



## RANCHO MURIETA COMMUNITY SERVICES DISTRICT

15160 Jackson Road, Rancho Murieta, CA 95683

Office - 916-354-3700 \* Fax - 916-354-2082

### IMPROVEMENTS COMMITTEE

Regular Meeting

May 2, 2017 at 8:30 a.m.



All persons present at District meetings will place their cellular devices in silent and/or vibrate mode (no ringing of any kind). During meetings, these devices will be used only for emergency purposes and, if used, the party called/calling will exit the meeting room for conversation. Other electronic and internet enabled devices are to be used in the "silent" mode. Under no circumstances will recording devices or problems associated with them be permitted to interrupt or delay District meetings.

#### AGENDA

**1. Call to Order**



**2. Comments from the Public**

**3. Monthly Updates**

-  Solar Power
-  Well Project

**4. Approve Purchase of F-150 Truck to Replace Vehicle #215 for Operations Staff**

**5. Review Coastland Engineering Draft Water Supply Augmentation Fee Update Reports**

-  Capital Improvements Technical Memorandum
-  Water Supply Augmentation Technical Memorandum

**6. Directors & Staff Comments/Suggestions [no action]**

**7. Adjournment**

*In accordance with California Government Code Section 54957.5, any writing or document that is a public record, relates to an open session agenda item and is distributed less than 72 hours prior to a regular meeting will be made available for public inspection in the District offices during normal business hours. If, however, the document is not distributed until the regular meeting to which it relates, then the document or writing will be made available to the public at the location of the meeting.*

Note: This agenda is posted pursuant to the provisions of the Government Code commencing at Section 54950. The date of this posting is April 28, 2017. Posting locations are: 1) District Office; 2) Rancho Murieta Post Office; 3) Rancho Murieta Association; 4) Murieta Village Association.

## MEMORANDUM

Date: April 27, 2017  
To: Improvements Committee  
From: Paul Siebensohn, Director of Field Operations  
Subject: Receive Project Updates

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### **SOLAR POWER INSTALLATIONS**

#### **Wastewater Treatment Plant Site**

The hold up now on the project is that Solar City's engineers need to revise their project drawings to reflect what is actually installed in the ground to allow the Sacramento County inspector to sign off on the work to continue. Solar City is reporting that their engineering department is backed up but has this on their list of items to take care of.

#### **Water Treatment Plant Site**

Solar City submitted an \$18,104 change order to the District for the routing of the power transmission line from the solar arrays to the water plant along with a pad and panel. After multiple discussions between me and various representatives of Solar City, they have agreed to absorb this cost. Currently, the project is proceeding with the electrical contractor scheduled to be out on May 8, 2017, which should proceed relatively quickly from that point. The only outside work still needing to be done by SMUD is for them to mount their telemetry system for power monitoring.

### **WELL PROJECT**

Darlene J. Thiel, General Manager, has requested that I get the well project ready for bid again with a target date of middle of May for posting. The well site that we would like to drill on is still in negotiation and a Right-of-Entry Agreement is needed for access. Staff is/will recommend to the Board that the well project move forward as an emergency source of supply. Adding the well to supplement our single source of supply will provide a needed redundancy and increase our water supply reliability during times of emergency.





Harrold Ford  
1535 Howe, Sacramento, California, 958253399  
Office: 916-922-1535

## Customer Proposal

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**Prepared by:**

DAVID DAHLE  
Office: 916-922-1535  
Email: david\_dahle@harroldford.com

**Date:** 04/25/2017

**Vehicle:** 2017 F-150 XL  
4x2 Regular Cab Styleside 6.5' box 122"  
WB





**Harrold Ford**  
 1535 Howe, Sacramento, California, 958253399  
 Office: 916-922-1535

**2017 F-150, Regular Cab Styleside**  
 4x2 Regular Cab Styleside 6.5' box 122" WB XL(F1C)  
 Price Level: 755

**Major Equipment**

(Based on selected options, shown at right)

- 3.5L V-6 DOHC w/SMPI 282hp
- 6 speed automatic w/OD
- \* 4-wheel ABS
- \* Electric parking brake
- \* P 245/70R17 BSW AS S-rated tires
- \* Advance Trac w/Roll Stability Control
- \* Tinted glass
- \* Daytime running
- \* Variable intermittent wipers
- \* Dual front airbags
- \* Airbag occupancy sensor
- \* Tachometer
- \* Steering-wheel mounted audio controls
- \* Front axle capacity: 3750 lbs.
- \* Front spring rating: 3000 lbs.
- \* Frame section modulus: 5 cu.in.

**Fuel Economy**



**City**  
18 mpg

**Hwy**  
25 mpg

<i>Selected Options</i>	<i>MSRP</i>
STANDARD VEHICLE PRICE	\$27,110.00
Equipment Group 100A Base	N/C
Engine: 3.5L V6 Ti-VCT FFV	Included
Transmission: Electronic 6-Speed Automatic	Included
3.55 Axle Ratio	Included
GVWR: 6,010 lbs Payload Package	Included
Tires: P245/70R17 BSW A/S	Included
Wheels: 17" Silver Steel	Included
122" Wheelbase	STD
Monotone Paint Application	STD
Radio: AM/FM Stereo w/4 Speakers	Included
Oxford White	N/C
Vinyl 40/20/40 Front Seat	N/C
Medium Earth Gray	N/C
Class IV Trailer Hitch Receiver	\$95.00
XL Power Equipment Group	\$970.00
Power Glass Sideview Mirrors w/Black Skull Caps	Included
Illuminated Entry	Included
MyKey	Included
Perimeter Alarm	Included
Power Door Locks	Included

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.



Harrold Ford  
1535 Howe, Sacramento, California, 958253399  
Office: 916-922-1535

2017 F-150, Regular Cab Styleside  
4x2 Regular Cab Styleside 6.5' box 122" WB XL(F1C)  
Price Level: 755

Power Tailgate Lock	Included
Power Front Windows	Included
<hr/>	
SUBTOTAL	\$28,175.00
Destination Charge	\$1,295.00
<hr/>	
<b>TOTAL</b>	<b>\$29,470.00</b>

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

Prepared by: DAVID DAHLE Date: 04/25/2017

**REQUEST FOR PROPOSAL TO SUPPLY VEHICLE**

**to Rancho Murieta Community Services District**

(Return a complete quote by April 27, 2017 by 11am to be considered)

**YEAR - 2016, 2017, or 2018** updated 4/24/17

- New Ford F-150 XL 4x2
- White
- Regular cab, standard 3.5L V-6
- Trailer hitch
- Automatic Transmission
- Air Conditioning
- Electric Windows and Door Locks
- Floor Mats
- California Emissions
- Standard Equipment package

Delta - Innerside Toolbox, Steel, white, 58 1/2" mounted on driver's side

27,638<sup>62</sup>

Government Discount Code "QU286"

-\$5964

Dealer Set-up Cost

+ \_\_\_\_\_

California Sales Tax (% 7.75)

+ 1685<sup>98</sup>

Licensing

\$2900 + \$80 Doc Fee

Registration

\_\_\_\_\_

**TOTAL DIRECT PURCHASE PRICE**

23,469<sup>60</sup>

Price Quoted: 4 / 25 / 17

Dealer: Harrold Ford (916) 825-7947

By: AA

Print Name: David D. H. W.

Contact Phone: 916-779-5006

Quotation Good Through:     /    /      
*(Must be minimum of 45 days to allow processing)*

## MEMORANDUM

Date: April 28, 2017  
To: Improvements Committee  
From: Darlene J. Thiel, General Manager and  
Paul Siebensohn, Director of Field Operations  
Subject: Review Coastland Engineering Draft Water Supply Augmentation Reports

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### RECOMMENDED ACTION

Review and provide comments, input and/or suggestions.

### BACKGROUND

The attached technical memos identify the proposed projects for Capital Improvement and Water Supply Augmentation to be used as the basis for the respective fee calculations. Once these project lists are approved by the Board, Coastland Engineering will develop the Government Code 66000 Compliance Report and updated District Code for initial presentation to the June Finance Committee. The 66000 Compliance Report (and the District Code chapters) will identify the fee per EDU for Capital Improvement Projects and Water Supply Augmentation. With Finance Committee recommendation, the Compliance Report and District Code chapters will be presented at the June Board of Directors meeting. The revised District Code chapters will be adopted through the ordinance process which requires a 60 day public comment/review period, which will commence at the June Board meeting. The Ordinance for the revised District Code chapters will be adopted and finalized at the August Board of Directors meeting.

Staff is requesting that the Improvements Committee review the attached technical memos and provide comments, input, and suggestions to staff and Coastland Engineering. Input from the Improvements Committee will be considered in revisions to the Technical Memos which will then be taken to the Board at the May Board meeting.

John Griffin, Coastland Engineering, will attend the Improvements Committee to discuss the Technical Memos and answer any questions.





## Technical Memorandum

**Date:** April 28, 2017

**To:** Rancho Murieta Community Services District

**From:** John Griffin  
Marc Fernandez

**Reviewed By:** Dane Schilling

**Subject:** Facility Capital Improvement Projects

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In support of the Rancho Murieta Community Services District (District) Capital Improvement Fee Update, Coastland has prepared this technical memorandum (Tech Memo) to summarize the various District facility capital improvement projects.

This Tech Memo also provides Project Data Forms that provide basic information about each project and a breakdown of cost by component:

- Administration/Management
- Planning/Environmental
- Engineering
- Construction
- Construction Management/Inspection

Planning level summary sheets of updated construction cost estimates for each of the facility capital improvement projects are provided in support of the construction costs presented in the Project Data Forms.

Project data forms and supporting construction cost estimates are incorporated as Attachment A.

### **BACKGROUND**

The District was formed in 1982 by State Government Code 61000 to provide essential services in Rancho Murieta. The District provides essential services to an area of 3,500 acres located in eastern Sacramento County. Land use decisions within the District are governed by Sacramento County. The current population within the District is approximately 5,600 people.

## **FACILITIES CAPITAL PROJECTS SUMMARY**

A master list of District facility capital improvement projects has existed and been utilized in the calculation of the capital improvement fee since the mid 1980's. Over the years, the District has completed a number of projects and also added others, completely driven by growth and expansion of the customer base within the service area. As part of the analysis in preparation of this Tech Memo, Coastland and District staff conducted a review of the existing list, eliminating projects that no longer were applicable to serve the District's needs. Coastland and District staff also identified new project deemed necessary to serve growth and expansion of the customer base within the service area.

Below is a brief summary of each facility capital improvement project.

### **Sewer Projects:**

#### **Sewer/Drainage Hydro Cleaning Truck (CIP 17-2-01)**

This project consists of purchasing of a vac-con truck. As growth within the District's service area occurs, the District requires equipment that will allow the District to maintain the new infrastructure constructed to support growth in good condition and achieve its full-life expectancy. Vac-Con trucks can be used for multiple applications such as sewer and drainage line cleaning, hydro-excavations, and emergency/hazardous spill control. Purchase of this truck makes these types of operations for the District more efficient when serving a larger customer base.

#### **Material and Equipment Warehouse (CIP 17-2-02)**

This project consists of construction of prefabricated 40'x60' steel warehouse building with rollup doors at the wastewater treatment plant between aeration pond 3 and aeration pond 5 for material and equipment storage. Other wastewater treatment plant modifications and changes create the need for additional storage of replacement materials and maintenance equipment. This improvement will allow the wastewater system to operate in an efficient manner due to the various planned improvements that will accommodate additional wastewater treatment flows and maintenance needs from a larger customer base.

#### **Drying Bed and Access Road Improvements (CIP 17-2-03)**

This project consists of modification of a sludge drying bed located at the southern end of the wastewater treatment plant between Reservoir 1 and Aeration Pond 4. Construction will also include a paved access to the drying beds versus the existing clay roadway, new 80'x80' concrete pad for storing dried solids, modifications to existing piping, and constructing new underground piping improvements, installing underdrain cleanouts, and modifying the drying bed design to allow for safer access. The improvements are required for the wastewater treatment plant to accommodate a higher volume of sludge generated by a larger customer base.

