

September 8, 2022



Mark O'Leary Client Solutions Manager | Ecologist



Introduction and Background

Goals and Vision

Stakeholders

Project Prioritization

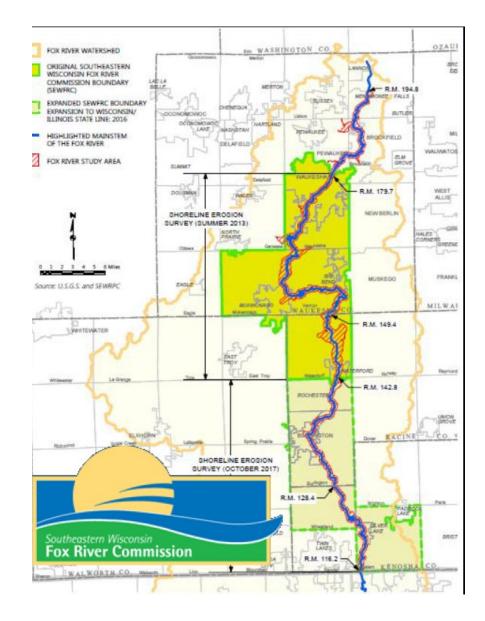
Funding

Next steps



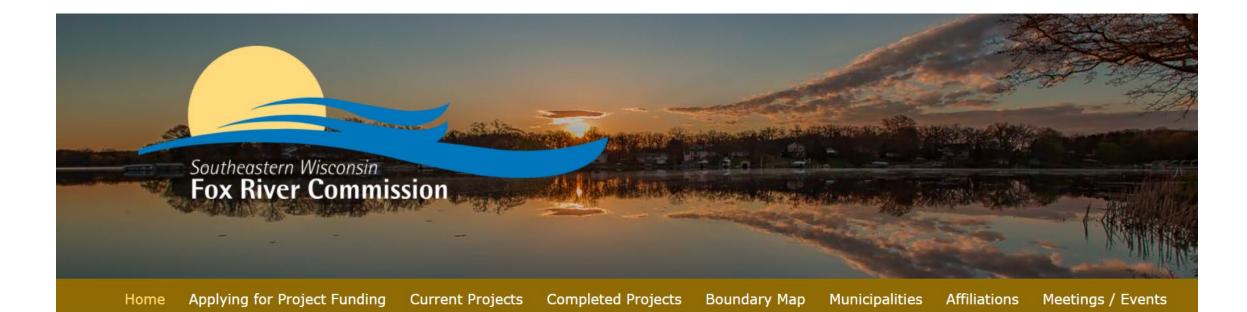
Southeast Fox Illinois River Basin

- 500,000 souls (about 9% of Wisconsin population)
- Drains about 934 square miles in Wisconsin
- LULC: 13% wetland, 10% woodland, rest ag and urban
- 187,000 pounds of P and 1.4M tons of sediment discharged annually from NPS. Bank erosion,
- Mainstem and larger tributaries 303(d) listed for degraded biological communities, turbidity, low DO
- No major municipalities or corporate stakeholders to provide financial match or leadership





Southeastern Wisconsin Fox River Commission



WHO IS THE SEWFRC?

The Southeastern Wisconsin Fox River Commission (SEWFRC) was established in 1997 by Wisconsin Act 27 (1997 - 1999 Budget Bill) in response to citizen and community concerns over water resource problems in the Fox River system. Under the 1997 Wisconsin Act 27, the SEWFRC was given the authority to carry out a number of programs and measures designed to improve water resource conditions in the Fox River system within the identified planning area.

The area of jurisdiction for the SEWFRC consists of the tributary drainage area to the 63.5-mile-long reach of the Fox River between the Illinois border and the northern limits of the City of Waukesha north of Moreland Boulevard. The tributary drainage area for the implementation planning area is 267 square miles.

The Southeastern Wisconsin Regional Planning Commission was charged with developing an Implementation Plan on behalf of the SEWFRC in 1997. The plan was adopted in March 1998, updated in September 2011 and still serves as a dynamic guide in assisting the Commission to conduct its work.

