RANCHO MURIETA COMMUNITY SERVICES DISTRICT

15160 JACKSON ROAD
RANCHO MURIETA, CA 95683
916-354-3700
FAX – 916-354-2082

AGENDA

"Your Independent Local Government Agency Providing
Water, Wastewater, Drainage, Security, and Solid Waste Services"

REGULAR BOARD OF DIRECTORS MEETINGS ARE HELD
3rd Wednesday of Each Month

REGULAR BOARD MEETING
July 17, 2013
Closed Session 4:00 p.m. * Open Session 5:00 p.m.
RMCSD Administration Building – Board Room
15160 Jackson Road
Rancho Murieta, CA 95683

BOARD MEMBERS

Gerald Pasek	President
Roberta Belton	Vice President
Betty Ferraro	Director
Paul Gumbinger	Director
Michael Martel	Director

STAFF

Edward R. Crouse	General Manager
Darlene Gillum	Director of Administration
Greg Remson	Security Chief
Paul Siebensohn	Director of Field Operations
Suzanne Lindenfeld	District Secretary

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

REGULAR BOARD MEETING

JULY 17, 2013

Closed Session 4:00 p.m. - Open Session 5:00 p.m.

AGENDA

RUNNING TIME

1. CALL TO ORDER - Determination of Quorum - President Pasek **(Roll Call)** 4:00

2. ADOPT AGENDA (Motion) 4:05

3. SPECIAL ANNOUNCEMENTS AND ACTIVITIES *(5 min.)* 4:10

4. CLOSED SESSION 4:15

Under Government Code section 54956.8: Conference with Real Property Negotiators - Real Property APN 128-0080-067; APN 128-0080-068; APN 128-0080-069; APN 128-0080-076; and APN 128-0100-029. Real Property Agency Negotiator: Edward R. Crouse, General Manager. Negotiating Party: CSGF Rancho Murieta, LLC, BBC Murieta Land, LLC, Murieta Retreats, LLC, PCCP CSGF RB PORTFOLIO, LLC. Under Negotiation: Price and Terms.

Conference with Legal Counsel – Anticipated Litigation. Initiation of litigation pursuant to Government Code Section 54956.9(c): (One Potential Case).

Conference with Legal Counsel – Anticipated Litigation. Significant Exposure to Litigation Pursuant to 54956.9(b): (One Potential Case).

Under Government Code 54957: Public Employee Performance Review: Title: General Manager.

5. OPEN SESSION 5:00

The Board will discuss items on this agenda, and may take action on those items, including informational items and continued items. The Board may also discuss other items that do not appear on this agenda, but will not act on those items unless action is urgent, and a resolution is passed by a two-thirds (2/3) vote declaring that the need for action arose after posting of this agenda.

The running times listed on this agenda are only estimates and may be discussed earlier or later than shown. At the discretion of the Board, an item may be moved on the agenda and or taken out of order. ***TIMED ITEMS*** *as specifically noted, such as Hearings or Formal Presentations of community-wide interest, will not be taken up earlier than listed.*

6. REPORT ACTION FROM CLOSED SESSION 5:05

7. **COMMENTS FROM THE PUBLIC** 5:10

Members of the public may comment on any item of interest within the subject matter jurisdiction of the District and any item specifically agendized. Members of the public wishing to address a specific agendized item are encouraged to offer their public comment during consideration of that item. With certain exceptions, the Board may not discuss or take action on items that are not on the agenda.

If you wish to address the Board at this time or at the time of an agendized item, as a courtesy, please state your name and address, and reserve your comments to no more than 3 minutes so that others may be allowed to speak.

8. **CONSENT CALENDAR** (Motion) **(Roll Call Vote)** *(5 min.)* 5:20

All the following items in Agenda Item 8 will be approved as one item if they are not excluded from the motion adopting the consent calendar.

a. **Approval of Board Meeting Minutes**

1. June 14, 0213 Special Board Meeting
2. June 19, 2013 Board Meeting
3. June 28, 2013 Special Board Meeting

b. **Committee Meeting Minutes** (Receive and File)

1. July 3, 2013 Personnel Committee Meeting
2. July 5, 2013 Finance Committee Meeting
3. July 5, 2013 Security Committee Meeting
4. July 10, 2013 Improvements Committee Meeting

c. **Approval of Bills Paid Listing**

9. **STAFF REPORTS** (Receive and File) (*5 min.)* 5:25

a. General Manager's Report
b. Administration/Financial Report
c. Security Report
d. Water/Wastewater/Drainage Report

10. **CORRESPONDENCE** *(5 min.)* 5:30

a. Letter from Willa Clore, July 5, 2013

11. **APPROVE THE RECYCLED WATER FEASIBILITY STUDY, BY KEVIN KENNEDY, AECOM** (Discussion/Action) (Motion) *(10 min.)* 5:35

12. **TIMED ITEM – PUBLIC HEARING – 5:30 P.M. - AMENDMENT TO DISTRICT CODE CHAPTER 8, THE COMMUNITY FACILITIES FEE CODE, SECTION 3.00** 5:45

(Time is approximate but will not be conducted before 5:30 p.m.)

a. Presentation by Staff.

b. The Board President will open a public hearing for public comment on the Amendment of Chapter 8 of the Community Facilities Fee Code.

c. The Board President will close the public hearing of Chapter 8 of the Community Facilities Fee Code.

d. Board Discussion/Introduction of Ordinance 2013-02, an Ordinance of the Rancho Murieta Community Services District Amending Chapter 8 of the Community Facilities Fee Code, Section 3.00. (Discussion/Action) (Motion) **(Roll Call Vote)** *(15 min.)*

13. **APPROVE PROPOSAL FOR DRIED SLUDGE REMOVAL** (Discussion/Action) (Motion) *(5 min.)* 6:00

14. **APPROVE PROPOSAL FOR PIPE PURCHASE FOR HOLE #13 CULVERT REPLACEMENT** (Discussion/Action) (Motion) *(5 min.)* 6:05

15. **APPROVE PAYMENT OF INVOICE FOR PAVING WORK COMPLETED** (Discussion/Action) (Motion) *(5 min.)* 6:10

16. **APPROVE COST FOR RETROFIT OF NEW MAINTENANCE VEHICLE** (Discussion/Action) (Motion) *(5 min.)* 6:15

17. **REVIEW AND SELECT CONFERENCE/EDUCATION OPPORTUNITIES** (Discussion/Action) (Motion) *(5 min.)* 6:20

18. **MEETING DATES/TIMES FOR THE FOLLOWING:** *(5 min.)* 6:25

Special Board Meeting/Workshop: JULY 18, 2013 (Water Plant 30% Review)

Next Regular Board Meeting: AUGUST 21, 2013

Committee Meeting Schedule:

- Joint Security - Friday, July 26, 2013 at 9:00 a.m. @ RMA
- Improvements - Thursday, August 1, 2013 at 8:30 a.m.
- Finance - Thursday, August 1, 2013 at 9:30 a.m.
- Security - Thursday, August 1, 2013 at 10:00 a.m.
- Communications - Friday, August 2, 2013 at 9:00 a.m.
- Personnel - Wednesday, August 7, 2013 at 3:30 p.m.
- Parks - T.B.A.

19. **COMMENTS/SUGGESTIONS – BOARD MEMBERS AND STAFF** 6:30

In accordance with Government Code 54954.2(a), Directors and staff may make brief announcements or brief reports of their own activities. They may ask questions for clarification, make a referral to staff or take action to have staff place a matter of business on a future agenda.

20. **ADJOURNMENT** (Motion) 6:35

"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 July 12, 2013. Posting locations are: 1) District Office; 2) Plaza Foods; 3) Rancho Murieta Association; 4) Murieta Village Association.

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

Special Board of Directors Meeting
MINUTES
June 14, 2013
9:30 a.m. Closed Session

1. CALL TO ORDER/ROLL CALL

President Gerald Pasek called the regular meeting of the Board of Directors of Rancho Murieta Community Services District to order at 9:30 a.m. in the District meeting room, 15160 Jackson Road, Rancho Murieta. Directors present were Gerald Pasek, Roberta Belton, Betty Ferraro, Paul Gumbinger, and Michael Martel. Also present were Edward R. Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; and Suzanne Lindenfeld, District Secretary.

2. ADOPT AGENDA

Motion/Gumbinger to adopt the agenda. **Second/Belton. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

3. COMMENTS FROM THE PUBLIC

None.

4. BOARD ADJOURNED TO CLOSED SESSION AT 9:31 A.M. TO DISCUSS THE FOLLOWING ITEMS:

Under Government Code section 54956.8: Conference with Real Property Negotiators - Real Property APN 128-0080-067; APN 128-0080-068; APN 128-0080-069; APN 128-0080-076; and APN 128-0100-029. Real Property Agency Negotiator: Edward R. Crouse, General Manager. Negotiating Party: CSGF Rancho Murieta, LLC, BBC Murieta Land, LLC, Murieta Retreats, LLC, PCCP CSGF RB PORTFOLIO, LLC. Under Negotiation: Price and Terms.

Conference with Legal Counsel – Anticipated Litigation. Initiation of Litigation Pursuant to Government Code Section 54956.9(c): One Potential Case.

Conference with Legal Counsel – Anticipated Litigation. Significant Exposure to Litigation Pursuant to 54956.9(b): One Potential Case.

BOARD RECONVENED TO OPEN SESSION AT 12:50 A.M. AND REPORTED THE FOLLOWING:

Under Government Code section 54956.8: Conference with Real Property Negotiators - Real Property APN 128-0080-067; APN 128-0080-068; APN 128-0080-069; APN 128-0080-076; and APN 128-0100-029. Real Property Agency Negotiator: Edward R. Crouse, General Manager. Negotiating Party: CSGF Rancho Murieta, LLC, BBC Murieta Land, LLC, Murieta Retreats, LLC, PCCP CSGF RB PORTFOLIO, LLC. Under Negotiation: Price and Terms. No reportable action.

Conference with Legal Counsel – Anticipated Litigation. Initiation of Litigation Pursuant to Government Code Section 54956.9(c): One Potential Case. No reportable action.

Conference with Legal Counsel – Anticipated Litigation. Significant Exposure to Litigation Pursuant to 54956.9(b): One Potential Case. No reportable action.

DRAFT

5. COMMENTS/SUGGESTIONS – BOARD MEMBERS AND STAFF

Director Belton reminded everyone that school is out and to keep an eye out for kids.

Director Gumbinger reminded everyone that the deer are out and about.

President Pasek commented on funding for the water treatment plant.

Director Ferraro reminded everyone of the June 28, 2013 at 9:30 a.m. workshop.

6. ADJOURNMENT

Motion/Belton to adjourn at 1:19 p.m. **Second/Gumbinger. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

Respectfully submitted,

Suzanne Lindenfeld
District Secretary

DRAFT

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

Board of Directors Meeting
MINUTES
June 19, 2013
4:00 p.m. Closed Session * 5:00 p.m. Open Session

1. CALL TO ORDER/ROLL CALL

President Gerald Pasek called the regular meeting of the Board of Directors of Rancho Murieta Community Services District to order at 4:00 p.m. in the District meeting room, 15160 Jackson Road, Rancho Murieta. Directors present were Gerald Pasek, Roberta Belton, Betty Ferraro, Paul Gumbinger, and Michael Martel. Also present were Edward R. Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; Paul Siebensohn, Director of Field Operations; and Suzanne Lindenfeld, District Secretary.

2. ADOPT AGENDA

Motion/Belton to adopt the agenda. **Second/Gumbinger. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

3. SPECIAL ANNOUNCEMENTS AND ACTIVITIES

None.

4. BOARD ADJOURNED TO CLOSED SESSION AT 4:01 P.M. TO DISCUSS THE FOLLOWING ITEMS:

Conference with Legal Counsel – Anticipated Litigation. Significant Exposure to Litigation Pursuant to 54956.9(b): Two Potential Cases.

Conference with Legal Counsel – Existing Litigation Pursuant to Government Code section 54956.9(a). Name of case: Rancho Murieta Community Services District v. Elk Grove Bilby Partners, LP, Sacramento County Superior Court Case No. 34-2011-00097778.

Conference with Legal Counsel – Anticipated Litigation. Initiation of litigation pursuant to Government Code Section 54956.9(c): (Two Potential Cases).

Under Government Code section 54956.8: Conference with Real Property Negotiators - Real Property APN 128-0080-067; APN 128-0080-068; APN 128-0080-069; APN 128-0080-076; and APN 128-0100-029. Real Property Agency Negotiator: Edward R. Crouse, General Manager. Negotiating Party: CSGF Rancho Murieta, LLC, BBC Murieta Land, LLC, Murieta Retreats, LLC, PCCP CSGF RB PORTFOLIO, LLC. Under Negotiation: Price and Terms.

Under Government Code 54957: Public Employee Performance Review: Title: General Manager.

5/6. BOARD RECONVENED TO OPEN SESSION AT 5:06 P.M. AND REPORTED THE FOLLOWING:

Conference with Legal Counsel – Anticipated Litigation. Significant Exposure to Litigation Pursuant to 54956.9(b): Two Potential Cases. Nothing to report.

DRAFT

Conference with Legal Counsel – Existing Litigation Pursuant to Government Code section 54956.9(a). Name of case: Rancho Murieta Community Services District v. Elk Grove Bilby Partners, LP, Sacramento County Superior Court Case No. 34-2011-00097778. Nothing to report.

Conference with Legal Counsel – Anticipated Litigation. Initiation of litigation pursuant to Government Code Section 54956.9(c): (Two Potential Cases). Nothing to report.

Under Government Code section 54956.8: Conference with Real Property Negotiators - Real Property APN 128-0080-067; APN 128-0080-068; APN 128-0080-069; APN 128-0080-076; and APN 128-0100-029. Real Property Agency Negotiator: Edward R. Crouse, General Manager. Negotiating Party: CSGF Rancho Murieta, LLC, BBC Murieta Land, LLC, Murieta Retreats, LLC, PCCP CSGF RB PORTFOLIO, LLC. Under Negotiation: Price and Terms. Nothing to report.

Under Government Code 54957: Public Employee Performance Review: Title: General Manager. Nothing to report.

7. COMMENTS FROM THE PUBLIC

None.

8. CONSENT CALENDAR

President Pasek commented on a new billing statement staff is working on which will include the usage factor for each residence based on lot type.

Director Belton requested that Agenda Item 17 in the Board meeting minutes include more information.

Motion/Gumbinger to adopt the consent calendar. **Second/Ferraro. ROLL CALL VOTE: Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

9. STAFF REPORTS

Under Agenda Item 9a, President Pasek asked about the intern position. Paul Siebensohn stated that the District has an agreement with Los Rios Community College District (Folsom Lake College) for a plant operator intern position. This position works 30 hours a week and is a non-paid position. President Pasek and Director Belton commented stated it was a good idea to use interns.

Ted Hart stated it is a good idea to use interns but commented on his concern with the current legal case in New York regarding the use of unpaid interns.

10. CORRESPONDENCE

No comments.

11. ACCEPT THE FINAL SUMMARY OF DEMAND FACTORS ANALYSIS TECHNICAL MEMORANDUM, PRESENTATION BY LISA MADDAUS, MADDAUS WATER MANAGEMENT

Ed Crouse gave a brief summary of the recommendation to accept the Final Summary of Demand Factors Analysis Technical Memorandum prepared by Lisa Maddaus, Maddaus Water Management.

DRAFT

A question and answer period followed. Mr. Crouse recommended the Board accept the technical memorandum as complete but not to adjust demand factors at this time.

President Pasek directed Ed Crouse to meet with Greg Vorster, General Manager, Rancho Murieta Association (RMA), to discuss revising the RMA landscape guidelines.

Director Martel suggested Directors Gumbinger and Ferraro meet with RMA regarding the landscape mandates and guidelines. President Pasek suggested that the general managers meet first to discuss.

Director Gumbinger thanked Lisa Maddaus, Maddaus Water Management.

Motion/Gumbinger to accept the Final Summary of Demand Factors Analysis Technical Memorandum prepared by Lisa Maddaus, Maddaus Water Management, regarding the water usage factor review. **Second/Ferraro. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.**

12. REVIEW RECYCLED WATER FEASIBILITY STUDY, PRESENTATION BY KEVIN KENNEDY, AECOM

Kevin Kennedy, AECOM, gave a PowerPoint presentation on the Draft Recycled Water Feasibility Study. The purpose of the study is to evaluate and compare potential alternatives for expanding the District's existing recycled water program and to determine whether expanding the existing recycled water program is cost-effective. The format of the study follows the guidelines from the grand award requirements. A question and answer period followed.

Motion/Gumbinger to release the Draft Recycled Water Feasibility Study for public comment. **Second/Belton. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.**

13. APPROVE PROPOSAL FOR PREPARING A TITLE 22 ENGINEERING REPORT AND REPORT OF WASTE DISCHARGE

Ed Crouse gave a brief summary of the recommendation to approve the proposal from AECOM to prepare the Title 22 Engineering Report and Report of Waste Discharge.

Motion/Ferraro to approve the proposal from AECOM to prepare a Title 22 Engineering Report and Report of Waste Discharge, in an amount not to exceed $107,275.00 as the submittal package for the District's Master Reclamation Permit Application. Funding to come from Sewer Replacement Reserves. **Second/Belton. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.**

14. DISCUSS ADOPTION OF BOARD GUIDELINES

Ed Crouse gave a brief summary of the Board Guidelines.

Motion/Gumbinger to adopt the Board Guidelines. **Second/Ferraro. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.**

DRAFT

15. ADOPT RESOLUTION 2013-02, A RESOLUTION APPROVING THE PROPOSED BUDGET FOR FISCAL YEAR 2013-2014

Darlene Gillum gave a brief review of the proposed budget for fiscal year 2013-2014. The final monthly average increase for a residential metered lot is 4.55%.

Motion/Belton to adopt Resolution 2013-02, a Resolution adopting the proposed budget for fiscal year 2013-14. **Second/Gumbinger. ROLL CALL VOTE. Ayes: Pasek, Belton, Gumbinger, Ferraro. Noes: Martel.**

16. ADOPT ORDINANCE 2013-01, AN ORDINANCE AMENDING CHAPTER 14 OF THE DISTRICT CODE RELATING TO WATER; AMENDING CHAPTER 15 OF THE DISTRICT CODE RELATING TO SEWER; AMENDING CHAPTER 16 OF THE DISTRICT CODE RELATING TO DRAINAGE, AMENDING CHAPTER 16A OF THE DISTRICT CODE RELATING TO DRAINAGE TAX; AMENDING CHAPTER 21 OF THE DISTRICT CODE RELATING TO SECURITY CODE; AMENDING CHAPTER 31 OF THE DISTRICT CODE RELATING OT SOLID WASTE COLLECTION AND DISPOSAL

Darlene Gillum gave a brief review of the proposed rate increase for water, sewer, drainage and security, and solid waste.

Director Martel commented on how all the entities in Rancho Murieta are raising rates and that he feels the District should try to reduce costs in order to not raise rates in the future.

Director Gumbinger commented on how it is better to have small increases each year instead of no increases and then one big increase to make up for the years of not having an increase. Most of the increase this budget year is for prefunding future projects, not operations.

Motion/Pasek to acknowledge the Second Reading of Ordinance 2013-01 and to adopt Ordinance 2013-01, an Ordinance amending Chapter 14 of the District Code, relating to Water; amending Chapter 15 of the District Code, relating to Sewer; amending Chapter 16 of the District Code, relating to Drainage; amending Chapter 16A of the District Code, relating to Drainage Tax; amending Chapter 21 of the District Code, relating to Security tax; and amending Chapter 31 of the District Code relating to Solid Waste Collection and Disposal. **Second/Belton. ROLL CALL VOTE. Ayes: Pasek, Belton, Ferraro, Gumbinger. Noes: Martel.**

17. ELECTION OF CALIFORNIA SPECIAL DISTRICTS ASSOCIATION BOARD OF DIRECTORS, REGION 2

Motion/Belton to vote for Gil Albiani. Second/Ferraro. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.

18. REVIEW AND SELECT CONFERENCE/EDUCATION OPPORTUNITIES

No discussion.

19. MEETING DATES/TIMES

Improvements Committee meeting is changed to July 9, 2013 at 8:30 a.m.

DRAFT

20. COMMENTS/SUGGESTIONS – BOARD MEMBERS AND STAFF

Chief Remson reported that the North Gate visitor gate arm went down last night and has been sent out for repairs. The North Gate is using one of the South Gate arms until the repair has been completed.

Paul Siebensohn reported that the second midge fly treatment will be applied tomorrow. The treatments last four (4) to five (5) weeks.

Director Gumbinger stated that he has been appointed to the New North Gate Committee by the RMA Board of Directors. Director Belton stated that Chief Remson should also be on the Committee.

Director Belton commented on new legislation regarding the Public Records Act. Director Belton requested the Personnel Committee develop a policy on Director and staff use of electronic devices during District meetings.

Ed Crouse stated that at the June 11, 2013 Presidents meeting, only three (3) people showed so another meeting was scheduled and held on June 18, 2013. Items discussed included: North Gate update, locking Bass Lake gate, July 4th activities, Escuela paving, the new splash park, the new la Crosse field, the water treatment plant expansion status, and an update on the video surveillance plan. Ed also stated that exterior of the District's Administration Building is having some dry rot repairs made and is being painted.

21 ADJOURNMENT

Motion/Gumbinger to adjourn at 7:10 p.m. **Second/Belton. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

Respectfully submitted,

Suzanne Lindenfeld
District Secretary

DRAFT

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

Special Board of Directors Meeting
MINUTES
June 28, 2013
9:30 a.m. Closed Session

1. CALL TO ORDER/ROLL CALL

President Gerald Pasek called the special meeting of the Board of Directors of Rancho Murieta Community Services District to order at 9:30 a.m. in the District meeting room, 15160 Jackson Road, Rancho Murieta. Directors present were Gerald Pasek, Roberta Belton, Betty Ferraro, Paul Gumbinger, and Michael Martel. Also present were Edward R. Crouse, General Manager; Darlene Gillum, Director of Administration; Paul Siebensohn, Director of Field Operations; and Suzanne Lindenfeld, District Secretary.

2. ADOPT AGENDA

Motion/Belton to adopt the agenda. **Second/Gumbinger. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

3. COMMENTS FROM THE PUBLIC

None.

4. WORKSHOP AND DISCUSSION OF PROPOSED FINANCING AND SERVICES AGREEMENT FOR WATER SERVICE FOR DEVELOPMENT WITHIN THE DISTRICT

Jonathan Hobbs, District's Legal Counsel, gave a brief overview of the Financing and Services Agreement (FSA). The purpose of the FSA is to finance, design, and construct water treatment and recycled water facilities to serve the existing and the proposed development in Ranch Murieta.

The water treatment facilities would be an expansion of the current facility to provide for a total capacity increase of approximately sixteen hundred and eighty-five (1,685) EDUs at an estimated cost of about $6 million dollars. The District would contribute up to $3 million, approximately $1.5 million from existing reserves and funding the additional $1.5 million from rates over time, with an estimated time frame of 30 years.

Developers would fund their share by electing to be "participating" or "reimbursing" landowner for design and construction. Participating landowners will advance the costs and be reimbursed later from reimbursing landowners. All landowners will pay their pro-rata cost share per the FSA.

Riverview and Lakeview will satisfy their obligations by their prior Letter of Credit (LOC). If the LOC is not accessible or insufficient to cover the costs, the Riverview and Lakeview owners must pay their share to have water capacity. They will also provide capacity for the EDUs borrowed in 2004.

The wastewater treatment facilities follow the same general procedure. The District holds certain irrigation easement and the FSA provides that the Developers will convey an additional easement needed in conjunction with development.

DRAFT

Upon execution of the FSA, the Developers will receive conditional will-serve commitments from the District. All Developers will be obligated to pay their fair-share commitment before they can receive their will-serves necessary for final maps or development entitlements.

The FSA also provides for payment of certain fees. There is a $225 per EDU one time irrigation facilities maintenance fee; there is a $7,721 per EDU Bundled Fee which includes a water augmentation fee, capital improvements fees, water meter fee, water and sewer inspection fees and security fees; and a $5,900 per EDU reimbursement fee to reimburse prior developers for prior infrastructure. The FSA also provides there will be no service for delinquent landowners. The FSA is a 30-year term. A question and answer period followed.

Director Ferraro requested a matrix be created to make it easier for the Board to follow what each Developer is responsible for. Mr. Hobbs stated he would do that.

President Pasek commented on the July 18, 2013 Special Board meeting regarding the design of the facilities in which HDR will be present to answer questions. The FSA will be put out for public comment and then to the Board for approval in August.

Director Martel commented on how he is uncomfortable with the document, the process and the science used.

John Sullivan commented on his concerns which included that the calculations were inaccurate, the Supreme Court Ruling on Nolan, Dolan and Koontz; and that the other developers should not be responsible if the District cannot collect on the LOC. Ed Crouse stated that the other developers are not responsible if that happens. Mr. Sullivan stated that the District is responsible for building the plant.

Director Martel requested a copy of the Engineers Report and an independent review of the report. Director Martel stated that he feels Ed Crouse and Jonathan Hobbs did not listen to the Board and did their own thing.

Mr. Hobbs stated that all the changes the Board requested were made with one additional change clarifying the easement must be received before any development goes forward. Mr. Hobbs stated that the matter of the money owed between the 670 Group is not the District's concern and advised that the District/Board of Directors not get involved in it.

Mr. Hobbs noted that the Nolan, Dolan and Koontz decisions are not applicable to the FSA because this is a negotiated agreement.

President Pasek suggested that Mr. Sullivan meet with Mr. Crouse to discuss his concerns. Director Gumbinger stated that Mr. Sullivan should submit his questions in writing to Mr. Crouse. Mr. Crouse will report back at the July Board meeting.

DRAFT

Motion/Gumbinger to release the Financing and Services Agreement for public comment, with a closing date of August 1, 2013. **Second/Ferraro. Ayes: Pasek, Belton, Ferraro, Gumbinger, Martel. Noes: None.**

5. BOARD ADJOURNED TO CLOSED SESSION AT 11:11 A.M. TO DISCUSS THE FOLLOWING ITEMS:
Under Government Code 54957: Public Employee Performance Review: Title: General Manager.

6. BOARD RECONVENED TO OPEN SESSION AT 2:00 P.M. AND REPORTED THE FOLLOWING:
Under Government Code 54957: Public Employee Performance Review: Title: General Manager.
Nothing to report.

7. COMMENTS/SUGGESTIONS – BOARD MEMBERS AND STAFF
No comments.

8. ADJOURNMENT
Motion/Gumbinger to adjourn at 2:01 p.m. **Second/Belton. Ayes: Pasek, Belton, Ferraro, Gumbinger, and Martel. Noes: None.**

Respectfully submitted,

Suzanne Lindenfeld
District Secretary

DRAFT

MEMORANDUM

Date: July 3, 2013

To: Board of Directors

From: Personnel Committee Staff

Subject: July 3, 2013 Personnel Committee Meeting

Director Ferraro called the meeting to order at 9:00 a.m. Present were Directors Ferraro and Gumbinger. Present from District staff were Edward R. Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; and Suzanne Lindenfeld, District Secretary.

COMMENTS FROM THE PUBLIC
None.

REVIEW 360 EVALUATION SURVEY QUESTIONS, KOFF & ASSOCIATES (taken out of order)
Darlene Gillum gave a brief summary of the changes to the 360 Evaluation Survey. Katie Kaneko, Koff & Associates, (by phone) stated that they will draft a memo to be sent out to staff advising of the upcoming survey. The survey should be ready to go out to staff by the middle of July, with a one (1) to two (2) week time frame for completion by staff. Once completed, a general report of the results will be made to the Board and managers.

Directors Gumbinger and Ferraro stated they are happy with the shortened survey.

Director Ferraro asked about a survey review of the Directors. Ed Crouse stated that at the last Personnel Committee meeting, the Committee agreed not to approve the proposal but to have staff develop that survey.

UPDATES
<u>Employee Relations</u>
Chief Remson reported that the Security Patrol Officer out on a work related injury had surgery. Darlene Gillum stated that he has begun physical therapy and will be out for another 4 to 6 weeks. To date, only 25 applications have been received for the vacant Patrol Officer position. The Patrol Officer that left to go to the Police Academy has been hired back part time.

Ed Crouse reported that interviews for the Utility position were conducted last week. No decision made yet. The Operator intern began 2 weeks ago.

JOB DESCRIPTION – EDUCATION REQUIREMENTS
Director Gumbinger stated he was quite happy with the changes. Director Ferraro agreed. These updates will be sent to the Board for adoption at a future date.

DRAFT

DIRECTORS' & STAFF COMMENTS/SUGGESTIONS

Ed Crouse reported that Chief Remson has scheduled off-duty Sacramento Sheriff Officers (SSD) and private security officers to work July 4, 2013. Two (2) off- duty SSD Officers will be working the Rancho Murieta Country Club event.

ADJOURNMENT

The meeting was adjourned at 10:02 a.m.

DRAFT

MEMORANDUM

Date: July 5, 2013

To: Board of Directors

From: Finance Committee Staff

Subject: July 5, 2013 Finance Committee Meeting

---

1. CALL TO ORDER

Director Belton called the meeting to order at 8:32 a.m. Present was Director Belton. Present from District staff were Edward Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; and Suzanne Lindenfeld, District Secretary. Director Pasek was absent.

2. COMMENTS FROM THE PUBLIC

None.

3. UPDATES

New Billing Statement Design

Darlene Gillum reported that staff will be verifying the software program calculations and the ability to pull out invalid reads. The goal is to have the new statement design ready for the July billing cycle.

4. ANNUAL FEE UPDATE

Darlene Gillum reported that on a yearly basis, the District reviews and adjusts, as necessary, the fees collected to meet the District's current and future service needs. A discussion followed. **This item will be added to the July 17, 2013 Board of Directors meeting agenda.**

DIRECTORS' & STAFF COMMENTS/SUGGESTIONS

Director Belton asked if staff would keep track of how many phone calls are received regarding the new billing rates. Darlene stated she would be sure to have staff track those calls.

5. ADJOURNMENT

The meeting was adjourned at 8:37 a.m.

DRAFT

MEMORANDUM

Date: July 5, 2013

To: Board of Directors

From: Security Committee Staff

Subject: July 5, 2013 Security Committee Meeting

---

1. CALL TO ORDER

Director Belton called the meeting to order at 9:00 a.m. Present were Directors Belton and Martel. Present from District staff were Edward R. Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; and Suzanne Lindenfeld, District Secretary.

2. COMMENTS FROM THE PUBLIC

None.

3. MONTHLY UPDATES

Operations

Chief Remson reported that fewer people attended this year's July 4 festivities compared to previous years, partly due to the heat. Overall, everything went well.

Sergeant Bieg attended the Dogfest at Stonehouse Park. There were lots of dogs and their owners in attendance. All were well behaved.

Patrol Officer Scarzella participated in training with Sacramento Metro Fire Department in the undeveloped PTF area. The training was specifically related to accessing the undeveloped back area in case of fire or medical emergency. The Murieta Trail Stewardship mapped the area along with posting checkpoint signs. These can be used by emergency services to quickly access the area. The training went well.

The Security Patrol Officer on medical leave had his surgery and has a tentative recovery date of 6-8 weeks. I have advertized for a full time Security Patrol Officer to fill the open position. Mike Fuentes, who left the Department to attend a law enforcement academy, has been hired as a Part Time Patrol Officer to help cover shifts until the return of the Patrol Officer and the hiring and training of the new full-time Patrol Officer.

Incidents of Note

Chief Remson gave a brief overview of the incidents of note for the month of June 2013.

Director Belton stated that Saturday is a free fishing day.

Director Martel suggested he and Chief Remson tour the prison on July 19, 2013 to look at the security surveillance system. Chief Remson stated that would be fine.

DRAFT

RMA Citations/Advisals

Chief Remson reported on the following Rancho Murieta Association (RMA) rule violation citations for the month of June, which included 22 stop sign and 10 speeding. RMA rule violation admonishments and/or complaints for the month of June included 52 open garage doors, 30 loose/off leash dogs, 13 speeding, 11 back area without resident, and 10 barking dogs.

RMA Compliance/Grievance/Safety Committee Meeting

The meeting was held on June 2, 2013 at the Rancho Murieta Association (RMA) office. There were three (3) appearances for parking, stop sign, and speeding and three (3) letters regarding pet restraint, parking and unauthorized vehicle. The next meeting is scheduled for July 1, 2013.

Joint Security Committee

The Joint Security Committee Meeting scheduled for Friday, May 31, 2013 was cancelled due to lack of information from camera vendors. To date, two (2) vendors have submitted proposals. The meeting has been rescheduled for Friday, July 26, 2013 at 9:00 a.m. at the RMA office.

JAMES L. NOLLER SAFETY CENTER

The Safety Center has been open most Mondays and Wednesdays from 10:00 a.m. to 2:00 p.m. VIPS Jacque Villa and Steve Lentz continue patrolling the District as another set of "eyes and ears".

The Safety Center is also available to all law enforcement officers for report writing, meal breaks and any other needs that arise.

Anyone who is interested in joining the VIPS program or would like information on the Neighborhood Watch program can contact the VIPS at the Safety Center office at 354-8509.

NEW NORTH GATE

Surveyors were out at the new North Gate site last week. The tentative construction start date is spring of 2014.

BEACH ACCESS/PTF GATES

Patrol Officers continue to open the gate at dawn and close it at dusk. Calls for service have been minor. Due to the occasional driver who drives around the Bass Lake PTF gate, RMA has requested that Security lock the gate located on the east end of Bass Lake. Once RMA has installed reflective warning signs on both sides of the gates, Patrol will begin locking and unlocking the gate at the same time the beach access gate is locked and unlocked.

4. SECURITY SURVEILLANCE CAMERA PLAN

Chief Remson gave a brief summary of the draft Security Surveillance Camera Plan and asked the Committee to submit any comments. This plan will be presented to the Joint Security Committee meeting on July 26, 2013.

Director Belton commented on how each entity will be responsible for purchasing their own cameras.

DRAFT

5. DIRECTOR & STAFF COMMENTS

Ed Crouse thanked Chief Remson and his staff for all their work to make the July 4 festivities run so smoothly.

Director Martel suggested staff look into having more Patrol Officers on duty from 8:00 p.m. to 4:00 a.m. during school breaks.

6. ADJOURNMENT

The meeting adjourned at 9:39 a.m.

DRAFT

MEMORANDUM

Date: July 10, 2013

To: Board of Directors

From: Improvements Committee Staff

Subject: July 10, 2013 Committee Meeting Minutes

---

1. CALL TO ORDER

Director Pasek called the meeting to order at 3:00 p.m. Present were Directors Pasek and Gumbinger. Present from District staff were Edward Crouse, General Manager; Darlene Gillum, Director of Administration; Greg Remson, Security Chief; Paul Siebensohn, Director of Field Operations; and Suzanne Lindenfeld, District Secretary.

2. COMMENTS FROM THE PUBLIC

None.

3. UPDATES

Augmentation Well

Test drilling is tentatively scheduled for the week of August 5, 2013. Depending on the results, one or both wells could be bored and cased for a permanent well. We have a proposal to complete the CEQA work on the permanent wells and pipeline, but are holding off on that effort until we know more about the test hole results.

Recycled Water Feasibility Study

Report is out for public review and comment and will be finalized for the August Board meeting.

Hotel Water Service Agreement

The final Agreement was sent to Cosumnes Land for signature. No word as to when it will be signed. John Sullivan stated that there will be no moving forward until the County's peer review has been completed.

Water Treatment Plant Design

The Agreement is out for public review and comment. As of today, no comments have been received.

4. REVIEW WATER TREATMENT PLANT 30% DESIGN

Ed Crouse and Rich Stratton, HDR, gave a brief summary of the Draft Basis of Design Report for the water treatment plant expansion. A question and answer period followed. Mr. Stratton will be giving a presentation and answering questions at the July 18, 2013 Special Board meeting/workshop. At that time, the Board will decide which option to go forward with. **This item will be on the July 18, 2013 Board of Directors Special Meeting agenda.**

DRAFT

5. DISCUSS WATER TREATMENT PLANT CONSTRUCTION – CM AT RISK APPROACH

Ed Crouse gave a brief summary of the CM at Risk approach and the design-bid-build approach. **This item will be on the July 18, 2013 Board of Directors Special Meeting agenda.**

6. APPROVE DRIED SLUDGE REMOVAL

Paul Siebensohn gave a brief summary of the recommendation to approve the proposal from Biosolids Recycling, Inc. **This item will be on the July 17, 2013 Board of Directors meeting agenda.**

7. APPROVE PIPE PURCHASE FOR HOLE #13 CULVERT REPLACEMENT

Paul Siebensohn gave a brief summary of the recommendation to approve the proposal from Groeniger & Company for the Hole #13 Culver Replacement Project. A short discussion followed. **This item will be on the July 17, 2013 Board of Directors meeting agenda.**

8. APPROVE PAYMENT OF INVOICE FOR PAVING WORK COMPLETED

Paul Siebensohn gave a brief summary of the recommendation to approve payment of the invoice from JB Bostick, Co., for paving work already completed at the wastewater reclamation plant. **This item will be on the July 17, 2013 Board of Directors meeting agenda.**

9. REVIEW DRAFT BID PACKET FOR MAIN LIFT NORTH REHABILITATION

Paul Siebensohn gave a brief summary of the Main Lift North Rehabilitation Project bid documents. A short discussion followed.

10. APPROVE COST FOR RETROFIT OF NEW MAINTENANCE VEHICLE

Paul Siebensohn gave a brief summary of the recommendation to approve the proposal from Tom's House of Hydraulics for retrofitting the new maintenance vehicle. **This item will be on the July 17, 2013 Board of Directors meeting agenda.**

11. DIRECTORS' & STAFF COMMENTS/SUGGESTIONS

Director Pasek asked about the status of the taste issues that usually occur this time of year. Paul Siebensohn stated that, to date, there have been no complaints.

12. ADJOURNMENT

The meeting was adjourned at 4:02 p.m.

DRAFT

MEMORANDUM

Date: July 10, 2013

To: Board of Directors

From: Darlene Gillum, Director of Administration

Subject: Bills Paid Listing

Enclosed is the Bills Paid Listing Report for **June 2013**. Please feel free to call me before the Board meeting regarding any questions you may have relating to this report. This information is provided to the Board to assist in answering possible questions regarding large expenditures.

