# Lost Pines Groundwater Conservation District Agricultural Production Meter Program Policy

## Section 1.0 Introduction

The Lost Pines Groundwater Conservation District ("District" or "LPGCD") has established the Agricultural Production Meter Program ("APMP") to support the installation of irrigation flow meters and water conservation efforts. This program is funded in part by the Texas Water Development Board (TWDB) under Contract No. 2513582947. The goal is to enhance water use tracking and conservation efforts across Bastrop and Lee Counties.

## Section 2.0 Purpose

The purpose of the APMP is to:

- Provide cost-shared flow meters to agricultural producers.
- Improve water measurement and irrigation efficiency to support water conservation efforts.
- Support data collection to aid in aquifer monitoring and sustainable resource management.

## Section 3.0 Program Overview

The District will administer a program to purchase and support the installation of approximately 65 flow meters for agricultural irrigation wells. The meters will be provided on a first-come, first-served basis. The program will be publicized via the District website, newsletters, social media, and direct communication with producers.

Total Project Budget: $100,000
TWDB Share: $50,000
LPGCD Share: $50,000
Meter cost: Propeller meters for irrigation systems cost approximately $500-$3,000 depending on line size and meter type.
Installation Deadline: July 31, 2026
Contract Expiration with TWDB: July 31, 2029

# Section 4.0 Eligibility Requirements

To qualify for participation, applicants must:

- Own or operate a registered irrigation well within Bastrop or Lee Counties.
- Use the well for agricultural or irrigation purposes.
- Submit a completed application and receive District approval prior to installation.
- Comply with all program rules and deadlines.

# Section 5.0 Program Requirements

Participants must:

- Install approved meters no later than July 31, 2026.
- Use private funds to cover the full installation cost upfront and to be reimbursed post-installation-inspection.
- Allow District staff to inspect installations.
- Submit required annual usage reports.
- Maintain meters according to manufacturer guidelines.

# Section 6.0 Equipment Purchase and Installation

Lost Pines GCD will purchase approximately sixty-five (65) irrigation flow meters using a combination of TWDB grant and local match funds. These meters will be distributed to approved agricultural producers on a first-come, first-served basis.

Producers are responsible for arranging and paying for the installation of the meter using private funds. Following installation, the District will conduct an on-site inspection to verify that installation meets manufacturer specifications and District standards. Once verified, LPGCD will reimburse the producer for installation cost.

# Section 7.0 Application and Approval Process

1. Submit a completed application to the District.
2. Wait for District approval before installing any equipment.
3. Upon approval, receive a meter from the District.
4. The Producer will install the meter at the approved well site using private funds.
5. Schedule an inspection with the District.
6. After passing inspection, submit itemized invoice(s) to the District for reimbursement of installation cost.

# Section 8.0 Inspection and Verification

- Flow meters must be installed in accordance with manufacturer and District specifications.
- District staff will inspect each installation before reimbursement is issued.
- Improper installations are ineligible for reimbursement.
- At least 10% of meters will be audited through July 31, 2029 to confirm data reporting accuracy.

# Section 9.0 Reporting and Recordkeeping

Participants must submit quarterly data reports to the District by email to cmarks@lostpineswater.org.

- Reports should be submitted January1, April 1, July 1, and October 1 of each year.

Reports must include:

- Crop type and irrigated acreage
- Measured irrigation volume (total acre-feet or gallons)
- Pump run times and meter readings
- GPS coordinates of metered wells

The District will maintain records in accordance with Texas state retention policies and TWDB guidelines.

# Section 10.0 Equipment Specifications and Standards

Flow meters must:

- Be industry-standard, volumetric, and meet manufacturer accuracy guidelines.
- Be compatible with TWDB data collection and reporting templates.
- Follow TWDB Equipment Guidelines (see Appendix C).

# Section 11.0 Program Funding

This program is funded by:

- TWDB grant: $50,000
- District funds: $50,000

Producer covers the installation costs to be reimbursed by the District after installation inspection. Program participation and meter availability are subject to available funds. No reimbursements will be made after the installation deadline.

# Section 12.0 Delegation of Authority

The District's General Manager is authorized to:

- Delegate program duties to District staff
- Implement and manage the program
- Approve applications and inspections
- Distribute flow meters and verify installations
- Issue reimbursements in accordance with program guidelines
- Coordinate compliance with TWDB reporting and contract requirements

Any program modifications must be approved by the Education & Outreach Committee.

# Section 13.0 Program Review

The Education & Outreach Committee will review the program quarterly. Modifications may be made based on funding availability, TWDB requirements, or observed program performance.

