WaterSMART

Small-Scale Water Efficiency Projects for FY2025

Funding Opportunity No. **R24AS00059**

Almena Irrigation District No. 5
Surface Water Diversion Upgrades on Prairie Dog Creek

Almena Irrigation District No. 5

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January 14, 2025

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Executive Summary

Date: Application due date: January 14. 2025

Applicant: Almena Irrigation District (AID); Phillips County. Kansas

Project Title: Surface Water Diversion Upgrades on Prairie Dog Creek

Project Summary:

AID will use district and Bureau funds to upgrade 9 surface water diversions with floating river pumps and meters with remote telemetry on Prairie Dog Creek in the next year. This represents approximately half of the water users in the district and will completely convert the entire district to underground pipe and pump stations to improve delivery efficiency while capturing accurate water measurements for the greatest amount of water used in AID. In **2017 and 2024** AID installed floating pumps and meters with remote telemetry on approximately fifty percent of the district boundaries. The district abandoned the canal delivery system whereas open canals and laterals were inefficient to deliver reclamation water. The district instead is using Prairie Dog Creek as a conduit to supply water to points of diversion approved by the Kansas Division of Water Resources. The district greatly improved its water deliveries by adding water to existing flows in Prairie Dog Creek and delivering water at nearly one hundred percent efficiency. The district installed a radar monitor system at the existing sluice gate a six-foot-wide weir that is used to let water flow through into Prairie Dog Creek upstream of the district boundaries, this allows for accurate water measurement at the sluice gate. The district can get a total diversion to members property from the telemetry meters and match diversions with releases made from Norton Dam.

Upon the successful award of this proposal, AID will contract with local irrigation business(es) for the purchase and installation of floating river pumps and meters with telemetry that will satisfy the State of Kansas reporting regulations as well as the district's water measurement and data needs. AID staff is experienced in the installation and configuration of pipelines and will install these new meters with the assistance of installation contractors.

Approximate Length: One Year Completion Date: June 30, 2026

Background Data

Almena Irrigation District AID):

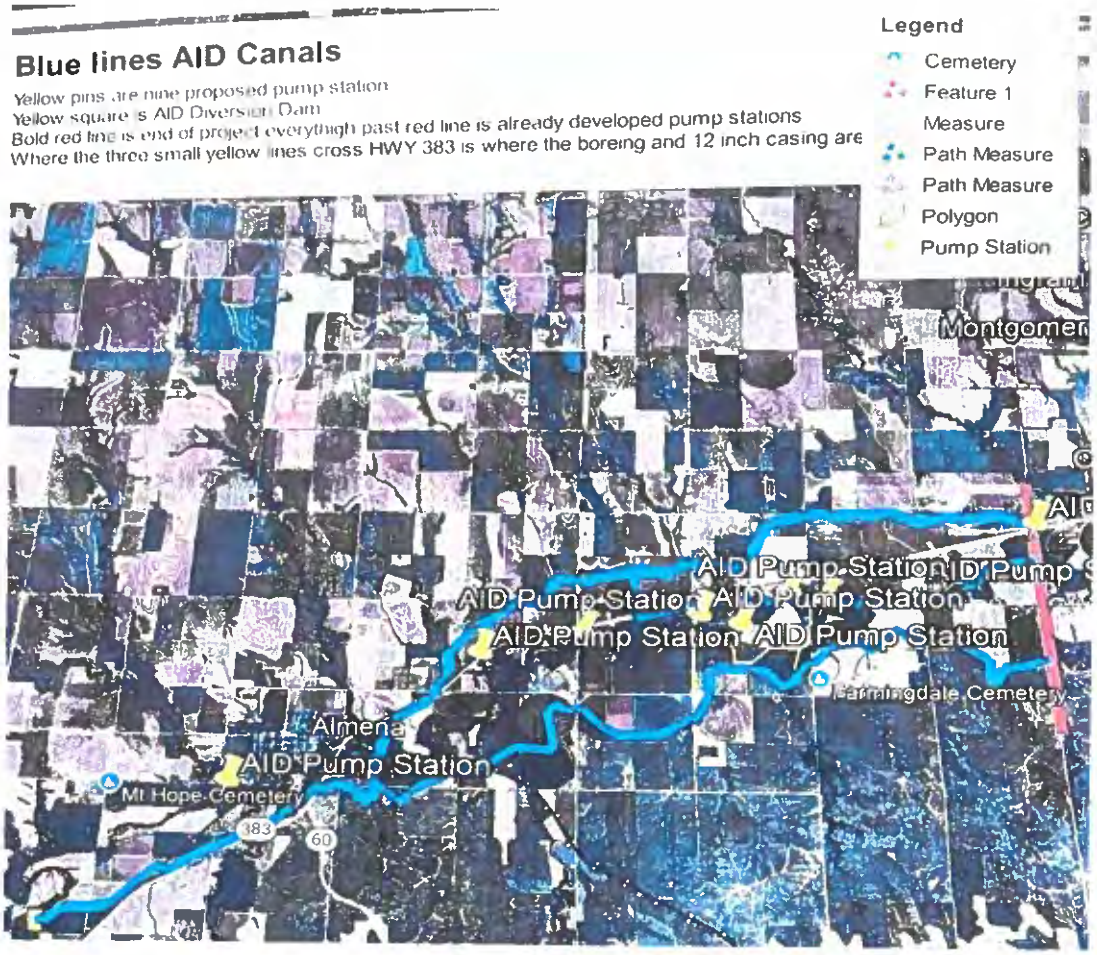
The Norton Dam and Reservoir were transferred to operation and maintenance (O&M) status on June 1, 1965. The dam and the reservoir are operated by the Bureau of Reclamation. The reservoir operation is integrated with that of other reservoirs in the Republican River basin of the Pick-Sloan Missouri Basin Project. The Corps of Engineers furnishes the operational procedures for regulation of water stored in the flood control pond. The Almena Diversion

Dam, canals, laterals, and drains were transferred to operations and management (O&M) status on July 1, 1967. These are all operated and maintained by Almena Irrigation District No. 5. The Almena Irrigation District (AID) has operated without significant problems since entering service other than routine maintenance.

Project Location

Almena Irrigation District is located near Almena, KS in Phillips and Norton County and irrigates **5,763** acres. The Almena Unit is located along Prairie Dog Creek in central Kansas' northern tier of counties, Norton and Phillips, bordering Nebraska. Prairie Dog Creek is part of the Upper Republican River drainage basin which also includes the South Fork of the Republican River, Beaver Creek, and Sappa Creek. It consists of the Norton Dam and Reservoir, Almena Diversion Dam, and an irrigation distribution system of canals and laterals. The Almena Unit project lands extend from two miles southwest of Almena, Kansas, to three miles east of Long Island, Kansas, in the Prairie Dog Creek valley. Irrigation water is diverted into the main canal at the Almena Diversion Dam, seventeen miles downstream from the unit's flood control project, Norton Dam and Reservoir.

Area Map - Almena Irrigation District



Technical Project Description and Milestones

Almena Irrigation District (AID) intends to improve surface water use efficiency and measurement within the district by deploying floating river pumps and propeller meters with remote telemetry with assistance from the WaterSMART Small-Scale Water Efficiency Grant. AID has applied for funding for approximately 44,000 linear feet of underground pipeline through the USDA-NRCS EQIP Program. Once approved, this pipeline will be installed in the Fall of 2025/26. Once complete, the floating river pumps and metering stations asked described herein will be deployed.

