

Materials will be available at: www.eesi.org/062123farmbill
Tweet about the briefing: #eesitalk @eesionline

Conservation Practices from Farms to Forests and Wetlands

About EESI



- Non-partisan Educational Resources for Policymakers
 - A bipartisan Congressional caucus founded EESI in 1984 to provide non-partisan information on environmental, energy, and climate policies
- Direct Assistance for Equitable and Inclusive Financing Program
 - In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop "on-bill financing" programs
- Commitment to Diversity, Equity, Inclusion, and Justice
 - We recognize that systemic barriers impede fair environmental, energy, and climate policies and limit the full participation of Black, Indigenous, people of color, and legacy and frontline communities in decision-making
- Sustainable Solutions
 - Our mission is to advance science-based solutions for climate change, energy, and environmental challenges in order to achieve our vision of a sustainable, resilient, and equitable world.

Policymaker Education



Briefings and Webcasts

Live, in-person and online public briefings, archived webcasts, and written summaries

Climate Change Solutions

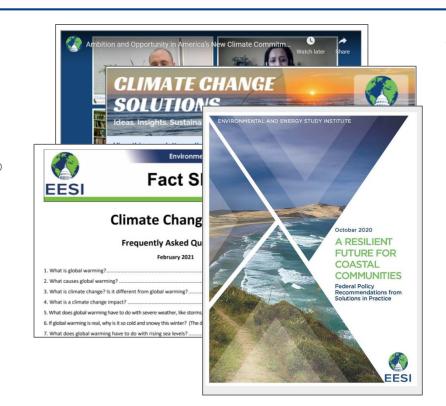
Bi-weekly newsletter with everything policymakers and concerned citizens need to know, including a legislation and hearings tracker

Fact Sheets and Issue Briefs

Timely, objective coverage of environmental, clean energy, and climate change topics

Social Media (@EESIOnline)

Active engagement on Twitter, Facebook, LinkedIn, and YouTube



EESI Farm Bill Resources





- Congressional briefings
- Articles and podcasts
- Climate Change Solutions newsletter special editions
- Farm Bill hearing tracker
- Legislative side-by-sides

All resources available at: www.eesi.org/2023-farm-bill

Briefing Series: Farm Bill in Focus



Every Other Wednesday

The Process and Path Forward for Passing a Bipartisan Farm Bill | Recording Available

Climate, Energy, and Economic Win-Wins in the Farm Bill | Recording Available

Unlocking Rural Economies: Farm Bill Investments in Rural America | Recording Available

The Future of Forestry in the Farm Bill | Recording Available

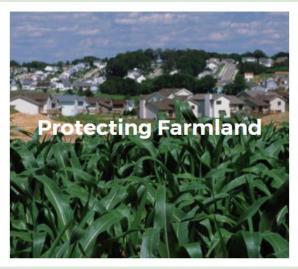
Conservation Practices from Farms to Forests and Wetlands | June 21, 2:00-3:30 PM EDT



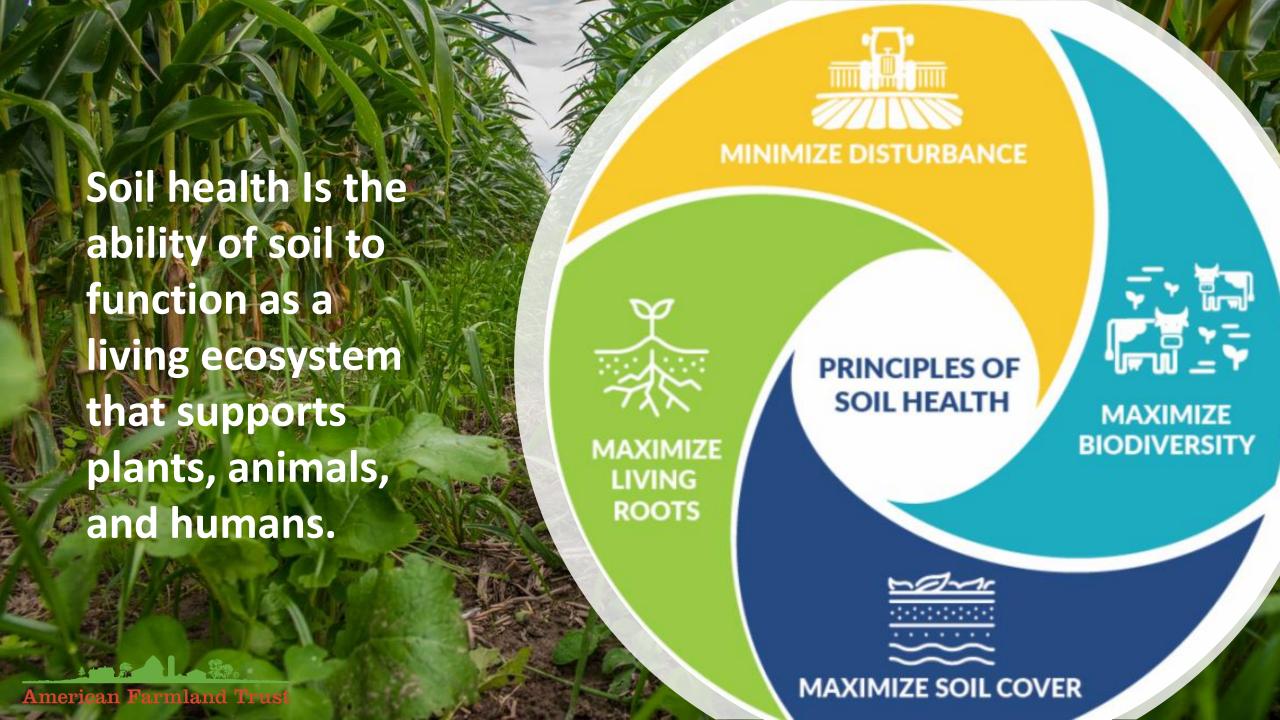
American Farmland Trust's Mission: to Save the Land that Sustains us