#### **Chlorine Gas to Bleach Conversion – Wastewater Treatment Plant (CIP 17-2-04)**

This project consists of modifications to the wastewater treatment plant disinfection processes. Due to the heightened security and safety concerns of storing and feeding chlorine gas, increased demand in use of chlorine gas due to the growth experienced by the District and anticipated increased flows to the wastewater treatment plant created at build-out of the service area, and the required transportation of this chemical through the community to the wastewater treatment



plant, the District plans to convert the chlorine gas to bleach as the disinfection process. The use of chlorine gas as a disinfection method has declined in the municipal waste treatment industry due to risk. This process for treatment is more cost effective, and safer to deliver, store and feed than chlorine gas. The wastewater treatment plant process controls will be modified with new chemical feed pumps and installation of a new 5,000 gallon tank for liquid sodium hypochlorite (bleach). This conversion will allow the District to more safely and efficiently disinfect while accommodating additional wastewater treatment flows from a larger customer base.

#### **WWTP SCADA Monitoring (CIP 17-2-05)**

This project consists of upgrade and expansion to the wastewater Supervisor Control and Data Acquisition (SCADA) monitoring and control system. The existing hardware of radio transmission units (RTU's) and programmable logic controls (PLC's) will be replaced with upgraded equipment capable of monitoring and controlling the entire filtration and disinfection process at the wastewater treatment plant and various control processes outside of the plant. The project also consists of minor improvements/replacements to flow sensors, valves, and sensor transmitters for the various disinfection processes at the plant. The project also requires purchase of new SCADA software and supporting hardware, along with SCADA workstations to control the upgraded hardware improvements. SCADA upgrades are required to keep the wastewater treatment plant operating in an efficient manner with the various planned improvements that are required to accommodate additional wastewater treatment flows from a larger customer base.

#### **Lift Station Capacity Improvement (CIP 17-2-06)**

This project consists of upgrade and expansion to three existing lift stations; Main North Lift Station and 6B Lift Station. Each of the lift stations will receive upgrades to the wastewater Supervisor Control and Data Acquisition (SCADA) monitoring and control system. This consists of purchase and installation of radio transmission units (RTU's), programmable logic controls (PLC's). The project also consists of improvements to the lift stations flow sensors, valves, and sensor transmitters to be compatible with the SCADA hardware. The Main North Lift Station will also require upsizing of odor control, a new comminutor and pump for the third dry pit/wet pit system. The 6B Lift station will require a third pump, generator, and new electrical panel, and minor piping improvements.

#### **Fiber Optic Connection – Wastewater Treatment Plant to Admin. (CIP 17-2-07)**

This project consists of installation of approximately one thousand eight hundred (1,800') linear feet of conduit and fiber optic cable between the wastewater treatment plant and District administration building and minor electrical/telecommunications improvements to the District headquarters and wastewater treatment plant buildings. The current wireless network and wireless repeaters used for communications purposes is outdated and slow. This problem would be exacerbated when future plant expansions occur. This project will replace the existing wireless network with a fiber optic communication cable and network. The fiber optic connection is required to accommodate the additional data collection, needed bandwidth for cctv monitoring, and data transfers required to run the wastewater treatment plant, allowing the District to improve operational efficiency when serving a larger customer base.

#### **Piping Connection – Sludge Discharge to Drying Beds (CIP 17-2-08)**

This project consists of installation of approximately one thousand linear feet (1,000') of 14" pipe and minor valve improvements. The pipeline will be installed from the wastewater plant's pond



drain system at a point near the tertiary pump station to the sludge drying beds adjacent to the drying bed access road. These piping modifications are required to keep the wastewater treatment plant operating in an efficient manner with the various planned improvements that will accommodate additional wastewater flows from a larger customer base.

### **Sludge Dredge and Filter Skids for Ponds (CIP 17-2-09)**

This project consists of purchase of a remote controlled flump dredge and a filter skid for the sludge drying beds located at the southern end of the wastewater treatment plant. A flump dredge is used for sludge collection and removal of sludge from the wastewater treatment plant ponds. The filter skid is a mobile filtration system that combines a self-cleaning filter with required pumps, manifolds, and controllers. The skid offers a mobile and easy to install industrial water filter station for the wastewater pumped by the flump dredge. This purchase is required to maintain operational efficiency at the wastewater treatment plant when serving a larger customer base due to increased production of solids caused by increased flows to the Wastewater Treatment Plant.

### **Headworks (CIP 17-2-10)**

This project consists of construction of expanded headworks and odor control systems at the wastewater treatment plant to accommodate additional flows. The headworks of a wastewater treatment plant is the initial stage of a complex process. The project will construct a headworks consisting of self-cleaning screens with solids compactions and disposal, and odor control unit to be located north of Aeration Pond 1. This will also then be the centralized site that will tie together the north and south forcemain influent pipelines and provide a single metering point for District inflows. The headworks will channelize the influent into an open channel to flow through a drum screen and bar screen to effectively remove plastic and non-degradable solids, grit, and other debris from the wastewater prior to wastewater treatment ponds. Influent will then pass through the odor control unit to neutralize any noxious odors, prior to discharging into Aeration Pond 1. This improvement is required to provide operational efficiency at the wastewater treatment plant for the increased customer base. It should be noted, the District previously contracted with Hydrosience Engineer's, Inc. in 2009 to design the headworks. In February 2010, the District suspended the design contract for the engineering design at approximately 50% completed.

### **Water Projects:**

#### **Rio Oso Hydropneumatic Station Air Compressor (CIP 17-1-01)**

Construction of a turbine (piston-less) air compressor and miscellaneous piping improvements to pressurize the hydropneumatic tank at Rio Oso. This improvement is recommended to control delivery of water serving an increased customer base.

#### **Booster Pump Building at Rio Oso (CIP 17-1-02)**

This project consists of construction of a new concrete masonry unit (CMU) building with a removable steel roof for the existing booster pumps at the Rio Oso tank site. Miscellaneous site improvements for underground pipes and electrical conduits will be required to accommodate the building at the tank site. Due to the increased water flow demands from development nearby the Rio Oso site, the District will need to contain the noise generated by the increased operation of booster pumps.

#### **Rio Oso Hydropneumatic Tank (CIP 17-1-03)**



The project consists of installation of a hydropneumatic tank and minor miscellaneous piping improvements at the Rio Oso Tank site. The hydropneumatic tank will help regulate proper system pressure ranges and fluctuations associated with starting and stopping of additional pumps that will be online to meet future development's demands. It will also help to avoid pressure fluctuations which may damage future installation infrastructure, both necessary for the efficient operation of a water supply system. This improvement is recommended to control delivery of water serving an increased customer base.

#### **Culvert Crossing at Water Plant (CIP 17-1-04)**

This project consists of drainage improvements to the water treatment plant. The new membrane segment of the water treatment plant requires a number of new chemicals to operate and maintain these membranes. These improvements consist of installation of a 4'x6' box culvert and construction of a 12' wide access road, which provide a safer and more reliable route for chemical delivery and maintenance vehicles at the water treatment plant while also complying with stormwater regulations. These improvements will complete a recent expansion of the District's water treatment plant.

#### **Dam Road Grading and Resurfacing (CIP 17-1-05)**

This project consists of grading and paving of the existing gravel dam roads of Lake Chesbro and Lake Clementia. Paved access roads will receive a roadway structural section of 3" of asphalt on 4" of aggregate base to a width of 20'. At Lake Chesbro, access road paving will begin at the northerly end of Camino Del Lago Drive, continue around the eastern side of the lake to the water treatment plant, and terminate at the existing paved portion of the lake access road at the southern end of the lake. At Lake Clementia, access road paving will begin at the intersection of Camino Del Lago Drive and Clementia Circle to the easterly end of the Lake Clementia dam road. These improvements are required due to an increase in the number of trips to the lakes to conduct maintenance and operational inspections and efficiency of water delivery to an increase in its customer base. Growth in the area will also create a larger base of customers using the trails and dam roads for recreational purposes. In addition, Camino Del Lago drive is intended be extended to the south across the Lake Clementia dam for future development of Village D & Village E.

#### **Chlorine Gas to Bleach Conversion – Water Treatment Plant (CIP 17-1-06)**

This project consists of modifications to the water treatment plant disinfection processes from chlorine gas to sodium hypochlorite (bleach). Due to the heightened security and safety concerns of storing and feeding chlorine gas, increased demand in the use of chlorine gas due to the growth experienced by the District and anticipated increased flows through the water treatment plant created by build-out of the service area, planned development in close proximity to the water plant, and the required transportation of this chemical through the community to the water treatment plant, the District plans to convert from chlorine gas to bleach as the disinfection process. The use of chlorine gas as a disinfection method has declined in the municipal water treatment industry due to risk. This process for treatment is more cost effective, and safer to deliver, store and feed than chlorine gas. The water treatment plant process controls will be modified with new chemical feed pumps and installation of a new 5,000 gallon tank, and piping modification for liquid sodium hypochlorite (bleach). This conversion will allow the District to more safely and efficiently disinfect its water supply while accommodating additional water treatment demands from a larger customer base.



### **Maintenance Shed at Water Treatment Plant (CIP 17-1-07)**

This project consists of construction of prefabricated 20'x40' steel maintenance shed building with rollup door at the water treatment plant for material and equipment storage. Other water treatment plant modifications and changes create the need for additional storage of replacement materials and new maintenance equipment that are necessary to accommodate an increase in demands and services placed on the system. This improvement will allow the District staff to operate in an efficient manner due the various planned improvements to serve a larger customer base.

### **Emergency Water Supply Well (CIP 17-1-08)**

This project consists of a new water supply well located near an unused portion at the south end of Anderson Ranch and drilled to an estimated depth of three hundred feet below ground surface. The project will also construct pipeline improvements to connect the well to the existing water distribution system. Supplementary data and cost estimates are provided in detail in the Technical Memorandum Production Water Well Assessment by Dunn Environmental, Inc., dated December 12, 2013.

### **Drainage Projects:**

#### **Commercial Area Drainage Slide Gate Automation (CIP 17-2-11)**

This project consists of installation of an automated motor operated valve, float switch, electrical controls and an autodialer alarm system on the slide drainage gate in the commercial loop area. The intended use of the slide gate is to provide flood protection from the Cosumnes River flows during peak storm rain events. The gate is currently operated manually and must be visually inspected during rain events to determine the need to lower the gate. This project is intended to provide an automated motor control and flow sensors to automatically lower the gate when the Cosumnes River reaches predetermined flood elevations. These improvements will provide flood protection for current and future developments in the commercial loop area while improving operational efficiency of District operations for flood protection during storm events.

#### **Stormwater Monitoring Testing Equipment (CIP 17-2-12)**

This project consists of purchasing water quality testing equipment. The equipment includes a portable sampling device, portable turbidity meter, portable chemical analyzer, and various miscellaneous appurtenances to monitor and record stormwater quality. This equipment purchase will allow the District to maintain compliance with National Pollutant Discharge Elimination System (NPDES) requirements and improve operational efficiency during storm events when an expanded drainage system is constructed for new development.

### **Administrative Projects:**

#### **District Administration Building Remodel/Expansion (CIP 17-4-01)**

This project consists of constructing a 40'x100' addition to the existing District Administration Building. The addition and remodel of eastern half of the building will create additional offices for staff, provide additional storage area for District records and expand the public meeting room for the Districts' Board of Director's and Committee meetings. Additional support staff will be



required to maintain efficiency in District administrative, accounting, and field operations when serving an expanded customer base.

### **ACTIVE PROJECTS**

The projects listed below are currently part of the overall facilities capital improvement program and are currently underway. These costs are not factored into the overall program.

#### **Sewer Projects:**

##### **Easement Hydro-Jetter [In Process]**

This project consists of purchasing of a trailer mounted hydro-jetting machine to be used for sewer and storm drain maintenance applications, where access to facilities lies within a small width easement with limited vehicular access, typically in common areas around homes in the Rancho Murieta North. Purchase of this trailer makes these types of maintenance operations for the District more efficient, thus decreasing maintenance costs when serving a larger customer base.

#### **Water Projects:**

##### **Granlees Site Restriction [In Process]**

This project consists of site security improvement such as fencing, gates, guardrails, and signs at the Granlees Dam, Granlees fish ladder, and raw water pump station. Supplementary data and cost estimates are provided in detail in the Granlees Dam Accessibility Restriction Predesign Alternatives Study and Type Selection Report by HDR, Inc., dated December 2005.

