

## Request for Proposals

### **Research, Engineering, and Extension: Creation and Deployment of Water-Use Efficient Technology Platforms “Water Seed Grant Initiative” FY’20-FY’21**

Texas A&M AgriLife Research (AgriLife Research), the Texas A&M Engineering Experiment Station (TEES), and Texas A&M AgriLife Extension (AgriLife Extension), are providing a Request For Proposals (RFP) to research, develop, and deploy innovative technologies and approaches to improve the use, and increase the value, of water to support agricultural and municipal communities across Texas. Priorities of this seed grant initiative will focus on implementable water technology and management approaches that address the growing competition for water resources in agricultural and municipal systems across Texas.

AgriLife Research, AgriLife Extension, and TEES will provide funding for competitive grants for 20 months across for Fiscal Years 2020 and 2021.

#### **Priority Areas:**

The development and deployment of Innovation Technology and Management approaches that:

- Increase the value of water used to produce agricultural food and fiber crops;
- Increase the ability of municipalities to achieve UN Sustainable Development Goal (SDG) 6;
- Decrease the per capita water use in rural and municipal communities; and
- Decrease the cost of water supplies used for agricultural, rural and municipal purposes.

In all areas above, the creation and use of new technologies, such as sensor networks, precision irrigation, autonomous systems, information management systems, and other computational methods and tools are strongly encouraged. In addition, assessments of the ability to implement these new systems based on work force expertise, existing infrastructure, regulatory constraints and economic realities should be addressed in the project proposal. **The purpose of this Initiative is to provide resource investments to develop long-term relationships with water management agencies and seed larger project efforts that address high priority water availability and security issue that Texas faces.**

#### **Criteria for the Evaluation of Proposals:**

The Water Seed Grant Initiative will accept proposals from multi-disciplinary teams that must include participants from all three agencies: AgriLife Research, TEES, and AgriLife Extension. Participants from other Colleges within Texas A&M University can also be included in the

proposal if their involvement is deemed necessary to the success of the project. However, the project PI must hold an appointment in one of the three identified agencies.

### **Project Funding Limitations:**

Requested funding should not exceed \$200,000 per year for a funding period from January 1, 2020 to August 31, 2021, for a total funding request not to exceed \$330,000 per project. Each proposal should have one clearly identified principal investigator (PI) from AgriLife Research, TEES, or AgriLife Extension. Principal investigators of funded projects will be expected to submit quarterly progress reports. In addition, each proposal should clearly demonstrate the involvement of a Water Technology Implementer. Funding in FY 2021 will be contingent on satisfactory progress being made on project objectives and deliverables in FY 2020.

**Proposal Format:** Each proposal shall be developed using the following format

### **Project Information (1 Page):**

1. **Title.** Concise but descriptive.
2. **Keywords.** Enter keywords of your choice descriptive of the work.
3. **Start Date.** Enter the actual beginning date for the project (no earlier than Jan 1, 2020).
4. **End Date.** Enter the estimated end date for the project (no later than Aug 31 2021).
5. **Principal and Co-investigator(s).** Provide name, academic rank, agency, email address and phone number of the principal and co-investigators. This must include participants from all three agencies: AgriLife Research, TEES, and AgriLife Extension,.
6. **Water Management Implementation Partner.** Provide the name, position, phone, address, and email of the agency personnel involved in the project.
7. **Abstract.** Provide a description of the problem, methods and objectives of the project (300 words or less).

### **Project Narrative (10 Pages maximum for items 8 through 15):**

8. **Statement of water management problem.** Include an explanation of the need for the project, and how the implementation of water conservation and/or efficiency measures can help address this problem.
9. **Statement of results or benefits.** Specify the anticipated impacts that the successful development and deployment of water conservation and efficiency measures will achieve.
10. **Statement of involvement of implementer.** Specify the role that the water management implementation agency will have in the project.
11. **Nature, scope, and objectives of the project.** Provide a description of the project goals and objectives, as well as the approach that will be used to achieve these objectives, including a timeline of activities.
12. **Methods, procedures, and facilities.** Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.
13. **Technology Implementation Pathway.** Provide a narrative outlining the steps necessary for the technological innovation to be adopted by water users and/or agencies. This should include a brief discussion of the costs and benefits of adoption, the role that the

project implementer has in aiding adoption, as well as any regulatory or administrative changes would be necessary for adoption of the technology.

14. **Workforce Development.** Provide a narrative outlining the process of training workers in the new technologies through the implementation process. This can include Undergraduate and Graduate degrees, conferences/workshops, and/or professional and continuing education training.
15. **Related research.** Show by literature and communication citations the similarities and dissimilarities of the proposed project to completed or on-going work on the same topic.