Stakeholders

NGOs

SEWRPC/SE Fox River Partnership Fox River CAUSE (Citizens Against Underwater Sediment and Erosion) Friends of Mukwonago River Pewaukee River Partnership The Nature Conservancy SENO K/RLT Land Trust Conservancy Farmer-led watershed groups Donnelly Foundation Mott Foundation

Governmental WisDOT Racine County Kenosha County Waukesha County City of Waukesha Town of Mukwonago Town of Waterford Town of Wheatland Village of Mukwonago Village of Waterford Racine County City of Burlington Town of Burlington Town of Vernon Town of Waukesha

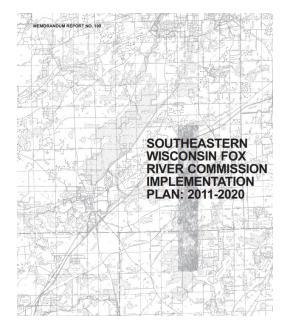
Village of Big Bend
Village of Rochester
Village of Salem Lakes
Wisconsin DNR
Waukesha County Land
Conservancy
State Rep. Chuck Wichgers

Academic

University of Wisconsin-Madison University of Wisconsin-Milwaukee Great Lakes Research Center Carroll University-Greene Field Station



How Can we work at Scale?





reaching the Wuscandin-Tillinois Jooder. Along this counts the Ton There mainteen is joined by many tiltuativities most notably the Prevailable Review Multisonapa Dilesc and Carles and the Withe Rev. The waterinde is dominated by appointunal and urban land uses, with only 13 and 10 percent of the wateritide classified at wetland and woodinglic regardlywity. Mary of the Revier to Ibritance have been citatives, lied, and charameted through appointure and and modifications allow munch graster capacity to more water, and subsequently phosphorus and soil, off the Indicaspe and insolutions allow munch graster capacity to more water, and subsequently phosphorus and soil, off the Indicaspe and insolutions water with degraded biological communities. High turbidity, and law dissolved oxyger, these conditions are largely attitubled to exercise soil and numer runnif.



Proposed Canoe Launch

Lions Park in the Village of Big Bend is a popular launch and retrieval site for canoeists from throughout Southeastern Wisconsin. During 2007, the creation of a canoe launch was proposed as a means of facilitating access to the River from the Park. This project was scheduled for implementation during 2008 at a cost of about \$30,000.

Streambank Protection

During 2002, the Fox River Commission partnered with the Village of Big Bend to install streambank protection along the parkland shores. The two-phased project was completed in December 2003. The project cost was \$25,000.



Key Management Objectives (SEWFRC | SEWRPC Study)

- **1. Partner** with municipalities, associations, and permitted entities throughout the watershed to **collaborate** on water quality goals, pursue state and federal funding, and coordinate water quality monitoring efforts.
- **2. Support farmer-led groups** that promote conservation practices to enhance soil health and water quality by hosting informational meetings and workshops (e.g. Fox River Summit).
- 3. Collaborate with **MS4 communities** to prioritize BMP implementation sites and host workshops and site tours for green infrastructure and low impact development.
- 4. Prioritize **streambank stabilization** sites with more severe erosion and/or imminent threats to known infrastructure. Incorporate bioengineering into streambank protection.
- 5. Use forthcoming TMDL guidance for **phosphorus** and **sediment reduction** goals.



Overview of Project Approach









Grant Application Process



Identification of Vision and Goals (SEWFRC | SEWRPC Study)

<u>Vision</u>

Improve water quality and overall health of waterbodies throughout the watershed to promote public health, safety, and quality of life and to bolster local economies.

<u>Goals</u>

Long-term water quality improvement strategy based upon **abatement of sedimentation** and **nutrient** export from nonpoint sources, **monitoring**, educational **programming**, and broadening/deepening public support.

Improve water quality through **pollutant load reduction** and **streambank erosion repair** and protection.

Source: Southeastern Wisconsin Fox River Commission. Fox River Streambank Erosion and Watershed Non-Point Source Pollutant Study (unpublished).