The following major expense items (excluding payroll related items) are listed ***in order as they appear*** on the Bills Paid Listing Report:

Vendor	Project/Purpose	Amount	Funding
California Waste Recovery Systems	Solid Waste Contract	$44,512.34	Operating Expense
Groeniger & Company	Supplies, Backwash Valve	$8,014.64	Operating Expense
HDR Engineering, Inc.	MLN Wet Well Rehabilitation	$10,884.95	Reserve Expenditure
NJ McCutchen Inc.	Valve Stem Adapters	$6,319.68	Operating Expense
Prodigy Electric	Multiple Electrician Services	$5,480.74	Operating Expense
Carrillo Enterprises	Backhoe Rental – Multiple Projects	$8,060.50	Operating Expenses
ECS House Industries, Inc	Maintenance & Repair Supplies	$6,844.15	Operating Expense
Golden State Risk Management Assoc.	1 Quarter Workers Comp and Liability Insurance	$32,836.00	Operating Expense
Kronick, Moskovitz, Tiedeman & Girard	Legal Consulting	$11,556.44	Operating Expense
Univar USA Inc.	Chemicals	$5,812.81	Operating Expense

Rancho Murieta Community Services District
Bills Paid Listing for June 2013

Ck Number	Date	Vendor	Amount	Purpose
CM26671	6/7/2013	A Leap Ahead IT	$3,447.18	Monthly IT Services
CM26672	6/7/2013	A&D Automatic Gate and Access	$508.74	Repair South Gate Barcode Reader
CM26673	6/7/2013	Ace Hardware	$365.54	Monthly Supplies
CM26674	6/7/2013	All Electric Motors, Inc.	$4,022.52	Repair Aerators
CM26675	6/7/2013	Allied Waste Services #922	$346.59	Container Service
CM26676	6/7/2013	American Express	$180.75	Monthly Bill
CM26677	6/7/2013	American Family Life Assurance Co.	$541.91	Payroll
CM26678	6/7/2013	Applications By Design, Inc.	$2,014.50	Barcode Decals
CM26679	6/7/2013	Aramark Uniform Services	$250.55	Uniform Service - Water
CM26680	6/7/2013	C.S.D.A.	$525.00	Annual Conference
CM26681	6/7/2013	California Public Employees' Retirement Sys	$34,589.40	Payroll
CM26682	6/7/2013	California Waste Recovery Systems	$44,512.34	Monthly Solid Waste
CM26683	6/7/2013	Costco Wholesale	$890.83	Monthly Supplies
CM26684	6/7/2013	Ditch Witch Equipment Company, Inc.	$565.76	Maintenance Supplies
CM26685	6/7/2013	Employment Development Department	$2,798.41	Payroll
CM26686	6/7/2013	Express Office Products, Inc.	$760.59	Office Supplies
CM26687	6/7/2013	Fisher Scientific	$592.36	Maintenance & Repair Supplies
CM26688	6/7/2013	Folsom Lake Fleet Services	$1,460.50	Service #216, #220, #517
CM26689	6/7/2013	Groeniger & Company	$8,014.64	Maint & Repair Supplies, Backwash Check Valve
CM26690	6/7/2013	Guardian Life Insurance	$5,085.66	Payroll
CM26691	6/7/2013	HDR Engineering, Inc	$10,884.95	MLN Wet Well Rehabilitation
CM26692	6/7/2013	Herold And Mielenz, Inc.	$1,160.95	Electric Motor
CM26693	6/7/2013	J B Bostick Company	$2,592.00	Street Repair
CM26694	6/7/2013	Legal Shield	$115.85	Payroll
CM26695	6/7/2013	Lisa Wood Design	$250.00	Consumer Confidence Report
CM26696	6/7/2013	McMaster-Carr Supply Co.	$344.84	Maintenance & Repair Supplies
CM26697	6/7/2013	N.J McCutchen, Inc.,	$6,319.68	Valve Stem Adapters
CM26698	6/7/2013	Nationwide Retirement Solution	$1,663.23	Payroll
CM26699	6/7/2013	Operating Engineers Local Union No. 3	$520.56	Payroll
CM26700	6/7/2013	P. E. R. S.	$12,900.55	Payroll
CM26701	6/7/2013	PERS Long Term Care Program	$138.76	Payroll
CM26702	6/7/2013	Plaza Foods Supermarket	$26.88	Miscellaneous Supplies
CM26703	6/7/2013	Prodigy Electric	$5,480.74	Multiple Electrician Services
CM26704	6/7/2013	Ramos Environmental Services	$55.00	Used Oil Pick-up
CM26705	6/7/2013	Rancho Murieta Business Center	$22.57	Shipping
CM26706	6/7/2013	Romo Landscaping	$385.00	Landscaping
CM26707	6/7/2013	Sacramento County Sheriff's Dept.	$1,201.68	Off-duty Sheriff
CM26708	6/7/2013	TASC	$172.69	Payroll
CM26709	6/7/2013	U.S. Bank Corp. Payment System	$4,846.27	Monthly Gasoline
CM26710	6/7/2013	ULI Sacramento	$225.00	Annual Membership
CM26711	6/7/2013	Vision Service Plan (CA)	$474.87	Payroll

Rancho Murieta Community Services District
Bills Paid Listing for June 2013

Ck Number	Date	Vendor	Amount	Purpose
CM26712	6/7/2013	Grainger	$370.55	Maintenance & Repair Supplies
CM26713	6/7/2013	Wilbur-Ellis Company	$1,409.25	Chemicals
CM26714	6/7/2013	American Family Life Assurance Co.	$37.88	Payroll
ACH	6/10/2013	EFTPS	$10,329.05	Bi-weekly Payroll Taxes
CM26715	6/17/2013	California Urban Water Conservation Council	$40.00	Workshop
CM26716	6/17/2013	D. Martinez Construction	$580.00	Admin Building Paint/Repair
CM26717	6/17/2013	Star Interactive Security Solutions	$273.50	50% Deposit Granlees Surveillance
ACH	6/18/2013	EFTPS	$350.49	Payroll Taxes
CM26718	6/20/2013	D. Martinez Construction	$2,320.00	Admin Building Paint/Repair
CM26719	6/20/2013	D. Martinez Construction	$1,200.00	Admin Building Paint/Repair
CM26720	6/21/2013	Action Cleaning Systems	$1,172.00	Monthly Cleaning
CM26721	6/21/2013	AECOM Technical Services, Inc.	$360.00	Title XVI Feasibility Study
CM26722	6/21/2013	All Electric Motors, Inc.	$2,697.05	Gearbox Repair
CM26723	6/21/2013	AM Conservation Group, Inc.	$681.92	Water Conservation Kits
CM26724	6/21/2013	American Family Life Assurance Co.	$600.67	Payroll
CM26725	6/21/2013	Applications By Design, Inc.	$125.00	Security Data Backup
CM26726	6/21/2013	Aramark Uniform Services	$192.28	Uniform Service - Water
CM26727	6/21/2013	AT&T	$843.34	Monthly Phone Bill
CM26728	6/21/2013	CWEA	$275.00	Open Position Posting
CM26729	6/21/2013	Caltronics Business Systems	$1,377.45	Admin Copier Monthly Fees
CM26730	6/21/2013	Carrillo Enterprises	$8,060.50	Multiple Projects Backhoe Rental
CM26731	6/21/2013	CLS Labs	$3,732.82	Monthly Lab Tests
CM26732	6/21/2013	County of Sacramento	$1,375.00	Communication Backbone Fees
CM26733	6/21/2013	Cummins West	$776.90	Generator Voltage Adjustment
CM26734	6/21/2013	Ditch Witch Equipment Company, Inc.	$32.88	Maintenance Supplies
CM26735	6/21/2013	ECS House Industries, Inc.	$6,844.15	Maintenance & Repair Supplies
CM26736	6/21/2013	Employment Development Department	$2,498.51	Payroll
CM26737	6/21/2013	Eurofins Eaton Analytical, Inc.	$250.00	MINB & Geosmin Analysis
CM26738	6/21/2013	Express Office Products, Inc.	$310.82	Office Supplies
CM26739	6/21/2013	Folsom Lake Fleet Services	$1,039.83	Service #215, #814, #221
CM26740	6/21/2013	Ford Motor Credit Company LLC	$234.78	Security Vehicle Lease Payment
CM26741	6/21/2013	GSRMA	$32,836.00	1Q Workers Comp & Liability Insurance
CM26742	6/21/2013	Groeniger & Company	$200.42	Maintenance & Repair Supplies
CM26743	6/21/2013	International Assoc Of Admin Professionals	$140.00	Membership
CM26744	6/21/2013	Jobs Available, Inc.	$45.00	Subscription
CM26745	6/21/2013	Dennis Jones	$100.00	Hot Water Pump Rebate
CM26746	6/21/2013	Kronick Moskovitz Tiedemann & Girard	$11,556.44	Legal Consulting
CM26747	6/21/2013	Stephen Lawrence Jr.	$100.00	Water Pressure Reducing Valve Rebate
CM26748	6/21/2013	Legal Shield	$115.85	Payroll
CM26749	6/21/2013	Mahan Construction	$1,850.00	South Gate Guard Shack Repairs
CM26750	6/21/2013	Nationwide Retirement Solution	$1,663.23	Payroll

Rancho Murieta Community Services District
Bills Paid Listing for June 2013

Ck Number	Date	Vendor	Amount	Purpose
CM26751	6/21/2013	Operating Engineers Local Union No. 3	$520.56	Payroll
CM26752	6/21/2013	P. E. R. S.	$11,963.59	Payroll
CM26753	6/21/2013	PERS Long Term Care Program	$138.76	Payroll
CM26754	6/21/2013	Plaza Foods Supermarket	$8.18	Miscellaneous Supplies
CM26755	6/21/2013	Prodigy Electric	$375.12	Repair MLS Pump
CM26756	6/21/2013	Public Agency Retirement Services	$300.00	Trust Admin Fees
CM26757	6/21/2013	Rancho Murieta Association	$284.47	Landscaping/Cable/Internet
CM26758	6/21/2013	Rancho Murieta Business Center	$40.59	Shipping
CM26759	6/21/2013	Roto Rooter Service & Plumbing	$1,500.00	Crest Pump Station Clearing
CM26760	6/21/2013	S. M. U. D.	$4,000.00	2013 Clothes Washer Rebate Program
CM26761	6/21/2013	Sacramento Area Section, CWEA	$81.00	Training
CM26762	6/21/2013	Sacramento Business Journal	$75.00	Subscription
CM26763	6/21/2013	Sacramento County Sheriff's Dept.	$1,626.24	Off-duty Sheriff
CM26764	6/21/2013	Sierra Chemical Co.	$1,189.08	Chemicals
CM26765	6/21/2013	Sierra Office Supplies	$1,971.00	Billing Envelopes
CM26766	6/21/2013	Arthur Sims	$100.00	Toilet Rebate
CM26767	6/21/2013	Skill Path Seminars	$149.00	Training
CM26768	6/21/2013	Sprint	$834.80	Monthly Cell Phone
CM26769	6/21/2013	Sutter EAP Resources	$376.00	Payroll
CM26770	6/21/2013	Sweet Septic, Inc.	$1,125.00	Crest Lift Station
CM26771	6/21/2013	TASC	$56.00	Admin Fees
CM26772	6/21/2013	TASC	$172.69	Payroll
CM26773	6/21/2013	TelePacific Communications	$492.27	Monthly Phone Bill
CM26774	6/21/2013	U.S. HealthWorks Medical Group, PC	$58.00	Fit For Duty Exam
CM26775	6/21/2013	Univar USA Inc.	$5,812.81	Chemicals
CM26776	6/21/2013	USA Blue Book	$3,350.20	Maintenance & Repair Supplies
CM26777	6/21/2013	Grainger	$259.43	Maintenance & Repair Supplies
CM26778	6/21/2013	Western Exterminator Co.	$418.00	Monthly Pest Control
CM26779	6/21/2013	Wilbur-Ellis Company	$4,183.65	Chemicals
ACH	6/24/2013	EFTPS	$8,890.13	Bi-weekly Payroll Taxes
ACH	6/25/2013	US Postmaster	$1,500.00	Postage
CM26780	6/28/2013	D. Martinez Construction	$2,900.00	Admin Building Paint/Repair
ACH	6/30/2013	El Dorado Savings Bank	$80.00	Bank Fees
ACH	6/30/2013	Premier West Bank	$72.00	Bank Fees
		TOTAL	**$315,157.97**	

Rancho Murieta Community Services District
Bills Paid Listing for June 2013

Ck Number	Date	Vendor	Amount	Purpose
		CFD#1 Bank of America Checking		
CM2686	6/21/2013	CoreLogic Solutions, LLC.	$165.00	CFD#1 Admin Fees
CM2687	6/21/2013	Kronick Moskovitz Tiedemann & Girard	$758.50	CFD#1 Legal Fees
CM2688	6/21/2013	Rancho Murieta CSD	$217,600.88	Sac County Property Tax Dispursement
		TOTAL	**$218,524.38**	
		EL DORADO PAYROLL		
Payroll (El Dorado)				
Checks: # CM11016 to CM11031		and Direct Deposits: DD06465 to DD06520	$ 110,014.95	Payroll
ACH	6/30/2013	National Payment Corp	$133.82	Payroll
		TOTAL	**$110,148.77**	

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Edward R. Crouse, General Manager

Subject: General Manager's Report

The following are highlights since our last Board Meeting.

Employee Relations
Little to report this month. Paul and Greg are still interviewing candidates for open positions in their departments.

Finance/IT
Darlene and Debby are working on new billing statements to roll out with the July billing. We settled on the format and we are now drilling down into the method of calculation for the graphs.

Darlene and staff are working on year-end closing and reports. We hope to have everything tight by the time the auditor rolls in onsite in September.

By now you should be up and running on our new email hosting service. We evaluated using in-house email servers, but for our size, it was not efficient or cost effective. With the new hosting, each employee will have his or her own email account. This is a first step in developing our internal intranet for internal District communication with employees as well as providing online HR ad other District documents, handbooks, manuals, etc.

Security
As previously reported the Patrol Officer injured on duty recently had surgery and is now out on a 6-8 week period of physical therapy before he can be evaluated for his return to work. With the termination of a Patrol Officer, Greg was down two (2) Patrol Officers until he re-hired Michael Fuentes on a part-time basis. Officer Fuentes recently graduated from the Napa College POST Academy and is seeking a permanent law enforcement job. Until then, we are lucky to have him back to fill in open shifts.

Water
The recent hot spell drove up demand to 2.9 mgd, still 10% below our operational capacity of 3.2 mgd.

Paul has been on top of taste and odor as we treated the lakes for algae and hope to do another treatment mid July. Additionally, we started our activated carbon treatment to be ahead of the August turn in water quality taste and odor issues.

Wastewater
Wastewater flows to the plant dropped this month to 0.385 mgd, down from 0.395. Although this is a nominal drop, it is earlier than most years, likely due in part to the lower rainfall this year.

We sent roughly 75 acre-feet of recycled water to Rancho Murieta Country Club (RMCC) to augment their river diversions. With the river flows low, RMCC will soon be 100% recycled water for the rest of the season.

Drainage
We treated for midge flies right before July 4, 2013 to help with outside activities around Laguna Joaquin. So far, no complaints but several compliments for the treatments.

We continue with minimal ditch maintenance.

Solid Waste
California Waste Recovery Systems (CWRS) switched out containers at the administration building and warehouse to replace our commercial pick-up, which started on July 1, 2013.

Engineering
Augmentation Well
Test hole drilling has been delayed until the first week in August due to the driller's availability.

Recycled Water Feasibility Study
We received no comments so far. The final report will be approved at the July Board meeting.

Recycled Water Standards
We received AutoCAD files of similar details from El Dorado Irrigation District (EID) and Sacramento County to assist n developing our own standards. We should be completing those late summer.

Water Treatment Plant Design
The Improvements Committee reviewed the 30% Draft Basis of Design Report this month. It will be discussed at our July 18, 2013 Special Board meeting/workshop.

Date: July 11, 2013

To: Board of Directors

From: Darlene Gillum, Director of Administration

Subject: Administration/Financial Reports

Enclosed is a combined financial summary report for **June 2013**. Following are highlights from various internal financial reports. Please feel free to call me before the Board meeting regarding any questions you may have relating to these reports. ***These numbers are preliminary for the fiscal year ending June 30, 2013 and are subject to change as the final year end accounting entries are posted.***

This information is provided to the Board to assist in answering possible questions regarding under or over-budget items. In addition, other informational items of interest are included.

Water Consumption

Listed below are year-to-date water consumption numbers using weighted averages:

	12 month rolling % increase	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Residences	0.0	2512	2512	2512	2512	2513	2513	2513	2513	2513	2513	2513	2513
	Weighted average	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Cubic Feet	1849	2991	3140	3063	2232	976	668	751	759	1063	1484	2249	2819
Gallons per day	461	746	783	764	556	243	167	187	189	265	370	561	703
Planning Usage GPD	**583**												

Lock-Offs

For the month of June there were 20 lock-offs.

Aging Report

Delinquent accounts total $87,214 which is 14.9% of the total accounts receivable balance of $583,940. Past due receivables, as a percent of total receivables, have increased approximately 1.0% since May.

Summary of Reserve Accounts as of June 30, 2013

The District's reserve accounts have increased $556,759, year to date, since July 1, 2012. The increase is due to the reserve amounts collected in the Water and Sewer base rates and interest earned. The District has expended $361,542 of reserves since the beginning of the fiscal year, which started July 1, 2012. The total amount of reserves held by the District as of June 30, 2013 is $8,776,965. Please see the Reserve Fund Balances table below for information by specific reserve account.

Reserve Fund Balances

Reserve Descriptions	*Fiscal Yr Beg Balance July 1, 2012*	*YTD Collected & Interest Earned*	*YTD Spent*	*Period End Balance June 30, 2013*
Water Capital Replacement (200-2505)	2,534,416	207,681	(59,981)	2,682,116
Sewer Capital Replacement (250-2505)	2,710,606	276,823	(118,808)	2,868,621
Drainage Capital Replacement (260-2505)	50,015	92	(23,289)	26,818
Security Capital Replacement (500-2505)	51,164	120	(0)	51,284
Sewer Capital Improvement Connection (250-2500)	3,996	10	(0)	4,006
Capital Improvement (xxx-2510)	437,939	2,158	(47,731)	392,366
Water Supply Augmentation (200-2511)	2,548,492	10,492	(111,733)	2,447,251
Water Debt Service Reserves (200-2512)	80,192	58,988	(0)	139,180
Sewer Debt Service Reserves (250-2512)	162,628	390	(0)	163,018
Rate Stabilization (200/250/500-2515)	2,300	5	(0)	2,305
Total Reserves	*8,581,748*	*556,759*	*(361,542)*	*8,776,965*

PARS GASB 45 Trust

The PARS GASB 45 Trust, which is the investment trust established to fund Other Post Employment Benefits, had the following returns:

Period ended May 31, 2013		
1-Month	3-Months	1-Year
.16%	3.32%	15.79%

Financial Summary Report (year to date through June 30, 2013)

Revenues

Water Charges, year-to-date, are **above budget $106,595 or 6.1%**

Sewer Charges, year-to-date, are **above budget $357 or 0.0%**

Drainage Charges, year-to-date, are **below budget $498 or (0.3%)**

Security Charges, year-to-date, are **below budget $323 or 0%**

Solid Waste Charges, year-to-date, are **above budget $790 or 0.1%**

Total Revenues, which include other income, property taxes and interest income year-to-date, are **above** budget **$162,662 or 2.9%**. Seventy-three percent (73%), or $119,395, of the revenue over-run is attributed to the Water Fund and is primarily due to actual water usage exceeding projected usage. Year to date residential Water usage has exceeded budget projections by 12% and year to date commercial Water usage has exceeded budget projections by 6%. Other revenue areas that exceeded budget are primarily Title Transfer Fees, Reconnect Charges and

Late Charges. Total Revenue also includes $12,868 for 2011/2012 Mandated Cost Reimbursements (SB90).

Expenses

Preliminary **Year-to-date total operating expenses are below budget $357,377 or 6.5%.** It is anticipated that approximately $200,000 of year-end accruals will be made reducing this under-run to approximately $157,000. **Year-to-date operational reserve expenditures total $112,189.** Operational reserve expenditures cover projects funded from reserves which are also recorded as operational expenses through the income statement as required by Generally Accepted Accounting Principles (GAAP).

Water Expenses, year-to-date, are **below budget $96,651 or (6.4%), prior to reserve expenditures.** Areas running over budget are Equipment Rental, Power, Hazardous Waste Removal, Post Repair Road Paving, Tools, Maintenance & Repairs, and Vehicle Maintenance. Wages are under budget due to the combination of retroactive adjustments, pending year-end accruals and the actual allocation variance between Water, Sewer and Drainage. Employer Costs are under budget due to the combination of Medical Opt Out contingency under-run, pending year-end accruals and the variance between the actual allocation of labor charges between Water, Sewer and Drainage and the projected budget allocations. Chemicals, Taste & Odor Chemicals, Vehicle Fuel, Meters, Lab Tests, Permits and Conservation are running below budget. Year-to-date, $59,269 of expenses have been incurred from reserves expenditures.

Sewer Expenses, year-to-date, are **below budget by 77,176 or 7.2%, prior to reserve expenditures.** Areas running over budget are Power, Maintenance & Repair, Permits, Equipment Rental and Hazardous Waste Removal. Wages are under budget due to the combination of retroactive adjustments, pending year-end accruals and the actual allocation variance between Water, Sewer and Drainage. Employer Costs are under budget due to the combination of Medical Opt Out contingency under-run, pending year-end accruals and the variance between the actual allocation of labor charges between Water, Sewer and Drainage and the projected budget allocations. Areas running below budget are Chemicals and Other Direct Costs (which includes: Consulting, Legal, Vehicle Maintenance, Fuel, Tools and IT Systems Maintenance). Year-to-date, $29,631 of expenses have been incurred from reserves expenditures.

Drainage Expenses, year-to-date, are **below budget by $42,041 or (30.5%)**. Wages are under budget due to the combination of retroactive adjustments, pending year-end accruals and the actual allocation variance between Water, Sewer and Drainage. Employer Costs are under budget due to the combination of Medical Opt Out contingency under-run, pending year-end accruals and the variance between the actual allocation of labor charges between Water, Sewer and Drainage and the projected budget allocations. All other areas, except Permits, are running below budget.

Security Expenses, year-to-date, are **below budget by $82,470 or (7.7%).** Areas running over budget are Equipment Repairs, Vehicle Maintenance, Office Supplies, IT Systems Maintenance (related to installation of the new Security Server), Legal, and Miscellaneous Expense (related to a District Claim)). Wages are running under budget due to employees that have been out for

extended periods due to medical issues and/or Workers' Comp injury and pending year-end accruals. Employer Costs are running under budget due to actual elected medical benefits running below budgeted medical benefits and pending year-end accruals. Insurance is running below budget because that coverage is now included in the District's general liability policy.

Solid Waste Expenses, year-to-date, are **over budget by $12,489 or 2.2%**. This over-run is related primarily to the Household Hazardous Waste Event.

General Expenses, year-to-date, are **below budget by $71,529 or (6.2%).** The largest area running over budget is Janitorial/Landscape Maintenance, which is related to maintenance and repair of the Admin building lawn irrigation system and landscaping and also for the repair and painting of the Admin building exterior. Wages and Employer Costs are running under budget due to pending year-end accruals. Clerical Services, Travel/Meetings, Office Supplies (related to District information brochures) and Copy Machine Maintenance are also running over budget. Insurance, Legal, Director Meetings, Vehicle Fuel, IT Systems Maintenance and Community Communication are the largest areas running below budget.

Net Income

Year-to-date unadjusted net income, before depreciation, is $407,171. Net income/(Loss) adjusted for estimated depreciation expense of $1,116,746 is ($709,575).

The YTD expected net operating income before depreciation, per the 2012-2013 budget, is ($679). The actual net operating income is $407,850 higher than the budget expectation due to revenue running $162,662 over budget and total operating expenses running under budget $357,377.

These numbers are preliminary for the fiscal year ending June 30, 2013 and are subject to change as the final year end accounting entries are posted. It is anticipated that approximately $200,000 of year-end expense accruals will be made reducing the unadjusted net income to $207,171 prior to depreciation expense.

Rancho Murieta Community Services District

Summary Budget Performance Report

YTD THROUGH JUNE 2013

	% of Total	Annual Budget	% of Total	YTD Budget	YTD Actuals	% of Total	YTD VARIANCE Amount	YTD VARIANCE %
REVENUES								
Water Charges	31.4%	$1,733,950	31.4%	$1,733,950	$1,840,545	32.4%	$106,595	6.1%
Sewer Charges	22.5%	1,243,734	22.5%	1,243,734	1,244,091	21.9%	357	0.0%
Drainage Charges	3.2%	176,908	3.2%	176,908	176,410	3.1%	(498)	(0.3%)
Security Charges	21.2%	1,167,898	21.2%	1,167,898	1,167,575	20.5%	(323)	0.0%
Solid Waste Charges	11.1%	610,981	11.1%	610,981	611,771	10.8%	790	0.1%
Other Income	1.5%	84,375	1.5%	84,375	127,604	2.2%	43,229	51.2%
Interest Earrnings	0.0%	1,900	0.0%	1,900	1,544	0.0%	(356)	(18.7%)
Property Taxes	9.1%	501,840	9.1%	501,840	501,840	8.8%		0.0%
Reimbursements	0.0%		0.0%		12,868	0.2%	12,868	0.0%
Total Revenues	***100.0%***	***5,521,586***	***100.0%***	***5,521,586***	***5,684,248***	***100.0%***	***162,662***	***2.9%***
OPERATING EXPENSES								
Water/Sewer/Drainage								
Wages	13.8%	759,406	13.8%	759,406	739,172	14.3%	(20,234)	(2.7%)
Employer Costs	6.5%	356,819	6.5%	356,819	344,583	6.7%	(12,236)	(3.4%)
Power	5.9%	323,910	5.9%	323,910	329,340	6.4%	5,430	1.7%
Chemicals	4.8%	265,010	4.8%	265,010	163,329	3.2%	(101,681)	(38.4%)
Maint & Repair	6.3%	350,570	6.3%	350,570	382,883	7.4%	32,313	9.2%
Meters/Boxes	1.0%	55,000	1.0%	55,000	35,867	0.7%	(19,133)	(34.8%)
Lab Tests	1.4%	78,250	1.4%	78,250	49,893	1.0%	(28,357)	(36.2%)
Permits	1.1%	62,540	1.1%	62,540	49,345	1.0%	(13,195)	(21.1%)
Training/Safety	0.4%	23,340	0.4%	23,340	20,768	0.4%	(2,572)	(11.0%)
Equipment Rental	0.8%	43,000	0.8%	43,000	62,065	1.2%	19,065	44.3%
Other	7.1%	392,160	7.1%	392,160	316,893	6.1%	(75,267)	(19.2%)
Subtotal Water/Sewer/Drainage	**49.1%**	**2,710,005**	**49.1%**	**2,710,005**	**2,494,138**	**48.3%**	**(215,867)**	**(8.0%)**
Security								
Wages	11.1%	613,100	11.1%	613,100	570,395	11.0%	(42,705)	(7.0%)
Employer Costs	6.4%	351,300	6.4%	351,300	320,218	6.2%	(31,082)	(8.8%)
Insurance	0.1%	4,500	0.1%	4,500		0.0%	(4,500)	(100.0%)
Off Duty Sheriff Patrol	0.1%	6,000	0.1%	6,000	6,991	0.1%	991	16.5%
Other	1.9%	102,930	1.9%	102,930	97,756	1.9%	(5,174)	(5.0%)
Subtotal Security	**19.5%**	**1,077,830**	**19.5%**	**1,077,830**	**995,360**	**19.3%**	**(82,470)**	**(7.7%)**
Solid Waste								
CWRS Contract	9.7%	533,520	9.7%	533,520	535,189	10.4%	1,669	0.3%
Sacramento County Admin Fee	0.6%	33,960	0.6%	33,960	33,212	0.6%	(748)	(2.2%)
HHW Event	0.2%	12,000	0.2%	12,000	23,568	0.5%	11,568	96.4%
Subtotal Solid Waste	**10.5%**	**579,480**	**10.5%**	**579,480**	**591,969**	**11.5%**	**12,489**	**2.2%**
General / Admin								
Wages	9.1%	502,500	9.1%	502,500	491,591	9.5%	(10,909)	(2.2%)
Employer Costs	5.0%	275,200	5.0%	275,200	267,274	5.2%	(7,926)	(2.9%)
Insurance	1.0%	54,060	1.0%	54,060	44,913	0.9%	(9,147)	(16.9%)
Legal	0.5%	25,000	0.5%	25,000	18,909	0.4%	(6,091)	(24.4%)
Office Supplies	0.3%	19,200	0.3%	19,200	23,846	0.5%	4,646	24.2%
Director Meetings	0.3%	18,000	0.3%	18,000	13,100	0.3%	(4,900)	(27.2%)
Telephones	0.1%	4,320	0.1%	4,320	4,859	0.1%	539	12.5%
Information Systems	1.7%	95,400	1.7%	95,400	48,038	0.9%	(47,362)	(49.6%)
Community Communications	0.1%	5,900	0.1%	5,900	2,735	0.1%	(3,165)	(53.6%)
Postage	0.4%	21,780	0.4%	21,780	19,810	0.4%	(1,970)	(9.0%)
Janitorial/Landscape Maint	0.3%	16,800	0.3%	16,800	39,452	0.8%	22,652	134.8%
Other	2.1%	116,790	2.1%	116,790	108,894	2.1%	(7,896)	(6.8%)
Subtotal General / Admin	**20.9%**	**1,154,950**	**20.9%**	**1,154,950**	**1,083,421**	**21.0%**	**(71,529)**	**(6.2%)**
Total Operating Expenses	***100.0%***	***5,522,265***	***100.0%***	***5,522,265***	***5,164,888***	***100.0%***	***(357,377)***	***(6.5%)***
Operating Income (Loss)	***100.0%***	***(679)***	***100.0%***	***(679)***	***519,360***	***100.0%***	***520,039***	***(76,589.0%)***
Non-Operating Expenses								
Water Reserve Expenditure	0.0%		0.0%		59,269	52.8%	59,269	0.0%
Sewer Reserve Expenditure	0.0%		0.0%		29,631	26.4%	29,631	0.0%
Drainage Reserve Expenditure	0.0%		0.0%		23,289	20.8%	23,289	0.0%
Total Non-Operating Expenses	***0.0%***		***0.0%***		***112,189***	***100.0%***	***112,189***	***0.0%***
Net Income (Loss)	***100.0%***	***(679)***	***100.0%***	***(679)***	***407,171***	***100.0%***	***407,850***	***(60,066.3%)***

Rancho Murieta Community Services District

Budget Performance Report by FUND

YTD THROUGH JUNE 2013

	% of Total	Annual Budget	% of Total	YTD Budget	YTD Actuals	% of Total	YTD VARIANCE Amount	YTD VARIANCE %
WATER								
REVENUES								
Water Charges	98.7%	$1,733,950	98.7%	$1,733,950	$1,840,545	98.1%	$106,595	6.1%
Interest Earnings	0.0%		0.0%		178	0.0%	178	0.0%
Other Income	1.3%	22,055	1.3%	22,055	34,677	1.8%	12,622	57.2%
Total Water Revenues	**100.0%**	**1,756,005**	**100.0%**	**1,756,005**	**1,875,400**	**100.0%**	**119,395**	**6.8%**
EXPENSES (excluding depreciation)								
Wages	27.3%	410,082	27.3%	410,082	408,503	29.0%	(1,579)	(0.4%)
Employer Costs	12.8%	192,679	12.8%	192,679	189,881	13.5%	(2,798)	(1.5%)
Power	10.9%	164,450	10.9%	164,450	169,971	12.1%	5,521	3.4%
Chemicals	8.7%	130,300	8.7%	130,300	102,646	7.3%	(27,654)	(21.2%)
T&O - Chemicals/Treatment	4.1%	61,000	4.1%	61,000	18,224	1.3%	(42,776)	(70.1%)
Maint & Repair	11.0%	166,070	11.0%	166,070	185,946	13.2%	19,876	12.0%
Meters/Boxes	3.7%	55,000	3.7%	55,000	35,867	2.5%	(19,133)	(34.8%)
Lab Tests	2.7%	40,000	2.7%	40,000	12,286	0.9%	(27,714)	(69.3%)
Permits	2.1%	32,000	2.1%	32,000	16,395	1.2%	(15,605)	(48.8%)
Training/Safety	0.6%	9,140	0.6%	9,140	8,814	0.6%	(326)	(3.6%)
Equipment Rental	1.4%	21,500	1.4%	21,500	29,645	2.1%	8,145	37.9%
Other Direct Costs	14.8%	222,550	14.8%	222,550	229,942	16.3%	7,392	3.3%
Operational Expenses	**100.0%**	**1,504,771**	**100.0%**	**1,504,771**	**1,408,120**	**100.0%**	**(96,651)**	**(6.4%)**
Water Income (Loss)	**16.7%**	**251,234**	**16.7%**	**251,234**	**467,280**	**33.2%**	**216,046**	**86.0%**
38.9% Net Admin Alloc	**16.7%**	**250,948**	**16.7%**	**250,948**	**215,950**	**15.3%**	**(34,998)**	**(13.9%)**
Reserve Expenditures	**0.0%**		**0.0%**		**59,269**	**4.2%**	**59,269**	**0.0%**
Total Net Income (Loss)	***0.0%***	***286***	***0.0%***	***286***	***192,061***	***13.6%***	***191,775***	***67,054.2%***
SEWER								
REVENUES								
Sewer Charges	98.8%	1,243,734	98.8%	1,243,734	1,244,091	98.4%	357	0.0%
Interest Earnings	0.0%	180	0.0%	180	174	0.0%	(6)	(3.3%)
Other Income	1.2%	14,550	1.2%	14,550	20,371	1.6%	5,821	40.0%
Total Sewer Revenues	**100.0%**	**1,258,464**	**100.0%**	**1,258,464**	**1,264,636**	**100.0%**	**6,172**	**0.5%**
EXPENSES (excluding depreciation)								
Wages	27.7%	296,166	27.7%	296,166	286,335	28.9%	(9,831)	(3.3%)
Employer Costs	13.0%	139,160	13.0%	139,160	133,478	13.5%	(5,682)	(4.1%)
Power	13.5%	143,960	13.5%	143,960	145,136	14.7%	1,176	0.8%
Chemicals	7.4%	79,310	7.4%	79,310	52,541	5.3%	(26,769)	(33.8%)
Maint & Repair	16.2%	172,500	16.2%	172,500	193,373	19.5%	20,873	12.1%
Lab Tests	3.6%	38,250	3.6%	38,250	37,607	3.8%	(643)	(1.7%)
Permits	2.5%	26,540	2.5%	26,540	28,098	2.8%	1,558	5.9%
Training/Safety	1.3%	14,200	1.3%	14,200	11,954	1.2%	(2,246)	(15.8%)
Equipment Rental	1.5%	16,000	1.5%	16,000	29,153	2.9%	13,153	82.2%
Other Direct Costs	13.3%	141,510	13.3%	141,510	72,745	7.3%	(68,765)	(48.6%)
Operational Expenses	**100.0%**	**1,067,596**	**100.0%**	**1,067,596**	**990,420**	**100.0%**	**(77,176)**	**(7.2%)**
Sewer Income (Loss)	**17.9%**	**190,868**	**17.9%**	**190,868**	**274,216**	**27.7%**	**83,348**	**43.7%**
29.7% Net Admin Alloc	**17.9%**	**191,598**	**17.9%**	**191,598**	**164,877**	**16.6%**	**(26,721)**	**(13.9%)**
Reserve Expenditures	**0.0%**		**0.0%**		**29,631**	**3.0%**	**29,631**	**0.0%**
Total Net Income (Loss)	***-0.1%***	***(730)***	***-0.1%***	***(730)***	***79,708***	***8.0%***	***80,438***	***(11,018.9%)***
DRAINAGE								
REVENUES								
Drainage Charges	99.8%	176,908	99.8%	176,908	176,410	99.9%	(498)	(0.3%)
Interest Earnings	0.2%	280	0.2%	280	89	0.1%	(191)	(68.2%)
Total Drainage Revenues	**100.0%**	**177,188**	**100.0%**	**177,188**	**176,499**	**100.0%**	**(689)**	**(0.4%)**
EXPENSES (excluding depreciation)								
Wages	38.6%	53,158	38.6%	53,158	44,334	46.4%	(8,824)	(16.6%)
Employer Costs	18.1%	24,980	18.1%	24,980	21,224	22.2%	(3,756)	(15.0%)
Power	11.3%	15,500	11.3%	15,500	14,233	14.9%	(1,267)	(8.2%)
Chemicals	3.9%	5,400	3.9%	5,400	1,838	1.9%	(3,562)	(66.0%)
Maint & Repair	8.7%	12,000	8.7%	12,000	3,564	3.7%	(8,436)	(70.3%)
Permits	2.9%	4,000	2.9%	4,000	4,852	5.1%	852	21.3%
Equipment Rental	4.0%	5,500	4.0%	5,500	3,267	3.4%	(2,233)	(40.6%)
Other Direct Costs	12.4%	17,100	12.4%	17,100	2,285	2.4%	(14,815)	(86.6%)
Operational Expenses	**100.0%**	**137,638**	**100.0%**	**137,638**	**95,597**	**100.0%**	**(42,041)**	**(30.5%)**
Drainage Income (Loss)	**28.7%**	**39,550**	**28.7%**	**39,550**	**80,902**	**84.6%**	**41,352**	**104.6%**
6.1% Net Admin Alloc	**28.6%**	**39,352**	**28.6%**	**39,352**	**33,864**	**35.4%**	**(5,488)**	**(13.9%)**
Reserve Expenditures	**0.0%**		**0.0%**		**23,289**	**24.4%**	**23,289**	**0.0%**
Total Net Income (Loss)	***0.1%***	***198***	***0.1%***	***198***	***23,749***	***24.8%***	***23,551***	***11,894.4%***
SECURITY								
REVENUES								
Security Charges	96.6%	1,167,898	96.6%	1,167,898	1,167,575	95.1%	(323)	0.0%
Interest Earnings	0.1%	640	0.1%	640	626	0.1%	(14)	(2.2%)

Rancho Murieta Community Services District

Budget Performance Report by FUND

YTD THROUGH JUNE 2013

	% of Total	Annual Budget	% of Total	YTD Budget	YTD Actuals	% of Total	YTD VARIANCE Amount	YTD VARIANCE %
Other Income	3.3%	$39,970	3.3%	$39,970	$59,098	4.8%	$19,128	47.9%
Total Security Revenues	**100.0%**	**1,208,508**	**100.0%**	**1,208,508**	**1,227,299**	**100.0%**	**18,791**	**1.6%**
EXPENSES (excluding depreciation)								
Wages	56.9%	613,100	56.9%	613,100	570,395	57.3%	(42,705)	(7.0%)
Employer Costs	32.6%	351,300	32.6%	351,300	320,218	32.2%	(31,082)	(8.8%)
Insurance	0.4%	4,500	0.4%	4,500		0.0%	(4,500)	(100.0%)
Equipment Repairs	0.4%	4,400	0.4%	4,400	4,965	0.5%	565	12.8%
Vehicle Maintenance	0.6%	6,700	0.6%	6,700	9,450	0.9%	2,750	41.0%
Vehicle Fuel	1.9%	20,460	1.9%	20,460	17,055	1.7%	(3,405)	(16.6%)
Off Duty Sheriff Patrol	0.6%	6,000	0.6%	6,000	6,991	0.7%	991	16.5%
Other	6.6%	71,370	6.6%	71,370	66,286	6.7%	(5,084)	(7.1%)
Operational Expenses	**100.0%**	**1,077,830**	**100.0%**	**1,077,830**	**995,360**	**100.0%**	**(82,470)**	**(7.7%)**
Security Income (Loss)	**12.1%**	**130,678**	**12.1%**	**130,678**	**231,939**	**23.3%**	**101,261**	**77.5%**
20.3% Net Admin Alloc	**12.2%**	**130,957**	**12.2%**	**130,957**	**112,694**	**11.3%**	**(18,263)**	**(13.9%)**
Total Net Income (Loss)	***0.0%***	***(279)***	***0.0%***	***(279)***	***119,245***	***12.0%***	***119,524***	***(42,840.1%)***
SOLID WASTE								
REVENUES								
Solid Waste Charges	99.9%	610,981	99.9%	610,981	611,771	99.9%	790	0.1%
Interest Earnings	0.1%	600	0.1%	600	366	0.1%	(234)	(39.0%)
Total Solid Waste Revenues	**100.0%**	**611,581**	**100.0%**	**611,581**	**612,137**	**100.0%**	**556**	**0.1%**
EXPENSES (excluding depreciation)								
CWRS Contract	92.1%	533,520	92.1%	533,520	535,189	90.4%	1,669	0.3%
Sacramento County Admin Fee	5.9%	33,960	5.9%	33,960	33,212	5.6%	(748)	(2.2%)
HHW Event	2.1%	12,000	2.1%	12,000	23,568	4.0%	11,568	96.4%
Operational Expenses	**100.0%**	**579,480**	**100.0%**	**579,480**	**591,969**	**100.0%**	**12,489**	**2.2%**
Solid Waste Income (Loss)	**5.5%**	**32,101**	**5.5%**	**32,101**	**20,168**	**3.4%**	**(11,933)**	**(37.2%)**
5.0% Net Admin Alloc	**5.6%**	**32,256**	**5.6%**	**32,256**	**27,757**	**4.7%**	**(4,499)**	**(13.9%)**
Total Net Income (Loss)	***0.0%***	***(155)***	***0.0%***	***(155)***	***(7,589)***	***-1.3%***	***(7,434)***	***4,796.1%***
OVERALL NET INCOME(LOSS)	***100.0%***	***(680)***	***100.0%***	***(680)***	***407,174***	***100.0%***	***407,854***	***(59,978.5%)***

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

INVESTMENT REPORT

INSTITUTION		CASH BALANCE AS OF JUNE 30, 2013 YIELD	BALANCE
CSD FUNDS			
EL DORADO SAVINGS BANK			
SAVINGS		0.03%	$ 285,368.34
CHECKING		0.02%	$ 14,334.03
PAYROLL		0.02%	$ 57,959.80
PREMIER WEST BANK			
EFT		N/A	$ 86,405.57
LOCAL AGENCY INVESTMENT FUND (LAIF)			
UNRESTRICTED			$ -
RESTRICTED RESERVES		0.25%	$ 5,679,156.75
CALIFORNIA ASSET MGMT (CAMP)			
OPERATION ACCOUNT		0.08%	$ 3,603,143.26
UNION BANK			
PARS GASB45 TRUST	(adj. balance as of 5/31/13)		$ 498,115.43
	TOTAL		$ 10,224,483.18
BOND FUNDS			
COMMUNITY FACILITIES DISTRICT NO. 1 (CFD)			
BANK OF AMERICA			
CHECKING		N/A	$ 1,851,202.96
CALIFORNIA ASSET MGMT (CAMP)			
SPECIAL TAX		0.08%	$ 8,298.20
US BANK			
SPECIAL TAX REFUND		0.00%	$ -
BOND RESERVE FUND/ SPECIAL TAX FUND		0.00%	$ 876,000.00
	TOTAL		$ 2,735,501.16
	TOTAL ALL FUNDS		$ 12,959,984.34

The investments comply with the CSD adopted investment policy.

PREPARED BY: Darlene Gillum
Director of Administration

MEMORANDUM

Date: July 11, 2013

To: Board of Directors

From: Greg Remson, Security Chief

Subject: Security Report for the Month of June 2013

OPERATIONS

Sergeant Bieg attended the Dogfest at Stonehouse Park. There were lots of dogs and their owners in attendance. All were well behaved.

Patrol Officer Scarzella participated in training with Sacramento Metro Fire Department in the undeveloped PTF area. The training was specifically related to accessing the undeveloped back area in case of fire or medical emergency. The Murieta Trail Stewardship has mapped the area along with posting checkpoint signs. These can be used by emergency services to quickly access the area.

The Security Patrol Officer on medical leave had his surgery and has a tentative recovery date of 6-8 weeks. I have advertized for a full time Security Patrol Officer to fill the open position. Mike Fuentes, who left the Department to attend a law enforcement academy, has been hired as a Part Time Patrol Officer to help cover shifts until the return of the Patrol Officer and the hiring and training of the new full-time Patrol Officer.

INCIDENTS OF NOTE

June 3, Monday, reported at 9:35 a.m. on Domingo Drive. Graffiti. A small swastika was painted on the curb.

June 3, Monday, reported at 11:37 a.m. on Celebrar Street. Theft. A flag and flagpole were taken from in front of a house.

June 5, Wednesday, reported at 8:35 p.m. on the golf course behind Verona Drive. A guest of a resident was arrested for public intoxication after causing a disturbance and threatening residents living in the area. He was transported to jail by Sacramento Sheriff's Department (SSD).

June 6, Thursday, reported at 4:52 p.m. at the Equestrian Center. Theft. A green Ez-Go golf cart was taken sometime during the previous day.

June 13, Thursday, reported at 4:41 p.m. on the 15th Tee, North Course. Vandalism. The tee area was damaged by juveniles on scooters.

June 14, Friday, reported at 8:14 a.m. at the cell tower site on Van Vleck Ranch. Contract workers for Sprint stated that the prior day they discovered that a small amount of copper wire was taken

from a cell tower. The gate lock on the fence that surrounds the tower was cut. Unknown time of the theft.

June 14, Saturday, reported at 1:25 p.m. at the Villas. Theft. A skateboard was taken approximately five (5) days ago.

June 17, Monday, reported at 3:38 a.m. at the Murieta Plaza. Burglary. The front door of the Murieta Hair Salon was forced open. Hair products, purses and a small amount of cash were taken. A burglar alarm was tripped notifying the owner and Security dispatch of the burglary. No suspect information.

June 19, Wednesday, reported at 10:17 a.m. on Domingo Drive. An outgoing Fed Ex package was taken from a doorstep overnight.

June 21, Friday, reported at 5:45 p.m. on Puerto Drive. Burglary. Possible continuing family issues.

June 21, Friday, reported at 9:00 p.m. on Jackson Road near the Country Store. Public Intoxication. Report of a possibly intoxicated subject. Security Patrol Officer and off-duty SSD contacted the subject who was determined to be under the influence. The subject was transported to jail.

During the month of June, District Security Patrol Officers also responded to complaints of loud music and disturbances, and unruly juveniles.

RANCHO MURIETA ASSOCIATION COMPLIANCE/GRIEVANCE/SAFETY COMMITTEE MEETING
The meeting was held on June 2, 2013 at the Rancho Murieta Association (RMA) office. There were three (3) appearances for parking, stop sign, and speeding and three (3) letters regarding pet restraint, parking and unauthorized vehicle. The next meeting is scheduled for July 8, 2013.

JOINT SECURITY COMMITTEE MEETING
The next Joint Security Committee Meeting was scheduled for Friday, May 31, 2013. The meeting was cancelled due to lack of information from camera vendors. Presently, there have been two (2) vendors who have submitted information. The meeting has been rescheduled for Friday, July 26, 2013 at 9:00 a.m. at the RMA office.

JAMES L. NOLLER SAFETY CENTER
The Safety Center has been open most Mondays and Wednesdays from 10:00 a.m. to 2:00 p.m. VIPS Jacque Villa and Steve Lentz continue patrolling the District as another set of “eyes and ears”.

The Safety Center is also available to all law enforcement officers for report writing, meal breaks and any other needs that arise.

Anyone who is interested in joining the VIPS program or would like information on the Neighborhood Watch program can contact the VIPS at the Safety Center office at 354-8509.

NEW NORTH GATE

Surveyors were out at the new North Gate site last week. The tentative construction start date is spring of 2014.

BEACH ACCESS/PTF GATES

Patrol Officers continue to open the gate at dawn and close it at dusk. Calls for service have been minor. Due to the occasional driver who drives around the Bass Lake PTF gate, RMA has requested that Security lock the gate located on the east end of Bass Lake. Once RMA has installed reflective warning signs on both sides of the gates, Patrol will begin locking and unlocking the gate at the same time the beach access gate is locked and unlocked.

MEMORANDUM

Date: July 10, 2013

To: Board of Directors

From: Paul Siebensohn, Director of Field Operations

Subject: Water/Wastewater/Drainage Report

The following is District Field Operations information and projects staff has worked on since the last Regular Board meeting.

Water

Water Treatment Plant (WTP) #1 production is currently set at 1.2 million gallons per day (MGD) and WTP #2 production is at 1.7 MGD, for a total of 2.9 MGD, with facility run times currently operating around 20 hours per day. The week temperatures were over 100 degrees, the facility was operating nearly 24 hours per day.

Total potable water production for June 2013 was approximately 61.93 million gallons (MG) (190 acre-feet), up from last month's total flow of 41.2 MG. This is 11% higher than the water production in May 2013. Based off of production versus the number of connections, the average usage per customer connection was 874 gallons per day during the month of June. A total of 0.3" of rainfall was recorded for the month, with evaporation at 7.71" as measured by the U.S. Bureau of Reclamation at Folsom Lake.

Maintenance at the Water Treatment Plant included: removal of accumulated solids from two (2) of the four (4) drying beds, replacing an electrical phase monitor at Plant #1, cleaning and servicing chlorine residual monitoring equipment, and repair of the gearbox on the powdered activated carbon feeder.

Water Source of Supply

On July 3, 2013, the combined raw water storage for Calero, Chesbro, and Clementia Reservoirs measured approximately 1,449 MG (4,448 acre-feet).

Chesbro Reservoir was treated for algae on June 18, 2013. This treatment is necessary to control the alga that forms the taste and odor compounds in our water supply for which we have periodically receive complaints in the past. The next treatment is scheduled for the week of July 15, 2013.