**Additional Information:**

16. **Investigator's qualifications.** Include resume(s) of the principal investigator(s). Limit each resume to two pages and five pertinent publications.
17. **Leveraging of On-going Research Activities.** If these funds will be used to leverage an on-going research activity, please provide a single paragraph statement summarizing: the existing project title; amount of funding for the existing project; the agency funding the existing project; and a brief narrative of how this research activity links to the existing project.
18. **Project Budgets.** Requested project budgets should be prepared using the Budget Template and Budget Narrative Template provided in Appendix A at the end of this RFP.
19. **Letters of Support:** Provide a letter of support indicating the commitment of project collaborators to participate in project activities, including a description of their role in the project.

**Who is Eligible to Submit a Proposal?**

**Principal Investigators:** Only investigators who hold appointments with AgriLife Research, TEES, or AgriLife Extension may serve as a PI on a proposal.

**Co-Investigators:** Faculty holding an appointment with AgriLife Research, TEES, AgriLife Extension are eligible to serve as Co-Investigators on proposals. Potential investigators outside of the two AgriLife agencies and TEES, but within the TAMUS or other institutes (national or international) are encouraged to participate as co-PIs in areas of needed critical expertise. These potential collaborators must be approved by the AgriLife and TEES grant administrative team. Participants from all three agencies (AgriLife Research, TEES, and AgriLife Extension,) must be represented in the proposal.

**Implementers:** Each project must involve at least one Water Technology Implementer, which can include personnel from Municipal Water Utilities, Groundwater Conservation Districts, River Authorities, State Water Planning and Management Agencies, Irrigation Districts, and Federal Water Planning and Management Agencies.

**Collaborators:** Involvement of collaborators from other agencies and/or universities that enhance the competitiveness of a proposal is allowable, but no formal transfer of funds will occur outside of AgriLife Research, AgriLife Extension, or TEES. However, funds from external parties may be added upon approval.

**Deadline for Submission:** Proposals are due at **5:00 p.m. on November 1, 2019**. Submit an electronic copy (PDF format) of each proposal to Danielle Kalisek at (Danielle.kalisek@ag.tamu.edu).

**Review Process:** Proposals will be reviewed by an *ad hoc* advisory review panel formed and overseen by the Seed Grant Administrative Team. Proposal PIs will be notified of Seed Grant Funding decisions by December 1, 2019, with the anticipated project start dates being January 1, 2020 or later.

**How to find Collaborators – Interested PIs can visit the URLs below for other researchers who have indicated interest in water research.** *Note: these contact lists may not contain all interested researchers with the System. Unit heads are encouraged to widely distribute this RFP to assure that all interested faculty, researchers and extension personnel are informed.*

- Texas A&M AgriLife Research: <http://agriliferesearch.tamu.edu/topic/water/>
- Texas A&M AgriLife Extension: <https://agrilifeextension.tamu.edu/browse/featured-solutions/#water>
- College of Agriculture and life Sciences: <https://aglifesciences.tamu.edu/>
- College of Engineering: <http://engineering.tamu.edu/research>

**Appendix A – Budget Information**

**Budget Breakdown**

Project Title:

Cost Category	FY 2020 Jan 20 – Aug 21	FY 2021 Sep 21 – Aug 21	Total Jan 20 – Aug 21
<b>1. Salaries and Wages</b>			
Principal Investigator			
Co-Investigator			
Co-Investigator			
Graduate Student			
_____			
_____			
<b>2. Supplies</b>			
<b>3. Equipment</b>			
<b>4. Services or Consultants</b>			
<b>5. Travel</b>			
<b>6. Other costs</b>			
<b>7. Total estimated costs</b>			

**Budget Narrative**

Project Title:

<p><b>Salaries and Wages.</b> Provide estimated hours and the rate of compensation proposed for each individual. (Tuition remission and other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the tuition or other payments are reasonable compensation for the work performed and are conditional upon the performance of necessary work.)</p>
<p><b>Supplies.</b> Indicate separately the amounts proposed for office, laboratory, computing, and field supplies.</p>
<p><b>Equipment.</b> Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than \$5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items.</p>
<p><b>Services or Consultants.</b> Identify the specific tasks for which the service, consultants, or subcontracts would be used. Estimate the amount of time required and the hourly or daily rate.</p>
<p><b>Travel.</b> Provide purpose and estimated costs for all travel.</p>
<p><b>Other Direct Costs.</b> Itemize costs not included elsewhere, including publication costs.</p>