

Sierra Valley Farm Assessments: Project Description

Goal: The goal of conducting farm assessments is to identify facilities common to irrigation practices in Sierra Valley that can be replaced or improved to reduce on-farm losses which in-turn reduces the demand on water resources.

Methodology: Farm assessments are being performed for farmers in Sierra Valley that are agreeable to participate in allowing inspection of their irrigation facilities. Each farm assessment entails inspecting and inventorying facilities that deliver water from its source to the point of delivery to the crop, typically a wheel-line or center pivot. Typical facilities include wells, pumps, filters, pipelines, meters, sprinkler systems, and electrical systems that are used to convey water for agricultural application. Commonly referred to as on- farm losses, water can leak from these facilities that result in anywhere from a 1% to 10% loss depending on the condition of the facility.

Additionally, during the audits, discussions with farmers will describe the opportunities of improving irrigation applications by using different lower-elevation sprinkler heads, on-farm soil moisture sensing, and ET (CIMIS) monitoring to improved irrigation practices.

Deliverables: Deliverables for this task will be a compilation of all farm audits that will be included in Stakeholder Outreach report (Task 2). A report identifying the facility improvements at each of the participating farms will be developed that provides recommendations for reducing on-farm losses that increases overall efficiency.