



**FALLBROOK PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS
REGULAR BOARD MEETING**

AGENDA

**MONDAY, JUNE 26, 2017
4:00 P.M.**

**FALLBROOK PUBLIC UTILITY DISTRICT
990 E. MISSION RD., FALLBROOK, CA 92028
PHONE: (760) 728-1125**

If you have a disability and need an accommodation to participate in the meeting, please call the Secretary at (760) 728-1125, ext. 1130 for assistance so the necessary arrangements can be made.

Writings that are public records and are distributed during a public meeting are available for public inspection at the meeting if prepared by the local agency or a member of its legislative body or after the meeting if prepared by some other person.

I. PRELIMINARY FUNCTIONS

CALL TO ORDER / ROLL CALL / ESTABLISH A QUORUM

PLEDGE OF ALLEGIANCE

ADDITIONS TO AGENDA PER GC § 54954.2(b)

APPROVAL OF AGENDA

PUBLIC COMMENT

Members of the public are invited to address the Board of Directors on any item that is within the subject matter jurisdiction of the legislative body. The Board President may limit comments to three (3) minutes.

A. MANAGER'S AWARDS

1. Owni Toma
2. Larry Ragsdale

II. CONSENT CALENDAR-----(ITEMS B - D)****

All items appearing on the Consent Calendar may be disposed of by a single motion. Items shall be removed from the Consent Calendar if any member of the Board of Directors or the public requests removal prior to a vote on a motion to approve the items. Such items shall be considered separately for action by the Board.

B. APPROVAL OF MINUTES

1. Special Board Meeting/Workshop of May 17, 2017
2. Regular Board Meeting of May 22, 2017

Recommendation: *The Board approve the minutes of the aforementioned meeting of the Board of Directors of the Fallbrook Public Utility District.*

- C. RESOLUTION NO. 4914 PLACING FIXED CHARGE SPECIAL ASSESSMENTS TO ADD DELINQUENT AND UNPAID CHARGES FOR WATER AND OTHER SERVICES ON THE SAN DIEGO COUNTY PROPERTY TAX ROLL

Recommendation: *The Board authorize the San Diego County Auditor/Controller to assess a Fixed Charge Special Assessment to add delinquent and unpaid charges for water and other services on the property tax bills for those parcels to be filed electronically and certified by the District to the County on or before August 10, 2017, and adopt Resolution No. 4914.*

- D. ORDINANCE NO. 338 FIXING WATER STANDBY OR AVAILABILITY CHARGES FOR 2017-18

Recommendation: *The Board adopt Ordinance No. 338 as prepared and authorize the Secretary to send a certified copy to the Board of Supervisors and the Auditor and Controller of the County of San Diego.*

III. ACTION / DISCUSSION CALENDAR -----(ITEMS E – M)

- E. SANTA MARGARITA PROPERTY UPDATE

Recommendation: Staff supports the Board's direction.

- F. FIRE MANAGEMENT PLAN FOR THE SANTA MARGARITA RIVER PROPERTY

Recommendation: *If the Board wishes to pursue this effort, that the Board direct staff to solicit for Professional Services to prepare a Fire Management Plan for the Santa Margarita River Property. Staff will bring back their recommendation for award to the Board for approval.*

- G. COATING INSPECTION SERVICES – 8 MG, SANDIA AND 2.8 MG RESERVOIRS

Recommendation: *That the Board authorize execution of a professional services contract between the District and MCS Inspection Group for the approved budgeted coating inspection for the 8 MG, Sandia and 2.8 MG Reservoirs for coating inspection services at a cost not to exceed \$86,000.*

- H. 2017-18 FINAL BUDGET

Recommendation: *That the Board adopt Resolution No. 4913 adopting the final budget for fiscal year 2017-18.*

I. EXCEPTION TO 180 DAY WAITING PERIOD

Recommendation: *It is the recommendation that Resolution No. 4915 be approved by the Board along with the employment agreement to have Marcie Eilers return as a retired annuitant prior to the 180 day waiting period to serve in the interim. The position is a key position and serves as the lead on the finance and budget operations for the District.*

J. MICROSOFT OFFICE 2016 UPGRADE AND LICENSING REQUIREMENTS

Recommendation: *That the Board approve the upgrade to Microsoft Office 2016 and purchase 65 licenses in the amount of \$28,365.19.*

K. UPDATE ON DEVELOPMENT OF A POLICY FOR CLOSING THE FISCAL YEAR

Recommendation: *For information purposes; no action is being requested of the Board at this time.*

L. ESTABLISHING DISTRICT PROCUREMENT PROCEDURES COMPLIANT WITH THE UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING ACT (PUBLIC CONTRACT CODE SECTION 22000 ET SEQ.), AND ELECTING TO BECOME SUBJECT TO THE ACT (RESOLUTION ELECTING TO BECOME SUBJECT TO THE PROVISIONS OF THE ACT AND ORDINANCE REPEALING AND REPLACING ARTICLE 14)

Recommendation:

It is recommended that the Board take the following actions:

- 1. Adopt Resolution 4916 electing to become subject to the provisions of the Uniform Public Construction Cost Accounting Act.*
- 2. Adopt Ordinance 339 Repealing current Article 14 (Purchases and Sales, Regulations Governing) and replacing it with revised Article 14 (District Procurement Procedures), which establishes procurement procedures compliant with the Uniform Public Construction Cost Accounting Act, will help streamline the purchasing and contracting process, and maximize the use of qualified local contractors and service providers where possible.*

M. REPLACEMENT OF 5TH WHEEL 3-AXLE TRACTOR

Recommendation: *That the Board approve the purchase of one 5th Wheel 3 axle day cab tractor for \$138,754.93 from San Diego Freightliner in San Diego, which was the lowest responsive bidder, in order to maintain a reliable District fleet to complete necessary infrastructure repairs and replacement.*

IV. ORAL / WRITTEN REPORTS----- (ITEMS 1 – 7)

1. General Legal Counsel
2. SDCWA Representative/General Manager
3. Administrative Services Manager/Treasurer
4. Assistant General Manager
5. Public Affairs Specialist
6. Director Comments/Reports on Meetings Attended
7. Log of Board Requests

ADJOURN TO CLOSED SESSION

V. CLOSED SESSION

1. PUBLIC EMPLOYEE PERFORMANCE EVALUATION PER GC § 54957 (b) (1): TITLE – GENERAL MANAGER

RECONVENE TO OPEN SESSION

REPORT FROM CLOSED SESSION (*As Necessary*)

VI. ADJOURNMENT OF MEETING

* * * * *

DECLARATION OF POSTING

I, Mary Lou West, Secretary of the Board of Directors of the Fallbrook Public Utility District, do hereby declare that I posted a copy of the foregoing agenda in the glass case at the entrance of the District Office located at 990 East Mission Road, Fallbrook, California, at least 72 hours prior to the meeting in accordance with Government Code § 54954.2(a).

I, Mary Lou West, further declare under penalty of perjury and under the laws of the State of California that the foregoing is true and correct.

June 22, 2017
Dated / Fallbrook, CA


Secretary, Board of Directors

M E M O

TO: Board of Directors
FROM: Brian J. Brady, General Manager 
DATE: June 26, 2017
SUBJECT: Manager's Award

Owni Toma and Larry Ragsdale were presented with Manager's Awards for their hard work and dedication during the District's two recent major compliance inspections by the County of San Diego, Department of Environmental Health for the District Risk Management Plan process at Red Mountain Reservoir and the Wastewater Treatment Plant. Under the standard, this is the key process in dealing with extremely hazardous substances in toxicity, reactivity, thermal, and chemical stability with an evaluation of consequences, to include safety of employees and environmental health. The District must comply with these requirements, document compliance with good engineering practices, and demonstrate proof of operating in a safe manner.

Mr. Toma and Mr. Ragsdale worked as a team and demonstrated superior performance of duty, leadership, and dedication while working many hours over the past several months that proved instrumental in improving the process in preparation of these inspections. Mr. Toma conducted all available pre-inspection checklists, ensured the programs were in accordance with all regulations to guarantee a successful inspection, and assisted leadership by providing further guidance to team members required for proper documentation. Mr. Toma and Mr. Ragsdale proved invaluable during the process and were the key reason for achieving a citation-free inspection. Their knowledge, tenacity, dedication to duty and attention to detail were in keeping with the highest traditions of the Fallbrook Public Utility District.

