

TO: Board Members

THROUGH: Kevin Patteson, Executive Administrator
Robert E. Mace, Ph.D., P.G., Deputy Executive Administrator, Water
Science & Conservation
Les Trobman, General Counsel

FROM: Cameron Turner, Team Lead, Agricultural Water Conservation Program

DATE: December 1, 2015

SUBJECT: Request for Applications for Fiscal Year 2016 Agricultural Water
Conservation Grants

ACTION REQUESTED

Consider authorizing the Executive Administrator to publish a request for applications in the *Texas Register* for Fiscal Year 2016 agricultural water conservation grants for a total amount not to exceed \$600,000 from the Agricultural Water Conservation Fund.

BACKGROUND

The Agricultural Water Conservation program funds irrigation water conservation projects involving activities such as research, education, demonstrations, and irrigation efficiency improvements. Projects funded out of this program assist in the implementation of irrigation water management conservation strategies identified in the state water plan and further water conservation in the state (Attachment A).

During fiscal years 2014 and 2015, the Agricultural Water Conservation Fund provided more than \$12 million in new funding commitments across 22 grant projects and three low-interest loans. TWDB Agricultural Water Conservation staff members currently manage 37 active grant projects worth over \$9 million (Attachment B).

KEY ISSUES

The Agricultural Water Conservation Fund provides financial assistance in the form of grants and loans. The TWDB budget in the General Appropriations Act, as passed by the 84th Texas

Our Mission	:	Board Members
To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas	:	Bech Bruun, Chairman Kathleen Jackson, Member
	:	Kevin Patteson, Executive Administrator

Legislature, includes authorization to use existing funds to support the Agricultural Water Conservation Grants Program in Fiscal Year 2016. There are sufficient funds in the Agricultural Water Conservation Fund to cover these grants, existing commitments, and up to \$2 million in new loans during Fiscal Year 2016 (Attachment C).

The Agricultural Water Conservation Grants Program offers grant funding to state agencies and political subdivisions for activities that further water conservation in the state. Grant topics vary from year to year to address current issues in agricultural water conservation. The four proposed project categories for funding in Fiscal Year 2016 are as follows:

Category 1: Technical Assistance, Outreach, Education, and Demonstrations

Funding in this category is available for cost-share of activities focused on technical assistance, outreach, and education for agricultural producers. Activities considered for funding might include development of conservation plans, assistance with implementation of on-farm best management practices, training seminars emphasizing agricultural water conservation, and demonstrations of innovative irrigation water conservation technologies. Additional details and the exact scope of the project(s) will be negotiated with the selected applicant(s). Funding recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Category 2: Agricultural Water Use Monitoring Equipment

Funding in this category is available for cost-share of agricultural water use monitoring equipment. Funding recipients must report water use data to TWDB staff annually for a period of five years following installation of equipment. Annual data reports must include irrigated acreage, crop type, irrigation rate, total water use, county name, geographic coordinates, rainfall totals, and an estimate of water savings as a result of the project.

Category 3: Feasibility Study for Development of a Statewide Evapotranspiration Network

Funding in this category is available to study the feasibility of creating, funding, and maintaining a statewide evapotranspiration network that would promote irrigation scheduling resulting in agricultural water conservation and support other functions of the TWDB by providing critical water-related data. The purpose is to determine the resources required to integrate existing evapotranspiration monitoring stations into a statewide network. The scope of work must include at minimum (1) a study of existing statewide evapotranspiration networks in other states including how they are funded and how data are shared; (2) an evaluation of existing evapotranspiration networks in Texas and how they operate; (3) a determination of the potential water savings and other benefits to potential data users; (4) a thorough description of what would be required to facilitate, construct, operate, manage, and fund such a network in Texas; and (5) how such a

network might be expanded over time with limited funds. Additional details and the exact scope of the study will be negotiated with the selected applicant(s). Funding recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Category 4: Study of Irrigation Efficiency in Texas

Funding in this category is available for a study determining the (1) county-level irrigation application efficiencies, (2) the irrigation practices and technologies currently used by agricultural producers in Texas, (3) the number of acres per county under irrigation by system type, and (4) the level of investment from agricultural producers to improve their irrigation efficiency. Additional details and the exact scope of the study will be negotiated with the selected applicant(s). Funding recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Upon Board approval, the Executive Administrator will publish a request for applications in the *Texas Register* for Fiscal Year 2016 Agricultural Water Conservation Grants not to exceed \$600,000 from the Agricultural Water Conservation Fund. Total grant funding shall not exceed \$150,000 per project. The request for applications will include a statement that TWDB reserves the right to reject parts of, any, or all applications if staff determines that the application(s) does not adequately meet the required criteria or if the funding available is less than the requested funding. Staff will review and rank applications received by the deadline according to rules contained in 31 Texas Administrative Code Chapter 367, criteria and prioritization set forth in the request for applications (Attachment D), and application instructions (Attachment E).