Diversion Upgrades: The district proposes to implement the process by converting to **9** surface water diversion points with floating pumps and meters (see below) equipped with remote telemetry along Prairie Dog Creek. Currently these district acres are served by open canals and laterals with inaccurate water measurement that is only about 20% efficient. The district is proposing to install **9** floating river pumps and propeller meters equipped with remote telemetry over the next year. The meters planned to be installed will be the MO300 Bolt-on saddle meter with remote telemetry. These pumps and meters will provide operational advantages to the district as well as improving data collected for water management in the district. The district will be able to become very efficient by delivering close to the same amount of water released from the dam at Norton Reservoir. Upon the successful award of this proposal, meters and river pumps will be ordered in the Spring of 2026 for installation prior to the 2026 growing season.

Evaluation Criteria

Evaluation Criterion (A)- Project Benefits: *Up to **35 points** may be awarded based upon evaluation of the benefits that are expected to result from implementing the proposed project. This criterion considers a variety of project benefits, including the significance of the anticipated water management benefits and the public benefits of the project. This criterion prioritizes projects that modernize existing infrastructure in order to address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflict in the region.*

Benefits to the Category A Applicant's Water Delivery System: *Describe the expected benefits to the Category A applicant's water delivery system. Address the following: Clearly explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers.*

- *Will the project result in more efficient management of the water supply?*

Yes. The district will convert from open canals and laterals that have CHO turnouts. We will convert to a system that will have 100% of the district boundaries water measured by accurate meters with telemetry. This will allow the district to know the total diversion rate needed, and match the Norton Dam releases with water pumped onto AID fields. Water is currently measured utilizing CHO turnout gates which derive from flow from head differential between two gates. The CHO gates are often clogged with trash or vegetation and are roughly only +/- 10-15% accurate. These river pumps come with screens attached to the bottom of the pump that eliminates fish from entering the pumps. The open canals and laterals are often littered with dead fish at the end of the irrigating season providing wildlife benefits to Prairie Dog Creek. Once completed the district will no longer need to spray herbicides into the open canals and laterals. The district will no longer need the use of the main canal head gates that are sixty-plus years old and that are in need of costly upgrades.

The district will be able to comply with the Interstate Compact on the Republican River with the meters installed at the AID sluice gate, a USGS gage station at the end of the district boundaries, and the pump-station meters. This system will eliminate costly canal maintenance while going from an open canal and lateral system that delivers water at around 20% efficient to a system that has constantly delivered water at nearly 100% efficiency. The district's water right 6938-A issued by the state of Kansas Division of Water Resources states that the district can divert the water gathered at the AID sluice gate and put it to district beneficial use. This is how we are able to deliver at nearly 100% efficiency.

Improvements in technology will also be realized by implementing the new meters. Each of the meters installed will be equipped with internal dataloggers and remote telemetry. The new meters proposed are also +/- 2% accurate. These internal dataloggers will allow district staff to download time-stamped digital records of water pumped or delivered within specified time intervals and will act as a back-up to remote telemetry. This is an improvement of water deliveries for internal purposes such as billing or pumping records for reporting purposes under state requirements.

- *Where any conserved water as a result of the project will go and how it will be used?*

Conserved water will remain in Norton Reservoir for future use in times of shortage for all water users. This will also benefit wildlife conservation since fish, waterfowl, and terrestrial wildlife that utilize the reservoir for habitat will be supported through improved storage in the lake.

Explain the significance of the anticipated water management benefits for the Category A applicant's water delivery system and customers. Consider:

- *Are customers not currently getting their full water right at certain times of year?*

No, drought conditions and conveyance inefficiencies have not allowed the members of AID to utilize their full water rights in recent years. This project is necessary to upgrade meters and surface water diversions in AID to accurately appropriate water in current and future drought conditions. Upgrading measurement to propeller meters with remote telemetry will improve the performance of water measurement in the field and the accuracy of the data received from the meters as well. More accurate readings will improve the distribution of water across the district

and ensure that shareholders are receiving the amount of water to which they are entitled. The district expects to release much smaller amounts of water - possibly 10 to 25 CFS to furnish the Prairie Dog Creek Pump Stations, instead of the 90 to 110 CFS to make the district open canals flow water to members property.

- *Does this project have the potential to prevent lawsuits or water calls?*

Yes. Districts in the Republican Basin are experiencing conflicts over water use due to water shortages and compliance with water use regulations. Availability of real-time water use data from irrigation flow meters for the district and individual users will improve visibility to water use and compliance with local water use regulations. Several lawsuits have been filed between the states of Colorado, Kansas, and Nebraska in the last two decades in response to noncompliance with the Interstate Compact on the Republican River.

The metered system that the AID Board has implemented has safeguards in place to prevent shareholders from taking more water than their share. Water shortages have been commonplace over the past few years that Kansas has experienced drought. AID plans to avoid situations such as this with the adoption of more accurate meters that will ensure accurate measurement of deliveries. Over the history of the Kansas Nebraska Compact the Prairie Dog Creek tributary has always delivered its specified quantity of water to Nebraska.

- *What are the consequences of not making the improvement?*

If the meter upgrades are not made, the district will continue to divert water at a the very inefficient rate of 20% which would not be the best use of water in the water-short Republican River Basin. In addition, the inaccurate measurement of water deliveries would continue preventing equitable distribution of water across the district. Also, without the use of near real-time telemetry, the district is forced to estimate water releases from Norton Reservoir which further reduces the accuracy and efficiency of water distribution. Extremely costly repairs to the district head gates would be required. For the last three years, AID has had extreme difficulty hiring labor to run the district. Last year a board director operated and delivered water to the open canal members. Completely converting pump-stations along Prairie Dog Creek to telemetry will eliminate the need for a district ditch rider to deliver water.

- *Are customer water restrictions currently required?*

Yes. Water diversions by the AID Board require the installation of meters prior to a water user taking water deliveries. The installation of accurate and reliable meters is important to the enforcement of water rights enforced by AID and water reporting requirements by the State of Kansas. Accurate metering with remote telemetry will also be critical to compliance with the Interstate Compact on the Republican River.

- *Other significant concerns that support the need for the project.*

Norton Reservoir is small with limited storage capacity for agricultural and municipal use. Only **30,651 AF** are allocated for irrigation and municipal supply. A portion of this storage also supplies water to the City of Norton, KS. Rainfall from October through May is the source of

water for Prairie Dog Creek and the AID water supply. Because of the small, isolated nature of the watershed that supplies Norton Reservoir, this project is very important to the water supply in the basin.

This project supports the continuation of irrigated agriculture in the Prairie Dog Creek and the State of Kansas. The nation continues to depend on agricultural production in the State of Kansas which is even more important now in times of supply chain issues. Lower agricultural production could lead to a scarcity in food resources for the State of Kansas and the nation as a whole.