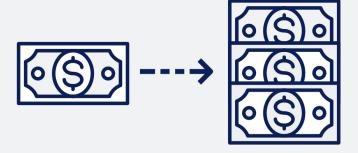






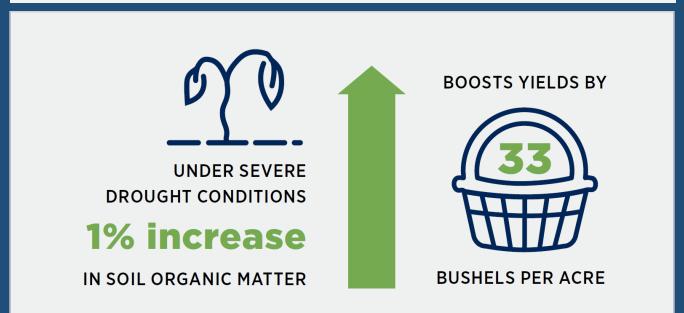






ADOPTING SOIL HEALTH PRACTICES CAN INCREASE YIELD AND REDUCE INPUT COSTS, LEADING TO A RETURN ON INVESTMENT OF

\$3 for every \$1 spent

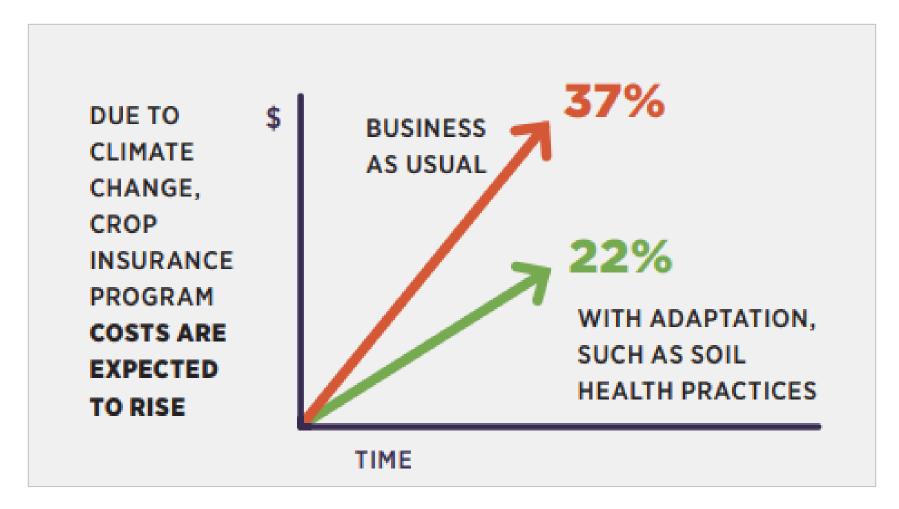




Sources: AFT Soil Health Case Studies and D.A. Kane et al, "Soil organic matter protects US maize yields and lowers crop insurance payouts under drought," 2021.



Improved Soil Health Will Save Taxpayer Dollars





6% Acres Planted with **Cover Crops** Only 6% of Eligible Acres were Planted with Cover 94% Crops in 2017 Acres Left Bare Source: USDA 2017 Census of Agriculture American Farmland Trust

Barriers to Adopting Conservation Practices



Cost



Risk



Information



Cultural



Land Tenure









Conservation Programs Provide a Solid Foundation to Build on



Natural Resources Conservation Service



Title II: The "Big Five" Conservation Programs

Conservation Reserve Program (CRP) – Rental payments for temporarily taking land out of production

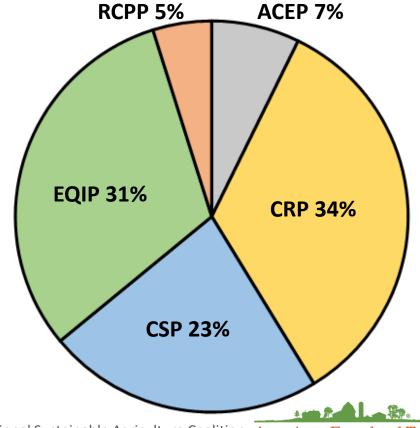
Environmental Quality Incentives Program (EQIP) – Generally 1 to 3-year contracts to implement conservation practices

Conservation Stewardship Program (CSP) – Up to 5-year contracts to maintain whole-farm conservation practices

Agricultural Conservation Easement Program (ACEP) – Permanent conservation easements to protect farms and wetlands from development

Regional Conservation Partnership Program (RCPP) – Conservation projects on a watershed or regional scale

Relative Funding for 10-year Baseline



Source: National Sustainable Agriculture Coalition American Farmland Trust

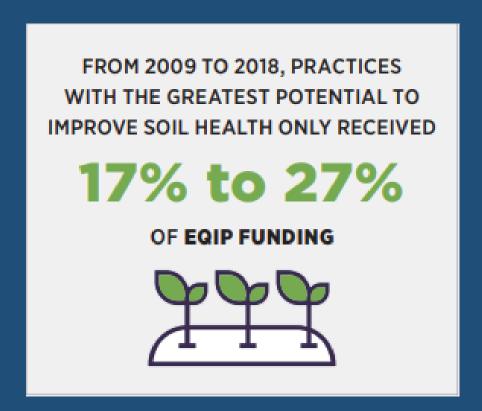
Strengths and Areas for Improvement

Locally-implemented with well-vetted science-based standards

Highly oversubscribed, lengthy application processes, gaps in support, equity challenges, limited room for innovation







C. Day and M. Happ, "Closed Out: How U.S. Farmers are Denied Access to Conservation Programs." 2021.

A. Basche et al, "Evaluating the Untapped Potential of U.S. Conservation Investments to Improve Soil and Environmental Health." 2020.





Increase Long-Term Adoption of Soil Health and Climate Smart Practices

Make NRCS Programs more Accessible

Bolster Farmer to Farmer Learning Networks





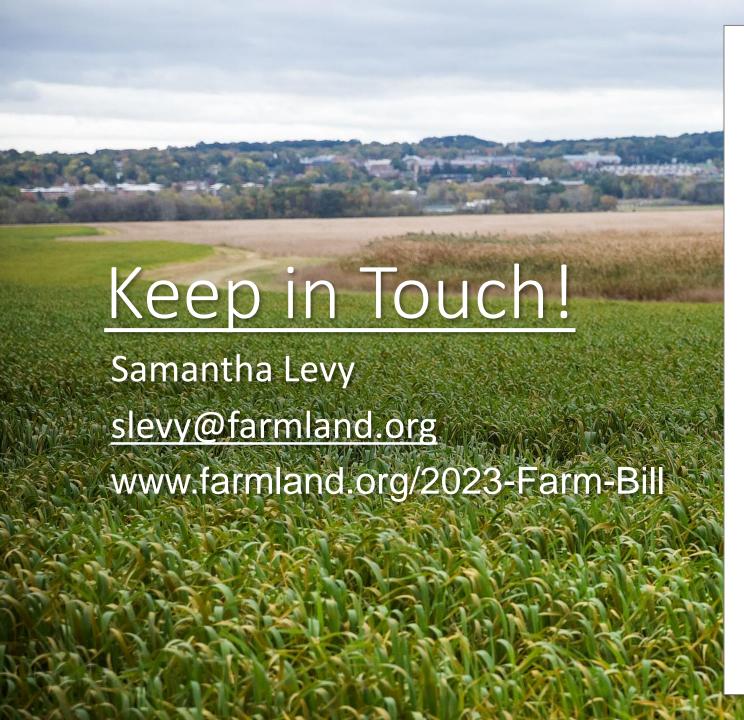


Create a Farm Bill Program that Provides Match to Build up State and Tribal Soil Health Programs











