

AGRICULTURAL WATER CONSERVATION PROGRAM

Texas Water 
Development Board

MISSION OF TWDB

To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas.

BOARD OF DIRECTORS



The following presentation is within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

WORK OF TWDB

- Planning
- Financing
- Science & Conservation



Agriculture Water Conservation Grants
Agriculture Water Conservation Loans
Clean Water State Revolving Fund
Drinking Water State Revolving Fund
Economically Distressed Areas Program
Flood Protection Planning
FEMA Flood Mitigation Assistance
FEMA Severe Repetitive Loss
Groundwater Conservation District Loan Program
Regional Water Planning Group Grants
Rural Water Assistance Fund
State Participation Program
State Water Implementation Fund for Texas (SWIFT)
Texas Water Development Fund



REGIONAL WATER PLANNING GROUPS

- 16 Regional Water Planning Areas
- Develop region-specific water plans every 5 years
- 23 Members & 12 Interests Represented

TWDB REGIONAL CONTACTS

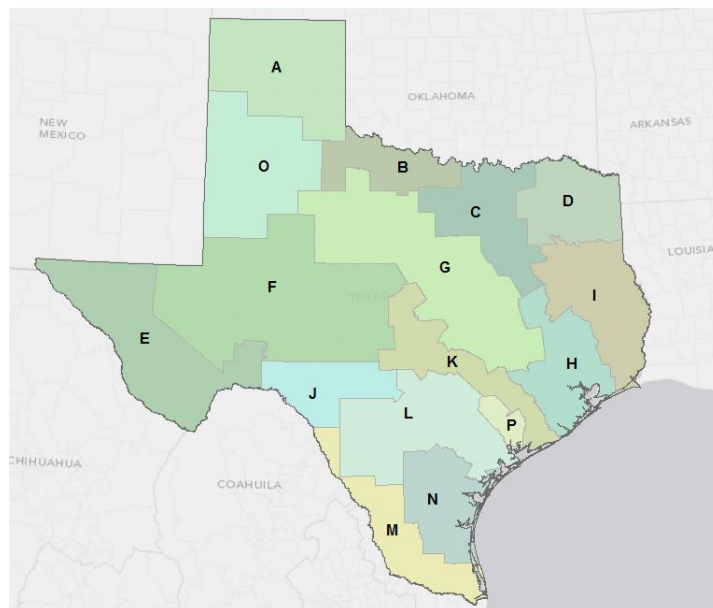
A, O, E, F



G & B



C & D



H & I



J, K, L, P

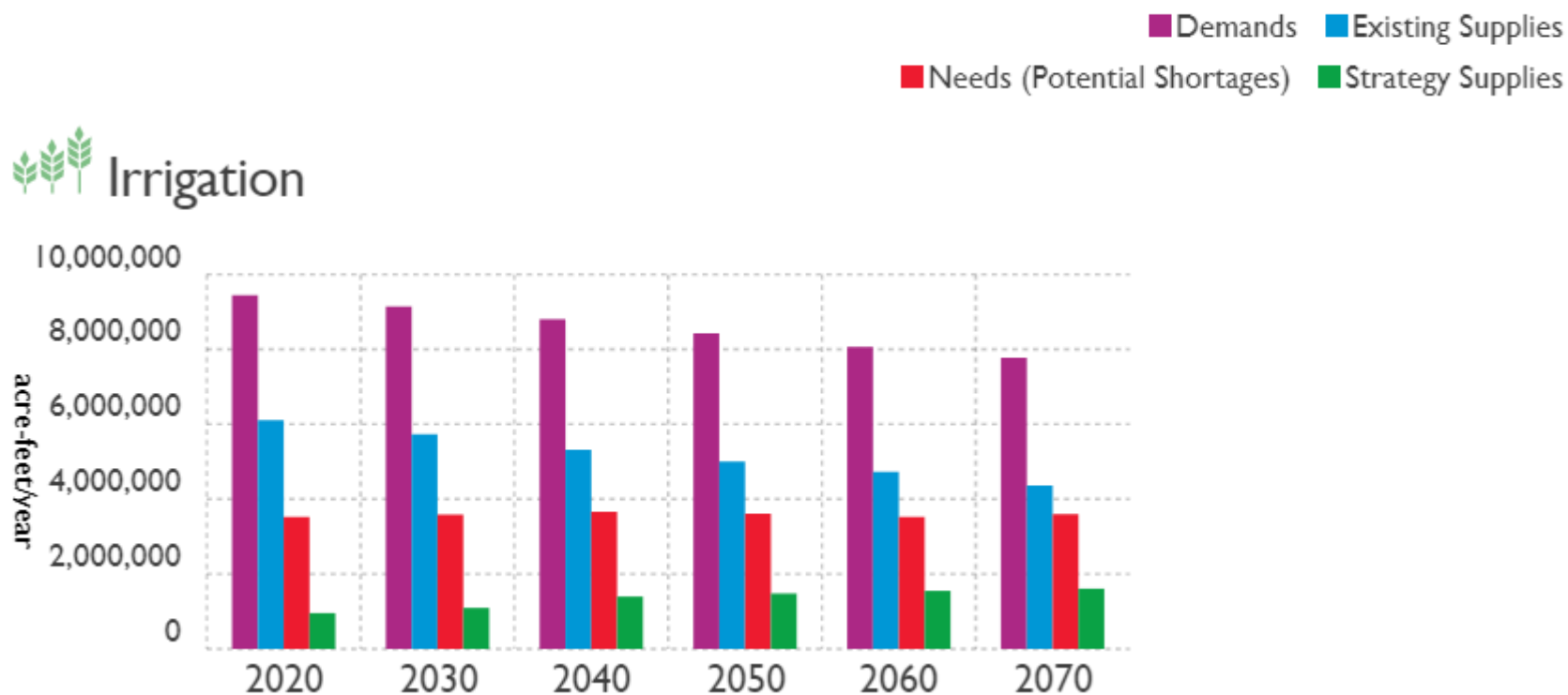


M & N



WHY CONSERVATION?

DATA BY USAGE TYPE (ACRE-FEET/YEAR)

