



Tulare Irrigation District Operation & Maintenance Report



2012 Quarter 1

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District Safety Program

During the first quarter of 2012 the District has not hosted any ACWA Safety Programs, nor participated in any throughout the area.

The District conducted an eye safety training course for the employees. This class is aimed at ensuring that employees wear the appropriate eye protection equipment and carry out District functions such that eye injuries are prevented. The training was lead by Gene Bessinger and attended by all construction and maintenance staff.

The District staff conducted an inspection of the Administration Building, Shop Facility and Herbicide Room for safety and maintenance concerns. Minor safety concerns such as proper signage was identified and is currently being addressed.

Maintenance Operations

Under the direction of Gene Bessinger, District Superintendent, staff addressed maintenance concerns throughout the District. With the previous prolonged water year, the District has utilized the last three months to conduct a District assessment of safety issues and gate repair issues and started the maintenance and repair of numerous problem areas.

The major maintenance projects included:

- The District currently has several employees that have been restricted to “light-duty” work due to injuries. In order to effectively utilize their time, Mr. Bessinger has assigned these individuals to conduct various District assessments. One of the assessments conducted was an inspection of District structures for safety issues such as tripping hazards and large step requirements. The other study conducted was a District-wide assessment of canal gates to identify maintenance issues that need to be addressed. The gate inspections that were conducted were summarized into a work-list that provided maintenance staff with immediate gate repairs and future assessment and repairs. District staff is currently working on repairing gates that were identified as a priority.
- District staff has begun upstream canal levee repairs. Numerous locations have had wash-ins and ruts that require attention.
- The canal gate at the head of the V-Line Ditch was removed and replaced with a new canal gate.
- An HDPE culvert crossing on Bender Ditch was replaced with a new concrete culvert crossing.
- A culvert crossing that failed on the Northwest Ditch was replaced by a new concrete culvert crossing.
- Several turnout gates on the Evans Ditch and Kaweah Ditch systems that had failed were replaced with new canal gates.
- Repair of Water Reclaim system on the District wash rack.
- District staff is discing all groundwater recharge basins.

Vehicle Maintenance Program

The Vehicle Maintenance staff (VM Staff) have been busy maintaining and repairing construction equipment while currently in the construction and maintenance season. The maintenance issues that have been addressed include:

- Daily servicing and fueling of construction equipment at Swall Basin.
- Replacement of rear axle on one of the Icon Scrapers. Replacement was due to wear on bearings during operation and is typical of construction wear and tear.

- Grader 060 encountered a rear axle gear failure and rear-main leak that would require an engine overhaul. Unit will be destroyed for salvage value.
- Articulator on Grader 9656 was repaired, and it was further discovered that additional repairs to articulator will be required. The repairs are pending.
- Fabrication of new service bed for installation on the new service truck.
- Excavator turn-table motor failed due to broken snap ring. This will be covered under warranty and is currently being repaired.
- New blades were installed on the Icon Scrapers (this is the second set of blades installed during the construction of Swall Basin).

The VM Staff conducted its annual crane certification in March. The crane was given a clean bill of health.

District staff conducted a quarterly Equipment Committee meeting. District staff intends to hold quarterly meetings with the Equipment Committee to provide a clearer picture of District equipment operations and future replacements and needs.

Herbicide Application Program

The Herbicide Application Staff (Herbicide Staff) has been working on applying preemergent chemicals and spot treatment of vegetation. All mowing and grading has been completed.

The following chemicals were used at the specified rates:

Chemical	Rate	Units
Roundup	306	Gallons
Reward	126	Quarts
Finale	3.5	Gallons
Krovar	1,465	Pounds
Surflan	14.5	Gallons
Goaltender	174	Quarts
Portfolio	36	Ounces
Milestone	214	Ounces
Diuron	710	Pounds
Karmex	1,125	Pounds
Gallery	50	Pounds
Aquamaster	10	Gallons

Given the recent increase in weed growth and a need to address preemergent application, the following information is useful in understanding the current preemergent application practices:

- Diuron Applied at 10 pounds per acre on the inside banks and 3 pounds per acre near vines and trees on the inside and outside of the canal embankment.
- Krovar Applied at 10 pounds per acre on the tops and outsides of embankments and on roadsides.
- Surflan Applied at 1 gallon per acre in Groundwater Protection Areas and by trees and vines.
- Goaltender Applied at 2 quarts per acre by trees and roadsides in sensitive areas.
- Portfolio Applied at 12 ounces per acre on the tops and outsides of embankments. This treatment is being tested by the District in place of Krovar.

Milestone Applied at 7 ounces per acre on the top and outsides of embankments. This material is used to treat flaxleaf and marestail problems. This chemical is treated as a special application.

Construction Projects

The District construction staff under the direction of Mr. Bessinger has been working on the following projects:

Swall Basin

The District has continued to work on Cell #2 and has begun construction on Cell #3. Construction activities include:

- Construction of the inlet structures for Cell #2.
- Construction of the inlet structures for Cell #3.
- Removal of existing irrigation pipeline system on Cell #3.
- Removal of topsoil from Cell #3 and placement on the adjacent property (Kumar Property).
- Construction of the east embankment of Cell #3.
- Movement of excavated material to adjacent property (Kumar Property).

Curti Turnout

- Construction of a pre-fabricated structure in the District yard.
- Site investigation

Pictures



The District conducted a safety assessment of District structures and this is an example of earthwork that is compromised.



New culvert extension at Northbranch Canal and Road 108. Construction by Teichert Construction and inspected by District (Wayne Fox).



Canal sloping on Sand Ditch at West Street (Road 92). Coordinated with new landowner to regain access to Sand Ditch after 25+ years of restricted access.



Replacement of canal gate at the headworks of the V-Line Ditch.



Installation of inlets to Cell #2 and Cell #3 at Swall Basin.



Measuring well maintenance.



Cell #2 inlet structure.



Completed Cell #2 inlet structure.



Bender Ditch culvert replacement.



New trash rack installation at Bassett Ditch.