucial
 - 120 preliminary designs completed in 6 weeks
- Flexibility from funding programs was key
- New Mindset “Let’s treat every suitable outlet in each field”





Project Partners


- ADMC
- FSA
- IDALS
- NRCS
- Polk County
- Polk SWCD

ADMC
Agricultural Drainage Management
Coalition

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www.admcoalition.com

Interact with ADMC

- Email kkult@admcoalition.com
-  @admcoalition
- Become a member <https://admcoalition.com/join-admc/>
- Visit our website www.admcoalition.com
- Sign-up for the Conservation Drainage Weekly
- Thank you!



Question and Answer Session

We will draw initial questions and comments from those submitted via the chat box during the presentations.

Today's Speakers

Ricardo Costa – costasil@msu.edu

Alejandro Plastina – plastina@iastate.edu

Keegan Kult – kkult@admcoalition.com





NORTH CENTRAL REGION
WATER NETWORK



Thank you for participating in today's *The Current*!

Visit our website, northcentralwater.org, to access the recording and our webinar archive!

Upcoming webinar from our soil health team, The Soil Health Nexus:

Pathway to Resilient Soils to Achieve Optimum Productivity and Environmental Quality featuring Dr. Jerry Hatfield

Next Wednesday, May 19 at 2pm CT

<https://soilhealthnexus.org/>

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