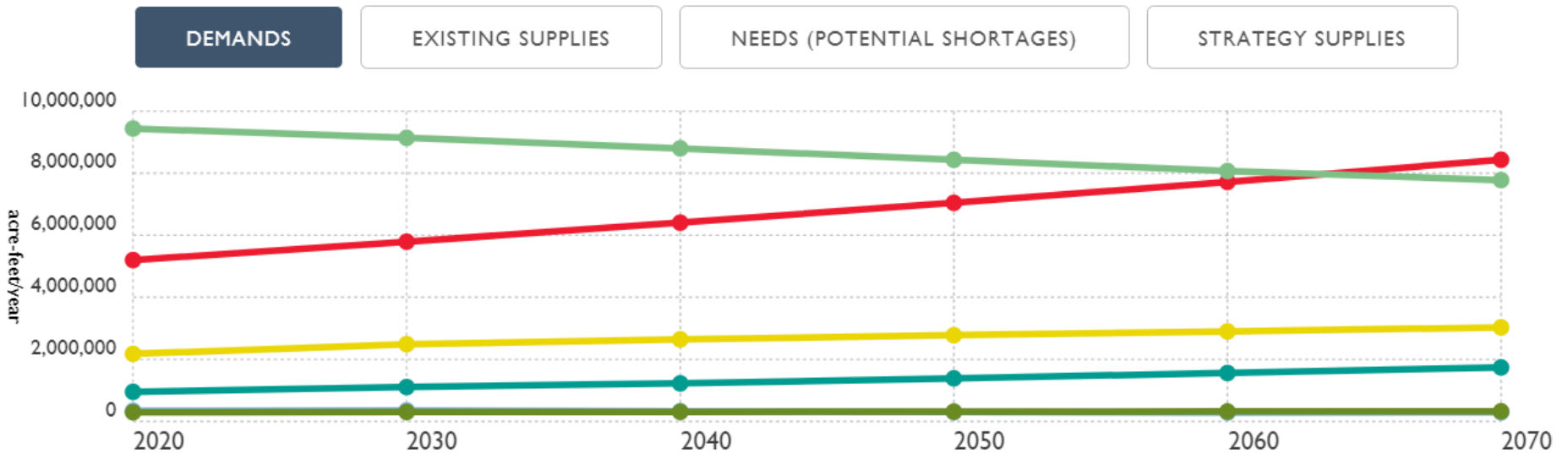


WHY CONSERVATION?

DATA BY USAGE TYPE (ACRE-FEET/YEAR)

Demands by Usage Type (acre-feet/year)

Irrigation Municipal Manufacturing
Steam Electric Power Livestock Mining

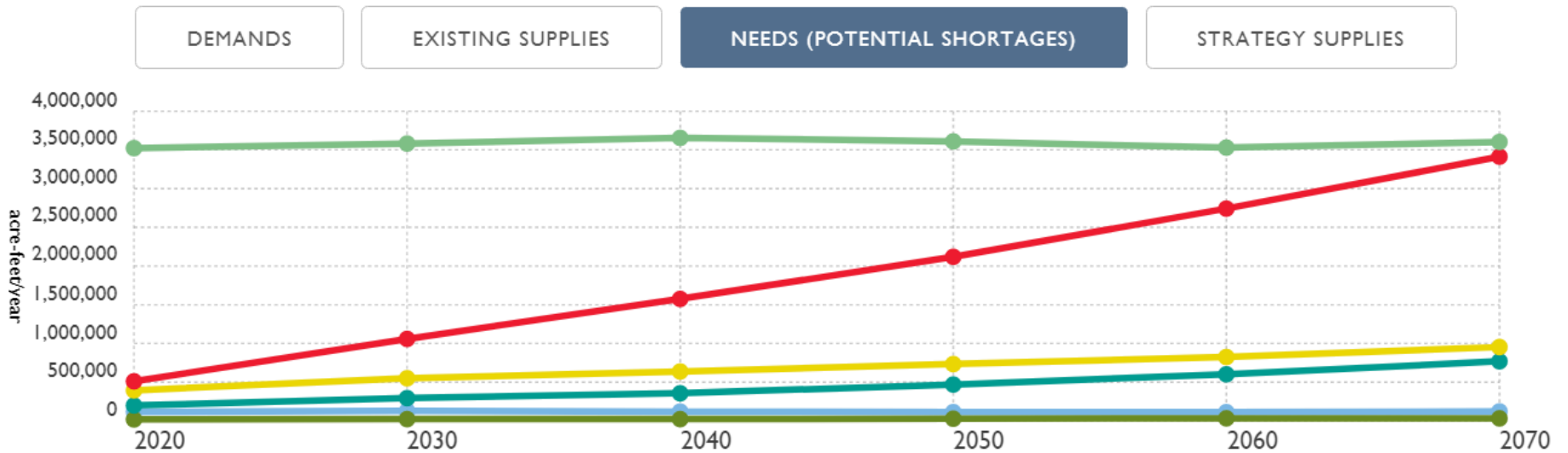


WHY CONSERVATION?

DATA BY USAGE TYPE (ACRE-FEET/YEAR)

Needs (Potential Shortages) by Usage Type (acre-feet/year)

- Irrigation
- Municipal
- Manufacturing
- Steam Electric Power
- Livestock
- Mining



HOW DO WE GET THERE?

