

PROJECT SUMMARY SHEET

PROJECT TITLE ND Pay-for-Progress/Water Quality Outcomes Program

NAME, ADDRESS, PHONE AND E-MAIL OF LEAD PROJECT SPONSOR/SUBGRANTEE

International Water Institute, Charles Fritz, CEO
1120 28th Avenue N, Suite B, Fargo, ND 58102
701.388.0861/charles@iwinst.org

TMDL Development and/or Implementation (Check any that apply)

PROJECT TYPES	WATERBODY TYPES	NPS CATEGORY
<input checked="" type="checkbox"/> STAFFING & SUPPORT	<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> AGRICULTURE
<input type="checkbox"/> WATERSHED	<input checked="" type="checkbox"/> LAKES/RESERVOIRS	<input type="checkbox"/> URBAN RUNOFF
<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> RIVERS	<input type="checkbox"/> SILVICULTURE
<input type="checkbox"/> I&E	<input checked="" type="checkbox"/> STREAMS	<input type="checkbox"/> CONSTRUCTION
	<input type="checkbox"/> WETLANDS	<input type="checkbox"/> RESOURCE EXTRACTION
	<input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> STOWAGE/LAND DISPOSAL
		<input type="checkbox"/> HYDRO MODIFICATION
		<input type="checkbox"/> OTHER

PROJECT LOCATION: LATITUDE ___ MIN. _____ LONGITUDE ___ MIN. _____

SUMMARIZATION OF MAJOR GOALS: The International Water Institute (IWI) will work with ND farmers, commodity groups, and private companies with sustainability goals doing business in ND to develop a functioning framework that can be used to deliver a successful Pay-for-Progress (PfP) conservation program. The PfP will enable more rapid and measurable water quality improvement by creating a new, more effective conservation program delivery for ND agriculture.

PROJECT DESCRIPTION: The IWI has engaged a ND farmer advisory group to realize meaningful regional surface water quality improvements through analysis and application of data derived from the Prioritize, Target, and Measure Application (PTMApp). As part of this effort, the IWI will develop recommendations to establish a PfP program for consideration by the DEQ. Evidence in other parts of the U.S. (Ohio, Vermont, Chesapeake Bay) suggests programs that focus on payment for water quality outcomes, rather than practice incentive payments, can increase participation, more effectively engage farmers in conservation, and allow conservation program managers to deliver quantifiable water quality benefits in agricultural watersheds.

The IWI will complete a review of PfP /outcomes/progress programs proposed or being used in other U.S. regions, develop a conceptual framework for the PfP. The IWI will solicit from a ND farmer-focus group, ND commodity groups, ND DEQ Staff, and the public, and 3 corporations with sustainability programs actively doing business in ND. A Pay-for-Progress report and recommendations for implementation will be submitted for use by the DEQ to deliver a functioning framework to deliver more cost-effective WQ improvements.

FY 22 319 funds requested \$ 56,128 Match \$37,418
Other Federal Funds \$ 0 Total project cost \$ 93,546
319 Funded Full Time Personnel 1.25

2.0 STATEMENT OF NEED

The North Dakota Non-Point Source Program (NPS) addresses non-point pollution through the management and implementation of voluntary incentive-based conservation practice implementation. ND's voluntary NPS efforts traditionally focus on programs offering cost-share payments to implement conservation practices (e.g., grassed waterways) or change farming methods. Participation is inconsistent and may be limited because they are perceived to be highly bureaucratic and payments are often insufficient to cover expenses because farmers are responsible for operation and maintenance. This situation has hindered timely and meaningful improvement in water quality within the project areas.

There is a need for a different approach. Instead of cost-sharing conservation practices, PfP will establish and vet a method to pay producers commensurate with the public benefit for improving water quality. The PfP will establish a tiered payment structure for implementing conservation practices using practice performance and cost data from PTMApp. The tiered payment structure will be based on practice cost-effectiveness and according to watersheds characteristics (e.g., distance to stream).

Water quality outcomes will be expressed as the annual reduction in soil (sediment) and nutrients entering streams and rivers and transported downstream to lakes and reservoirs.