RECOMMENDATION

The Executive Administrator recommends approval of this item.

Legal counsel has reviewed this recommendation and the action requested is within the authority of the Board.

Attachment(s):

Attachment A: History and Benefits of the Agricultural Water Conservation Grants Program

Attachment B: Active Agricultural Water Conservation Grant Projects

Attachment C: Agricultural Water Conservation Fund Projected Balance

Attachment D: Request for Applications for Fiscal Year 2016 Agricultural Water Conservation Grants

Attachment E: Application Instructions for Fiscal Year 2016 Agricultural Water Conservation Grants

Attachment A

History and Benefits of the Agricultural Water Conservation Grants Program

In 1986, the Texas Water Development Board began providing grants to eligible political subdivisions through the Agricultural Trust Fund for purchases of items such as portable flowmeters and surveying equipment for land leveling. That same year, TWDB began providing low-interest loans through a pilot loan program created by the legislature to fund irrigation efficiency improvements. The success and popularity of this loan program, especially amongst groundwater conservation districts at the time, allowed participating producers access to low-interest funding to encourage installation of more efficient irrigation systems, primarily center pivots.

In 2003, Senate Bill 1053 abolished the Agricultural Trust Fund and the Agricultural Soil and Water Conservation Fund and transferred the assets of both funds to the Agricultural Water Conservation Fund. TWDB now provides loans to political subdivisions and grants to political subdivisions and state agencies to promote water conservation in the state. The projects and programs funded assist in the implementation of irrigation conservation strategies in the state water plan. The grant projects also provide education and outreach to enable the transfer of available water conservation technology to irrigated farms. In 2005, TWDB funded two long-term agricultural water conservation demonstration initiatives. Funding for these long-term demonstrations allows project cooperators and producers an opportunity to evaluate crop productivity, irrigation water use, and available water supplies to determine which water saving practices and technologies offer cost-effective solutions to improve irrigation water use efficiency.

- The Texas Project for Ag Water Efficiency in the Lower Rio Grande Valley was funded in 2005 through the Harlingen Irrigation District for \$3,775,225 and was completed in August 2015. The project demonstrated improvements in district conveyance and irrigation practices in real on-farm situations, quantifying the expense of water savings and the effect on producer yields, and demonstrating to the farmer how the water conservation activities affect his bottom line. One cost-effective practice, narrow-border flood, offers potential to reduce water use by over 30 percent and double net cash farm income for citrus producers and is now part of two other grant projects funded through the program.

Attachment A

- The Texas Alliance for Water Conservation is a demonstration project in the Southern High Plains funded through Texas Tech University with a \$6,224,775 grant in 2005. TWDB provided an additional \$3.6 million out of the Agricultural Water Conservation Fund to this project in fiscal years 2014 and 2015, as directed by Senate Bill 1, Rider 22 passed during the 83rd Regular Legislative Session. The project is identifying technologies and practices that conserve irrigation water while maintaining or enhancing individual farm profitability. The first phase of the project ended on August 31, 2014, but with the additional funding the project will now continue through 2020.

In addition to the long-term demonstration initiatives, TWDB annually provides grant funding to eligible entities on a competitive basis. The primary focus and intent of the program is to support implementation of the irrigation conservation strategies identified in the regional and state water plans through active engagement of producers and improvements to irrigation infrastructure that result in the conservation of irrigation water. During fiscal years 2010 to 2015, grant recipients reported 253,254 acre-feet of water savings.

Fiscal Year	Reported water savings (acre-feet)
2010	97,710
2011	49,022
2012	44,131
2013	17,805
2014	18,777
2015	25,809
2010–2015 Total	253,254

TWDB requires all agricultural water conservation grant recipients to report water savings. Depending on the nature of the project, some report a one-time cumulative volume at the end of the contract; others report on an annual basis for a period of up to five years. TWDB staff annually considers revisions to the grant categories to facilitate or encourage projects that assist in the implementation of cost-effective conservation strategies and technologies identified in the state water plan and proven through demonstration and research projects to further water conservation in the state.