CONSERVE, CREATE, CONSIDER

- **Conserve** *by promoting and demonstrating best management practices in water conservation, and providing funding for proven conservation tools*
- **Create** *opportunities for education and engagement within the agricultural community*
- **Consider** *and research new, innovative technologies and alternative production systems*

AG WATER CONSERVATION AGENCY INITIATIVES



AG WATER CONSERVATION AGENCY INITIATIVES

- Irrigation Water Use Estimates
- Collaborate with Stakeholders
- Ag Conservation Loans
- Ag Conservation Grants
- Demonstration Projects
- Education & Outreach

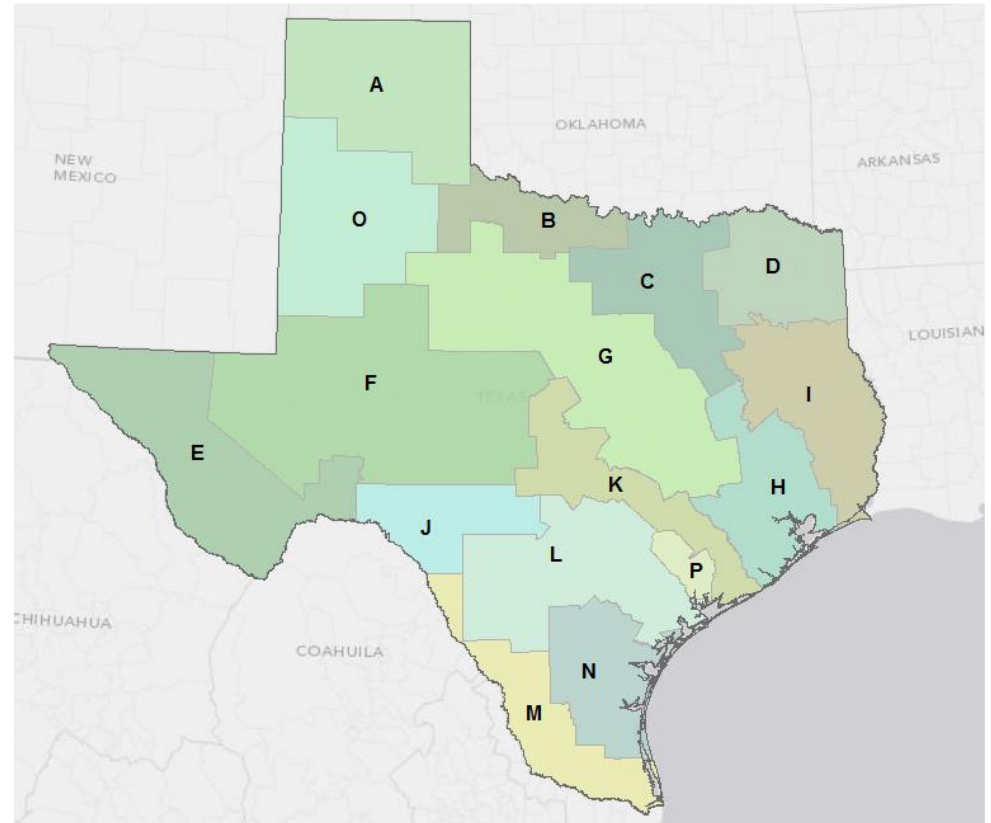


IRRIGATION WATER USE ESTIMATES

IRRIGATION WATER USE ESTIMATES

UNDERSTANDING BASELINE USE

Water use estimates form the basis for developing irrigation demand projections in regional water plans



IRRIGATION WATER USE ESTIMATES

Staff produce annual estimates of irrigation water use, by crop – for all counties in the state.



Crop Num	CropName	Acres	Inches-Acre	Acre-Feet
1	COTTON	56,770	8	37,847
2	SORGHUM	34,450	10	28,708
3	CORN	73,170	9	54,878
4	RICE	-	-	-
5	WHEAT	19,980	11	18,315
6	OTHER_GRAIN	7,560	11	6,930
7	FORAGE_HAY_PASTURE	6,010	12	6,010
8	PEANUTS	470	10	392
9	SOY_OIL	6,170	9	4,628
10	VINEYARD	-	-	-
11	ORCHARD	-	-	-
12	ALFALFA	3,860	17	5,468
13	SUGARCANE	-	-	-
14	VEGETABLES	5,010	10	4,175
15	OTHER	-	-	-
16	GOLF_COURSES	-	-	-
17	FAILED	7,490	4	2,497