Building Resilience in a Changing World

AFT'S 2023 FARM BILL RECOMMENDATIONS

American Farmland Trust (AFT) has a **vision for the future of agriculture**: our best agricultural land remains available for production; farmers and ranchers operate thriving businesses that support vibrant rural communities; our food system is resilient to shocks and produces abundant, healthy, affordable food; agriculture reflects the diversity of our nation, with greater numbers of young, beginning, and historically marginalized farmers; and producers are recognized and rewarded not just for the food, feed, fiber, and fuel they produce, but also for the environmental benefits they provide. This future is possible, but there are many challenges to overcome.

Farmland loss threatens the future of American agriculture. From 2001–2016, 11 million acres of agricultural land were paved over, fragmented, or converted to uses that jeopardize agriculture. New AFT research indicates that the U.S. is projected to lose an additional 18.4 million acres by 2040. Once this finite resource is developed, it never returns to farming.





OF FARMLAND IS EXPECTED TO CHANGE HANDS BY 2035 With agricultural land at record prices—and steep competition from

developers, investors, and established farmers—many young, beginning, and historically marginalized producers struggle with land access, whether purchased or rented. At the same time, many senior farmers and farmland owners have no successor. Some may need to sell land to finance their retirement; others will pass land to heirs who are not interested in farming in order to avoid tax liabilities. With the current generation of farmers nearing

retirement, our food system depends upon a new generation taking the reins.

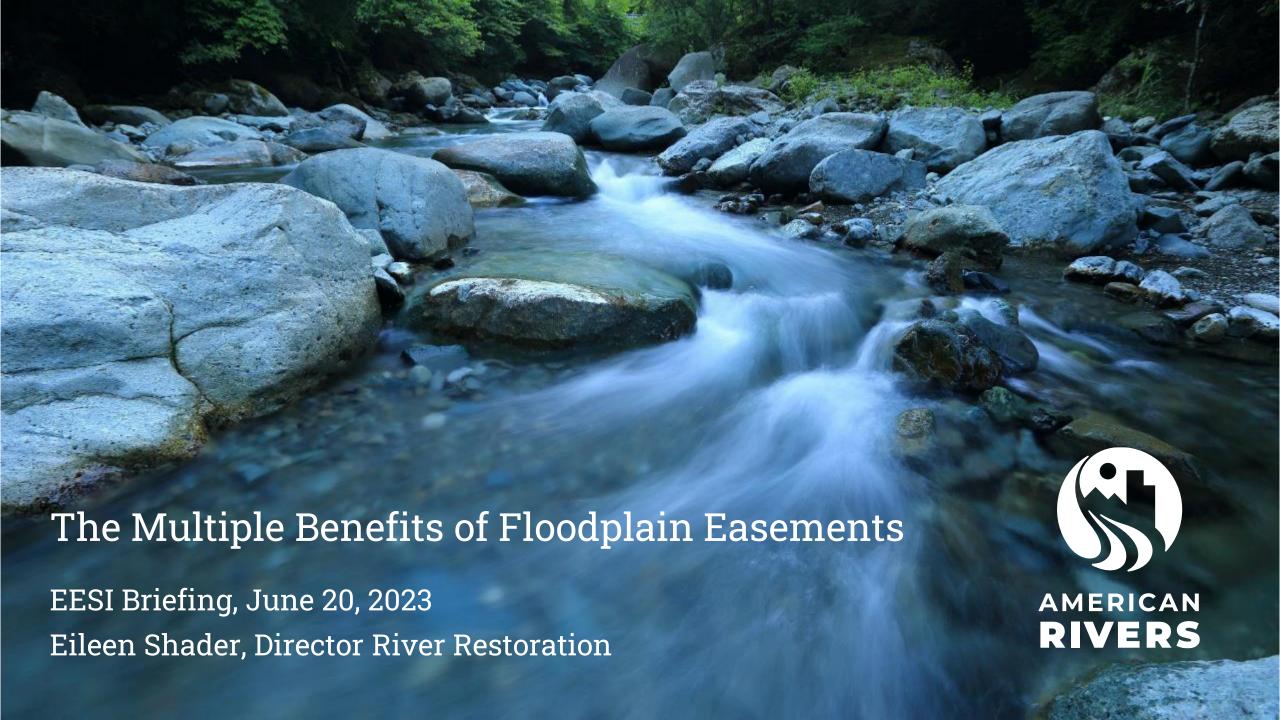
Many farms and ranches, especially small and mid-sized, struggle with profitability. With thin margins, supply chain and pandemic-related disruptions, and other issues, farmers must continually fine-tune their business models to develop resilient operations.

Climate change is bringing higher temperatures, unpredictable seasons, flooding, drought, and wildfires, and is causing farmland loss due to sea level rise and other factors. This is making the weather-dependent business of farming more difficult, and is expected to worsen without immediate action to reduce emissions and



sequester carbon. Currently, the conservation practices needed to address climate change, while also improving water quality and soil health, are only used on a small portion of farms. For example, only 5% of cropland acres were planted with cover crops in 2017.

The 2023 Farm Bill is our best chance to help more farmers and ranchers permanently protect their land, establish secure land tenure, create viable businesses, and adopt climate-smart practices. AFT has four decades of experience shaping federal policy, and the following Farm Bill recommendations—developed with input from over 300 farmers, ranchers, non-profit leaders, and other stakeholders through 16 workshops held across the nation—will help us realize the vision of a resilient, just, and sustainable future.