Attachment B

Active Agricultural Water Conservation Grant Projects

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2009	Lower Colorado River Authority	\$99,219	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of volumetric measurement equipment. • Aids LCRA in implementing a larger initiative to improve irrigation delivery, efficiency, and implementation of volumetric pricing in the Garwood Irrigation Division. • LCRA reported a total of 23,161 acre-feet of water savings for the irrigation seasons of 2012, 2013, and 2014 while experiencing limited water availability. 	Expiration date: 12/31/17
2010	Hemphill County Underground Water Conservation District	\$36,491	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 30 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 8/31/18
2010	Medina County Groundwater Conservation District	\$60,000	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 40 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 8/31/18
2010	Panhandle Groundwater Conservation District	\$63,375	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 65 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 8/31/18
2010	Panhandle Groundwater Conservation District	\$127,300	<ul style="list-style-type: none"> • Irrigation system audits — verification of meter accuracy within the districts metering program. • The district receives analytical data of meter accuracy which aids in determination of a meter replacement schedule. 	Expiration date: 8/31/16
2011	Hemphill County Underground Water Conservation District	\$10,373	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 5 flow meters and a portable flow meter to verify accuracy of installed meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. • The district will also be able to verify meter accuracy upon installation and over the years through use of the portable flow meter. 	Expiration date: 7/31/19
2011	Colorado County Groundwater Conservation District	\$50,000	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 56 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 7/31/18

Attachment B

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2012	Coastal Bend Groundwater Conservation District	\$25,000	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of 19 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 8/31/20
2012	Mesquite Groundwater Conservation District	\$50,000	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation 60 flow meters. • Producers receive meters at a reduced cost and gain a useful water management tool. • The district receives actual water use data which is useful in planning and management decisions. 	Expiration date: 8/31/20
2012	Panhandle Regional Planning Commission	\$200,000	<ul style="list-style-type: none"> • Educational outreach and training for targeted users of the Texas High Plains Evapotranspiration Network for use in irrigation scheduling. • Producers in the Texas High Plains will benefit through the availability of the free irrigation scheduling tools, online crop water use and weather data, and regional training workshops conducted by the Texas A&M AgriLife Extension Service. • The region will benefit through producers' adoption of this irrigation conservation strategy identified in their regional water plan. • Potential water savings estimated to be in the range of 0.5-2.0 acre-inches of water savings per irrigated acre at an implementation cost estimated at \$8.99 per acre-foot of groundwater saved according to the 2011 Panhandle Regional Water Plan. 	Expiration date: 5/31/16
2012	Texas A&M University - Kingsville	\$136,982	<ul style="list-style-type: none"> • Demonstration of improved water conserving irrigation techniques to educate citrus growers in the Lower Rio Grande Valley. • This project is a result of research demonstrated through the Texas Project for Ag Water Efficiency. • Previous research and demonstrations of narrow border flood have shown approximately 36 percent less water applied on citrus trees than traditional flood irrigation without any associated losses in yields or quality. • Research will demonstrate and prove the cost-effectiveness of this strategy along with further research on a partial root zone drying strategy to area producers through open field days. • The costs of implementing these strategies are estimated to be approximately \$30 to \$40 per acre. • Demonstrations to area producers have the potential to generate up to 49,000 acre-feet of irrigation savings per year, if all area citrus producers were to adopt these practices. 	Expiration date: 5/15/16
2013	Bureau of Economic Geology at the University of Texas	\$194,029	<ul style="list-style-type: none"> • Feasibility and assessment of remote sensing technologies to assist with estimating irrigation water use in Texas. • TWDB will benefit through research and proof of concept of remote sensing as a technique to estimate irrigation water use in the state. • A non-biased means of estimating irrigation water use is needed to compare with existing estimates and possibly to improve upon existing methodologies. 	Expiration date: 8/1/16
2013	Harlingen Irrigation District	\$200,000	<ul style="list-style-type: none"> • Efficiency improvements to the irrigation conveyance system involving replacement of concrete laterals with pipelines. • Expected to generate 377 acre-feet of water savings per year through addressing water loss in the irrigation water conveyance system. 	Expiration date: 7/31/20