COLLABORATE WITH STAKEHOLDERS

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WATER CONSERVATION ADVISORY COUNCIL

NRCS STATE TECHNICAL ADVISORY BOARD

INDUSTRY GROUPS

STAKEHOLDER GROUPS



COLLABORATE WITH STAKEHOLDERS

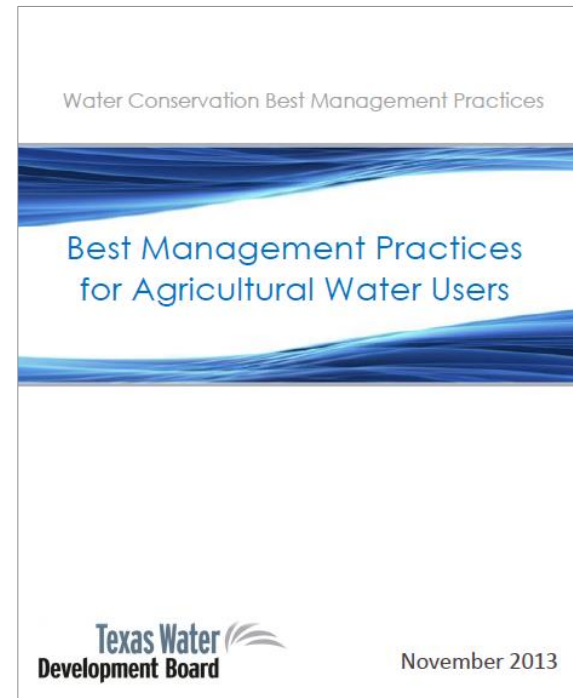
WATER CONSERVATION ADVISORY COUNCIL

BEST MANAGEMENT PRACTICES



EXAMPLES

- Crop Residue Management & Conservation Tillage
- Irrigation Scheduling
- Drip-Irrigation System
- LEPA & LESA
- Replacement of Irrigation District Canals & Lateral Canals with Pipelines
- Nursery Production Systems





AG CONSERVATION LOAN PROGRAM

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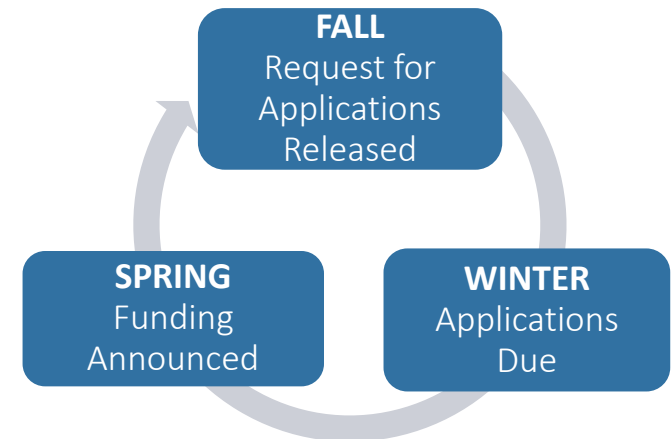
- Applications may be submitted by a political subdivision at any time, but funding is subject to availability
- Eligible practices include improvements to district-owned infrastructure, or as loans to individuals for improvements to existing irrigation systems
- Low, fixed-interest rates (same rate as U.S. Treasury Note)
- Up to 10-year repayment terms



AG CONSERVATION GRANT PROGRAM

AG CONSERVATION GRANT PROGRAM

- Up to \$600,000 available, annually
- Political subdivisions & state agencies eligible to apply
- Producers eligible to participate in projects
- Local match requirements vary, but usually 50%
- Funding typically limited to \$150,000 - \$200,000 per project, though subject to Board approval



AG CONSERVATION GRANT PROGRAM

CATEGORIES

- Cost-share of equipment
- Demonstrations
- Planning, design, & irrigation system improvements