American Rivers restores damaged rivers, protects wild rivers, and conserves clean water for people and nature.

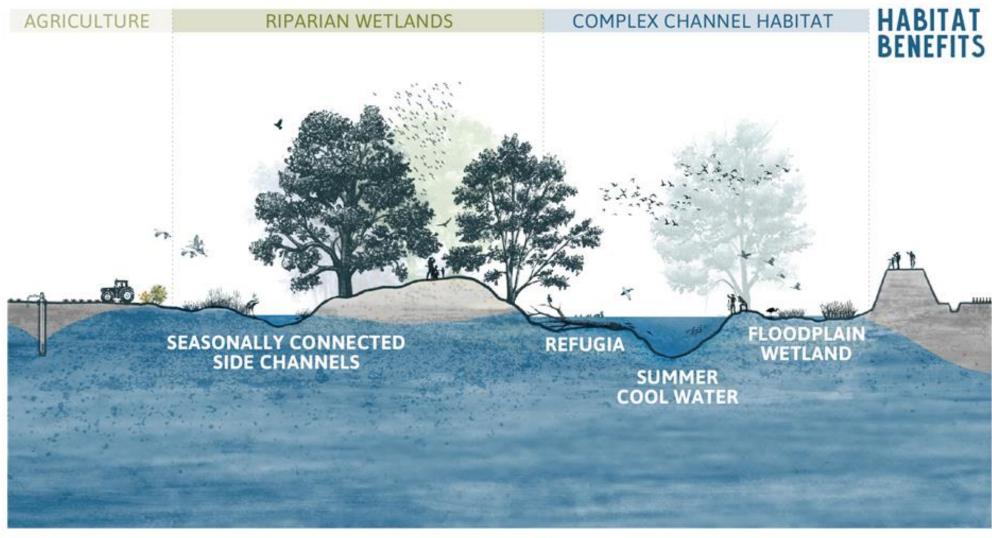




The Multiple Benefits of Floodplain Easements

www.americanrivers.org/floodplaineasements











CLIMATE MITIGATION with carbon storage



RECREATIONAL fishing + hunting







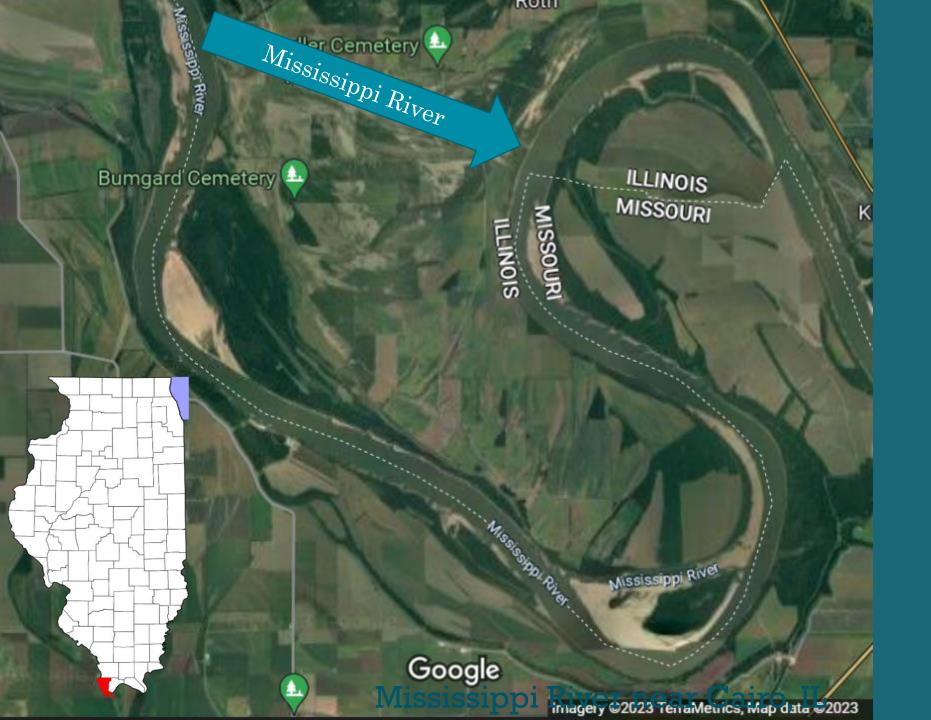


ECONOMIC DIVERSITY with eco-tourism





IMPROVED water quality



Dogtooth Bend Timeline:

1993: Levee breach

2011: Levee breach

2015/16: Levee

breach

2016: USACE decides not to repair the levee





Limited
Options for
Farmers
dealing with
flood-prone
land:

- Wetland Reserve Program?
- Floodplain Easements?