Attachment B

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2013	Lower Colorado River Authority	\$101,700	<ul style="list-style-type: none"> • Installation and automation of canal check gate structures in the LCRA Gulf Coast Irrigation Division. • This project is expected to generate 400 acre-feet of water savings per year. 	Expiration date: 7/31/19
2013	Lower Neches Valley Authority	\$100,000	<ul style="list-style-type: none"> • Irrigation measurement — purchase and installation of metering equipment in the Devers Canal System. • Through a similar previously project, installation of metering equipment along with volumetric pricing resulted in average annual savings of 1.14 acre-feet per acre with an average annual benefit to the authority of \$1,327,889 and an annual average of 19,505 acre-feet of water savings. • This project will have similar benefits as it installs meters and implements volumetric pricing in an area that is currently not metered by the authority. 	Expiration date: 7/31/20
2014	Texas Tech University	\$1,800,000	<ul style="list-style-type: none"> • Fiscal Year 2014 portion of the funding provided through Senate Bill 1, Rider 22, extends and expands upon the existing the Texas Alliance for Water Conservation project. • Research and demonstrations of agricultural water conservation technologies and practices benefit area producers in the Texas High Plains. • The project identifies cost-effective strategies to maintain or enhance profitability and helps producers deal with declining water availability. 	Expiration date: 8/31/20
2014	El Paso Water Improvement District No.1	\$200,000	<ul style="list-style-type: none"> • The project involves using fiber-reinforced concrete for canal-lining activities in an area of the district with water loss of 3,000 acre-feet per year due to “seepage that is intercepted by shallow irrigation wells in the vicinity of the canal and south of the international border.” • The project will line approximately one-third of this high water loss area; estimated to save 1,000 acre-feet per year. • Surface water users in this part of the state are experiencing new drought-of-record conditions; usable Rio Grande Project water available for release in 2013 was the lowest level ever in the 97-year history of the project. 	Expiration date: 8/31/19
2014	North Plains Groundwater Conservation District	\$197,313	<ul style="list-style-type: none"> • The “3-4-5 Grain Production Maximization” project builds upon the success of the district’s award-winning “200-12 Project” established in 2010 as a commercial-scale, field demonstration project that involves district personnel, local producers, and private industry. • This project continues the demonstrations of innovative irrigation management practices and strategies on actual producer farms with private industry coordination and outreach via field days to facilitate benefits to other producers in the region. 	Expiration date: 12/31/22
2014	Santa Cruz Irrigation District No. 15	\$200,000	<ul style="list-style-type: none"> • This project involves using fiber-reinforced concrete for canal-lining activities in an area of the district currently experiencing 938 acre-feet of annual water loss and is estimated to conserve 670 acre-feet of this annual loss and to provide annual cost savings of \$17,866. • Water conserved benefits all farmers in the district when on an allocation program. 	Expiration date: 8/31/19

Attachment B

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2014	High Plains Underground Water Conservation District No. 1	\$617,500	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/22
2014	North Plains Groundwater Conservation District	\$600,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/22
2014	Panhandle Groundwater Conservation District	\$107,500	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 8/31/22
2014	Mesquite Groundwater Conservation District	\$150,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/22
2014	Coastal Bend Groundwater Conservation District	\$25,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 8/31/19
2015	Texas Tech University	\$1,800,000	<ul style="list-style-type: none"> • Fiscal Year 2015 portion of funding provided through Senate Bill 1, Rider 22, extends and expands upon the existing the Texas Alliance for Water Conservation project. • Research and demonstrations of agricultural water conservation technologies and practices benefit area producers in the Texas High Plains. • The project identifies cost-effective strategies to maintain or enhance profitability, and help producers deal with declining water availability. 	Expiration date: 8/31/20
2015	Brewster County Groundwater Conservation District	\$10,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/23

Attachment B

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2015	Cameron County Irrigation District No. 6	\$150,000	<ul style="list-style-type: none"> • Replacement of 3,800 linear feet of the Saldaña Canal with enclosed (24 inch PVC) pipeline. • Producers involved in the project will also attend an agricultural water conservation education seminar at the Rio Grande Center for Ag Water Efficiency. 	Expiration date: 8/31/20
2015	Gulf Coast Water Authority	\$200,000	<ul style="list-style-type: none"> • Through this project the authority will purchase and install open-channel flow meters to provide real-time water use data and implement conservation pricing. • These activities will encourage irrigation water use efficiency in rice production 	Expiration date: 8/31/20
2015	Texas A&M University - Kingsville	\$200,000	<ul style="list-style-type: none"> • The project continues and builds upon TWDB funded research at the Citrus Center in Weslaco. • Activities involve evaluation and demonstration of water saving techniques to improve irrigation efficiency in citrus production through low-cost irrigation system improvements. • Private landowners contributed by offering their own citrus fields for a portion of the demonstrations. 	Expiration date: 8/31/19
2015	Brush Country Groundwater Conservation District	\$10,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/24
2015	Coastal Bend Groundwater Conservation District	\$200,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/24
2015	Mesquite Groundwater Conservation District	\$150,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/24
2015	North Plains Groundwater Conservation District	\$800,400	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/24
2015	Edwards Aquifer Authority	\$22,050	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The authority will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/22