AG CONSERVATION GRANT PROGRAM

CATEGORY USE CASE | COST-SHARE, EQUIPMENT

EXAMPLES

- Edwards Aquifer Authority provides grants to agricultural producers for irrigation efficiency improvements
- High Plains Water District's Assistance in Irrigation Management (AIM) program provides cost share to agricultural producers for irrigation control and monitoring systems



AG CONSERVATION GRANT PROGRAM

CATEGORY USE CASE | COST-SHARE, METERING

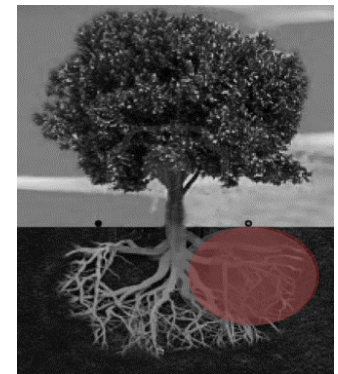
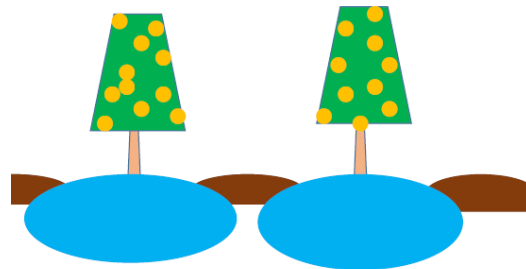
- Several groundwater conservation districts and other water authorities have purchased and installed, or provided participating agricultural producers with access to cost share funding for irrigation metering equipment.
- The meters provide the districts and agricultural producers with a tool to make informed water management decisions.
- TWDB benefits from receiving data on actual irrigation water use, which informs the annual irrigation water use estimates and improves upon the irrigation demand projections used in the regional water planning process.



AG CONSERVATION GRANT PROGRAM

CATEGORY USE CASE | DEMONSTRATION OF INNOVATIVE & ALTERNATIVE SYSTEMS

- Narrow border flooding
 - 33% less water applied
 - Higher profitability
- Partial root-zone drying
 - 40% less water applied
 - maintains fruit quality & yield
- Alternative water supplies for citrus



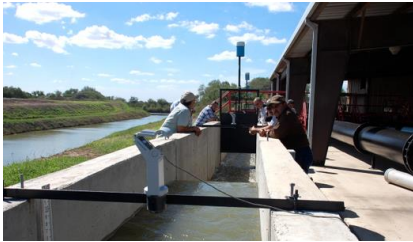


DEMONSTRATION PROJECTS

TEXAS PROJECT FOR AG WATER EFFICIENCY

HARLINGEN IRRIGATION DISTRICT

- Collaborative project with Texas A&M AgriLife Research and Extension and Texas A&M University-Kingsville (2005-2015)
- BMPs in the Lower Rio Grande Valley
- TEXASAWE.ORG



TEXAS ALLIANCE FOR WATER CONSERVATION

TEXAS TECH UNIVERSITY

- Collaborative Project (2005-Present)
- BMPs in the Southern High Plains
- WWW.DEPTS.TTU.EDU/TAWC



Field to Market®





OUTREACH & EDUCATION

OUTREACH & EDUCATION PROGRAMS

TEXAS A&M AGRILIFE RESEARCH & EXTENSION

- Support education, outreach, and demonstration projects related to efficient irrigation practices
- Audience: agricultural producers and irrigation district personnel



OUTREACH & EDUCATION

FARM SHOWS & FIELD DAYS

- Promote TWDB resources and programs directly to producers
- Offer technical assistance related to grant program at Field Days organized by partners





IRRIGATION SYSTEM IMPROVEMENTS

IRRIGATION SYSTEM IMPROVEMENTS

- Example project types:
 - Canal lining & pipeline replacement
 - SCADA & automated gates
- Example project partners:
 - Cameron County Irrigation District #6
 - Harlingen Irrigation District, Cameron County #1
 - Hidalgo County Water Improvement District #19
 - Santa Cruz Irrigation District #15



STAY IN TOUCH!

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