#### **Administrative Projects:**

##### **Records Storage [In Process]**

This project consists of purchase of an electronic document management system and scanning hardware. The district is faced with new challenges from its customer base as demands for instant access to electronic government documents online, such as public records, and heightened security and regulations continue to grow. This system will allow the District to maintain a high level of service for an expanded customer base.

### **ELIMINATED PROJECTS**

The projects listed below were removed from the overall Facilities Capital Improvement Program. These costs are not factored into the overall program.

District Radio Transmitter Station	\$15,000
Facilities Triangulation Control System	\$51,000
Security Gates Video Operations Link	\$76,000
Automated Equipment Identification System	\$60,000
Stonehouse Wastewater Plant Closeout	\$60,000
Hydroelectric Generation Facility	\$335,000
North Gate Security Improvements	\$485,000
Chesbro Air Injection System	\$60,000
Capital Improvement Fee Software	\$20,000



Granlees Raw Water Pump Station Electrical	\$60,000
Telemetry and Central Control System	\$500,000
Laguna Joaquin Drainage Channel Lining	\$850,000
Ditch Maintenance Tractor/Mower	\$40,000
Lake Algae Induction System	\$35,000
Drainage Dich Cleaning from Hay Barn to River	\$80,000
Wireless Cloud Costs	\$285,000
CMMS/Websoft	\$200,000
Wireless Network	\$100,000





**TABLE 1 - FACILITY IMPROVEMENT CAPITAL PROJECT SUMMARY**

<b>Project Number</b>	<b>Project Name</b>	<b>Project Estimate</b>
<b>Sewer Projects</b>		
17-2-01	Sewer/Drainage Hydro Cleaning Truck	\$241,500
17-2-02	Material and Equipment Warehouse	\$153,000
17-2-03	Drying Bed and Access Road Improvements	\$601,750
17-2-04	Chlorine Gas to Bleach Conversion - Wastewater Treatment Plant	\$263,900
17-2-05	WWTP SCADA Monitoring	\$165,200
17-2-06	Lift Station Capacity Improvements	\$862,500
17-2-07	Fiber Optic Connection - Wastewater Treatment Plant to Administration Building	\$130,500
17-2-08	Piping Connection - Sludge Discharge to Drying Beds	\$297,000
17-2-09	Sludge Dredge & Filter Skid for Ponds	\$367,500
17-2-10	Headworks	\$687,000
<b>Sewer Project Total</b>		<b>\$3,769,850</b>
<b>Water Projects</b>		
17-0-01	Rio Oso Hydropneumatic Station Air Compressor	\$19,500
17-0-02	Booster Pump Building at Rio Oso	\$525,000
17-0-03	Rio Oso Hydropneumatic Tank	\$219,000
17-0-04	Culvert Crossing at Water Treatment Plant	\$100,500
17-0-05	Dam Road Grading and Resurfacing	\$1,158,000
17-0-06	Chlorine Gas to Bleach Conversion - Water Treatment Plant	\$343,500
17-0-07	Maintenance Shed (20' x 40') at Water Treatment Plant	\$69,000
17-0-08	Emergency Water Supply Well	\$1,578,000
<b>Water Project Total</b>		<b>\$4,012,500</b>
<b>Drainage Projects</b>		
17-2-11	Commercial Area Drainage Slide Gate Automation	\$57,000
17-2-12	Stormwater Monitoring Testing Equipment	\$33,000
<b>Drainage Project Total</b>		<b>\$90,000</b>
<b>Administrative Projects</b>		
17-4-01	District Administration Building Remodel/Expansion	\$412,500
<b>Administrative Project Total</b>		<b>\$412,500</b>
<b>Capital Improvement Project Total</b>		<b>\$8,284,850</b>

# **Attachment A – Project Data Forms**



**Rancho Murieta Community Services District  
Capital Improvement Program**

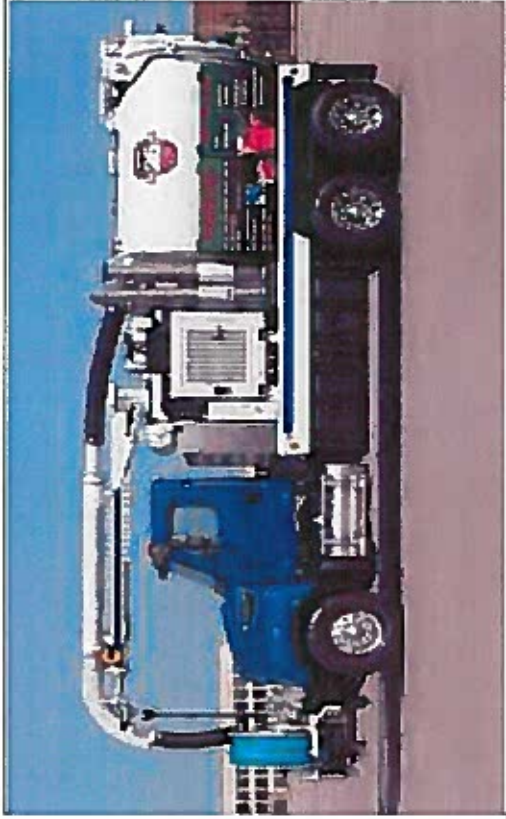
**PROJECT DATA FORM**

**Project Number:** 17-2-01      **Project Name:** Sewer/Drainage Hydro Cleaning Truck      **Project Type:** Sewer  
**Location:** Maintenance Equipment

**Description:** Purchase of Vac-Con Truck      **Vac Con Truck**

**Justification:** Preventative Maintenance

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$11,500	\$11,500
	Planning/Environmental Engineering		\$0	\$0
	Construction		\$230,000	\$230,000
	Construction Management/Inspection		\$0	\$0
<b>Total</b>		\$0	\$241,500	\$241,500

**Rancho Murieta Community Services District**

**Project Name: Sewer/Drainage Hydro Cleaning Truck**

**Job Number: 17-2-01**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	9 Yard Combination Sewer Cleaner (Vac-Con) Purchase	1	LS	\$200,000.00	\$200,000.00

Subtotal	\$200,000.00
15% Contingency	\$30,000.00
<b>Total Construction Cost</b>	<b>\$230,000.00</b>

[http://www.vac-con.com/combinaton\\_sewer\\_cleaning\\_truck.html#3](http://www.vac-con.com/combinaton_sewer_cleaning_truck.html#3)

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-02      **Project Name:** Material and Equipment Warehouse  
**Location:** Wastewater Treatment Plant      **Project Type:** Sewer

**Description:** On-Site Construction of a Pre-Fabricated Warehouse      **Storage Warehouse**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$10,200	\$10,200
	Planning/Environmental Engineering		\$10,200	\$10,200
	Construction		\$15,300	\$15,300
	Construction Management/Inspection		\$102,000	\$102,000
<b>Total</b>		\$0	\$153,000	\$153,000

## Rancho Murieta Community Services District

Project Name: Material and Equipment Warehouse

Job Number: 17-2-02

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	40'x60' Warehouse (Pre-Manufactured)	1	LS	\$50,000.00	\$50,000.00
2	Site Preparation/Foundation/Electrical	1	LS	\$30,000.00	\$30,000.00
3	Mobilization (10%)	1	LS	\$8,000.00	\$8,000.00
					\$0.00

Subtotal \$88,000.00

15% Contingency \$13,200.00

**Total Construction Cost \$101,200.00**

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-03      **Project Name:** Drying Bed and Access Road Improvements

**Location:** Wastewater Treatment Plant      **Project Type:** Sewer

**Description:** Construction of additional drying bed

**Justification:** Facility Improvement



**Notes:**

	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$20,750	\$20,750
	Planning/Environmental		\$41,500	\$41,500
	Engineering		\$62,250	\$62,250
	Construction		\$415,000	\$415,000
	Construction Management/Inspection		\$62,250	\$62,250
<b>Total</b>		\$0	\$601,750	\$601,750

**Rancho Murieta Community Services District**  
**Project Name: Drying Bed and Access Road Improvements**  
**Job Number: 17-2-03**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Drying Bed Improvements*	280	CY	\$450.00	\$126,000.00
2	Piping & Appurtanences	1	LS	\$12,000.00	\$12,000.00
3	Access Road Improvements (6" AC / 8" AB)	1	LS	\$75,000.00	\$75,000.00
4	Dried Sludge Storage Pad (80'x80'x12")	237	CY	\$450.00	\$106,650.00
5	Permit Modifications	1	LS	\$8,000.00	\$8,000.00
6	Mobilization (10%)	1	LS	\$32,765.00	\$32,765.00

Subtotal	\$360,415.00
15% Contingency	\$54,062.00
<b>Total Construction Cost</b>	<b>\$414,477.00</b>

\* Additional Drying Bed for Sludge Storage  
- Excavation & Grading



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

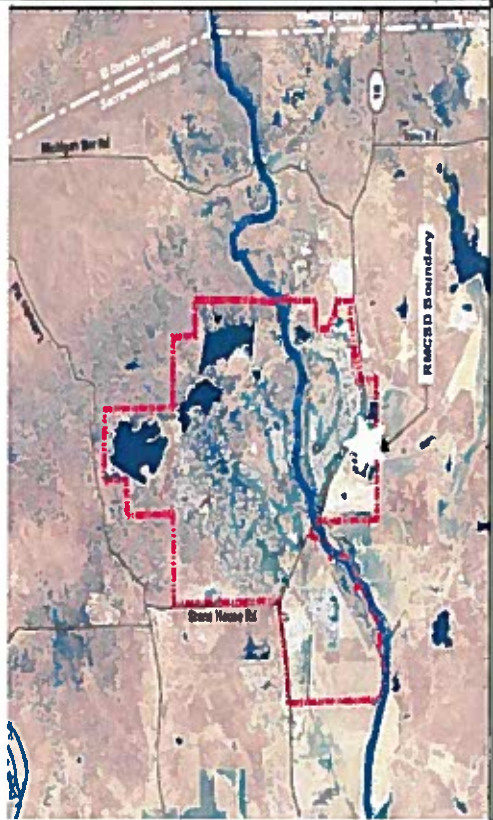
**Project Number:** 17-2-04      **Project Name:** Chlorine Gas to Bleach Conversion - Wastewater Treatment Plant  
**Location:** Wastewater Treatment Plant      **Project Type:** Sewer

**Description:** Conversion of Treatment Systems from Chlorine Gas to Bleach      **Sewer Treatment Plant**

**Justification:** Facility Improvement

**Notes:**

	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$9,100	\$9,100
	Planning/Environmental		\$18,200	\$18,200
	Engineering		\$27,300	\$27,300
	Construction		\$182,000	\$182,000
	Construction Management/Inspection		\$27,300	\$27,300
<b>Total</b>		\$0	\$263,900	\$263,900



**Rancho Murieta Community Services District**  
**Project Name: Chlorine Gas to Bleach Conversion - Wastewater Treatment Plant**  
**Job Number: 17-2-04**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Equipment* (Piping, Chemical Feed Pumps, Control Panel)	1	LS	\$52,000.00	\$52,000.00
2	Site/Facility Conversion	1	LS	\$35,000.00	\$35,000.00
3	Systems Conversion and Telemetry	1	LS	\$16,000.00	\$16,000.00
4	Field Startup	1	LS	\$10,000.00	\$10,000.00
5	Staff Training	1	LS	\$5,000.00	\$5,000.00
6	Enclosure & Screening	1	LS	\$18,000.00	\$18,000.00
7	Permit Modifications	1	LS	\$8,000.00	\$8,000.00
8	Mobilization (10%)	1	LS	\$14,400.00	\$14,400.00

Subtotal	\$158,400.00
15% Contingency	\$23,760.00
<b>Total Construction Cost</b>	<b>\$182,160.00</b>

\* Hopkins Technical Products Quote 2/6/17  
5100 Gallon Tank  
Chemical Feed Pumps

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-05      **Project Name:** WWTP SCADA Monitoring  
**Location:** Hardware/Software      **Project Type:** Sewer

