



TUOLUMNE – STANISLAUS INTEGRATED REGIONAL WATER MANAGEMENT REGION

2014 IRWM DROUGHT GRANT PROPOSAL

ATTACHMENT 6 – SCHEDULE

**Integrated Regional Water Management Program
Applicant: Tuolumne-Stanislaus Integrated Regional Water Management Authority**

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Groveland Community Services District Water Filtration System (TS IRWM Project No. 32)

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration																										
Task 1: Legal Review and Board Approval	9/15/14	10/16/14																								
Task 2: On-going Project Administration	4/1/14	1/31/15																								
Task 3: Construction Site Visits	10/13/14	1/30/15																								
b. Land Purchase/Easement																										
Task 4: Easement	6/1/14	8/15/14																								
c. Planning/Design/Engineering/Environmental Documentation																										
Task 5: Planning and Preliminary Design	4/1/14	7/3/14																								
Task 6: Final Design	7/2/14	1/16/15																								
Task 7: Environmental Documentation	4/1/14	6/15/14																								
d. Construction/Implementation																										
Task 8: Equipment Procurement	1/7/14	10/24/14																								
Task 9: Equipment Installation	10/16/14	1/9/15																								
Task 10: Startup and Permitting	1/12/15	1/30/15																								

Groveland Community Services District Water Filtration System

In March 2014, San Francisco Public Utilities Commission (SFPUC) informed GCSD that Cherry Reservoir was going to be needed to supplement water demand. SFPUC is improving the Lower Cherry Aqueduct that conveys water into the Mountain Tunnel. SFPUC is expecting to complete construction by October 2014 and begin introducing Cherry Reservoir water by December of 2014. GCSD must complete the proposed Water Filtration Plant before SFPUC begins introducing water from Cherry Reservoir into the Mountain Tunnel.

GCSD has been working toward the completion of this project since April 2014. GCSD evaluated several alternatives and determined that installing trailer mounted filtration equipment at Second Garrotte was the most economical and reliable alternative. Trailer mounted equipment minimizes the amount of field work and can be delivered faster than a conventional filtration system.

GCSD estimates that the total project cost is \$1.75 million. GCSD has committed \$236,250 of its own funds and applied for emergency drought funding to USDA (\$500k) and CDPH (\$500k) to cover an additional \$1.0 million. These two agencies have already committed funds to this project but will not release their funding until enough funding to complete the project is secured. The IRWM Grant will be the third funding source and will complete funding for the project. The following is the status of the various tasks:

- **Planning and Environmental Documents:**
GCSD has prepared a preliminary engineering report and an environmental report for the application to USDA's Emergency Community Water Assistance Grant. USDA has approved GCSD's proposal and has issued a letter of conditions that guarantees \$500,000 in funding for this project. GCSD has also requested an additional \$500,000 from CDPH in emergency drought funding. CDPH has also expressed their commitment to fund this project.
- **Easement:**
GCSD is working with SFPUC to obtain an easement for the location of the new filtration equipment. GCSD expects to have a recorded easement by August 15, 2014.
- **Equipment Procurement:**
GCSD has already received and reviewed four proposals from trailer mounted membrane filtration equipment manufacturers. The submittal and fabrication period takes between 16 and 20 weeks. The submittal process does not begin until GCSD issues a Purchase Order to the selected manufacturer. In order to maintain the schedule, GCSD will be issuing a PO to a manufacturer the second week of July and equipment delivery is expected in October, immediately after funding approval is received. GCSD will use matching funds to start equipment fabrication and will rely on grant funds to issue a payment required before delivery.
- **Construction:**
GCSD will complete site grading, piping and electrical connections ahead of equipment delivery. GCSD intends to use its own staff to complete these connections. Using GCSD staff shortens the implementation time because bidding is not required. The completion of the site piping and utility work is expected to be complete by October 2014.
- **Startup and permitting:**
Immediately after delivery of equipment, GCSD staff will conduct the startup the filtration system and provide O&M Documentation and permit amendment documentation to CDPH for final approval.

The project schedule proposed herein is expedited and realistic. The project is expected to be complete by January 31, 2015.