Mr. Toma and Mr. Ragsdale received a letter from the General Manager and will be presented today with a certificate and a check for \$25.

M E M O

TO: Board of Directors
FROM: Mary Lou West, Secretary *mw*
DATE: June 26, 2017
SUBJECT: Approval of Minutes

Recommendation

The Board approve the minutes of the following board meetings of the Board of Directors of the Fallbrook Public Utility District:

1. Special Board Meeting/Workshop of May 17, 2017
2. Regular Board Meeting of May 22, 2017

**Minutes of the Special Board Meeting / Workshop of
May 17, 2017**

**FALLBROOK PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS
SPECIAL BOARD MEETING / WORKSHOP**

MINUTES

**WEDNESDAY, MAY 17, 2017
4:00 P.M.**

**FALLBROOK PUBLIC UTILITY DISTRICT
990 E. MISSION RD., FALLBROOK, CA 92028
PHONE: (760) 728-1125**

I. PRELIMINARY FUNCTIONS

CALL TO ORDER / ROLL CALL / ESTABLISH A QUORUM

President Wolk called the Special Meeting / Workshop of the Board of Directors of the Fallbrook Public Utility District to order at 4:01 p.m. A quorum was established with attendance as follows:

Board of Directors

Present: Charley Wolk, Member / President
Al Gebhart, Member / Vice-President
Don McDougal, Member
Jennifer DeMeo, Member (*arrived at 4:04 p.m.*)

Absent: Milt Davies, Member

District Staff

Present: Paula de Sousa Mills, General Legal Counsel
Brian J. Brady, General Manager
Jack Bebee, Assistant General Manager
Noelle Denke, Public Affairs Specialist
Soleil Develle, Engineering Technician III
Marcie Eilers, Administrative Services Manager / Treasurer
Jeff Marchand, Engineering Supervisor
Mary Lou West, Secretary

Also present were others, including, but not limited to: Fire Chief Stephen J. Abbott of the North County Fire Protection District, Kirk Dulin, and Donna Gebhart.

PLEDGE OF ALLEGIANCE

President Wolk led the Pledge of Allegiance.

ADDITIONS TO AGENDA PER GC § 54954.2(b)

There were no additions to the agenda.

APPROVAL OF AGENDA

MOTION: Director McDougal moved to approve the agenda as submitted; Director Gebhart seconded. Motion carried; **VOTE:**

AYES: Directors DeMeo, Gebhart, McDougal, and Wolk

NOES: None

ABSTAIN: None

ABSENT: Director Davies

PUBLIC COMMENT

There were no comments from members of the public.

II. ACTION CALENDAR / WORKSHOP -----(ITEM A)

A. FINANCIAL PLANNING AND RATE STUDY WORKSHOP WITH RAFTELIS

Following a brief introduction by Dr. Brady, Mr. Sanjay Gaur of Raftelis Financial Consultants, Inc. (Raftelis) stepped to the podium and stated he would be presenting a slide show of the financial plan and rate study prepared for the District. Mr. Gaur further stated Raftelis developed the financial plan and rate study in collaboration with District staff and the Fiscal Policy & Insurance Committee.

Mr. Gaur began the presentation with discussion of the three major components of a rate study: (1) the financial plan (2) the cost of service, and (3) the development of an administrative record. Mr. Gaur explained the financial plan reflects the cash required annually to meet the District's needs, the cost of service allocates the cost proportional to the service provided as required by Prop 218 and supports rates as a fee for service, and the administrative record explains and supports the logic of the rate structure.

Continuing, Mr. Gaur provided an overview of the financial planning process that went into the plan and study developed for the District. The process evaluated revenues, financial policies, and expenses and determined the rate increases required. Mr. Gaur summarized the policy and noted the proposal would gradually increase the District's reserves over a period of several years.

Next, Mr. Gaur discussed the key assumptions of the financial plan. An overview of the water and wastewater capital improvement charges, pass-through charges from the Metropolitan Water District of Southern California and the San Diego County Water Authority, wholesale water rate increases, sales of water and recycled water, debt service, and CalPERS unfunded liability was provided by Mr. Gaur.

Mr. Gaur followed with a series of slides of the financial plans for the wastewater, water, and recycled water accounts. The slides demonstrated the impact to District finances assuming varied scenarios; i.e., no revenue increases, revenue increases, reduction in sales, and the Santa Margarita Conjunctive Use Project. The last slide in the series provided a 10-year summary of the projected annual revenue adjustments of 8% to water, 8% to recycled water, and 4.5% to wastewater.

The subsequent series of slides provided an overview of the cost of service analysis for wastewater rates and included a proposal to change the wastewater rate methodology to average winter use, utilize a 75% return to sewer formula, and set the cap at 22 units. The rate components, the rate framework, proposed rates for fiscal year 2018, and the impact to residential customers were demonstrated in the slides.

A series of slides with an overview of the water rates design followed. Mr. Gaur noted the recommendation suggests revising the inclining tiers for residential customers and changing ag domestic to a two-tiered rate structure. Mr. Gaur discussed fixed charges framework, water usage rates framework, water revenue requirements, and proposed rates for fiscal year 2018. Additionally, a customer impact analysis was provided.

Mr. Gaur concluded the presentation with discussion of the proposed recycled water framework, recycled water rates, and drought rates.

Director McDougal asked if the Fiscal Policy & Insurance Committee agreed with the recommendations by Raftelis, and President Wolk affirmed the proposal set forth in the presentation reflects the Committee's efforts. Director Gebhart added that all expenses have been included as a hedge to ensure the rate structure is protected.

A brief question and answer period followed Mr. Gaur's presentation.

III. ADJOURNMENT OF MEETING

There being no further business to discuss, President Wolk adjourned the Special Meeting / Workshop of the Board of Directors of the Fallbrook Public Utility District at 5:15 p.m.

President, Board of Directors

ATTEST:

Secretary, Board of Directors

Minutes of the Regular Board Meeting of
May 22, 2017

**FALLBROOK PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS
REGULAR BOARD MEETING**

MINUTES

**MONDAY, MAY 22, 2017
4:00 P.M.**

**FALLBROOK PUBLIC UTILITY DISTRICT
990 E. MISSION RD., FALLBROOK, CA 92028
PHONE: (760) 728-1125**

I. PRELIMINARY FUNCTIONS

CALL TO ORDER / ROLL CALL / ESTABLISH A QUORUM

President Wolk called the regular meeting of the Board of Directors of the Fallbrook Public Utility District to order at 4:00 p.m. A quorum was established with attendance as follows:

Board of Directors

Present: Milt Davies, Member
Jennifer DeMeo, Member
Al Gebhart, Member / Vice President
Don McDougal, Member
Charley Wolk, Member / President

Absent: None

District Staff

Present: Paula de Sousa Mills, General Legal Counsel
Brian J. Brady, General Manager
Jack Bebee, Assistant General Manager
Jason Cavender, System Operations Manager
Antonio Campos, Plant Maintenance Worker II
Marcie Eilers, Administrative Services Manager / Treasurer
Jeff Marchand, Engineering Technician III
Mary Lou West, Secretary

Also present were others, including, but not limited to: Helene Brazier, Peter Colby of Western Rivers Conservancy, Joe Comella, Donna Gebhart, Zach Kantor-Anaya and Paul Melzer of The Wildlands Conservancy, and Steve Lopardo of the Law Offices of Stephen V. Lopardo.

PLEDGE OF ALLEGIANCE

President Wolk led the Pledge of Allegiance.

ADDITIONS TO AGENDA PER GC § 54954.2(b)

There were no additions to the agenda.

APPROVAL OF AGENDA

Director Gebhart requested that Item H be removed from the agenda and postponed to the next meeting.

MOTION: Director Davies moved to approve the agenda as revised, with the removal of Item H; Director Gebhart seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk
NOES: None
ABSTAIN: None
ABSENT: None

PUBLIC COMMENT

Members of the public are invited to address the Board of Directors on any item that is within the subject matter jurisdiction of the legislative body. The Board President may limit comments to three (3) minutes.