Attachment B

Fiscal Year	Grant Recipient	Amount	Project description and benefits	Status
2015	Lower Neches Valley Authority	\$30,000	<ul style="list-style-type: none"> • This project involves 23 percent reimbursement of meter equipment. • The authority will report water use data on an annual basis following installation of all equipment. 	Expiration date: 12/31/22
2015	Mesa Underground Water Conservation District	\$12,500	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/24
2015	South Plains Underground Water Conservation District	\$20,000	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. 	Expiration date: 12/31/24
2015	North Plains Groundwater Conservation District	\$295,050	<ul style="list-style-type: none"> • This project involves 50 percent reimbursement of eligible meter equipment purchases. • The district will report water use data on an annual basis following installation of all equipment. • Funding for this project was provided through Senate Bill 1, Rider 25, to districts with promulgated rules requiring metering. 	Expiration date: 12/31/27

Attachment C

Agricultural Water Conservation Fund Projected Balance

Fiscal Year	Beginning Fund Balance	Investment Projections	Loan Repayments	Existing Encumbrances*	Grants	Loans	Ending Fund Balance
2016	\$ 9,638,328	\$ 10,851	\$ 1,425,556	\$ 7,268,194	\$ 600,000	\$ 2,000,000	\$ 1,206,541
2017	\$ 1,206,541	\$ -	\$ 1,655,349	\$ -	\$ 600,000	\$ -	\$ 2,261,890
2018	\$ 2,261,890	\$ -	\$ 1,556,765	\$ -	\$ 600,000	\$ -	\$ 3,218,654
2019	\$ 3,218,654	\$ -	\$ 1,571,182	\$ -	\$ 600,000	\$ -	\$ 4,189,836
2020	\$ 4,189,836	\$ -	\$ 1,126,566	\$ -	\$ 600,000	\$ -	\$ 4,716,402
2021	\$ 4,716,402	\$ -	\$ 1,001,741	\$ -	\$ 600,000	\$ -	\$ 5,118,143
2022	\$ 5,118,143	\$ -	\$ 1,001,014	\$ -	\$ 600,000	\$ -	\$ 5,519,157
2023	\$ 5,519,157	\$ -	\$ 502,284	\$ -	\$ 600,000	\$ -	\$ 5,421,442
2024	\$ 5,421,442	\$ -	\$ 501,142	\$ -	\$ 600,000	\$ -	\$ 5,322,584
2025	\$ 5,322,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 4,722,584
2026	\$ 4,722,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 4,122,584
2027	\$ 4,122,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 3,522,584
2028	\$ 3,522,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 2,922,584
2029	\$ 2,922,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 2,322,584
2030	\$ 2,322,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 1,722,584
2031	\$ 1,722,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 1,122,584
2032	\$ 1,122,584	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 522,584
2033	\$ 522,584	\$ -	\$ -	\$ -	\$ 522,584	\$ -	\$ -
2034	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

* Existing Encumbrances represents the total outstanding balance of all currently active agricultural water conservation grant projects. TWDB distributes these funds on a reimbursement basis over the life of the project (typically 3 to 5 years).

Attachment D

Request for Applications for Fiscal Year 2016 Agricultural Water Conservation Grants

The Texas Water Development Board (TWDB) solicits a request for applications for Fiscal Year 2016 Agricultural Water Conservation Grants. The total amount of the grants to be awarded under this request for applications by the TWDB shall not exceed \$600,000 from the Agricultural Water Conservation Fund. The rules governing the Agricultural Water Conservation Fund (31 Texas Administrative Code, Chapter 367) and application instructions are available upon request from TWDB staff.

Summary of the Request for Applications

Solicitation Date (Opening): Date published in the *Texas Register*

Due Date (Closing): 12:00 p.m., Wednesday, February 17, 2016

Anticipated Award Date: June 2016

Estimated Total Funding: up to \$600,000

Eligible Grant Amount: not to exceed \$150,000 in grant funding for individual projects

Eligible applicants: state agencies and political subdivisions (as defined by 31 Texas Administrative Code, Chapter 367).