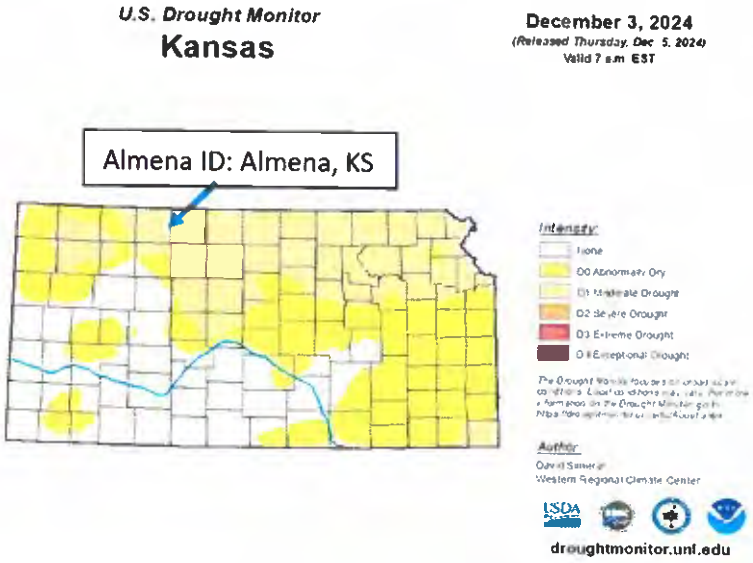
Broader Benefits: *Describe the broader benefits that are expected to occur as a result of the project. Consider:*

- *Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.*

Yes. This project will dramatically improve the efficiency by which water is diverted for agricultural use in the Prairie Dog Creek Basin. The new meters will allow for more expedient collection of water use data for individual members of the district and improve their administration of water allocations and deliveries in AID. This will improve water use reporting for AID to the State of Kansas as well as other entities involved in the administration of the Interstate Compact on the Republican River.

- *Is the project in an area that is experiencing, or recently experienced, drought or water scarcity? Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*

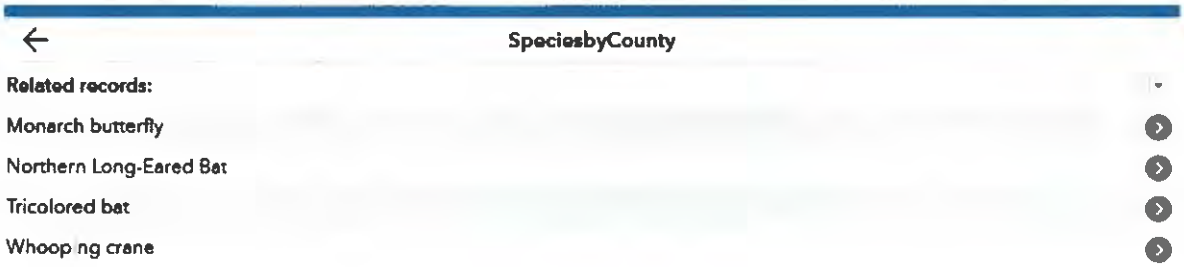
Yes. AID has experienced significant drought over the past decade which brought about the need for improved efficiency of water diversions and improved measurement of these diversions for water deliveries within AID. The new meters will allow for accurate and dependable deliveries of water for individual members of the district and improve the administration of water allocations.



Even though recent rains in 2023 have alleviated the drought in much of Kansas, the effects of the drought will be felt for years. The entire state was experiencing drought within the past year as seen in the figure to the left from the U.S. Drought Monitor. This project will enable the improved management of water in the district now as well as when the next drought occurs.

- *Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please explain.*

Yes. This project will benefit water users in the Prairie Dog Creek, as well as any threatened or endangered species fish who frequent the basin. Water that we do not need for delivery to the project area can be used to enhance river or lake habitat for fish or terrestrial species including the following state and federally listed species. The following threatened or endangered species exist in Phillips and Norton Counties, KS according to the Center for Biological Diversity's website https://www.biologicaldiversity.org: The Prairie Dog Creek pump-stations all have screens to help prevent fish from entering the pumps. Many fish often die in the open canal system which will now be retired as a result of this project. This practice will keep water in Prairie Dog Creek and support fish populations.



Norton Reservoir and the Almena Irrigation District are in the migratory flyway of the Whooping Crane which is protected in both Kansas and Nebraska. Water that remains in the reservoir will support the migratory habitat of the Whooping Crane in Kansas.

- *Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.*

Yes. The improved administration and measurement of water diversions to district shareholders will more evenly distribute water across the district and allow AID to deliver more water to more of its shareholders especially in times of drought since water deliveries will be more accurate and over-deliveries significantly reduced. Accurate and dependable deliveries will support agricultural production in the Prairie Dog Creek which will support the local agricultural economy and related industries that depend on agriculture.

- *Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.*

Yes. AID has a long history of working with the USDA NRCS to promote and incentivize Irrigation Water Best Management Practices. AID is currently cooperating with the USDA NRCS as a partner to apply for EQIP programs that will fund the installation of 44,000 linear feet of underground pipeline to Reclamation fields for more efficient irrigation systems.

Evaluation Criterion (B) Planning Efforts Supporting the Project: *Up to **25 points** may be awarded based on the extent to which the proposed on-the-ground project is supported by an applicant's existing water management plan, water conservation plan, System Optimization Review (SOR), or identified as part of another planning effort led by the Category A applicant. This criterion prioritizes projects that are identified through local planning efforts and meet local needs.*

Plan Description and Objectives: *Is your project supported by a specific planning document or effort? If so, describe the existing plan. When was the plan developed? What is the purpose and objective of the plan?*

Yes. AID is bound by the Kansas Water Plan which was adopted in 2022. The objectives of the State Water Plan are formulated for comprehensive, coordinated and continuous adaptive planning. Adaptive planning is the cornerstone upon which the planning process and the Kansas Water Plan rest. Kansas water planning process is mandated by the State Water Resources Planning Act (SWRPA) pursuant to K.S.A. 82a-901, et seq.

The Kansas Water Plan presents five guiding principles, which provide the foundation and framework for addressing water issues in Kansas, identifying the overarching challenges and the steps needed to meet those challenges including:

(1) Conserve and Extend the High Plains Aquifer
(2) Secure, Protect and Restore Our Kansas Reservoirs
(3) Improve the State's Water Quality
(4) Reduce Our Vulnerability to Extreme Events
(5) Increase Awareness of Kansas Water Resources

Plan Development: *Describe how your project is supported by an existing planning effort. Identify the planning effort and who developed it. If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.*

In accordance with the SWRPA, the Kansas Water Office seeks and incorporates the input of citizens, Regional Advisory Committees (RACs), stakeholder groups and other state agencies, including the Department of Agriculture-Division of Water Resources (KDADWR), Kansas Department of Health and Environment (KDHE), Kansas Geological Survey (KGS), Kansas Department of Wildlife and Parks (KDWP), and the Kansas Department of Agriculture-Division of Conservation (KDA-DOC). All of these groups contribute to the development of the Kansas Water Plan. Ultimately, approval of the Kansas Water Plan lies with the Kansas Water Authority (KWA), a statutorily-established advisory board within the KWO. K.S.A. 82a-905. Many surface water right holders (including those in the Republican River Basin have served on the Regional Advisory Committees (RACs) for this process.

Support for the Project: *Describe to what extend the proposed project is supported by the identified plan. Address the following:*

- *Is the project identified specifically by name and location in the planning effort?*

While not mentioned specifically by name and location in the planning effort by the *Kansas Water Plan*, this project is wholly consistent with the planning effort and is a direct result of the planning efforts of the *Kansas Water Plan* for conservation of water and preservation of the state's reservoirs. The Almena Unit has contract No. 009D6B0119 to obtain water from the Bureau.