There were no comments from members of the public on items within the subject matter jurisdiction of the legislative body and not listed on the agenda.

A. EMPLOYEE OF THE QUARTER FOR MAY 2017
1. Antonio Campos

The Board commended Antonio Campos for being chosen as the Employee of the Quarter for May 2017 by Jamison Davis, the previous Employee of the Quarter.

Mrs. Denke took a photograph of President Wolk congratulating Mr. Campos.

II. **CONSENT CALENDAR**-----**(ITEMS B - E)**

All items appearing on the Consent Calendar may be disposed of by a single motion. Items shall be removed from the Consent Calendar if any member of the Board of Directors or the public requests removal prior to a vote on a motion to approve the items. Such items shall be considered separately for action by the Board.

B. APPROVAL OF MINUTES
1. Regular Board Meeting of April 24, 2017

Recommendation: The Board approve the minutes of the aforementioned meeting of the Board of Directors of the Fallbrook Public Utility District.

C. NOTICE OF COMPLETION – PLANT 2 FORCE MAIN REPLACEMENT

Recommendation: That the Board authorize staff to file the attached Notice of Completion with the San Diego County Recorder.

D. NOTICE OF COMPLETION – 1 MG RESERVOIR

Recommendation: That the Board authorize staff to file the attached Notice of Completion with the San Diego County Recorder.

E. ADOPTION OF RESOLUTION NO. 4912 SETTING THE 2017-18 APPROPRIATION GROWTH RATE

Recommendation: The Board adopt Resolution No. 4912 setting the tax appropriation limit for 2017-18 at \$2,933,265, which includes the Fallbrook and DeLuz service areas and Improvement District "S".

MOTION: Director McDougal moved to approve the Consent Calendar as presented and adopt Resolution No. 4912; Director DeMeo seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk

NOES: None

ABSTAIN: None

ABSENT: None

III. INFORMATION----- (ITEMS F – G)

President Wolk announced that Item F would be considered next. Following the announcement, Director Gebhart read the following statement out loud:

"Because I have a conflict of interest under the Political Reform Act (Government Code section 87100) and under Government Code section 1090 if it involves the contract for sale of the Santa Margarita River property, with respect to Item F, I am recusing myself from participating in any way on this agenda item because of my real property interest and my primary residence, and/or real property interests, and the access easement to the trails system."

Following his statement of recusal, Director Gebhart left the meeting at 4:06 p.m.

F. UPDATE ON THE SANTA MARGARITA RIVER PROPERTY

Presented by: Jack Bebee, Assistant General Manager

Mr. Bebee announced the Santa Margarita River property purchase agreement term ends at the end of June and representatives from Western Rivers Conservancy

(Western Rivers) and The Wildlands Conservancy (Wildlands) would be providing the Board with a status update concerning the transaction.

Mr. Peter Colby of Western Rivers stepped to the podium. Mr. Colby referenced his letter dated May 16, 2017, which was included in the board packet, requesting a one-year extension of the purchase agreement from June 30, 2017. Mr. Colby stated Western Rivers' focus has been to develop and revise the management plan to form a consensus among the parties, which includes the Fallbrook Trails Council, community members, and the agencies. Mr. Colby further stated that within the next few months a revised management plan would be developed and will provide the predicate for all of the acquisition funding and the management funding to complete the project.

Mr. Zach Kantor-Anaya of Wildlands stepped to the podium. Mr. Kantor-Anaya explained the parties recently made significant progress as set forth in the May 16, 2017 letter from Western Rivers. The parties have been working with the United States Fish and Wildlife Service (USFWS) on measures that will facilitate acquisition funding, and meetings have been held in the field with the Fallbrook Trails Council and the District towards those efforts. Once the revised management plan has been developed, it will be presented to the Board for approval.

Mr. Paul Melzer of Wildlands stepped to the podium and on behalf of their Executive Director, expressed support of the extension requested by Western Rivers. Mr. Melzer reported that progress has been made, most recently through the Carlsbad meeting and the site visit that followed, and the resource agencies have shown a willingness to work with the stakeholders.

Mrs. Donna Gebhart stepped to the podium on behalf of the Fallbrook Trails Council and expressed concern with comments made by the state and federal agencies and a remark made by a state staff member at the May 12 meeting. Mrs. Gebhart stated she received Mr. Colby's letter and discussed the letter with Western Rivers and Wildlands. Mrs. Gebhart further stated she was agreeable to a 60-day extension of time contingent upon something in writing on letterhead.

Director DeMeo asked Mrs. Gebhart what the state said that caused concern, and Mrs. Gebhart stated she asked the state's staff member how they felt "about what Pete Beck was saying" and the staff member said they "would probably follow the feds."

Mr. Bebee explained the federal agency has a stronger stake in the matter since it affects the project on Base. As a result, the feds are leading the way and although the state's comments have caused concerns, subsequent interactions and discussions have been positive.

Director McDougal asked Mrs. Gebhart for clarification concerning 1) why a 60-day extension and 2) what is being requested in writing and from whom. Mrs. Gebhart suggested they could do something in 60 days and would like something in writing on letterhead from the state and the feds prior to a long extension. Director McDougal

emphasized the District retains the option of not following through with the sale if any terms are found unacceptable by the Board.

Director Gebhart returned to the meeting at 4:29 p.m.

**G. UPDATE ON THE SAN DIEGO COUNTY WATER AUTHORITY (SDCWA)
EMERGENCY AND CARRYOVER STORAGE PROJECT**

Presented by: Jack Bebee, Assistant General Manager

Mr. Bebee reported the SDCWA has been working on the Emergency and Carryover Storage Project (E&CSP) for years, which involves Olivenhain Reservoir and a number of pump stations. The E&CSP provides water to member agencies during a major disruption to the aqueduct, and the E&CSP does not have the facilities to provide water to the northern portions of Fallbrook during an emergency. The SDCWA has proposed a pump station be built near Red Mountain Reservoir that would provide water to those areas during an emergency. The SDCWA would fund the project and the District would own and operate the pump station, as more fully described in the "Principles of Understanding" document. Additionally, the pump station would benefit the District during non-emergency operations.

Dr. Brady provided an overview of the costs and emphasized the "Principles of Understanding" document would not commit the District to the project. In response to questions, Dr. Brady clarified that signing the "Principles of Understanding" is an initial step and the formal agreement would be reviewed by General Legal Counsel and brought to the Board for approval.

Item H was removed from the agenda at the request of Director Gebhart.

IV. ACTION / DISCUSSION CALENDAR -----(ITEMS H – O)

**I. PARTICIPATION IN THE UNIFORM PUBLIC CONSTRUCTION COST
ACCOUNTING ACT PROCEDURES**

Recommendation: The Act offers significant benefits to the District's procurement methods. It is recommended that the Board direct staff to proceed with formalizing this process with legal counsel for consideration at the next Board meeting.

Mr. Bebee reported that District staff and General Legal Counsel have been working on a comprehensive update to the Administrative Code relative to procurement methods. As a result, the procurement processes in the Public Utility District Act (PUD) that were adopted in the 1940s were reviewed and found to be archaic and difficult to comply with. Moreover, municipal water districts do not experience compliance issues because their code has been updated. By opting into the Uniform Public Construction Cost Accounting Act (Act) procedures, the District would have the flexibility in

procurement similar to a municipal water district. Mr. Bebee recommended the District opt into the Act.

Mrs. de Sousa Mills described the purchasing process required by the PUD and noted that most purchases require a formal notice by publication in a newspaper of general circulation for 10 days. The Act would provide the District with flexibility in advertising and limits, would streamline the process, and would be less costly than the current process. Mrs. de Sousa Mills noted that many agencies have opted into the Act and it works well for them.

Mr. Bebee reported that although the District posts bids on its website and through other sources, those methods do not meet the noticing requirements of the PUD.

Mrs. de Sousa Mills discussed the legal definition of a newspaper of general circulation as prescribed by law. Those newspapers are adjudicated by the court and included on a "List of Approved Newspapers."

Discussion ensued concerning the requirements of the Act, specifically job cost accounting processes. Mrs. de Sousa Mills reported that Mrs. Eilers reviewed the job cost accounting requirements of the Act and determined the District has the ability to comply with those requirements.