In the Upper Mississippi River Basin

Over the last decade

2,512

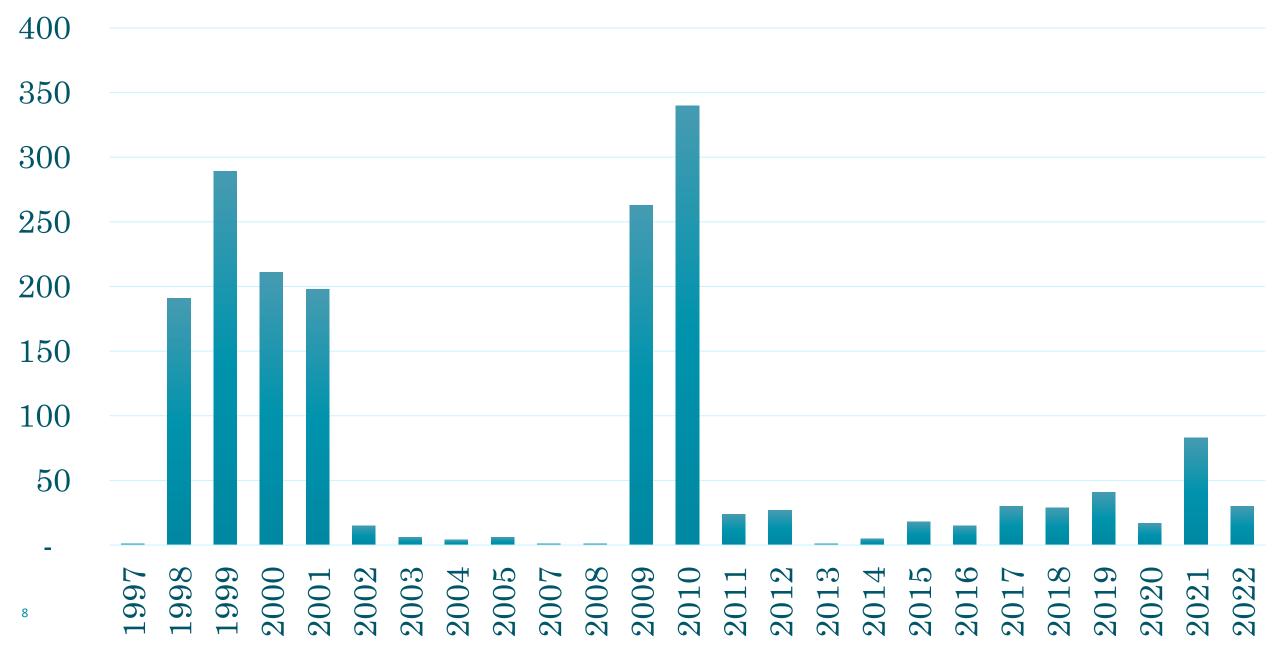
Agricultural disasters due to flooding

1

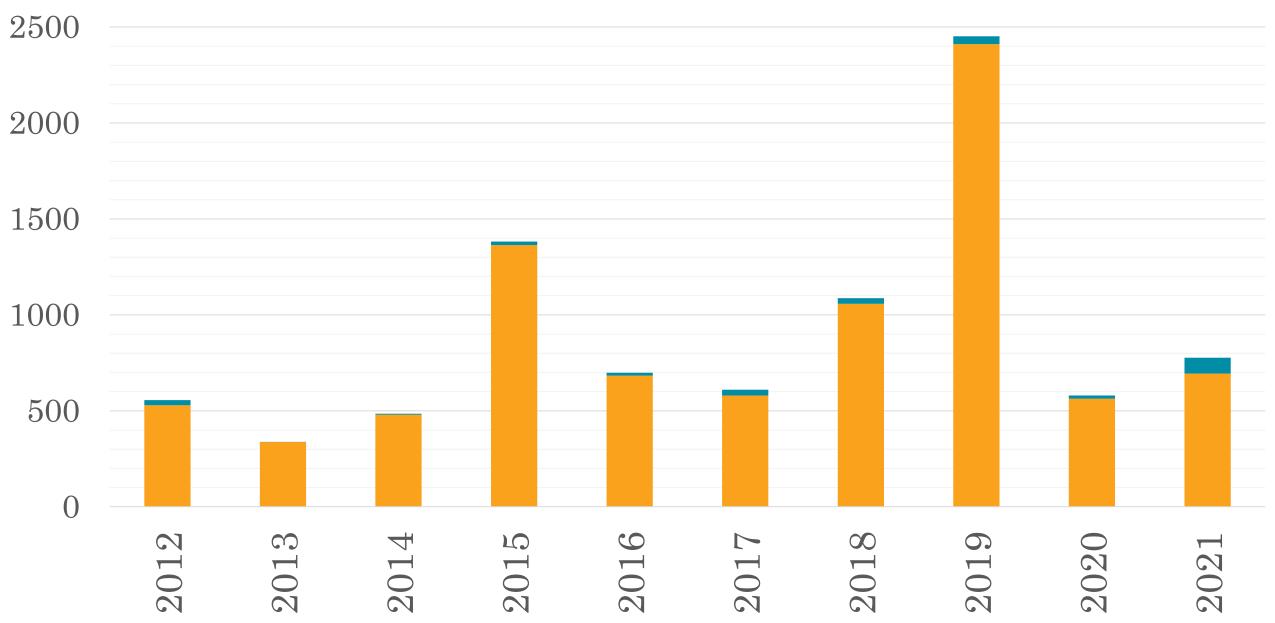
Number of times Congress has funded Floodplain Easements



Count of EWPP-Floodplain Easements Enrolled by Fiscal Year (All States)



- Number of Floodplain Easements Enrolled
- Number of Agricultural Disasters due to Flooding



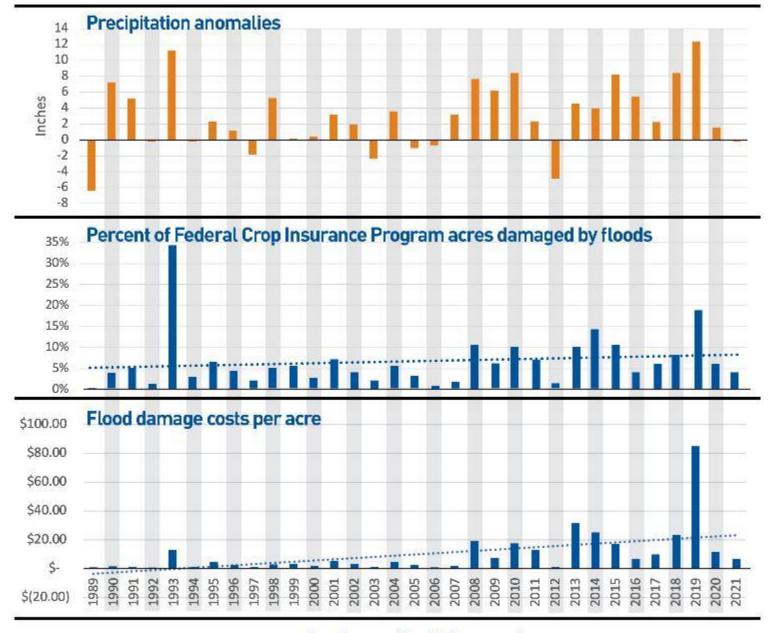
Farmer Requests for Floodplain Easements Greatly Exceed Awards in the Upper Mississippi River Basin

State	Total Applicants	Total Offered Acres	Awarded Applicants	Awarded Acres
Iowa	1,127	115,635	76	9,101
Illinois	362	10,829	30	4,685
Minnesota	44	3,376	7	4,846
Missouri	325	45,010	45	6,717
Wisconsin	352	24,193	54	6,365
Total	2,210	199,043	212	31,714

^{*} Data provided by NRCS from each state.

www.americanrivers.org/floodplaineasements

Agricultural Flood Damages are Escalating in the Upper Mississippi River Basin



Flooding is more frequent and more expensive.



