ReFocus on Better Environmental Outcomes

How lowa's Clean Water State Revolving Fund is incentivizing farmers to implement conservation practices that improve water quality and sequester greenhouse gases by leveraging its financial resources and partnerships.

Nonpoint Source Pollution in Iowa

Excess nutrients, sediment, and bacteria are pollutants associated with agricultural land use

Farm runoff includes livestock waste, surface applied fertilizers, poorly managed terrain, etc.

With over 90% of lowa's land area in production agriculture, this problem is serious and challenging to address

Sources of Nitrogen and Phosphorous Pollution in Iowa waters

	Agricultural and other nonpoint sources
Nitrogen	92%
Phosphorus	80%





Pay for Success Model

- The "pay for success" model incentivizes farmers to implement new conservation practices that improve water quality and sequester carbon
- Rather than just paying farmers for practices, farmers are paid for the verified environmental outcomes these practices produce
- The carbon and nutrients captured by these practices (utilizing no till and planting cover crops) are verified and the credits are then sold to a variety of private and public customers
- Public and private customers pay for the verified environmental outcomes (versus paying via a cost-share or pay-for-practice structure)

Benefits of a Pay For Success program

Cost efficiency for public partners	Purchasing verified outcomes is more cost efficient than status quo cost-share or pay-for-practice programs due to alignment of payments with outcomes and private matching dollars
Environmental outcome measurement	Public agencies receive detailed field-level data on where outcomes are occurring and what practices are being implemented
Outcome verification	All outcomes must be verified to trigger payment. SWOF visits 100% of all fields to verify new practices and conducts soil and water sampling
Customization	Local, state, and federal agencies can customize a program for specific watersheds and outcomes (e.g., P, N, CO2e)

About the Soil and Water Outcomes Fund

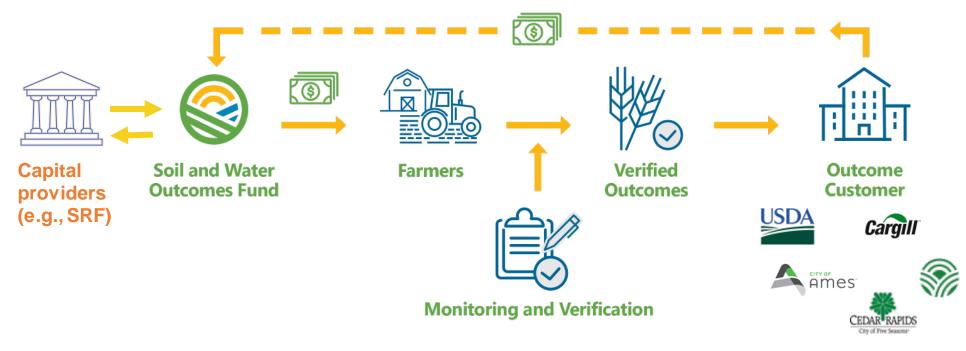
- Soil and Water Outcomes Fund (SWOF) provides financial incentives and technical assistance to farmers implementing combinations of on-farm conservation practices such as cover crops and no-till
- Farmer incentives are based on the environmental outcomes generated by new conservation practices
- Maximum payment is \$40/ac. Average payment in 2021 was >\$31/ac.
- In 2021, the SWOF enrolled more than **82,000 acres of cropland in lowa**; other active states include Illinois, Ohio, Maryland, Pennsylvania, and North Carolina
- SWOF expand to >4M acres across 12 Midwest states and 17 cotton states 27 over next 5 years supported by 2 USDA Climate Smart awards
- SWOF is a partnership between AgOutcomes (subsidiary of Iowa Soybean Association) and ReHarvest Partners (subsidiary of Quantified Ventures)







How It Works



Step 1

Soil and Water Outcomes Fund secures purchase agreements with C02e and water quality customers

Step 2

Farmers propose the new conservation practice or practices they wish to implement

Step 3

The Fund provides payment to participating farmers based on the resulting environmental outcomes produced

Step 4

Outcomes are measured, monitored, and verified using USDAapproved models, soil and water sampling, and remote sensing

Step 5

Once verified, environmental outcomes are sold to corporations, utilities, municipalities, and state or federal government entities

Targeted Conservation Practices

The project utilizes simple and effective conservation practices such as no till and cover crops, both of which have clear water quality and carbon sequestration benefits.





Innovative Solution – SRF as Investor

lowa's Clean Water SRF invested **\$7.5 million** with ReHarvest to increase the enrollment of acres to a level that would allow the structure to be self-sustaining.

- Investment term is 16 years at 2% interest; 5-year interest-only draw period
- Structuring the financing as an investment eliminated any concerns with some of the CWSRF loan requirements
- Funding is sourced from our Clean Water Program Fund, which sits outside our bond indenture and not pledged to bondholders
- Investment enabled ReHarvest to pay farmers for the environmental outcomes produced and cover the associated programmatic costs

2021 Iowa Results

- 82,098 acres enrolled
- >80,000 MT of CO2e reduced and removed
- ~79,500 lbs of P reduced
- >1.2M lbs of N reduced
- Average farmer payment >\$32.50
- >95% reenrollment rate in 2022

Farmer Survey Results

- 70% of farmers would not have implemented practices
- >90% would recommend SWOF to other partners
- 84% prefer the 50% upfront payment
- 70% felt payment was appropriate

The Value of Partnerships

The project's success is due in large part to a group of dedicated partners.



















Takeaways – SRF Perspective

The "pay for performance" model shifts how we measure our impact from being **output-driven** to **outcomes-driven**

SRFs can be a **powerful and flexible** financing vehicle for solving complex and challenging pollution problems

Partnerships are key to achieving long-term results