MOTION: Director Gebhart moved to approve staff's recommendation; Director McDougal seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk
NOES: None
ABSTAIN: None
ABSENT: None

J. MANHOLE REHABILITATION SERVICES PROJECT AWARD

Recommendation: That the Board authorize award of the Manhole Rehabilitation Services Project to the apparent lowest responsible bidder of Zebron Contracting at an amount of \$23,925.

Mr. Bebee reported that staff is recommending award of the rehabilitation of 11 manholes to Zebron Contracting for \$23, 925, which is less than the amount budgeted. Mr. Bebee explained the rehabilitation of manholes has been included in each year's budget and will also be included in next year's budget. The work consists of resurfacing and recoating the inside of manholes that will maintain the integrity of the sewer collections system.

MOTION: Director Davies moved to approve staff's recommendation; Director Gebhart seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk
NOES: None
ABSTAIN: None
ABSENT: None

President Wolk announced that Item K would be considered next. Following the announcement, Director Gebhart read the following statement out loud:

"Because I have a conflict of interest under the Political Reform Act (Government Code section 87100) and under Government Code section 1090 if it involves the contract for sale of the Santa Margarita River property, with respect to Item K, I am recusing myself from participating in any way on this agenda item because of my real property interest and my primary residence, and/or real property interests, and the access easement to the trails system."

Following his statement of recusal, Director Gebhart left the meeting at 4:57 p.m.

K. FIRE MANAGEMENT PLAN FOR THE SANTA MARGARITA RIVER PROPERTY

Recommendation: If the Board wishes to pursue this effort, that the Board direct staff to solicit for professional services to prepare a Fire Management Plan for the Santa Margarita River Property. Staff will bring back their recommendation for award to the Board for approval.

Mr. Bebee reported the Board directed staff to gather information relative to the development of a Fire Management Plan. Mr. Bebee provided an overview of the potential tasks that could be included in a Fire Management Plan and the estimated cost to develop a plan. Mr. Bebee stated that if the property sale was finalized, the new property owner would have the option of implementing some or all of a plan developed by the District. If the property sale fell through and a Fire Management Plan was in place, there would be costs associated with performing the tasks outlined in the plan. Mr. Bebee asked if the Board would like staff to solicit for professional services to prepare a Fire Management Plan for the Santa Margarita Property.

MOTION: Director McDougal moved to "move forward" with a Fire Management Plan; Director Davies seconded.

Director McDougal inquired if there were legal issues associated with not having a Fire Management Plan and suggested it could cost \$50,000 to develop the plan and hundreds of thousands of dollars to implement it. Director McDougal asked if in the event of a fire, the District could be held negligent for not having a Fire Management Plan. He also suggested the Board review existing plans to determine the need of developing a plan.

Director Davies remarked he was in favor of issuing a request for proposals, and Mr. Bebee suggested holding off on issuing a request for proposals unless the Board was certain it wished to move forward with developing a Fire Management Plan.

In response to President Wolk, Mr. Bebee explained the Board requested information on a Fire Management Plan and a plan is part of the Long Term Steward Agreement. Discussion ensued, and it was noted the long term steward would have the option of implementing a plan that was developed by the District.

As a result of questions surrounding potential liability issues, Mrs. de Sousa Mills proposed to review the Purchase and Sale Agreement and speak with Mr. Lopardo relative to the Board's concerns.

Director McDougal questioned if implementing a Fire Management Plan would disrupt the environment and create problems with governmental agencies.

Director Davies reiterated he would like to see a request for proposals and pointed out that discussion of a Fire Management Plan began with a proposal to establish three refuge areas at Sandia, the pit, and Willow Glen.

President Wolk stated he was not in favor of issuing a request for proposals if the Board was not committed to the development of a Fire Management Plan.

Director McDougal suggesting limiting the current action to gathering samples of plans for review by the Board. Director McDougal withdrew his motion.

By consensus, the Board directed staff to return with samples of Fire Management Plans.

Director Gebhart returned to the meeting at 5:15 p.m.

L. N. BRANDON AND E. ALVARADO SEWER REPLACEMENT PROJECT

***Recommendation:** That the Board authorize award of the N. Brandon and E. Alvarado Sewer Replacement Project to the lowest responsible bidder of CCL Contractors at an amount of \$1,379,000 to replace the deficient sections of the sewer line in Brandon Road and in Alvarado Street.*

Mr. Bebee stated the sewer line that runs down Brandon and Alvarado requires replacement due to its age and composition. The line begins at Mission Road and ends across Main Street. As a result, construction will impact traffic and a number of businesses along that route. The lowest bidder was CCL Contractors in the amount of \$1,379,000, and CCL Contractors has satisfactorily performed work for the District in the past. The FY 2017-18 draft budget includes \$1.5 million for the project, and the contract term is 240 calendar days.

MOTION: Director Davies moved to approve staff's recommendation; Director McDougal seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk

NOES: None

ABSTAIN: None

ABSENT: None

M. DEVELOP A POLICY FOR CLOSING THE FISCAL YEAR

Recommendation: *No action at this time. Staff to report back in June with information from other agencies on their closing procedures and timelines.*

Mrs. Eilers reported that due to the Springbrook conversion and the three general ledger account numbers that were not in balance, the most recent audit was delayed. Consequently, the Fiscal Policy & Insurance Committee requested that staff develop a written policy to close the month and year in preparation of the audit. Mrs. Eilers further reported she polled other North County agencies concerning their policies and four agencies have responded thus far. The responses from those four agencies indicated none had a written policy to close their year.

President Wolk commented that the Board, the Fiscal Policy & Insurance Committee, and staff should work together to make the process faster.

Director Gebhart stated the Fiscal Policy & Insurance Committee brought this item to the full Board to assist staff with the process and to develop a written policy with guidelines. Director Gebhart suggested that if additional support was needed to close the year in a timely manner, temporary staff or an auditor could be retained to fill that need.

Director McDougal asked if the delay was due to Springbrook; and if so, how long did it take to close the year in the past.

Mrs. Eilers explained the delay was due to Springbrook and in prior years, the close was done by mid to late August and the audit was presented to the Board in October or November.

Director McDougal remarked the close should take no longer than 60 days and footnotes could be utilized for items that require additional information.

Dr. Brady pointed out that closing by August would meet a 60-day goal; however, a qualified report would be prevented by taking the extra time to resolve outstanding items.

President Wolk emphasized the goal should be to identify problems and have those problems fixed, or identify the process to have them fixed, soon after the 4th of July holiday.

Director McDougal proposed developing a policy that would require the year be closed within 60 days, and if the deadline was not met, staff would return to the Board with an explanation and solutions to resolve the delay.

Dr. Brady remarked the item would be brought back to the Board at the next regular board meeting.

N. ACCEPTANCE OF DEBT MANAGEMENT POLICY

Recommendation: That the Board accept the Debt Management Policy as recommended by the Fiscal Policy & Insurance Committee.

Dr. Brady reported that a Debt Management Policy (Policy) is required as part of the application process for the State Revolving Fund loan for the Santa Margarita Conjunctive Use Project. Dr. Brady further reported PFM has done the majority of the work to develop the Policy for the District. The Policy was reviewed by the Fiscal Policy and Insurance Committee last week.

Director Gebhart asked if the fee to develop the Policy was part of PFM's monthly fee for services, and Mrs. Eilers stated it was an additional cost. Director Gebhart pointed out the importance of the Policy since the District would be prevented from borrowing money without it.

MOTION: Director Davies moved to approve staff's recommendation pending review by General Legal Counsel; and if any substantive changes are made by General Legal Counsel, the Debt Management Policy will be brought back to the Board for approval; Director Gebhart seconded. Motion carried;
VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk
NOES: None
ABSTAIN: None
ABSENT: None

O. REPLACEMENT OF ONE CONSTRUCTION CREW TRUCK

Recommendation: That the Board approve the purchase of one Ford F550 4x2 for \$75,325.19 from North County Ford in Vista, the lowest responsive bidder, in order to maintain a reliable District fleet to complete necessary infrastructure repairs and replacement.

Mr. Bebee reported that staff is requesting the replacement of a construction crew truck that is 24 years old and in poor condition. The District went out for bids, and North County Ford was the lowest responsive bidder in the amount of \$75,325.19, which was below the amount budgeted. Mr. Bebee pointed out the vehicle was

identified for replacement in the Fleet Replacement Program, which was previously reviewed by the Board, and the evaluation form was included in the staff memo.