Wastewater

Influent wastewater flow averaged 0.385 million gallons a day, for a total of 11,560,793 gallons, (37.6 acre-feet) for the month of June. This is 18% lower than the past seven (7) year average influent flow of 14,148,938 gallons for June. A total of 78.5 MG (241 acre-feet) of secondary wastewater was measured in the secondary storage reservoirs on July 3, 2013. This supply is below normal for an average irrigation demand to the Rancho Murieta Country Club (RMCC) for the rest of the irrigation season; especially since sewer plant influent flows have been lower than

average. The RMCC was supplied 24.102 MG of reclaimed water in the month of June for their irrigation needs.

Staff was called out for one (1) sewer blockage which was determined to be on the homeowner's property. As part of sewer system preventative maintenance, staff used the sewer camera to inspect (CCTV) 725 feet of sewer main in Unit 4, and 1,375 feet near Trinidad Drive in District sewer laterals F and E in Unit 2.

There is no longer an issue with a filamentous algae plugging up the intake located in secondary wastewater reservoir #1 which feeds the tertiary treatment facility. Treatment is keeping up with the RMCC's recycled water irrigation demand, currently averaging 700,000 per course.

Maintenance this past month included: repairing Crest Sewer Lift Station which included, bypassing pump station nearly four (4) hours to seal damaged floor tub possibly allowing rocks into pump station (photos below), assisting RMCC with their river pump by cleaning pump impeller of debris, contacting SMUD to correct a power phase outage and started pumping to RMCC Ponds 10/11, stockpiling dried biosolids into drying bed #1, working on the retrofitting a bulk chemical storage tank, repairing oil leak on tertiary lift pump motor, and weed control around process ponds and storage reservoirs.

Drainage / CIA Ditch

Laguna Joaquin was treated in mid June to help control midge flies. No complaints have been received since the treatment was conducted. The next treatment should occur around the week of July 22, 2013 with each treatment lasting approximately 5-7 weeks as per the manufacturer. Although no flow has been diverted into Laguna Joaquin within the past few weeks, it has not dropped in level, which indicates excessive irrigation throughout the community in which the run off fills it.

Staff continues cutting vegetation throughout the community drainage system and has cleaned the cement ditch adjacent to the Chesbro Reservoir for a second time this season.

The CIA Ditch continues to flow for the irrigation of ranch crops with Cosumnes River flow currently at 20 cubic feet per second (cfs) as of this report.

Water metering & Utility Staff work

Staff completed all of the necessary water meter maintenance in June which included replacement of nine (9) water meters, seven (7) meter registers and zero (0) MXUs. Utility staff responded to twelve (12) calls for water leaks, nine (9) were homeowner issues for water leaks, and three (3) were District service line water leaks which were repaired. Also completed were six (6) underground service alert (USA) requests, twenty-seven (27) Utility Star service orders, fifteen (15) lockoffs, and eleven (11) restores in the month of June.

Other Projects

Water Plant Phase 3:

We have been working with HDR for the redesign for the rehabilitation of Water Plant #1 to either a pressure or vacuum membrane technology. A special Board meeting is scheduled for July 18, 2013 to discuss preliminary design options, receive public comments/input, and Board direction.

Main Lift North Rehabilitation Project:

The draft specifications for the Main Lift North Rehabilitation have been prepared and will be reviewed by the Improvements Committee before issuing for bids.

Well Project:

The tentative date for well test well drilling is the week of August 5, 2013. The options for how we will proceed with the well development will be discussed at the Improvements Committee.

Recycled Water For Future Use:

We are meeting with the California Department of Public Health (CDPH) July 19, 2013. Topics to be discussed include their concern about comingling of recycled water with surface water as stated in their last letter issued to the District and the potential for future use of recycled water in the District.

Hole 13 North Course Culvert Replacement:

I have contacted the RMCC requesting two (2) weeks in which to complete this project and am waiting to hear back from them. My understanding is that they typically close their North Course sometime each fall to perform maintenance activities and that would be an opportune time for us to work on this project, as long as it is prior to the rainy season.

7/5/13

Dear Paul

We want to thank you for the absence of Midge flies around our area! Whatever chemical treatment you are using, it is working so much better! We can actually sit on our decks without eating the pesk critters while we are conversing! What a pleasant experience!!

So whatever you're doing, it is working and we are VERY appreciative.

Thanks again

Dilla Clore

6940 Carreta Lane

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Edward Crouse, General Manager

Subject: Adopt the Recycled Water Feasibility Study

RECOMMENDED ACTION

Adopt the Final Recycled Water Feasibility Study developed by Kevin Kennedy, AECOM.

BACKGROUND

Recall Kevin Kennedy, AECOM, presented the Draft Recycled Water Feasibility Study (Study) at the June 19, 2013 District Board meeting and the Study was put out for public review and comment. This Study is funded by a grant from the Bureau of Reclamation, under their Water Efficiency Program.

The purpose of the Study is to evaluate and compare potential alternatives for expanding the District's existing recycled water program and determine whether expansion of the existing recycled water program is cost-effective when compared to the "No Project" alternative.

Specific goals associated with the Study are to:

- Identify a phased approach to expand the existing recycled water system to serve future residential developments and irrigation of existing parks, roadways medians and commercial landscaping,
- Identify the specific improvements required for the expansion of the existing recycled water system;
- Develop an implementable and regulatory compliant solution for long-term disposal of the District's treated effluent,
- Use recycled water as a means to offset potable water for residential and commercial landscape irrigation

To date, no comments have been received. The final Study is attached.

While the costs appear high, these are programmatic level estimates at this time. As we move forwarded with more focused review and implementation of the various components, more detailed planning, design, and value engineering will take place.

And with adopting this study, we will be able to pursue outside funding from the State DWR and Bureau of Reclamation to help offset project costs.

Submitted to
Rancho Murieta Community Services District
15160 Jackson Highway
Rancho Murieta, CA 95683

Submitted by
AECOM
2020 L Street
Sacramento, CA 95811

March 2013

Draft

Title XVI Recycled Water Feasibility Study

Rancho Murieta Community Services District

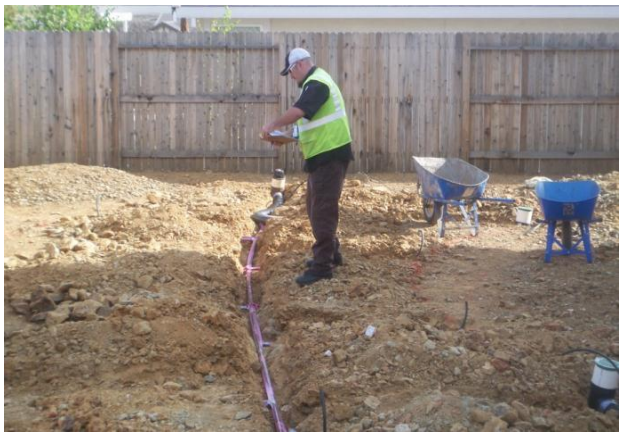


Table of Contents

List of Tables

List of Figures

Appendices

List of Acronyms

AF	Acre-ft
AFY	Acre-ft per year
Basin Plan	San Joaquin River Basins, Fourth Edition
Board	Rancho Murieta Community Services District Board of Directors
BMP	Best Management Plan
CCR	California Code of Regulations
CDPH	California Department of Public Health
Central Basin	Central Sacramento County Groundwater Basin
CEQA	California Environmental Quality Act
cfs	Cubic feet per second
Delta	Sancramento-San Joaquin Delta
District	Rancho Murieta Community Services District
DPR	Direct potable reuse
EIR	Environmental Impact Report
fps	Feet per second
IPR	Indirect potable reuse
MGD	Million gallons per day
MRP	Master Reclamation Permit
NEPA	Nation Environemntal Policy Act
O&M	Operations and maintenance
Project	Recycled Water System Expansion Project
RWQCB	Regional Water Quality Control Board
Study	Title XVI Recycled Water Feasibility Study
Title 22	California Code of Regulations, Title 22, Chapter 3, Water Recycling Criteria
WDR	Waste Discharge Requirements or Waste Discharge Requirements Order No. 5-01-124
WRR	Water Reclamation Requirements
WWRP	Wastewater Relamation Plant

Executive Summary

This Executive Summary provides an overview of the Title XVI Recycled Water Feasibility Study (Study) and highlights the key findings and recommendations that are further detailed in this report. The purposes of the Study are to (1) determine which particular future residential developments are the most cost-effective for recycled water service, (2) determine whether expansion of the existing recycled water program is cost-effective when compared to the "No Project" alternative, and (3) develop a feasibility study that satisfies the provisions of Public Law 102-575 sections 1603(b) and 1604(c) so that additional Title XVI grant funding can be requested from the Bureau of Reclamation.

Potential Alternatives and Comparison Results

The following alternatives considered in this Study were:

- **Alternative 1 - Upgrading Existing Pastureland Irrigation System (Alternative 1):** This alternative represents the "No Project" alternative and reflects the reasonable and foreseeable actions to meet projected potable water and treated effluent disposal needs of the District's service area. This alternative assumes the existing recycled water program is not expanded beyond satisfying the irrigation demands of the two existing golf courses, the pastureland treated effluent disposal system is upgraded and expanded, and an additional 1.2 MGD of potable water treatment capacity is provided to serve future residential irrigation demand that, for Alternative 2, is satisfied with recycled water. The total estimated project and net present worth costs for this alternative are $24.0 and $24.4 million, respectively.

- **Alternative 2 – Expanding Recycled Water Program (Alternative 2):** This alternative assumes the expansion of the existing recycled water program to serve select future residential developments[1] and existing parks and commercial landscaping. The selected developments were identified by ranking the developments against one another with respect estimated service costs and selecting those deemed to be cost-effective. Service to these residential developments would be provided by expanding the existing North Golf Course Conveyance System through the addition of recycled water transmission mains and service pipelines, storage tanks, and booster pumping stations. The total estimated project and net present worth costs for this alternative are $22.8 and $20.3 million, respectively.

An economic analysis comparing net present worth costs of Alternatives 1 and 2 was developed. This analysis assumed a 20-year life cycle and a 6 percent discount rate and considered the timeline in which individual potable water, wastewater, and recycled water/treated effluent improvements are required to be in service to accommodate two development phases. Results indicate that expanding the District's recycled water program (Alternative 2) has a 26 percent lower net present worth cost and is therefore deemed to be more cost-effective than Alternative 1. In addition to lower cost, Alternative 2 would provide the following significant benefits:

- Reduce future Cosumnes River diversions, offset potable water demands by 370 acre-ft per year, and conserve surface water supplies,

- Help the District meet its 20x2020 Water Conservation Goals,

- Provide opportunities to serve other potential customers along the recycled water transmission pipeline alignment,

- Support regional water planning efforts,

- Providing a sustainable and long-term means for treated effluent disposal that is directly linked to strengthening the local economy,

[1] The recommended developments for recycled water service are Murieta Gardens, Retreats, Residences of Murieta Hills, Industrial / Commercial / Residential, Apartments, Esquela, Terrace, Highlands, and River Canyon.

- Increase water supply reliability,
- Reduce drought deficits and greenhouse gas emissions as well as the District's overall carbon footprint by minimizing potable water treatment requirements,
- Contribute to the statewide recycled water goals and demonstrate the District's willingness to manage its available resources in a responsible and progressive manner, and
- Contribute to the recovery of the Central Sacramento County Groundwater Basin and Sacramento-San Joaquin Delta and Cosumnes River ecosystems.

Alternative 2 was selected as the recommended alternative based on these significant benefits and the cost comparison results.

Recommended Improvements and Implementation Schedule

Improvements required for the recommended alternative are time-phased to correspond to development. Two phases have been established for the addition of facilities and implementation planning based on the occupancy timelines described by local developers. Individual improvements required for the recommended alternative are illustrated in Figure 6-1 and described in Chapter 6. A summary of the required facilities by phase is presented in Table ES-1. The recommended implementation schedule is presented in Table ES-2 and describes the timelines required for all activities associated with implementation.

The technical work completed for this Study provides the rational and framework for the recommended alternative and improvements. Preliminary locations of all new facilities are shown in Figure 6-1. Facility planning is required to develop a hydraulic model, optimize and finalize facility locations and alignments, refine design criteria and sizing, identify land requirements, and optimize, attempt to reduce, and update cost estimates. Following completion of facility planning, environmental and regulatory permitting efforts can commence as shown in Table ES-2.

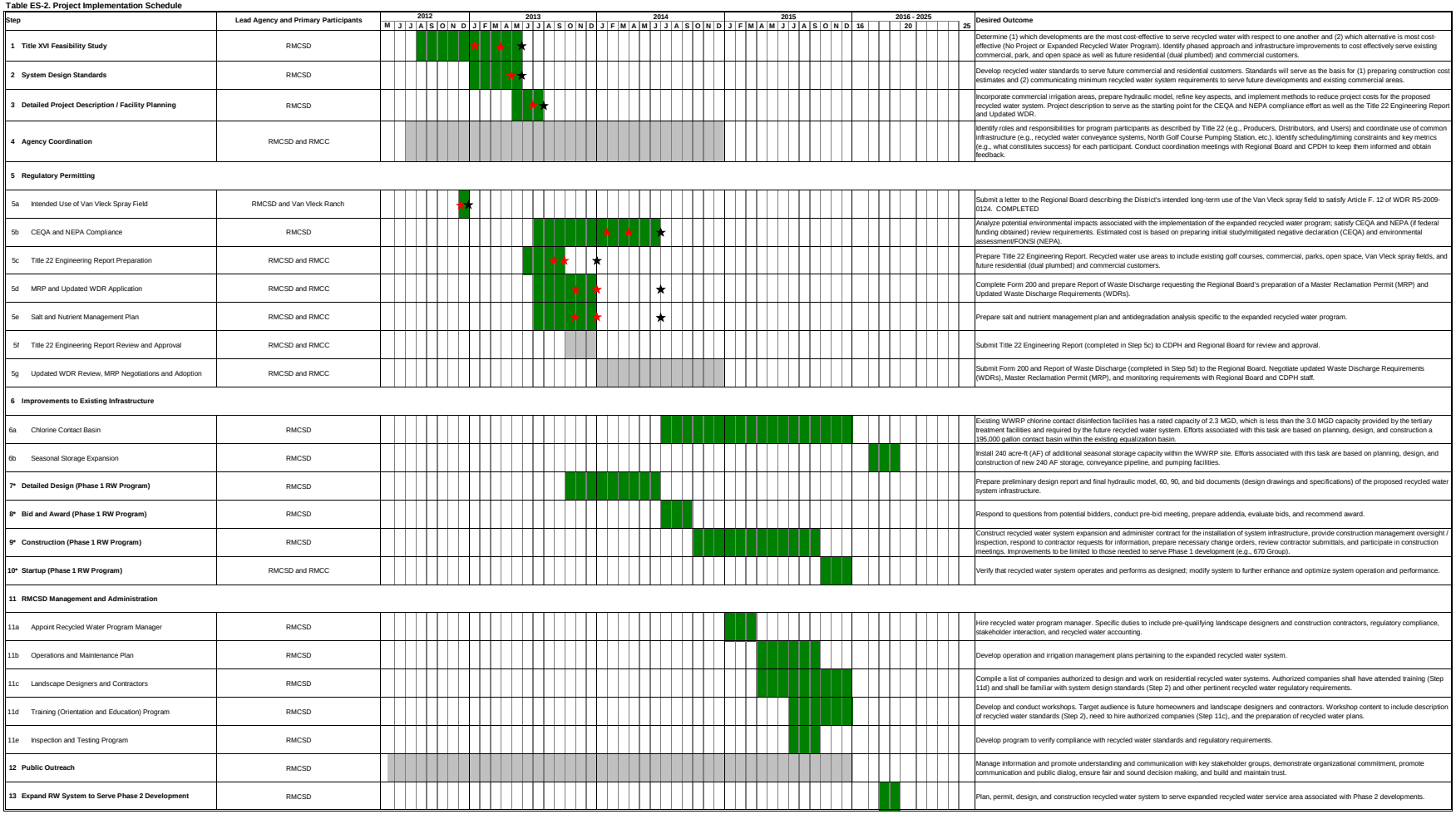
Table ES-1. Summary of Required Facilities for Recommended Alternative

Facility / Improvement Description	Estimated Quantity	Estimate of Probable Project Costs ($)[a, b]
Phase 1, 2013 – 2015		
Disinfection Facilities Upgrade	195,000 gallons	1,300,000
North Golf Course Pump Station	2,110 gpm	1,700,000
Northwest Transmission Main	11,640 LF	3,530,000
Lookout Hill Tanks and Pump Station	400,000 gallons & 700 gpm	2,080,000
Retreats Service Main	1,725 LF	490,000
	Subtotal	**9,100,0000**
Phase 2, 2016 – 2019		
Seasonal Storage Expansion	240 AF	9,750,000
Industrial, Commercial, Residential	190 LF	220,000
Apartments Service Main	110 LF	210,000
Esquela Service Main	260 LF	80,000
North Conveyance System Extension	2,460 LF	520,000
Bass Lake Tanks and Pump Station	500,000 gallons & 1,040 gpm	2,900,000
	Subtotal	**13,680,0000**
	Grand Total	**22,780,000**

[a] Estimated project costs based upon ENR 20 City Average Construction Cost Index of 9437 (January 2013).
[b] Project costs include estimated construction costs and allowances for contingency, engineering, administration, and permitting.

Table ES-2. Project Implementation Schedule

Step	Lead Agency and Primary Participants	Desired Outcome
1 Title XVI Feasibility Study	RMCSD	Determine (1) which developments are the most cost-effective to serve recycled water with respect to one another and (2) which alternative is most cost-effective (No Project or Expanded Recycled Water Program). Identify phased approach and infrastructure improvements to cost effectively serve existing commercial, park, and open space as well as future residential (dual plumbed) and commercial customers.
2 System Design Standards	RMCSD	Develop recycled water standards to serve future commercial and residential customers. Standards will serve as the basis for (1) preparing construction cost estimates and (2) communicating minimum recycled water system requirements to serve future developments and existing commercial areas.
3 Detailed Project Description / Facility Planning	RMCSD	Incorporate commercial irrigation areas, prepare hydraulic model, refine key aspects, and implement methods to reduce project costs for the proposed recycled water system. Project description to serve as the starting point for the CEQA and NEPA compliance effort as well as the Title 22 Engineering Report and Updated WDR.
4 Agency Coordination	RMCSD and RMCC	Identify roles and responsibilities for program participants as described by Title 22 (e.g., Producers, Distributors, and Users) and coordinate use of common infrastructure (e.g., recycled water conveyance systems, North Golf Course Pumping Station, etc.). Identify scheduling/timing constraints and key metrics (e.g., what constitutes success) for each participant. Conduct coordination meetings with Regional Board and CPDH to keep them informed and obtain feedback.
5 Regulatory Permitting		
5a Intended Use of Van Vleck Spray Field	RMCSD and Van Vleck Ranch	Submit a letter to the Regional Board describing the District's intended long-term use of the Van Vleck spray field to satisfy Article F. 12 of WDR R5-2009-0124. COMPLETED
5b CEQA and NEPA Compliance	RMCSD	Analyze potential environmental impacts associated with the implementation of the expanded recycled water program; satisfy CEQA and NEPA (if federal funding obtained) review requirements. Estimated cost is based on preparing initial study/mitigated negative declaration (CEQA) and environmental assessment/FONSI (NEPA).
5c Title 22 Engineering Report Preparation	RMCSD and RMCC	Prepare Title 22 Engineering Report. Recycled water use areas to include existing golf courses, commercial, parks, open space, Van Vleck spray fields, and future residential (dual plumbed) and commercial customers.
5d MRP and Updated WDR Application	RMCSD and RMCC	Complete Form 200 and prepare Report of Waste Discharge requesting the Regional Board's preparation of a Master Reclamation Permit (MRP) and Updated Waste Discharge Requirements (WDRs).
5e Salt and Nutrient Management Plan	RMCSD and RMCC	Prepare salt and nutrient management plan and antidegradation analysis specific to the expanded recycled water program.
5f Title 22 Engineering Report Review and Approval	RMCSD and RMCC	Submit Title 22 Engineering Report (completed in Step 5c) to CDPH and Regional Board for review and approval.
5g Updated WDR Review, MRP Negotiations and Adoption	RMCSD and RMCC	Submit Form 200 and Report of Waste Discharge (completed in Step 5d) to the Regional Board. Negotiate updated Waste Discharge Requirements (WDRs), Master Reclamation Permit (MRP), and monitoring requirements with Regional Board and CDPH staff.
6 Improvements to Existing Infrastructure		
6a Chlorine Contact Basin	RMCSD	Existing WWRP chlorine contact disinfection facilities has a rated capacity of 2.3 MGD, which is less than the 3.0 MGD capacity provided by the tertiary treatment facilities and required by the future recycled water system. Efforts associated with this task are based on planning, design, and construction a 195,000 gallon contact basin within the existing equalization basin.
6b Seasonal Storage Expansion	RMCSD	Install 240 acre-ft (AF) of additional seasonal storage capacity within the WWRP site. Efforts associated with this task are based on planning, design, and construction of new 240 AF storage, conveyance pipeline, and pumping facilities.
7* Detailed Design (Phase 1 RW Program)	RMCSD	Prepare preliminary design report and final hydraulic model, 60, 90, and bid documents (design drawings and specifications) of the proposed recycled water system infrastructure.
8* Bid and Award (Phase 1 RW Program)	RMCSD	Respond to questions from potential bidders, conduct pre-bid meeting, prepare addenda, evaluate bids, and recommend award.
9* Construction (Phase 1 RW Program)	RMCSD	Construct recycled water system expansion and administer contract for the installation of system infrastructure, provide construction management oversight / inspection, respond to contractor requests for information, prepare necessary change orders, review contractor submittals, and participate in construction meetings. Improvements to be limited to those needed to serve Phase 1 development (e.g., 670 Group).
10* Startup (Phase 1 RW Program)	RMCSD and RMCC	Verify that recycled water system operates and performs as designed; modify system to further enhance and optimize system operation and performance.
11 RMCSD Management and Administration		
11a Appoint Recycled Water Program Manager	RMCSD	Hire recycled water program manager. Specific duties to include pre-qualifying landscape designers and construction contractors, regulatory compliance, stakeholder interaction, and recycled water accounting.
11b Operations and Maintenance Plan	RMCSD	Develop operation and irrigation management plans pertaining to the expanded recycled water system.
11c Landscape Designers and Contractors	RMCSD	Compile a list of companies authorized to design and work on residential recycled water systems. Authorized companies shall have attended training (Step 11d) and shall be familiar with system design standards (Step 2) and other pertinent recycled water regulatory requirements.
11d Training (Orientation and Education) Program	RMCSD	Develop and conduct workshops. Target audience is future homeowners and landscape designers and contractors. Workshop content to include description of recycled water standards (Step 2), need to hire authorized companies (Step 11c), and the preparation of recycled water plans.
11e Inspection and Testing Program	RMCSD	Develop program to verify compliance with recycled water standards and regulatory requirements.
12 Public Outreach	RMCSD	Manage information and promote understanding and communication with key stakeholder groups, demonstrate organizational commitment, promote communication and public dialog, ensure fair and sound decision making, and build and maintain trust.
13 Expand RW System to Serve Phase 2 Development	RMCSD	Plan, permit, design, and construction recycled water system to serve expanded recycled water service area associated with Phase 2 developments.



Development of Deliverables
Ongoing Efforts Not Associated with Specific Deadlines or Milestones
Draft Deliverables
Final Deliverables

Footnotes

* Dates shown in this table are considered preliminary estimates and are based on Phase 1 and 2 development occupancy timeframes of 2016 and 2020, respectively. Actual timeframes will depend on actual residential and commercial development timeframes.

1 Introduction

This chapter describes the purpose of the Rancho Murieta Community Services District's (District's) Title XVI Feasibility Study (Study), general characteristics of the Study Area, Project sponsors, and report organization.

1.1 Study Purpose and Goals

The purpose of the Study is to evaluate and compare potential alternatives for expanding the District's existing recycled water program and determine whether the expansion is cost effective compared to the "No Project" alternative. In addition, this Study describes the physical features and associated construction and project costs associated with the expanded recycled water program and "No Project" alternatives as well as environmental considerations and legal and institutional requirements associated with the recommended project. Specific goals associated with the Study are to:

- Identify a phased approach to expand the existing recycled water system to serve future residential developments and irrigation of existing parks, roadway medians, and commercial landscaping,
- Identify the specific improvements required for the expansion of the existing recycled water system,
- Develop an implementable and regulatory compliant solution for long-term disposal of the District's treated effluent,
- Use recycled water as a means to offset future potable water demands and indirectly contribute to tributary stream flows and restoring groundwater levels, and
- Maximize the beneficial uses of the District's water resources.

1.2 District Service Area and Study Area Boundaries

The District was formed in 1982 to provide water supply collection, treatment, and distribution; wastewater collection, treatment, and reuse; as well as storm drainage collection, disposal and flood control services for the community of Rancho Murieta. This community is located 20 miles east of Sacramento on State Highway 16. The area served by the District, which is also defined as the Study Area, is illustrated in Figure 1-1 and encompasses approximately 3,500 acres. Land uses within this service area include approximately 2,000 acres for single family residences, townhouses, apartments, duplexes and mobile homes. The District currently serves 2,604 connections comprised of 2,502 residential, 97 commercial, and 5 park connections. According to Sacramento County's approved Planned Unit Development Plan, the development of the District's service area represents a potential for roughly 5,189 residential units at buildout.

The District's potable water supply consists of seasonal diversions from the Cosumnes River to three off-stream storage reservoirs (Calero, Chesbro, and Clementia). The Cosumnes River flows into southern Sacramento County, joining the Mokelumne River in San Joaquin County and emptying into the Sacramento-San Joaquin Delta. In addition to providing surface water supply, the Cosumnes River helps to recharge the Central Sacramento County Groundwater Basin (Central Basin).

The District's Wastewater Reclamation Plant (WWRP) and the majority of the recycled water alternatives considered in this Study are located within the District's service area, except for the "No Project" alternative which is located immediately south of the Study Area and is comprised of irrigation of pasturelands and other unimproved areas.

1.3 Project Sponsors

The non-federal sponsor is defined as being the entity, or entities, that construct, own, operate, and maintain all or a portion of the recommended project to be funded in part by a Title XVI grant. The non-federal sponsor of the proposed Recycled Water System Expansion Project (Project)[2] is the District.

[2] See Chapter 4 for a description of the proposed Recycled Water System Expansion Project.

1.4 Report Organization

In general, this report is organized in accordance with the feasibility report outline described in the *Guidelines for Preparing, Reviewing, and Processing Water Reclamation and Reuse Project Proposals Under Title XVI of Public Law 102-575*.

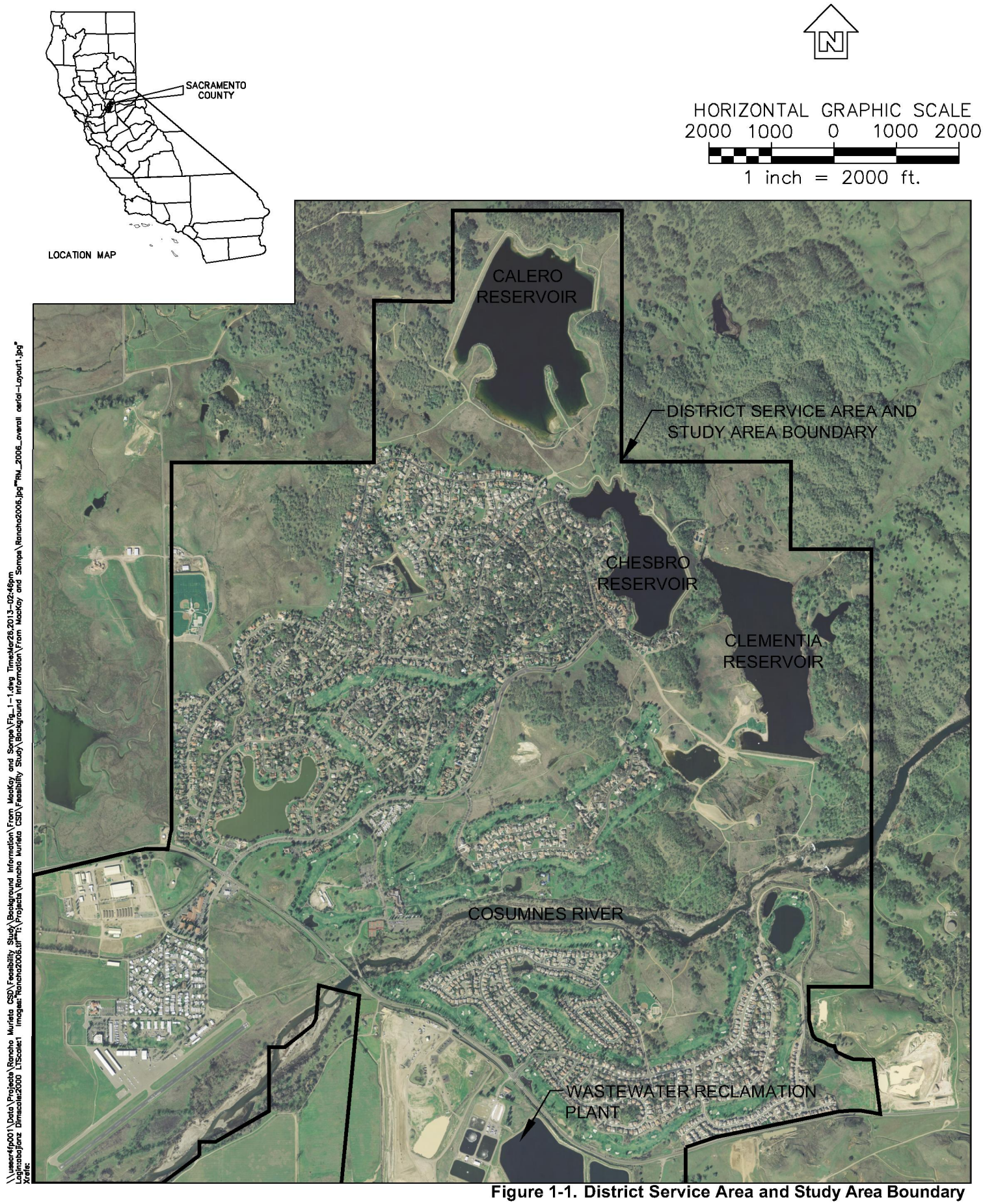


Figure 1-1. District Service Area and Study Area Boundary
Title XVI Recycled Water Feasibility Study

2 Problems and Needs

This chapter describes key water management problems, the benefits associated with the expansion of District's recycled water program, along with Study Area near- and long-term water demands and supplies and treated effluent disposal options.

2.1 Key Water Management Problems

According to the *2009 Water Plan Update*, California is facing one of the most significant water crises in its history. To overcome this crisis, there is a need to follow the principles of integrated water management to provide local, regional, and statewide benefits and to use water more efficiently, improve water quality and reliability, and integrate environmental stewardship into the various aspects of how we collectively manage our water resources. As described below, the Project proposed by the District addresses these needs and will illustrate to others how the expanded use of recycled water can contribute to resolving California's water crisis.

2.1.1 Local Benefits

The District initiated an integrated water master plan in 2005 to address potential drought deficits, improve storage reservoir aesthetics, and identify methods to encourage reductions in residential potable water demands. The plan was subsequently updated in 2010 to address changes in state legislation regarding water use targets and greenhouse gas emissions, federal and state guidance regarding recycled water use, and water supply reliability risks associated with climate change. The primary outcome of these studies was the recognition of the benefits (e.g., reduced costs and drought deficits,[3] environmental benefits, and improved storage reservoir aesthetics) recycled water could provide when used to offset potable water demands within the community as opposed to irrigation of agricultural lands located outside of the District's service area.

2.1.2 Regional Surface and Ground Water Benefits

The Cosumnes River watershed is located within the Sacramento-San Joaquin Basin. This particular watershed has been a major focus of conservation efforts and has been identified as a priority for ecosystem protection and restoration by the California Bay-Delta Authority (formerly CALFED), the USFWS Anadromous Fish Recovery Program, and the Sacramento County (as part of the Sacramento County General Plan). The Cosumnes River channel and its associated floodplain are major sources of recharge for the Central Basin. The Central Basin has experienced declining groundwater levels which have adversely affected the river's fishery, (e.g., salmon), wildlife, recreational, and aesthetic values.

Although the Cosumnes River can be considered relatively small with respect to its length (approximately 80 miles) and watershed area (approximately 1,265 square miles), it is far more important than its size would indicate given that:

- This particular river is the only remaining unregulated river (e.g., no major dams) on the western slope of the Sierra Nevada Mountain Range which allows frequent and regular winter and spring over bank flooding which fosters the growth of native riparian vegetation and helps to sustain wildlife dependent on these riparian habitats.
- This particular river flows through and supports one of the biologically richest regions in California's Central Valley before merging with the Mokelumne River, and
- This particular river recharges the Central Basin and contributes a significant amount of water to the Sacramento-San Joaquin Delta (Delta).

It is estimated that the proposed Project will reduce annual Cosumnes River diversions by approximately 450 acre-foot per year (AFY) under both normal and drought conditions.

2.1.3 Statewide Benefits

The Delta faces multiple challenges related to ecosystem health, water quality, climate change, and water supply reliability. In late 2008, the Governor of California proposed a comprehensive water plan to address long-term water supply needs. The

[3] See Section 2.3 for drought deficit estimations.

Project is directly and consistently aligned with the actions needed to (1) deal with California's dwindling water supply, (2) aggressively promote water programs that stretch California's available potable water supplies, and (3) contribute to the long-term recovery of the Central Basin and Delta and Cosumnes River ecosystems.

The Water Control Plan for the Sacramento River and the San Joaquin River Basins, Fourth Edition (Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin and incorporates plans and policies adopted by the State Water Resources Control Board. The Basin Plan encourages water recycling as a means to conserve and reduce demands on ground and surface water supplies; postpone, or eliminate costly investments for the development of new sources of water supply; enhance water supply reliability during drought; and reduce or eliminate treated effluent surface water discharges.

The District's proposed recycled water system expansion would:

- Reduce future Cosumnes River diversions,
- Offset potable water demands by approximately 370 AFY and conserve surface water supplies,
- Help the District meet the 20x2020 Water Conservation Goals,
- Provide opportunities to serve other potential users along the recycled water transmission pipeline alignment,
- Support regional water planning efforts,
- Provide a sustainable and long-term means for treated effluent disposal that is directly linked to strengthening the local economy,
- Increase water supply reliability and reduce drought deficits,
- Reduce greenhouse gas emissions as well as the District's overall carbon footprint due to reduced potable water diversions and treatment requirements,
- Contribute to the statewide recycled water goals and demonstrates the District's willingness to manage its available resources in a responsible and progressive manner, and
- Contribute to the recovery of the Central Basin and Delta and Cosumnes River ecosystems.

2.2 Water Supplies

The District's water supplies consist of surface water diverted from the Cosumnes River and recycled water as described below.

2.2.1 Surface Water Diversions

The District's potable water supply consists of seasonal diversions from the Cosumnes River that are normally diverted to and stored in three surface storage reservoirs (Calero, Chesbro, and Clementia – see Figure 1-1). These three reservoirs have an estimated total combined storage volume of 5,132 acre-foot (AF) with flashboards, of which 4,732 AF is considered to be usable for domestic and commercial potable water purposes. The District's water rights permit, 16762, includes the following stipulations:

a. Surface water can be diverted from the Cosumnes River into the District's storage reservoirs between November 1 and May 31. This diversion season coincides with the critical fall period as well as the period in which over bank flooding is most likely to occur.

b. Diversions are limited as follows:

   i. No water may be diverted when river flows are less than 70 cubic feet per second (cfs).

   ii. For river flows between 70 and 175 cfs, a maximum diversion rate of 6 cfs is allowed provided this diversion does not reduce downstream flow below 70 cfs,

   iii. When river flows exceed 175 cfs, diversion of up to 46 cfs is allowed for direct use plus an additional 3,900 acre-ft (AF) for storage as follows:

      1) 1,250 AF to Chesbro Reservoir.

      2) 2,610 AF to Calero Reservoir.

3) 850 AF to Clementia Reservoir.
4) 40 AF to South Golf Course Lake 10.

iv. The combined amount of items 2, 3, and 4 cannot exceed 2,650 AFY.

v. The total amount of water taken from the Cosumnes River cannot exceed 6,368 AFY from October 1 to September 30.

Water right permit 16762 was issued in 1969 and amended in 1980. In 2001, the permit was renewed and extended with no new permit requirements through 2020 in consideration that the community was not at full buildout. Given California's current economic circumstances, it now appears likely that in 2020 the community will not have reached buildout and the permit will need to be extended again.

In 1976 and 1977, California experienced the driest single year drought span on record. This drought also represented the driest three year sequence drought event (1976, 1977, and 1978). The California Water Code in Section 10632 (a) mandates planning for water suppliers with more than 3,000 connections, or 3,000 acre-ft, served to use the single worst year in historical record and the driest three year sequence. Given that the District has nearly reached 3,000 connections,[4] the District has decided to follow the above described state mandate planning criteria (e.g., single worst year and driest three year sequence for drought planning purposes).

2.2.2 Recycled Water

The District owns and operates the Rancho Murieta Wastewater Reclamation Plant (WWRP) which provides wastewater treatment and disposal/recycled water services for the entire Study Area. Raw wastewater sources are residential homes and commercial facilities such as stores and restaurants which serve the community. There are no industrial dischargers in the Study Area.

The WWRP consists of a secondary wastewater treatment facility and a tertiary treatment plant. Wastewater undergoing secondary treatment is stored in two storage reservoirs before undergoing tertiary treatment during the dry season. The tertiary treatment facilities consist of two dissolved air flotation units, two rapid sand filters, a chlorine contact chamber and pipeline, and concrete lined equalization basin. The tertiary treatment plant produces treated effluent meeting Title 22 requirements for *Disinfected Tertiary Recycled Water*.

The tertiary treatment plant is generally operated each year from April through November. During the winter, secondary treated effluent is stored in the WWRP's two storage reservoirs which have a total capacity of 756 AF. After undergoing tertiary treatment, recycled water is pumped to the two golf courses located within the Study Area, stored in five reservoirs situated around the golf courses, and subsequently used for golf course irrigation throughout the dry season. Depending on demands, recycled water may be supplemented with raw water from the Cosumnes River. At buildout, all water used for golf irrigation will be recycled water. Currently, annual recycled water production is about 455 AFY. Based on historic irrigation demands, the golf courses require approximately 550 AFY of water based on average levels of precipitation (i.e. approximately 23 inches of rainfall per year).

2.3 Current and Projected Water Demands

Figure 2-1 shows the future developments planned within the District's Service Area and Table 2-1 shows the estimated number of residential, commercial, and park connections associated with current, infill, and future developments. As shown in Figure 2-1 and Table 2-1, the District anticipates two development phases; the first (Phase 1) is comprised of the 670 units which have been approved for development by Sacramento County. The second development phase (Phase 2) represents the addition of approximately 1,200 units. The exact timing of the Phase 1 development is dependent upon the local economy. However, for planning purposes, it has been assumed, based on discussions with District staff and the local developers, that occupancy of the Phase 1 residential developments will begin in 2016 and will extend through 2019. It is anticipated that occupancy of second development phase (Phase 2) will be initiated when the majority of the Phase 1 residential units have been occupied. Therefore, occupancy of the Phase 2 residential developments is assumed to begin in 2020 and extend through 2026.

Table 2-2 presents a summary of potable water supply sources and current and projected water demands for normal and drought conditions. These estimates were obtained from the District's Integrated Water Master Plan Update (October 2010)

[4] The District will exceed the State's applicable criteria when the additional 670 units already approved by Sacramento County are constructed.

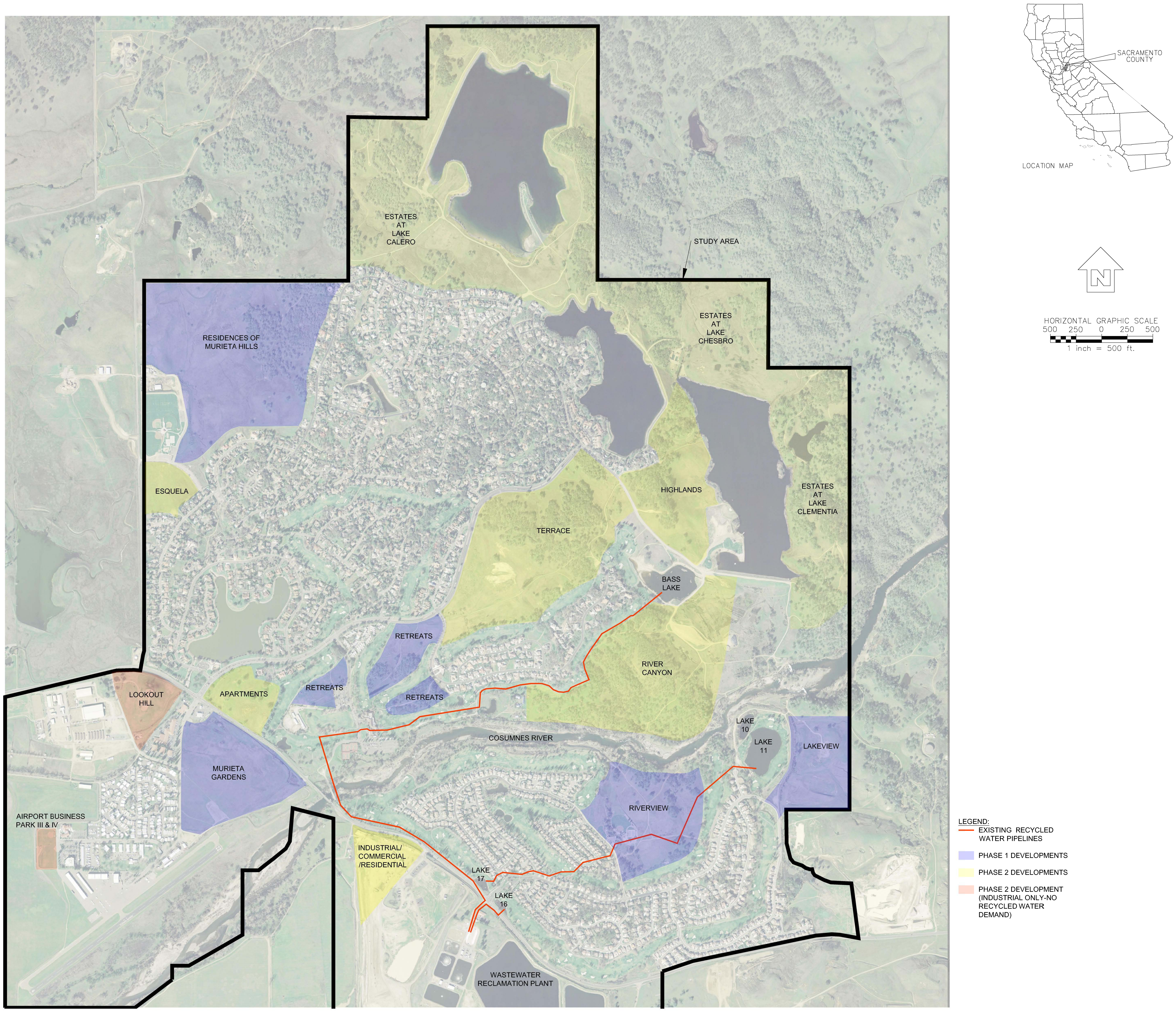

SACRAMENTO COUNTY
LOCATION MAP
STUDY AREA
HORIZONTAL GRAPHIC SCALE
500 250 0 250 500
1 inch = 500 ft.
N
ESTATES AT LAKE CALERO
ESTATES AT LAKE CHESBRO
RESIDENCES OF MURIETA HILLS
ESQUELA
HIGHLANDS
ESTATES AT LAKE CLEMENTIA
TERRACE
BASS LAKE
RETREATS
RIVER CANYON
LOOKOUT HILL
APARTMENTS
RETREATS
RETREATS
COSUMNES RIVER
LAKE 10
LAKE 11
LAKEVIEW
MURIETA GARDENS
RIVERVIEW
AIRPORT BUSINESS PARK III & IV
INDUSTRIAL/ COMMERCIAL /RESIDENTIAL
LAKE 17
LAKE 16
WASTEWATER RECLAMATION PLANT
LEGEND:
EXISTING RECYCLED WATER PIPELINES
PHASE 1 DEVELOPMENTS
PHASE 2 DEVELOPMENTS
PHASE 2 DEVELOPMENT (INDUSTRIAL ONLY-NO RECYCLED WATER DEMAND)

Figure 2-1. Future Phase 1 and 2 Developments
Title XVI Recycled Water Feasibility Study

and are associated with the level of development shown in Figure 2-1. Water supply estimates account for system losses, direct rainfall and runoff, reservoir evaporation and seepage losses, compliance with California's Water Conservation Act (Senate Bill X7-7), and the District's mandatory drought water rationing measures.