- *Is this type of project identified in the planning effort?*

Yes. Primarily under the Guideline to "Conserve and Extend the Hight Plains Aquifer" several technological advances for improving irrigation water management are included in the KWP.

This includes telematic irrigation sensors and controls, autonomous and variable rate pivot systems, soil moisture probes, and flow meter sensors among several others. Consequently, this project is consistent with technologies recommended under the KWP.

• Explain whether the proposed project implements a goal, objective, or address a need or problem identified in the existing planning effort.

Yes. The proposed project is consistent with three of the five following guiding principles of the *Kansas Water Plan* described as follows:

(1) **Conserve and Extend the High Plains Aquifer:** Many irrigators that utilize surface water are likely also groundwater irrigators. The improved efficiency of surface water will reduce the amount of groundwater pumped, therefore conserving the High Plains Aquifer
(2) **Secure, Protect and Restore Our Kansas Reservoirs:** Improved surface water use efficiency will conserve water in Norton Reservoir for not only irrigation, but also other uses including municipal water and wildlife habitat.
(4) **Reduce Our Vulnerability to Extreme Events:** Improving the efficiency of surface water diversions will conserve water in Norton Reservoir making it available for times of extreme weather events such as drought.

• Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.

The AID Board of Directors resolved at its **December 3, 2024** board meeting to initiate meter upgrades along with pump-stations to improve efficiency of water delivery. **(See Attachment at the end of this document)**

Evaluation Criterion (C) Implementation and Results: *Up to **20 points** may be awarded based upon the extent to which the applicant is capable of proceeding with the proposed project upon entering into a financial assistance agreement. Applicants that describe a detailed plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points un this criterion.*

• Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.

Jan 14, 2025:	Submit Application to the Bureau
July, 2025:	Successful notification of award from the Bureau
Sept, 2025:	Sign contract with the Bureau
Oct, 2025:	Initiate Environmental Compliance with local Bureau office.
Fall, 2025:	Install Underground Pipeline with USDA-NRCS assistance
Spring, 2026:	Install 9 floating river pumps and meters with telemetry
June, 2026:	Prepare Final Project Report for Bureau

• Proposals with a budget and budget narrative that provide a reasonable explanation of project costs will be prioritized under this criterion.

Please refer to Section D.2.2.3. for a detailed budget and budget narrative.

• Describe any permits and agency approvals that will be required, along with the process for obtaining such permits.

Permits will be obtained from the KS DWR for placement of the floating river pumps and diversion of water. AID has made these applications in the past and does not anticipate any issues.

A permit will be obtained from the Kansas Department of Transportation (KDOT) to perform horizontal boring beneath Hwy 383 for the underground pipeline.

• Identify and describe any engineering or design work performed specifically in support of the proposed project. What level of engineering design is the project currently? If additional design is required, describe the planned process and timeline for completing the design.

No engineering or design work is required for this project. Local contractors are being utilized for pump and pipeline installation. The USDA-NRCS is also involved in design of pipeline installations. AID is consulting with the meter manufacturer on proper meter installation specifications.

• Does the applicant have access to the land or water source where the project is located? Has the applicant obtained any easements that are required for the project? If the applicant does not yet have permission to access the project location, describe the process and timeframe for obtaining such permission.

Yes. AID is in the process of pursuing easements from each landowner for the pipelines that will deliver water from pumps to its patrons. All work will be conducted on the pipeline within the easement which allows district employees access.

• Identify whether the applicant has contacted the local Reclamation office to discuss the potential environmental and cultural resource compliance requirements for the project and the associated costs. Has a line item been included in the budget for costs associated with compliance? If a contractor will need to complete some of the compliance activities, separate line items should be included in the budget for Reclamation's costs and the contractor's costs.

AID staff has been in contact with staff at the Nebraska-Kansas Regional Bureau office in McCook, NE. Since installation of meters will be installed at existing meter locations at existing farmer turnouts, AID estimates the total Environmental compliance costs will be approximately $500.

Evaluation Criterion (D) Nexus to Reclamation: *Up to **5 points** may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and a Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity, including:*

- *Is the proposed project connected to a Reclamation project or activity? If so, how?*

Yes. Norton Dam was constructed by the Bureau of Reclamation in 1964 and completed in 1965 to form Norton Reservoir. The Almena Diversion Dam was completed in February of 1967. On April 17, 1967, water was turned into part of the canal system and water was delivered on the following day to the first farm.

- *Does the applicant have a water service, repayment, or operations and maintenance(O&M) contract with Reclamation?*

AID has paid its original contract with Reclamation and currently contributes toward Operation and Maintenance through the Water Supply Reserve Funds and the District Works Reserve Funds

- *Is the project in the same basin as a Reclamation project or activity?*

Yes, The Almena Unit is located along the valley of Prairie Dog Creek in north-central Kansas. The unit consists of Norton Dam and Keith Sebelius Reservoir (formerly Norton Reservoir), Almena Diversion Dam, Almena Main and South Canals, and a system of laterals and drains to serve 5,763 acres of project lands. In addition to storing water for irrigation, the unit provides water for use in the City of Norton; protects the valley downstream from floods; and offers opportunities for recreation, conservation, and the development of fish and wildlife resources.