Upper Mississippi River agricultural producers are particularly hard hit by flooding

American Rivers Study

TABLE 2: The UMRB sees more damages from flooding and excess rain/moisture than most other states for farmers enrolled in the Federal Crop Insurance program (USDA Risk Management Agency 2022).

10-Year Total Acres Damaged by Flood and Excess Rain/Moisture (millions of acres).		10-Year Total Flood & Excess Rain/Moisture Damage Subsidies (Indemnities minus Producer Paid Premium). Adjusted for Inflation.	
1. North Dakota	16.6	1. North Dakota	\$2.8 Billion
2. Minnesota	16.2	2. Minnesota	\$2.5 Billion
3. Illinois	16.6	3. South Dakota	\$1.7 Billion
4. Missouri	13.8	4. Iowa	\$1.7 Billion
5. lowa	12.2	5. Missouri	\$1.5 Billion
		6. Illinois	\$1.5 Billion
15. Wisconsin	4.1	14. Wisconsin	\$688 Million

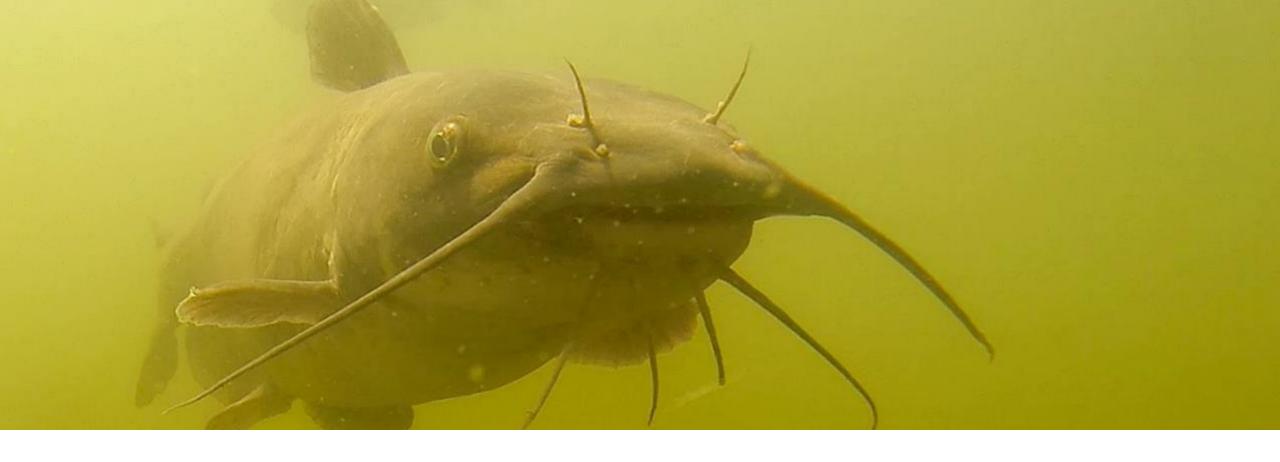


Flooding is costing Taxpayers Billions

Flooding is more widespread than drought

Cause of Loss	Total Indemnities (CPI-Adjusted)	Subsidy (CPI-Adjusted)	Cumulative Acres Impacted
10-Year Total: Flood	\$8 Billion	\$7 Billion	61.6 Million
10-Year Total: Drought	\$10 Billion	\$9 Billion	50.6 Million





It's not just about avoiding costs

Conservation easements on floodplains provide a lot of other benefits



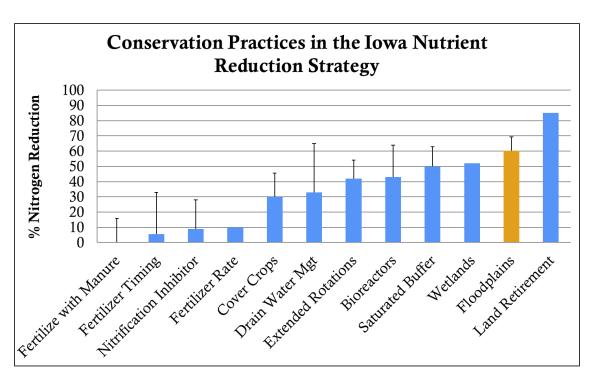
Healthy Floodplains Increase Flood Water Storage

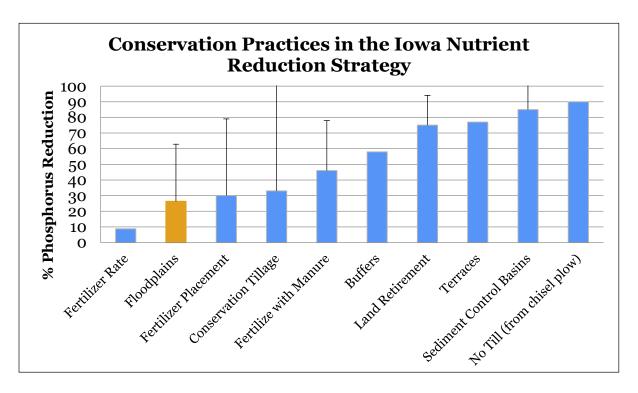
Wetlands can store 1 to 1.5 million gallons of water per acre