Table 2-1. Existing and Projected Number of Connections at Buildout

Condition/Development Phase	Residential Units	Commercial Units	Parks	Total
Current Conditions	**2,502**	**97**	**5**	**2,604**
Infill	**44**			**44**
Phase 1 Development	**620**	**50**	**1**	**671**
Lakeview	99			
Murieta Gardens	99	50	1	
Residences of Murieta Hills	198			
Retreats	84			
Riverview	140			
Phase 2 Development	**1,028**		**1**	**1,029**
Apartments	170			
Esquela	40		1	
Estates of Calero	139			
Estates of Chesbro	78			
Estates of Clementia	94			
Highlands	110			
Industrial/Commercial/Residential	100			
River Canyon	120			
Terrace	177			
Total	**4,194**	**147**	**7**	**4,348**

Table 2-2. Current and Projected Water Demands

Sources of Supply	Current Conditions (AFY)		Future (Buildout) Conditions (AFY)	
	Normal Supply	Drought Supply	Normal Supply	Drought Supply
River Diversion (Potable Supply)	6,370	1,680	6,370	1,680
River Diversion (Golf Course)	95	95	0	0
Recycled Water[a]	455	455	920	920
Total Firm Supply	**6,920**	**2,230**	**7,290**	**2,600**
Conservation Savings (SB7 Compliance)	0	0	910	910
Voluntary/Mandatory Rationing	0	0	0	1,320
Total Planned Supply	**6,920**	**2,230**	**8,200**	**4,830**
Water Demands				
Residential and Non-Residential	1,905	1,905	3,660	3,660
Unaccounted for Water	715	715	890	890
Golf Course	550	465[b]	550	465[b]
Total Estimated Demand	**3,170**	**3,085**	**5,100**	**5,015**

[a] Assumes the beneficial reuse (e.g., potable water offset) of the District's treated effluent/recycled water.

[b] Golf course irrigation practices will be modified during extreme dry years to reduce demands by 15 to18 percent as described in the *Delivery and Use of Recycled Water at the Rancho Murieta Country Club* (May 2010).

Comparison of the planned supplies and demands indicate that the District has adequate water supplies to meet projected demands under all conditions except for future drought conditions. Under this particular condition and assuming that the

Project was implemented, it is estimated that a 185 AFY deficit would occur. If the District decides to implement the No Project Alternative (as described in Chapter 4) the estimated drought deficit would increase to 635 AFY.

2.4 Potable Water Treatment Improvements

The District's first water treatment plant (Plant 1) was constructed in 1975. Plant components and processes include a drum screen, flash mixing, flocculation and sedimentation, traveling bridge filtration, chlorine disinfection, and booster pumps. The second water treatment plant (Plant 2) was constructed in 1988 and has similar components and processes as Plant 1.

In 1995, both Plants 1 and 2 were retrofitted to meet the Surface Water Treatment Rule. Since then, the plants have generally operated well and provide approximately 3.2 MGD of total combined capacity. According to the District's Annual Water Report to the California Department of Public Health, the maximum day demand in 2009 was estimated to be 3.4 MGD. However, since that time, demands appear to have been reduced due to the economic downturn and water conservation programs initiated by the District.

The District recently initiated the use of polyaluminium chloride to address taste and odor concerns. Prior to this recent change, there have been no concerns regarding the quality of water currently produced at either of the water treatment plants. However, to ensure adequate potable water supply for development, the District will initiate the Phase 3 Water Treatment Plant Expansion Project. Components associated with this project include raw water improvements and expanding the capacity of Plant 1.

It is anticipated that a Plant 2 expansion project (the Phase 4 Water Treatment Plant Expansion Project) will be required further in the future to serve development. It has been estimated that once these improvement projects are completed, the firm capacity of the District's water system will be on the order of 7.0 million gallons per day (MGD). However, if the proposed Project (e.g., expanded recycled water use for residential front and backyard irrigation) was to be implemented, the amount of capacity associated with the later improvement project could be reduced by 1.2 MGD. This estimated reduction in WTP capacity is based on historic 2009, 2010, and 2011 golf course irrigation demands. During these years, the average peak month irrigation demand was equal to 31 percent of the total annual recycled water demand.

2.5 Wastewater Treatment and Disposal Improvements

The wastewater treatment and disposal improvements listed below are required to accommodate growth within the community. As described later in Chapter 3, the majority of these improvements and their associated costs have been described in previous studies and reports. Where deemed appropriate, these descriptions served as the basis for developing the most plausible methods for upgrading the existing pastureland irrigation system (Alternative 1 as described in Chapter 4) and expanding the existing recycled water program (Alternative 2 as described in Chapter 4). However as part of this Study, each improvement and their associated costs was adjusted to reflect (1) the key design criteria described in this Study, (2) similar operating and performance requirements such as reliability, redundancy, and regulatory compliance, and (3) appropriate costs associated with administrative, engineering, and regulatory and environmental compliance. Attempts to minimize or optimize the costs associated with Alternatives 1 or 2 have not been conducted as part of this Study so that the two alternatives can be compared to one another with respect to a common level of service. Moreover, the minimization or optimization of costs is beyond the scope of this Study. It is anticipated that a detailed review of each improvement, which shall include cost minimization/optimization, associated with the recommended alternative will be conducted as part of a later effort.

- **Disinfection Facilities Upgrade:** The existing chlorine contact disinfection facilities have a rated capacity of 2.3 MGD, which is less than the rated capacity of 3.0 MGD provided by the other secondary and tertiary treatment processes within the WWRP. To address this issue, the District will be initiating an upgrade to their disinfection facilities by adding 195,000 gallons of chlorine contact basin capacity to increase its rated capacity to 3.0 MGD. This specific improvement will be made by installing concrete walls within the existing equalization basin.

  The timing of this upgrade project is dependent upon development. However, the assumed timing for Phase 1 and 2 developments requires this project to be initiated in late 2014 and completed by the end of 2015. Estimated construction and project (capital) costs associated with this particular upgrade are $930,000 and $1,300,000, respectively. Once the disinfection facilities upgrade project has been completed, the rated treatment capacity of the WWRP will be 3.0 MGD, which is adequate to accommodate the community through buildout.

- **Seasonal Storage Expansion:** Approximately 240 AF of additional seasonal storage capacity is required to accommodate projected growth within the community. However, the assumed timing for Phase 1 and 2 developments requires this project to be initiated in mid- to late-2018 and completed by the end of 2019 when average dry weather flows to the WWRP approach 0.67 MGD. Estimated construction and project costs associated with this expansion are $6,840,000 and $9,750,000, respectively. Costs associated with this particular improvement are based on locating this new storage facility in the southwest corner of the existing WWTP site.

- **Treated Effluent Disposal / Recycled Water Capacity Expansion:** Preliminary development estimates indicate that golf course irrigation will provide adequate treated effluent disposal capacity through the year 2017, when treated effluent production is expected to exceed 550 AFY. To provide additional treated effluent disposal capacity to serve future development, the District is considering the following two alternatives to provide additional treated effluent disposal capacity or expanded recycled water use:

  - **Upgrading Existing Pastureland Irrigation System:** In 2007, the District entered into a temporary agreement with a nearby land owner (Van Vleck Ranching and Resources, Inc.) to dispose of excess treated effluent. This excess effluent had accumulated in the secondary storage ponds over an extended period of time in which the WWRP's disinfection facilities had to be taken out of service for improvements. The land owner has expressed interest in continuing to receive recycled water deliveries indefinitely. Recycled water is currently supplied to the pastureland through a temporary aboveground piping network. In order for the District to implement this option long-term, the Central Valley Regional Water Quality Control Board has indicated that the District must (1) undergo a formal California Environmental Quality Act (CEQA) compliance and review process and (2) upgrade the existing piping network and pumping system to reflect Title 22 compliance and long-term use.

    Estimated construction and project costs associated with implementing the first of three improvement phases associated with this treated effluent disposal alternative are $3,290,000 and $4,280,000, respectively. The timing of this alternative is defined by the District's Waste Discharge Requirements Order No. R5-2009-0124, which allows use of the Van Vleck Ranch for a limited term through December 31, 2014.

    Approximately 150 acres of additional land disposal area are required to accommodate projected growth within the community. The timing of this expansion is dependent upon future growth rates. However, the assumed timing of Phase 1 and 2 developments requires this expansion to be initiated in mid- to late 2020 and completed by the end of 2021. Estimated construction and project costs associated with the second and third improvement phase are $5,740,000 and $7,460,000, respectively. More detailed descriptions of these improvements are presented in Section 4.

  - **Expansion of Existing Recycled Water Program to Serve Residential Homes:** This alternative assumes expansion of the District's existing recycled water program to serve future residential developments for front and backyard irrigation and irrigation of existing parks, roadway medians and commercial landscaping where deemed to be cost effective by the District. A more detailed description of this alternative and its estimated costs are provided in Chapters 4 and 5.

Regardless of which treatment effluent disposal / recycled water capacity expansion alternative is selected, both the disinfection facilities upgrade and seasonal storage expansion projects are required to accommodate projected growth within the Study Area.

3 Recycled Water Opportunities

This chapter describes the opportunities and sources for the expanded use of recycled water within the Study Area as well as a description of the existing recycled water program and the applied recycled water production technologies.

3.1 Potential Recycled Water Uses

The following projects were initiated by the District to identify and compare potential methods to dispose of treated effluent and/or use recycled water to serve future recycled water customers within the Service Area. Ultimately potential recycled water uses were identified through the execution of these separate but interrelated projects as described below.

3.1.1 Wastewater Facilities Expansion and Financing Plan[5]

This project was initiated in 2006 to identify the wastewater treatment, storage, and disposal improvements necessary to accommodate growth within the community through buildout. The following alternatives were identified and compared as part of the project:

- Spray field irrigation of nearby pasturelands
- Recycled water irrigation of new residential developments and parks
- Seasonal surface water discharge of excess treated effluent
- Connection (regionalization) to Sacramento Regional County Sanitation District

3.1.2 Integrated Water Master Plan[6] and Integrated Water Master Plan Update[7]

The Integrated Water Master Plan (IWMP) was initiated in 2005 to address the projected drought deficits, improve storage reservoir aesthetics, and identify methods to encourage reductions in residential potable water demands. A total of ten strategies/components were identified to alleviate drought deficits, including the following three which dealt specifically with treated effluent disposal/expanded recycled water use:

- Expand recycled water program to offset potable water demands based on serving existing and future urban demands (residential, commercial, parks, common area irrigation)
- Exchange treated effluent/recycled water for groundwater
- Recharge local aquifer with recycled water

Workshops, open to the public, were held as part of the project to review preliminary findings and results and to identify and describe potential components and strategies that could achieve the project goals.

The IWMP Update was completed in 2010 and addressed changes in state legislation regarding water use targets and greenhouse gas emissions, federal and state guidance regarding recycled water use, and water supply reliability risks associated with climate change. The primary outcome of these studies was the recognition of the benefits (e.g., reduced costs and environmental impacts and improved storage reservoir aesthetics) recycled water provided when used to offset potable water demands within the community as compared to irrigation of agricultural lands located outside of the District's service area.

[5] Completed July 2007
[6] Completed November 2006
[7] Completed October 2010

3.1.3 Recycled Water Feasibility Study[8]

The project was initiated in 2009 to identify future recycled water customers and provide the District and its Board of Directors (Board) with a better understanding of the specific steps necessary to expand the existing recycled water program. A total of four public workshops were conducted with the District's Board to present and discuss the recycled water program description, administrative structure, infrastructure standards and regulatory compliance, and program implementation.

The primary outcomes of this study were the determinations that:

- Retrofitting existing residential units to accommodate front and backyard recycled water irrigation would be cost prohibitive
- Some existing commercial and urban irrigation accounts located near the existing recycled water conveyance systems could be served cost-effectively
- At that time, the maximum potential commercial and urban recycled water irrigation demand was estimated at 140 AFY, which is considerably less than the demand needed to accommodate the District's long-term treated effluent disposal needs. Based on this finding, it was decided that the District's primary focus of the expanded recycled water system would be on serving future residential developments.

3.1.4 Direct and Indirect Potable Reuse

Water agencies have expressed interest in defining the guidelines and criteria needed to implement direct and indirect potable reuse due to increasing water scarcity, the limits of current conventional water supplies, and need for water agencies to maximize beneficial use of all available water resources. Although neither of these options is currently permissible at this time, the status of both direct and indirect potable reuse were reviewed as part of this Study to determine whether either of these options may represent a viable alternative for long-term effluent disposal in the future. For the purposes of this Study, direct potable reuse (DPR) is defined as the introduction of purified municipal wastewater into a water treatment plant intake or directly into the water distribution system. Indirect potable reuse (IPR) is defined as the planned incorporation of purified municipal wastewater into an environmental buffer (e.g., aquifer or storage reservoir) for a specified period of time before being withdrawn for subsequent potable water treatment and distribution purposes. In DPR, the purified municipal wastewater is not placed into an environmental buffer.

To address the increased interest expressed by water agencies, California's Governor signed Senate Bill 918 into law in September 2010. This bill requires the California Department of Public Health (CDPH):

- Adopt uniform water recycling criteria for IPR for groundwater recharge by the end of 2013. The bill also requires that if an expert panel convened pursuant to the bill finds that the criteria for surface water augmentation would adequately protect public health, criteria for surface water augmentation must be developed by the end of 2016.
- Investigate the feasibility of developing regulatory criteria for DPR and provide a final report on that investigation to the Legislature by the end of 2016.

Preliminary assessments of the IPR and DPR options indicate that the configuration of the District's existing raw water storage and recycled water conveyance systems could be modified for IPR via surface water augmentation cost-effectively and potentially eliminate the need for seasonal storage. Currently, there are no recycling criteria addressing IPR via surface water augmentation in which to determine water and/or wastewater treatment requirements. However, surface water augmentation has previously been addressed in *A Proposed Framework for Regulating the Indirect Potable Reuse of Advanced Treated Reclaimed Water by Surface Water Augmentation in California* (California Potable Reuse Committee, 1996). The committee that wrote the framework concluded that planned IPR of advanced treated recycled water via surface water augmentation would not adversely affect drinking water quality if the following conditions were met:

- Approved advanced wastewater treatment processes have been applied (e.g., oxidation process followed by reverse osmosis membrane treatment)
- All relevant water quality standards are achieved.

[8] Completed June 2009

- Advanced treated recycled water is retained in a storage reservoir for sufficient time before treatment in a water treatment plant.
- Downstream drinking water treatment operations will not be negatively impacted.
- There are multiple barriers for the removal of pathogens and toxic chemicals. The report states that source control of discharges into the wastewater collection system, conventional wastewater treatment, membrane treatment, disinfection, reservoir retention, and surface water treatment are effective physical and chemical barriers.

The authors of the 1996 report considered the following six criteria to be critical for IPR:

- Application of best available technology in advanced wastewater treatment with the treatment plant meeting operating criteria.
- Maintenance or appropriate retention times based on reservoir dynamics.
- Maintenance of advanced wastewater treatment plant operational reliability to consistently meet primary microbiological, chemical and physical drinking water standards.
- Surface water augmentation projects using advanced treated recycled water must comply with applicable State of California criteria for groundwater recharge for direct injection with recycled water.
- Maintenance of reservoir water quality.
- Provision for an effective source control program.

The second criterion listed above calls for a reservoir retention time. A required retention time to provide adequate response time to identify treatment failures and implement mitigation measures/actions and/or provide some level of additional treatment via an environmental buffer has not yet been specified by the CDPH. Thus, discharges of recycled water into a raw water reservoir for IPR will be influenced by a science-based regulatory decision regarding the minimum retention time determined by the CDPH. This decision is complicated by the realities of reservoir hydrodynamics, particularly short-circuiting during reservoir turnover. The City of San Diego is conducting studies that will provide information to be considered by the CDPH in these deliberations. There will likely be similar concerns that will need to be addressed for direct potable reuse to be considered as an acceptable means to supplement drinking water supplies.

CDPH has developed and released draft regulations for groundwater recharge using recycled water (Draft GWR Regulations; last updated in November 2011) which provide guidance in establishing permitting criteria for IPRs. In addition to compliance with drinking water standards, the Draft GWR Regulations establish additional requirements for IPR projects such as control of contaminants, treatment standards, and monitoring requirements. Of importance to the District with respect to IPR via surface water augmentation is the need to monitor chemicals of emerging concern (CECs) (which would increase routine monitoring costs) and the removal of pathogens. According to the Draft GWR Regulations, the wastewater treatment train must consist of at least three separate treatment processes and the wastewater used for recharge must receive treatment that achieves at least 12-log enteric virus reduction, 10-log *Giardia* cyst reduction, and 10-log *Cryptosporidium* oocyst reduction. Based on these removal requirements, a review of wastewater processes currently being considered by CDPH for groundwater recharge for direct injection with recycled water, and the treatment requirements descried in the Draft GWR Regulations, it appears likely that the existing WWRP would have to be modified to incorporate conventional activated sludge followed by tertiary filtration, microfiltration, reverse osmosis, and UV disinfection/advanced oxidation processes. Given the costs associated with these improvements, IPR does not appear to be cost-effective at this time. However, it is recommended that the District continue to monitor the regulatory and implementation status of both IPR and DPR to determine when, or if, this approach becomes economically attractive.

3.1.5 Comparison of Alternatives and Recommended Course of Action

For each of the studies listed above, potential treated effluent disposal/recycled water alternatives were compared with respect to economic and non-economic factors. Both seasonal surface water discharge and regionalization were eliminated from further consideration due to timing and economic factors. Specifically, the implementation of seasonal surface water discharge would have required the District to obtain a NPDES discharge permit, construct and fund the outfall and associated pumping

facility well ahead of development, and could result in the need to significantly modify the WWRP in the foreseeable future to meet more stringent discharge requirements. Regionalization was eliminated because costs were significantly higher than the other competing alternatives.

The use of recycled water for residential irrigation was selected by the District's Board as the preferred alternative and recommended course of action because of the following comparison results and perceived benefits:

- **Economic Comparison:** Preliminary conceptual level cost estimates indicate that expansion of the existing recycled water program to serve future development (residential, park, commercial landscape irrigation) and existing parks, roadway median, and commercial landscape areas are approximately equal to the costs associated with the other competing alternatives based on installing a new recycled water conveyance system.

  As part of this Study, the irrigation of relatively small land parcels, such as roadways medians and commercial landscaping areas was revisited. It was determined that serving these particular recycled water uses may not be cost-effective if (1) accurate as-build drawings of the existing irrigation system are unavailable and increased costs associated with complying with recycled water identification and cross-connection control requirements are anticipated, (2) significant alterations are required to the use area in order to reduce the potential for recycled water ponding and/or runoff and satisfy setback and/or irrigation system requirements, and (3) significant piping improvements are needed to serve recycled water to the irrigation area. Based upon these considerations, the recycled water system improvements described in Chapter 4 focused on serving future developments associated with new residential homes and the irrigation of existing roadway medians and commercial landscaping areas was not considered further in this Study. However, it is recommended that the District consider these and other existing areas for potential recycled water use on a case-by-case basis as part of the future facilities planning effort.

- **Water Rights Permit 16762:** Condition 26 of the District's primary water right promotes the use of recycled water for irrigation purposes.

- **Financial Benefits:** It is anticipated that Rancho Murieta residents will receive indirect financial benefits due to (1) reduced raw water diversion and potable water treatment operations and maintenance costs, (2) maximizing the use and life span of the WWRP, (3) being regulated by recycled water based waste discharge requirements which have been perceived as being more consistent than surface water discharge requirements over the past 10 to 15 years, and (4) the potential reduction in scope for the Phase 4 Water Treatment Plant Expansion Project.

- **Fish and Wildlife Benefits:** The expanded use of recycled water for residential irrigation results in decreased surface water diversions from the Cosumnes River and Delta and increased potential for recharge of the Central Basin. Other environmental benefits include decreased wastewater discharges and the associated potential risk of surface water degradation.

- **Reduced Fertilization Needs:** Recycling treated effluent for landscape irrigation results in the beneficial reuse of both the water and associated nutrients (i.e. nitrogen and phosphorus) for landscape fertilization. For example, at the projected irrigation rate of 2.95 ft/year, it is estimated that recycled water provides an equivalent nitrogen load of 4 to 6.5 lb-N/1,000 sf-year which is comparable to recommended fertilization rates of 4 lb N/1000 sf per application for established lawns.

- **Reduced Greenhouse Gas Emissions:** The wastewater will be treated to a specific water quality standard regardless of the chosen disposal method. However, decreased potable water production, and thus lower greenhouse gas emissions, is associated with the expansion of the existing recycled water program.

3.2 Implementation Considerations and District's Recycled Water Policy

Many recycled water projects do not move forward due to lack of public acceptance and relatively high costs. More specifically, the construction of advanced wastewater treatment facilities coupled with the installation of seasonal storage and separated potable and recycled water conveyance and distribution systems often make recycled water projects cost-prohibitive when compared to other potential sources of supply. The District has attempted to proactively address obstacles that may inhibit the expanded use of recycled water by (1) adopting a Recycled Water Policy, (2) leveraging the existing recycled water conveyance system serving the North and South Golf Courses, (3) meeting with the developer stakeholders

responsible for funding the expanded recycled water system, and (4) meeting with the state agencies responsible for permitting and regulating recycled water use as described below. However, as described in Chapter 2, attempts to minimize or optimize the costs associated with Alternatives 1 or 2 have not been conducted as part of this Study so that the two alternatives can be compared to one another with respect to a common level of service. It is anticipated that a detailed review of each improvement, which shall include cost minimization/optimization, specific to the recommended alternative will be conducted as part of a later task.

- **Recycled Water Policy:** In July 2011, the District's Board adopted a policy regarding the use of recycled water. A copy of this policy is included in Appendix A for reference. This policy requires the following:

  - Future use of recycled water, wherever economically and physically feasible, as determined by the District's Board, for non-domestic purposes when such water is of adequate quality and quantity, available at a reasonable cost, not detrimental to public health, and not injurious to plant life, fish, and wildlife. The type of use is defined by Title 22 of the California Code of regulations. In general, the lands subject to mandatory recycled water use are defined as undeveloped parcels within the existing Service Area.

  - Irrigation of existing parks, roadway median, and commercial landscaping areas may be converted to recycled water wherever economically and physically feasible, as determined by the District's Board. As previously described, it is recommended that recycled water irrigation of existing roadway medians and commercial landscaping be determined on a case by case basis once the recommended residential developments for service, and the general alignment of their associated recycled water conveyance system, have been identified.

- **Leveraging Existing Recycled Water System:** The Project relies upon the use of the existing conveyance systems shown in Figure 3-1 for recycled water conveyance and distribution. These existing systems currently deliver recycled water from the WWRP to the North and South Golf Courses. As illustrated in the next chapter, infrastructure requirements needed to serve future residential developments with recycled water can be minimized by leveraging the capacities readily available in these two systems.

- **Stakeholder Partnering:** District staff have met with the local development community and regulatory agencies (e.g., Central Valley Regional Water Quality Control Board (RWQCB) and CDPH) during the development of this report to (1) describe the proposed expanded recycled water program; (2) identify data and information (e.g., development timelines, phasing, parcel sizes, water supply needs, etc.) pertaining to the specific developments shown in Figure 2-1, (3) identify and discuss specific items which may be problematic from the standpoints of development and regulatory compliance, and (4) discuss potential methods for reducing costs.

  With regard to public acceptance, it is the District's impression that the proposed Project has been well received by the community. Moreover, in addition to having a drought proof water supply for irrigation, it is anticipated that future recycled water customers will save money as recycled water rates are typically priced at about 80 to 90% of potable water rates. It is likely that this anticipated savings will be greater in times of drought when the District has its Drought Management Plan in effect.

3.3 Water, Wastewater, and Recycled Water Jurisdiction

As previously described, the District has sole jurisdiction related to potable water supply and wastewater treatment within the Study Area. Both the District and the Rancho Murieta Country Club have jurisdiction related to the existing use of recycled water within the Study Area. For the Project, it is envisioned that the District would have sole jurisdiction related to the use of recycled water for front and backyard irrigation of future residential units as well as the potential irrigation of existing parks, roadway medians and commercial landscaping.

3.4 Source of Water To Be Recycled

The source of the District's recycled water is treated effluent from its WWRP. The WWRP currently receives approximately 0.5 MGD of residential and commercial wastewater from the Service Area. There are no known industrial contributions to the District's wastewater. In the future, the WWRP is projected to receive approximately 0.9 MGD based on the level of development shown in Figure 2-1.

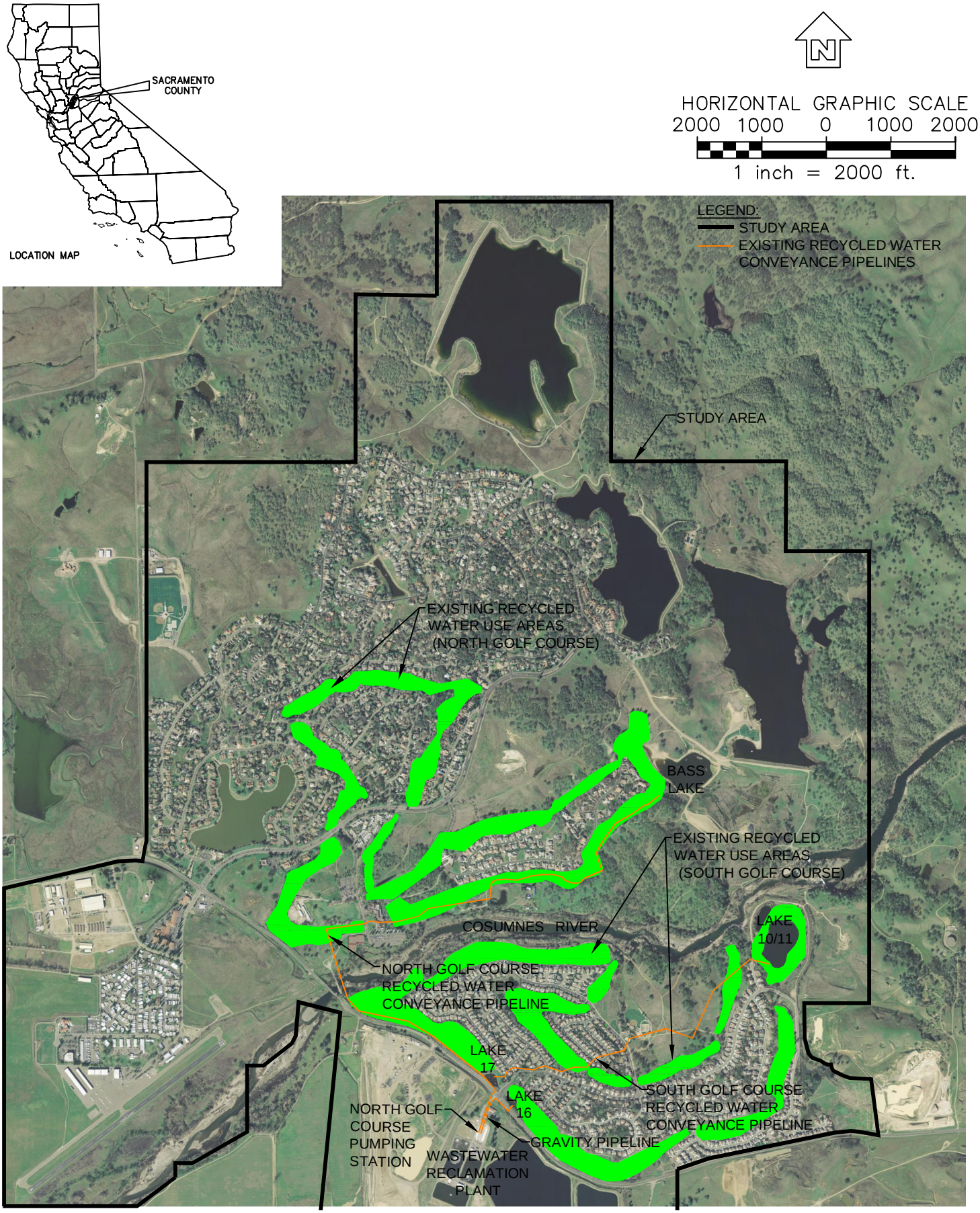


Figure 3-1. Existing Recycled Water System and Use Areas
Title XVI Recycled Water Feasibility Study

3.5 Recycled Water Uses and Associated Water Quality and Treatment Requirements

Recycled water has been used for residential landscape irrigation in California since the early 1990s. In 1999, Serrano, a master-planned community located approximately 20 miles north of the District's service area in El Dorado Hills, became the first community in California, and among the first in the nation, to provide recycled water for irrigation of residents' front and back yards. Other agencies that have dual plumbed residences include the Irvine Ranch Water District in Orange County; Rancho California Water District in Riverside County; City of Windsor, California; and City of Pompano, Florida.

The proposed Project will deliver recycled water for landscape irrigation of new residential homes and existing parks, roadway medians, and commercial accounts. The recycled water will be treated to meet *Disinfected Tertiary Recycled Water* standards as described by the California Code of Regulations, Title 22, Chapter 3, Water Recycling Criteria (Title 22). This level of treatment is accepted by the applicable regulatory agencies for the intended uses. In addition, the Project is supported and encouraged by California's Recycled Water Policy and is permissible under the State Water Resources Control Board's General Recycled Water Permit (WQO No. 2009-006-DWQ).

The District has over 20 years of experience as a recycled water producer and distributor. The proposed Project will be an expansion of the District's existing and successful recycled water program which serves the two existing golf courses located within the community as described below.

3.5.1 Existing Wastewater Treatment and Recycled Water Systems

The District owns and operates the WWRP which receives domestic wastewater from the Study Area and has produced tertiary effluent used for golf course and landscape irrigation since the mid-1980s. The WWRP is designed to treat an annual average flow of up to 1.55 MGD. Currently annual average wastewater influent flows are approximately 0.5 MGD. The rated capacity of 1.55 MGD is adequate to serve the level of development originally envisioned at buildout (approximately 5,200 units). This buildout projection has since been reduced to approximately 4,348 units as described in Table 2-1.

The WWRP consists of both a secondary wastewater facility and a tertiary treatment plant. Wastewater receives secondary treatment through five aerated facultative ponds that are operated in series. Secondary effluent is conveyed into two large reservoirs which store the secondary effluent during the winter season when recycled water is not needed or produced. The two storage reservoirs have a combined capacity of 756 AF. The tertiary treatment system consists of a tertiary pumping station, dissolved air flotation units, sand filters, a chlorine contact basin and pipeline, and a pumping station which serves recycled water to the North Golf Course. The capacity of tertiary treatment plant is currently limited to 2.3 MGD by the chlorine contact basin and pipeline. Once the capacity of this particular process is expanded, the rated capacity of the tertiary treatment plant will be increased to 3.0 MGD. The existing 2.3 MGD capacity is sufficient to meet current recycled water demands. It has been estimated that the 3.0 MGD capacity will be sufficient to meet buildout recycled water demands associated with Alternatives 1 and 2 as described in Chapter 4.

Following secondary and tertiary treatment, the treated effluent is beneficially reused through the irrigation of two golf courses. All of these existing reuse areas are located within the Study Area. The total combined irrigation area and demand of the two golf courses is estimated to be 250 acres and 550 AFY, respectively. Currently recycled water deliveries provide 455 AFY and the remaining 95 AFY golf course demands are met through raw water deliveries from the Cosumnes River. The WWRP is operated under Waste Discharge Requirements Order No. 5-01-124 (WDR) which was issued by the RWQCB. As described in the WDR, the recycled water produced by the WWRP meets the *Disinfected Tertiary Recycled Water* standards and is acceptable by the applicable regulatory agencies for the intended uses.

The existing WWRP has sufficient capacity, is approved by the CDPH and RWQCB, and produces recycled water of a quality suitable for the proposed Project. The WWRP operations and maintenance (O&M) costs are considered relatively low compared to more recently developed recycled water production technologies. For example, membrane filtration often requires more energy due to significantly higher headloss (e.g., pumping) and ballasted flocculation requires higher dosages, and the constant addition, of chemicals (e.g., polymer and alum). The need for these additional resources could be problematic from the standpoint of public acceptance given that both energy and chemical addition impact greenhouse gas emissions as well as treatment costs. Given these considerations, coupled with the fact that the continued use of the existing WWRP would minimize capital and O&M costs associated with the proposed Project, no alternative treatment technologies are deemed necessary.

4 Description of Alternatives

This chapter describes the alternatives that were considered to meet current and projected water demands and treated effluent disposal needs. As described previously, the two alternatives considered for implementation were upgrading the existing pastureland irrigation system (Alternative 1) and expanding the recycled water service program (Alternative 2). Alternative descriptions which include physical, institutional, and operational requirements along with construction and project cost estimates associated with major structures, facilities, infrastructure, etc. are presented below.

4.1 Upgrading Existing Pastureland Irrigation System (Alternative 1)

This alternative represents the "No Project" alternative and reflects the reasonable and foreseeable actions taken by the District to meet the projected potable water supply and treated effluent disposal needs of the Study Area. This alternative assumes that the existing recycled water program is not expanded within the community beyond satisfying the irrigation demands of the two golf courses (e.g., limited to 550 AFY) and that treated effluent beyond this amount is used offsite for pastureland irrigation. Specific improvements associated with this alternative are described below. Table 4-1 lists the estimated construction and project costs associated with the following improvements.

- Undergo a formal environmental review process for long-term treated effluent disposal on nearby pasturelands in accordance with the CEQA,
- Upgrade the existing pipeline conveyance (approximately 5,850 lineal feet of 12-inch diameter pipe) and pumping systems to reflect long-term use and Title 22 requirements,
- Expand the treated effluent disposal system in the future to irrigate an additional 150 acres of pasturelands (through the installation of approximately 12,000 lineal feet of 12-inch diameter pipe),
- Provide an additional 1.2 MGD of potable water treatment capacity to serve projected peak month residential irrigation demands in the future,
- Replace the existing recycled water pumping station currently serving the South Golf Course with a 640 gallon per minute (gpm) facility, and
- Install the disinfection facilities upgrade and seasonal storage expansion as described in Section 2.5. These particular improvements are common to both alternatives.

As shown in Table 4-1, the total estimated project cost for this alternative is approximately $24 million. Improvements common to both alternatives represents a little more than 50 percent of this total estimated costs. Detailed cost estimates associated with each of the improvements listed in Table 4-1 are attached in Appendix B for reference.

There are a few distinct differences between the two alternatives with respect to administrative and annual operation and maintenance (O&M) requirements. These differences are described below.

- There are differences in the anticipated repair and replacement costs associated with the pipeline conveyance systems and increased water treatment plant capacity. Estimated O&M costs for these particular assets are assumed to be equal to 2.5 and 1 percent of the costs associated with these improvements, respectively.
- Higher O&M costs associated with the production of additional potable water supply to satisfy future residential front and backyard irrigation demands are anticipated for Alternative 1. The estimated average potable water production

Table 4-1. Estimate of Probable Construction and Project Costs for Alternative 1

Improvement Project	Estimate of Probable Costs		Timeline When Improvement is Required to Be in Service
	Construction ($)	Project (Capital) ($)	
Improvements Specific to Alternative 1			
Spray Field Improvements	3,290,000	4,280,000	January 1, 2015
Phase 1 Spray Field Expansion	2,470,000	3,210,000	2020
Phase 2 Spray Field Expansion	3,270,000	4,250,000	2022
Subtotal	**9,030,000**	**11,740,000**	
Improvements Common to Both Alternatives			
Seasonal Storage	6,840,000	9,750,000	2020
Disinfection Facilities Upgrade	930,000	1,300,000	2016
South Golf Course Pump Station	900,000	1,240,000	2015
Subtotal	**8,670,000**	**12,290,000**	
Total	**17,700,000**	**24,030,000**	

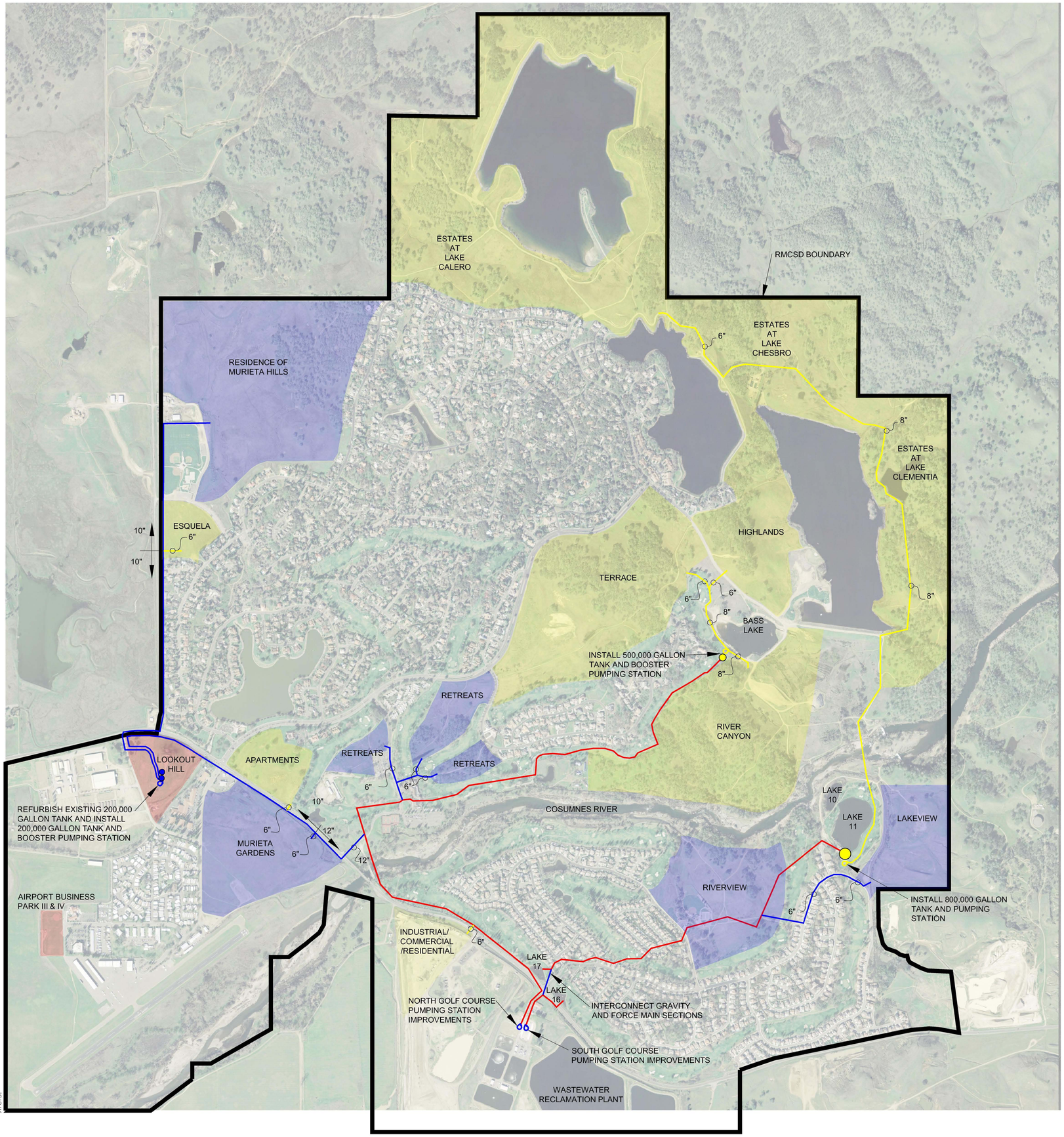
costs for the past three years[9] is $999.5 per acre-ft. Growth projections indicate that recycled water production will exceed combined demands of the North and South Golf Courses in 2018. During that year, approximately 30 AF of excess recycled water would be available. It is estimated that the full 370 AF of excess recycled water would be available in 2026 and beyond.

- The District entered into an agreement with Van Vleck Ranching and Resources, Inc. to supply treated effluent for irrigation of pasturelands located on portions of the Van Vleck Ranch. The District has expressed a desire to maintain the ability to send treated effluent to these pasturelands in the future; albeit under unusual circumstances and as a last resort. In order to maintain the ability to use this backup disposal method long-term, the District would have to modify their agreement with Van Vleck Ranching and Resources, Inc. and file for and obtain approval from the RWQCB for long-term use as part of their master reclamation permit.

4.2 Expanding Recycled Water Program to Serve Future Residential Irrigation (Alternative 2)

This alternative assumes the District expands its existing recycled water program to serve future residential developments and existing parks, roadway medians, and commercial landscaping. As shown in Figure 4-1, the existing recycled water conveyance system would be expanded through the addition of recycled water pipelines, pumping stations, and storage tanks to serve future developments. For the purposes of this Study, it was assumed that Stonehouse Park would be served with recycled water for irrigation purposes in the future. It is likely that other existing parks, roadway medians, and commercial landscaping located adjacent to the existing and proposed recycled water pipelines would also be served with recycled water. However, it is recommended that this determination be made as part of a future effort once the general alignment of the expanded recycled water conveyance system has been determined. Alternative 2 consists of the installation of up to 6.8 miles of underground recycled water transmission pipelines ranging from 6- to 12-inches in diameter and up to three new recycled water storage tanks assuming that all residential developments are served recycled water.

[9] Fiscal years 2009-10, 2010-11, and 2011-12.



N

HORIZONTAL GRAPHIC SCALE
500 250 0 250 500
1 inch = 500 ft.

LEGEND:
- EXISTING RECYCLED WATER PIPELINES
- PHASE 1 RECYCLED WATER IMPROVEMENTS
- PHASE 2 RECYCLED WATER IMPROVEMENTS

NOTE: RECYCLED WATER DISTRIBUTION SYSTEMS LOCATED WITHIN EACH FUTURE DEVELOPMENT ARE NOT SHOWN.

Figure 4-1. Proposed Recycled Water System Expansion (Alternative 2)
Title XVI Recycled Water Feasibility Study

\\usscr4fp001\Data\Projects\Rancho Murieta CSD\Feasibility Study\Background Information\From MacKay and Somps\Fig_4-1.dwg Time:Mar26,2013-10:06am
Login:abajanz Dimscale:500 LTScale:1 Images: V:\Projects\Rancho Murieta CSD\Feasibility Study\Background Information\From MacKay and Somps\Rancho2006 resample.jpg"
Xrefs:

The estimated total project cost of Alternative 2 is $30.8 million. However, the total estimated recycled water demand, assuming all residential developments are served with recycled water, is 1,050 AFY which exceeds the estimated 370 AFY of recycled water available for residential irrigation. Therefore, it has been determined that many of the residential developments will not be served recycled water due to their relatively higher estimated improvement costs. In order to determine which particular developments are to be served recycled water, each of the future developments were compared to one another with respect to estimated unit costs to deliver 1 AFY as described in Chapter 5.