Discussion ensued concerning the District's fleet and the types of trucks needed by the crews in the field. President Wolk inquired if additional trucks were scheduled for replacement in the near future. Mr. Bebee referenced the Fleet Replacement Program that includes the scheduled replacement dates and noted a number of vehicles were allowed to age-out in the past several years.

President Wolk commended the progress made to date, but requested the point score card be included for the public record. Mr. Bebee noted the score card was included in the staff memo and the points were explained on the last page; however, the card could be expanded and improved. President Wolk requested that the Diagnosis Code and Code Description columns also be clarified.

MOTION: Director Davies moved to approve staff's recommendation; Director McDougal seconded. Motion carried; VOTE:

AYES: Directors Davies, DeMeo, Gebhart, McDougal, and Wolk
NOES: None
ABSTAIN: None
ABSENT: None

V. ORAL / WRITTEN REPORTS----- (ITEMS 1 – 7)

1. General Legal Counsel

- Mrs. de Sousa Mills provided an overview of bills affecting special districts.

2. SDCWA Representative/General Manager

- Dr. Brady provided an overview of the current status of the SDG&E rate case, specifically as it applies to solar rates.

3. Administrative Services Manager/Treasurer

- Mrs. Eilers pointed out an additional \$500,000 was transferred to PARS, per the Board's action, and the transfer is shown on page 87 of the board packet. Mrs. Eilers also pointed out that investment returns continue to climb.

4. Assistant General Manager

- There was no oral report presented by Mr. Bebee.

5. Public Affairs Specialist

- The Fallbrook Chamber of Commerce recognized the District for being the longest serving member of 51 years.
- President Wolk was bestowed with a Lifetime Achievement award by the Fallbrook Chamber of Commerce.
- Mrs. Denke obtained free home test kits from the Home Depot as a giveaway to customers.

6. Director Comments/Reports on Meetings Attended

- Director McDougal announced the Grand Tradition would be hosting a campaign fundraiser for Jim Desmond who is running for Seat 5 on the Board of Supervisors for the County of San Diego.
- President Wolk announced he approved his and Director DeMeo's attendance to a Santa Margarita River property meeting on April 25, 2017, which arose after the March board meeting.

7. Log of Board Requests

Mrs. de Sousa Mills, General Legal Counsel, announced Closed Session Item VI.(1) and Closed Session Item VI.(3) by reading the agenda descriptions out loud.

Mrs. de Sousa Mills noted that Closed Session Item VI.(2) was included on the agenda as a placeholder and would not be discussed during Closed Session.

ADJOURN TO CLOSED SESSION

The Board adjourned to Closed Session at 5:55 pm.

VI. CLOSED SESSION

1. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION SIGNIFICANT EXPOSURE TO LITIGATION PER GC § 54956.9 (d)(2): ONE POTENTIAL CASE
2. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PER GC § 54956.8: PROPERTY: 1492 NORTH STAGECOACH LANE, FALLBROOK, CA; AGENCY NEGOTIATOR: JACK BEBEE; NEGOTIATING PARTIES: BRUCE E. SCHWANDT, TRACEY L. SCHWANDT; UNDER NEGOTIATION: PRICE AND TERMS OF PAYMENT
3. PUBLIC EMPLOYEE PERFORMANCE EVALUATION PER GC § 54957 (b) (1): TITLE – GENERAL MANAGER

RECONVENE TO OPEN SESSION

The Board returned from Closed Session and reconvened to Open Session at 6:10 p.m.

REPORT FROM CLOSED SESSION (*As Necessary*)

President Wolk announced there was no reportable action taken in closed session.

VII. ADJOURNMENT OF MEETING


There being no further business to discuss, President Wolk adjourned the regular meeting of the Board of Directors of the Fallbrook Public Utility District at 6:11 p.m.

President, Board of Directors

ATTEST:

Secretary, Board of Directors

MEMO

TO: Board of Directors
FROM: Marcie Eilers, Administrative Services Manager/Treasurer 
DATE: June 26, 2017
SUBJECT: Resolution No. 4914 Placing Fixed Charge Special Assessments to Add Delinquent and Unpaid Charges for Water and Other Services on the San Diego County Property Tax Roll

Purpose

To authorize the San Diego County Auditor/Controller to add delinquent and unpaid charges for water and other services placed on property tax bills as a Fixed Charge Special Assessment.

Summary

Property owners with delinquent and unpaid charges for water and other services were notified by mail 60 days prior to July 1, 2017, that the delinquent and unpaid charges may be added to, and become a part of, the annual taxes levied upon the property subject to the charges.

Administrative Code Section 21.9, *Water Rates or Service Charges Lien on Property*, provides that delinquencies and unpaid charges may be reported to the County of San Diego for inclusion on the annual taxes levied on the property.

The District has established Fund No. 6240-08 with the County of San Diego to place delinquent and unpaid charges for water and other services on property tax bills as a Fixed Charge Special Assessment. The filing deadline for Fixed Charge Special Assessments is August 10, 2017, and the District must submit an electronic list of parcels with delinquent and unpaid charges along with a letter of certification by the filing deadline.

Recommended Action

That the Board authorize the San Diego County Auditor/Controller to assess a Fixed Charge Special Assessment to add delinquent and unpaid charges for water and other services on the property tax bills for those parcels to be filed electronically and certified by the District to the County on or before August 10, 2017, and adopt Resolution No. 4914.

RESOLUTION NO. 4914

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
FALLBROOK PUBLIC UTILITY DISTRICT PLACING FIXED CHARGE
SPECIAL ASSESSMENTS FOR UNPAID CHARGES FOR WATER AND
OTHER SERVICES ON THE SAN DIEGO COUNTY PROPERTY TAX
ROLL**

* * * * *

WHEREAS, a number of parcels have delinquent and unpaid charges for water and other services, which are due and owing to the Fallbrook Public Utility District; and

WHEREAS, Administrative Code Section 21.9, Water Rates or Service Charges Lien on Property, provides that delinquent and unpaid charges may be reported to the County of San Diego for inclusion on the annual taxes levied on the property; and

WHEREAS, the property owners of parcels with delinquent and unpaid charges for water and other services were notified by mail at least 60 days prior to July 1, 2017, that the unpaid charges may be added to and become a part of the annual taxes levied upon the property subject to the charges; and

WHEREAS, Fund No. 6240-08 has been established with the County of San Diego to place delinquent and unpaid charges for water and other services on property tax bills as a Fixed Charge Special Assessment (FCSA); and

WHEREAS, the taxing agencies must submit a list of FCSAs to be collected via the County's tax roll to the San Diego County Auditor/Controller between July 1, 2017, and August 10, 2017.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Fallbrook Public Utility District as follows:

1. On or before August 10, 2017, the Secretary of the Fallbrook Public Utility District shall provide to the San Diego County Auditor/Controller the following:
 - a. An electronic list of parcels with delinquent and unpaid charges for water and other services as of July 1, 2017, and have remained unpaid as of the date of filing, and whose property owners were notified at least 60 days prior to July 1, 2017, that the delinquency may be added to the property tax roll; and,
 - b. A letter of certification signed by an official of the District.

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:


AYES:
NOES:
ABSTAIN:
ABSENT:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

M E M O

TO: Board of Directors
FROM: Marcie Eilers, Administrative Services Manager/Treasurer 
DATE: June 26, 2017
SUBJECT: Ordinance No. 338 Fixing Water Standby or Availability Charges for 2017-18

Purpose

To adopt the Water Standby or Availability Charges annually and provide a certified copy to the Board of Supervisors and Auditor and Controller of the County of San Diego.

Summary

The Board has assessed Water Standby or Availability Charges on all lands within the District for many years that goes for debt service and for capital improvements in the Fallbrook Service Area. The budget has been prepared to allocate these charges.

A public hearing is not required, but is discretionary on the part of the Board. There are no proposed changes to the charges, and no changes are required for incorporation into the District's Administrative Code.

Recommended Action

The Board adopt Ordinance No. 338 as prepared and authorize the Secretary to send a certified copy to the Board of Supervisors and the Auditor and Controller of the County of San Diego.