SEWRPC Fox River Study

- 51 Erosion sites identified along the Fox River
 - Infrastructure related and non-infrastructure related
- 3,944 Agriculture Parcels identified as **High** or **Medium** Priority within Study

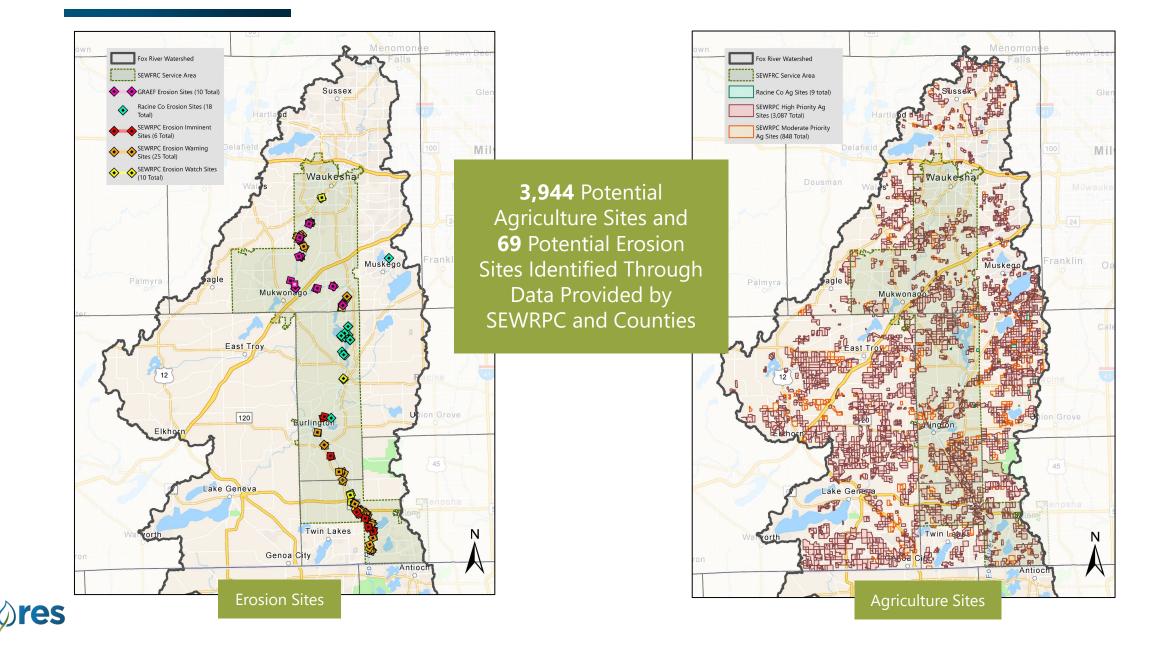
County Land Conservation Offices

- Racine County:
 - 18 Erosion Sites Submitted, mainly smaller landowner-specific shoreline sites
 - 9 Total Agriculture Sites Submitted
- Other Counties:

Directed us to the SEWRPC Fox River study or did not respond to requests for identified projects within their jurisdiction

Fox River Summit (Q1 2022) Cold Calls

V. Project Prioritization Process: Identified Existing Projects



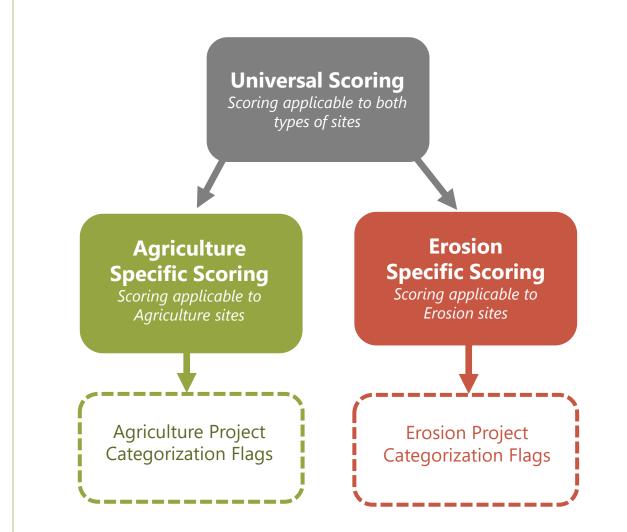
Project Prioritization Process: GIS Scoring

Due to the large number of potential project sites provided, an **additional scoring criteria** must be applied to narrow down the number of potential sites provided. Secondarily, **sites will be flagged** based on specific site properties so they can be categorized and later paired with project types and corresponding grants.