Table 4-2. Estimate of Probable Construction and Project Costs for Alternative 2

Improvement Project	Estimate of Probable Costs		Timeline When Improvement is Required to Be in Service
	Construction ($)	Project (Capital) ($)	
Improvements Specific to Alternative 2			
Lakeview Pipeline (6-inch)	270,000	380,000	2016
Murieta Gardens (12- and 6-inch)	350,000	490,000	2016
Retreats (6-inch)	350,000	490,000	2016
Residences of Murieta Hills (10-inch)	2,170,000	3,040,000	2016
Lookout Hill Tanks and Pump Station	1,770,000	2,080,000	2016
North Course Pump Station	1,420,0000	1,700,000	2016
Industrial, Commercial, Residential (6-inch)	160,000	220,000	2020
Apartments (6-inch)	150,000	210,000	2020
Esquela (6-inch)	60,000	80,000	2020
Bass Lake Tanks and Pump Station	2,070,000	2,900,000	2020
River Canyon (8-inch)	90,000	130,000	2020
Terrace and Highlands (8- and 6-inch)	280,000	390,000	2020
Lake Estates (8- and 6-inch)	4,570,000	6,400,000	2020
Subtotal	**13,710,000**	**18,510,000**	
Improvements Common to Both Alternatives			
Seasonal Storage	6,840,000	9,750,000	2020
Disinfection Facilities Upgrade	930,000	1,300,000	2016
South Golf Course Pump Station	900,000	1,240,000	2015
Subtotal	**8,670,000**	**12,290,000**	
Total	**22,380,000**	**30,800,000**	

4.3 Treatment and Disposal Water Quality Requirements

There are no alternative technologies necessary for either alternative. The existing WWRP currently produces treated effluent meeting unrestricted use (e.g., Disinfected Tertiary standards) and has been approved by the CDPH and RWQCB for the intended uses associated with Alternatives 1 and 2.

4.4 Alternative Measures or Technologies

There are no alternative measures or technologies necessary for either alternative. The existing WWRP is approved by the CDPH and produces treated effluent of sufficient quality for the intended uses. Infrastructure components associated with Alternative 2 will be in conformance with all applicable CDPH requirements specific to recycled water systems.

5 Economic Analyses

This chapter describes the economic analyses that were developed to compare:

- **Unit Capital Costs to Serve Individual Developments:** Each of the future residential developments were compared to one another with respect to estimated unit project costs (e.g., $/AFY) for recycled water service. As described below, the results of this analysis served as the basis for recommending which particular developments would be served recycled water in the future.

- **Comparison of Competing Alternatives:** The two alternatives (Alternatives 1 and 2 as described in Chapter 4) were compared to one another with respect to total and incremental net present worth costs. The result of this analysis was used to determine which alternative was deemed to be more cost-effective.

5.1 Comparison of Capital Costs to Serve Individual Developments

Recycled water system improvements (see Figure 4-1) needed to serve future residential developments were identified. In general, these improvements were associated with recycled water conveyance (pipelines and pumping stations) and storage tanks to supplement recycled water production at the WWRP. Key criteria used to determine the improvements are described below:

- **Maximum Velocity in Recycled Water Mains:** To minimize pumping (energy) costs, a maximum velocity of 6 feet per second (fps) was used to size mains except for the existing 8-inch main serving the North Golf Course. The maximum velocity in this particular main was limited to 7 feet per second to satisfy the relatively high demand served by this particular asset.

- **Maximum Velocity in Recycled Water Pipelines Serving Individual Developments:** To minimize pumping (energy) costs, a maximum velocity of 5 fps was used to size new pipelines serving individual developments.

- **Minimum Pipe Diameter:** A minimum pipe diameter of 6-inches was assumed for all recycled water transmission mains (e.g., pipelines servicing individual developments).

- **Recycled Water Irrigation Schedule:** Both golf course and residential irrigation is assumed to occur over an 8 hour period; between the hours of 10 pm and 6 am to limit the public's potential exposure to recycled water in accordance with Title 22. This irrigation schedule is similar to that used by El Dorado Irrigation for the Serrano residential irrigation program.

- **Bass Lake and Lake16/17 Drawdowns:** During golf course irrigation, the maximum drawdown from these particular recycled water sources is limited to 6 and 4 inches, respectively. The WWRP and recycled water conveyance system must provide adequate production capabilities to refill these lakes on a daily basis during the peak month irrigation demand season.

- **Recycled Water Storage Tank Volume Requirements:** Recycled water storage requirements are equal to two times the difference between projected recycled water irrigation demands and the combined recycled water supply from the WWRP, WWRP Equalization Pond, Bass Lake, and Lakes 16 and 17. It is assumed that residential irrigation demands cannot be met using recycled water stored in Bass Lake or Lakes 16 and 17.[10]

[10] This assumption was made to accommodate CDPH's concerns described in their November 16, 2012 letter addressed to the District.

- **Booster Pumping Stations and Residential Development Distribution Systems:** It is assumed that individual booster pumping stations (if needed) and distribution systems specific to each development will be provided and paid for by the developers. These pumping stations will be used to boost the recycled water pressure to a level acceptable for service (in the range of 60 to 80 pounds per square inch (psi) measured at the residential recycled water meter). Costs associated with these particular stations and pipeline distribution systems are not included in any of the cost estimates described in this report.

Capital costs associated with each of the improvements shown in Figure 4-1 was assigned to a particular development or group of developments based on the area served by the improvement. For example, it is anticipated that a new 10-inch recycled water main and two 200,000 gallon storage tanks would be required to serve developments located in the west and northwest portion of the Study Area (e.g., Apartments, Esquela, and Residences of Murieta Hills). Capital costs associated with these particular improvements were assigned to these developments based on pipeline distance and projected recycled water demands. After assigning each of the improvements to a particular development or group of developments, the total project cost associated with each development was determined by adding the individual improvement cost allocations together. This sum was then divided by a development's projected recycled water demand. This factor ($/AFY) was then used to rank individual developments with respect to one another. Developments associated with lower $/AFY factors were deemed to be the most cost-effective to serve recycled water. Conversely, developments with higher $/AFY factors were deemed to be the less cost-effective. Calculations associated with this particular analysis are attached in Appendix B for reference.

In general, the developments deemed to be the most cost-effective (e.g., Industrial/Commercial/Residential, Murieta Gardens, Apartments, and Retreats) are located along the existing recycled water main serving the North Golf Course and require minimal pipeline improvements for service. The next most cost-effective developments were those located adjacent to Holes 3 through 8 of the North Golf Course (e.g., River Canyon, Terraces, and Highlands). Although these developments require a significant amount of improvements, recycled water demands projected for these particular developments are relatively high, thereby reducing the overall $/AFY factor to within a moderate level. The combined peak irrigation recycled water demands of these developments (e.g., Industrial/Commercial/Residential, Murieta Gardens, Apartments, Retreats, River Canyon, Terraces, and Highlands), the North Golf Course, Residences of Murieta Hills, and Esquela is equal to the estimated hydraulic capacity of the existing 12-inch North Golf Course Recycled Water Conveyance Pipeline. Therefore recycled water service to the other developments located in the north, northeast, and east (e.g., Estates at Lake Calero, Lake Chesbro, and Lake Clementia) must be provided by the South Golf Course Recycled Water Conveyance Pipeline. Higher $/AFY factors were associated with the following three development groups.

- **Estates of Lake Clementia, Chesbro, and Calero:** As shown in Figure 4-1, serving recycled water to these developments would require improvements to (1) the existing South Golf Course conveyance system and (2) extend the recycled water system by approximately 3.4 miles and adding storage and pumping facilities. Given the total combined capital costs attributed to these improvements, service to these three developments does not appear to be cost-effective.

- **Riverview and Lakeview:** Serving recycled water to these developments requires improvements to the existing South Golf Course conveyance system, more specifically connecting the gravity and force main portions of the existing conveyance system and installing a new, higher capacity pumping station. Given the relatively low recycled water demands associated with these two developments, service to these areas does not appear to be cost-effective.[11]

[11] It is anticipated that these developments could be served more cost-effectively if their source of recycled water supply could be drawn from Lakes 10, 11, 16, or 17. However, CDPH has expressed concerns with this methodology in their November 16, 2012 letter.

- **Esquela and Residences of Murieta Hills:** The conveyance system serving these two developments could be expanded to serve Stonehouse Park, which has an estimated recycled water demand of 14 AFY. With the addition of Stonehouse Park, this group of developments has a lower factor when compared to the two other developments listed in the two previous bullets. Given this outcome, it is recommended that these two developments be served with recycled water.

Table 5-1 lists the developments along with their projected wastewater flow and recycled water production contributions. This table also lists the projected recycled water demands associated with each development. Developments NOT recommended for recycled water service are shown in *italics*.

Table 5-1. Projected Recycled Water Demands

Condition or Development	Projected ADWF Contribution (MGD)	Projected Recycled Water Production (AFY)	Projected Recycled Water Demand (AFY)
Existing Conditions	0.51	455	550[a]
Existing Plus Infill	0.52	465	550[a]
Existing, Infill, and Phase 1 Developments			
Murieta Gardens	0.02		19.6
Retreats	0.02		18.8
Residences of Murieta Hills	0.04		73.8 / 84.2[a]
Riverview	*0.03*		*22.4*
Lakeview	*0.02*		*15.8*
Subtotal (rounded)	**0.65**	**620**	**670**
Existing, Infill, and Phases 1 and 2 Developments			
Indust/Com/Residential	0.02		50.9
Apartments	0.03		23.8
Esquela	0.01		25.9 / 29.6[b]
Terrace	0.03		59.9
Highlands	0.02		42.1
River Canyon	0.02		46.4
Estates at Lake Calero	*0.03*		*52.2*
Estates at Lake Chesbro	*0.02*		*29.4*
Estates at Lake Clementia	*0.02*		*31.7*
Total (rounded)	**0.90**	**920**	**920[b]**

[a] Combined demand of North and South Golf Courses based on normal levels of precipitation.

[b] Includes estimated Stonehouse Park irrigation demands of 14 AFY.

Comparison of projected recycled production and demands for the first three conditions (Existing, Existing Plus Infill, and Existing, Infill, and Phase 1 Developments) indicate the need for supplemental water to satisfy residential irrigation demands as the projected demand is greater than production. Following Phase 2 development, the recycled water demand and production is estimated to be in balance during normal levels of precipitation. It is anticipated that supplemental recycled water will be required during dry years and conversely, additional disposal capacity (e.g., conveyance to the Van Vleck Ranch for pasture irrigation) may be required for those years associated with high levels of precipitation.

5.2 Comparison of Alternatives 1 and 2

An economic analysis was conducted to compare Alternatives 1 and 2. This analysis was based on a 20-year life cycle and a discount rate of 6 percent, respectively, and the timeline in which individual potable water, wastewater, and recycled water/treated effluent disposal improvements are required to be in service to accommodate the assumed development timeline. In addition, the improvements and costs associated with Alternative 2 were revised to reflect the developments recommended for service in the previous section. A summary of the analysis results is presented below in Table 5-2. Calculations associated with this analysis are attached in Appendix B for reference.

The analysis results indicate that expanding the District's existing recycled water program to serve residential irrigation is more cost-effective than upgrading the existing pastureland irrigation system. Based on this finding, Alternative 2 is the recommended project described in the following chapter.

Table 5-2. Economic Comparison of Alternatives 1 and 2

Component	Alternative 1 – Upgrade Existing Pastureland Irrigation (No Project Alternative)	Alternative 2 – Expand Recycled Water Program to Serve Residential Irrigation
Costs Associated With All Wastewater, Recycled Water/Treated Effluent Disposal, and Differential Potable Water Improvements		
Base Project Costs ($)[a]	$21,585,000	$18,200,000
O&M Costs ($/yr)[b]	$250,000	$185,000
Net Present Worth Costs ($)	$24,430,000	$20,345,000
Relative (Savings) Difference (%)		16.7
Costs Limited to Differential Potable Water and Recycled Water/Treated Effluent Disposal Improvements		
Base Project Costs ($)[a]	$12,730,000	$9,345,000
O&M Costs ($/yr)[b]	$250,000	$185,000
Net Present Worth Costs ($)	$15,575,000	$11,490,000
Relative (Savings) Difference (%)		26.2

[a] Base (capital) costs are net present worth costs of Alternative 1 and 2 improvements.
[b] Value represents the 20-year average of relative O&M costs.

6 Recommended Improvements and Implementation Plan

This chapter describes the activities needed to implement the recommended project, including the recommended improvements and phasing, facility planning, environmental and regulatory compliance and permitting, coordination with ongoing programs, financing, stakeholder outreach, and a recommended implementation schedule.

6.1 Phasing of Recommended Facilities and Implementation Schedule

The improvements required for the recommended project would be time-phased to correspond with development. The following two phases have been established for the addition of facilities and implementation planning based on the assumed occupancy of Phase 1 and 2 residential developments.

- Phase 1: 2013 – 2015
- Phase 2: 2016 – 2019

The individual improvements required for the recommended plan are illustrated in Figure 6-1. A summary of the required facilities by phase is presented in Table 6-1 and the recommended implementation schedule is presented in Table 6-2. The schedule describes the recommended timelines required for all activities associated with plan implementation.

Table 6-1. Summary of Required Facilities for Recommended Plan

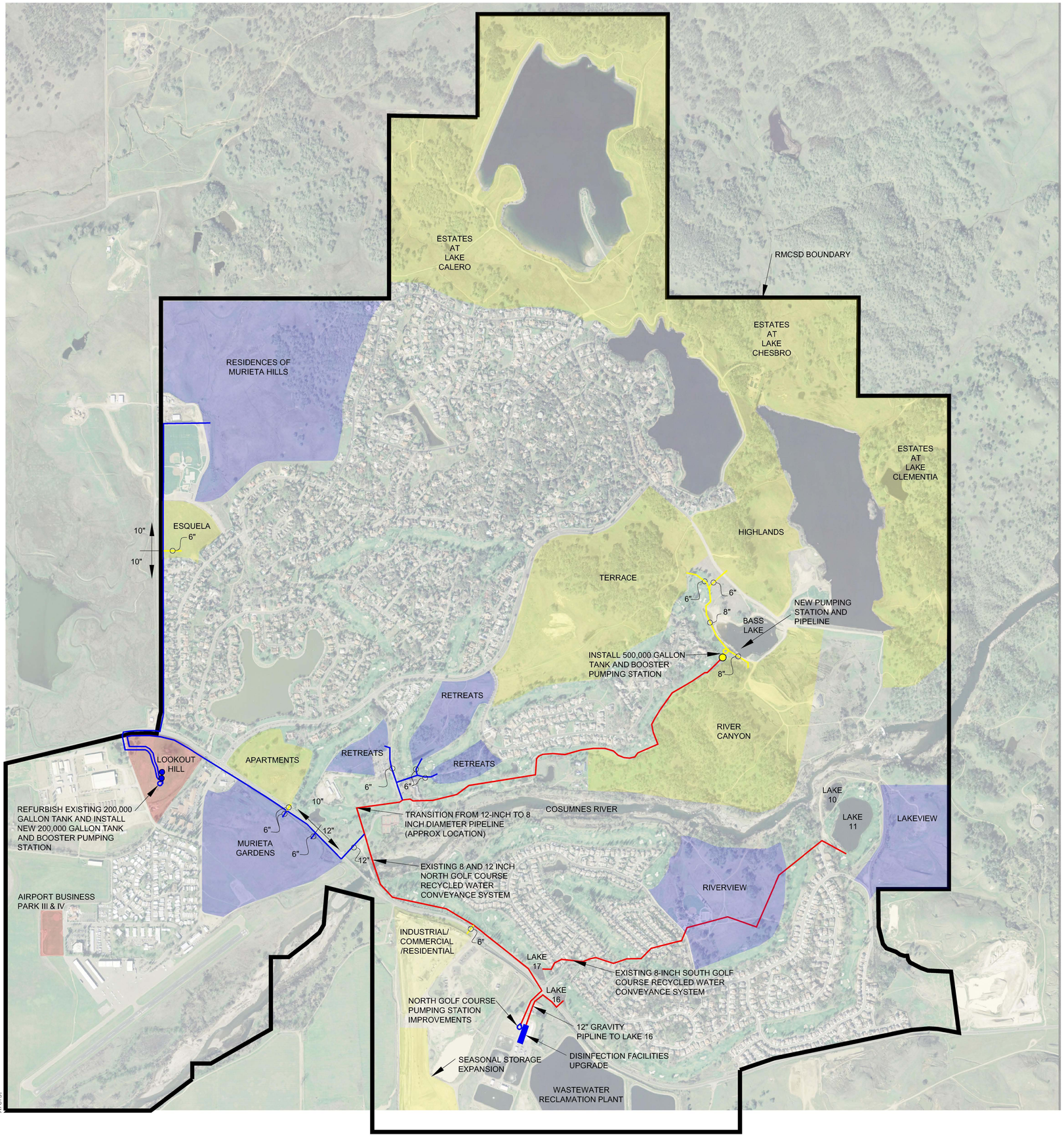
Facility / Improvement Description	Estimated Quantity	Estimate of Probable Project Costs ($)[a, b]
Phase 1, 2013 – 2015		
Disinfection Facilities Upgrade	195,000 gallons	1,300,000
North Golf Course Pump Station	2,110 gpm	1,700,000
Northwest Transmission Main	11,640 LF	3,530,000
Lookout Hill Tanks and Pump Station	400,000 gallons & 700 gpm	2,080,000
Retreats Service Main	1,725 LF	490,000
	Subtotal	**9,100,0000**
Phase 2, 2016 – 2019		
Seasonal Storage Expansion	240 AF	9,750,000
Industrial, Commercial, Residential	190 LF	220,000
Apartments Service Main	110 LF	210,000
Esquela Service Main	260 LF	80,000
North Conveyance System Extension	2,460 LF	520,000
Bass Lake Tanks and Pump Station	500,000 gallons & 1,040 gpm	2,900,000
	Subtotal	**13,680,0000**
	Grand Total	**22,780,000**

[a] Estimated project costs based upon ENR 20 City Average Construction Cost Index of 9437 (January 2013).

[b] Project costs include estimated construction costs and allowances for contingency, engineering, administration, and permitting.

6.1.1 Phase 1 Improvements

The following are descriptions of the recommended Phase 1 recycled water system improvements shown in Figure 6-1. The timing of these improvements is contiguous with the assumed occupancy timeline for the Retreats, Murieta Gardens, and Residences of Murieta Hills developments of 2016 through 2019.



HORIZONTAL GRAPHIC SCALE
500 250 0 250 500
1 inch = 500 ft.

LEGEND:
- EXISTING RECYCLED WATER PIPELINES
- PHASE 1 RECYCLED WATER IMPROVEMENTS
- PHASE 2 RECYCLED WATER IMPROVEMENTS

Figure 6-1. Recommended Improvements
Title XVI Recycled Water Feasibility Study

\\ussrc4fp001\Data\Projects\Rancho Murieta CSD\Feasibility Study\Background Information\From MacKay and Somps\Fig_6-1.dwg Time:Mar26,2013-10:02am
Login:abajanz Dimscale:500 LTScale:1 Images: "V:\Projects\Rancho Murieta CSD\Feasibility Study\Background Information\From MacKay and Somps\Rancho2006 resample.jpg"
Xrefs:

Table 6-2. Project Implementation Schedule

Step	Lead Agency and Primary Participants	2012 M J J A S O N D	2013 J F M A M J J A S O N D	2014 J F M A M J J A S O N D	2015 J F M A M J J A S O N D	2016 - 2025 16 20 25	Desired Outcome
1 Title XVI Feasibility Study	RMCSD						Determine (1) which developments are the most cost-effective to serve recycled water with respect to one another and (2) which alternative is most cost-effective (No Project or Expanded Recycled Water Program). Identify phased approach and infrastructure improvements to cost effectively serve existing commercial, park, and open space as well as future residential (dual plumbed) and commercial customers.
2 System Design Standards	RMCSD						Develop recycled water standards to serve future commercial and residential customers. Standards will serve as the basis for (1) preparing construction cost estimates and (2) communicating minimum recycled water system requirements to serve future developments and existing commercial areas.
3 Detailed Project Description / Facility Planning	RMCSD						Incorporate commercial irrigation areas, prepare hydraulic model, refine key aspects, and implement methods to reduce project costs for the proposed recycled water system. Project description to serve as the starting point for the CEQA and NEPA compliance effort as well as the Title 22 Engineering Report and Updated WDR.
4 Agency Coordination	RMCSD and RMCC						Identify roles and responsibilities for program participants as described by Title 22 (e.g., Producers, Distributors, and Users) and coordinate use of common infrastructure (e.g., recycled water conveyance systems, North Golf Course Pumping Station, etc.). Identify scheduling/timing constraints and key metrics (e.g., what constitutes success) for each participant. Conduct coordination meetings with Regional Board and CPDH to keep them informed and obtain feedback.
5 Regulatory Permitting							
5a Intended Use of Van Vleck Spray Field	RMCSD and Van Vleck Ranch						Submit a letter to the Regional Board describing the District's intended long-term use of the Van Vleck spray field to satisfy Article F. 12 of WDR R5-2009-0124. COMPLETED
5b CEQA and NEPA Compliance	RMCSD						Analyze potential environmental impacts associated with the implementation of the expanded recycled water program; satisfy CEQA and NEPA (if federal funding obtained) review requirements. Estimated cost is based on preparing initial study/mitigated negative declaration (CEQA) and environmental assessment/FONSI (NEPA).
5c Title 22 Engineering Report Preparation	RMCSD and RMCC						Prepare Title 22 Engineering Report. Recycled water use areas to include existing golf courses, commercial, parks, open space, Van Vleck spray fields, and future residential (dual plumbed) and commercial customers.
5d MRP and Updated WDR Application	RMCSD and RMCC						Complete Form 200 and prepare Report of Waste Discharge requesting the Regional Board's preparation of a Master Reclamation Permit (MRP) and Updated Waste Discharge Requirements (WDRs).
5e Salt and Nutrient Management Plan	RMCSD and RMCC						Prepare salt and nutrient management plan and antidegradation analysis specific to the expanded recycled water program.
5f Title 22 Engineering Report Review and Approval	RMCSD and RMCC						Submit Title 22 Engineering Report (completed in Step 5c) to CDPH and Regional Board for review and approval.
5g Updated WDR Review, MRP Negotiations and Adoption	RMCSD and RMCC						Submit Form 200 and Report of Waste Discharge (completed in Step 5d) to the Regional Board. Negotiate updated Waste Discharge Requirements (WDRs), Master Reclamation Permit (MRP), and monitoring requirements with Regional Board and CDPH staff.
6 Improvements to Existing Infrastructure							
6a Chlorine Contact Basin	RMCSD						Existing WWRP chlorine contact disinfection facilities has a rated capacity of 2.3 MGD, which is less than the 3.0 MGD capacity provided by the tertiary treatment facilities and required by the future recycled water system. Efforts associated with this task are based on planning, design, and construction a 195,000 gallon contact basin within the existing equalization basin.
6b Seasonal Storage Expansion	RMCSD						Install 240 acre-ft (AF) of additional seasonal storage capacity within the WWRP site. Efforts associated with this task are based on planning, design, and construction of new 240 AF storage, conveyance pipeline, and pumping facilities.
7* Detailed Design (Phase 1 RW Program)	RMCSD						Prepare preliminary design report and final hydraulic model, 60, 90, and bid documents (design drawings and specifications) of the proposed recycled water system infrastructure.
8* Bid and Award (Phase 1 RW Program)	RMCSD						Respond to questions from potential bidders, conduct pre-bid meeting, prepare addenda, evaluate bids, and recommend award.
9* Construction (Phase 1 RW Program)	RMCSD						Construct recycled water system expansion and administer contract for the installation of system infrastructure, provide construction management oversight / inspection, respond to contractor requests for information, prepare necessary change orders, review contractor submittals, and participate in construction meetings. Improvements to be limited to those needed to serve Phase 1 development (e.g., 670 Group).
10* Startup (Phase 1 RW Program)	RMCSD and RMCC						Verify that recycled water system operates and performs as designed; modify system to further enhance and optimize system operation and performance.
11 RMCSD Management and Administration							
11a Appoint Recycled Water Program Manager	RMCSD						Hire recycled water program manager. Specific duties to include pre-qualifying landscape designers and construction contractors, regulatory compliance, stakeholder interaction, and recycled water accounting.
11b Operations and Maintenance Plan	RMCSD						Develop operation and irrigation management plans pertaining to the expanded recycled water system.
11c Landscape Designers and Contractors	RMCSD						Compile a list of companies authorized to design and work on residential recycled water systems. Authorized companies shall have attended training (Step 11d) and shall be familiar with system design standards (Step 2) and other pertinent recycled water regulatory requirements.
11d Training (Orientation and Education) Program	RMCSD						Develop and conduct workshops. Target audience is future homeowners and landscape designers and contractors. Workshop content to include description of recycled water standards (Step 2), need to hire authorized companies (Step 11c), and the preparation of recycled water plans.
11e Inspection and Testing Program	RMCSD						Develop program to verify compliance with recycled water standards and regulatory requirements.
12 Public Outreach	RMCSD						Manage information and promote understanding and communication with key stakeholder groups, demonstrate organizational commitment, promote communication and public dialog, ensure fair and sound decision making, and build and maintain trust.
13 Expand RW System to Serve Phase 2 Development	RMCSD						Plan, permit, design, and construction recycled water system to serve expanded recycled water service area associated with Phase 2 developments.

Development of Deliverables
Ongoing Efforts Not Associated with Specific Deadlines or Milestones
Draft Deliverables
Final Deliverables

Footnotes

* Dates shown in this table are considered preliminary estimates and are based on Phase 1 and 2 development occupancy timeframes of 2016 and 2020, respectively. Actual timeframes will depend on actual residential and commercial development timeframes.

- **Disinfection Facilities Upgrade:** Currently the disinfection facilities have a rated capacity of 2.3 MGD, which limits recycled water production capabilities at the WWRP. It is recommended that these facilities be upgraded to provide a rated capacity of 3.0 MGD in accordance with Title 22 requirements.[12] The construction and capital costs estimated for this improvement are $930,000 and $1,300,000, respectively. These costs are based on installing a 195,000 gallon chlorine contact basin within the existing equalization basin.

- **North Golf Course Pumping Station Improvements:** Currently this facility is configured to pump recycled water to either the North Golf Course or the Van Vleck Ranch. The objectives of this improvement project are to (1) separate the functions of this station (one dedicated station for the North Golf Course and one dedicated for the Van Vleck Ranch) and (2) expand the firm capacity[13] of the pumping station serving the North Golf Course to 2,110 gpm. The 2,110 gpm flow rate represents the estimated capacity of the existing 12-inch recycled water pipeline serving the North Golf Course. The construction and project costs estimated for this improvement are $1,420,000 and $1,700,000, respectively. These costs are based on installing a new pumping station to serve the North Golf Course and having the existing station configured to serve Van Vleck Ranch.

- **Northwest Recycled Water Transmission Main:** The installation of a new 12- and 10-inch recycled water transmission main is recommended to serve future developments located along the northwest portion of Jackson Highway and Stonehouse Road. It is envisioned that this main will also serve recycled water to Stonehouse Park for irrigation as well as the Apartments and Esquela in the future. As shown in Figure 6-1, this transmission main will be connected to the existing 12-inch North Golf Course conveyance pipeline immediately north of the Yellow Bridge. It is recommended that a 12-inch highway undercrossing and transmission main be installed up to the point at which the Murieta Gardens development is served; beyond this point the transmission main can be reduced to 10-inch diameter. The lengths of the 12-inch and 10-inch pipelines are estimated to be 1,010 and 10,630 lineal feet, respectively. The construction and project costs estimated for this improvement are $2,520,000 and $3,530,000, respectively. These costs include the installation of 220 lineal feet of 6-inch diameter pipe to deliver recycled water to the Murieta Gardens development.

- **Lookout Hill Recycled Water Storage Tanks and Pumping Station:** The installation of recycled water storage tanks is recommended to supplement recycled water production capacities to satisfy peak irrigation demands. Peak demands associated with the Residences of Murieta Hills and Esquela developments require 200,000 gallons of supplemental recycled water during the 8 hour irrigation schedule described in Section 5.1. It is recommended that a total capacity of 400,000 gallons be provided based on the prescribed storage criteria. To minimize cost, it is recommended that the existing 200,000 gallon water storage tank, which is currently not in service, be rehabilitated and used for recycled water storage. In addition, a new 200,000 gallon storage tank would be installed at this site along with a 700 gpm pumping station needed to deliver recycled water to the developments located in the northwest corner of the Study Area. The construction and capital costs estimated for this improvement are $1,770,000 and $2,080,000, respectively.

- **Retreats Recycled Water Service Pipeline:** The installation of a new 6-inch diameter recycled water pipeline is recommended to serve the Retreats development. As shown in Figure 6-1, this pipeline will be connected to the existing 8-inch North Golf Course conveyance pipeline. The estimated length of this pipeline is 1,730 lineal feet. The construction and project costs estimated for this improvement are $350,000 and $490,000, respectively.

[12] For chlorine disinfection and *Disinfected Tertiary Recycled Water* production, Title 22 requires a minimum CT of 450 mg-min/L and 90 minute (minimum) modal contact time.
[13] The firm pumping capacity is defined as a station's capacity with the largest pump out of service.

6.1.2 Phase 2 Improvements

The following are descriptions of the recommended Phase 2 recycled water system improvements shown in Figure 6-1. The timing of these improvements is contiguous with the assumed occupancy timeline for the Esquela, Apartments, Industrial/Commercial/Residential, Terrace, Highlands, and River Canyon developments of 2020 through 2026.

- **Seasonal Storage Expansion:** Approximately 240 AF of additional seasonal storage is required to accommodate the Phase 2 developments. This facility is to be located within the existing WWRP site as shown in Figure 6-1. The construction and project costs estimated for this improvement are $6,840,000 and $9,750,000, respectively.

- **Industrial/Commercial/Residential Service Pipeline:** The installation of a new 6-inch diameter recycled water pipeline is recommended to serve this development. As shown in Figure 6-1, this pipeline will be connected to the existing 12-inch North Golf Course conveyance pipeline. The construction and capital costs estimated for this improvement are $160,000 and $220,000, respectively which include a highway undercrossing.

- **Apartments Service Pipeline:** The installation of a new 6-inch diameter recycled water pipeline is recommended to serve this development. As shown in Figure 6-1, this pipeline will be connected to the Northwest Recycled Water Transmission Main. The construction and capital costs estimated for this improvement are $150,000 and $210,000, respectively which include a highway undercrossing.

- **Esquela Service Pipeline:** The installation of a new 6-inch diameter recycled water pipeline is recommended to serve this development. As shown in Figure 6-1, this pipeline will be connected to the Northwest Recycled Water Transmission Main. The construction and capital costs estimated for this improvement are $60,000 and $80,000, respectively.

- **North Conveyance System Extension:** The installation of new 8- and 6-inch recycled water transmission mains is recommended to serve the Terrace, Highlands, and River Canyon developments. As shown in Figure 6-1, the proposed 8-inch transmission main will be connected to the existing 8-inch North Golf Course conveyance pipeline near Bass Lake. The construction and capital costs estimated for these improvements are $370,000 and $520,000, respectively.

- **Bass Lake Storage Tank and Pumping Station:** Peak demands associated with the recommended project require an additional 250,000 gallons of supplemental recycled water during the 8 hour irrigation schedule. It is recommended that a total capacity of 500,000 gallons be provided based on the prescribed storage criteria along with a new 1,040 gpm pumping station needed to deliver recycled water to the Terrace, Highlands, and River Canyon developments. The construction and capital costs estimated for this improvement are $2,070,000 and $2,900,000, respectively.

6.2 Facility Planning

The technical work completed for the Study provides the rational and framework for the recommended alternative and improvements. Preliminary locations of all new facilities are shown in Figure 6-1. Facility planning is required to develop hydraulic models of the existing and expanded recycled water delivery system, optimize and finalize facility locations and alignments, refine design criteria and sizing, identify land requirements, and update cost estimates. Following completion of facility planning, environmental and regulatory permitting efforts can commence as described in Table 6-2.

6.3 Environmental Compliance and Permitting

The recommended improvements will require compliance with the CEQA and possibly National Environmental Policy Act (NEPA) to evaluate the environmental impacts associated with the projects. The required environmental compliance documents should be initiated after facility planning and in conjunction with predesign. To facilitate implementation of recommended project, a programmatic environmental impact report should be considered as an initiate step.

Numerous federal, state and local permits will also be required for implementation. The required permits will be identified during the preparation of the predesign report and environmental compliance documents. A permitting strategy should be developed to minimize project delays and potential mitigation costs.

6.4 Coordination with Ongoing Projects and Programs

Implementation of the recommended project should be coordinated with other ongoing projects and programs. Specifically, expansion of the recycled water program should be coordinated with the development of the water conservation program, Phase 3 and 4 Water Treatment Plant Expansion Projects, and drought augmentation efforts.

6.5 Financing

The estimated project costs are summarized in Table 6-1. All costs are presented in 2013 dollars.

The recommended facilities should be incorporated into the District five-year capital improvement program in accordance with the proposed phasing plan. Specific project financing can then be addressed as part of the District's regular budgeting, rates and facility capacity charge program updates.

Furthermore, it is recommended that the District pursue additional funding through the United States Bureau of Reclamation Title XVI program. This program allows the Bureau to provide up to 25 percent matching grants for quality recycled water projects. The remaining 75 percent has to be provided by a non-federal source (the applicant). Grant funds can be used for many of the subsequent tasks described in Table 6-2 such as environmental and regulatory permitting, detailed design, and construction. One approach to obtaining Title XVI funding is through a Congressional write-in to the federal budget. This approach relies upon the local Congressional representative to initiate the budget request through Congressional review and approval of the President's budget. Although this approach has been successful for other California entities, it requires a significant level of assistance in Washington, D.C. A potential approach to reduce costs associated with the pursuit of Title XVI funding while increasing the potential for receiving grant funding is to join a coalition, such as the Sacramento Water Recycling Water Coalition and/or Western Recycled Water Coalition (formerly the San Francisco Bay Area Recycled Water Coalition).

6.6 Stakeholder Outreach

District staff has met with the local development community and regulatory agencies during the development of this report. Continued successful implementation of the recommended project will require ongoing, proactive stakeholder outreach. Two specific items that should be discussed during these future outreach efforts are described below.

- The CDPH has expressed concerns regarding the commingling of recycled water with surface water and local runoff prior to residential irrigation. It has been determined as part of this Study that routing recycled water directly to future residential customers and installing a storage tank and booster pumping station at Bass Lake would be the most cost-effective option for addressing CDPH concerns. The estimated cost associated with these particular facilities is

$2,900,000. It is recommended that the District attempt to change CDPH's position such that the storage tank is not required.

- Local developers have expressed concern that the recommended project may not be affordable. Attempts to minimize or optimize project costs associated with the implementation of the expanded recycled water program were beyond the scope of this Study. However, potential areas for cost reduction have been identified and are described in Appendix B. It is recommended that these areas of potential cost reductions be used as a starting point to determine methods for optimizing facility requirements and reducing the overall costs of the recommended project during the facility planning effort.

6.7 Implementation Schedule

A recommended implementation schedule has been presented in Table 6-2. This implementation schedule covers Phases 1 and 2. Future efforts and updates to the recommended project will provide opportunities for adjusting the timelines based on actual development schedules and other factors.

7 Environmental Considerations and Potential Side Effects

This chapter provides an overview of potential environmental effects associated with the recommended project. As described in Chapter 6, the recommended project is to expand the existing recycled water program to serve future residential homes for front and backyard irrigation and existing parks and commercial landscaping. The anticipated regulatory requirements and compliance measures associated with these particular uses are also described.

7.1 Potential Environmental Effects

As shown in Figure 6-1, the Project would tie into the existing 12- and 8-inch recycled water conveyance pipelines serving the North Golf Course. Environmental impacts from the Project would occur during construction and operation. However, the Project is not expected to have any potential significant environmental effects or involve unique or undefined environmental risks. Construction would involve activities such as site preparation, grading, excavation, and site restoration and would have relatively short-term, temporary impacts. The activities, and thus the extent of impact would vary with project components (e.g., treatment plant upgrades, pipelines, storage tanks, and pump stations). Project operation would involve the supply of recycled water for front and backyard and limited urban irrigation. A brief discussion of the nature of anticipated construction and operational impacts is provided below.

As described in California's Recycled Water Policy, "the State Water Board finds that the use of recycled water in accordance with this Policy, that is, which supports the sustainable use of groundwater and/or surface water, which is sufficiently treated so as not to adversely impact public health or the environment and which ideally substitutes for use of potable water, is presumed to have a beneficial impact. Other public agencies are encouraged to use this presumption in evaluating the impacts of recycled water projects on the environment as required by the California Environmental Quality Act."

7.1.1 Project Construction

Project construction impacts will be consistent with those of any construction project and are anticipated to include short-term impacts to hydrology and water quality, biological resources, cultural resources, land use, traffic and transportation, air quality, noise, utilities, and temporary access to existing facilities within the community. Because the majority of the proposed facilities would lie within the existing WWRP site, along roadways, or within areas to be developed, the impacts are anticipated to be minimal.

7.1.2 Project Operation

Project operation includes the distribution and use of recycled water for residential and urban irrigation. The Project will be consistent with the state, regional, and local policies that encourage recycled water use. The recycled water would be treated to a level stipulated under California Code of Regulations (CCR) Title 22 requirements and will be protective of the environment and public health. Overall, the Project will increase recycled water use thereby offsetting potable water use and reducing the amount of water diverted from the Cosumnes River.

7.2 Environmental Review Status and Requirements

Environmental compliance with the CEQA will be required prior to construction. Compliance with the NEPA will be required for the Project to receive federal funding or other federal approvals. Neither of these efforts has been initiated. However, an environmental constraints analysis will be completed within the next phases to gain a preliminary understanding of impacts associated with the Project. Communication with regulatory agencies (e.g., RWQCB and CDPH) will continue during all subsequent phases.

When the District is ready to move forward with the Project, it will prepare a checklist to document the evaluation of the proposed activity and would use the checklist to determine the appropriate type of tiered environmental review document. If

significant impacts are anticipated, then an Environmental Impact Report (EIR) would be prepared; if less-than-significant effects are expected to occur, a Negative Declaration would be prepared. In either case, the EIR or Negative Declaration will be completed before the completion of detailed design so that the Project can be modified to address environmental impacts and considerations.

7.3 Public Health and Safety

Project construction is expected to increase vehicular and truck traffic in the Project area. Short-term air emissions and increase in noise levels would occur in and around construction corridors. Construction activities may involve the use of hazardous materials during construction; however implementation of best management practices (BMPs) related to fueling, vehicle washing and handling, use, and storage of chemicals would minimize any risk to either workers or the public.

The use of recycled water is highly regulated in California by CCR Title 22. Project operation will include distribution and use of recycled water for residential and urban irrigation. The Project will be consistent with the state, regional, and local policies that encourage recycled water use. The recycled water will be treated at a level stipulated under Title 22 requirements and will be protective of the environment and public health.

7.4 Regional Water Supply and Water Quality

In terms of hydrology, water quality, and hazardous materials impacts, the proper implementation of BMPs will minimize any potential impacts to receiving waters and groundwater. Typical construction related BMPs include scheduling or limiting activities to certain times of the year based on hydrologic considerations, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction in good working condition.

The Project will increase the beneficial use of recycled water for residential and urban irrigation within the Study Area. This increased recycled water use will also increase the reliability of potable water supplies for the community as a whole in addition to residential and urban landscape irrigation. In turn, increased reliability in the community's potable water supply will help to alleviate concerns that surround the potential of future drought conditions. During times of drought, and as the community's population increases, the expanded use of recycled water for landscape irrigation will help reduce demand on existing potable water supplies by 370 AFY and save that potable water for other municipal and environmental uses.

The recycled water produced by the WWRP will meet Title 22 standards for unrestricted use. Having already implemented the use of recycled water for golf course irrigation, both the District and Rancho Murieta Country Club have adopted several mechanisms to manage the design and operation of the recycled water systems in order to safeguard the health and safety of the public and the environment. The environmental analysis of the alternatives prepared for the EIR or Negative Declaration will analyze these impacts in more detail and will include recommended mitigation measures, as necessary.

7.5 Public Involvement

As described in Chapter 3, the District initiated public outreach efforts to discuss the potential expansion of the existing recycled water program as part of this and other previous studies. As part of these efforts, the relative advantages and disadvantages of several competing alternatives were discussed in an open forum. The District intends to continue to solicit public input in a similar fashion during the environmental compliance and detailed design phases.

7.6 Historical Properties

Because the majority of the recycled water pipelines will be placed underground and along existing roads, no buildings or structures of historic significance are anticipated to be affected by the Project, directly or indirectly. Proposed improvements at the WWRP or selected offsite storage tank sites are not anticipated to affect historical properties either.

8 Legal and Institutional Requirements

This chapter describes legal and institutional requirements and potential barriers to implementing the Project.

8.1 Water Rights

In many recycled water programs, decreased or elimination of effluent discharge to waterways has the potential to affect the water rights of downstream users. In this Project, however, the District does not discharge effluent or plan to do so in the future. Therefore, the Project will not adversely affect water rights of downstream water users and there are no unresolved water rights issues potentially resulting from the implementation of the Project. In addition, the District has rights to all of the wastewater conveyed to and treated at the WWRP.

The District and some potential recipients of recycled water may be concerned that decreased use of their existing surface water supplies may jeopardize their surface water diversion rights. Past legal investigations into this issue has shown, however, that shifting from surface water to recycled water will not create the potential to lose the initial surface water right.

California Water Code Section 1010 asserts that no claim of water right (riparian, pre-1914 appropriative, post-1914 appropriative) will be reduced or lost as a result of the use of recycled water. The use of recycled water in lieu of surface water is equivalent to maintaining that right and will be a beneficial use. Section 1010 states:

> "(a) (1) The cessation of, or reduction in, the use of water under any existing right regardless of the basis of right, as the result of the use of recycled water, desalinated water, or water polluted by waste to a degree which unreasonably affects the water for other beneficial uses, is deemed equivalent to, and for purposes of maintaining any right shall be construed to constitute, a reasonable beneficial use of water to the extent and in the amount that the recycled, desalinated, or polluted water is being used not exceeding, however, the amount of such reduction.
>
> (2) No lapse, reduction, or loss of any existing right shall occur under a cessation of, or reduction in, the use of water pursuant to this subdivision, and, to the extent and in the amount that recycled, desalinated, or polluted water is used in lieu of water appropriated pursuant to Chapter 6 (commencing with Section 1375) of Part 2, the board shall not reduce the appropriation authorized in the user's permit." (California Water Code §1010(a))

California Water Code Section 13551 establishes that potable water shall not be used for nonpotable uses if suitable recycled water is available. The use of recycled water constitutes beneficial use under any existing water right. Section 13551 states,

> " A person or public agency, including a state agency, city, county, city and county, district, or any other political subdivision of the state, shall not use water from any source of quality suitable for potable domestic use for nonpotable uses, including cemeteries, golf courses, parks, highway landscaped areas, and industrial and irrigation uses if suitable recycled water is available as provided in Section 13550; however, any use of recycled water in lieu of water suitable for potable domestic use shall, to the extent of the recycled water so used, be deemed to constitute a reasonable beneficial use of that water and the use of recycled water shall not cause any loss or diminution of any existing water right." (California Water Code §13551)

8.2 Regulatory Requirements

Several State and Federal agencies have regulatory power over projects that affect water quality and sources of supply. Implementation of the Project will require coordination with such agencies, as well as with county and private agencies. Other than consultation with the RWQCB, CDPH, and the Rancho Murieta Country Club, no other consultation has occurred between the District and federal, state, regional, and local authorities during the development of this Study. Prior to Project implementation, consultation with the appropriate agency or agencies will be made, as deemed necessary. The Project will

meet all federal, state, and local requirements. It is anticipated the use of recycled water will be permitted by a master reclamation permit to be issued by the RWQCB.

Most, if not all, of the pipelines envisioned for the Project are proposed to be constructed within public roads or right-of-ways. Modifications and improvements to the WWRP as well as expansion of the seasonal storage facilities are proposed to be constructed within the current treatment plant area. Additional pump stations and storage tanks would be proposed to be sited such as not to disturb habitat or other area that could adversely impact endangered species, wetland, waters of the United States, etc. as described in federal, state, regional or local authority requirements.

8.2.1 Title 22 California Code of Regulations

According to Title 22 of the California Code of Regulations (CCR), recycled water can be used for landscape irrigation (residential and non-residential), wetlands, restricted and unrestricted recreational impoundments, landscape impoundments, toilet flushing, and industrial and construction applications. As described previously, all recycled water produced by the WWRP will be treated to the highest standard – *Disinfected Tertiary Recycled Water* as defined by Title 22. Treatment to this standard has been, and will continue to be, readily achieved using the existing WWRP.

