URNRD Moisture Probe Program

Annual Report, March 2020

WSF Grant 5222

A $86,400 grant was awarded to the Upper Republican NRD (URNRD) by the Natural Resources Commission in December 2018 to incentivize the use of soil moisture probes within the URNRD. This status report includes the time period of project inception through the end of March, 2020.

Project Progress

The grant was awarded in time for the URNRD to accept applications and fund probes that could be used during the 2019 irrigation season. We anticipated 2019 demand for probes would drawdown approximately half of the grant funds, and this is what occurred. A total of 86 probes purchased by 37 individuals and entities and used on approximately 11,200 acres in the URNRD in 2019 have been cost-shared under the program. Reimbursement from the Water Sustainability Fund in the amount of $36,953 has been received; this amount covers all but a handful of the 2019 probes eligible under the cost-share program. Reimbursement for the remaining 2019 probes will be requested soon.

Studies suggest that use of soil moisture probes regularly reduces water usage by approximately 1”-2” per irrigated acre, annually. Of course, how the use of probes modifies irrigators’ decisions can vary greatly because of a large number of variables. However, our discussions with irrigators who use them strongly suggests that the estimate of 1”-2” water savings per acre is a good approximation. Assuming the average reduction in irrigation in 2019 was 1.5” on the 11,200 acres where probes cost-shared under the program were used, the program helped reduce water use by about 1,400 acre feet.

We used the same process this to advertise and administer the program: We announced the availability of cost share in February using area media, our website, and over-the-phone contact with farmers and probe dealers. When publicizing the program, we noted that it was made possible by the Water Sustainability Fund and the application for cost share notes the contributions from the Water Sustainability Fund. At the same time, we began accepting applications for probe cost share. The financial arrangement under the program has participants paying the full cost of the probes, being reimbursed by the URNRD for half the costs and the

URNRD then requesting reimbursement for 60% of the amount paid to the participant by the URNRD. For example, if a probe cost $1,700, the irrigator pays the full amount to the vendor. After doing so, the URNRD pays the irrigator $850. The URNRD then requests reimbursement from the state of $510 (60% of $850).

The following rules were established for the program and are the same this year as they were in 2019:

- Reimbursement from the NRD covers half the cost of a probe, with reimbursement capped at $1,300 per probe.
- Each landowner or farmer can receive cost share for a maximum of three probes.
- Applications are accepted until all funds have been obligated on a first-come, first-serve basis.
- Cost share can be applied to all probe-related services so long as the cost of the probe is included.
- Participants cannot receive cost share from NRCS on the same probes cost-shared by the URNRD.
- Probes must be used within Perkins, Chase or Dundy Counties, the three counties that comprise the URNRD.
- Participants must make data from the probes available to the URNRD if requested.

2020 Program Interest and Upcoming Activities

At this time, interest in the program appears similar to the same period in 2019. Applications will continue to be accepted until grant funds are exhausted. If not all funds are used, the program will be extended into 2021. So far this year, we have received applications for 52 probes to be used in 2020.

This summer, the URNRD will keep in touch with farmers using the variety of probes on the market to monitor their experiences using the probes. In previous years, most comments have been positive, and we relay those positive experiences about use of probes preventing over-watering to other farmers considering probes in hopes that it encourages them to use the technology. Low commodity prices made us speculate that interest in probes may wane because of their cost, but this is not occurring thus far. I believe this is due to the hope that use of probes can reduce water-pumping costs and that cost savings is potentially greater than the cost of the probes, so long as cost share is available.

Thank you for funding the program and feel free to contact us with any questions.