**Description:** Hardware and Software Equipment Purchase

**Justification:** Administrative

**Notes:**



PROJECT COST	Item	Previous Expenditures	Cost Estimate	Total
	Administration/Management		\$7,000	\$7,000
	Planning/Environmental Engineering		\$7,000	\$7,000
	Construction		\$140,000	\$140,000
	Construction Management/Inspection		\$11,200	\$11,200
	<b>Total</b>	\$0	\$165,200	\$165,200

## Rancho Murieta Community Services District

Project Name: WWTP SCADA Monitoring

Job Number: 17-2-05

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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	Supervisory Control And Data Acquisition (SCADA)				
1	SCADA Hardware & Installation. RTU/PLC's	1	LS	\$30,000.00	\$30,000.00
2	SCADA Network Server & Workstations	1	LS	\$12,000.00	\$12,000.00
3	SCADA Software Purchase	1	LS	\$20,000.00	\$20,000.00
4	System Programming & Integration	1	LS	\$60,000.00	\$60,000.00

Subtotal \$122,000.00

15% Contingency \$18,300.00

**Total Construction Cost \$140,300.00**

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-06      **Project Name:** Lift Station Capacity Improvements  
**Location:** Collection System      **Project Type:** Sewer

**Description:** Hardware and Software Equipment Purchase      **Rancho Murieta Community Services District**

**Justification:** Administrative

**Notes:**



	Item	Previous Expenditures	Cost Estimate	Total
PROJECT COST	Administration/Management		\$34,500	\$34,500
	Planning/Environmental Engineering		\$34,500	\$34,500
	Construction		\$34,500	\$34,500
	Construction Management/Inspection		\$690,000	\$690,000
				\$69,000
	<b>Total</b>	\$0	\$862,500	\$862,500

## Rancho Murieta Community Services District

Project Name: Lift Station Capacity Improvements

Job Number: 17-2-06

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	Supervisory Control And Data Acquisition (SCADA)	1	LS	\$200,000.00	\$200,000.00
2	Main Lift North (Pump, Piping, Odor Control)	1	LS	\$100,000.00	\$100,000.00
3	Cantova (Well, Pump, Generator, Electrical)	1	LS	\$135,000.00	\$135,000.00
4	6B Lift (Pumps, Generator, Piping)	1	LS	\$165,000.00	\$165,000.00

Subtotal \$600,000.00

15% Contingency \$90,000.00

**Total Construction Cost \$690,000.00**

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-07      **Project Name:** Fiber Optic Connection - Wastewater Treatment Plant to Administration Building  
**Location:** Hardware/Software      **Project Type:** Sewer

**Description:** Installation of Fiber Optic Telecommunications

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$8,700	\$8,700
	Planning/Environmental Engineering		\$8,700	\$8,700
	Construction		\$13,050	\$13,050
	Construction Management/Inspection		\$87,000	\$87,000
<b>Total</b>		\$0	\$130,500	\$130,500

**Rancho Murieta Community Services District**  
**Project Name: Fiber Optic Connection -- Wastewater Treatment Plant to Admin Building**  
**Job Number: 17-2-07**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Service Installation / Service Agreement	1	LS	\$8,000.00	\$8,000.00
2	Conduit Installation & Trench Repair	1,800	LF	\$35.00	\$63,000.00
3	Misc. Facility Modifications	1	LS	\$3,000.00	\$3,000.00
4	Mobilization	1	LS	\$1,500.00	\$1,500.00

Subtotal	\$75,500.00
15% Contingency	\$11,325.00
<b>Total Construction Cost</b>	<b>\$86,825.00</b>



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-08      **Project Name:** Piping Connection - Sludge Discharge to Drying Beds  
**Location:** Wastewater Treatment Plant      **Project Type:** Sewer

**Description:** Reconfiguration of Drying Bed Discharge Piping      **Wastewater Treatment Plant**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$19,800	\$19,800
	Planning/Environmental Engineering		\$19,800	\$19,800
	Construction		\$29,700	\$29,700
	Construction Management/Inspection		\$198,000	\$198,000
			\$29,700	\$29,700
<b>Total</b>		\$0	\$297,000	\$297,000

**Rancho Murieta Community Services District**  
**Project Name: Piping Connection - Sludge Discharge to Drying Beds**  
**Job Number: 17-2-08**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	14" Pipe	1,000	LF	\$130.00	\$130,000.00
2	Valves and Appurtenances	1	LS	\$15,000.00	\$15,000.00
3	Minor Grading	1	LS	\$3,000.00	\$3,000.00
4	Permit Modifications	1	LS	\$8,000.00	\$8,000.00
5	Mobilization (10%)	1	LS	\$15,600.00	\$15,600.00

Subtotal	\$171,600.00
15% Contingency	\$25,740.00
<b>Total Construction Cost</b>	<b>\$197,340.00</b>

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-09      **Project Name:** Sludge Dredge & Filter Skid for Ponds  
**Location:** Wastewater Treatment Plant      **Project Type:** Sewer

**Description:** Purchase of Flump Dredge and Filter Skids      **Wastewater Treatment Plant**

**Justification:** Preventative Maintenance

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$14,700	\$14,700
	Planning/Environmental Engineering		\$29,400	\$29,400
	Construction		\$294,000	\$294,000
	Construction Management/Inspection		\$29,400	\$29,400
<b>Total</b>		\$0	\$367,500	\$367,500

## Rancho Murieta Community Services District

Project Name: Sludge Dredge & Filter Skid for Ponds

Job Number: 17-2-09

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Flump Dredge (Crisafulli)	1	LS	\$110,000.00	\$110,000.00
2	Filter Skids	1	LS	\$135,000.00	\$135,000.00
3	Site Modifications for Dredge	1	LS	\$10,000.00	\$10,000.00
	Mobilization				

Subtotal \$255,000.00

15% Contingency \$38,250.00

**Total Construction Cost \$293,250.00**

<http://www.crisafullipumps.com/dredges/flump>

3" Standard Duty

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-10      **Project Name:** Headworks      **Project Type:** Sewer  
**Location:** Wastewater Treatment Plant

**Wastewater Treatment Plant**

**Description:** Construction of Headworks at Wastewater Treatment Plant

**Justification:** Facility Improvement, Regulatory

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$45,800	\$45,800
	Planning/Environmental Engineering		\$45,800	\$45,800
	Construction		\$68,700	\$68,700
	Construction Management/Inspection		\$458,000	\$458,000
<b>Total</b>		\$0	\$687,000	\$687,000

## Rancho Murieta Community Services District

Project Name: Headworks

Job Number: 17-2-10

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Hydroscience Estimate* (50% Design)	1	LS	\$450,000.00	\$450,000.00
2	Permit Modifications	1	LS	\$8,000.00	\$8,000.00

Subtotal \$458,000.00

**Total Construction Cost** \$458,000.00

\* Estimate completed in 2010. Updated to 2017 unit pricing.

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-1-01      **Project Name:** Rio Oso Hydropneumatic Station Air Compressor  
**Location:** Rio Oso      **Project Type:** Water

**Description:** Installation of Hydropneumatic Station Air Compressor      *Hydropneumatic Station Air Compressor*

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Administration/Management		\$1,300	\$1,300
	Planning/Environmental Engineering		\$1,300	\$1,300
	Construction		\$1,950	\$1,950
	Construction Management/Inspection		\$13,000	\$13,000
			\$1,950	\$1,950
<b>Total</b>		\$0	\$19,500	\$19,500

**Rancho Murieta Community Services District**  
**Project Name: Rio Oso Hydropneumatic Station Air Compressor**  
**Job Number: 17-1-01**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Air Compressor	1	LS	\$7,500.00	\$7,500.00
2	Misc. Appurtenances	1	LS	\$3,750.00	\$3,750.00

	Subtotal	\$11,250.00
	15% Contingency	\$1,688.00
	<b>Total Construction Cost</b>	<b>\$12,938.00</b>



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Name:** Booster Pump Building at Rio Oso

**Project Number:** 17-1-02

**Project Type:** Water

**Location:** Rio Oso

**Description:** Construction of Booster Pump and Building

**Rio Oso**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$35,000	\$35,000
	Planning/Environmental		\$35,000	\$35,000
	Engineering		\$52,500	\$52,500
	Construction		\$350,000	\$350,000
	Construction Management/Inspection		\$52,500	\$52,500
<b>Total</b>		\$0	\$525,000	\$525,000

## Rancho Murieta Community Services District

Project Name: Booster Pump Building at Rio Oso

Job Number: 17-1-02

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	(25'x25') CMU Building w/removable steel roof	1	LS	\$250,000.00	\$250,000.00
2	Site Work	1	LS	\$25,000.00	\$25,000.00
3	Mobilization (10%)	1	LS	\$27,500.00	\$27,500.00

Subtotal	\$302,500.00
15% Contingency	\$45,375.00
<b>Total Construction Cost</b>	<b><u>\$347,875.00</u></b>

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Name:** Rio Oso Hydropneumatic Tank

**Project Number:** 17-1-03

**Project Type:** Water

**Location:** Rio Oso

**Description:** Construction of Hydropneumatic Tank at Rio Oso

**Rio Oso**

**Justification:** Facility Improvement

**Notes:**



	Item	Previous Expenditures	Cost Estimate	Total
<b>PROJECT COST</b>	Administration/Management		\$14,600	\$14,600
	Planning/Environmental Engineering		\$14,600	\$14,600
	Construction		\$21,900	\$21,900
	Construction Management/Inspection		\$146,000	\$146,000
				\$21,900
	<b>Total</b>	\$0	\$219,000	\$219,000

## Rancho Murieta Community Services District

Project Name: Rio Oso Hydropneumatic Tank

Job Number: 17-1-03

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	Hydropneumatic Tank (Tank & Foundation)	1	LS	\$50,000.00	\$50,000.00
2	Valves, Appurtanences, Controls	1	LS	\$25,000.00	\$25,000.00
3	4" - 6" PVC Pipe	100	LF	\$180.00	\$18,000.00
4	Site Work (Electrical, BMPs, Misc. Items)	1	LS	\$15,000.00	\$15,000.00
5	Disinfection & Startup	1	LS	\$7,500.00	\$7,500.00
6	Mobilization (10%)	1	LS	\$11,550.00	\$11,550.00

Subtotal \$127,050.00

15% Contingency \$19,058.00

**Total Construction Cost \$146,108.00**

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-1-04      **Project Name:** Culvert Crossing at Water Treatment Plant  
**Location:** Water Treatment Plant      **Project Type:** Water

**Description:** Construction of Drainage Culvert at Water Treatment Plant  
**Water Treatment Plant**

**Justification:** Facility Improvement

**Notes:**

	Item	Previous Expenditures	Cost Estimate	Total
<b>PROJECT COST</b>	Administration/Management		\$6,700	\$6,700
	Planning/Environmental Engineering		\$6,700	\$6,700
	Construction		\$10,050	\$10,050
	Construction Management/Inspection		\$67,000	\$67,000
				\$10,050
	<b>Total</b>	\$0	\$100,500	\$100,500



## Rancho Murieta Community Services District

Project Name: Culvert Crossing at Water Treatment Plant

Job Number: 17-1-04

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Pre-Cast Concrete Culvert (4' x 6' x 12')	1	LS	\$15,000.00	\$15,000.00
2	Roadway Improvements*	1	LS	\$30,000.00	\$30,000.00
3	Streambed Alteration Permit	1	LS	\$1,500.00	\$1,500.00
4	Stormwater Best Management Practices	1	LS	\$6,000.00	\$6,000.00
5	Mobilization (10%)	1	LS	\$5,250.00	\$5,250.00
				<b>Subtotal</b>	<b>\$57,750.00</b>
				15% Contingency	\$8,663.00
				<b>Total Construction Cost</b>	<b>\$66,413.00</b>

- \* Assumes a 4" AC / 3" AB, 12' wide (300 LF)
- 4" x 12' x 300' = 44 CY = 3.5 Tons
- 3" x 12' x 300' = 33 CY = 2 Tons
- Grading & Base Compaction

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Name:** Dam Road Grading and Resurfacing