In addition to defining recycled water quality requirements, Title 22 also sets requirements specific to dual plumbed recycled water systems, sampling and analysis, engineering report preparation, design and reliability, operations, and the protection of potable water systems.

8.2.2 California Water Code

Division 7 of the California Water Code is designated the Porter-Cologne Water Quality Control Act, which includes the permitting of wastewater treatment plants and water recycling facilities, as well as other water quality-related provisions. The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board and each Regional Water Quality Control Board as the principal State agencies with primary responsibilities for coordinating and controlling water quality and water rights in California. The Porter-Cologne Act is the primary implementation tool for California's responsibilities to regulate pollutant discharge as established under the Clean Water Act.

Division 7, Chapter 7.5 of the California Water Code (Code), also known as the Water Recycling Act of 1991, recognizes the interest to develop water recycling facilities to supplement existing surface water and groundwater supplies in order to meet the State's future water needs. The Code authorizes each regional board, after consulting with and receiving recommendations from the California Department of Public Health, to set requirements which may be placed on the entity reclaiming water, the user, or both, for water that will be used as recycled water. The Code establishes reporting and permitting requirements for the regional boards, which must work collaboratively with the CDPH. Additionally, it generally defines conditions under which recycled water may be used. The conditions for use include:

- If the source of recycled water is of adequate quality, which is determined by CDPH criteria, and does not harm plants, wildlife, and the public health;
- If recycled water may be furnished at a reasonable cost to the use; and
- If the use of recycled water will not adversely affect water rights.

8.2.3 Permits and Administrative Provisions

The RWQCB is assigned with the protection, coordination, and control of water quality within the Sacramento region and, therefore, is responsible for the issuance and enforcement of requirements given to producers, distributors, and users of

recycled water. The RWQCB issues Waste Discharge Requirements (WDRs) for activities which can affect groundwater quality, including recycled water discharges. In addition, Water Reclamation Requirements (WRRs) can also be issued to place conditions on recycled water use. Regional Water Quality Control Boards may issue Master Reclamation Permits (MRPs) in lieu of individual WRRs for projects involving multiple users. These MRPs are issued to a producer or distributor, or both, of recycled water and combine the WDRs and WRRs. It is the District's intent to apply for and obtain a MRP to cover all intended uses (e.g., residential, park, roadway median, commercial, and golf course irrigation). The process for applying for and obtaining approval is summarized below:

1. **Prepare and Submit Title 22 Engineering Report:** The preparation, submission, and approval of a Title 22 Engineering Report describing the manner in which the Project will comply with Title 22 will be required prior to initiating expanded recycled water use. The CDPH's guidance document, entitled *Preparation of an Engineering Report for the Production, Distribution, and Use of Recycled Water*, describes the information required for approval of recycled water projects. The report should contain sufficient information to assure the regulatory agencies that the degree and reliability of treatment is commensurate with the requirements for the proposed use, and that the use of the recycled water will not create a health hazard or nuisance. In general, CDPH is the primary regulatory agency that will review and approve this engineering report to ensure the protection of public health. However, it is likely that the RWQCB will also participate in this review and approval process.

2. **Prepare and Submit Report of Waste Discharge:** Agencies proposing to use recycled water must prepare and submit a Report of Waste Discharge (RWD) to the Regional Water Quality Control Board to identify potential impacts to surface water and groundwater. The RWD typically consists of a package containing a completed Form 200 (Application/Report of Waste Discharge), discharge characterization, site maps, an anti-degradation analysis, and water, salt, and nutrient (nitrogen) management plans.

As shown in Table 6-2 which was presented in the next chapter, the District intends to initiate the preparation of the Title 22 Engineering Report and Report of Waste Discharge later this year.

The District has initiated the process of developing administrative procedures and User Agreements to ensure Title 22 and, and in the future, MRP compliance. Once these procedures and agreements have been approved by the RWQCB, the District may authorize additional recycled water uses on a case-by-case basis in accordance with the MRP. Specific items to be developed by the District include recycled water system guidelines, design and construction standards, homeowner notification form, residential recycled water irrigation installation requirements, and inspection requirements pertaining to the proper installation and routine operations. Residential installation requirements will include the need to submit residential irrigation plans for District approval prior to initiating recycled water service.

8.3 Interagency Agreements

The Project will serve customers within the District's service area. Customers will be served through the use of the existing recycled water conveyance system, a portion of which is owned and operated by the Rancho Murieta Country Club. Therefore, an interagency agreement between the District and the Rancho Murieta Country Club will be required.

9 Financial Capability of Sponsor

This chapter describes the implementation schedule and the District's willingness and ability to pay for its share of the Project capital costs and the full operation, maintenance, and replacement costs.

9.1 Project Implementation Schedule

Table 6-2 shows the proposed implementation schedule illustrating all subsequent Project phases. As shown, the next phases include the development of recycled water system standards, detailed project description, preparation of the environmental review and engineering report documents, and master reclamation permit application. Detailed design of the expanded recycled water system is expected to be initiated during the fourth quarter of 2013, whereas construction and startup are anticipated to occur between October 2014 and the end of 2015. Phase 1 bidding, award, and construction phases are expected to follow the completion of the environmental review process. Actual timing of these phases may be altered depending on project financing and actual development timelines.

9.2 District's Willingness to Pay

The District recognizes the value of recycled water and, as described in Policy 2011-07, is committed to expanding its use when deemed to be cost-effective. As demonstrated by the completion of the previous studies described in Chapters 2 and 3, the District has already invested money and staff time to plan the Project, communicate to the community its intension of expanding the recycled water program, and discuss infrastructure and regulatory requirements with local developers and regulators. The District will utilize developer fees (e.g., Water Supply Augmentation fees and developer contributions) to pay for its share of the capital costs if federal funding becomes available. The District's ability and willingness to pay for the Project is demonstrated in a letter from the District's General Manager. This letter is provided in Appendix C. The District will pay for the full operation, maintenance and replacement costs of the Project through user rates and capital replacement reserve funds.

9.3 Project Funding Plan

The Project will be funded by the District through developer fees (Water Supply Augmentation fees), developer contributions, and Title XVI funding. The Title XVI funding request will not exceed 25% of the Project costs. The District will pay the remaining 75% through developer fees (Water Supply Augmentation fees) and developer contributions. The District has no funding limitations for the Project at this time. The on-going operation and maintenance of the Project will be funded by a user rate structure to be developed by the District. Future replacement costs of the project infrastructure will be addressed through the collection of replacement reserve fees, which will be incorporated in a user monthly base rate.

10 Research Needs

The methodologies and framework needed to complete the remaining planning and detailed design efforts have been successfully demonstrated in the past through the development of similar residential irrigation programs. The Project will be constructed using conventional pipeline, storage tank, and pumping station construction methods. Pipelines will be installed primarily using conventional open trench construction techniques; directional drilling may be considered for portions of the Project if cost-effective. There is no further research necessary to complete and implement the Project.

Appendix A

District Recycled Water Policy

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

Category:	Improvements	**Policy #** 2011-07
Title:	Authorized and Mandated Use of Recycled Water	

PURPOSE

This policy is to authorize the use of recycled water in future developments and existing uses

FINDINGS

1. The District has historically provided for the reuse of tertiary treated effluent on the two golf courses. They have a combined irrigation of approximately 250 acres and have a peak demand of about 1.4 million gallons a day (MGD) during the summer months. The tertiary treatment plant typically operates from late April through October.

2. The disposal method for additional effluent from the District is land application according to the District's Waste Discharge Requirements (WDRs). Currently, the excess recycled water above the demand from the golf course irrigation is discharged outside the District's service area using a sprinkler application system at the Van Vleck ranch.

3. In the future, additional storage will be required for each of the service area's buildout scenarios. Supplementary water is needed to satisfy overall golf course irrigation needs under current conditions as recycled water production is less than the amount required annually. In the future, reclaimed water production may surpass golf course irrigation needs and an additional means of effluent disposal will be needed.

4. The projected influence from reduced indoor potable water demand assuming SB7 (2020) compliance is achieved is an estimated eight percent (8%) reduction. This indoor potable demand is projected to also reduce recycled water storage and disposal needs by 8 percent. Future recycled water available for reuse may be on the order of 1,000 acre-ft/yr (medium growth scenario) assuming 2020 compliance is achieved.

5. Condition No. 26 of Water Rights Permit 16762, District's primary water right, requires the use of recycled water for irrigation purposes.

6. The priority of recycled water availability shall be in accordance with the Agreement for Availability and use of Reclaimed Wastewater dated May 16, 1988,

POLICY

1. The District mandates the future use of recycled water, wherever economically and physically feasible, as determined by the Board, for non-domestic purposes when such water is of adequate quality and quantity, available at a reasonable cost, not detrimental to public health, and not injurious to plant life, fish, and wildlife. The type of use is defined in Title 22 of the California Code of Regulations. In general, the lands subject to mandatory recycled water use are defined as undeveloped parcels within the existing District service area.

2. Existing parks, median landscaping and commercial landscape areas may be converted to recycled water irrigation wherever economically and physically feasible, as determined by the Board.

Adopted by Rancho Murieta Community Services District's Board of Directors	July 20, 2011

Appendix B

Cost Estimates, Economic Analyses, and Potential Cost Saving Measures

Analysis 1 - Determination of Most Cost-Effective Developments for RW Service (Step 1 Assume RW Service to All Developments)
Title XVI Recycled Water Feasibility Study
Alternative 2 - Recycled Water Service to All Developments; With RMCC Contribution for South Golf Course Pumping Station

COST ALLOCATIONS TO INDIVIDUAL DEVELOPMENTS WITH RMCC CONTRIBUTIONS (Initial Analysis - All Developments In)

	Estimated Demand (AFY)	Total Capital Cost Allocation ($)	Relative Unit Cost ($/AFY)	Pumping Station and Tank Improvements: South Golf Course ($)	North Golf Course ($)	Bass Lake PS and Tank ($)	Lookout Hill ($)	Phase 3 ($)	Improvement and Allocation: Lakeview & Riverview ($)	Murieta Gardens ($)	Retreats ($)	Res of Murieta Hills ($)	Ind/Com/Res ($)	Apartment 17 ($)	Esquela ($)	River Canyon ($)	Terrace & Highlands ($)
Total				2,130,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Golf Course				1,240,000													
Phase 1 Developments																	
Riverview	22.4	354,238	15,814	131,644					222,594								
Lakeview	15.8	250,497	15,814	93,091					157,406								
Residences of Murieta Hills	73.8	4,451,422	60,303		347,352		1,539,231			252,642		2,312,197					
Retreats	18.8	578,557	30,742		88,557						490,000						
Murieta Gardens	19.6	159,419	8,128		92,292					67,127							
Subtotal	150																
Phase 2 Developments																	
Industrial/Commercial/Residential	50.9	459,735	9,024		239,735								220,000			130,000	
River Canyon	46.4	1,254,450	27,059		218,144	906,306											160,732
Highlands	42.0	1,180,175	28,079		197,773	821,670											229,268
Terrace	60.0	1,683,393	28,079		282,101	1,172,024				81,472		104,840		210,000			
Apartments	23.8	508,325	21,354		112,013					88,759		622,962			80,000		
Esquela	25.9	1,454,523	56,086		122,033		540,769										
Estates of Lake Clementia	31.7	1,539,823	48,556	186,374				1,353,450									
Estates of Lake Chesbro	29.4	1,783,492	60,755	172,520				1,610,972									
Estates of Lake Calero	52.1	3,741,949	71,780	306,370				3,435,579									
Subtotal	362			890,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Total - All Projects	513	**19,400,000**			0	0	0	0	0	0	0	0	0	0	0	0	0

Relative Ranking of Developments

Phase 1 Developments		
Murieta Gardens	8,100	
Riverview	15,814	May or may not be cost-effective depending on how South GC Pumping Station is allocated
Lakeview	15,814	May or may not be cost-effective depending on how South GC Pumping Station is allocated
Retreats	30,714	
Residences of Murieta Hills	54,653	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Phase 2 Developments		
Industrial/Commercial/Residential	8,996	
Apartments	21,283	
River Canyon	26,829	
Highlands	27,849	
Terrace	27,849	
Estates of Lake Clementia	48,089	High unit cost; unlikely RMCC will contribute to South GC Pump Station
Esquela	50,508	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Estates of Lake Chesbro	60,155	High unit cost; unlikely RMCC will contribute to South GC Pump Station
Estates of Lake Calero	71,059	High unit cost; unlikely RMCC will contribute to South GC Pump Station

Both Phases Combined

Murieta Gardens	8,100
Industrial/Commercial/Residential	8,996
Riverview	15,814
Lakeview	15,814
Apartments	21,283
River Canyon	26,829
Highlands	27,849
Terrace	27,849
Retreats	30,714
Estates of Lake Clementia	48,089
Esquela	50,508
Residences of Murieta Hills	54,653
Estates of Lake Chesbro	60,155
Estates of Lake Calero	71,059

B1

Analysis 1 - Determination of Most Cost-Effective Developments for RW Service (Step 1 Assume RW to All Developments)
Title XVI Recycled Water Feasibility Study
Alternative 2 - Recycled Water Service to All Developments; Without RMCC Contribution for South Golf Course Pumping Station

COST ALLOCATIONS TO INDIVIDUAL DEVELOPMENTS WTHOUT RMCC CONTRIBUTIONS (Initial Analysis All Developments In)

	Estimated Demand (AFY)	Total Capital Cost Allocation ($)	Relative Unit Cost ($/AFY)	Pumping Station and Tank Improvements: South Golf Course ($)	North Golf Course ($)	Bass Lake PS and Tank ($)	Lookout Hill ($)	Phase 3 ($)	Improvement and Allocation: Lakeview & Riverview ($)	Murieta Gardens ($)	Retreats ($)	Res of Murieta Hills ($)	Ind/Com/Res ($)	Apartment 17 ($)	Esquela ($)	River Canyon ($)	Terrace & Highlands ($)
Total				2,130,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Golf Course																	
Phase 1 Developments																	
Riverview	22.4	537,653	24,002	315,059					222,594								
Lakeview	15.8	380,197	24,002	222,791					157,406								
Residences of Murieta Hills	73.8	4,451,422	60,303		347,352		1,539,231			252,642		2,312,197					
Retreats	18.8	578,557	30,742		88,557						490,000						
Murieta Gardens	19.6	159,419	8,128		92,292					67,127							
Subtotal	150																
Phase 2 Developments																	
Industrial/Commercial/Residential	50.9	459,735	9,024		239,735								220,000			130,000	
River Canyon	46.4	1,254,450	27,059		218,144	906,306											160,732
Highlands	42.0	1,180,175	28,079		197,773	821,670											229,268
Terrace	60.0	1,683,393	28,079		282,101	1,172,024											
Apartment 17	23.8	508,325	21,354		112,013					81,472		104,840		210,000			
Esquela	25.9	1,454,523	56,086		122,033		540,769			88,759		622,962			80,000		
Estates of Lake Clementia	31.7	1,799,490	56,744	446,041				1,353,450									
Estates of Lake Chesbro	29.4	2,023,858	68,943	412,886				1,610,972									
Estates of Lake Calero	52.1	4,168,802	79,968	733,224				3,435,579									
Subtotal	362			2,130,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Total - All Projects	513			0	0	0	0	0	0	0	0	0	0	0	0	0	0

Relative Ranking of Developments

Phase 1 Developments		
Murieta Gardens	8,128	
Lakeview	24,002	May or may not be cost-effective depending on how South GC Pumping Station is allocated
Riverview	24,002	May or may not be cost-effective depending on how South GC Pumping Station is allocated
Retreats	30,742	
Residences of Murieta Hills	60,303	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Phase 2 Developments		
Industrial/Commercial/Residential	9,024	
Apartment 17	21,354	
River Canyon	27,059	
Highlands	28,079	
Terrace	28,079	
Esquela	56,086	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Estates of Lake Clementia	56,744	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2
Estates of Lake Chesbro	68,943	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2
Estates of Lake Calero	79,968	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2
Both Phases Combined		
Murieta Gardens	8,128	
Industrial/Commercial/Residential	9,024	
Apartment 17	21,354	
Lakeview	24,002	May or may not be cost-effective depending on how South GC Pumping Station is allocated
Riverview	24,002	May or may not be cost-effective depending on how South GC Pumping Station is allocated
River Canyon	27,059	
Highlands	28,079	
Terrace	28,079	
Retreats	30,742	
Esquela	56,086	May or may not be cost-effective depending on how South GC Pumping Station is allocated and whether Stonehouse Park included
Estates of Lake Clementia	56,744	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2
Residences of Murieta Hills	60,303	May or may not be cost-effective depending on how South GC Pumping Station is allocated and whether Stonehouse Park included
Estates of Lake Chesbro	68,943	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2
Estates of Lake Calero	79,968	Highest unit cost; not cost-effective for service - eliminate from contention in Analysis 2

Analysis 2 - Determination of Most Cost-Effective Developments for RW Service (Step 2 All Developments Served RW Except for Lake Estates)
Title XVI Recycled Water Feasibility Study
Alternative 2 - Recycled Water Service to All Developments Except for the Three Lake Estates; With RMCC Contribution for South Golf Course Pumping Station

COST ALLOCATIONS TO INDIVIDUAL DEVELOPMENTS WITH RMCC CONTRIBUTIONS Second Analysis - Lake Estates Out)

	Estimated Demand (AFY)	Total Capital Cost Allocation ($)	Relative Unit Cost ($/AFY)	Pumping Station and Tank Improvements: South Golf Course ($)	North Golf Course ($)	Bass Lake PS and Tank ($)	Lookout Hill ($)	Improvement and Allocation: Phase 3 ($)	Lakeview & Riverview ($)	Murieta Gardens ($)	Retreats ($)	Res of Murieta Hills ($)	Ind/Com/Res ($)	Apartment 17 ($)	Esquela ($)	River Canyon ($)	Terrace & Highlands ($)
Total				1,990,000	1,700,000	2,900,000	2,080,000		380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Golf Course				1,240,000													
Phase 1 Developments																	
Riverview	22.4	661,925	29,550	439,331					222,594								
Lakeview	15.8	468,075	29,550	310,669					157,406								
Residences of Murieta Hills	73.8	4,451,422	60,303		347,352		1,539,231			252,642		2,312,197					
Retreats	18.8	578,557	30,742		88,557						490,000						
Murieta Gardens	19.6	159,419	8,128		92,292					67,127							
Subtotal	150																
Phase 2 Developments																	
Industrial/Commercial/Residential	50.9	459,735	9,024		239,735								220,000			130,000	
River Canyon	46.4	1,254,450	27,059		218,144	906,306											160,732
Highlands	42.0	1,180,175	28,079		197,773	821,670											229,268
Terrace	60.0	1,683,393	28,079		282,101	1,172,024				81,472		104,840		210,000			
Apartments	23.8	508,325	21,354		112,013					88,759		622,962			80,000		
Esquela	25.9	1,454,523	56,086		122,033		540,769										
Estates of Lake Clementia	31.7	0	0					0									
Estates of Lake Chesbro	29.4	0	0					0									
Estates of Lake Calero	52.1	0	0					0									
Subtotal	249			750,000	1,700,000	2,900,000	2,080,000	0	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Total - All Projects	400				0	0	0	0	0	0	0	0	0	0	0	0	0

Relative Ranking of Developments

Phase 1 Developments

Murieta Gardens	8,100	
Riverview	29,550	May or may not be cost-effective depending on whether RMCC contributes to South GC improvements
Lakeview	29,550	May or may not be cost-effective depending on whether RMCC contributes to South GC improvements
Retreats	30,714	
Residences of Murieta Hills	54,653	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela

Phase 2 Developments

Industrial/Commercial/Residential	8,996	
Apartments	21,283	
River Canyon	26,829	
Highlands	27,849	
Terrace	27,849	
Esquela	50,508	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela

Both Phases Combined

Murieta Gardens	8,100	
Industrial/Commercial/Residential	8,996	
Apartments	21,283	
River Canyon	26,829	
Highlands	27,849	
Terrace	27,849	
Riverview	29,550	May or may not be cost-effective depending on whether RMCC contributes to South GC improvements
Lakeview	29,550	May or may not be cost-effective depending on whether RMCC contributes to South GC improvements
Retreats	30,714	
Esquela	50,508	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Residences of Murieta Hills	54,653	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela

Analysis 2 - Determinaiton of Most Cost-Effective Developments for RW Service (Step 2 All Developments Served RW Except for Lake Estates)
Title XVI Recycled Water Feasibility Study
Alternative 2 - Recycled Water Service to All Developments Except for the Three Lake Estates; Without RMCC Contribution for South Golf Course Pumping Station

COST ALLOCATIONS TO INDIVIDUAL DEVELOPMENTS WTHOUT RMCC CONTRIBUTIONS (Second Analysis - Lake Estates Out)

	Estimated Demand (AFY)	Total Capital Cost Allocation ($)	Relative Unit Cost ($/AFY)	Improvement and Allocation: Pumping Station and Tank Improvements — South Golf Course ($)	North Golf Course ($)	Bass Lake PS and Tank ($)	Lookout Hill ($)	Phase 3 ($)	Lakeview & Riverview ($)	Murieta Gardens ($)	Retreats ($)	Res of Murieta Hills ($)	Ind/Com/Res ($)	Apartment 17 ($)	Esquela ($)	River Canyon ($)	Terrace & Higlands ($)
Total				2,130,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Golf Course																	
Phase 1 Developments																	
Riverview	22.4	1,470,293	65,638	1,247,699					222,594								
Lakeview	15.8	1,039,707	65,638	882,301					157,406								
Residences of Murieta Hills	73.8	4,451,422	60,303		347,352		1,539,231			252,642		2,312,197					
Retreats	18.8	578,557	30,742		88,557						490,000						
Murieta Gardens	19.6	159,419	8,128		92,292					67,127							
Subtotal	150																
Phase 2 Developments													220,000				
Industrial/Commercial/Residential	50.9	459,735	9,024		239,735											130,000	
River Canyon	46.4	1,254,450	27,059		218,144	906,306											160,732
Highlands	42.0	1,180,175	28,079		197,773	821,670											229,268
Terrace	60.0	1,683,393	28,079		282,101	1,172,024											
Apartment 17	23.8	508,325	21,354		112,013					81,472		104,840		210,000			
Esquela	25.9	1,454,523	56,086		122,033		540,769			88,759		622,962			80,000		
Estates of Lake Clementia	31.7	0	0														
Estates of Lake Chesbro	29.4	0	0														
Estates of Lake Calero	52.1	0	0														
Subtotal	249			2,130,000	1,700,000	2,900,000	2,080,000	0	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Total - All Projects	400			0	0	0	0	-6,400,000	0	0	0	0	0	0	0	0	0

Relative Ranking of Developments

Phase 1 Developments		
Murieta Gardens	8,128	
Retreats	30,742	
Residences of Murieta Hills	60,303	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Riverview	65,638	Unlikely RMCC with Contribute and Developments May or May Not Occur in the Future; Deemed to Have Highest Unit Costs
Lakeview	65,638	Unlikely RMCC with Contribute and Developments May or May Not Occur in the Future; Deemed to Have Highest Unit Costs
Phase 2 Developments		
Industrial/Commercial/Residential	9,024	
Apartment 17	21,354	
River Canyon	27,059	
Highlands	28,079	
Terrace	28,079	
Esquela	56,086	May or may not be more cost-effective depending on whether Stonehouse Park included in the demands associated with Res of Murieta Hills and Esquela
Both Phases Combined		
Murieta Gardens	8,128	
Industrial/Commercial/Residential	9,024	
Apartment 17	21,354	
River Canyon	27,059	
Highlands	28,079	
Terrace	28,079	
Retreats	30,742	
Esquela	56,086	
Residences of Murieta Hills	60,303	
Riverview	65,638	Unlikely RMCC with Contribute and Developments May or May Not Occur in the Future; Deemed to Have Highest Unit Costs
Lakeview	65,638	Unlikely RMCC with Contribute and Developments May or May Not Occur in the Future; Deemed to Have Highest Unit Costs

Analysis 3 - Determination of Most Cost-Effective Developments for RW Service (Step 3 All Developments Served RW Except for Three Lake Estates; No RMCC Contribution for South GC Improvements; Allocate Stonehouse Park Demand to Res of Murieta Hills and Esquela)
Title XVI Recycled Water Feasibility Study
Alternative 2 - Recycled Water Service to All Developments Except for Three Lake Estates; Without RMCC Contribution for South Golf Course Pumping Station; Addition of Stonehouse Park Demand

COST ALLOCATIONS TO INDIVIDUAL DEVELOPMENTS WTHOUT RMCC CONTRIBUTIONS (Third Analysis - Lake Estates Out)

	Estimated Demand (AFY)	Total Capital Cost Allocation ($)	Relative Unit Cost ($/AFY)	Improvement and Allocation: Pumping Station and Tank Improvements — South Golf Course ($)	North Golf Course ($)	Bass Lake PS and Tank ($)	Lookout Hill ($)	Phase 3 ($)	Lakeview & Riverview ($)	Murieta Gardens ($)	Retreats ($)	Res of Murieta Hills ($)	Ind/Com/Res ($)	Apartment 17 ($)	Esquela ($)	River Canyon ($)	Terrace & Higlands ($)
Total				2,130,000	1,700,000	2,900,000	2,080,000	6,400,000	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Golf Course																	
Phase 1 Developments																	
Riverview	22.4	1,470,293	65,638	1,247,699					222,594								
Lakeview	15.8	1,039,707	65,638	882,301					157,406								
Residences of Murieta Hills	84.2	4,505,290	53,519		381,338		1,539,284			262,446		2,322,222					
Retreats	18.8	575,253	30,567		85,253						490,000						
Murieta Gardens	19.6	149,997	7,648		88,849					61,148							
Subtotal	123																
Phase 2 Developments																	
Industrial/Commercial/Residential	50.9	450,792	8,848		230,792								220,000			130,000	
River Canyon	46.4	1,246,312	26,884		210,006	906,306											160,732
Highlands	42.0	1,172,797	27,904		190,395	821,670											229,268
Terrace	60.0	1,672,869	27,904		271,577	1,172,024											
Apartment 17	23.8	484,245	20,342		107,835					74,214		92,196		210,000			
Esquela	29.6	1,472,445	49,794		133,956		540,716			92,192		625,582			80,000		
Estates of Lake Clementia	31.7	0	0														
Estates of Lake Chesbro	29.4	0	0														
Estates of Lake Calero	52.1	0	0														
Subtotal	253			2,130,000	1,700,000	2,900,000	2,080,000	0	380,000	490,000	490,000	3,040,000	220,000	210,000	80,000	130,000	390,000
Total - All Projects	375			0	0	0	0	-6,400,000	0	0	0	0	0	0	0	0	0

Relative Ranking of Developments

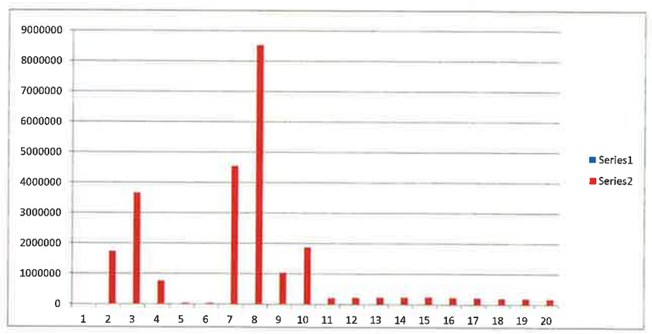
Phase 1 Developments		
Murieta Gardens	7,648	
Retreats	30,567	
Residences of Murieta Hills	53,519	
Riverview	65,638	Eliminate and assume these developments not served RW in the futue
Lakeview	65,638	Eliminate and assume these developments not served RW in the futue
Phase 2 Developments		
Industrial/Commercial/Residential	8,848	
Apartment 17	20,342	
River Canyon	26,884	
Highlands	27,904	
Terrace	27,904	
Esquela	49,794	
Both Phases Combined		
Murieta Gardens	7,648	
Industrial/Commercial/Residential	8,848	
Apartment 17	20,342	
River Canyon	26,884	
Highlands	27,904	
Terrace	27,904	
Retreats	30,567	
Esquela	49,794	
Residences of Murieta Hills	53,519	
Riverview	65,638	Eliminate and assume these developments not served RW in the futue
Lakeview	65,638	Eliminate and assume these developments not served RW in the futue

BS

Analysis 4 - Economic Comparison of Alternatives 1 and 2
Title XVI Recycled Water Feasibility Study
Alternative 1 - No Project Alternative - Van Vleck Sprayfield

Inflation Rate (%/yr)	0
Discount Rate (%/yr)	6

			Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
			Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Capital Costs																							
No.	**Improvement**	**Description**																					
1	Secondary Effluent Storage Capacity Expansion	Provide 240 AF of additional storage capacity; Facility required to be in service when projected ADWFs exceed 0.67 MGD.								3,250,000	6,500,000												
2	Chlorine Contact Basin Replacement	Install new 3.0 MGD chlorine contact basin				433,333	866,667																
3	South Golf Course Pump Station Improvements	Install new 640 gpm pumping station to meet existing South Golf Course MDD irrigation demands		413,333	826,667																		
4	Van Vleck Improvements	Modify Van Vleck Sprayfield to serve as permanent effluent disposal facility		1,426,667	2,853,333																		
5	Phase 1 Van Vleck Sprayfield Expansion	Expand Van Vleck Sprayfield to accommodate Phase 1 development (add 60 acres total)								1,070,000	2,140,000												
6	Phase 2 Van Vleck Sprayfield Expansion	Expand Van Vleck Sprayfield to accommodate Phase 2 development (add 100 acres total)										1,416,667	2,833,333										
7	Water Treatment Plant Expansion	Residential Recycled Water Alternative Provides 370 AFY of RW to serve future residential irrigation; Equivalent to a reduction of 1.1-1.2 MGD WTP capacity during peak month; Reduced WTP capacity anticipated to be associated with Phase 2 development which is expected to begin occupation in 2020								2,016,000	4,032,000												
Operations and Maintenance Cost Components																							
4	Incremental Potable Water Production Costs	Compared to Alternative 2, this alternative requires the production of 370 AFY of potable water at buildout; Excess RW is projected to be available starting in 2018		0	0	0	0	0	0	29,669	71,208	113,757	156,305	198,854	241,403	283,952	326,500	369,049	369,049	369,049	369,049	369,049	369,049
5	Van Vleck Sprayfield Repair and Replacement	Assumed to be equal to 2.5 % /yr of estimated pipeline and pumping station costs					48,844	48,844	48,844	87,979	87,979	87,979	140,740	140,740	140,740	140,740	140,740	140,740	140,740	140,740	140,740	140,740	140,740
6	Incremental WTP Repair and Replacement	Assume to be equal to 1% /yr of incremental WTP reduction										43,200	43,200	43,200	43,200	43,200	43,200	43,200	43,200	43,200	43,200	43,200	43,200
		Subtotal (All Improvements and O&M)		0	1,840,000	4,113,333	915,511	48,844	48,844	6,453,648	12,831,187	1,661,602	3,173,579	382,794	425,343	467,892	510,440	552,989	552,989	552,989	552,989	552,989	552,989
		Net Present Worth Costs (All Improvements and O&M)		0	1,735,849	3,660,852	768,680	38,689	36,499	4,549,567	8,533,472	1,042,510	1,878,437	213,750	224,065	232,528	239,314	244,588	230,743	217,682	205,361	193,736	182,770
		Grand Total - Net Present Worth Costs (All Improvements and O&M)		**24,429,093**																			
		Subtotal (Incremental Improvements and O&M)		0	1,426,667	2,853,333	48,844	48,844	48,844	3,203,648	6,331,187	1,661,602	3,173,579	382,794	425,343	467,892	510,440	552,989	552,989	552,989	552,989	552,989	552,989
		Net Present Worth Costs (Incremental Improvements and O&M)		0	1,345,912	2,539,457	41,010	38,689	36,499	2,258,445	4,210,601	1,042,510	1,878,437	213,750	224,065	232,528	239,314	244,588	230,743	217,682	205,361	193,736	182,770
		Grand Total - Net Present Worth Costs (Incremental Improvements and O&M)		**15,576,097**																			
		Estimated Recycled Water Production		458	460	463	466	497	538	580	621	664	706	749	791	834	877	919	919	919	919	919	919
				2130216.9																			



Analysis 4 - Economic Comparison of Alternatives 1 and 2
Title XVI Recycled Water Feasibility Study
Alternative 2 - Residential Recycled Water Program Alternative

	Inflation Rate (%/yr)	0
	Discount Rate (%/yr)	6

			Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
			Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Capital Costs																							
No.	**Improvement**	**Description**																					
1	Secondary Effluent Storage Capacity Expansion	Provide 240 AF of additional storage capacity; Equivalent ADWF capacity of 0.67 MGD, Occurs 2019.5 or 2025 based on Timeline A and B, respectively								3,250,000	6,500,000												
2	Chlorine Contact Basin Replacement	Install new 3.0 MGD chlorine contact basin				433,333	866,667																
3	South Golf Course Pumping Station Improvements	Install new 640 gpm pumping station to meet existing South Golf Course MDD irrigation demands			413,333	826,667																	
	Phase 1 Recycled Water Infrastructure	Provide Recycled Water Serve to Murieta Gardens, Retreats, and Res of Murieta Hills																					
4	Murieta Gardens	Install 12-inch pipeline to serve recycled water to the Murieta Gardens and other northeast developments				163,333	326,667																
5	Retreats	Install 4-inch pipeline to serve recycled water to the Retreats				163,333	326,667																
6	Residences of Murieta Hills	Install 10-inch pipeline to serve recycled water to Residences of Murieta Hills and, the future, Esquela and the Apartments				1,013,333	2,026,667																
9	Lookout Hill Tanks and Booster Pumping Station	Refurbish existing 200,000 gallon tank and install new 200,00 gallon tank and booster pumping station				693,333	1,386,667																
10	North Golf Course Pumping Station Improvements	Expand firm capacity of existing pumping station to 2,110 gpm (equal to maximum capacity of existing 12-inch pipeline)				566,667	1,133,333																
	Phase 2 Recycled Water Infrastructure																						
11	Industrial/Commercial/Residential	Install 6-inch pipeline and Jackson Highway undercrossing to serve Industrial/Commercial/Residential development								73,333	146,667												
12	Apartments	Install 4-inch pipeline and Jackson Highway undercrossing to serve Apartments 17								70,000	140,000												
13	Esquela	Install 4-inch pipeline to serve Esquela								26,667	53,333												
14	Bass Lake Tank and Pumping Station	Install new 500,000 gallon and 1,040 gpm pumping station to convey recycled water to Terrace, Highlands, and River Canyon developments								966,667	1,933,333												
15	River Canyon	Install 8-inch pipeline to serve River Canyon								43,333	86,667												
16	Terrace and Highlands	Install 6- and 8-inch pipelines to serve Terrace and Highlands								130,000	260,000												
Operations and Maintenance Cost Components																							
17	South Golf Course Conveyance Pipeline and Pumping Station R & R (8-incl	No costs included in NPW comparison as this pipeline must be in service with or without the residential recycled water program to serve the SGC																					
18	North Golf Course Conveyance Pipeline and Pumping Station R & R (12- a	No costs included in NPW comparison as this pipeline must be in service with or without the residential recycled water program to serve the NGC																					
19	Phase 1 Recycled Water Infrastructure Repair and Replacement	Assumed to be equal to 2.5 % /yr of estimated pipeline and pumping station costs exclusive to the residential recycled water system						86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360	86,360
20	Phase 2 Recycled Water Infrastructure Repair and Replacement	Assumed to be equal to 2.5 % /yr of estimated pipeline and pumping station costs exclusive to the residential recycled water system										29,565	29,565	29,565	29,565	29,565	29,565	29,565	29,565	29,565	29,565	29,565	29,565
21	Recycled Water Utility Management (1.5 FTEs)	Utility Manager (base salary of $75,000 with 25% fringe benefits); Administrative Support ($50,000 base salary with 25% fringe benefits)				93,750	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
		Subtotal (All Improvements and O&M)		0	413,333	3,953,750	6,191,667	211,360	211,360	4,771,360	9,331,360	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925
		Net Present Worth Costs (All Improvements and O&M)		0	389,937	3,518,823	5,198,643	167,417	157,941	3,363,621	6,205,887	151,160	142,603	134,531	126,916	119,733	112,955	106,562	100,530	94,839	89,471	84,407	79,629
		Grand Total - Net Present Worth Costs (All Improvements and O&M)		**20,345,605**																			
		Subtotal (Incremental Improvements and O&M)		0	0	2,693,750	5,325,000	211,360	211,360	1,521,360	2,831,360	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925	240,925
		Net Present Worth Costs (Incremental Improvements and O&M)		0	0	2,397,428	4,470,973	167,417	157,941	1,072,499	1,883,016	151,160	142,603	134,531	126,916	119,733	112,955	106,562	100,530	94,839	89,471	84,407	79,629
		Grand Total - Net Present Worth Costs (Incremental Improvements and O&M)		**11,492,609**																			
		Relative Difference Between NPW of Alternatives 1 and 2 (%)		**26.2**																			

0.06 20

0.087184557

1001978.052
2708.048789

1774136.754

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	240 AF Secondary Effluent Storage Pond	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						622,200
Mobilization (5%)		5%	LS	6,840,000	342,000	
Bid, Bonds, and Insurance (3%)		3%	LS	6,840,000	205,200	
Submittals		10	Number	5,000	50,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						3,649,429
Excavation (unclassified, 1.5 cy bucket)		348,480	CY	5.85	2,038,608	
Offsite Hauling (30 miles) and Disposal		116,160	CY	11.3	1,312,608	
Unconfined Backfill and Compaction		193,600	CY	1.5	290,400	
Trenching		1,042	CY	5	5,208	
Confined Backfill and Compaction		1,042	CY	2.5	2,604	
Division 3 - Concrete						100,000
Concrete Allowance		1.0	LS	100,000	100,000	
Division 4 - Masonry			NOT USED			
Division 5 - Metals						50,000
Miscellaneous Metals Allowance		1	LS	50,000	50,000	
Division 6 - Wood and Plastics			NOT USED			
Division 7 - Thermal and Mositure Protection			NOT USED			
Division 8 - Doors and Windows			NOT USED			
Division 9 - Finishes			NOT USED			
Division 10 - Specialties						784,080
Reservoir Liner (25-ft deep reservoir)	Hypalon	522,720	SF	1.5	784,080	
Division 11 - Equipment						250,000
Pumps, Valves, and Appurtenance Allowance		1	LS	250,000	250,000	
Division 12 - Furnishings			NOT USED			
Division 13 - Special Construction			NOT USED			
Division 14 - Conveying Systems			NOT USED			
Division 15 - Mechanical						420,000
14-inch DIP - Storage Pond Feed		1,000	LF	168	168,000	
14-inch DIP - Storage Pond Return		1,500	LF	168	252,000	
Division 16 - Electrical and Instrumentation						70,000
Electrical - 15% of Pumping Station Costs		15%	LS	350,000	52,500	
Instrumentation and Controls		5%	LS	350,000	17,500	

Subtotal	5,945,709
Contingency - Construction Costs (15%)	891,856
Estimate of Probable Construction Costs	**6,840,000**
Administrative Fees (10%)	684,000
Regulatory (CEQA) Compliance (5%)	342,000
Engineering and Construction Management (17.5%)	1,197,000
Contingency - Soft Costs (10%)	684,000
Land Cost	0
Grand Total	**9,750,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	195,000 gallon Chlorine Contact Basin Within Existing 1.8 MG Equalization Basin	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						174,400
Mobilization (5%)		5%	LS	930,000	46,500	
Bid, Bonds, and Insurance (3%)		3%	LS	930,000	27,900	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						0
Excavation (unclassified, 1.5 cy bucket)		0	CY	5.85	0	
Offsite Hauling (30 miles) and Disposal		0	CY	11.3	0	
Unconfined Backfill and Compaction		0	CY	1.5	0	
Trenching		0	CY	5	0	
Confined Backfill and Compaction		0	CY	2.5	0	
Aggregate Base		0	CY	15	0	
Division 3 - Concrete						496,639
Interior Walls		183.7	CY	1,150	211,259	
Exterior Walls		198.5	CY	1,150	228,296	
Slab on Grade (Allowance for concrete repair)		58.3	CY	550	32,083	
Miscellaneous		1	LS	25,000	25,000	
Division 4 - Masonry			NOT USED			
Division 5 - Metals						5,625
Effluent Weir Plate		5	LF	125	625	
Miscellaneous Metals - Allocation		1	LS	5,000	5,000	
Division 6 - Wood and Plastics						3,750
Baffles		3	Each	1,250	3,750	
Division 7 - Thermal and Mositure Protection			NOT USED			
Division 8 - Doors and Windows			NOT USED			
Division 9 - Finishes			NOT USED			
Division 10 - Specialties			NOT USED			
Division 11 - Equipment						70,000
Mixing System	Induction Mixer	2	Each	35,000	70,000	
Division 12 - Furnishings			NOT USED			
Division 13 - Special Construction			NOT USED			
Division 14 - Conveying Systems			NOT USED			
Division 15 - Mechanical						15,000
16-inch Pipe Connection		1	LS	5,000	5,000	
Sprays and Miscellaneous Piping Allowance		1	LS	10,000	10,000	
Division 16 - Electrical and Instrumentation						40,500
Electrical - Allowance		1	LS	10,000	10,000	
Ultrasonic Level Sensor		1	EA	7,500	7,500	
Chlorine/Dechlorination Residual Analyzers		2	EA	6,500	13,000	
Instrumentation and Controls		1	LS	10,000	10,000	

Subtotal	805,914
Contingency - Construction Costs (15%)	120,887
Estimate of Probable Construction Costs	**930,000**
Administrative Fees (10%)	93,000
Regulatory (CEQA) Compliance (2.5%)	23,250
Engineering and Construction Management (17.5%)	162,750
Contingency - Soft Costs (10%)	93,000
Grand Total	**1,300,000**

B9

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Modify Van Vleck to Serve As Permanent Effluent Disposal Facility (approximately 90 acres)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						363,200
Mobilization (5%)		5%	LS	3,290,000	164,500	
Bid, Bonds, and Insurance (3%)		3%	LS	3,290,000	98,700	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						44,522
Offsite Hauling (30 miles) and Disposal		170	CY	11.3	1,923	
Trenching		1,950	CY	12.5	24,375	
Confined Backfill and Compaction		1,780	CY	7.5	13,349	
Aggregate Base		325	CY	15	4,875	
Division 3 - Concrete						85,000
Pumping Station		1	LS	50,000	50,000	
Miscellaneous		1	LS	35,000	35,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment						419,419
Pump Station		60	HP	294,419	294,419	
Reconfigure/Refurbish Existing Pump Station		1	LS	125,000	125,000	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						585,000
Sprayfield Irrigation System		90	Acres	6,500	585,000	
Division 14 - Conveying Systems			NOT USED			
Division 15 - Mechanical						1,074,338
12-inch Recycled Water Main		5,850	LF	137	803,088	
12-inch Distribution Valves and Appurtenances		5,850	LF	25	146,250	
Miscellaneous Piping		1	LS	125,000	125,000	
Division 16 - Electrical and Instrumentation						167,768
Electrical (25% of Pumping Station)		1	EA	104,855	104,855	
Instrumentation and Controls (15% of Pumping Station)		1	EA	62,913	62,913	

Subtotal	2,739,246
Contingency - Construction Costs (20%)	547,849
Estimate of Probable Construction Costs	**3,290,000**
Administrative Fees (5%)	164,500
Regulatory (CEQA) Compliance (2.5%)	82,250
Engineering and Construction Management (17.5%)	575,750
Contingency - Soft Costs (5%)	164,500
Grand Total	**4,280,000**