Tuolumne County Resource Conservation District Regional Water Conservation Program (TS IRWM Project No. 36)

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration																										
Task 1: Direct Project Administration	3/1/14	12/1/18																								
b. Land Purchase/Easement																										
c.Planning/Design/Engineering/Environmental Documentation																										
Task 2: Project Set-Up, Gather relevant materials	12/1/13	12/1/18																								
Task 3: Web Site Development	12/1/13	3/1/15																								
Task 4: Demonstration Site Design	12/1/13	3/1/15																								
d. Construction/Implementation																										
Task 5: Implementation of Conservation Program	12/1/13	9/1/18																								

Tuolumne County Resource Conservation District Regional Water Conservation Program

The TCRCO Regional Water Conservation Program is designed to respond immediately to drought conditions with expedited program set-up, program initiation, outreach, and in-the-field water audits occurring within the first year. While the coordination and outreach program is designed to remain active through the entire 4-year span, it is anticipated that all water audits will be completed within the first 2 years. It is also likely that many of the financial incentives for water-savings fixtures, rainwater catchment/storage and landscape conversions will similarly be completed within the first few years of the program. The program is specifically designed to “blitz” the community with numerous and aggressive conservation activities and demonstration site installations upon award through the first two years, and then maintain an on-going presence for the remaining life of the grant. It is further expected that the conservation coordination and outreach portions of the program will continue beyond the life of the grant with minimal local funding. The program will easily be completed within the 4-year time frame, with the majority of the tasks and activities occurring within the first 2 to 2 ½ years.

Tuolumne Utilities District Phoenix Lake Preservation and Restoration – Phase 3 (TS IRWM Project No. 39)

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration	10/1/14	10/1/18																								
b. Land Purchase/Easement	1/1/15	7/1/15																								
Task 1: Land Purchase - Sediment Forebay	1/1/15	7/1/15																								
c.Planning/Design/Engineering/Environmental Documentation																										
d. Construction/Implementation	4/1/15	7/1/18																								
Task 1: Sediment Forebay Construction	4/1/16	10/1/16																								
Task 2: Ridge Unit Connector Channels	1/1/17	10/1/17																								
Task 3: East Pool Dredging	7/1/17	7/1/18																								

Tuolumne Utilities District Phoenix Lake Preservation and Restoration – Phase 3

The schedule for the Phoenix Lake Preservation and Restoration Phase 3 project is realistic, reasonable and accomplishable. All environmental clearances, permits, and construction design is being completed as part of Phase 2 of the project, funded by Round 2 of the IRWM Proposition 84 Implementation Grant.

The first task will be to purchase property for the sedimentation forebay along Sullivan Creek. The property has already been identified, however negotiations will not begin until funding is secured.

The implementation will be broken into 3 segments. The time estimated for execution of the construction activities is somewhat conservative, allowing for weather delays and any environmental constraints. TUD is very competent in bidding and managing construction projects of this size insuring the work stays on budget and on time.

The project schedule is contingent on a grant award of October 2014 or close to that date. TUD does not have funding to complete any portion of the project prior to award of funding. As soon as the grant is awarded TUD will expedite the project to maximize the benefits during the current drought.

Twain Harte Community Services District Shadybrook Well (TS IRWM Project No. 40)

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration																										
Task 1: Project Administration	5/1/14	10/1/14																								
Task 2: Labor Compliance Program	10/16/14	11/15/14																								
Task 3: Reporting	10/16/14	10/1/15																								
b. Land Purchase/Easement																										
c. Planning/Design/Engineering/Environmental Documentation																										
Task 4: Preliminary Engineering/Planning	5/1/14	10/20/14																								
Task 5: Environmental Documentation	10/20/14	12/1/14																								
Task 6: Design/Engineering	10/20/14	3/10/15																								
Well Specifications	10/20/14	11/15/14																								
Equipment Specification	11/15/14	3/1/15																								
Final Site Plans	3/1/15	3/10/15																								
Task 7: Permitting	12/1/14	1/15/15																								
d. Construction/Implementation																										
Task 8: Construction Management	11/15/14	10/1/15																								
Task 9: Construction	1/15/15	6/15/15																								
Drill, Seal, Test Well	1/15/15	3/1/15																								
Procure Green Sand Filter	3/10/15	5/10/15																								
Install Piping and Site Improvements	2/15/15	6/15/15																								
Install Pump, Electrical, Controls Equipment	4/1/15	6/15/15																								
Task 10: Implementation & Monitoring	6/15/15	10/1/15																								
Startup	6/15/15	7/1/15																								
Initial Monitoring	7/1/15	10/1/15																								

Twain Harte Community Services District Shadybrook Well

The Shadybrook Well Project schedule is both realistic and feasible. THCS D is currently in the process of undertaking a similar well project. Time frames provided in the above schedule are based on real experience and lead times with the current project. In fact, the above schedule adds float to the actual time frames that are being experienced with the current well project.