**Project Number:** 17-1-05

**Project Type:** Water

**Location:** Lake Clementia & Lake Chesbro

**Description:** Rehabilitation/Resurfacing of Existing Dam Roads

**Justification:** Facility Improvement



**Notes:**

	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$77,200	\$77,200
	Planning/Environmental Engineering		\$77,200	\$77,200
	Construction		\$115,800	\$115,800
	Construction Management/Inspection		\$772,000	\$772,000
				\$115,800
	<b>Total</b>	\$0	\$1,158,000	\$1,158,000

## Rancho Murieta Community Services District

Project Name: Dam Road Grading and Resurfacing

Job Number: 17-1-05

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Roadway Improvements*	1	LS	\$600,000.00	\$600,000.00
2	Clearing and Grubbing	1	LS	\$10,000.00	\$10,000.00
3	Mobilization (10%)	1	LS	\$61,000.00	\$61,000.00
					\$0.00

Subtotal \$671,000.00

15% Contingency \$100,650.00

**Total Construction Cost \$771,650.00**

- \* Assumes a 3" AC /4" AB, 20' wide
- 3,400 LF Lake Clamentia
- 4,700 LF Lake Chesbro
- Grading & Base Compaction



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-1-06      **Project Name:** Chlorine Gas to Bleach Conversion - Water Treatment Plant

**Location:** Water Treatment Plant      **Project Type:** Water

**Description:** Conversion of Treatment Systems from Chlorine Gas to Bleach      **Water Treatment Plant**

**Justification:** Facility Improvement

**Notes:**

	Item	Previous Expenditures	Cost Estimate	Total
PROJECT COST	Administration/Management		\$22,900	\$22,900
	Planning/Environmental Engineering		\$22,900	\$22,900
	Construction		\$34,350	\$34,350
	Construction Management/Inspection		\$229,000	\$229,000
				\$34,350
	<b>Total</b>	\$0	\$343,500	\$343,500



**Rancho Murieta Community Services District**  
**Project Name: Chlorine Gas to Bleach Conversion - Water Treatment Plant**  
**Job Number: 17-1-06**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Equipment & Appurtanences	1	LS	\$32,000.00	\$32,000.00
2	Site/Facility Improvements (Tank, Chemical Feed Pumps)	1	LS	\$30,000.00	\$30,000.00
3	Systems Conversion and Telemetry	1	LS	\$16,000.00	\$16,000.00
4	Building Modification (Demolition, Foundation)	1	LS	\$30,000.00	\$30,000.00
5	Temporary Chlorination during Construction	1	LS	\$50,000.00	\$50,000.00
6	Permit Modifications	1	LS	\$8,000.00	\$8,000.00
7	Field Startup and Training	1	LS	\$15,000.00	\$15,000.00
8	Mobilization (10%)	1	LS	\$18,100.00	\$18,100.00

Subtotal	\$199,100.00
15% Contingency	\$29,865.00
<b>Total Construction Cost</b>	<b>\$228,965.00</b>

\* Hopkins Technical Products Quote 2/6/17  
5100 Gallon Tank  
Chemical Feed Pumps

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-1-07      **Project Name:** Maintenance Shed (20' x 40') at Water Treatment Plant

**Location:** Water Treatment Plant      **Project Type:** Water

**Description:** Purchase and installation of pre-fabricated shed

**Water Treatment Plant**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$4,600	\$4,600
	Planning/Environmental Engineering		\$4,600	\$4,600
	Construction		\$6,900	\$6,900
	Construction Management/Inspection		\$46,000	\$46,000
<b>Total</b>		\$0	\$69,000	\$69,000

**Rancho Murieta Community Services District**  
**Project Name: Maintenance Shed (20' x 40') at Water Treatment Plant**  
**Job Number: 17-1-07**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	20'x40' Maintenance Shed (Pre-Manufactured)	1	LS	\$32,000.00	\$32,000.00
2	Site Preparation/Foundation/Electrical	1	LS	\$4,500.00	\$4,500.00
3	Mobilization (10%)	1	LS	\$3,650.00	\$3,650.00
					\$0.00
<b>Subtotal</b>					<b>\$40,150.00</b>
15% Contingency					\$6,023.00
<b>Total Construction Cost</b>					<b><u>\$46,173.00</u></b>

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-1-08      **Project Name:** Emergency Water Supply Well  
**Location:** Van Veck Spray Fields      **Project Type:** Water

**Description:** Construction of water well

**Justification:** Facility Improvement

**Notes:**



PROJECT COST	Item	Previous Expenditures	Cost Estimate	Total
	Administration/Management		\$105,200	\$105,200
	Planning/Environmental		\$105,200	\$105,200
	Engineering/Right-of-Way		\$157,800	\$157,800
	Construction		\$1,052,000	\$1,052,000
	Construction Management/Inspection		\$157,800	\$157,800
	<b>Total</b>	\$0	\$1,578,000	\$1,578,000

## Rancho Murieta Community Services District

Project Name: Emergency Water Supply Well

Job Number: 17-1-08

### Engineer's Estimate of Probable Cost

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	Estimate By Dunn Environmental	1	LS	\$900,000.00	\$900,000.00
2	Permit Modifications	1	LS	\$15,000.00	\$15,000.00

Subtotal \$915,000.00

15% Contingency \$137,250.00

**Total Construction Cost \$1,052,250.00**

\*

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-11      **Project Name:** Commercial Area Drainage Slide Gate Automation  
**Location:** Commercial District      **Project Type:** Drainage

**Description:** Construction/Installation of an Automated Slide Gate

**Commercial District**

**Justification:** Regulatory

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Administration/Management		\$3,800	\$3,800
	Planning/Environmental Engineering		\$3,800	\$3,800
	Construction		\$5,700	\$5,700
	Construction Management/Inspection		\$38,000	\$38,000
			\$5,700	\$5,700
	<b>Total</b>	\$0	\$57,000	\$57,000

**Rancho Murieta Community Services District**  
**Project Name: Commercial Area Drainage Slide Gate Automation**  
**Job Number: 17-2-11**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	Lift Motor	1	LS	\$5,000.00	\$5,000.00
2	Electrical Controls & Autodialer	1	LS	\$5,000.00	\$5,000.00
3	Electrical Service and Service Conduits	1	LS	\$20,000.00	\$20,000.00
4	Mobilization (10%)	1	LS	\$3,000.00	\$3,000.00

Subtotal	\$33,000.00
15% Contingency	\$4,950.00
<b>Total Construction Cost</b>	<b><u>\$37,950.00</u></b>



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-2-12      **Project Name:** Stormwater Monitoring Testing Equipment      **Project Type:** Drainage

**Location:** Maintenance Equipment

**Description:** Purchase of Stormwater Monitoring and Testing Equipment

**Justification:** Regulatory



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Administration/Management Planning/Environmental Engineering Construction Construction Management/Inspection		\$3,000 \$30,000	\$3,000 \$30,000
	<b>Total</b>	\$0	\$33,000	\$33,000

**Rancho Murieta Community Services District**  
**Project Name: Stormwater Monitoring Testing Equipment**  
**Job Number: 17-2-12**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
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1	Portable Sampling Device	1	LS	\$4,000.00	\$4,000.00
2	Portable Turbid Meter	1	LS	\$5,000.00	\$5,000.00
3	Portable Chemical Analyzer	1	LS	\$8,000.00	\$8,000.00
4	Misc. Apurtenances	1	LS	\$5,000.00	\$5,000.00
5	Staff Training	2	EA	\$2,000.00	\$4,000.00

Subtotal	\$26,000.00
15% Contingency	\$3,900.00
<b>Total Construction Cost</b>	<b>\$29,900.00</b>

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

**Project Number:** 17-4-01      **Project Name:** District Administration Building Remodel/Expansion  
**Location:** District Administration Building      **Project Type:** Administrative

*District Headquarters*

**Description:** Construction of New District Headquarters

**Justification:** Facility Improvement

**Notes:**



PROJECT COST	Item	Previous Expenditures	Cost Estimate	Total
	Project Administration Planning/Environmental Engineering Construction Construction Management/Inspection		\$27,500 \$27,500 \$41,250 \$275,000 \$41,250	\$27,500 \$27,500 \$41,250 \$275,000 \$41,250
	<b>Total</b>	\$0	\$412,500	\$412,500

**Rancho Murieta Community Services District**  
**Project Name: District Administration Building Remodel/Expansion**  
**Job Number: 17-4-01**

**Engineer's Estimate of Probable Cost**

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Total
1	Building Expansion	4,000	SF	\$35.00	\$140,000.00
2	Electrical/Mechanical Plumbing Modifications	1	LS	\$50,000.00	\$50,000.00
3	Site Work	1	LS	\$15,000.00	\$15,000.00
4	Furniture	1	LS	\$12,000.00	\$12,000.00
5	Mobilization (10%)	1	LS	\$21,700.00	\$21,700.00
				<b>Subtotal</b>	<b>\$238,700.00</b>
				15% Contingency	\$35,805.00
				<b>Total Construction Cost</b>	<b><u>\$274,505.00</u></b>



## Technical Memorandum

**Date:** April 28, 2017

**To:** Rancho Murieta Community Services District

**From:** John Griffin  
Marc Fernandez

**Reviewed By:** Dane Schilling

**Subject:** Water Supply Augmentation Project – Recycled Water Program

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In support of the Rancho Murieta Community Services District (District) Water Supply Augmentation Fee Update, Coastland has prepared this technical memorandum to summarize the various recycled water projects that are necessary for the Phase 1 - Initial Buildout and Phase 2 – Complete Buildout of the District's Recycled Water Program. As a result of the January 2016 Water Supply Assessment report, the District is recommending that the Recycled Water Program be identified / defined as the Water Supply Augmentation project moving forward. The Water Supply Assessment report identified that with the reduction in potable water demands afforded by the implementation of the Recycled Water Program the augmentation well, which is currently defined as the Water Supply Augmentation project, is no longer necessary to augment water supply during periods of extreme drought.

Below is a brief summary of each recycled water project. More detail is provided in the report titled "Recycled Water Program, Preliminary Design Report" by Kennedy/Jenks Consultants, January 2017, and the attached CIP Data Sheets. It should be noted, that estimated costs contained in the CIP Sheets are representative of current construction costs and do not reflect adjustments for construction in future years.

### **Phase 1 - Initial Buildout:**

#### **Recycled Water SCADA Control System (CIP 17-5-01)**

Located at the wastewater treatment plant, SCADA (Supervisory Control and Data Acquisition) is a combination of hardware and software that monitors systems operations, collects data, and programs controls to the District's recycled water distribution network.

### **Equalization Basin Potable Water Air Gap (CIP 17-5-02)**

This improvement requires connection to the existing 8-inch (in) potable water pipeline located immediately north of the equalization basin at the wastewater treatment plant, installing an 8-in extension to the equalization basin, and installing an 8-in air gap connection to deliver potable water to the equalization basin for periods of peak demand.

### **Recycled Water Pumping Station (CIP 17-5-03)**

The improvement is to provide adequate pumping capabilities to the North Golf Course Transmission Main through the rehabilitation of the existing Recycled Water Pumping Station.

### **District Headquarters Conversion (CIP 17-5-04)**

This improvement will disconnect two existing potable water irrigation services associated with the District's Administration Building and connect to the Recycled Water Pumping Station for irrigation supply.

### **Northwest Recycled Water Transmission Main (CIP 17-5-05)**

The Northwest Recycled Water Transmission Main will convey recycled water from the Yellow Bridge to Stonehouse and Escuela Parks. The transmission main consists of four components: Highway 16 undercrossing and connection to existing 12" recycled water line, extension of the 12" recycled water line on Legacy Lane, possible renovation or replacement of an existing abandoned 12" force main, and interconnection of piping between the existing booster pump station and active force main.

### **Lookout Hill Booster Pump Station (CIP 17-5-06)**

This improvement will construct a booster pump station will be located downstream of the Lookout Hill storage tank, and will be used to support delivery of recycled water to western portion of the District, in tandem with the Lookout Hill Water Storage Tank project.

### **Escuela Park Conversion (CIP 17-5-07)**

This improvement will disconnect the existing potable water irrigation service associated with Escuela Park and connect to the Northwest Recycled Water transmission main for irrigation supply.

### **Stonehouse Park Conversion (CIP 17-5-08)**

This improvement will disconnect the existing potable water irrigation service associated with the Rancho Murieta North community and connect to the Northwest Recycled Water transmission main for irrigation supply.