Universal Scoring (Total 4 Pts)

+1, Public Land

- +1, Site within or adjacent to SEWRPC Unprotected Environmental Corridor (Primary/Secondary/INRA)
- +1, Site within or adjacent to Protected Natural Areas
- +1, Site contains or adjacent to Existing Wetlands



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Project Prioritization Process: GIS Scoring

Agriculture Sites Scoring (Total 11pts)

Project Source:

- +3 County-sourced project
- +2 SEWFRC High Priority
- +1 SEWFRC Medium Priority

Phosphorus Loading Zone (lbs/yr/ac):

- +3, 0.6 to 1.0
- +2, 0.4 to 0.6
- +1, 0.2 to 0.4

Soil Erodibility: Severe Composition (by Acreage)

- +2, 50% of site or more
- +1, 25% to 50% of site

Total Parcel Size (by Acreage)

- +2, greater than 1 std deviation of mean
- +1, within +1 std deviation of mean

Adjacency:

+1, Identified erosion site present

Erosion Sites Scoring (Total 8 Pts)

- Length of Identified Erosion Site (by Linear Feet):
 - +2, greater than 1 std deviation of mean
 - +1, within +1 std deviation of mean
- **Project Source**:
 - +1 County-sourced
- SEWRPC Fox River Study Rating:
 - +2, Imminent
 - +1, Warning
- Degree of Erosion
 - +2, Major
 - +1, Medium
- Adjacency
 - +1, Located on identified agriculture site



V. Project Prioritization: Project Type Flagging/Categorization

Agriculture Site Flags

- Within an existing, 100-year or 500-year flood plain
 - Potential for flood control or riparian buffer grants
- Has a headwater or tributary stream or creek running through or adjacent to site
 - Potential for stream restoration/stabilization or riparian buffer grants
- Adjacent to or contains existing wetlands
 - Potential for habitat-based grants or riparian buffer grants
- Total Acreage/Percent Hydric Soil Composition
 - Potential for wetland restoration grants
- Total Acreage/Percent Soil Erodibility: Severe
 - Potential for agriculture practice-based grants such as strip cropping or riparian drainage/runoff control

Erosion Site Flags

- Infrastructure based vs Environmental based
 - Determinant for applicable grant types
- Adjacent to Agriculture
 - Potential for riparian buffer or streambank stabilization/runoff control
- Adjacent to existing protected or unprotected natural areas
 - Potential for habitat-based grants
- Existence of species of concern
 - Potential for habitat or species-based grants

A "flag" is essentially a simple attribute added to a particular site location denoting it as containing one or more of the above attributes for easy filtering later during the grant/project/site pairing process.

V. Project Prioritization: Project Types



Streams

Streambank, riparian, instream



Agriculture Working lands, streams, wetlands



Wetland Restoration

Restoration, enhancement, mitigation



Infrastructure Transportation



Habitat and Ecosystem Threatened & endangered



Flooding

Flood control

Initial Results: Agriculture Scoring

Highest Score: 11 pts

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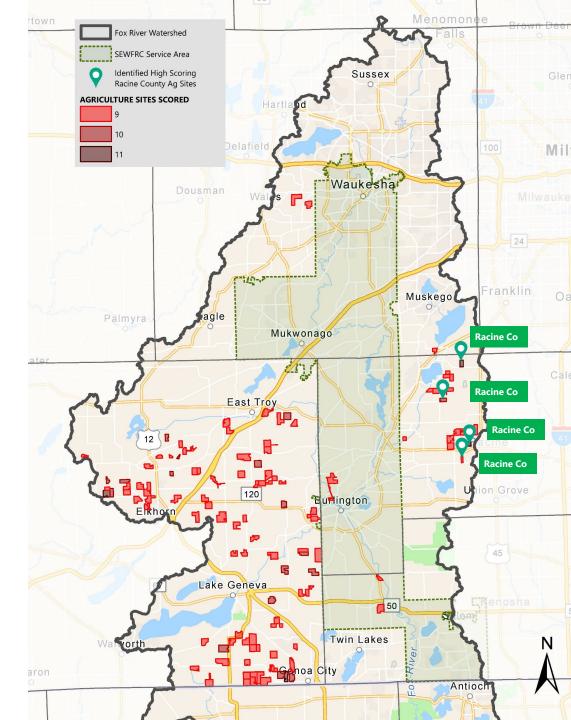
Score: 11/15: 4 Potential Sites