Contact: Cameron Turner, Agricultural Water Conservation Division, Texas Water Development Board, P.O. Box 13231, Austin, Texas 78711-3231, Phone: (512) 936-6090, E-mail: cameron.turner@twdb.texas.gov

Agricultural Water Conservation Grant Categories

Applications must be consistent with the format provided in the Agricultural Water Conservation Grant Application Instructions document. Please contact TWDB staff if you intend to apply. Applications must be in response to one of the following four grant categories:

Category 1: Technical Assistance, Outreach, Education, and Demonstrations

Funding in this category is available for cost-share of activities focused on technical assistance, outreach, and education for agricultural producers. Activities considered for funding might include development of conservation plans, assistance with implementation of on-farm best management practices, training seminars emphasizing agricultural water conservation, and demonstrations of innovative irrigation water conservation technologies. Additional details and the exact scope of the project(s) will be negotiated with the selected applicant(s). Funding

Attachment D

recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Category 2: Agricultural Water Use Monitoring Equipment

Funding in this category is available for cost-share of agricultural water use monitoring equipment. Funding recipients must report water use data to TWDB staff annually for a period of five years following installation of equipment. Annual data reports must include irrigated acreage, crop type, irrigation rate, total water use, county name, geographic coordinates, rainfall totals, and an estimate of water savings as a result of the project.

Category 3: Feasibility Study for Development of a Statewide Evapotranspiration Network

Funding in this category is available to study the feasibility of creating, funding, and maintaining a statewide evapotranspiration network that would promote irrigation scheduling resulting in agricultural water conservation and support other functions of the TWDB by providing critical water-related data. The purpose is to determine the resources required to integrate existing evapotranspiration monitoring stations into a statewide network. The scope of work must include at minimum (1) a study of existing statewide evapotranspiration networks in other states including how they are funded and how data are shared; (2) an evaluation of existing evapotranspiration networks in Texas and how they operate; (3) a determination of the potential water savings and other benefits to potential data users; (4) a thorough description of what would be required to facilitate, construct, operate, manage, and fund such a network in Texas; and (5) how such a network might be expanded over time with limited funds. Additional details and the exact scope of the study will be negotiated with the selected applicant(s). Funding recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Category 4: Study of Irrigation Efficiency in Texas

Funding in this category is available for a study determining the (1) county-level irrigation application efficiencies, (2) the irrigation practices and technologies currently used by agricultural producers in Texas, (3) the number of acres per county under irrigation by system type, and (4) the level of investment from agricultural producers to improve their irrigation efficiency. Additional details and the exact scope of the study will be negotiated with the selected applicant(s). Funding recipients must report progress on a quarterly basis and provide a draft and final report upon completion of the project.

Grant Amount

TWDB is authorized to provide up to \$600,000 for Fiscal Year 2016 assistance for agricultural water conservation grants from the Agricultural Water Conservation Fund. TWDB will award

Attachment D

these funds through a statewide competitive grants process. TWDB staff evaluates all proposals based upon the specific criteria set forth in this solicitation and application instructions. Unless otherwise specified in the individual grant category, eligible expenses typically include the cost of the capital equipment, materials, labor, preparation, installation, or administration directly associated with implementing and completing a conservation program or project. Overhead or indirect costs are not allowed as an eligible expense for reimbursement through TWDB agricultural water conservation grants.

Application Criteria and Selection Process

Prior to technical review, each application will be screened for completeness and compliance with the provisions of this notice. Incomplete applications and those that do not meet the provisions of this notice may be eliminated from competition. Applications meeting the provisions of this notice will be scored by a technical review panel. To be given priority consideration, the project should demonstrate effectiveness, utility, affordability, and usability in the field.

31 TAC Sections 367.8 and 367.9 require that in reviewing an application for an agricultural water conservation grant, the TWDB shall consider the following administrative and technical criteria: commitment of the applicant to agricultural water conservation; benefits that will be gained by making the grant; degree to which the applicant has used other available resources to finance the use for which the application is being made; and the willingness and ability of the applicant to raise revenue and provide matching funds.

Prior to approving a grant, the TWDB must find that the grant funds will: supplement rather than replace money of the applicant, and serve the public interest. TWDB shall include a finding that the grant will assist in the implementation of a water conservation water management strategy identified in the most recent applicable approved regional water plan or state water plan, and further water conservation in the state.