# Section 14.0 Appendices

Appendix A: Application Form
Appendix B: TWDB Equipment Guidelines

# Appendix A: Application Form

## Section I: Applicant Information

1. Name: _____
2. Phone Number: _____
3. Email Address: _____
4. Mailing Address:
   _____

## Section II: Well Information

1. Well Address: _____
2. Total well depth: _____
3. Depth to pump intake: _____
4. Pump brand: _____
5. Pump horsepower: _____
6. Estimated pump rate: _____
7. Discharge pipe inner diameter (inches): _____
8. Discharge pipe outer diameter (inches): _____

## Section III: Irrigation Details

1. Type of irrigation system (e.g. center pivot, drip, flood, furrow, wheel line, other):
   _____
2. Approximate irrigated acreage served by this well: _____
3. Type(s) of crop(s) grown using this well:
   _____

## Section IV. Certification & Agreement

By signing Below, I certify that the information provided in this application is true and complete to the best of my knowledge.

I further acknowledge and agree to to the following:

- I will comply with all program guidelines, including data reporting requirements and inspection requirements established by the District.
- I agree to notify the District if there are any changes to the well, pump, or irrigation system that may affect metering or reporting accuracy.
- I understand that I am responsible for the up-front cost of installing the flow meter and that I will be reimbursed by the District only after an inspection has verified proper installation in accordance with program specifications.

Applicant Signature: _____

Date: _____

For District Use
Well ID: _____
Date Approved: _____
Date Inspected: _____
Date Reimbursement Mailed: _____

# Appendix B

### Equipment Selection, Installation, Calibration, Data Collection, and Record Keeping Guidelines



# Irrigation Metering Program

The Irrigation Metering Program is an effort to understand agricultural water use throughout Texas and help stakeholders make irrigation decisions. This guide provides useful information for Agricultural Water Conservation Grant recipients participating in the Irrigation Metering Program and/or other Agricultural Water Conservation Grant equipment programs.

## Why meter?

By providing an accurate measurement of irrigation water, the irrigator has more data to make informed decisions. Additionally, the data collected benefits stakeholders by:

A. The Irrigation Metering Program is a collaborative effort between irrigation stakeholders and the TWDB to measure and record accurate water use data for irrigated agriculture.
B. The TWDB utilizes meter data to verify the annual irrigation water use estimates, which is invaluable for the statewide water plan.
C. The TWDB can include quality irrigation groundwater use data when developing groundwater availability models, which are used to determine future groundwater availability. Accurate applied inches-per-acre is an important baseline dataset to best simulate real-world conditions in the groundwater availability models.
D. The volumetric measurement of irrigation water use provides the water user with information needed to assess the performance of an irrigation system and better manage an irrigated crop. Moreover, metering can help in implementing irrigation scheduling and conservation practices.

## Meter Selection, Installation and Calibration Guidelines

### Selection

Several devices exist in the marketplace to measure water flow. The selection of the right meter, with or without accessories, is critical and dependent on the use case and site conditions. Consult your nearest irrigation management specialist to select a meter that is best for your applications.

### Installation

When measuring water in your irrigation system pipeline, proper installation will determine the accuracy of your measured water flow. For example, a meter placed too close to 90-degree bend will not provide accurate readings due to the disturbance in flow caused by the bend in the pipe. For specific makes of meters, it is important to adhere to manufacturer's suggestions for installation and for regular maintenance.

### Calibration

Operation and performance of the meter should be checked for accuracy at the time of the installation. It is advisable to verify proper meter operation regularly, preferably at the beginning of each irrigation season to maintain the accuracy and consistency of data collection and record keeping. To ensure meter accuracy after installation, the TWDB loans out ultrasonic flow meter testing equipment.

### Resources

Consider these resources for more information:
Propeller flow meter. Texas AgriLife Extension L-5492
Ultrasonic flow meter testing equipment loan program
Volumetric Measurement of Irrigation Water Use BMP
Measuring Irrigation Flow

## Meter Data Calculation Examples

The purpose of this document is to help inform of data reporting calculations. Depending on the type of data you receive from participating irrigation water users, you may need to perform simple calculations to report your data accurately to the TWDB. You may use this document as a reference while filling out the required Meter Data Collection and Reporting Spreadsheet listed below.

https://www.twdb.texas.gov/conservation/agriculture/doc/Meter%20Data%20Calculation%20Example.docx

## Meter Data Collection and Reporting Spreadsheet

If participating in the Irrigation Metering Program, it is important to understand what type of data you will be required to submit to the TWDB. On the spreadsheet you will find what information you will need to keep track of throughout the year. This spreadsheet will be required to be submitted annually as specified in your contract. Please refer to the TWDB website to find the latest version of the meter reporting spreadsheet or you can email us at agconservation@twdb.texas.gov for a copy.

https://www.twdb.texas.gov/conservation/agriculture/doc/2025_Irrigation%20Metering%20Template.xls

It is important to note the following variables during the data collection period:

- Meter Number
- Meter Location including county, latitude, longitude, and well depth or aquifer
- GCD Well ID or SDR Tracking Number
- Irrigated Crop Acreage
- Irrigated Crop Type
- Total Applied Water
- Irrigation Method
- Annual Rainfall Inches