Score 10/15: 17 Potential Sites

Score 9/15: 97 Potential Sites

118 Sites Scoring 9 or higher were identified

4 Racine County provided sites scored a 9 and higher and were also locations identified in the SEWRPC Fox River Study



Initial Results: Erosion Site Scoring

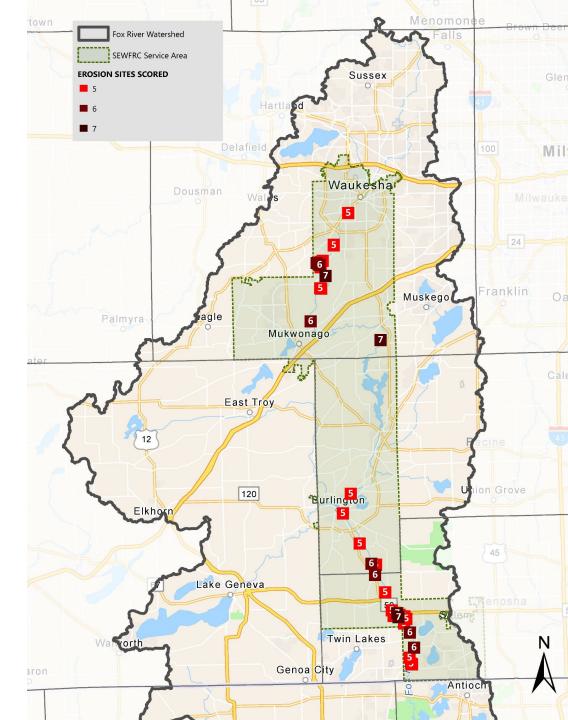
Highest Score: 7 pts

Score: 7/12: 4 Potential Sites

Score 6/12: 7 Potential Sites

Score 5/12: 22 Potential Sites

33 Sites Scoring 5 or higher were identified

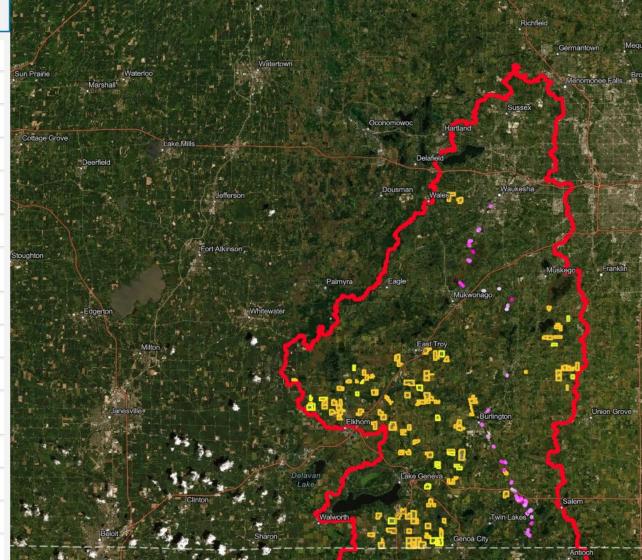




Preview of Site Investigation Tool (in progress)

Э	Layers		×
	Field_Note_Editable	Ø	
	Prioritized_Sites - Erosion (All)		
E	Parcels Clipped		
<u>lo</u>	Prioritized Sites - Agriculture [Racine Co]		
≣	Prioritized_Sites - Agriculture (Score 9/15 or greater)		
]	NHDFLowline	Ó	
2	SEWRPC Enviro Corridor 2015 [Unprotected], [Primary, INRA]	Ø	
Ļ	SSURGO Soil Erodibility [Severe]	Ø	
8	Wisconsin Wetland Inventory [Points]	Ø	
ģ	Wisconsin Wetland Inventory [Polygon]	Ø	
	Protected Areas of the United States [PADUS]	Ø	
	Phosphorus Loads by Subbasin	Ø	
	FEMA Flood Hazard	Ø	
	SSURGO Hydric Soils	Ø	
	FoxRiverWatershed USGS		

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The goal of the tool is to allow easy investigation into all of the scored and prioritized potential sites, with supporting information accessed within a popup – parcel ownership, prioritization score, site flags, applicable grants and potential project type feasible on the site.