A technical review panel will evaluate the applications using the following criteria: sound and practical approach for implementing project as per the Request for Applications guidelines; application has clear identified tasks, products, and reporting timelines; project staff has the technical expertise needed to carry out the project; and proposed costs estimate (budget) is reasonable and adequately justified.

Ranking criteria may provide priority consideration to applications with the highest local cost-share match, largest benefit across a region, and/or number of project cooperators (such as districts and other water authorities; state and other governmental agencies; university researchers and extension personnel; organizations and associations; consultants and private industry; landowners, farmers, ranchers). All applicants must establish a metric for measuring

Attachment D

and reporting water savings or improvements in water use efficiency as a direct result of project funding

Funding and Partial Funding Provisions

TWDB reserves the right to reject all proposals and make no awards under this announcement. In addition, TWDB reserves the right to partially fund proposals by funding discrete activities, portions, or phases of a proposed project. If TWDB decides to partially fund a proposal, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the proposal, or portion thereof, was evaluated or selected for award, and that maintains the integrity of the competition and the evaluation/selection process. The TWDB reserves the right to reject parts of, any, or all applications if staff determines that the application(s) does not adequately meet the required criteria or if the funding available is less than the requested funding. The TWDB retains the right to not award contract funds.

Negotiations with Selected Applicants

The applicable scope of work, deliverables, tasks timelines, and contract amount will be negotiated after the TWDB selects the most qualified applicants. Failure to arrive at mutually agreeable terms of a contract with the most qualified applicant shall constitute a rejection of the Board's offer and may result in subsequent negotiations with the next most qualified applicant.

Deadline for Submission of Applications

Applicants must submit six double-sided, double-spaced paper copies and one digital copy of completed applications to the TWDB on or before 12:00 p.m. on Wednesday, February 17, 2016. Applications can be directed either in person to David Carter, Texas Water Development Board, Stephen F. Austin Building, Room 610D, 1700 North Congress Avenue, Austin, Texas, 78701; or by mail to David Carter, Texas Water Development Board, P.O. Box 13231 – Capitol Station, Austin, Texas 78711-3231.

Application instructions are available upon request from Cameron Turner, (512) 936-6090, cameron.turner@twdb.texas.gov, or online at <http://www.twdb.texas.gov>.

Attachment E

Application Instructions for Fiscal Year 2016 Agricultural Water Conservation Grants

The Texas Water Development Board's Agricultural Water Conservation Fund offers grants to state agencies and political subdivisions of the State of Texas for agricultural water conservation projects or programs that address the topics published in the recent Request for Applications in the *Texas Register*.

When to apply: The Texas Water Development Board publishes a Request for Applications in the *Texas Register* at least once each fiscal year. Any state agency(s) or political subdivision(s) interested in applying for an agricultural water conservation grant may contact the Contract Administration Division to be included on a mailing list that provides notification that a request has been published. Unsolicited applications can be filed at any time but will only be considered for funding if there is urgency for the activity to be done and is also dependent upon the availability of funds.

Who may apply: Eligible applicants include state agencies and political subdivisions (as defined by 31 Texas Administrative Code, Chapter 367).

Application submittal: Applicants must submit six double-sided, double-spaced paper copies and one digital copy of a complete application to the following address on or before 12:00 p.m. on Wednesday, February 17, 2016:

David Carter
Texas Water Development Board
Contract Administration Division
P. O. Box 13231
1700 N. Congress Ave.
Austin, Texas 78711-3231

All applications must be complete and include general information, proposed project information, and written assurances, as outlined below. Refer to the Request for Applications for eligible activities, ranking criteria, and selection process. A list of required items has been provided in the following pages to assist in completing an application.

If you intend to apply, please call Cameron Turner, Team Lead for the Agricultural Water Conservation Program, at (512) 936-6090 or e-mail at cameron.turner@twdb.texas.gov.