ORDINANCE NO. 338

**AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE
FALLBROOK PUBLIC UTILITY DISTRICT, SAN DIEGO COUNTY,
CALIFORNIA, FIXING WATER STANDBY OR AVAILABILITY
CHARGES AND REPEALING ORDINANCE NO. 337**

* * * * *

BE IT ENACTED BY the Board of Directors of the Fallbrook Public Utility District as follows:

SECTION I. The Fallbrook Public Utility District is a member of the San Diego County Water Authority and the Metropolitan Water District of Southern California and as a member of such agencies, Fallbrook Public Utility District is entitled to purchase water for distribution within the District. Waterlines have been constructed and are being constructed within the District, and water service is available from these lines.

In accordance with Division 7, Chapter 4, Article 3, Sec. 16475 and 16477 of the Public Utility District Act, it is hereby determined that the best interests of the District, its inhabitants, landowners, and customers require that the following water availability charges be established; hereafter, referred to as standby or availability charges.

The word "District" as used herein shall mean and refer to the Fallbrook Public Utility District of San Diego County, California. Fallbrook Service Area will indicate that area known as Fallbrook Public Utility District prior to July 1, 1990. The DeLuz Improvement District will indicate that area known as Improvement District I and II of DeLuz Heights Municipal Water District prior to July 1, 1990.

SECTION II. Water availability charges are hereby fixed and established on all land within the District boundaries, whether the water is actually used or not, as provided herein:

1. Fallbrook Service Area

- a. Ten dollars (\$10) per acre for all parcels one (1) acre or more prorated out to one hundredth of an acre, as set forth in the San Diego County Tax Assessor's maps, EXCEPTING lands permanently dedicated exclusively to transportation of persons or property, hereafter referred to as the transportation dedication exclusion. For purposes of this Ordinance, it is assumed that 5 percent of all parcels have been permanently dedicated exclusively to transportation of persons and property; therefore, the actual assessment will be \$9.50 per gross acre as set forth in the San Diego County Tax Assessor's maps.

- b. Five dollars (\$5) for parcels of less than one acre. For purposes of this Ordinance, all parcels with gross acreage of 1.05 acres are considered to have a net acreage of less than one acre for purposes of the transportation dedication exclusion.

2. DeLuz Improvement District

- a. Acreage adjacent to or lying within 1320 feet of water distribution line\$10.00 per acre
- b. Acreage between 1320 and 2640 feet of a water distribution line\$9.00 per acre
- c. Acreage between 2640 and 3960 feet of a water distribution line\$8.00 per acre
- d. Acreage between 3960 and 5280 feet of a water distribution line\$7.00 per acre
- e. Acreage over 5280 feet from water distribution line.....\$6.00 per acre
- f. All parcels of less than one acre\$5.00

3. The term "parcel" as used herein shall mean a parcel of land as shown upon the assessment rolls of the County Assessor of San Diego County; provided that where a legal final sub-division map has been approved, "parcel" shall mean each separate lot within the subdivision.

4. Exemptions:

Lands not using District water and obtaining water primarily from rainfall, springs, streams, lakes, rivers, or wells, and where the primary economic activity on the land is the commercial extraction of minerals.

SECTION III. On or before August 10, 2017, the Secretary of this District shall furnish in writing to the Board of Supervisors of San Diego County and to the County Auditor a description of the land within the District upon which standby or availability charges are to be levied and collected, together with the amount of the charges. At the time and in the manner required by law for the levying of taxes for County purposes, the Board of Supervisors shall collect, in addition to taxes it levies, water availability charges in the amounts fixed by this Ordinance for the respective parcels of land described in Section II of this Ordinance. All County officers charged with the duty of collecting taxes will collect the charges with the regular tax payments in the same form and manner as County taxes are collected. Such availability charges are a lien on the property with respect to which they are fixed. Collection of the charges may be

enforced by the same means as provided for the enforcement of liens for State and County taxes.

SECTION IV. The Secretary of this District shall deliver certified copies of this Ordinance to the Board of Supervisors and to the Auditor of San Diego County with the list of charges described in Section II above.

SECTION V. The General Manager of the District is hereby authorized to correct any clerical error made in any assessment or charge pursuant to this Ordinance and to make an appropriate adjustment in any assessment or charge made in error.

SECTION VI. If any clause or provision of this Ordinance is found to be void or unenforceable by a court of competent jurisdiction, the remaining provisions of this Ordinance shall nonetheless continue in full force and effect.

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

MEMO

TO: Board of Directors
FROM: Brian J. Brady, General Manager
DATE: June 26, 2017
SUBJECT: Santa Margarita Property Update

Purpose

To present to the Board an update on the Santa Margarita Property.

Summary

In September 2015, the Board entered into a Purchase and Sale Agreement for the 1,384 acre Santa Margarita River Property with Western Rivers Conservancy (WRC). The agreement is scheduled to expire June 30, 2017.

WRC has submitted the attached materials with regard to the agreement.

Recommended Action

Staff supports the Board's direction.



WESTERN RIVERS CONSERVANCY

June 20, 2017

Brian J. Brady, P.E.
Fallbrook Public Utility District
P.O. Box 2290
Fallbrook CA 92088-2290

Re: Update on Santa Margarita River Transaction

Dear Mr. Brady:

In preparation for the June 26 Board meeting, Western Rivers Conservancy (WRC) wishes to update the Board on the Santa Margarita River property transaction.

As noted in my May 16 letter, the process for completing this transaction that was outlined in our December 2016 presentation to the Board is still accurate. As was true in December, we remain confident that all the elements for a successful conclusion are in place.

The delay since December has been in negotiating the terms of a long-term management plan for the property, which entails finding the proper balance between the requirements of the funding agencies and the needs of the community. This has turned out to be a long and arduous process; however, we are now very close to finalizing the plan. However, completing the processes that must be followed to receive the acquisition funding will take a number of months. Therefore, we are requesting an extension of our date for closing for one year, to June 30, 2018.

Status of Management Plan

As noted in my May 16 letter, the initial comments from California Department of Fish and Wildlife (CDFW) and from the United States Fish and Wildlife Service (FWS) raised significant issues. However numerous calls, meetings, and site visits over the last few weeks have resulted in considerable progress. Agency staff have maintained the momentum that we reported in May, providing significant information, direction, and input to the process of revising the plan.

The attached latest version of the plan, prepared by TWC, is the product of lengthy discussions with FWS and DFW, as well as with FTC and community members. The draft has been approved by FTC and their constituents. As of this writing, we are still receiving and reviewing input from the agencies, but we believe this version is very close to being ready for approval by all parties.

Request for Extension of Closing Date

We request an extension of the closing date through June 30, 2018. The need for this extension stems from the schedule for the following milestones which must be met for closing:

1. Completion of the IRMP. We anticipate reaching agreement with the agencies and the community on a revised IRMP within approximately 90 days. That milestone will reinforce the Department of Defense's previous commitment of funding. It will also provide the basis for additional funding through the California Wildlife Conservation Board.

2. Finalization of REPI Funding. The Department of Defense has committed funding for the acquisition of a Restrictive Use Easement (RUE) on the Santa Margarita property. However, before the money is available, the following steps must occur, which can be completed by mid-2018:
 - a. The RUE must be revised as necessary to match the IRMP (2-3 weeks from completion of the IRMP);
 - b. The appraiser needs to review the revised RUE and finalize the appraisal (4-6 weeks from submittal of the (RUE); and
 - c. The appraisal needs to be reviewed by DOD (several months from finalization of the appraisal).
3. Other Acquisition Funding. A request for \$1 million will be submitted to the California Resources Agency on June 21, 2017. If successful, funding will be available by mid-2018. We are also pursuing a grant from the California Wildlife Conservation Board, with approximately the same time frame for funding.
4. Long Term Steward Agreement. This document, which is required by the Purchase Agreement, along with the Trail Easement providing long term access, will be finalized while the above steps are being completed.

The Board's granting of the requested one-year extension will provide the funding agencies assurance that they will not be making grants for a transaction than cannot be completed as proposed. However, we understand that they Board will want to be able to monitor progress during the extension period. Accordingly, we propose to provide the Board with quarterly progress reports throughout the extension.