### **Lookout Hill Water Storage Tank (CIP 17-5-09)**

The existing tank located near the top of Lookout Hill will be demolished and a new 200,000 gallon bolted steel tank made of bolted panels with powder coated finish will be erected in its place or next to the existing tank.



### **North Main Gate Conversion (CIP 17-5-10)**

This improvement will disconnect the existing potable water irrigation service associated with the Rancho Murieta North community entrance and connect to the Northwest Recycled Water transmission main for irrigation supply.

### **Commercial Loop Conversion (CIP 17-5-11)**

This improvement will disconnect the existing potable water irrigation service associated with the Murieta Plaza Commercial area and connect to the Lone Pine drive Recycled Water transmission main for irrigation supply and connect on Cantova Drive to supply the southern commercial (Operating Engineers to FAA) areas.

### **Phase 2 - Complete Buildout:**

### **SCADA Upgrades (CIP 17-5-12)**

This improvement will modify and upgrade the existing SCADA system to allow for level monitoring and control of valves at Bass Lake.

### **Disinfection Facility Upgrade (CIP 17-5-13)**

This improvement will remove a chlorine contact pipe and construct a chlorine contact chamber to increase disinfection facilities capacity from 2.3 to 3.0 MGD.

### **North Golf Course Conveyance System (CIP 17-5-14)**

This improvement consists of rehabilitation of the existing 12" and 8" recycled water conveyance pipelines that serve the north golf course. Approximately 5,700 linear feet of 8" pipe is need of replacement or repair. A condition assessment is required to determine additional rehabilitation needs for the 12" pipeline.

### **Bass Lake Tank (CIP 17-5-15)**

This improvement will construct a 500,000 gallon storage tank at Bass Lake to supplement recycled water production and storage capacities.

### **Bass Lake Booster Pump Station (CIP 17-5-16)**

This improvement will construct a booster pump station will be located downstream of the Bass Lake storage tank, and will be used to support delivery of recycled water.

### **Seasonal Storage Reservoir Expansion (CIP 17-5-17)**

This improvement consists of modification to the existing reservoir to provide additional storage for secondary effluent.

### **Van Veck Spray Field 4 (CIP 17-5-18)**

This improvement consists of various transmission, distribution and irrigation system improvements at the Van Veck Spray Field to increase capacity during wet weather flows.



**Tertiary Pump Station Pump Replacement (CIP 17-5-19)**

This improvement will replace the third tertiary pump station feed pump to the dissolved air flotation units. This improvement is required for wastewater treatment plant production capacity.





**TABLE 1 - RECYCLED WATER PROJECT SUMMARY**

<b>Project Number</b>	<b>Project Name</b>	<b>Project Estimate</b>
<b>Recycled Water Projects</b>		
17-5-01	Recycled Water SCADA Control System	\$250,000
17-5-02	Equalization Basin Potable Water Air Gap	\$76,000
17-5-03	Recycled Water Pumping Station	\$1,113,000
17-5-04	District Headquarters Conversion	\$20,000
17-5-05	Northwest Recycled Water Transmission Main	\$1,485,000
17-5-06	Lookout Hill Booster Pump Station	\$612,000
17-5-07	Escuela Park Conversion	\$16,000
17-5-08	Stonehouse Park Conversion	\$36,000
17-5-09	Lookout Hill Water Storage Tank	\$545,000
17-5-10	North Main Gate Conversion	\$18,000
17-5-11	Commercial Loop Conversion	\$25,000
17-5-12	SCADA Upgrades	\$82,000
17-5-13	Disinfection Facility Upgrade	\$665,000
17-5-14	North Golf Course Conveyance System	\$1,482,000
17-5-15	Bass Lake Tank	\$1,216,000
17-5-16	Bass Lake Booster Pump Station	\$625,000
17-5-17	Seasonal Storage Reservoir Expansion	\$3,167,000
17-5-18	Van Veck Spray Field 4	\$890,000
17-5-19	Tertiary Pump Station Pump Replacement	\$100,000
<b>Recycled Water Project Total</b>		<b>\$12,423,000</b>

# **Attachment A – Project Data Forms**



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

<b>Project Number:</b>	<b>17-5-01</b>	<b>Project Name:</b>	<b>Recycled Water SCADA Control System</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Hardware and Software Purchase and Integration

**Wastewater Treatment Plant**

**Justification:** Administrative

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$12,500	\$12,500
	Planning/Environmental		\$12,500	\$12,500
	Engineering		\$25,000	\$25,000
	Construction		\$250,000	\$250,000
	Construction Management/Inspection		\$31,250	\$31,250
	<b>Total</b>	\$0	\$331,250	\$331,250

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

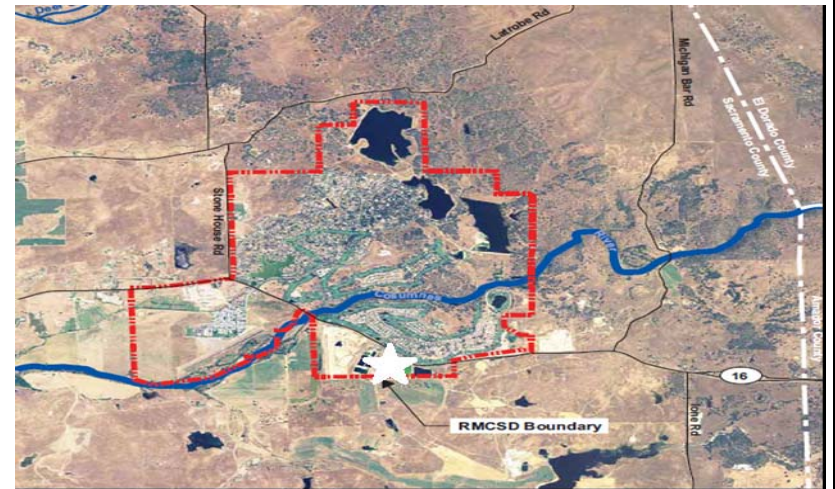
<b>Project Number:</b>	<b>17-5-02</b>	<b>Project Name:</b>	<b>Equalization Basin Potable Water Air Gap</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Various Piping Connections to Equalization Basin

**Wastewater Treatment Plant**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$3,800	\$3,800
	Planning/Environmental		\$3,800	\$3,800
	Engineering		\$7,600	\$7,600
	Construction		\$76,000	\$76,000
	Construction Management/Inspection		\$9,500	\$9,500
	<b>Total</b>	\$0	\$100,700	\$100,700

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

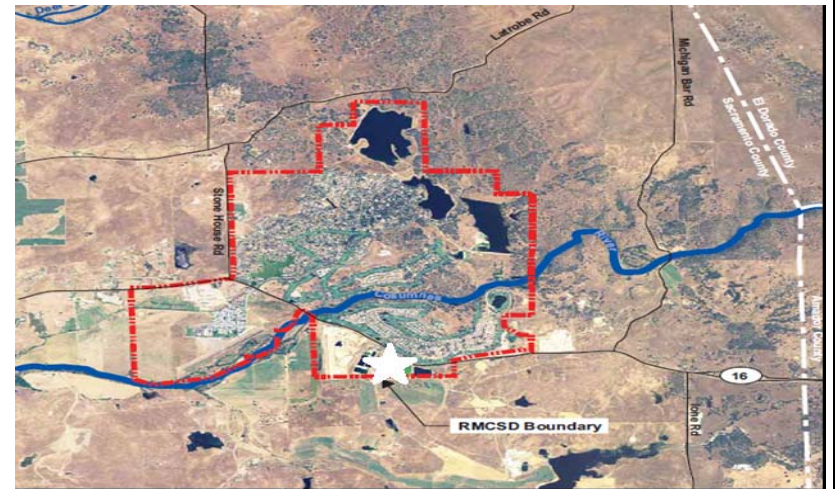
<b>Project Number:</b>	<b>17-5-03</b>	<b>Project Name:</b>	<b>Recycled Water Pumping Station</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Rehabilitation of Existing Recycled Water Pumping Station

**Wastewater Treatment Plant**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$55,650	\$55,650
	Planning/Environmental		\$55,650	\$55,650
	Engineering		\$111,300	\$111,300
	Construction		\$1,113,000	\$1,113,000
	Construction Management/Inspection		\$139,125	\$139,125
	<b>Total</b>	\$0	\$1,474,725	\$1,474,725

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

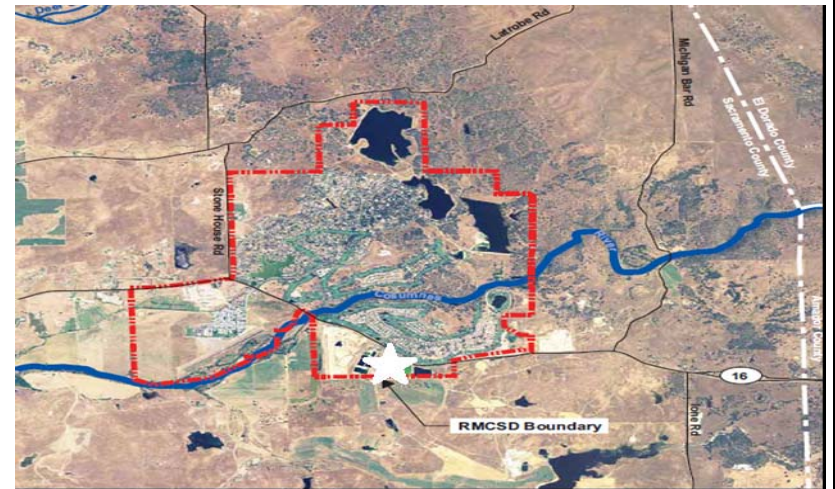
<b>Project Number:</b>	<b>17-5-04</b>	<b>Project Name:</b>	<b>District Headquarters Conversion</b>
<b>Location:</b>	<b>District Headquarters</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Conversion of District Headquarters Irrigation to Recycled Water

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$1,000	\$1,000
	Planning/Environmental		\$1,000	\$1,000
	Engineering		\$2,000	\$2,000
	Construction		\$20,000	\$20,000
	Construction Management/Inspection		\$2,500	\$2,500
	<b>Total</b>	\$0	\$26,500	\$26,500

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

<b>Project Number:</b>	<b>17-5-05</b>	<b>Project Name:</b>	<b>Northwest Recycled Water Transmission Main</b>
<b>Location:</b>	<b>District Headquarters to Escuela</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Recycled Water Transmission Main

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**

	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT</b>	Project Administration		\$74,250	\$74,250
<b>COST</b>	Planning/Environmental		\$74,250	\$74,250
	Engineering		\$148,500	\$148,500
	Construction		\$1,485,000	\$1,485,000
	Construction Management/Inspection		\$185,625	\$185,625
	<b>Total</b>	\$0	\$1,967,625	\$1,967,625

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

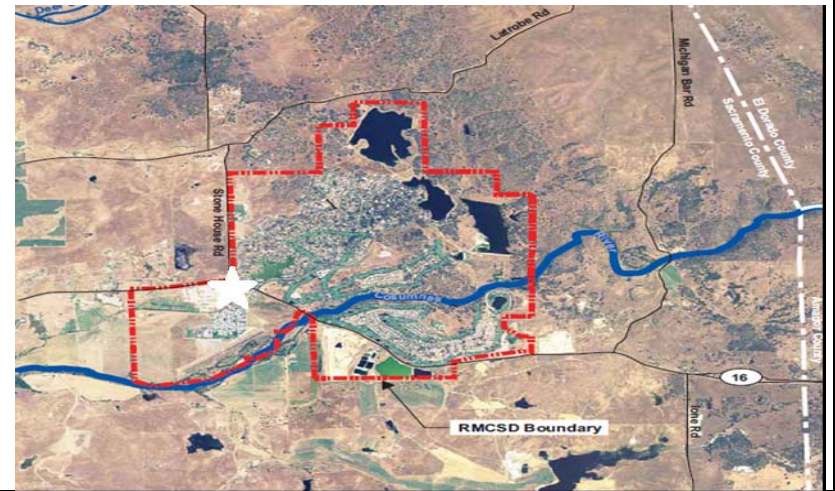
<b>Project Number:</b>	<b>17-5-06</b>	<b>Project Name:</b>	<b>Lookout Hill Booster Pump Station</b>
<b>Location:</b>	<b>Lookout Hill</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Booster Pump Station at Lookout Hill