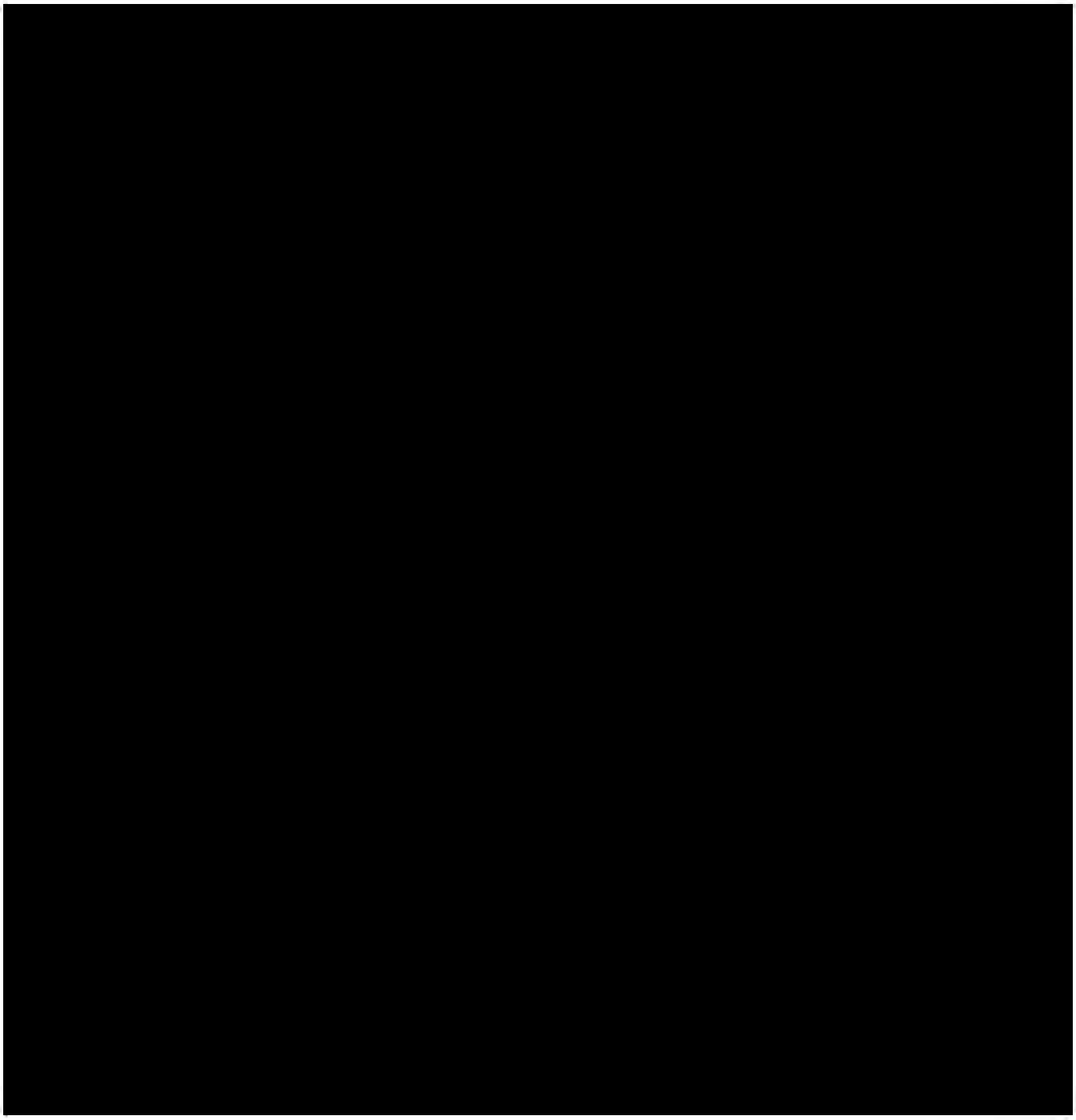
- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*

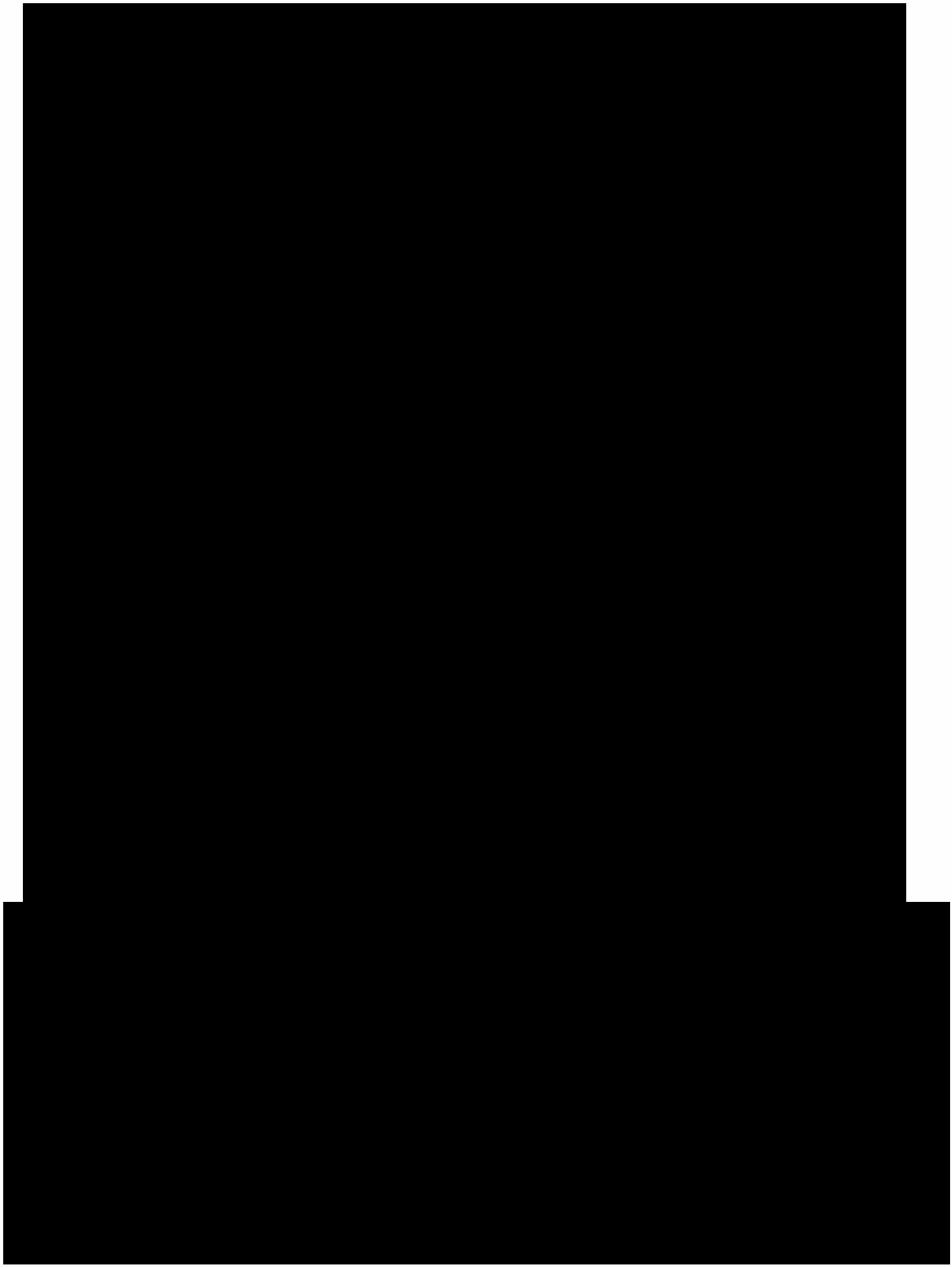
Yes. AID is a Reclamation Contractor and receives project water through a Reclamation Contract. Norton Dam was constructed by the Bureau of Reclamation in 1964 and completed in 1965 to form Norton Reservoir which supplies water to AID.

- *Will the proposed work benefit a Reclamation Project Area or activity?*

Yes. Water conserved in AID will be beneficial to other districts such as the Nebraska and Kansas Bostwick Irrigation Districts which receives water from Harlan County Reservoir which is downstream of AID.

[redacted]





D.2.2.3. Project Budget & Narrative

Funding Plan and Letters of Commitment

AID has budgeted funds collected from local fees to pay for the matching portion of the meters and accessories. No expenses are to be incurred before the project start date. No funding requests are pending with any other entities for the items in this budget. AID members will hire contractors for the installation of meters and accessories. AID is requesting **$100,000.00** from the Bureau or **45.7%** of the cost of the project. The cash match provided by the District would be **$118,728.00** or **54.3%.** No outside funding sources are included in this proposal and consequently, no letters of commitment are attached.