That's the equivalent of a football field-sized swimming pool, 10-feet deep



Healthy Floodplains Help Us Meet Nutrient Pollution Reduction Goals

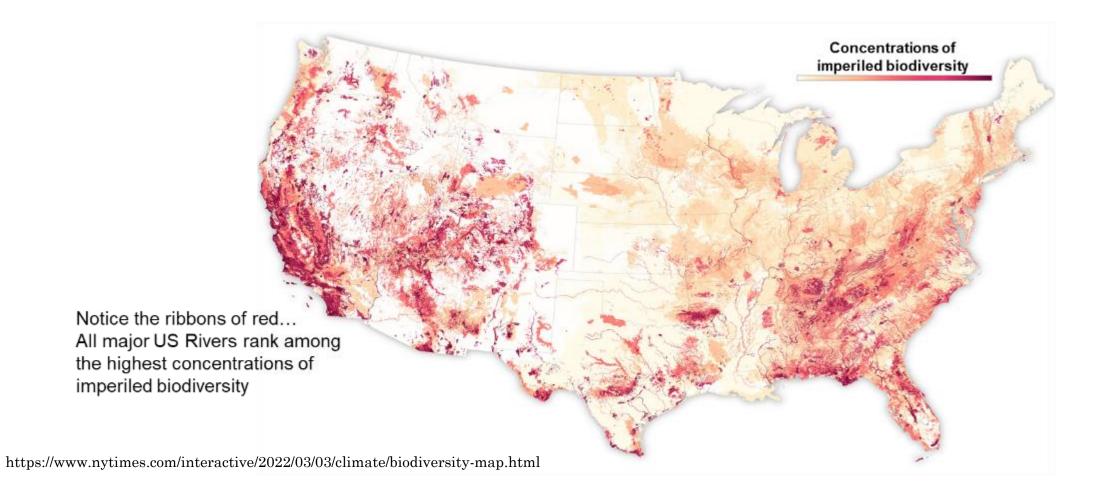




https://www.mdpi.com/2073-4441/12/10/2762



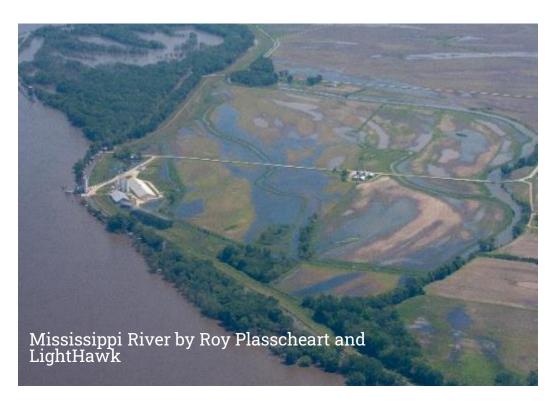
Healthy Floodplains Will Protect Species Most at Risk of Extinction





Recommendations to enhance the Floodplain Easement Program

Conservation goals outlined in the EWPP-FPE are good, in general.



- Move into Agricultural Conservation Easement Program and fund annually
- Annual enrollment opportunity for floodplain easements
- Prioritize repetitive loss properties



Eileen Shader, <u>eshader@americanrivers.org</u> www.americanrivers.org/floodplaineasements

Life Depends on Rivers



Conservation Practices in Farms and Agroecological Projects in Puerto Rico

Agro. Paola I. Bonilla Carrero, MSc

Hispanic Access Foundation

Sustainable Agriculture or Agroecology

- The integration of multiple disciplines and schools of thought
- Honoring ancestral and campesino knowledge
- Considers the elements of the farm as a unit with dynamically connected parts
- Prioritizes long-term economic viability, conservation, and social equity
- Food security ≠ food sovereignty
- Works with nature, not against it



La Colmena Brava. Model Huerto as part of the Josco Bravo Educational Project. Isabela, P.R. 2023

Examples of conservations practices in agroecological farming

- Mimics natural ecosystems: more diverse and resilient systems
- Integrations of local plant varieties and cover crops
- Less external inputs
- Increases the use of organic matter
- Adequate and sustainable water management
- Reintegration of livestock
- Adaptation to shifting weather patterns

Farms and agroecological projects in Puerto Rico

Finca el Timón, Lares, P.R.

- Reintegration of livestock native breed India Criolla
 - can withstand temperature and consume native grasses
 - Dual purpose breeds: more efficient
- Cattle ploughing while fertilizing the soil
- Animal husbandry aids in the composting process
- Grazing rotations
- Conscious tree clearing
- Silvopasture





Finca el Timon. Cattle ploughing with India Criolla. 2021. Instagram

Finca Plenitud, Las Marias, P.R.

- Educational non-profit project
- Permaculture focused
- Passive water management systems:
 contour farming
- Terraces following an agroforestry approach
- Dissipate aggressive irrigation and protection of topsoil
- Reduces runoff and flooding



plenitudpr. Maximizando el uso del agua. Instagram. 2023

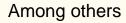
Farms and USDA Conservation Programs

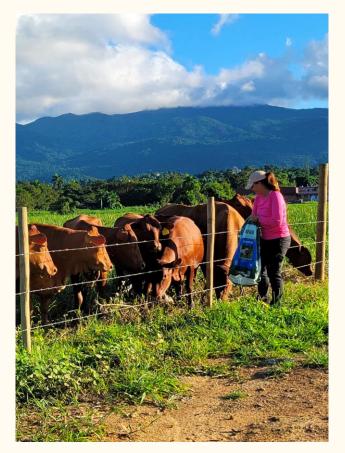
Las Finqueras, Corp., Río Grande, P.R.

- Puerto Rican agribusiness dedicated to raising beef cattle
- Founded by women
- High quality meat with consideration of animal well-being and natural resources

USDA-NRCS Conservation Programs:

- Tree-Shrub Site Preparation for shade
- Prescribed Grazing
- Forage and Biomass Planting to improve pastures the current one has low nutritional value and palatability





Senepol breed is tolerant to heat. Rio Grande, P.R. 2023

Proyecto Agroecológico El Josco Bravo, Toa Alta, P.R.

- Agroecological education and farming project
- Crops, meat, and milk production and sustainable water management systems
- Agroecological promoters course over the last 10 years
- Produced over 21,000 lb of food in 2021

USDA NRCS Conservation Programs and Classification:

- Primer Farm Land (less than 5% of the world)
- High Tunnel Initiative
 - Impermeable structure
 - Protects from inclement weather
 - Offers stability to the crops
 - Allows crop varieties during different seasons



Valle de Bucarabones, Reserva Agroecológica, Rio Grande, P.R. Source: Facebook: Proyecto Agroecologico El Josco Bravo

Challenges in agroecological farming applicability

- → Public policy
- → Applicability in universities
- → Distribution and marketing
- → Consumption of processed food vs fresh food
- → A need to promote seasonal consumption
- → Subsidizing farmers

In Puerto Rico:

- → Land Access
 - ♦ Autoridad de Tierras
 - Displacement and gentrification
- → Austerity measures
 - Jones Act

- Conservation practices in farming include many different people and needs
- Producers and farmers need educational and technical assistance
- Make conservation programs more accessible to all type of farmers
- Prioritize small-scale regional production over mass production and importation

Agroecology is not an idea or a concept, it is an applicable and effective practice to feed our communities and protect our natural resources.

USDA Conservation and Tribal Engagement





Tribal Perspective

- OAmerican Indian Historical Perspective
 - 1. Manifest Destiny
 - 2. Discovery, Conquest and Treaty-Making (1532-1828)
 - 3. Removal and Relocation (1828-1887)
 - 4. Allotment and Assimilation (1887-1928)
 - 5. Reorganization and Self-Government (1928-1945)
 - 6. Termination (1945-1961)
 - 7. Self-Determination (1961-Present)

Federal Responsibility and Power over Indian Affairs

- 1. Roots of Federal Responsibility
- 2. The Sources of Federal Power

The Process - Our approach to Tribal Conservation discussion

• Phase 1

1:1 Engagement

Tribes are key to the success of Conservation efforts in the United States.