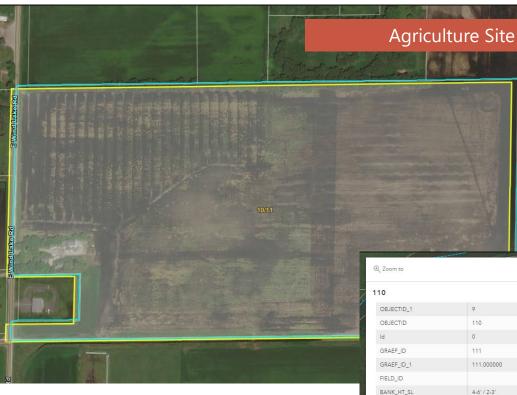
Other contextual data will be included for overlay such as Existing Wetlands, Hydric Soils, Soil Erodibility, Topography, Hydrology, etc

The tool will have the ability for users to take notes and flag certain sites for deeper investigation or **landowner outreach.**

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Preview of Site Investigation Tool (in progress)

€ Zoom to	↓ 2 of 2
JULIAN R POPP	ē
OBJECTID	61821
State ID	101010042022005000
Parcel ID	010042022005000
Tax Parcel ID	
Parcel Date	01/14/2019
Tax Roll Year	2020
Primary Owner Name	JULIAN R POPP
Secondary Owner Name	
Full Mailing Address	5535 E. WIND LAKE RD., UNION GROVE, WI 53182
Full Physical Address	5535 WIND LAKE RD E
Address Number Prefix	
Address Number	5535
Address Number Suffix	
Prefix	
Street Name	WIND LAKE
Street Type	ROAD
Suffix	E
Landmark Name	
Linit Tune	



DOMINANT_V

EROSION

COMMENTS

SHORE TYPE

EROSION SI

County

ELength_ft Bank_Ht_ft Erode_Rate

Priority

The tool, data and flagged sites will then be rolled into the larger **Story Map**. The **Story Map** will be a living application which will seek to tell a story about specific site(s) and their impact as they are identified and secured.

When completed, popup will display information on applicable project types and grants, landowner information, etc for easy exploration.