The Shadybrook Well Project will be constructed in several parallel phases to expedite project timing:

- The well will be designed first and a drilling contractor will be obtained to drill the well before the rest of the project is fully designed. This needs to occur separately because final design depends on well production and quality of water produced.
- THCS D staff will initiate site improvements while the well is still being drilled and will continue while the green sand filter and pump specifications are being developed and equipment procured.
- A contractor will be obtained to install pump, electrical and controls equipment and will complete work while THCS D staff completes other site improvements.

Project schedule is contingent on a grant award by October 16, 2014. THCS D does not have funding to accomplish anything other than preliminary engineering/planning before that date. As soon as a grant is awarded, the project will be expedited as quickly as possible to maximize benefits during the current drought. The only unforeseeable event that could potentially delay the project is inclement winter weather.

Tuolumne Utilities District Matelot Reservoir (TS IRWM Project No. 41)

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration	1/28/14	7/21/14																								
b. Land Purchase/Easement																										
c.Planning/Design/Engineering/Environmental Documentation																										
Task 1: Design Expansion and Estimate Volume	5/9/14	5/14/14																								
Task 2: Obtain 1 year Grading Permit	5/23/14	5/23/14																								
Task 3: California Red-Legged Frog Habitat Assessment	5/22/14	5/26/14																								
Task 4: Cultural Resources Study	5/22/14	5/26/14																								
Task 5: Lake or Streambed Alteration Permit	6/6/14	6/6/14																								
d. Construction/Implementation																										
Task 6: Earthwork/Excavation	5/14/14	7/1/14																								
Task 7: Dredging	6/10/14	6/23/14																								
Task 8: Erosion Control	6/27/14	7/21/14																								
Task 9: Turbidity Station	7/21/14	8/15/14																								

Tuolumne Utilities District Matelot Reservoir

All Direct Project Administration including claims for reimbursement, status update reports, final reports and construction management has been and will be handled by TUD's Engineering Department.

Land Purchase/Easement was not applicable. TUD owns the existing reservoir and the property surrounding the reservoir is owned by a private owner. TUD and the property owner made an agreement to enlarge the reservoir and build an access road to the reservoir thus land acquisition was not needed.

Planning/Design/Engineering/Environmental Documentation project aspects were all realistic, reasonable and have been completed. The grading plan for the enlarged Matelot Reservoir and the calculations to determine the projected volume of the reservoir were completed on May 14th, 2014. The Red-Legged Frog Assessment and the Cultural Resources Study were conducted on May 22nd, 2014, and were completed on May 26, 2014.

The Construction/Implementation is realistic, feasible and in the process of being accomplished. The earthwork was completed on July 1, 2014 and the shotcreting of the dam face was completed on July 2nd, 2014. Dredging of the existing reservoir was completed June 23rd, 2014. Erosion control measures include hydroseeding all disturbed slopes steeper than 2 percent and higher than 3 feet. Hydroseeding will be completed by September 15th, 2014 per the grading permit. The turbidity station will be installed in late July or early August.

Regional Grant Administration

Tasks by Budget Category	Start	Finish	2013				2014				2015				2016				2017				2018			
			Q1	Q2	Q3	Q4																				
a. Direct Project Administration																										
Task 1: Regional Grant Administration	12/1/13	12/31/18																								
Task 1.1: Contract Administration	12/1/13	12/31/18																								
Task 1.2: Invoicing	12/1/13	12/31/18																								
Task 1.3: Reporting	12/1/13	12/31/18																								
b. Land Purchase/Easement																										
c.Planning/Design/Engineering/Environmental Documentation																										
d. Construction/Implementation																										

Regional Grant Administration

Regional Grant Administration will continue through the life of the grant from 2013 through 2018, and includes activities necessary to comply with DWR invoicing, and reporting requirements including preparation of all necessary monthly or quarterly and final reports.