B/O

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Phase 1 Sprayfield Disposal Expansion (Add 60 acres; 150 acres total)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						297,600
Mobilization (5%)		5%	LS	2,470,000	123,500	
Bid, Bonds, and Insurance (3%)		3%	LS	2,470,000	74,100	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						38,847
Offsite Hauling (30 miles) and Disposal		157	CY	11.3	1,775	
Trenching		1,800	CY	12.5	22,500	
Confined Backfill and Compaction		1,643	CY	7.5	12,322	
Aggregate Base		150	CY	15	2,250	
Division 3 - Concrete						20,000
Miscellaneous		1	LS	20,000	20,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment						204,075
Pump Station Expansion		35	HP	204,075	204,075	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						390,000
Sprayfield Irrigation System		60	Acres	6,500	390,000	
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						971,312
12-inch Recycled Water Main		5,400	LF	137	741,312	
12-inch Distribution Valves and Appurtenances		5,400	LF	25	135,000	
Miscellaneous Piping		1	LS	95,000	95,000	
Division 16 - Electrical and Instrumentation						51,019
Electrical (15% of Pumping Station)		1	LS	30,611	30,611	
Instrumentation and Controls (10% of Pumping Station)		1	EA	20,407	20,407	

Subtotal	1,972,852
Contingency - Construction Costs (25%)	493,213
Estimate of Probable Construction Costs	**2,470,000**
Administrative Fees (5%)	123,500
Regulatory (CEQA) Compliance (2.5%)	61,750
Engineering and Construction Management (17.5%)	432,250
Contingency - Soft Costs (5%)	123,500
Grand Total	**3,210,000**

B11

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Phase 2 Sprayfield Disposal Expansion (Add 100 acres; 250 acres total)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						361,600
Mobilization (5%)		5%	LS	3,270,000	163,500	
Bid, Bonds, and Insurance (3%)		3%	LS	3,270,000	98,100	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						47,480
Offsite Hauling (30 miles) and Disposal		192	CY	11.3	2,169	
Trenching		2,200	CY	12.5	27,500	
Confined Backfill and Compaction		2,008	CY	7.5	15,060	
Aggregate Base		183	CY	15	2,750	
Division 3 - Concrete						20,000
Miscellaneous		1	LS	20,000	20,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment						294,419
Pump Station Expansion		60	HP	294,419	294,419	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						650,000
Sprayfield Irrigation System		100	Acres	6,500	650,000	
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						1,166,048
12-inch Recycled Water Main		6,600	LF	137	906,048	
12-inch Distribution Valves and Appurtenances		6,600	LF	25	165,000	
Miscellaneous Piping		1	LS	95,000	95,000	
Division 16 - Electrical and Instrumentation						73,605
Electrical (15% of Pumping Station)		1	LS	44,163	44,163	
Instrumentation and Controls (10% of Pumping Station)		1	EA	29,442	29,442	

Subtotal	2,613,151
Contingency - Construction Costs (25%)	653,288
Estimate of Probable Construction Costs	**3,270,000**
Administrative Fees (5%)	163,500
Regulatory (CEQA) Compliance (2.5%)	81,750
Engineering and Construction Management (17.5%)	572,250
Contingency - Soft Costs (5%)	163,500
Grand Total	**4,250,000**

B12

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	South Course Pumping Station (Alt 1 - RW System NOT Expanded; 640 gpm)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						172,000
Mobilization (5%)		5%	LS	900,000	45,000	
Bid, Bonds, and Insurance (3%)		3%	LS	900,000	27,000	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						7,013
Offsite Hauling (30 miles) and Disposal		96	CY	11.3	1,088	
Excavation		325	CY	12.5	4,063	
Confined Backfill and Compaction		229	CY	7.5	1,715	
Aggregate Base		10	CY	15	147	
Division 3 - Concrete						104,007
Walls		30	CY	1,350	40,500	
Slab on Grade		19	CY	550	10,507	
Elevated Slab		10	CY	1,350	13,000	
Miscellaneous Concrete		1	LS	40,000	40,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						33,750
Prefabrated Building		450	SF	75	33,750	
Division 11 - Equipment						260,089
Pumps, Station Valves, and Appurtenances		50	HP	260,089	260,089	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						75,000
Miscellaneous Piping Allowance		1	LS	75,000	75,000	
Division 16 - Electrical and Instrumentation						65,022
Electrical (15% of Pumping Station)		1	LS	39,013	39,013	
Instrumentation and Controls (10% of Pumping Station)		1	EA	26,009	26,009	

Subtotal	716,881
Contingency - Construction Costs (25%)	179,220
Estimate of Probable Construction Costs	**900,000**
Administrative Fees (10%)	90,000
Regulatory (CEQA) Compliance (0%)	0
Engineering and Construction Management (17.5%)	157,500
Contingency - Soft Costs (10%)	90,000
Grand Total	**1,240,000**

B13

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	South Course Pumping Station (Alt 2 - RW System Expanded; Analysis 1; 995 gpm)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						221,600
Mobilization (5%)		5%	LS	1,520,000	76,000	
Bid, Bonds, and Insurance (3%)		3%	LS	1,520,000	45,600	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						7,013
Offsite Hauling (30 miles) and Disposal		96	CY	11.3	1,088	
Excavation		325	CY	12.5	4,063	
Confined Backfill and Compaction		229	CY	7.5	1,715	
Aggregate Base		10	CY	15	147	
Division 3 - Concrete						121,009
Walls		40	CY	1,350	54,000	
Slab on Grade		25	CY	550	14,009	
Elevated Slab		10	CY	1,350	13,000	
Miscellaneous Concrete		1	LS	40,000	40,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						45,000
Prefabrated Building		600	SF	75	45,000	
Division 11 - Equipment						342,661
Pumps, Station Valves, and Appurtenances		75	HP	342,661	342,661	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						300,000
Connection of Gravity and Forcemain Pipeline Sections		1	LS	300,000	300,000	
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						90,000
Miscellaneous Piping Allowance		1	LS	90,000	90,000	
Division 16 - Electrical and Instrumentation						85,665
Electrical (15% of Pumping Station)		1	LS	51,399	51,399	
Instrumentation and Controls (10% of Pumping Station)		1	EA	34,266	34,266	

Subtotal	1,212,948
Contingency - Construction Costs (25%)	303,237
Estimate of Probable Construction Costs	**1,520,000**
Administrative Fees (10%)	152,000
Regulatory (CEQA) Compliance (2.5%)	38,000
Engineering and Construction Management (17.5%)	266,000
Contingency - Soft Costs (10%)	152,000
Grand Total	**2,130,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	South Course Pumping Station (Alt 2 - RW System Expanded; Analysis 2; 730 gpm)	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						213,600
Mobilization (5%)		5%	LS	1,420,000	71,000	
Bid, Bonds, and Insurance (3%)		3%	LS	1,420,000	42,600	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						7,013
Offsite Hauling (30 miles) and Disposal		96	CY	11.3	1,088	
Excavation		325	CY	12.5	4,063	
Confined Backfill and Compaction		229	CY	7.5	1,715	
Aggregate Base		10	CY	15	147	
Division 3 - Concrete						110,315
Walls		36	CY	1,350	48,600	
Slab on Grade		21	CY	550	11,315	
Elevated Slab		8	CY	1,350	10,400	
Miscellaneous Concrete		1	LS	40,000	40,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						35,625
Prefabrated Building		475	SF	75	35,625	
Division 11 - Equipment						294,419
Pumps, Station Valves, and Appurtenances		60	HP	294,419	294,419	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						300,000
Connection of Gravity and Forcemain Pipeline Sections		1	LS	300,000	300,000	
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						100,000
Miscellaneous Piping		1	LS	100,000	100,000	
Division 16 - Electrical and Instrumentation						73,605
Electrical (15% of Pumping Station)		1	LS	44,163	44,163	
Instrumentation and Controls (10% of Pumping Station)		1	EA	29,442	29,442	

Subtotal	1,134,576
Contingency - Construction Costs (25%)	283,644
Estimate of Probable Construction Costs	**1,420,000**
Administrative Fees (10%)	142,000
Regulatory (CEQA) Compliance (2.5%)	35,500
Engineering and Construction Management (17.5%)	248,500
Contingency - Soft Costs (10%)	142,000
Grand Total	**1,990,000**

B15

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Pipelines Serving Riverview and Lakeview Developments From Existing 8-Inch RW Main	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						71,600
Mobilization (5%)		5%	LS	270,000	13,500	
Bid, Bonds, and Insurance (3%)		3%	LS	270,000	8,100	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						5,268
Offsite Hauling (30 miles) and Disposal		4	CY	11.3	45	
Excavation		237	CY	12.5	2,965	
Confined Backfill and Compaction		233	CY	7.5	1,750	
Aggregate Base		34	CY	15	508	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						139,568
6-inch PVC pipeline		1,220	LF	114	139,568	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	216,436
Contingency - Construction Costs (25%)	54,109
Estimate of Probable Construction Costs	**270,000**
Administrative Fees (10%)	27,000
Regulatory (CEQA) Compliance (2.5%)	6,750
Engineering and Construction Management (17.5%)	47,250
Contingency - Soft Costs (10%)	27,000
Grand Total	**380,000**

B/6

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	12-inch Murieta Gardens Recycled Water Pipeline; Serves Other Northwest Developments As Well	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						78,000
Mobilization (5%)		5%	LS	350,000	17,500	
Bid, Bonds, and Insurance (3%)		3%	LS	350,000	10,500	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						5,330
Offsite Hauling (30 miles) and Disposal		9	CY	11.3	101	
Excavation		239	CY	12.5	2,990	
Confined Backfill and Compaction		230	CY	7.5	1,727	
Aggregate Base		34	CY	15	513	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						50,000
Jackson Highway Undercrossing		1	Each	50000		
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						145,974
6-inch PVC pipeline		220	LF	86	18,876	
12-inch PVC pipeline		1,010	LS	126	127,098	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	279,304
Contingency - Construction Costs (25%)	69,826
Estimate of Probable Construction Costs	**350,000**
Administrative Fees (10%)	35,000
Regulatory (CEQA) Compliance (2.5%)	8,750
Engineering and Construction Management (17.5%)	61,250
Contingency - Soft Costs (10%)	35,000
Grand Total	**490,000**

B17

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	6-inch Retreats Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						78,000
Mobilization (5%)		5%	LS	350,000	17,500	
Bid, Bonds, and Insurance (3%)		3%	LS	350,000	10,500	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						7,448
Offsite Hauling (30 miles) and Disposal		6	CY	11.3	63	
Excavation		335	CY	12.5	4,193	
Confined Backfill and Compaction		330	CY	7.5	2,474	
Aggregate Base		48	CY	15	719	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						197,340
6-inch PVC pipeline		1,725	LF	114	197,340	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	282,788
Contingency - Construction Costs (25%)	70,697
Estimate of Probable Construction Costs	**350,000**
Administrative Fees (10%)	35,000
Regulatory (CEQA) Compliance (2.5%)	8,750
Engineering and Construction Management (17.5%)	61,250
Contingency - Soft Costs (10%)	35,000
Grand Total	**490,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	10-inch Residences of Murieta Hills and Esquela (Future) Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						223,600
Mobilization (5%)		5%	LS	2,170,000	108,500	
Bid, Bonds, and Insurance (3%)		3%	LS	2,170,000	65,100	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						45,899
Offsite Hauling (30 miles) and Disposal		34	CY	11.3	388	
Excavation		2,067	CY	12.5	25,837	
Confined Backfill and Compaction		2,033	CY	7.5	15,244	
Aggregate Base		295	CY	15	4,430	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						1,466,072
10-inch PVC pipeline		10,630	LF	114	1,216,072	
Valves and Appurtenances		1	LS	250,000	250,000	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	1,735,571
Contingency - Construction Costs (25%)	433,893
Estimate of Probable Construction Costs	**2,170,000**
Administrative Fees (10%)	217,000
Regulatory (CEQA) Compliance (2.5%)	54,250
Engineering and Construction Management (17.5%)	379,750
Contingency - Soft Costs (10%)	217,000
Grand Total	**3,040,000**

B19

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Lookout Hill RW Storage Tanks (refurnished and new) and Pumping Station	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						191,600
Mobilization (5%)		5%	LS	1,770,000	88,500	
Bid, Bonds, and Insurance (3%)		3%	LS	1,770,000	53,100	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						8,366
Offsite Hauling (30 miles) and Disposal		127	CY	11.3	1,432	
Excavation		352	CY	12.5	4,400	
Backfill and Compaction		225	CY	7.5	1,689	
Aggregate Base		56	CY	15	845	
Division 3 - Concrete			NOT USED			126,027
Tank Base/Foundation		56	CY	1,350	76,027	
Miscellaneous Concrete		1	LS	50,000	50,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						278,040
Prefabrated Building		150	SF	100	15,000	
New Tank (200,000 gallons)		200000	each	0.9	183,040	
Refurbish Tank (200,000 gallons)		1	LS	80000	80,000	
Division 11 - Equipment						484,978
Pumps, Station Valves, and Appurtenances		125	HP	484,978	484,978	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						130,000
Tank Piping, Valves, and Appurtenances		1	LS	85000	85,000	
Repair and Replace Piping		1	LS	45000	45,000	
Division 16 - Electrical and Instrumentation			NOT USED			193,991
Electrical (25% of Pumping Station)		1	LS	121,244	121,244	
Instrumentation and Controls (15% of Pumping Station)		1	EA	72,747	72,747	

Subtotal	1,413,001
Contingency - Construction Costs (25%)	353,250
Estimate of Probable Construction Costs	**1,770,000**
Administrative Fees (5%)	88,500
Regulatory (CEQA) Compliance (2.5%)	44,250
Engineering and Construction Management (5%)	88,500
Contingency - Soft Costs (5%)	88,500
Grand Total	**2,080,000**

B20

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	North Coarse Pumping Station; 2110 gpm	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						163,600
Mobilization (5%)		5%	LS	1,420,000	71,000	
Bid, Bonds, and Insurance (3%)		3%	LS	1,420,000	42,600	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						0
Offsite Hauling (30 miles) and Disposal		0	CY	11.3	0	
Trenching		0	CY	12.5	0	
Confined Backfill and Compaction		0	CY	7.5	0	
Aggregate Base		0	CY	15	0	
Division 3 - Concrete						25,000
Miscellaneous Concrete		1	LS	25,000	25,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment						777,002
Pumps, Station Valves, and Appurtenances		250	HP	777,002	777,002	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						75,000
Miscellaneous Piping		1	LS	75,000	75,000	
Division 16 - Electrical and Instrumentation						194,251
Electrical (20% of Pumping Station)		1	EA	155,400	155,400	
Instrumentation and Controls (5% of Pumping Station)		1	EA	38,850	38,850	

Subtotal	1,234,853
Contingency - Construction Costs (15%)	185,228
Estimate of Probable Construction Costs	**1,420,000**
Administrative Fees (5%)	71,000
Regulatory (CEQA) Compliance (0%)	0
Engineering and Construction Management (10%)	142,000
Contingency - Soft Costs (5%)	71,000
Grand Total	**1,700,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	6-inch Industrial/Commercial/Residential Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						32,800
Mobilization (5%)		5%	LS	160,000	8,000	
Bid, Bonds, and Insurance (3%)		3%	LS	160,000	4,800	
Submittals		2	Number	5,000	10,000	
O&M Manuals		2	Number	5,000	10,000	
Division 2 - Site Work						820
Offsite Hauling (30 miles) and Disposal		1	CY	11.3	7	
Excavation		37	CY	12.5	462	
Confined Backfill and Compaction		36	CY	7.5	272	
Aggregate Base		5	CY	15	79	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						75,000
Jackson Road Undercrossing		1	LS	75000	75,000	0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						21,736
6-inch PVC pipeline		190	LF	114	21,736	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	130,356
Contingency - Construction Costs (25%)	32,589
Estimate of Probable Construction Costs	**160,000**
Administrative Fees (10%)	16,000
Regulatory (CEQA) Compliance (2.5%)	4,000
Engineering and Construction Management (17.5%)	28,000
Contingency - Soft Costs (10%)	16,000
Grand Total	**220,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	6-inch Apartments Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						32,000
Mobilization (5%)		5%	LS	150,000	7,500	
Bid, Bonds, and Insurance (3%)		3%	LS	150,000	4,500	
Submittals		2	Number	5,000	10,000	
O&M Manuals		2	Number	5,000	10,000	
Division 2 - Site Work						475
Offsite Hauling (30 miles) and Disposal		0	CY	11.3	4	
Excavation		21	CY	12.5	267	
Confined Backfill and Compaction		21	CY	7.5	158	
Aggregate Base		3	CY	15	46	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						75,000
Jackson Highway Undercrossing		1	Each	75000	75,000	
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						12,584
6-inch PVC pipeline		110	LF	114	12,584	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	120,059
Contingency - Construction Costs (25%)	30,015
Estimate of Probable Construction Costs	**150,000**
Administrative Fees (10%)	15,000
Regulatory (CEQA) Compliance (2.5%)	3,750
Engineering and Construction Management (17.5%)	26,250
Contingency - Soft Costs (10%)	15,000
Grand Total	**210,000**

B23

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	6-inch Esquela Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						24,800
Mobilization (5%)		5%	LS	60,000	3,000	
Bid, Bonds, and Insurance (3%)		3%	LS	60,000	1,800	
Submittals		2	Number	5,000	10,000	
O&M Manuals		2	Number	5,000	10,000	
Division 2 - Site Work						1,123
Offsite Hauling (30 miles) and Disposal		1	CY	11.3	9	
Excavation		51	CY	12.5	632	
Confined Backfill and Compaction		50	CY	7.5	373	
Aggregate Base		7	CY	15	108	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						22,308
6-inch PVC pipeline		260	LF	86	22,308	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	48,231
Contingency - Construction Costs (25%)	12,058
Estimate of Probable Construction Costs	**60,000**
Administrative Fees (10%)	6,000
Regulatory (CEQA) Compliance (2.5%)	1,500
Engineering and Construction Management (17.5%)	10,500
Contingency - Soft Costs (10%)	6,000
Grand Total	**80,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Bass Lake Tank and Pumping Station; 1040 gpm	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						215,600
Mobilization (5%)		5%	LS	2,070,000	103,500	
Bid, Bonds, and Insurance (3%)		3%	LS	2,070,000	62,100	
Submittals		5	Number	5,000	25,000	
O&M Manuals		5	Number	5,000	25,000	
Division 2 - Site Work						22,955
Offsite Hauling (30 miles) and Disposal		215	CY	11.3	2,435	
Excavation		921	CY	12.5	11,509	
Confined Backfill and Compaction		705	CY	7.5	5,290	
Aggregate Base		248	CY	15	3,721	
Division 3 - Concrete						324,077
Walls		31	CY	1,350	42,500	
Slab on Grade		18	CY	550	10,102	
Elevated Slab		4	CY	1,350	5,625	
Tank Base/Foundation		119	CY	1,350	160,850	
Miscellaneous Concrete		1	LS	105,000	105,000	
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Moisture Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						495,100
Prefabrated Building		250	SF	150	37,500	
500,000 gallon Storage Tank		500000	LS	0.9	457,600	
Division 11 - Equipment						373,102
Pumps, Station Valves, and Appurtenances		85	HP	373,102	373,102	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						75,000
Miscellaneous Piping		1	LS	75,000	75,000	
Division 16 - Electrical and Instrumentation						149,241
Electrical (25% of Pumping Station)		1	LS	93,276	93,276	
Instrumentation and Controls (15% of Pumping Station)		1	EA	55,965	55,965	

Subtotal	1,655,075
Contingency - Construction Costs (25%)	413,769
Estimate of Probable Construction Costs	**2,070,000**
Administrative Fees (10%)	207,000
Regulatory (CEQA) Compliance (2.5%)	51,750
Engineering and Construction Management (17.5%)	362,250
Contingency - Soft Costs (10%)	207,000
Grand Total	**2,900,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	8-inch River Canyon Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						27,200
Mobilization (5%)		5%	LS	90,000	4,500	
Bid, Bonds, and Insurance (3%)		3%	LS	90,000	2,700	
Submittals		2	Number	5,000	10,000	
O&M Manuals		2	Number	5,000	10,000	
Division 2 - Site Work						1,900
Offsite Hauling (30 miles) and Disposal		1	CY	11.3	16	
Excavation		86	CY	12.5	1,069	
Confined Backfill and Compaction		84	CY	7.5	631	
Aggregate Base		12	CY	15	183	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						40,269
8-inch PVC pipeline		440	LF	92	40,269	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	69,369
Contingency - Construction Costs (25%)	17,342
Estimate of Probable Construction Costs	**90,000**
Administrative Fees (10%)	9,000
Regulatory (CEQA) Compliance (2.5%)	2,250
Engineering and Construction Management (17.5%)	15,750
Contingency - Soft Costs (10%)	9,000
Grand Total	**130,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	6- and 8-inch Terrace and Highlands Recycled Water Pipeline	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						42,400
Mobilization (5%)		5%	LS	280,000	14,000	
Bid, Bonds, and Insurance (3%)		3%	LS	280,000	8,400	
Submittals		2	Number	5,000	10,000	
O&M Manuals		2	Number	5,000	10,000	
Division 2 - Site Work						5,052
Offsite Hauling (30 miles) and Disposal		4	CY	11.3	43	
Excavation		228	CY	12.5	2,844	
Confined Backfill and Compaction		224	CY	7.5	1,678	
Aggregate Base		33	CY	15	488	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties			NOT USED			0
Division 11 - Equipment			NOT USED			0
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction			NOT USED			0
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						180,008
6-inch PVC pipeline		850	LF	86	72,930	
8-inch PVC pipeline		1,170	LF	92	107,078	
Division 16 - Electrical and Instrumentation			NOT USED			0

Subtotal	227,460
Contingency - Construction Costs (25%)	56,865
Estimate of Probable Construction Costs	**280,000**
Administrative Fees (10%)	28,000
Regulatory (CEQA) Compliance (2.5%)	7,000
Engineering and Construction Management (17.5%)	49,000
Contingency - Soft Costs (10%)	28,000
Grand Total	**390,000**

AECOM

Project:	Rancho Murieta Title XVI Recycled Water Feasibility Study	**Date:**	3/29/2013
Job Number:	60273784	**Developed By:**	Kevin Kennedy
Component/Element:	Phase 3 Pipelines to Lake Estates; 795 gpm	**Checked By:**	
Path:			

Specification Section	Description	Quantity	Units	Unit Cost	Subtotal	Total
Division 1 - General Requirements						465,600
Mobilization (5%)		5%	LS	4,570,000	228,500	
Bid, Bonds, and Insurance (3%)		3%	LS	4,570,000	137,100	
Submittals		10	Number	5,000	50,000	
O&M Manuals		10	Number	5,000	50,000	
Division 2 - Site Work						77,781
Offsite Hauling (30 miles) and Disposal		131	CY	11.3	1,475	
Excavation		3,490	CY	12.5	43,628	
Confined Backfill and Compaction		3,360	CY	7.5	25,198	
Aggregate Base		499	CY	15	7,479	
Division 3 - Concrete			NOT USED			0
Division 4 - Masonry			NOT USED			0
Division 5 - Metals			NOT USED			0
Division 6 - Wood and Plastics			NOT USED			0
Division 7 - Thermal and Mositure Protection			NOT USED			0
Division 8 - Doors and Windows			NOT USED			0
Division 9 - Finishes			NOT USED			0
Division 10 - Specialties						769,660
Prefabrated Building		250	SF	150	37,500	
800,000 gallon Storage Tank		800000	Each	0.9	732,160	
Division 11 - Equipment						402,416
Pumps, Station Valves, and Appurtenances		95	HP	402,416	402,416	
Division 12 - Furnishings			NOT USED			0
Division 13 - Special Construction						100,000
Consumnes River Crossing		1	Each	100000		
Division 14 - Conveying Systems			NOT USED			0
Division 15 - Mechanical						1,740,110
6-inch PVC pipeline		17,950	LF	86	1,540,110	
Misceallaneous Piping		1	LS	200000	200,000	
Division 16 - Electrical and Instrumentation			NOT USED			100,604
Electrical (15% of Pumping Station)		1	LS	60,362	60,362	
Instrumentation and Controls (10% of Pumping Station)		1	EA	40,242	40,242	

Subtotal	3,656,171
Contingency - Construction Costs (25%)	914,043
Estimate of Probable Construction Costs	**4,570,000**
Administrative Fees (10%)	457,000
Regulatory (CEQA) Compliance (2.5%)	114,250
Engineering and Construction Management (17.5%)	799,750
Contingency - Soft Costs (10%)	457,000
Grand Total	**6,400,000**

Potential Cost Savings Measures

Local developers expressed their concerned with the overall costs of the expanded recycled water program during the developer outreach meetings. During this meeting, AECOM indicated to meeting attendees that the primary objectives of this study were to:

- Identify which developments appear to be the most cost-effective to serve with respect to one another,
- Determine which alternative was more cost-effective, and
- Prepare a feasibility study report which met the requirements for pursuing additional Title XVI granting funding.

Although optimizing the expanded recycled water program to minimize/reduce costs was beyond the scope of this study, AECOM developed several areas where costs may be reduced or eliminated. The following are descriptions of these areas:

- Pursue additional Title XVI grant funding for detailed design and construction activities. The District should consider joining a coalition to increase their potential for funding.
- Ask CDPH to re-evaluate their position with respect to the need for providing recycled water storage tanks at Bass Lake. The estimated cost associated with this particular tank is on the order of $1 million dollars.
- Costs can be reduced by coordinating and packaging developer and District infrastructure improvements. For example, it is our understanding that the existing storm drainage channel located along the northeast perimeter of Murieta Gardens is to be replaced with a new pipeline. This proposed storm drain pipeline alignment is contiguous with the proposed 12- and 10-inch recycled water pipelines serving the west and northwest developments. Potential savings may be achieved by installing these two pipelines as part of the same contract and within a common trench provided that this is accomplished in accordance with regulatory requirements (e.g., adequate vertical and horizontal separations).
- Discussions with RMCC indicated that the existing pumping station serving the South Golf Course will require replacement in the near future. Once the North Golf Course Pumping Station is replaced with a higher capacity facility, this existing facility could potentially be configured to serve both Van Vleck and the South Golf Course.

Appendix C

General Manager Letter Regarding District Commitment
To Be Developed

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

More information on AECOM and its services can be found at www.aecom.com.

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Finance Committee Staff

Subject: Adopt Ordinance 2013-02, Amending District Code Chapter 8, Community Facilities Fees

---

RECOMMENDED ACTION

Introduce Ordinance 2013-02, an Ordinance amending District Code Chapter 8, the Community Facilities Fee Code, Section 3.00, to increase the Water Supply Augmentation and the Community Parks fees, waive the full reading of the Ordinance and continue to the August 21, 2013 Board meeting for adoption.

BACKGROUND

On a yearly basis, the District reviews and adjusts, as necessary, the fees collected to meet the District's current and future service needs. As part of that review, the District is required by Government Code Section 66000 to prepare a report on the findings and supporting background information on the fee adjustment. The attached report is for the Water Supply Augmentation fee.

The fee increase is summarized as follows:

Fee	Index	% Increase	Current fee	**Proposed fee**
Water Supply Augmentation	CPI	1.1	*$ 4,421.00*	***$ 4,571.00***

The Community Park Fee is not changed as the ENR Index remained flat for the period of April 2012 to April 2013.

Increasing the fees requires a public hearing, which will be noticed for the July Board meeting.

The Finance Committee recommends adoption.

ORDINANCE 2013-02

AN ORDINANCE OF THE RANCHO MURIETA COMMUNITY SERVICES DISTRICT AMENDING DISTRICT CODE CHAPTER 8, SECTION 3.00 OF THE COMMUNITY FACILITIES FEE CODE

BE IT ORDAINED by the Board of Directors of the Rancho Murieta Community Services District, Rancho Murieta, Sacramento County, California, as follows:

SECTION ONE:
Chapter 8 of the District Community Facilities Fee Code, Section 3.00 Fees is amended, in part, as follows:

3.03

a) A Capital Improvement Fee: No Change

b) A Community Park Fee: No Change

c) A Water Supply Augmentation Fee in the amount of Four Thousand Five Hundred Seventy-One Dollars ($4,571.00) per EDU to be applied to: (Note: the remainder of the paragraph is unchanged and this fee is to be paid upon issuance by the District by a water/sewer permit).

SECTION TWO:
To the extent the terms and conditions of this Ordinance may be inconsistent or in conflict with the terms and provisions of any prior District ordinances, resolutions, rules or regulations the terms of this Ordinance shall prevail with respect to the terms and provisions thereof, and such inconsistent or conflicting terms and provisions of prior ordinances, resolutions, rules and regulations are hereby repealed.

SECTION THREE:
This Ordinance shall be in full force and effect thirty (30) days after adoption and shall be published within 10 days of adoption in a newspaper of general circulation published within the District.

SECTION FOUR:
The establishment, modification, structure, restructuring and approval of the fees, rates tolls or other charges as set forth herein are for the purposes of continuing to meet the District's cost for operation and maintenance, supplies and equipment, financial reserves, and capital replacement needs, and are necessary to maintain service within the District's existing service area.

PASSED AND ADOPTED by the Board of Directors of the Rancho Murieta Community Services District, Sacramento County, California, at a meeting duly held on August 21, 2013, by the following roll call vote:

Ayes:
Noes:
Abstain:
Absent:

[seal]

_____
Gerald Pasek, Board President
Rancho Murieta Community Services District

ATTEST: _____
Suzanne Lindenfeld, District Secretary

DRAFT

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

GOVERNMENT CODE 66000 COMPLIANCE REPORT
FOR
CAPITAL IMPROVEMENT FEE
July 2013

This report sets forth the findings and background information required by Government Code 66000 for updating of the Districts' Capital Improvement Fee. The current amount of this Fee is $1,180 per equivalent dwelling unit of new development.

The District has independently adopted a Community Park Fee to fund the acquisition and/or construction of community park facilities and a Water Supply Augmentation Fee to fund the expansion of the District's water supply. The funds generated by this Capital Improvement Fee are not intended to be used for and shall not be used to fund water storage projects or park development.

I. PURPOSE OF FEE

The purpose of the Capital Improvement Fee (the "Fee") is to provide funds for the orderly and timely expansion of the District facilities to meet future demand and to maintain and/or improve the District's existing level of service.

II. USE OF FEE

Funds generated by the Fee will be used to acquire and/or construct various capital facilities, plant and equipment for the provision of water, wastewater, drainage, security and administrative services. A complete breakdown of the projected capital facilities and costs is shown in Exhibit "A".

The capital facilities shown in Exhibit "A" have been divided into two categories. Category I facilities include those capital facilities that are required to serve future users resulting from new development within the District. Category II facilities include those facilities that are required to serve both existing and future users within the District.

DRAFT

III. RELATIONSHIP BETWEEN USE OF FEE AND TYPE OF DEVELOPMENT

Virtually all development that occurs within the District requires the use of District facilities, plant and equipment for public services. This Fee is established to insure the adequacy and reliability of such facilities, plant and equipment as development of undeveloped land occurs.

IV. RELATIONSHIP BETWEEN DWELLING UNITS AND EQUIVALENT DWELLING UNITS

In order to compare residential, commercial, and industrial properties for purposes of establishing an equitable capital improvement fee structure, properties within the District have been assigned the following EDU ratios in accordance with the EDU ratio calculation shown in Exhibit "B":

A. RESIDENTIAL

Type of Property	EDU Ratio
1. Estate, Cottage, Circle (70' or 90'), or Halfplex Lot	1.0 EDU/lot
2. Townhouse, Murieta Village or The Villas Lot	0.5 EDU/lot

B. COMMERCIAL / INDUSTRIAL / MUNICIPAL

Type of Property	EDU Ratio
1. Business and Professional Offices	0.3 EDU/1,000 sq. ft.
2. Retail, Commercial, Clubhouse, Community Buildings, Restaurants, Bars, Cocktail Lounges, Schools & Training Facilities	0.6 EDU/1,000 sq. ft.

DRAFT

Type of Property	EDU Ratio
3. Light Industrial, Murieta Equestrian Center & Airport Buildings	0.2 EDU/1,000 sq. ft.
4. Motel/Hotel Facility Buildings	0.4 EDU/room
5. Irrigated Lands, or Other Miscellaneous Property Uses	1.6 EDU/acre

Non-residential properties having a private Fire Department connection ("FDC") shall pay, in addition to the fee amounts calculated pursuant to the above EDU ratios, an amount determined in accordance with the following EDU ratios:

4" Diameter FDC Connection	0.40 EDU/connection
6" Diameter FDC Connection	0.50 EDU/connection
8" Diameter FDC Connection	0.60 EDU/connection

These ratios reflect the relative demand placed upon the District for community facilities to be funded by this Fee as a function of land use.

The Rancho Murieta Planned Development Ordinance (PD Ordinance), approved Sacramento County, authorizes not more than 5,189 residential dwelling units (DU) and approximately 1,018 equivalent dwelling units (EDU) of associated municipal, commercial and industrial land uses within the existing boundaries of the District. Exhibit "C" includes a breakdown of the total and existing EDU's within the District.

V. DETERMINATION OF BENEFITED PROPERTIES

All undeveloped properties within the District will share the cost of providing Category I facilities based on the EDU ratios set forth above. All properties within the District, whether developed or undeveloped, will share the cost of providing Category II facilities based on the EDU ratios set forth above.

VI. DETERMINATION OF THE BUDGET

There are several types of capital facilities that will be required by the District in the future to maintain the existing level of service as build-out of the District occurs. These facilities can be generally grouped into the following types:

A. WATER / WASTEWATER FACILITIES

These facilities include electrical control replacements, sewer main cleaning equipment, air compressors, water meter retrofit, telemetry and central control facilities, material and equipment warehouses, drainage ditch maintenance equipment, bulk storage bunkers, utility and service vehicles, reservoir protection system, drainage and channel improvements, facility triangulation control system, hydro-electric generation facilities and appurtenances, reservoir road grading, air injection system, storm water monitoring and testing equipment, algae induction system, risk management protection system.

B. SECURITY FACILITIES

These facilities include a security center in the District administrative complex, security vehicles, north gate improvements, gate computer network, gate video operation link equipment identification system, radio equipment and appurtenances.

C. ADMINISTRATIVE & COMMUNITY FACILITIES

These facilities include a District administrative center, accounting computer and software, record storage/retrieval system, board meeting recording equipment and appurtenances.

Also included within the projects to be funded by the Fee are the necessary architectural and engineering studies and designs and administrative costs to implement these projects. A complete breakdown of the projected costs is shown in Exhibit "A".

VII. DETERMINATION OF THE FEE

This Fee is based on the projected cost of the capital facilities included in Exhibit "A". These capital facilities are anticipated to be required to assure that the District maintains its existing level of service at full build-out of the District.

The proposed Capital Improvement Fee is determined as shown below and in Exhibit "A". The amount of this Fee is $1,180 per EDU.

CATEGORY I FACILITIES	
Total Budget	$ 1,320,595
Total Benefited Properties	4,356 EDU
Category I Component of Fee	$ 303/EDU

CATEGORY II
FACILITIES

Total Budget	$ 5,207,510
Total Benefited Properties	5,899 EDU
Category II Component of Fee	$ 883/EDU

Category I Component of Fee	$ 303/EDU
Category II Component of Fee	883/EDU
Total Capital Improvement Fee	$ 1,186/EDU

While the project budget yields an equivalent dwelling unit fee ($1,186) which is greater than the current fee ($1,180), there is no significant difference between the budget fee and the current fee**. Therefore, there is no justification at this time to increase the current fee.** A capital improvement fee of $1,180 per dwelling unit, when applied to the remaining 4,156 dwelling units, will yield sufficient revenues ($4,904,080) plus earned interest to cover such remaining costs.

VIII. ALLOCATION OF CAPITAL COSTS BETWEEN EXISTING AND NEW DEVELOPMENT

A. CATEGORY I IMPROVEMENTS

The facilities that make up Category I of Exhibit "A" are capital improvements that would not be required but for the additional service requirements imposed upon the District by new users. These improvements include both new facilities and facilities required to replace deteriorated portions of existing plant and equipment that have sat idle since their original construction, where such idle capacity was reserved to serve future users.

B. CATEGORY II IMPROVEMENTS

The facilities that make up Category II of Exhibit "A" are capital improvements that will serve both existing and future users.

C. EXISTING USER CONTRIBUTION

As of March 31, 1998, the District had 1,855 users that generate an equivalent demand for capital improvements of 1,752 EDU. These users have paid a total of $1,518,187 in capital and community facilities fees.

As of that same date, the District had expended $1,202,586 of these funds on various capital facilities. The fund had received interest earnings in the amount of $247,201. The balance of the fund as of March 31, 1998 was $562,802. Some $342,619 of the $1,180,405 spent from Capital Improvement Fees are not listed on Exhibit A of the Budget & Fee Schedule. These funds were spent before a Budget and Fee Schedule was adopted.

D. ALLOCATION OF CATEGORY II FACILITY COSTS BETWEEN EXISTING AND FUTURE USERS

The per user share of Category II costs allocated among both existing and future users on a pro-rata basis is $883 per EDU:

Total Category II Costs $5,207,510
Total EDUs at Build out 5,908

Cost Allocation per EDU = $ 883

The existing users collective share of total Category II costs equals $1,547,016:

Existing User Count = 1,752 EDU
(As of March 31, 1998)

x Cost Allocation per EDU $ 883
Existing Users
Collective Share = $1,547,016

IX. TOTAL EQUIVALENT DWELLING UNITS

The total number of equivalent dwelling units at ultimate buildout may be reduced due to development constraints or other unforeseen circumstances. In this event, the amount of dollars collected may be less than projected and not all projects will be able to be funded. Therefore, the District has prioritized the projects in the capital improvement program to insure the completion of projects in the order of importance to the community.

While the ultimate number of EDU's within the District cannot be calculated with absolute certainty at this time, it has been determined that the methodology utilized in the development of this Fee yields a reasonable estimate of the total number of EDUs that will be built within the District. Correspondingly, the amount of this Fee is deemed to be, within a reasonable margin of error, a reasonable estimate of the amount that this Fee would be if the ultimate number of EDUs within the District was known with certainty at this time.

X. COLLECTION OF FEE

This Fee will be collected at the time of issuance of the Water and Sewer Service Permit. This will be a one time per EDU Fee.

DRAFT

RANCHO MURIETA COMMUNITY SERVICES DISTRICT
GOVERNMENT CODE 66000 COMPLIANCE REPORT
FOR
COMMUNITY PARK FEE

July 2013

This report sets forth the findings and background information required by Government Code 66000 for the 2013 update of the District's Community Park Fee. The amount of this Fee is $1,889.48 per residential dwelling unit ("DU").

I. Purpose of Fee

The purpose of the Community Park Fee (the "Fee") is to fund the public component of a mixed public/private community parks program to serve the Rancho Murieta community. The public component of the mixed public/private community parks program is currently anticipated to consist of development of community park facilities on the District owned park site located on Stonehouse Road.

In September 2004, the CSD granted the Stonehouse Park site to RMA as part of a three property exchange between RMA, CSD and PTF.

The fee is not normally collected by the District. The Rancho Murieta Association (RMA) collects a like amount Community Park Fee on all new development in the residential portions of the community north of Highway 16. Should the RMA not be able to collect the Fee, the CSD will collect the Fee and transfer the Fee to RMA.

II. Use of Fee

The revenues generated by the Fee will be used to fund the public portion of the costs of building a community park on the District property located on Stonehouse Road in Rancho Murieta (the "Stonehouse Community Park"). The Stonehouse Community Park is currently anticipated to consist of ball fields, hard courts, a concession building, a pool and cabana, picnic areas, landscaping, and other miscellaneous park related improvements (the "Stonehouse Community Park Facilities"). A more complete listing of the Stonehouse Community Park Facilities is provided in the budget attached to this report as Exhibit "A" (the "Public Community Park Program Budget").

Over time, the Parks Committee has made scope and project improvement changes to the original park facilities contemplated by this fee. While the facilities may have changed, the overall budget is still appropriate and will continue as the basis for the fee.

DRAFT

III. Relationship Between the Type of Development on which the Fee Is Imposed, the Fee's Use and the Need for the Facilities Being Funded Thereby

Residential development creates need and demand for community park and recreation facilities. Such facilities play a critical role in promoting and protecting the health, safety and general welfare of the residents of Rancho Murieta.

The park and recreational facilities required to serve the residents of the District are to be addressed through a mixed public/private community parks program that will include not only the publicly funded facilities on the Stonehouse site, but also privately funded facilities to include two community centers as well as park improvements for the Clementia Valley and Clementia Lakeside park sites. Whereas the public funds generated by this Fee will be administered by the District on behalf of all residents of the District, the private funds will be administered by the Rancho Murieta Association (""RMA") on behalf of its present and future members.

IV. Relationship Between the Amount of the Fee and the Cost of Providing Facilities to Address the Needs Attributable to the Development on which the Fees Are Imposed

A. Determination of Properties to be Served

The Community Park Facilities will be provided for the use of all present and future residents of the District and all present and future residents will contribute to the provision thereof. Those facilities funded with revenues generated by this Fee, or any other public resources, will be operated and maintained by the District. The total number of private dwelling units to be served by the Community Park Facilities is 4,962.[1]

The Stonehouse facilities, to date in 2005, have been constructed by the RMA through their community and neighborhood park fee program. Accordingly, the CSD has not collected any public fees or constructed facilities.

As of December 1990, of these 4,962 dwelling units, the lands then annexed to RMA north of the Cosumnes River included 1,534 dwelling units and/or vacant lots. RMA agreed to contribute $1,500,000 towards the construction of private community park facilities within the District in behalf of these 1,534 DU and/or lots. This contribution represented a fair share allocation of the cost of the community's overall community park program for these 1,534 dwelling units and/or lots. Additionally, as explained below, of the 4,962 dwelling units, 78

DRAFT

[1] The Sacramento County approved Rancho Murieta Planned Development Ordinance (PD Ordinance) authorizes not more than 5,189 residential dwelling units within the existing boundaries of the District. In calculating the number of units to be served by the Community Park Facilities, however, two types of existing residential developments have been excluded. The existing mobile home park (189 dwelling units) has its own self-contained recreational facility. Also excluded will be the Rancho Murieta Country Club Lodge with 38 dwelling units used to provide temporary lodging to guests of its members. It has been determined by the District that the mobile home park and the Lodge will place negligible recreational demand on a community park. The total remaining properties to be served by the Community Parks Program is as follows:

Rancho Murieta PD Ordinance		5,189 DU
1.	Mobile Home Park	< 189 DU>
2.	RMCC Lodge - Villas	< 38 DU>
Total Properties To Be Served		4,962 DU

dwelling units within Rancho Murieta South had previously met their community park obligation.

Accordingly, the remaining number of dwelling units subject to this fee is determined as follows:

Total Properties To Be Served:		4,962 DU
Less:		
(1)	RMA Units/Lots	<1,534 DU>
(2)	Rancho Murieta South Lots	< 78 DU>
Properties Subject To Fee:		3,350 DU

B. Determination of the Community Parks Program Budget

The costs of building the Stonehouse Community Park Facilities are estimated to be $4,082,000. A detailed breakdown of such costs is provided in the attached Exhibit A.

C. Relationship Between Public and Private Community Park Program and Funding Sources

The relationship between the public and private community parks and the source of funds to cover the costs of the Community Parks Program are explained as follows:

i. Community Park Program

In 1990 and 1991, RMA entered into a series of Park Development Agreements with the owners of all undeveloped land within the District that requires the owners of these lands to convey certain neighborhood and community park sites to RMA and to pay a per dwelling unit fee to RMA for the development of those park sites. In December 1990, under the theory that the District needed to create an enforcement mechanism to assure compliance of the parties to the Park Development Agreements, the District, also being a signatory to these agreements, adopted a Community Park Fee of a like amount to fund the development of a community park at the Stonehouse site.

The demand placed on the District for community park facilities will decrease over time pro-rata in direct relationship to the number of dwelling units that are annexed to RMA and pay RMA's community park development fee. As development of the community progresses, the District's contingent responsibility decreases pro-rata until all residential lands within the District are developed and annexed to RMA.

In the event that one or more of the parties to the private park program created by the agreements failed to meet their respective responsibilities, the District would collect fees from the then remaining

DRAFT

undeveloped dwellings units thereby funding the construction of community park facilities on the Stonehouse site. The public community park facilities constructed through this process would fill the resulting void in the private community park facilities created by the failure of the private park program.