Grant Matrix Detail

Project Type	Grant Name	Funder	Special - GIS	Qualifier	\$ Limit	Match	Deadline
Streams	Friends of WI TU Grant Program	Friends of WI TU	Trout streams	Trout streams	\$2,000	1:1	15-Jan
Streams	Section 206 Aquatic Ecosystem Restoration	USACE	Streams	instream habitat or riparian habitat	\$10,000,000	65% / 35% design &	N/A
Streams	Section 1135 Project Modifications for Improvements to the Environmen	USACE	Existing USACE projects	modifications to projects - instream habitat or riparian habitat	\$10,000,000	75% / 25%	N/A
Wetlands	North American Wetlands Conservation Act	USFWS	wetlands	Migratory (wetland) Birds Habitat	\$100,000	1:1	October
Acquisition	Knowles-Nelson Stewardship Program	WDNR	Streams	Land and conservation easements only	not listed	1:1	15-Mar-22
Acquisition	Knowles-Nelson Stewardship Program	WDNR	Habitat	Land and conservation easements only	not listed	1:1	15-Mar-22
Acquisition	Knowles-Nelson Stewardship Program	WDNR	Natural Areas	Land and conservation easements only	not listed	1:1	15-Mar-22
Streams	Surface Water Restoration and Management Grants - Surface Water Res	WDNR	Restoration	Must have comprehensive management plan	variable	May 1 Eligibility	/ September pre-proposal/
Streams	Surface Water Restoration and Management Grants - Healthy Lakes and	WDNR	Streams	Diversion, rock infiltration, native plantings, rain gardesn, fish sticks	\$25,000	75/25 state/sponsor	/ September pre-proposal/
Lakes	Surface Water Restoration and Management Grants - Healthy Lakes and	WDNR	Lakes	Diversion, rock infiltration, native plantings, rain gardesn, fish sticks	\$25,000	75/25 state/sponsor	/ September pre-proposal/
Wetlands	Surface Water Restoration and Management Grants - Wetland Restorati	WDNR	wetlands	Wetlands enhancement of restoration from Comp Plan	\$10,000	none y	/ September pre-proposal/
Agricultural	Targeted Runoff Management (TRM) Grant Program	WDNR	TMDL - Large Scale	BMPs for nonpoint source pollution	\$600,000	up to 70%	15-Apr
Agricultural	Targeted Runoff Management (TRM) Grant Program	WDNR	non-TMDL - Large Scale	BMPs for nonpoint source pollution	\$600,000	up to 70%	15-Apr
Agricultural	Targeted Runoff Management (TRM) Grant Program	WDNR	TMDL - Small Scale	BMPs for nonpoint source pollution	\$225,000	up to 70%	15-Apr
Agricultural	Targeted Runoff Management (TRM) Grant Program	WDNR	non-TMDL - Small Scale	BMPs for nonpoint source pollution	\$225,000	up to 70%	15-Apr
Urban	Urban Nonpoint Source & Storm Water (UNPS&SW) Management Grant	WDNR	Urban BMPs	BMPs for nonpoint source pollution	\$150,000		posted Jan 15 22
Streams	Flood Risk Management (Section 205)	USACE	Flood Control	plan, design, and construct structural and non-structural flood control proje	e \$10,000,000	varies	N/A
Flooding	Emergency Watershed Protection Program (EWP)	USDA/NRCS	Streams - sediment remo	val, streambank restoration		75% / 25%	60 days of disaster
Streams	Municipal Flood Control Grants	WDNR	Municipality	Riparian Restoration Project on a watercourse	not listed	50%	15-Mar
Acquisition	Municipal Flood Control Grants	WDNR	Municipality	Property acquisition and removal of structures for permanent open space or flood	not listed	50%	15-Mar
Agricultural	Agricultural Conservation Easement Program (ACEP)	WDOA/NRCS	working lands/pasture		not listed	75-100%	October
Agricultural	Wetland Reserve Easement	WDOA/NRCS	Wetlands	Permanent or 30-year easement plus restoration/plan	not listed	50-100%	October
Agricultural	Conservation Reserve Enhancement Program (CREP)	USDA/NRCS	streams	filter strips along waterways	\$2,900/acre OR \$4,	200/acre	
Agricultural	Conservation Reserve Enhancement Program (CREP)	USDA/NRCS	wetlands	farmed wetlands	\$2,900/acre OR \$4,	200/acre	
Agricultural	Farmable Wetlands Program (FWP)	USDA/FSA	wetlands	farmed wetlands and buffer	not listed	annual rent + cost sł	N/A
Agricultural	Conservation Stewardship Program (CSP)	USDA/NRCS	working lands/pasture	Expand on existing conservation practices. Conservation of soil, water, air, a	a \$200,00) flat payment rate	TBD
Agricultural	Environmental Quality Incentives Program (EQIP)	USDA/NRCS	working lands/pasture	conservation of soil, water, air, and related plant and animal resources	\$450,00) flat payment rate	20-May-22
Agricultural	Regional Conservation Partnership Program (RCPP)	USDA/NRCS	streams/wetlands/workin	gharness innovation, expand the conservation mission and demonstrate the	\$10,000,000	1:1	Spring
Agricultural	Soil & Water Resource Management Grant (SWRM)	Agriculture, Trade	land conservation		not listed	up to 70%	15-Apr
Streams	Soil & Water Resource Management Grant (SWRM)	Agriculture, Trade	land conservation			up to 70%	15-Apr
Wetlands	Soil & Water Resource Management Grant (SWRM)	Agriculture, Trade	land conservation			up to 70%	15-Apr
Habitat	Landowner Incentive Program	WDNR	Rare or declining species		\$25,000	up to 75%, 25% mini	num
Streams	Streambank Protection (Stewardship)	WDNR	Trout streams				
Acquisition	Streambank Protection (Stewardship)	WDNR	Trout streams				
		WDNR					March 1, June 1, October
Wetlands	Wisconsin Wetland Conservation Trust in Lieu Fee Mitigation Program (V	•	Wetlands	mitigation ILF	not listed		1, December 1
Streams	Sustain Our Great Lakes - Five Star and Urban Waters Restoration Grant	NFWF	water quality		\$50,000		22-Jan
Wetlands	Sustain Our Great Lakes - Five Star and Urban Waters Restoration Grant	NFWF	water quality		\$50,000		22-Jan
		NEWE					