Project Budget

Table 1.— Total Project Cost Table

Funding Sources	% of Total Cost	Total Cost by Source
Bureau of Reclamation	45.7%	$100,000
Almena Irrigation District	54.3%	$118,728
Totals	100.00%	$218,728

Table 2 - Budget Proposal

Budget Item Description	Computation $/unit	Computation Quantity	Quantity Type (hours/days)	Total Cost
Salaries and Wages				
	No federal funds to be used for salaries/wages			
Fringe Benefits				
	No fringe benefits provided by this project			
Travel				
	No federal funds to be used for travel			
Environmental Compliance Costs				
				$ 500.00
Equipment				
Flow Meter Telemetry Stations	$4,700.00	9	ea	$42,300
25 HP 3600 RPM #25220	$11,277.00	1	ea	$11,277
20 HP 3600 RPM #20220	$10,240.00	1	ea	$10,240
20 HP 3600 RPM #20211	$10,240.00	7	ea	$71,680
Size 3 Electrical Panel	$1,280.00	9	ea	$11,520
Subtotal				**$147,017**
Supplies and Materials				
Yellowmine Locking Pipe	$ 37.00	800	lf	$29,600
Installation Materials	$ 200.00	9	ea	$1,800
Subtotal				**$31,400**
Contractual/Construction				
Data Acquisition/Processing	$160.00	9	Yr 1	$1,440
Horizontal Boring	$ 40.00	800	lf	$32,000
Subtotal				**$33,440**
Total Project Costs				**$212,357**
Indirect Costs		3%		**$6,370.71**
Total Estimated Costs				**$218,728**

Funding for our project will be provided by the WaterSMART grant and the AID. No letters of commitment from outside sources will be needed.

Budget Narrative

The estimated project cost is **$218,728.00**. Upon delivery of the supplies, the grant funds from the BOR will help pay for the equipment purchased from the irrigation contractors/distributors.

In-kind contributions from AID will be the cash required to purchase meters, pipeline, pumping equipment, materials, and to pay contractors for installation services to install equipment. This will amount to **$118,728.00** as noted in the Budget Proposal. All field installation work will be conducted by contractors as AID has no district employees. As a result, no staff time is included in the budget.

Prices for floating pumps which range from **$10,240 to $11,277** have been obtained and quotes are included in **Attachment 1**. Pipeline will need to be placed under the highway in three locations. The pipeline and boring services come to **$29,600 and $32,000** respectively and are highlighted on quotes in **Attachment 2**. A quote has been obtained from a meter manufacturer for metering equipment with telemetry and is included in the budget at approximately **$4,700/site**. Cellular data costs will be **$160/year**. This quote is included in **Attachment 3**.

In-kind contributions that do not cover our share will be made up by the AID Operating fund. The expenditures benefit the project by improving AID's ability to monitor and deliver constant water flows to the farmers and to our own canals and laterals.

Total Costs

The total estimated project cost is **$218,728.00**. The district requests **$100,000** from the Bureau's Small-scale Water Efficiency Grant. The remaining **$118,728** will come from the Almena Irrigation District in cash contributions.

Unique Entity Identifier and System for Award

Almena Irrigation District is registered on the SYSTEM for Award Management (SAM) and has a current and active number: **KBKWN19X1M18**. The Almena Irrigation District will maintain an active SAM registration throughout the project.

Section H: Environmental and Cultural Resources Compliance

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

AID plans to accomplish surface water pump and meter upgrades or improvements with this project. The meters will be in the same locations as previous diversions and any environmental impacts will be minimal.

Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

No, Endangered species will not be affected.

Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have.

No.

When was the water delivery system constructed?

The Norton Dam and Reservoir were transferred into operation and maintenance status on June 1, 1965 and were operated by the Bureau of Reclamation. Irrigation first began in the Almena Irrigation District in 1967 when water was first turned into part of the canal system on April 17, 1967. The first farm delivery was made after filling the pool behind the diversion dam.

Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

Discharge pipes of existing turnouts will need slight modifications, but no changes will be made to canals, headgates, or flumes as a result of this project.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

No

Are there any known archeological sites in the proposed project area?

No

Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

No. To the contrary, this project will benefit agricultural producers and the labor force that they support which will benefit low-income or minority populations.

Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

No

Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No

Board Resolution

OFFICIAL RESOLUTION OF THE
ALMENA IRRIGATION DISTRICT

Resolution NO 2024-01

WHEREAS, the United States Department of Interior, Bureau of Reclamation, has announced the WaterSMART Opportunity for the Fiscal Year 2025 Small-Scale Water Efficiency Grant Projects to provide financial assistance to water managers.

WHEREAS, Almena Irrigation District has a present need for funding to implement irrigation water meter upgrades necessary under the auspices of the Kansas State Water Plan.

NOW, THEREFORE, BE IT RESOLVED that the Almena Irrigation District Directors agree to and authorize the following:

- The Almena Irrigation District Directors have reviewed and support the proposal submitted;
- The Almena Irrigation District is capable of providing the amount of funding needed for the matching grant from the WaterSMART Grant; and
- If selected for a WaterSMART Grant, Almena Irrigation District will work with the Reclamation to meet the established deadlines for entering into a cooperative agreement.

DATED: 1-2-2025

Craig Ingram, President
Almena Irrigation District

ATTEST:

Steven Cox, Secretary
Almena Irrigation District

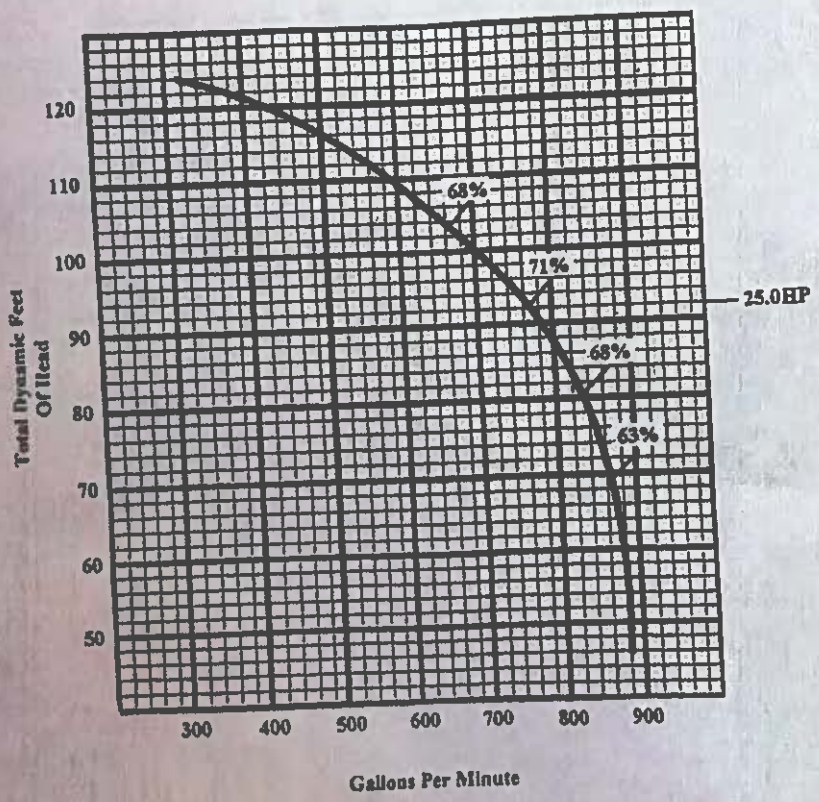
DOBBS

25HP 3600 RPM #25220 FLOATING CENTRIFUGAL PUMP

Complete: Pump, Screen, Arms, & TWO 8' Plastic Foam-Filled Floats

3 PHASE - 240V	
25HP Pump Complete	$11,277.00
Optional Equipment:	
Size 3 Panel	$1,755.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
6/5 Cable	$15.30/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot

3 PHASE - 480V	
25HP Pump Complete	$11,277.00
Optional Equipment:	
Size 2 Panel	$1,280.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
8/5 Cable	$10.20/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot

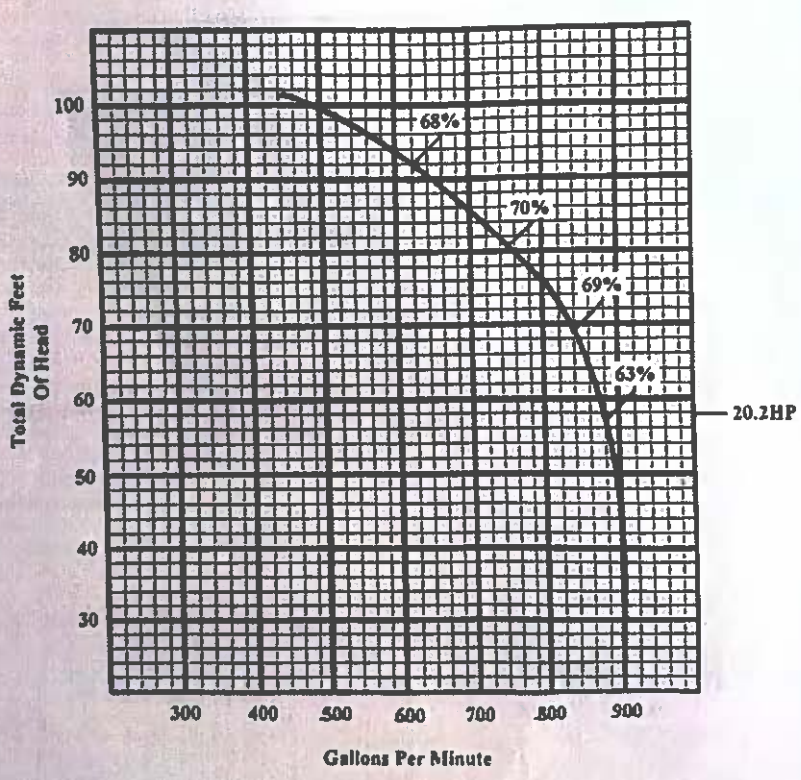


20HP 3600 RPM #20220 FLOATING CENTRIFUGAL PUMP

Complete: Pump, Screen, Arms, & TWO 8' Plastic Foam-Filled Floats

3 PHASE - 240V	
20HP Pump Complete	**$10,240.00**
Optional Equipment:	
Size 2 ½ Panel	$1,638.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
6/5 Cable	$15.30/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot

3 PHASE - 480V	
20HP Pump Complete	**$10,240.00**
Optional Equipment:	
Size 2 Panel	$1,280.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
8/5 Cable	$10.20/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot



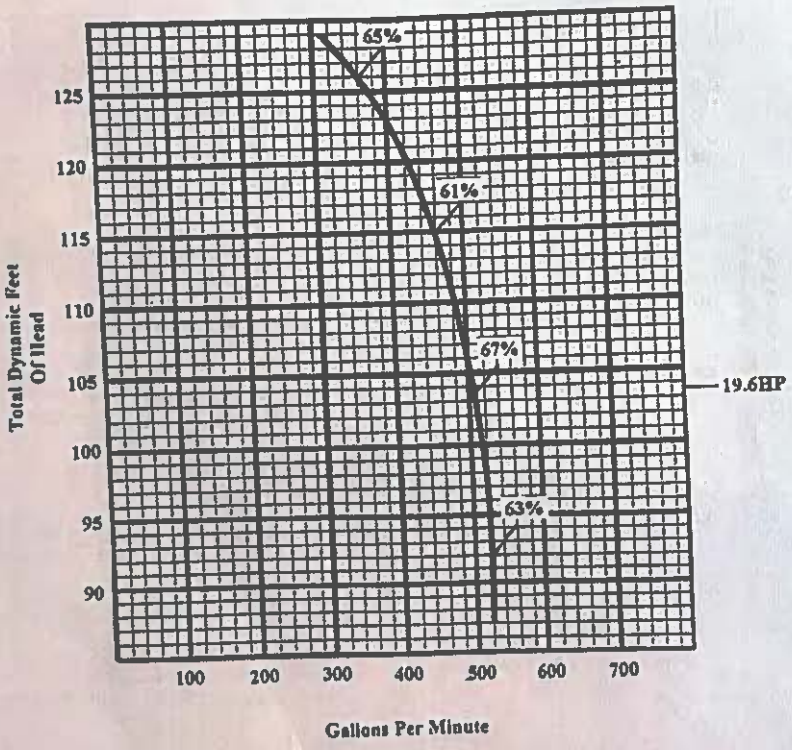
DOBBS

20HP 3600 RPM #20211 FLOATING CENTRIFUGAL PUMP

Complete: Pump, Screen, Arms, & TWO 8' Plastic Foam-Filled Floats

3 PHASE - 240V	
20HP Pump Complete	**$10,240.00**
Optional Equipment:	
Size 2 ½ Panel	$1,638.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
6/5 Cable	$15.30/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot

3 PHASE - 480V	
20HP Pump Complete	**$10,240.00**
Optional Equipment:	
Size 2 Panel	$1,280.00
Semi Automatic Control	$575.00
Fully Automatic Control	$650.00
8/5 Cable	$10.20/Foot
6" High Pressure Hose	$12.00/Foot
Mooring Rope	$0.20/Foot



Attachment 2

WESTERN SPRINKLERS, INC.

1100 S. Range | P.O. Box 488
Colby, Kansas 67701
785-462-6755

Estimate

Estimate Number 119072

Date 12/9/2024

Western Sprinklers, Inc
PO Box 488
Colby, KS 67701-0488

Legal Description SEC.15, SCHNUERLE, GRAHAM

Terms	Net 30
Salesperson	BRIAN

Item	Quantity	Description	U/M	Cost	Total
PVCPIPE880	5,900	PIPE-8" 80 PSI PVC PIPE	ea	6.28	37,052.00
BACKHOE	5,900	UNDERGROUND TRENCH		1.00	5,900.00
WIRTHH2	5,900	1HHN #12 COPPER SOLID TRACER WIRE	ea	0.60	3,540.00
BACKHOE	1	BACKHOE WORK, HI INS, CROSSINGS		12,600.00	12,600.00
BACKHOE					
BACKHOE					
PH3821-22	1	PIVOT FILTER ASSM 8"- 3/32 SCREEN PIERCE	ea	3,360.77086	3,360.77
				Total	$106,514.36

Page 2

WESTERN SPRINKLERS, INC.