The PfP will be flexible and allow farmers to tailor their conservation efforts which should lead to increased conservation adoption rates. Increasing conservation adoption allows the State to more efficiently achieve its water quality goals because:

1. Expected water quality outcomes relative to implementation cost are clearly enumerated;
2. The State can describe the water quality value to the landowner / producer;
3. Not a one-size-fits-all payment - payment amount can vary based on the water quality value to the resource;
4. Reasonable cost-ranges can be established for commonly used practices;
5. Add opportunities for stackable payments (e.g., water quality + flood control) when water quality value is clearly enumerated;
6. Simplified methods to confirm / audit public value by using physical characteristics that correlate to practice performance (e.g., runoff volume / treatment volume);
7. Creates a palette of conservation opportunities and select those practices that best fit a farmers' operation.

3.0 PROJECT DESCRIPTION

- 3.1 The project goal is a Pay-for-Progress program functioning implementation framework focused on water quality with a series of implementable recommendations, vetted by ND farmers, commodity groups, private businesses, and the public.

3.2 **Objective 1** – Review existing pay-for-performance or pay-for-progress water quality programs.

Task 1 - Develop a “program comparison” table documenting producer eligibility requirements, commitment/enrollment period, outcomes/performance/progress parameters, methods used to describe outcomes/performance/progress (including outcomes “stackability”), payment approaches and ranges, WQ goals used to assess progress, funding sources and limitations, legal considerations, and validation/verification processes.

Products – Program comparison table.

Cost - \$10,921

Objective 2 – Define desired water quality outcomes.

Task 2 - Define desired water quality outcomes (e.g., load reductions) in 3 Eastern ND pilot watersheds using PTMApp data to characterize the watershed outcomes (\$/mass, \$/acre) needed treatment (% of watershed requiring treatment to achieve the goals), define watershed goals, develop watershed strategies to achieve those goals, estimating the cost to achieve those goals, and the edge-of-field load and watershed load reductions.

Products – Watershed goals in 3 Eastern ND pilot watersheds (minimum watershed size = HUC 12). The pilot watersheds will be selected in consultation with ND DEQ staff. Preferably where there are active/ongoing 319 projects.

Cost - \$19,522

Objective 3 – Develop a conceptual framework for a ND Pay-for-Progress Program.

Task 3 - Define and describe the ND PfP program concept including obligations and requirements. Identify who would receive the payment and how to apply PTMApp data to set the payment range by practice type (at the practice outlet and field edge) for sediment and total phosphorous, and compare PTMApp cost-effectiveness to cost per lb./acre.

Products – Conceptual PfP framework

Cost - \$14,685

Objective 4 – Solicit input on conceptual framework from producers and commodity groups.

Task 4 – Distribute Conceptual PfP framework for review and comment to ND agricultural community, businesses (e.g. food companies, marketing firms), and ND DEQ staff.

Products – Draft PfP report with feedback/comments from ND agricultural community and corporate stakeholders.

Cost – \$11,988

Objective 5 – Develop/write up draft PfP functional design.

Cost - \$20,640

Task 5 - The IWI will prepare and circulate a draft PfP program for review and comment.