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$30,600	\$30,600
	Planning/Environmental		\$30,600	\$30,600
	Engineering		\$61,200	\$61,200
	Construction		\$612,000	\$612,000
	Construction Management/Inspection		\$76,500	\$76,500
	<b>Total</b>	\$0	\$810,900	\$810,900



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

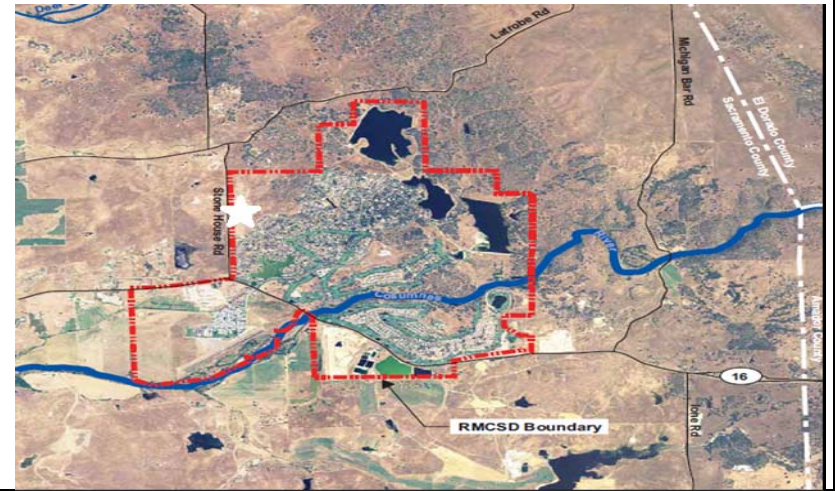
<b>Project Number:</b>	<b>17-5-07</b>	<b>Project Name:</b>	<b>Escuela Park Conversion</b>
<b>Location:</b>	<b>Escuela Park</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Conversion of Escuela Park Irrigation to Recycled Water

**Escuela Park**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$800	\$800
	Planning/Environmental		\$800	\$800
	Engineering		\$1,600	\$1,600
	Construction		\$16,000	\$16,000
	Construction Management/Inspection		\$2,000	\$2,000
	<b>Total</b>	\$0	\$21,200	\$21,200

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

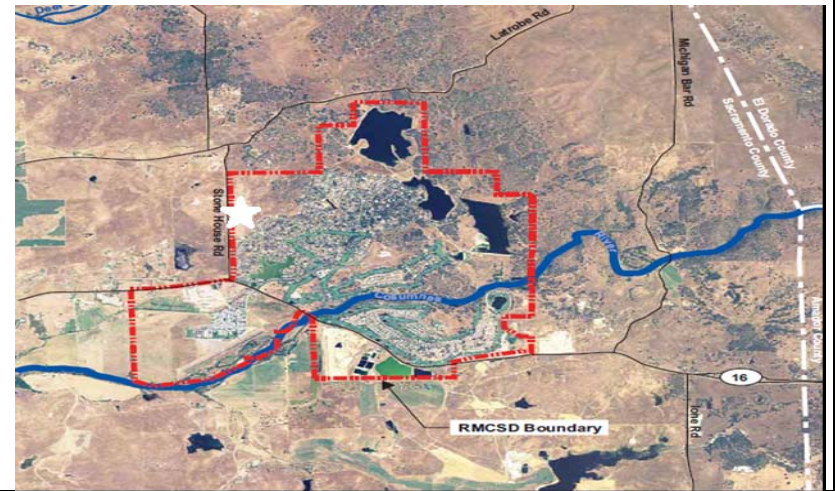
<b>Project Number:</b>	<b>17-5-08</b>	<b>Project Name:</b>	<b>Stonehouse Park Conversion</b>
<b>Location:</b>	<b>Stonehouse Park</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Conversion of Stonehouse Park Irrigation to Recycled Water

**Stonehouse Park**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$1,800	\$1,800
	Planning/Environmental		\$1,800	\$1,800
	Engineering		\$3,600	\$3,600
	Construction		\$36,000	\$36,000
	Construction Management/Inspection		\$4,500	\$4,500
	<b>Total</b>	\$0	\$47,700	\$47,700

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

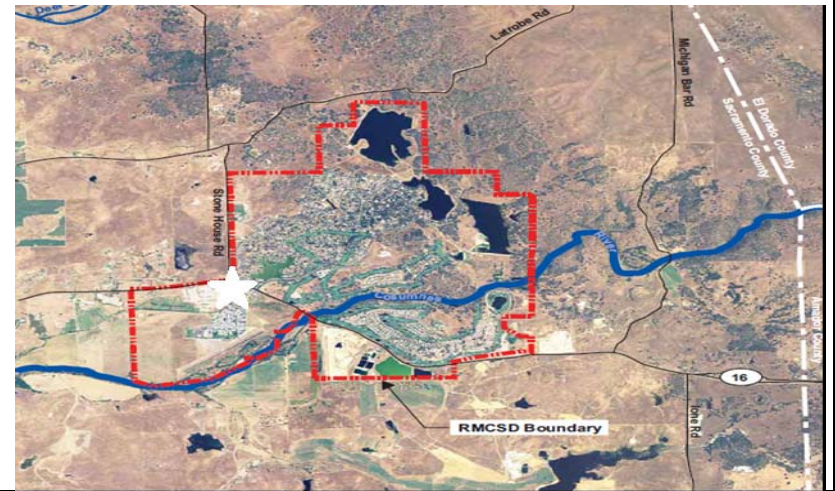
<b>Project Number:</b>	<b>17-5-09</b>	<b>Project Name:</b>	<b>Lookout Hill Water Storage Tank</b>
<b>Location:</b>	<b>Lookout Hill</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Replacement of Existing Water Storage Tank

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$27,250	\$27,250
	Planning/Environmental		\$27,250	\$27,250
	Engineering		\$54,500	\$54,500
	Construction		\$545,000	\$545,000
	Construction Management/Inspection		\$68,125	\$68,125
	<b>Total</b>	\$0	\$722,125	\$722,125

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

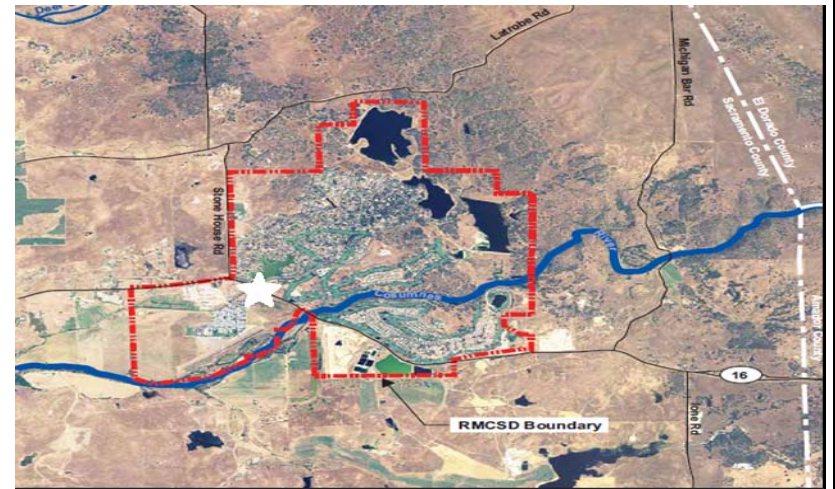
<b>Project Number:</b>	<b>17-5-10</b>	<b>Project Name:</b>	<b>North Main Gate Conversion</b>
<b>Location:</b>	<b>North Main Gate</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Conversion of North Main Gate Irrigation to Recycled Water

**North Gate**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$900	\$900
	Planning/Environmental		\$900	\$900
	Engineering		\$1,800	\$1,800
	Construction		\$18,000	\$18,000
	Construction Management/Inspection		\$2,250	\$2,250
	<b>Total</b>	\$0	\$23,850	\$23,850

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

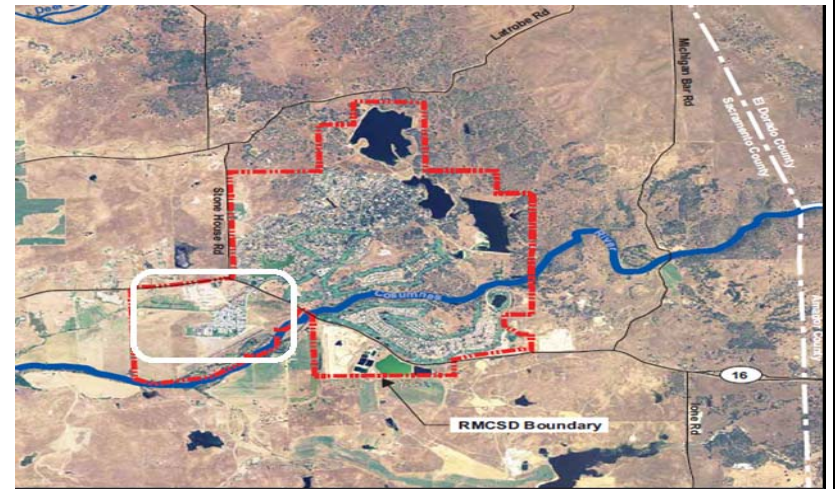
<b>Project Number:</b>	<b>17-5-11</b>	<b>Project Name:</b>	<b>Commercial Loop Conversion</b>
<b>Location:</b>	<b>Commercial District</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Conversion of Irrigation Service to Recycled Water

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$1,250	\$1,250
	Planning/Environmental		\$1,250	\$1,250
	Engineering		\$2,500	\$2,500
	Construction		\$25,000	\$25,000
	Construction Management/Inspection		\$3,125	\$3,125
	<b>Total</b>	\$0	\$33,125	\$33,125

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

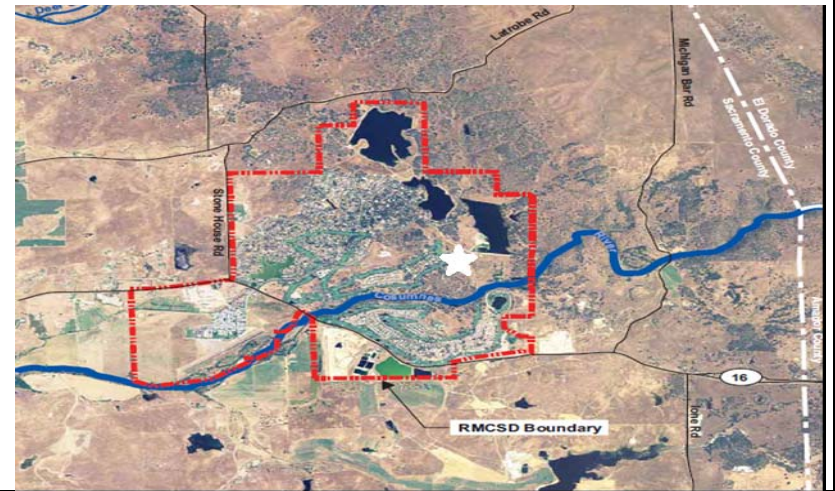
<b>Project Number:</b>	<b>17-5-12</b>	<b>Project Name:</b>	<b>SCADA Upgrades</b>
<b>Location:</b>	<b>Bass Lake</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Hardware and Software Equipment Purchase

**Bass Lake**

**Justification:** Administrative

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$4,100	\$4,100
	Planning/Environmental		\$4,100	\$4,100
	Engineering		\$8,200	\$8,200
	Construction		\$82,000	\$82,000
	Construction Management/Inspection		\$10,250	\$10,250
	<b>Total</b>	\$0	\$108,650	\$108,650