The proposed public community park budget is designed to yield a per dwelling unit fee equivalent to the current community park fee per dwelling unit (the "Contract Fee") then due under RMA's Park Development Agreements. Originally set at $1,095 per dwelling unit in February 1991, these agreements included a provision that the Contract Fee would be adjusted annually pro-rata to the change in the Engineering News Record (ENR) Construction Cost Index for the San Francisco Region. Through April 2012, this Contract Fee had been adjusted to $1,889.48 per residential dwelling unit. From April 2012 to April 2013, the ENR Index has not increased, thus the current fee remains $1,889.48.

Practically speaking, if, in the unlikely event that one or more of the parties default from their responsibilities under the agreements, the District would collect fees from the affected dwelling units, scale back the public community park budget accordingly and construct the needed community park facilities on the Stonehouse site. Over time, the District's "budget" for community park facilities will in effect dwindle in direct relationship to the ever declining number of yet to be developed residential dwelling units such that the resulting fee (reduced "budget" divided by the number of remaining undeveloped dwelling units) would continue to be equivalent to the amount of the per dwelling unit fee then due under the agreements.

ii. Private Funding Sources

1. RMA has agreed, on behalf of the owners of the 1,534 developed lots north of the Cosumnes River, that the Association, as of December 1990, would contribute One Million Five Hundred Thousand Dollars ($1,500,000) towards the construction of private Community Park Facilities. (A complete listing of the properties covered by the RMA agreement is attached as Exhibit "B" to this Report.)

2. In addition, RMA has entered into a Park Development Agreement with the owners of 1142 of the 1220 undeveloped lots south of the Cosumnes River and a series of "sister" Park Development Agreements with the owners of all of the undeveloped residential land north of the Cosumnes River (estimated to be developed into 2,208 DU) pursuant to which the Landowners originally agreed to contribute $1,095 per dwelling

DRAFT

unit to the RMA administered private Community Parks Program. (A complete listing of the properties subject to these Park Development Agreements is attached as Exhibit "C" to this Report.) The District has agreed to grant a credit to these Landowners in the amount of each lot's contribution to the RMA Administered Private Community Parks Program.

iii. Public Funding Sources

1. Approximately 78 of the 1220 lots south of the Cosumnes River had already met their community park funding obligations (and therefore are not subject to the Park Development Agreement) prior to execution of the Park Development Agreements in 1990 by paying the District's Community Facilities Fee then in effect of which slightly over forty percent (40%) has been allocated to park funding.

D. Determination of Fee

The Public Community Park Fee is intended to fund the costs of the public community park facilities at the Stonehouse site. The Stonehouse Community Park is expected to cost $4,082,000. The previously mentioned 78 lots south of the Cosumnes River that is not subject to the Park Development Agreements had paid approximately $63,960 towards the cost of the Stonehouse Community Park facilities as of October 1990. Since that time, these funds have accrued approximately $35,129 in interest from the District's account in the State of California's Local Agency Investment Fund. In June 1998, the District released to RMA $63,960 which represents the south's community parks contribution, less the District's costs for site grading at the Stonehouse site. The remaining costs of the Stonehouse Community Park facilities, in the amount of $3,982,911 will be funded through the Fee. A community park fee of $1,889.48 per dwelling unit, when applied to the 3350 dwelling units, will yield sufficient revenues ($6,329,758) to cover such remaining costs.

E. Summary of Funding for Public Community Park Program

1. Public Community Park Program Budget:

a. Stonehouse Community Park Facilities $4,082,000

2. Funding Sources:

a. Public Sources of Funds Community Park Fee
(3350 DU x 1,889.48) $6,329,758

b. Park Component of Community

Facilities Fee for 78 Rancho Murieta South units
Not subject to Park Development Agreement
(Including interest earnings) $99,089

DRAFT

Total Public Funds Available for Public Community Parks Program	$6,428,847

However, this total funding assumes a greater number of units than are currently anticipated. The estimate of the number of units as of 2004 that will have paid the fee is:

Unit 6	110
Rancho Murieta South (Units 1-9, Crest, Greens)	749
Lakeview	99
Riverview	150
Rancho Murieta North MBA	1,093
Old School Site	50
Apartment site	200
TOTAL	2,151

The summary of contributions to the parks fund is 2,151 lots at $1,889.48, totaling $4,064,271.

Of the 2,151 lots contributing to the parks program, as of 2012 the following lots remain undeveloped and subject to the fee:

Lakeview	*99*
Riverview	*150*
Rancho North MBA	*1,093*
Old School Site	*50*
Apartment site	*200*
Unit 6	*11*
TOTAL	*1,627*

The summary of contributions to the parks fund is 1603 lots at $1,889.48, totaling $3,028,836.

V. Determination of Credits

At any time prior to payment of the Fee, the owner of an undeveloped lot subject to the Fee may choose to participate in a Park Development Agreement with RMA. Such participants shall receive a credit towards the Fee for any amounts paid to RMA pursuant to such a Park Development Agreement, provided that RMA agrees to utilize the revenue thereby collected to construct improvements substantially similar in type and purpose to those enumerated in Exhibit A.

VI. Collection of Fee

This fee will be collected at the time of issuance of a water/sewer service permit. This will be a one-time per DU fee.

DRAFT

EXHIBIT B

PROPERTIES SUBJECT TO RMA AGREEMENT

Rancho Murieta Association's agreement to contribute One Million Five Hundred Thousand Dollars ($1,500,000) towards construction of Community Park Facilities was made on behalf of the owners of the developed lots in the following existing subdivisions:

		Recording Information or APN
1.	Rancho Murieta Unit No. 1	95BM18
2.	Rancho Murieta Unit No. 1A	111BM23
3.	Rancho Murieta Unit No. 2	121BM8
4.	Rancho Murieta Unit No. 3	132BM14
5.	Rancho Murieta Unit No. 3A	163BM1
6.	Rancho Murieta Unit No. 3B	172BM17
7.	Rancho Murieta Unit No. 4	142BM9

DRAFT

EXHIBIT C

PROPERTIES SUBJECT TO THE PARK DEVELOPMENT AGREEMENT

The following properties are subject to the park Development Agreement:

		Recording Information or APN
1.	Rancho Murieta South Unit No. 1A[2]	202 BM 10
2.	Rancho Murieta South Unit No. 1B[3]	202 BM 11
3.	Rancho Murieta South Unit No. 2A	207 BM 1
4.	Rancho Murieta South Unit No. 2B	207 BM 2
5.	Rancho Murieta South Unit No. 3	209 BM 4
6.	Rancho Murieta South Unit No. 4	209 BM 5
7.	Rancho Murieta South Unit No. 5	216 BM 11
8.	Rancho Murieta South - "Phase II"	128-0080-089 & 128-0080-090
9.	Rancho Murieta South - "The Crest" (Parcel 3)	123 PM 26
10.	Rancho Murieta South - "The Greens" (Parcel 4)	123 PM 26
11.	Rancho Murieta South - "Lakeview" (Parcel 5)	123 PM 26
12.	Rancho Murieta South - "Riverview" (Parcel 6)	123 PM 26
13.	Rancho Murieta North Hotel Site (Parcel A)	98 PM 23
14.	Rancho Murieta North Unit No. 6	213 BM 6
15.	The Villas Townhouse Site (Parcel 1)	92 PM 22
16.	Rancho Murieta North Unit No. 5	073-0190-071 & 073-0190-047
17.	Calero Residential (Parcel A)	801102 O.R. 842
18.	Rancho Murieta North - School Site (Lot A)	95 BM 18
19.	Rancho Murieta North Remainder (Parcel 7)	123 PM 26
20.	Murieta "Ruins" Parcel (Parcel 12)	123 PM 26
21.	Future Driving Range Site (Parcel 10)	123 PM 26

DRAFT

[2]Of the 57 recorded lots in Rancho Murieta South Unit No. 1A, only 12 lots are subject to the Park Development Agreement. The 12 lots that are subject to the Parks Development Agreement are Lots 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 49 & 50.

[3]Of the 40 lots contained in Rancho Murieta South Unit No. 1B only 7 lots are subject to the Park Development Agreement. The 7 lots that are subject to the Park Development Agreement are Lots 51, 53, 58, 75, 80, 81, & 82.

EXHIBIT A

PUBLIC COMMUNITY PARK PROGRAM BUDGET

STONEHOUSE COMMUNITY PARK

Fields & Lighting					
	A.	Ball Fields	$ 186,000		
	B.	Soccer Fields	106,000		
	C.	Ball Field Lighting	257,000		
		SubTotal		$	549,000
Courts & Lighting					
	A.	Tennis	$ 66,000		
	B.	Basketball	50,000		
	C.	Lighting	50,000		
		SubTotal		$	166,000
Bleachers & Benches				$	50,000
Concession Building w/Restrooms (3,000 sf @ $60/sf)					181,000
Playground & Picnic Areas					111,000
Trails & Walks					156,000
Landscape, Irrigation & Turf					211,000
Porta John Shelter					156,000
Pool & Cabana Facilities					986,000
Development Fee Administration Expense					10,000
Site Preparation & Improvements					
	A.	Clear, Grubb & Grading	$ 106,000		
	B.	Streets	106,000		
	C.	Parking	136,000		
	D.	Lighting	60,000		
	E.	Utilities & Drainage	131,000		
	F.	Misc.	25,000		
		Subtotal		$	564,000
		Subtotal		$	3,140,000
Contingency (10%)					314,000
Architecural, Engineering, Inspection & Supervision (20%)					628,000
TOTAL COST FOR STONEHOUSE COMMUNITY PARK				$	**4,082,000**

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

GOVERNMENT CODE 66000 COMPLIANCE REPORT
FOR
WATER SUPPLY AUGMENTATION FEE

July ~~2012~~2013

This report sets forth the findings and background information required by Government Code 66000 for the ~~2012~~ 2013 update of the District's Water Supply Augmentation Fee. The amount of this Fee is $~~4,521.00~~4,571.00 per equivalent dwelling unit.

I. Purpose of Fee

The purpose of the Water Supply Augmentation Fee is to provide funds for the orderly and timely expansion of the District's water supply system to meet the future demands of the undeveloped lands within the District's existing boundaries.

II. Use of Fee

Funds generated by the Fee will be used to develop a Water Supply Augmentation Project, which is currently anticipated to consist of a system of water wells, construction of transmission facilities, construction of irrigation facilities and the performance of various studies and other miscellaneous management and administrative functions. A complete breakdown of the projected water supply augmentation facilities and costs are shown in Exhibit "A".

III. Relationship Between Need for Facilities, Use of Fee and Type of Development

Virtually all development that occurs within the District requires a potable water supply as required by the California Health and Safety Code, as well as by local agencies responsible for such services as fire protection. The current water supply facilities of the District are adequate to serve existing development, but additional water supply facilities are required to serve future development within the District. Specifically, this fee applies on an equitable basis only to those future developments that require water service, and the funds generated from this fee will be used to develop water supply facilities that will be capable of meeting the water supply needs of said future development. This Fee is established to insure the adequacy and reliability of the District's water supply as development of undeveloped lands occurs.

DRAFT

IV. Relationship Between Dwelling Units and Equivalent Dwelling Units

The Sacramento County approved Rancho Murieta Planned Development Ordinance (PD Ordinance) authorizes not more than 5,189 residential dwelling units (DU) and approximately 839 equivalent dwelling units (EDU) of associated municipal, commercial and industrial land uses within the existing boundaries of the District.

In order to compare residential, commercial, and industrial properties for purposes of establishing an equitable fee structure, water consumption has been evaluated on an EDU basis. Using a standard rate of 750 gallons per day (GPD) per EDU (750 GPD/EDU), the equivalent dwelling unit counts for all residential, municipal, commercial and industrial land uses can be computed. The basis for the EDU determination is the District's Water Supply Study prepared by Giberson & Associates titled "Rancho Murieta Water Supply: Planning for Future Droughts (February 1990)."

Exhibit "B" contains the calculations that convert the various residential, municipal, commercial and industrial land uses to a total EDU count. The total of the proposed and existing residential, municipal, commercial and industrial land uses planned within the boundaries of the District is 5,273 EDU. Existing development within the District as of the date of creation of this fee (December 1990) generated a water demand estimated at 1,364 EDU. The properties subject to this Fee will generate a water demand estimated at 3,909 EDU.

V. Determination of Benefited Properties

The District's Water Supply Study determined that the District's existing water supply system has the ability to provide adequate and reliable water service to approximately 3,206 EDU (estimated at 3,500 DU of various residential land uses and 451 EDU of municipal, commercial and industrial land uses). Since the District had an existing commitment to serve 1,364 EDU in December 1990, the District could then serve an additional 1,842 EDU before exceeding the existing capacity of the water supply system.

Under the terms of the District's 1986 Acquisition and Service Agreement (October 23, 1986), Rancho Murieta Properties, Inc. (RMPI), the then owner of nearly all of the undeveloped lands within the District, expressly acknowledged the potential need for additional capacity and agreed to pay for any needed additional water supply facilities. In 1990 and 1991, the 2nd Amendment to the Acquisition and Service Agreement was executed by all owners of remaining undeveloped land that was subject to the original Acquisition and Service Agreement. The 2nd Amendment established a contract fee to be paid by these landowners per EDU for water supply augmentation. Originally set at $2,500/EDU, the 2nd Amendment included a provision that the contract fee would be adjusted annually pro-rata to the change in the U.S. Consumer Price Index (CPI). The CPI from April ~~2011~~ 2012 to April ~~2012~~ 2013 increased ~~2.3~~1.1%, thus the current fee is $~~4,521.00~~4,571.00 per EDU. The District recognizes that other future customers may benefit from the development of additional District water supplies to be funded by the lands subject to the Acquisition and Services Agreement (ASA).

DRAFT

Accordingly, the District proposes to require all future customers to pay for their pro-rata share of the cost to improve the District's water supply system and, through enactment of the Water Supply Augmentation Fee, to impose a uniform fee upon all new development. For the purposes of the determination of the Fee, all undeveloped properties within the District subject to the 2nd Amendment of the Acquisition and Service Agreement will share the cost of improving the District's water supply system on an equitable basis. The following properties will be subject to the Fee.

1. All undeveloped lands subject to the 2nd Amendment of the Acquisition and Service Agreement.

2. The following lands which are not subject to the Acquisition and Service Agreement:

    a. Rancho Murieta Airport
    b. Murieta Airport Business Park
    c. Murieta Equine Complex
    d. Miscellaneous Park Sites Not Subject To The ASA.

VI. Determination of the Budget

There are three major water facilities that are currently anticipated to be required to augment the District's water supply system:

1. An on-site well system to be located in the southwest corner of the District.

2. An off-site well system to be located in the vicinity of Sloughhouse - some five miles west of the District boundary.

3. A commercial area irrigation system to provide raw irrigation water to the landscaped portions of the commercial area. By eliminating these demands from the domestic system, additional domestic demands can be served in lieu of developing additional water supplies.

However, in the 1990's, options 1 & 2 proved unsuccessful. The District embarked in additional investigations of groundwater and surface water alternatives. The most likely project is groundwater source south of the Cosumnes River. The District is working with the Sacramento Central Groundwater Authority and the South County Groundwater Council to position the District to make use of 1500 AF of water from SMUD as part of the Water Forums agreement. The actual budget of the preferred alternative is still undetermined, although the current budget is still appropriate for the basis for the current fee.

In 2007 the District completed its first Integrated Water Management Plan. This IWMP evaluated the potential to utilize all of the District's water resources for the benefit of the District residents and businesses. In 2010 the District updated the 2007 IWMP. The 2010 IWMP included new analysis of the water supply based on 2020 Compliance, new critical hydrologic year supplies and the use of recycled water. The net result of the study shows a supply shortfall of 600 AF including a 300 AF prudent reserve.

DRAFT

Based on these results the District solicited and received a DWR grant for a joint Augmentation Supply and Recharge project. The new augmentation supply is a ground water well first evaluated in the 1990's, south of the airport. Given the new shortfall of 600 AF, it is believed this well will meet the supply shortfall.

The District adopted policies in July 2011 requiring all new development to use recycled water for landscape irrigation. This use of recycled water is a necessary component of the supply equation to reduce the shortfall to 600 AF.

Accordingly, the new well and recycled water facilities logically will be funded in part by the augmentation reserves. However, at this time, the fee remains the same, until such time as the District embarks on a more detailed cost analysis of augmentation projects.

Also included within the projects to be funded by the Fee are the necessary studies and administrative costs to implement this program. A complete breakdown of the projected costs is shown in Exhibit "A".

VII. Determination of the Fee

This Fee is based on a Project composed of a combination of on-site and off-site well systems and a raw water irrigation system. These systems are anticipated to be required to assure that the District's water supply system is adequate and reliable at full build-out of the District.

Notwithstanding the annual CPI adjustment provision mentioned above, the 2nd Amendment to the Acquisition and Service Agreement also includes a provision that allows the contract amount to be adjusted to an amount necessary to augment the District's water supply system "which will provide an augmented water supply sufficient to serve" the anticipated future development. The project budget determined above was prepared to review the reliability of the CPI adjusted contract budget contained in the 2nd Amendment to the ASA and was based on current cost estimates of the water supply augmentation project contemplated in the 2nd Amendment to the ASA.

While the project budget determined above is slightly lower than the CPI adjusted contract budget contained in the 2nd Amendment to the ASA, within a reasonable margin of error, there is no significant difference between the contract budget and the project budget determined above. Accordingly, there is no justification at this time to adopt a fee amount that is in excess of the contract amount established by the CPI adjusted contract fee amount.

The proposed Water Supply Augmentation Fee is determined as follows:

- Total Benefited Properties 3,909 EDU
- Total Budget $11,714,000
- Water Supply Augmentation Fee $ ~~4,521~~4,571/EDU

The development community is reducing the density. As a result, the fee may increase following determination of a community buildout density scenario and attendant

augmentation supply project. Likewise, with reduced density, a lower shortfall may result, which may reduce the fee.

VIII. Revision of Costs, Refunds, Agreements

As stated above, certain property owners have previously entered into the 2nd Amendment to the ASA which independently imposed the proposed fee and provided for a refund mechanism in the event that the Water Supply Project is less costly than presently contemplated. Any of the land owners subject to this Fee may similarly enter into such an Amendment providing for a refund mechanism.

IX. Collection of Fee

This Fee will be collected at the time of issuance of the Water and Sewer Service Permit. This will be a one time per EDU Fee.

DRAFT

EXHIBIT A

RANCHO MURIETA COMMUNITY SERVICES DISTRICT
GOVERNMENT CODE 66000
WATER SUPPLY AUGMENTATION
BUDGET & FEE DETERMINATION
~~2012~~2013

As of 1997, estimated cost of development of the proposed Water Supply Augmentation Project is:

1.	Off-site Well System		
	a. Wells		$ 1,530,000
	b. Right of Way		850,000
	c. Transmission Mains		5,000,000
	d. Contingency (20%)		1,480,000
	e. Engineering, Inspection, Supervision & Administration (25%)		1,845,000
		Subtotal:	$ 10,705,000
2.	Commercial irrigation		
	a. Pipe		$ 222,000
	b. Pump Station		163,000
	c. Modifications		10,000
	d. Contingency (20%)		82,000
	e. Engineering, Inspection, Supervision & Administration (25%)		119,000
		Subtotal:	$ 596,000
3.	Miscellaneous Studies & Administration		
	a. Engineering Feasibility Studies		$ 56,000
	b. Ground Water Exploration		82,000
	c. Ground Water Testing		127,000
	d. Environmental Studies		20,000
	e. Legal Fees		56,000
	f. Staff Time		36,000
	g. Miscellaneous		36,000
		Subtotal:	$ 413,000
		TOTAL BUDGET	$ 11,714,000

DRAFT

EXHIBIT A (cont)

RANCHO MURIETA COMMUNITY SERVICES DISTRICT
GOVERNMENT CODE 66000
WATER SUPPLY AUGMENTATION
BUDGET & FEE DETERMINATION
~~2012~~2013

5. Fee Calculation

a. Budget Total	$	11,714,000
b. Benefiting EDU's		3,909
c. Fee/EDU		2,996

6. Comparison of Calculated Fee to CPI Adjustment of Contract Amount Per 2nd Amendment of Acquisition and Services Agreement (ASA)

a. Original Contract Amount	$	2,500/EDU (1990)
b. Updated Contract Amount Per CPI	$	~~4,521~~4,571/EDU

7. Fee Determination

The fee as calculated above from the 1997 Cost Estimate is lower than the CPI adjusted contract amount from the 2nd Amendment of the ASA ($2,996 vs. $~~4,521~~4,571).

While the project budget determined above is lower than the CPI adjusted contract budget contained in the 2nd Amendment to the ASA, the difference between the contract budget and the project budget determined above, taking into account the uncertain nature of actual construction costs or the final project elements and components, as well as reduced density is appropriate.

Therefore the fee is determined to be: $~~4,521~~4,571/EDU

DRAFT

EXHIBIT B
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
GOVERNMENT CODE 66000
CALCULATIONS FOR EQUIVALENT DWELLING UNITS
WATER SUPPLY AUGMENTATION FEE

TYPE OF USE	FACILITY COUNTS	EDU RATIO	TOTAL EDU	EXISTING EDU (4)
1. RESIDENTIAL				
Estate Lots - North (F)	2125 DU	1.00	2,125	0
Estate Lots - North (E)	494 DU	1.00	494	494
Estate Lots > 12,000 S.F. - South (F)	203 DU	1.00	203	0
Estate Lots < 12,000 S.F.- South (F)	1037 DU	0.90	933	0
Halfplex Lots - South (F)	60 DU	0.50	30	0
Cottage Lots (E)	197 DU	0.70	138	138
Circle Lots (E)	457 DU	0.70	320	320
Townhouse Lots (E)	389 DU	0.50	195	195
Mobile Home Lots (E)	189 DU	0.30	57	57
The Villas	38 DU	0.50	19	19
SUBTOTAL	5,189		4,513	1,223
2. COMMERCIAL/INDUSTRIAL				
Hotel	200 Rooms	0.5000	100	0
Airport	87,000 S.F.	0.0001	9	3
Fire Department	5,000 S.F.	0.0005	3	3
RMA Admin Building	7,000 S.F.	0.0001	1	1
Murieta Village (Clubhouse)	5,000 S.F.	0.0005	3	3
Murieta Village (Irrigation)	3 Acres	3.5000	11	11
Auxiliary Golf Course	1 Acre	3.5000	4	4
RMA Facilities	2,500 S.F.	0.0001	0	0
Plaza Irrigation (Est.)	2 Acres	3.5000	7	7
Murieta Equestrian Center	120,000 S.F.	0.0002	24	24
Country Store	4,000 S.F.	0.0002	1	1
R.M.T.C.	55,500 S.F.	0.0005	33	33
Lone Pine Ponds	1 Acre	3.5000	4	4
Light industry	550,000 S.F.	0.0001	55	13
Retail Shopping	495,000 S.F.	0.0002	99	14
Offices	440,000 S.F.	0.0001	44	0
Clubhouse Facilities (E)	40,000 S.F.	0.0005	20	20
SUBTOTAL			415	141
3. PARKS				
80 Acres (Est.)	80 Acres	3.5000	260	0
4. SCHOOLS				
Schools w/o Showers (Est.)	1,200 students	0.0200	24	0
Schools w/ Showers (Est.)	2,000 students	0.0200	40	0
		TOTAL	5,273	1,364
		Less Existing EDU	(1,364)	
		TOTAL NEW EDU	3,909	

NOTES
1. Calculation for the Total EDU Counts is as follows: EDU = (Facility Count) x (EDU Ratio)
2. All building areas represent gross floor area
3. All acreage represents gross parcel areas
4. Existing EDUs are not subject to the fee

DRAFT

EXHIBIT B
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
WATER SUPPLY AUGMENTATION FEE EDU RATIO CALCULATION
DECEMBER 12, 1990

NO	LAND USE TYPE	UNIT	WATER USE (GPD)	CONSUMPTION PER EDU	EDU RATIO (1)	ADOPTED EDU RATIO
A.	RESIDENTIAL LAND USES					
1.	Estate Lot > 12,000 S.F.	Dwelling Unit	750	750	1.00	1.0
2.	Estate Lot < 12,000 S.F.	Dwelling Unit	650	750	0.87	0.9
3.	Cottage Lot	Dwelling Unit	500	750	0.67	0.7
4.	Circle Lot	Dwelling unit	550	750	0.73	0.7
5.	Halfplex Lot	Dwelling Unit	400	750	0.53	0.5
6.	Townhouse Lot	Dwelling Unit	350	750	0.47	0.5
7.	Murieta Village Lot	Dwelling Unit	200	750	0.37	0.3
8.	Country Club Lodge Lot	Dwelling Unit	400	750	0.53	0.5
B.	NON-RESIDENTIAL LAND USES					
1.	Business & Professional Office Buildings	1,000 S.F.	80	750	0.11	0.1
2.	Retail & Commercial Buildings	1,000 S.F.	180	750	0.24	0.2
3.	Clubhouse Buildings	1,000 S.F.	400	750	0.53	0.5
4.	Community Buildings	1,000 S.F.	400	750	0.53	0.5
5.	Restaurants, Bars & Cocktail Lounges	1,000 S.F.	1,500	750	2.00	2.0
6.	School Buildings	100 students	1,500	750	2.00	2.0
7.	Training Facility Buildings	100 students	500	750	0.67	0.5
8.	Light Industrial Buildings	1,000 S.F.	40	750	0.05	0.1
9.	Murieta Equestrian Center Buildings	1,000 S.F.	175	750	0.23	0.2
10.	Airport Buildings	1,000 S.F.	30	750	0.04	0.1
11.	Motel/Hotel Facilities	Room	245	750	0.33	0.3
12.	Irrigated Lands & Miscellaneous Property Uses	Acres	2,600	750	3.47	3.5

FOOTNOTES:
1. EDU Ratio = Water Use in GPD per Unit / (750 GPD/EDU)
2. An EDU is defined as a single family home located on an estate lot greater than 12,000 S.F. with an average water consumption rate of 750 GPD.
3. All building areas represent gross floor area
4. All acreage represents gross parcel area

DRAFT

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Improvements Committee Staff

Subject: Approve Dried Sludge Removal

RECOMMENDED ACTION

Approve proposal from Biosolids Recycling, Inc., in an amount not to exceed $15,000 for dried biosolids removal. Funding to come 50% from Sewer Operating Budget and 50% from Water Operating Budget.

BACKGROUND

The reclamation plant processes approximately half a million gallons of wastewater per day. Likewise, the water plant processes approximately 1.6 million gallons of water per day. As the waters are treated, residual solids are removed. These solids are stored on site, dried and then need to be removed. Biosolids Recycling Inc. applies our biosolids on ranch land, which is then tilled in as a natural fertilizer, rather than waste haulers which haul to landfills.

Biosolids Recycling Inc. has again agreed to maintain the same hauling and disposal costs as in the previous years at $39.99 per ton of Class B dried sludge. Total actual cost is not known until biosolids are removed and weighed; therefore the approval cost is for an amount not to exceed. The total cost for hauling away the biosolids for 2013 may exceed the general manager's $10,000 approval limit, thus requiring approval of the Board.

The Improvements Committee recommends approval.

Biosolids Recycling, Inc.

June 25, 2013

Mr. Paul Siebensohn
Director of Field Operations
Rancho Murieta CSD
P.O. Box 1050
Rancho Murieta, CA 95683

Subject: Biosolids Hauling and Reuse

Dear Paul:

This letter confirms that Biosolids Recycling's fee for the removal and beneficial reuse of the Rancho Murieta biosolids would remain the same as last year, $39.99 per ton. This price assumes that the District loader would be available for loading of the trucks.

If you have any questions please give me a call at (925) 755-8280.

Best regards,

Michael Harding

Michael E. Harding, President

1116 Hastings Ct., Antioch, CA 94509
925-755-8280

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Improvements Committee Staff

Subject: Approve Pipe Purchase for Hole #13 Culvert Replacement

---

RECOMMENDED ACTION

Approve proposal from Groeniger & Co., for the purchase of pipe for Hole #13 culvert replacement, in an amount not to exceed of $13,737.60. Funding to come from Drainage Reserves, CIP No 13-01-2.

BACKGROUND

After 30+ years of being in the ground, the two (2) 36" corrugated metal pipe (cmp) pipes that serve as the drainage culvert across hole #13 on the North Golf Course, near the green, have corroded. CIP 13-01-2 has been designated to remedy this issue.

Staff solicited bids for replacing the four hundred and eighty (480) feet of cmp with the original type of pipe installed and the equivalent size of and length with soil-tight high-density-polyethylene (HDPE) pipe, as this type of pipe should easily provide another fifty (50) years of service. The lowest cost came from Groeniger & Co., for the HPDE pipe.

This project is scheduled to occur in the fall when Rancho Murieta Country Club (RMCC) closes their North course for maintenance. As there may be a long lead time in acquiring the pipe, I would like to purchase it now to be ready for the project.

Entrance to existing Hole 13 North culvert pipes showing bottoms rusted out.

The Improvements Committee recommends approval.

EWING, EL DORADO HLLS 151 * Q U O T A T I O N * PAGE: 1
5050 HILLSDALE CIRCLE QUOTE DATE: 6/21/2013
EL DORADO HILLS, CA IN REPLY TO YOUR INQUIRY PRINT DATE: 6/24/2013
(916) 933-8822 95762 - SUBJECT TO CONDITIONS BELOW - QUOTATION#: 1778522
JOB: DRAIN QUOTE PER PAUL

FOR: 13696 CUSTOMER PHONE: (916) 354-3700
RANCHO MURIETA COMM SVC DIST
P O BOX 1050
RANCHO MURIRTA CA 95683
CUSTOMER FAX: 1 (916) 354-2082

DESCRIPTION	ITEM NUMBER	QUANTITY	LIST PRICE	NET PRICE	EXTENDED PRICE
30 ADS N-12 SOLID PIPE	25202300	440	10317.50	2744.455	12075.60
12 ADS N-12 SOLID PIPE	25202120	280	1929.00	630.783	1766.19
THIS PRICING ON THE N-12 IS BASED ON THIS QUANTITY AND DIRECT DELIVERY BY ADS					
DIRECT DELIVERY BY ADS TO PAUL SIEBENSOHN 15160 JACKSON RD. RANCHO MURIETA CA 95683 PAUL 916-354-3700					
ADS 30" FLEX NOT AVAILABLE	99000000	440			NO BID
12 FLEXDRAIN SOLID PIPE	25000200	280	2058.80	601.170	1683.28
12 1265 FLEXDRAIN SPLIT COUP	25001010	15	22.75	9.100	136.50

NET PRICES ARE FOR QUANTITIES AND DESCRIPTIONS SHOWN HEREIN ONLY, AND NO IMPLICATION OR WARRANTY IS MADE WITH REGARD TO THEIR CORRECTNESS OR AGREEMENT WITH THE SPECIFICATIONS. SHIPMENT SUBJECT TO CREDIT CLEARANCE. NO LIABILITY IS ASSUMED FOR QUANTITY SHOWN.

SUBTOTAL	15,661.57
8.0000% TAX	1,252.93
QUOTE TOTAL	16,914.50

THE ABOVE QUOTATION IS FOR ESTIMATING PURPOSE ONLY. WHEN ORDER IS PLACED IT WILL BE SHIPPED AT PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS OTHERWISE NOTED ON THIS QUOTATION.

Taxes on quote are estimated and will be calculated based on tax rates in effect at time of order.

PRICES SHOWN ARE CURRENT AS OF 6/21/2013 AND WILL BE GOOD UNTIL 7/21/2013. **EXCEPTION: WIRE & PIPE PRICES GOOD FOR 2 WEEKS ONLY.**

BY RMK

EWING IRRIGATION PRODUCTS & INDUSTRIAL PLASTICS

Groeniger & Company
Over 55 Years of Service

GROENIGER #3304 (SACRAMENTO)
7601 14TH AVE
SACRAMENTO, CA 95820-3601

Deliver To: john.slaughter@ferguson.com
From: John Slaughter
Comments:

14:15:31 JUN 24 2013

FERGUSON ENTERPRISES INC 1423
Price Quotation
Phone : 916-455-3333
Fax : 916-455-3402

Bid No.....: B194061
Bid Date....: 06/18/13
Quoted By.: JPS

Cust 916-354-3700
Terms.....: NET 10TH PROX

Customer: RANCHO MURIETA COMM SERV DIST
P O BOX 1050
RANCHO MURIETA, CA 95683

Ship To: RANCHO MURIETA COMM SERV DIST
15160 JACKSON ROAD
RANCHO MURIETA, CA 95683

Cust PO#...: QUOTE ROB MCLEOD

Job Name: RMCC HOLE 13 DRAINAG

Item	Description	Quantity	Net Price	UM	Total
A30850020IB	30X20 N12 PROLIN S/T SLD HDPE PIPE	440	21.000	FT	9240.00
A3097AN65BB	30 N12 PROLINK WT 45 ELL	2	800.000	EA	1600.00
A12850020IB	12X20 N12 PROLIN S/T SLD HDPE PIPE	280	6.500	FT	1820.00
A1294ST	12 MLD N12 S/T 45	1	60.000	EA	60.00

Net Total:	$12720.00
Tax:	$1017.60
Freight:	$0.00
Total:	$13737.60

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This quote is offered contingent upon the buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at http://wolseleyna.com/terms_conditionsSale.html.
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW NOTICE: Brass/bronze products without "LF" in the description field may contain lead and thus not comply with low lead laws. These products must not be used in potable water applications.

Groeniger & Company
Over 55 Years of Service

GROENIGER #3304 (SACRAMENTO)
7601 14TH AVE
SACRAMENTO, CA 95820-3601

Deliver To: john.slaughter@ferguson.com
From: John Slaughter
Comments:

18:39:51 JUN 20 2013

FERGUSON ENTERPRISES INC 1423
Price Quotation
Phone : 916-455-3333
Fax : 916-455-3402

Bid No.....: B194252
Bid Date....: 06/20/13
Quoted By.: JPS

Cust 916-354-3700
Terms.....: NET 10TH PROX

Customer: RANCHO MURIETA COMM SERV DIST
P O BOX 1050
RANCHO MURIETA, CA 95683

Ship To: RANCHO MURIETA COMM SERV DIST
15160 JACKSON ROAD
RANCHO MURIETA, CA 95683

Cust PO#...: QUOTE ROB MCLEOD

Job Name: RMCC HOLE 13DRAINAGE

Item	Description	Quantity	Net Price	UM	Total
CMAP14422920	42X29X20 14 GA COR GALV ARCH PIPE	560	32.000	FT	17920.00
CDAC144229	42X29 14 GA COR DIMPLED ARCH COUP	32	39.000	EA	1248.00
SP-P42X29ELL4514G	42X29 ARCH GALV 45 DEG ELL 14 GAUGE	2	388.000	EA	776.00
	APPROX 2 WEEKS TO SHIP				
	3 TRUCKLOADS @ $400.00 EA				
	**********				
	ADDITIONAL $5000.00 FOR				
	POLMER COATING ON PIPE				
	FITTINGS AND CPLG'SI4				
	APPROX 3 WEEKS TO SHIP				
	SAME FREIGHT COST AS ABOVE				

Net Total:	$19944.00
Tax:	$1691.52
Freight:	$1200.00
Total:	$22835.52

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This quote is offered contingent upon the buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at http://wolseleyna.com/terms_conditionsSale.html. Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW NOTICE: Brass/bronze products without "LF" in the description field may contain lead and thus not comply with low lead laws. These products must not be used in potable water applications.

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Improvements Committee Staff

Subject: Approve Payment of Invoice for Paving Work Completed

---

RECOMMENDED ACTION

Approve payment of invoice from JB Bostick Co., in an amount of $3,000 for paving work completed at the wastewater reclamation plant. Funding to come from Sewer Replacement Reserves, CIP 12-05-2.

BACKGROUND

Paving of the waste water reclamation plant was necessary due to the work that occurred to replace three (3) valves that failed at the wastewater reclamation plant due to age and corrosion. As this work is associated with the original project, the costs must be approved by the Board to come out of Sewer Replacement Reserve. The invoice for the work that was completed is attached.

The Improvements Committee recommends approval.

PHONE (916) 773-6067
FAX (916) 773-6070
CA STATE LICENSE #669487
TAX ID #94-3305812

BOSTICK COMPANY
ASPHALT PAVING CONTRACTORS

2175 P.F.E. ROAD, SUITE C • ROSEVILLE, CA 95747

INVOICE

RECEIVED
RANCHO MURIETA
COMM. SERV. DIST.
APR 25 A 10:43

SOLD TO
RANCHO MURIETA CSD
P.O. BOX 1050
RANCHO MURIETA, CA 95683

DATE 4/5/2013 ✓
JOB NO. C19220
SALESMAN TB
TERMS UPON COMPLETION

JOB LOCATION
PO#C19220

WATER TREATMENT PLANT: SAWCUT AND PREPARE 400 SQUARE FEET OF ASPHALT TO A DEPTH OF 4" PLACE 4" OF HOT ASPHALT AND ROLL TO COMPACT.	3,000.00

Completed
Rob

TOTAL DUE: $3,000.00

IMPORTANT: Please note that this invoice not only incorporates J.B. Bostick Company's standard terms and conditions but the parties agree that the terms and conditions contained herein are separately enforceable as a binding contract. In accordance with the standard terms and conditions, the parties agree that a late charge of 18% per annum will be assessed to all past due, unpaid amounts including retention held. The parties also agree to pay J.B. Bostick Company all of its attorney's fees and costs incurred to enforce the terms of this invoice. J.B. Bostick Company is a CA corporation.

MEMORANDUM

Date: July 12, 2013

To: Board of Directors

From: Paul Siebensohn, Director of Field Operations

Subject: Approve Cost for Retrofit of New Maintenance Vehicle

---

RECOMMENDED ACTION

Approve $8,500 to Tom's House of Hydraulics, for retrofitting of the new maintenance vehicle. Funding to come from Water Replacement Reserves.

BACKGROUND

To save costs on the purchase of the new maintenance truck recently obtained, we are having the crane and toolboxes transferred over from the old truck to the new truck. Attached are bids for completing this work. Since there may be unknowns associated with completing this work, to avoid having to come back to the Board for additional approval, a contingency of approximately 24% was added onto the lowest reputable bid.

The original cost for the service body consisting of the tool boxes and crane was purchased in 2002 for $27,950 plus tax. This shows that the cost for a new service body would be over four times higher than the lowest bidder's estimate.

Vendor	Bid
Tom's House of Hydraulics	$6,858
Lodi Truck and Equipment	$9,650 + tax
West Coast Truck Equipment	$8,500 - $9,650

The Improvements Committee recommends approval.

Tom's House of Hydraulics

2904 Duluth Street
W. Sacramento, CA 95691
916-372-9692

Quote #: 22070

Date: 6/26/2013
CustID: 31774

Thank you for the opportunity to quote your business, please call if you have any questions.

Rancho Murieta Com. Dis.
15160 Jackson Hy.
Rancho Murieta, Ca 95669

Rancho Murieta Com. Dis.
15160 Jackson Hy.
Rancho Murieta, Ca 95669

Attn: Travis Bohannon
916-870-4011

Qty>=	Description	eMail: tbohannon@rmcsd.com	Unit Price	Ext Price
1	**STI Mechanic's Crane Truck Body Swap** -REMOVE STI TRUCK BODY FROM 2003 F550 AND RE-INSTAL ON 2013 F550. -PRICE ALSO INCLUDES A BACKUP CAMERA SYSTEM. -QUOTE IS SIGHT UNSEEN. WHEN TRUCK GETS TO TOM'S HOUSE OF HYDRAULICS AND WE FIND SOMETHING THAT WE DID NOT QUOTE THEN QUOTE WILL CHANGE AT THAT TIME. -BODY HAS HYDRAULIC CRANE, COMPRESSOR, AND VENTALATION SYSTEM FOR ALL CABINETS. -LIGHTING IN ALL CABINETS IN BODY. -TRUCK WILL BE DOT COMPLIANT. -PRICE INCLUDES NEW PTO AND PUMP.		$6,350.00	$6,350.00
	Sales Tax (8%)		$508.00	$508.00
			TOTAL	**$6,858.00**

All prices are FOB unless stated otherwise. This quotation is good for 30 days, subject to our inspection and/or rejection of any materials that might be received by us for processing and subject to change or withdrawal without notice. Materials or parts to be plated must be of plating quality. Acceptance of this quotation is confirmed by issue and acceptance of a purchase order and/or receipt and processing of the parts with reference to this quotation. This quotation was made expressly upon your request and is confidential and non transferable. We will exercise the utmost care while processing your parts or order but limit our liability to the quoted price.

Terms of Sale:

COD

Tom's House of Hydraulics

Authorized by: benochian

Date: 6/26/2013

LODI TRUCK AND EQUIPMENT

July 1, 2013

Body Swap – STI body onto 2013 F550
Quoted to: RMCSD – Travis Bohannon

Scope of work: Transfer customer supplied STI body and crane package from existing chassis to customer provided 2013 F550 chassis with automatic transmission.

- Provide and install new PTO
- Provide and install new hydraulic pump
- Provide and install hydraulic selector valve and flow control
- Provide and install (2) 10 gallon chassis mounted air tanks
- Install springs crane side to level
- Misc parts

Pricing:

Labor estimate:	**50 hours @ $95 /hr =**	**$4,750**
Parts estimate:		**$4,900 plus tax**
Total		**$9,650 plus tax**

Note: Pricing assumes no structural damage to body or mounting brackets and does not include diagnosis or repair of crane or compressor if there are problems.

Quoted by:	**Accepted by:**	**Purchase Order:**
_____	_____	_____
Spencer Hinson	**RMCSD**	

Quote: DS-5773

2510 evergreen Ave Ste. A
West Sacramento Ca. 95691
www.westcoasttruckequipment.com
Ph: 916-376-0690
Fax: 916-376-0689
derek@wcteinc.com

Date: 6-28-13

Reference:

STI Body Swap
2013 Ford F-550
Diesel
Automatic Transmission
PTO provision on transmission

Outline of Job:

- Remove STI body with crane, and transfer to 2013 Ford F-550.
- 2013 F-550, will need to have additional springs installed under the crane to support the extra weight on the chassis, to prevent the vehicle from leaning over.
- Install PTO on new automatic transmission to power crane. The PTO will include new hoses and reservoir.
- There will be no paint or touch up work done to the body
- There will be a safety inspection on the service body to ensure there are no excessive cracks or bending of any crossmembers. In the event that there is, WCTE will notify the customer of their options, this may result in additional charges.
- The body will also be inspected to insure that it is compliant with all current department of transportation standards. Primarily this will focus on all lights properly working.

$ 8500 - $9650

Note:
The variance in the price is due to the unknown. It is the past experience in performing transfers, that there are always surprises. It is the goal of WCTE to perform the task correctly and safely. That being said, there will be no short cuts taken, if there is an item that needs to be fixed, it will be done. Thus the variance.

Order Accepted by:_____P.O.#_____Date:_____

CONFERENCE/EDUCATION SCHEDULE

Date: July 12, 2013

To: Board of Directors

From: Suzanne Lindenfeld, District Secretary

Subject: Review Upcoming Conference/Education Opportunities

This report is prepared in order to notify Directors of upcoming educational opportunities. Directors interested in attending specific events or conferences should contact me to confirm attendance for reservation purposes. The Board will discuss any requests from Board members desiring to attend upcoming conferences and approve those requests as deemed appropriate.

Board members must provide brief reports on meetings that they have attended at the District's expense. (AB 1234).

The upcoming conferences/educational opportunities include the following:

CALIFORNIA SPECIAL DISTRICT ASSOCIATION (CSDA)

CSDA Annual Conference	September 16 – 19, 2013	Monterey

GOLDEN STATE RISK MANAGEMENT ASSOCIATION (GSRMA)

GSRMA Annual Training Day	October 24, 2013	Rolling Hills Resort Corning, CA

SPECIAL DISTRICT AND LOCAL GOVERNMENT INSTITUTE (SDI)

No Information Currently Available on Upcoming Conferences.

ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA)

No Information Currently Available on Upcoming Conferences.

WATEREUSE ASSOCIATION

No Information Currently Available on Upcoming Conferences.

AMERICAN WATER WORKS ASSOCIATION (AWWA)

No Information Currently Available on Upcoming Conferences.

ISC WEST

No Information Currently Available on Upcoming Conferences.

CALIFORNIA RURAL WATER ASSOCIATION

No Information Currently Available on Upcoming Conferences.