Initiate a conversation among a small group of Tribal Leaders & Tribal Technical Experts

Listen

• Phase 2

Comments & Feedback

Tribes are key to the success of conservation efforts in the United States.

Initiate a conversation among a small group of Tribal Leaders & Tribal Technical Experts

Listen

• Phase 3

Next Steps

Tribes are key to the success of Conservation efforts in the United States.

Initiate a conversation among a small group of Tribal Leaders & Tribal Technical Experts

Listen

Tribal Communities to discuss the following topics:

- To learn the purpose and process of Public Lands Conservation efforts
- To learn from one another and learn from Tribes what they see as opportunities to collaborate on protecting lands and other natural resources that are important to Tribes and to NGO's
- To emphasize the significance of Tribal involvement going forward in Conservation efforts and convey ways Tribes can be involved and stay connected
- Strengthen tribal engagement, consultation, capacity building, implementation, and process to ensure Conservation efforts are responsive and engaging with Tribal Communities.
- What should Tribes expect to be engaged with NGO's, Conservation community and Advocacy groups in helping shape the planning process that will be used to develop the management plans for Conservation efforts
- Tribes need assistance in Funding, Technical Assistance, Training and Capacity Building to address all of the asks of NGO's conservation goals and efforts

Words of Wisdom

"Our communities deserve fresh air to breathe, clean water to drink, and a livable planet, but right now inaction on climate change is putting everything at risk, particularly in communities of color."

Rep. Haaland, Vice Chair of the House Natural Resources Committee, (February 7, 2020).

"It was definitely an honor to be representing Mojave in that moment, but his knowledge of Avi Kwa Ame and talking about it as soon as he walked up... there was no need for reminder there, he knew exactly what was taking place," he said on "ICT News with Aliyah Chavez."

Avi Kwa Ame, also known colloquially as Spirit Mountain, is a 450,000-acre site about 80 miles south of Las Vegas located between Lake Mead National Recreation Area and the Nevada and California border.

Williams said Avi Kwa Ame is the place of the Mojave people's creation and spiritual connection as well for the nine other Yuman-speaking tribes along the Colorado River, as well as the Hopi and Chemehuevi Paiute tribes.

USDA Resources and Conservation Programs

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is NRCS' flagship conservation program that helps farmers, ranchers and forest landowners integrate conservation into working lands.

PROGRAM

Conservation Innovation Grants

Conservation Innovation Grants (CIG) is a competitive program that supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands.

PROGRAM

Conservation Stewardship Program

The Conservation Stewardship Program (CSP) helps you build on your existing conservation efforts while strengthening your operation.

USDA Resources and Conservation Programs cont.

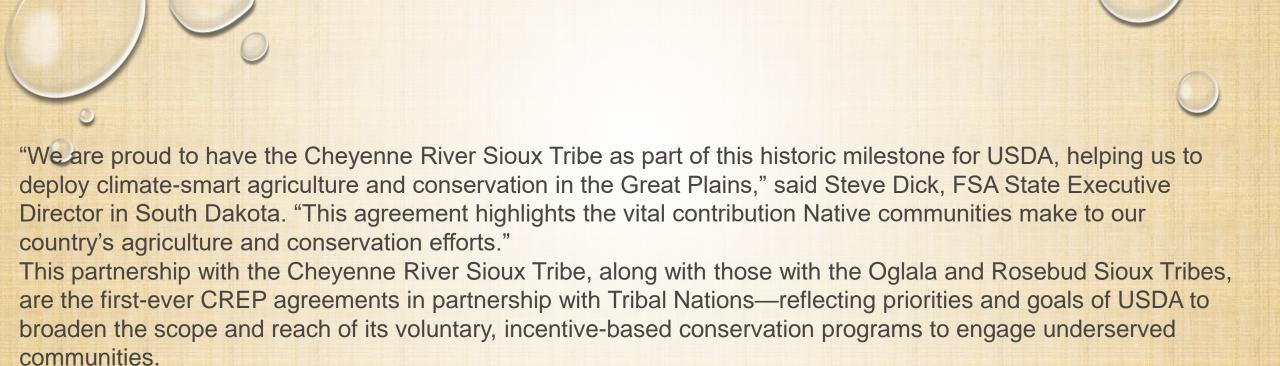
NRCS and American Indians share a common interest in conserving and managing the natural resources of our earth. To help meet our goal of providing high quality conservation products and services to American Indian operators, offices are located on both the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe located in southwestern Colorado. NRCS is committed to providing assistance to American Indian producers and tribes in planning for and managing natural resources.

The Agriculture Improvement Act of 2018 (2018 Farm Bill) includes provisions that address the unique circumstances and concerns of socially disadvantaged, beginning, limited resource, and veteran farmers and ranchers ("historically underserved producers"). The 2018 Farm Bill provides for voluntary participation, offers incentives, and focuses on equity in accessing U.S. Department of Agriculture (USDA) programs and services.

USDA and Cheyenne River Sioux Tribe Enters Historic Conservation Reserve Enhancement Program Agreement to Support Working Lands Conservation

CREP Provides Critical Support to Landowners for Sound Conservation Practices

HURON, S.D., April 14, 2023— The Cheyenne River Sioux Tribe is partnering with the U.S. Department of Agriculture (USDA) to help conserve, maintain and improve grassland productivity, reduce soil erosion, and enhance wildlife habitat through the Conservation Reserve Enhancement Program (CREP). It is one of three Tribal Nations in the Great Plains to enter CREP agreements with USDA's Farm Service Agency (FSA) to enroll eligible grassland, pastureland, and other agricultural lands within the boundaries of their reservations in this conservation program. The Oglala and Rosebud Sioux Tribes finalized their CREP agreements last November.





Onoo Postrategies

Bennae Calac
President/Owner
760 617-2872
Bcalac@onoopostrategies.com



What did you think of the briefing?

Please take 2 minutes to let us know at: www.eesi.org/survey

Materials will be available at: www.eesi.org/062123farmbill

Tweet about the briefing: #eesitalk @eesionline