Attachment E

Application Requirements

Texas Administrative Code, Title 31, Part 10, Chapter 367, Section 367.5

Applications must address each of the following requirements, in this order:

Section I. Administrative Requirements

1. Official name and address of the applicant.
2. Constitutional and statutory authority creating the applicant and under which the applicant currently operates, and the Vendor ID number.
3. Names and addresses of the individual or individuals with the legal authority to perform the acts of the entity, and title of position.
4. An affidavit from the individual with the authority to act on behalf of the applicant, or a certified copy of a resolution adopted or minutes approved by the governing body with the authority to act on behalf of the applicant, which:
 - a. Identifies the amount that the applicant is requesting
 - b. Authorizes the submission of an application on behalf of the entity
 - c. Designates an authorized representative to submit the application and perform all reasonable and necessary action in support of the application and, if approved by the TWDB, to perform the terms and conditions of the award of money from the Fund.
5. Name, address, and title of the designated representative; also include phone number and email addresses.
6. Map and description of the geographic area in which the applicant is authorized to conduct such actions as are necessary for the proposed conservation program or project.
7. Description of the proposed program or project that includes:
 - a. The geographic area in which it will occur
 - b. Detailed timeline with projected completion date for each proposed task
8. Proposed budget for the program or project that identifies:
 - a. The total cost
 - b. The cost of each significant element of the program or project
 - c. Other sources of funds, if any.
9. The predicted water conservation and other benefits that will be created from the proposed program or project.
10. Conservation plan and program of work or other sufficient description of the applicant's commitment to water conservation.
11. Identification of a water conservation water management strategy identified in the most recent applicable regional water plan or state water plan that will be implemented by the use of the grant.

Attachment E

Section II. Agricultural Water Conservation Program/Project Information

12. Explanation of why this activity is needed.
13. A scope of work describing project work tasks with a time schedule for each.
14. A task and expense category budget (see attached example).
15. A list of products (data, reports, plans, or other products) that the TWDB will receive as a result of this project.
16. A description of suggested monitoring procedures and estimated water savings to be realized by implementation of this program/project (Include a description of methodology for calculating water savings.)
17. Qualifications and experience of staff directly related to this application.
18. A description of the extent to which the project will include an education component directed at project participants, other area producers, and/or the public including school children.

Section III. Written Assurances

Written assurance of the following items:

19. Written evidence that supplemental funding is available, if applicable.
20. Applications for irrigation meters must include justification for the number of meters requested.
21. Implementation of results identified through the application will be diligently pursued including:
 - a. Identification of and involvement of potential users and project participants
 - b. Implementation of water conservation water management strategy(s) identified in the most recent applicable regional water plan or state water plan.
22. If the application is for funding the construction of a conservation project to be considered by the board, an engineering feasibility report and/or an environmental assessment may be required according to rules established by the Texas Administrative Code Chapter 367 Sections 367.6–367.7 and Section 367.12

Attachment E

Section IV. Example Task and Expense Budgets

TASK BUDGET

TASK	DESCRIPTION	AMOUNT
1	Purchase equipment	\$ 20,000.00
2	Install equipment	\$ 5,000.00
3	Monitor water use	\$ 15,000.00
4	Report results	\$ 10,000.00
TOTAL		\$50,000.00

EXPENSE BUDGET

CATEGORY	LOCAL MATCH	TWDB AMOUNT
Salaries & Wages ¹	\$ 10,000.00	\$ 10,000.00
Fringe ²	\$ 1,000.00	\$ 1,000.00
Travel ³	\$ 1,000.00	\$ 1,000.00
Other Expenses ⁴	\$ 1,000.00	\$ 1,000.00
Equipment	\$ 10,000.00	\$ 10,000.00
Subcontract Services	\$ 2,000.00	\$ 2,000.00
TOTAL	\$25,000.00	\$25,000.00

¹ Salaries and Wages is defined as the cost of salaries of engineers, draftsmen, stenographers, surveyors, clerks, laborers, etc., for time directly chargeable to this contract.

² Fringe is defined as the cost of social security contributions, unemployment, excise, and payroll taxes, workers' compensation insurance, retirement benefits, medical and insurance benefits, sick leave, vacation, and holiday pay applicable thereto.

³ Travel is limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2011, Article IX, Part 5, as amended or superseded

⁴ Other Expenses is defined to include expendable supplies, communications, reproduction, and, postage directly chargeable to this CONTRACT.

Attachment E

Deadline and Submission of Application

Six double-sided, double-spaced paper copies and one digital copy of a complete agricultural water conservation grant application, including the required attachments must be filed with the TWDB on or before 12:00 p.m. on Wednesday, February 17, 2016.

Applications can be delivered in person to:

David Carter
Texas Water Development Board
Room 610D, Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701

Applications can also be mailed to:

David Carter
Texas Water Development Board
P.O. Box 13231 - Capitol Station
Austin, Texas 78711-3231

Requests for technical information may be directed to:

Cameron Turner
Agricultural Water Conservation
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-3231
E-mail: cameron.turner@twdb.texas.gov
Phone: (512) 936-6090