We appreciate the Board's continued engagement and look forward to the meeting next week.

Sincerely,



Peter Colby

Project Manager

cc: Robert H. James, Esq.
Steve Lopardo, Esq.

SANTA MARGARITA RIVER PRESERVE INTEGRATED RESOURCE MANAGEMENT PLAN

Prepared by:

The Wildlands Conservancy
39611 Oak Glen Road
Oak Glen, CA 92399

June, 2017

**Santa Margarita River Preserve
Draft Integrated Resource Management Plan**

TABLE OF CONTENTS

I.	INTRODUCTION	
	2	
A.	Purpose of Acquisition	2
B.	Acquisition History	2
	(Figure 1. Regional map)	4
	C. Purpose of this Integrated Resource Management Plan	5
II.	PROPERTY DESCRIPTION	6
A.	Geographical Setting	6
B.	Property Boundaries and Adjacent Land Use	6
	(Figure 2. Map of the property)	8
	C. Geology, Soils, Climate, Hydrology	8
	(Figure 3. Annual precipitation)	9
	D. Cultural Resources	10
E.	Developed Infrastructure	10
F.	Public Access	10
	1. Existing Access and Use	10
	(Figure 4. Topographic trail map)	13
	2. Future Use	14
	(Figure 5. Potential refuge areas)	15
III.	HABITAT AND SPECIES DESCRIPTION	16
A.	Vegetation Communities, Habitats, and Plant Species	16
B.	Animal Species	21
C.	Primary Threats and Stressors	24
D.	Special Status Species	25
	1. Sensitive Plant Species	26
	2. Sensitive Animal Species	28
	3. Primary Threats and Stressors: Arroyo Toad	32
	4. Primary Threats and Stressors: Least Bell's Vireo	33
IV.	GOALS, OBJECTIVES AND STRATEGIES	35
	Vision Statement	35
	Goals, Objectives and Strategies	35
A.	Natural Resource Management	
	1. Water quality monitoring	35
	2. Sensitive plant and animal monitoring	36
	3. Sensitive animal management	37
	4. Botanical inventory	42
	5. Forest inventory	43
	6. Wildlife inventory	43
	7. Invasive, non-native plant and animal control	44
	8. Plant pathogens	44
	9. Fire plan	45

10. Debris and trash clean up	45
B. CULTURAL RESOURCE MANAGEMENT	46
1. Identify cultural sites	46
2. Preserve and protect cultural resources	46
C. RECREATIONAL RESOURCE MANAGEMENT	47
1. Partnership with Fallbrook Trails Council	47
2. Recreational use surveys	48
3. Trail assessment and maintenance	48
4. Educational programs	49
5. Visitor safety	50
6. Volunteer monitors	51
7. Prohibited activities	51
D. INFRASTRUCTURE DEVELOPMENT	51
1. Capital improvements	52
a. Restrooms	
b. Parking lots	
c. Ranger station	53
d. Signage	
e. Interpretive kiosk	
f. Litter bag dispenser	
Maintenance of infrastructure	54
Restoration of disturbed areas	54
E. OPERATIONS PLANNING	55
Annual work plans	55
References	56
Appendix "A" Assessor Parcel Numbers	58
Appendix "B" Soil Survey Report USDA & NRCS	41
Appendix "C" FPU D Ordinance Governing Santa Margarita River Property	59
Appendix "D" Sensitive Wildlife Species Helix Environmental Planning	65
Appendix "E" 2017 Work Plan Calendar	46
Figures	
1. Regional map	4
2. Site Map	8
3. Annual Precipitation	9
4. Trail Map	13
5. Potential Refuge Area	15
6. 2008 LBVI Observations	24
7. 2015 Sensitive Species Observations	30
8. Proposed Trail Reductions Map	41
Tables	
1. Habitat/ Vegetation Communities	17
2. Sensitive Plant Species and Potential to Occur	26
3. Impacts to Arroyo Toad Associated with Recreation	32
4. Impacts to Least Bell's Vireo Associated with Recreation	33
5. Sensitive Bird Species Survey Protocols	37

List of Common Acronyms

CDFW-	California Department of Fish and Wildlife
CNPS-	California Native Plant Society
DoD-	Department of Defense
FPUD-	Fallbrook Public Utility District
FTC-	Fallbrook Trails Council
MCBCP-	Marine Corps Base Camp Pendleton
SDMMP-	San Diego Management and Monitoring Program
SDSU-	San Diego State University
TWC-	The Wildlands Conservancy
USFWS-	United States Fish and Wildlife Service
USGS-	United States Geologic Survey
ARTO-	Arroyo Toad (<i>Anaxyrus californicus</i>)
CNDDDB-	California Native Diversity Database
CUP-	Conjunctive Use Project
CWA-	Clean Water Act
IRMP-	Integrated Resource Management plan
LBVI-	Least Bell's Vireo (<i>Vireo bellii pusillus</i>)
MSCP-	Multiple Species Conservation Plan
MSP-	Management and Monitoring Strategic Plan
NCCP-	Natural Communities Conservation Planning Program
REPI-	Readiness and Environmental Protection Integration Program
OSMZ-	Open Space Management Zone
SMER-	Santa Margarita Ecological Reserve
SMR-	Santa Margarita River
SMRP-	Santa Margarita River Preserve

Introduction

A. Purpose of Acquisition

The Wildlands Conservancy (TWC) is acquiring the Santa Margarita River Property in order to protect the natural environment for conservation purposes, in perpetuity. TWC will conduct land-based conservation through a variety of long-term stewardship efforts that aim to preserve and enhance the natural resources and protect the cultural resources of the property. Additionally, the Santa Margarita River Property will continue providing an open space for low-intensity, passive, non-motorized recreational opportunities.

B. Acquisition History

Fallbrook Public Utility District (FPUD) has owned the Santa Margarita River Property since the 1950s. In 1951, United States (on behalf of Marine Corps Base Camp Pendleton) brought suit against FPUD and about 3,600 other upstream users to claim Marine Corps Base Camp Pendleton's (MCBCP) right to the flow of the Santa Margarita River (SMR) (United States v. Fallbrook Public Utility District, et al; Case No 1247-SD-C). Soon after, FPUD began buying land along the river in preparation for construction of a dam. In 1968, the District Court approved a settlement of the conflicting claims based on the "physical solution" provided by the dam project. However, in the face of changes in leadership and growing environmental concerns, the project stalled and the dam was never built. At last, in 2014, a new "physical solution" was approved in the form of an agreement between FPUD and MCBCP to collaborate on the *Conjunctive Use Project* (CUP). The CUP will store water in aquifers on the base and provide the infrastructure needed to share the water between the base and FPUD.

In the *CUP Biological Opinion*, MCBCP committed to contributing funding toward the acquisition of the Open Space Management Zone (OSMZ), otherwise known as the Santa Margarita River Property (See figure 1.), to mitigate for the environmental impacts of the CUP. In addition, MCBCP planned to use conservation credits earned by preserving the Santa Margarita Property to offset future impacts to endangered species resulting from operations on MCBCP. Through the Department of Defense's Readiness and Environmental Protection Integration Program (REPI) MCBCP will contribute acquisition funding toward the conservation land sale of the OSMZ. In 2015, Western Rivers Conservancy (WRC) entered into a Purchase and Sale Agreement with FPUD to acquire the 1,384-acre OSMZ. WRC has since partnered with TWC to develop a Memorandum of Understanding that transfers fee title ownership and long-term stewardship responsibilities of the property to TWC once the acquisition by WRC is recorded.

In preparation for the transfer of the Santa Margarita River Property, TWC has prepared this management plan which will guide the long-term management of the

property. Since there are multiple resource elements that will require the attention of the managers at the property, an Integrated Resource Management Plan (IRMP) has been developed in collaboration with California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), FPUD, Fallbrook Trails Council (FTC), MCBCP, WRC, and TWC to comprehensively address the broad suite of management issues. The major resource elements that will be addressed in this IRMP include natural resource conservation, cultural resource protection, recreational resource management, infrastructure and maintenance operations.