Products – Final PfP function design

Cost – \$17,780

3.3 MILESTONE TABLE

Goal - ND Pay for Performance Conservation Program Recommendations		2022			2023				
Objective	Output	J-A	S-N	D	J-M	A-J	J-S	S-O	N-D
Objective 1 – Review existing pay-for-performance or pay-for-progress water quality programs.	Output Matrix / Spreadsheet								
Task 1 - Develop a “program comparison” table documenting producer eligibility requirements, commitment/enrollment period, outcomes/performance/progress parameters, methods used to describe outcomes/performance/progress (including outcomes “stackability”), payment approaches and ranges, WQ goals used to assess progress, funding sources and limitations, legal considerations, and validation/verification processes.									
Group 1									
Objective 2 – Define desired water quality outcomes.									
Task 2 - Define desired water quality outcomes (e.g., load reductions) in 3 Eastern ND pilot watersheds using PTMApp data to characterize the watershed outcomes (\$/mass, \$/acre) needed treatment (% of watershed requiring treatment to achieve the goals), define watershed goals, develop watershed strategies to achieve those goals, estimating the cost to achieve those goals, and the edge-of-field load and watershed load reductions.	PfP concept with recommendations (draft report and ppt)								
Group 1									
Objective 3 – Develop conceptual framework for a ND Pay-for-Progress Program.									
Task 3 - Define and describe the ND PfP program concept including obligations and requirements. Identify who would receive the payment and how to apply PTMApp data to set the payment range by practice type (at the practice outlet and field edge) for sediment and total phosphorous, and compare PTMApp cost-effectiveness to cost per lb./acre.	Comment documentation								
Group 1, 2, 3, and 4									
Objective 4 – Distribute Conceptual PfP framework for review and comment to ND agricultural community, businesses (e.g. food companies, marketing firms), and ND DEQ staff.									
Task 4 - Develop draft ND PfP program, circulate for final review (see task 2), 2 public forums to solicit input on draft framework, finalize PfP program and recommendations.	Final ND PfP recommendations Report								
Group 1									
Objective 5 - Develop/write up draft PfP functional design.									
Task 5 - The IWI will prepare and circulate a draft PfP program for review and comment.									
Group 1 - International Water Institute									
Group 2 - ND Landowner Advisory Group									
Group 3 - ND Commodity Advisory Group									
Group 4 - ND Corporate Advisory Group									

4.0 COORDINATION PLAN

4.1 IWI has a longstanding track record of successful ND 319 program project delivery including PTMApp training and watershed planning support to NPS coordinators. Information from ND’s PTMApp will be used to accomplish objective #2. IWI will utilize an existing ND 319 coordinators and a Farmer Advisory Group

currently working on a project to develop an agricultural stewardship program funded by the IWI and the Mosaic Company. The Farmer Advisory Group includes 8 farmers from east-central ND Dakota and 2 from west-central Minnesota. Coordinating efforts will also engage SB&B farms, the Mosaic Company, and ND commodity organizations in including the ND soybean and sugar beet growers.

The IWI will provide a local match (\$37,419) as part of the Stewardship Program Pilot project funded by the IWI and The Mosaic Company. The Stewardship Program is a farmer-led, approach to address environmental challenges facing agriculture focusing on understanding and measuring relationships between changing farming practices, agronomics, and downstream water quality. The Program’s centerpiece is the Field Stewardship Rating (FSR) comprising 15 science-based indices that can be used to *validate* and *measure* environmentally friendly, sustainable, and stewardship claims.

5.0 EVALUATION AND MONITORING PLAN

5.1 No environmental data will be collected.

6.0 BUDGET

ND Pay for Progress Conservation Program							
Section 319/non-federal budget		2022	2023	Total Costs	Cash Match	In-kind Match	319 Funds
Personnel/Support							
	Salary/Fringe*	\$42,398	\$42,398	\$84,796	\$0	\$28,668	\$56,128
	Travel	\$675	\$675	\$1,350	\$0	\$1,350	\$0
	Telephone/Communication	\$60	\$60	\$120	\$0	\$120	\$0
	Farmer Advisory Group**	\$3,640	\$3,640	\$7,280	\$0	\$7,280	\$0
Total 319/Non-Federal Budget		\$46,773	\$46,773	\$93,546	\$0	\$37,418	\$56,128

*Rate average: \$85/hour, 499 hours/year. Funding source: IWI and The Mosaic Company

**\$100/hour

7.0 PUBLIC INVOLVEMENT

The IWI will solicit PfP program feedback from a farmer advisory group, 2 ND commodity groups and 2 private companies (SB&B Foods and The Mosaic Company) doing business in ND with sustainability goals. The IWI has established a farmer advisory group as part of its ongoing Stewardship Program (funded by The Mosaic Company and IWI). This advisory group will enable the IWI to understand and incorporate the necessary farmer perspective into the proposed PfP program framework and recommendations. The IWI will also engage 2 ND commodity groups (ND Soybean Growers, and ND Sugar Beet Growers) to provide additional ND agriculture perspectives. The IWI also will engage two private companies doing business in ND. Private company investments in sustainability goals provide an opportunity to leverage ND 319 funding to deliver the PfP program. Lastly, the IWI will discuss the PfP with representatives from the DEQ, other agencies (i.e. ND NRCS, Ducks Unlimited, Natural Resources Trust) and convene two public / open forums in the pilot watersheds to receive proposed PfP program comments.