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

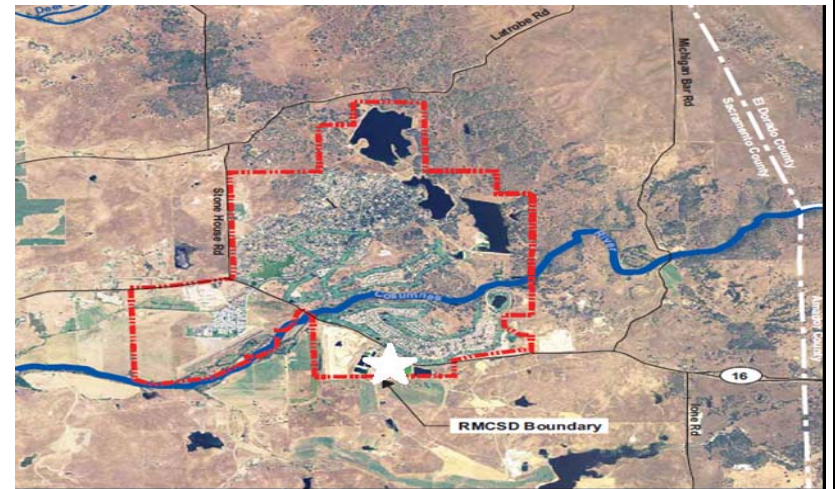
<b>Project Number:</b>	<b>17-5-13</b>	<b>Project Name:</b>	<b>Disinfection Facility Upgrade</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Chlorine Contact Chamber

**Wastewater Treatment Plant**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$33,250	\$33,250
	Planning/Environmental		\$33,250	\$33,250
	Engineering		\$66,500	\$66,500
	Construction		\$665,000	\$665,000
	Construction Management/Inspection		\$83,125	\$83,125
	<b>Total</b>	\$0	\$881,125	\$881,125

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

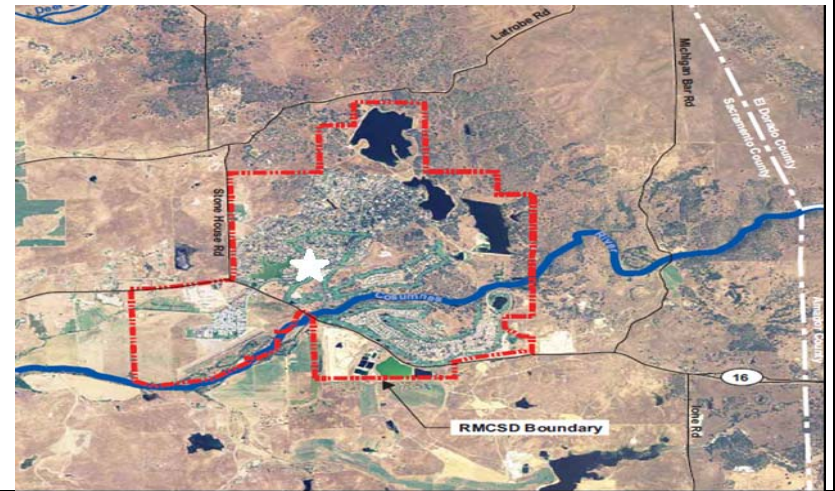
<b>Project Number:</b>	<b>17-5-14</b>	<b>Project Name:</b>	<b>North Golf Course Conveyance System</b>
<b>Location:</b>	<b>RM Country Club</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Recycled Water Mains

**Rancho Murieta Country Club**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$74,100	\$74,100
	Planning/Environmental		\$74,100	\$74,100
	Engineering		\$148,200	\$148,200
	Construction		\$1,482,000	\$1,482,000
	Construction Management/Inspection		\$185,250	\$185,250
	<b>Total</b>	\$0	\$1,963,650	\$1,963,650



**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

<b>Project Number:</b>	<b>17-5-15</b>	<b>Project Name:</b>	<b>Bass Lake Tank</b>
<b>Location:</b>	<b>Bass Lake</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Recycled Water Storage Tank

**Bass Lake**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$60,800	\$60,800
	Planning/Environmental		\$60,800	\$60,800
	Engineering		\$121,600	\$121,600
	Construction		\$1,216,000	\$1,216,000
	Construction Management/Inspection		\$152,000	\$152,000
	<b>Total</b>	\$0	\$1,611,200	\$1,611,200

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

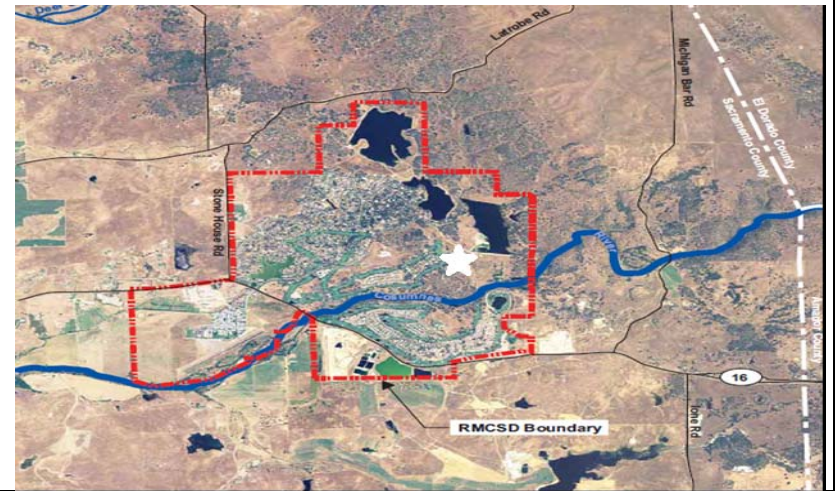
<b>Project Number:</b>	<b>17-5-16</b>	<b>Project Name:</b>	<b>Bass Lake Booster Pump Station</b>
<b>Location:</b>	<b>Bass Lake</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Construction of Booster Pump Station at Bass Lake

**Bass Lake**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$31,250	\$31,250
	Planning/Environmental		\$31,250	\$31,250
	Engineering		\$62,500	\$62,500
	Construction		\$625,000	\$625,000
	Construction Management/Inspection		\$78,125	\$78,125
	<b>Total</b>	\$0	\$828,125	\$828,125

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

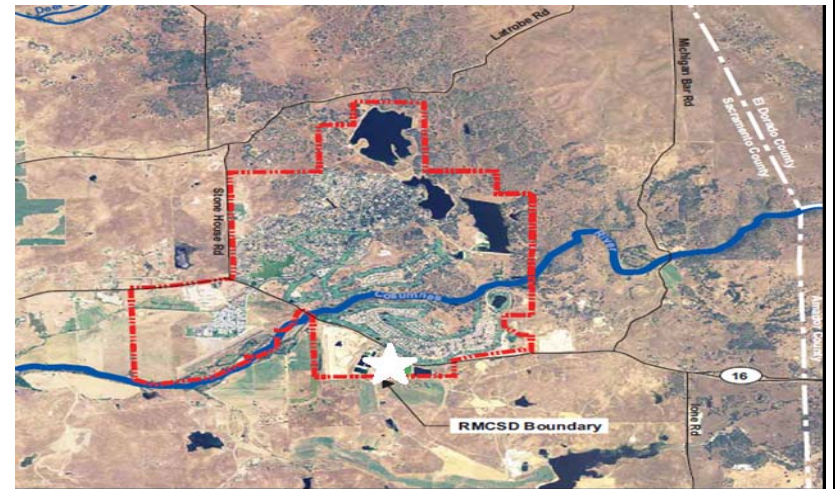
<b>Project Number:</b>	<b>17-5-17</b>	<b>Project Name:</b>	<b>Seasonal Storage Reservoir Expansion</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Expansion of Existing Reservoir

**Justification:** Facility Improvement

**Notes:**

**Wastewater Treatment Plant**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$158,350	\$158,350
	Planning/Environmental		\$158,350	\$158,350
	Engineering		\$316,700	\$316,700
	Construction		\$3,167,000	\$3,167,000
	Construction Management/Inspection		\$395,875	\$395,875
	<b>Total</b>	\$0	\$4,196,275	\$4,196,275

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

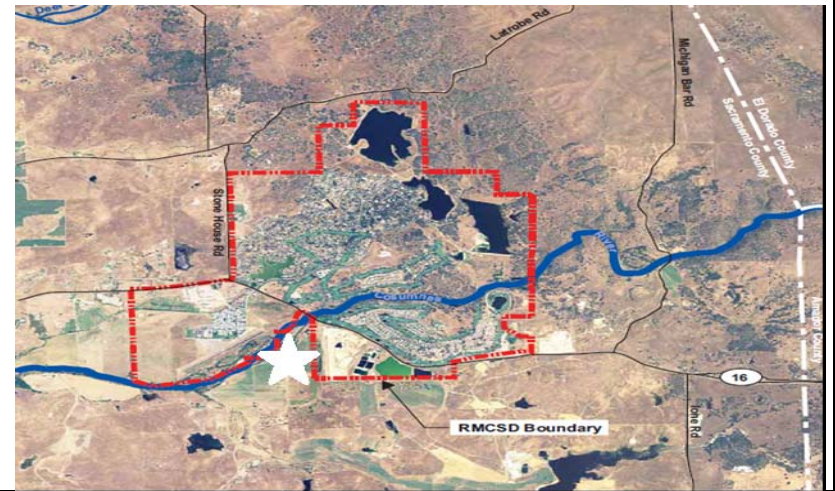
<b>Project Number:</b>	<b>17-5-18</b>	<b>Project Name:</b>	<b>Van Veck Spray Field 4</b>
<b>Location:</b>	<b>Van Veck Spray Fields</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Recycled Water Transmission, Distribution, and Irrigation System Improvements

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<i>Item</i>	<i>Previous Expenditures</i>	<i>Cost Estimate</i>	<i>Total</i>
<b>PROJECT COST</b>	Project Administration		\$44,500	\$44,500
	Planning/Environmental		\$44,500	\$44,500
	Engineering		\$89,000	\$89,000
	Construction		\$890,000	\$890,000
	Construction Management/Inspection		\$111,250	\$111,250
	<b>Total</b>	\$0	\$1,179,250	\$1,179,250

**Rancho Murieta Community Services District  
Capital Improvement Program**

**PROJECT DATA FORM**

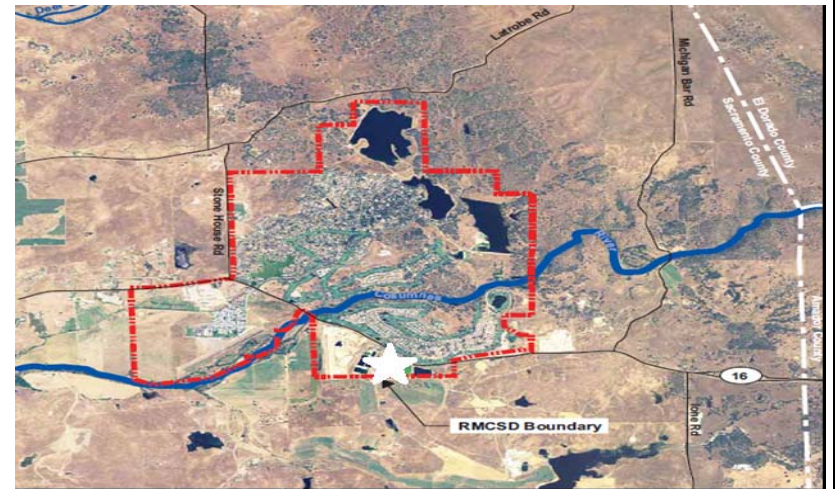
<b>Project Number:</b>	<b>17-5-19</b>	<b>Project Name:</b>	<b>Tertiary Pump Station Pump Replacement</b>
<b>Location:</b>	<b>Wastewater Treatment Plant</b>	<b>Project Type:</b>	<b>Recycled Water</b>

**Description:** Replacement of Tertiary Pump to Dissolved Air Flootation Units

**Rancho Murieta Community Services District**

**Justification:** Facility Improvement

**Notes:**



	<b>Item</b>	<b>Previous Expenditures</b>	<b>Cost Estimate</b>	<b>Total</b>
<b>PROJECT COST</b>	Project Administration		\$5,000	\$5,000
	Planning/Environmental		\$5,000	\$5,000
	Engineering		\$10,000	\$10,000
	Construction		\$100,000	\$100,000
	Construction Management/Inspection		\$12,500	\$12,500
	<b>Total</b>	\$0	\$132,500	\$132,500