Stakeholder Engagement

Verify List of Stakeholders

Ask:

- Projects?
- Known funding?
- Other match?

Outreach Strategy:

- Fox River Summit
- E-blast
- Mailer
- Phone calls
- Story Map to support outreach

Strengthening the Waters of the Fox River Watershed

Resource Environmental Solutions (RES) is seeking to build a div coalition on behalf of SEWFRC to restore the ecosystem health of

RES is creating an easily accessible framework for funding and leveraging executed projects streambank and riparian shorelines, protect infrastructure, and enhance water quality in the

A Collaborative Approach

RES is evaluating and applying for various grants on behalf of the Southeastern Wisconsin Fox Ri the purposes of protecting critical infrastructure threatened by streambank and riparia4n erosion the watershed, and improving degraded water quality in the Fox River watershed. This is part of a for ecological restoration to the region.

General Grant Requirements and Potentially Eligible Projects

Projects in development that restore streambank and riparian shorelines, protect infrastructure, and enhance water quality in the Fox River watershed may be eligible to leverage for additional grant funding. Secured funding would be allocated for on the ground support for select projects. Eligible projects may include but are not limited to stream stabilization and restoration, wetland restoration, flooded mitigation, nutrient reduction, and sedimentation control projects. To create competitive

grant proposals and secure funding, projects should focus on effective solutions that ad identify combinations of cash and in-kind value-added contributions to leverage grant f match), and included partners must have experience, expertise, and capacity to manage lead partner on behalf of SEWFRC.



Proposed Project Are

The proposed project area w headwaters of the Fox River providing benefits to the en Wisconsin and Illinois. Targe would focus on restoring an stream and riparian areas, as frequently flooded areas and reduce downstream sedimer benefit the entire watershed benefit the entire watershed

Preview of the Mailer

recharge, and wildlife habitat as well as co-benefits such as increased public recreation and improved economic/tourism benefits. Stakeholders with identified projects should reach out to the RES team to include those eligible projects for funding consideration.

Partner Commitments and Contributions

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RES is seeking partners who are committed to the ecological health of the Fox River watershed and are willing to contribute any combination of cash and in-kind matching funds. This will be an on-going effort with grants being evaluated and applied for starting in 2022 and continuing Sussex through 2024. Partners interested in participating in following years are encouraged to engage now to better facilitate long term planning of funding and projects. In addition to match, partners may be asked to write a letter of support for select grant applications to help secure funding. Partners will play an integral role in grant implementation and may lead any Waukesha number of grant related deliverables including watershed modeling, identification of target areas, landowner outreach, identification of key projects for consideration, wetland delineation, project review, monitoring of outcomes, and long-term maintenance.





Muskego

Mukwonag

RCPP Grant

Application due <u>Q1 2023</u>

- 50:50 minimum match up to \$10M over five years
- Don't need match lined up for application but do need enough match to meet the amount awarded
- Extend beyond SEWFRC boundary
- Includes: Conservation work on private agriculture and private forestry land
- Excludes: Fox River Bank, Public Land
- Municipalities can provide match, but not projects
- Demonstrating need from producers is key to success (SE Wisconsin farmers historically have <u>NOT</u> reached out to USDA)



Other Funding Opportunities

- USACE Section 206
- Fox River TMDL
- WIFIA
- WDNR Municipal Food Control
- FEMA
- Other?



Next Steps

- Stakeholders haven't ID'd a lot of projects
- Difficult to get alignment around projects
- Shortage of matching funds
- WQT

Stakeholder Outreach & Engagement













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