1100 S. Range | P.O. Box 488
Colby, Kansas 67701
785-462-6755

Estimate

Estimate Number 119074

Date 12/10/2024

Western Sprinklers, Inc
PO Box 488
Colby, KS 67701-0488

Legal Description COX, NELSON, FIELDS

Terms	Net 30
Salesperson	BRIAN

Item	Quantity	Description	U/M	Cost	Total
GPMTD20826F...	3	FLOW TUBE 8 FLANGED WITH VANES	ea	768.74646	2,306.24
PVCPIPE880	8,800	PIPE-8" 80 PSI PVC PIPE	ea	6.28	55,264.00
BACKHOE	8,800	UNDERGROUND TRENCH		1.00	8,800.00
WIRTH12	8,800	THHN #12 COPPER SOLID TRACER WIRE	ea	0.60	5,280.00
BACKHOE	1	BACKHOE WORK, TIE INS, CROSSINGS		12,600.00	12,600.00
BACKHOE	260	ROAD BORE		40.00	10,400.00
BACKHOE	260	YELLOWMINE LOCKING PIPE		37.00	9,620.00
PIE3821-22	1	PIVOT FILTER ASSM 8"- 3/32 SCREEN PIERCE	ea	3,160.77086	3,160.77

Total $119,155.55

WESTERN SPRINKLERS, INC.
VALLEY
1100 S. Range | P.O. Box 488
Colby, Kansas 67701
785-462-6755

Estimate

Estimate Number 119075

Date 12/10/2024

Western Sprinklers, Inc
PO Box 488
Colby, KS 67701-0488

Legal Description HILLEBRAND, GEBHARD, GRAF

Terms	Net 30
Salesperson	BRIAN

Item	Quantity	Description	U/M	Cost	Total
PVCPIPE880	8,000	PIPL-8" 80 PSI PVC PIPE	ea	6.28	50,240.00
BACKHOE	8,000	UNDERGROUND TRENCH		1.00	8,000.00
WIRTH12	8,000	THHN #12 COPPER SOLID TRACER WIRE	ea	0.60	4,800.00
BACKHOE	1	BACKHOE WORK THRUINS CROSSINGS		10,800.00	10,800.00
BACKHOE					
BACKHOE					
PIE3821-22	1	PIVOT FILTER ASSM 8"- 3/32 SCREEN PIERCE	ea	3,360.77086	3,360.77
			Total		$118,046.58

McCROMETER

Quotation

McCrometer Inc.
3255 W Stetson Ave
Hemet, CA 92545
Phone: (951) 652 6811
Website: www.mccrometer.com

Quote Number: 101130208v1
Use quote number at time of order to ensure that you receive prices quoted

Quote Date: 01/03/2025

Quote Expiration: 02/02/2025

Almena Irrigation District

29712 Tanoak Ct
Hemet, CA 92545

Name: Almena Irrigation District
Phone: (785) 669-2390
Email: mariaa@mccrometer.com

Sales Contact: Maria Amezcua Email: mariaa@mccrometer.com Phone: 9516526811

PRICING QUOTATION

Line	Part Number	Description	Qty	Unit Price	Net Unit Price	Extended Price
1	MCNPN	M0308P2T-SW. 8" saddle meter with marathon bearing, Flow Connect, surface water	9	1,972.95	1,972.95	17,756.55
2	FC500-ABCD	FLOWCONNECT, MCCROMETER	9	1,895.25	1,895.25	17,057.25
3	MCNPN	CB100-10 Canopy Boot	9	65.10	65.10	585.90
4	MCNPN	Data Costs. .	9	160.00	160.00	1,440.00
5	MCNPN	8" Flow Tube, flanged reverse	9	721.35	721.35	6,492.15
6	MCNPN	Freight for above 9 meters	9	50.00	50.00	450.00
					Grand Total	$ 43,781.85

NOTES

Sales Contact:
Name: Maria Amezcua
Title:
Phone: 9516526811
Email: mariaa@mccrometer.com

Almena Irrigation District No. 5

Post Office Box 275

Almena, Kansas 67622

12-22-2024

To whom it may concern,

On behalf of the Board of Directors of the Almena Irrigation District in Kansas, I would like to voice our support for Almena Irrigation District (AID) in their application for a grant to convert open canals to buried pipe and pump stations along Prairie Dog Creek.

Water is our most precious resource, and we have to do everything in this board's power to conserve that resource. (AID) has always been in a battle with a limited resource of water, the district has discovered a way to deliver water in a very efficient way and we hope you will consider our grant request.

AID works closely with the Kansas Division of Water Resources to ensure all Kansas Nebraska compact compliance is met.

AID will divert a minimal amount of water on top of the already flowing water to make efficient deliveries to District Members' properties.

Thank you for your consideration of the R24AS00059 grant proposal.

AID President

Stockton Field Office
820 S. Walnut
Stockton, KS 67669-0192

Kansas
Department of Agriculture
Division of Water Resources

Phone: 785-425-6787
Fax: 785-425-6842
www.agriculture.ks.gov

Mike Beam, Secretary

Laura Kelly, Governor

DATE

TO WHOM IT MAY CONCERN

Re: Almena Irrigation District

Dear Sir or Madam:

I am writing this letter in support of the Almena Irrigation District (District). As the Water Commissioner for the Northwest & Northcentral parts of Kansas, I am very familiar with the District, and I have worked closely with them over the past few years as they have taken steps to modify their operation to conserve water and improve efficiency.

The District started implementing pump stations and underground pipe to District boundaries in 2017. Since that time, they have approximately 50% of the District boundaries converted to underground pipe and pump stations along Prairie Dog Creek. The installation of McCrometer water flow meters with remote reading technology has made for easier accounting and management. The increased efficiency by converting to underground pipe and pump stations along prairie dog Creek has greatly improved the delivery efficiency of the District water supply compared to the open canals and lateral diversions. This is all been done in compliance with the state of Kansas and the Division of Water resources.

In conclusion, the Division of Water Resources has approved the changes necessary for the District to make these efficiency improvements and we support their efforts to continually conserve water.

If you have any questions, please feel free to contact me at this office.

Sincerely,

Kelly C. Stewart

Kelly C. Stewart
Water Commissioner

KCS

January 6, 2024

Bureau of Reclamation
1706 West Third
McCook, NE 69001

Bureau of Reclamation:

The Norton County Community Foundation (NCCF) is a proud partner with the Kansas Department of Wildlife & Parks (KDWP) and the Almena Irrigation District in a project we call "Secure Sebelius Lake." Each year, we fundraise and raise local awareness for a project that retains both a water level and a quality of life in our community. Funds for an updated water distribution method for the Almena Irrigation District would create opportunities and save resources in our county and region.

Since NCCF began this partnership with KDWP in 2017, it has been made very clear that the Almena Irrigation District would greatly benefit from an upgraded distribution method from the Sebelius Reservoir to their irrigation wells. The 172,300 recreational users of the Sebelius Reservoir in the 18-county region in Northwest Kansas is estimated to be $5,173,000 annually, per a report from the Docking Institute of Public Affairs in 2018. As good stewards of our precious resources, our local farmers have been methodical and diligent in their quest for an improved and attainable water distribution process, ensuring we maintain high lake levels to continue adding to the economic impact in our area. We hope your grant funds will allow them to put their plan into action.

Thank you for your interest in the Almena Irrigation District's request for grant funding and I look forward to seeing Sebelius Reservoir and the Prairie Dog State Park have an even greater impact on our county.

Sincerely,

Bethany Shirk
Executive Director
Norton County Community Foundation
112 S Kansas Ave, Suite 203
Norton, KS 67654
bethany@nortonccf.org
(785) 874-5106 112 S. Kansas Ave., Suite 203, Norton, KS 67654 www.nortonccf.org