The Wildlands Conservancy Santa Margarita River Acquisition San Diego County, CA

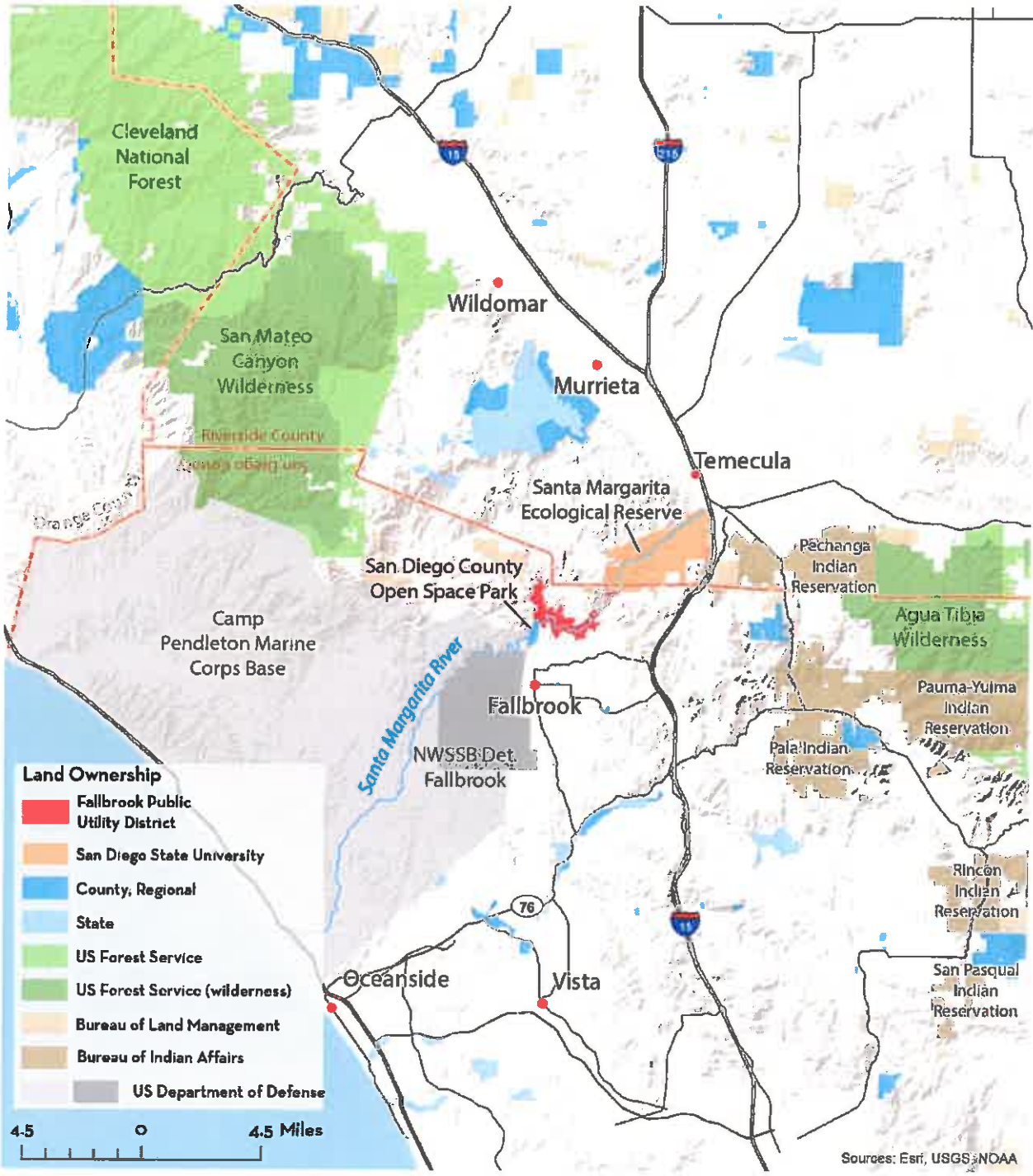


Figure 1. Overview map of the property's regional location

C. Purpose of this Integrated Resource Management Plan

1. The Integrated Resource Management Plan (IRMP) provides the guiding vision for the long-term stewardship of the Santa Margarita River Preserve.
2. The IRMP describes the natural and cultural resources of the property.
3. The IRMP addresses specific conservation goals, objectives, management strategies, monitoring and outreach programs for the protection of habitat, sensitive wildlife species, cultural resources, and physical environmental elements of the property.
4. The IRMP describes the existing recreational use occurring on the property, and addresses the management goals and strategies for managing recreational use in such a manner that contributes to restoration and enhancement of the natural resources while retaining existing recreational resources.
5. The IRMP addresses the maintenance operations and implementation plans for managing of the preserve.

II. Property Description

A. Regional Geographic Setting

The property is situated within the middle reach of the Santa Margarita River (SMR) watershed which encompasses 738 square miles and includes 949 miles of stream between the river and its tributaries. At 27 miles in length, the SMR is the longest free flowing river on the southern California coast. Of the total watershed area, approximately 27% is within San Diego County and the remainder is in Riverside County. The SMR watershed provides one of the greatest remaining expanses of largely undisturbed riparian corridor in coastal southern California. As a result, this watershed serves as valuable habitat, providing a diversity of vegetative and aquatic habitats that support numerous plants and animals, including 500 plant species, 236 bird species, 52 mammal species, 43 reptile species, 26 fish species and 24 species of aquatic invertebrates. These include 7 federal or state listed endangered or threatened species, and more than 60 other species listed by the state and other groups as having special concern. As a result, the lower and middle watershed is an environment of high ecological importance. Increasing development and large-scale land use changes upstream and potential impacts to downstream ecosystems, however, are of increasing concern. The upper watershed includes some of the fastest growing urbanized areas in California (Cardno, 2013).

The northeast corner of the property is within a quarter mile of the border between San Diego County and Riverside County; the Community of De Luz Heights lies to the west; the San Diego State University Santa Margarita Ecological Reserve lies to the northeast and the San Diego County Santa Margarita Preserve lies to the southwest.

Specifically, the southwest corner of the property lies approximately one-half mile northeast of the intersection of Del Luz Road and Sandia Creek Drive, in the northern portion of Fallbrook. The property is bound by a mix of rural residential development, agricultural use land, and undeveloped land in all directions. According to the County of San Diego Planning Department, the property is zoned for Open Space Use (EEI, 2016).

The approximately 1,384-acre property is composed of 34 parcels (Appendix A). The property is located in Section 36 of Township 8 South, Range 4 West; Sections 4,5,6,7,8,9 and 17 of Township 9 South, Range 3 West; and Sections 1 and 12 of Township 9 South, Range 4 West of the U. S. Geologic Survey (USGS) 7.5 minute Fallbrook and Temecula quadrangle maps.

B. Property Boundaries and Adjacent Land Use

The property is bound by a mix of rural residential development, agricultural use land, open space protected areas, and undeveloped land. Along the Santa Margarita River, both up and down river, two conservation properties adjoin the site. All together the three open space areas extend over an eleven-mile reach (See figure 2). Upriver from the site a 4,344-acre open space known as the Santa Margarita Ecological Reserve, managed by San Diego State University, provides protected sites for research and education on Southern California ecosystems. The reserve lies on the Riverside/San Diego county line between Temecula and Fallbrook. Downriver from the site a 221-acre open space known as the Santa Margarita Preserve, managed by the County of San Diego, is part of the draft North County Multiple Species Conservation Plan, and provides pedestrian and equestrian trail access to visitors. Visitors to the San Diego Santa Margarita Preserve use trail access to connect with the existing trails on the subject property. The subject property is located within a key wildlife corridor that spans the area between the coastal Santa Ana Mountains, encompassing Marine Base Camp Pendleton, and the southeastern portion of the Santa Margarita River headwaters that lie on the northwestern slopes of Palomar Mountain within the Cleveland National Forest.

A central component of this land acquisition transfer is the protection of 1,384-acres of land for natural resource conservation purposes in perpetuity. By securing conservation of the property, this preserve will provide natural resource protection and wildlife connectivity between not only the adjacent open space properties but also, will contribute to the larger landscape level effort to conserve an ecologically important wildlife corridor known as the Palomar Mountain to Santa Ana Mountain connection (South Coast Wildlands, 2008). Preserving the Santa Margarita River Valley as a wildlife corridor is essential to protecting the ecological integrity of a significant portion of the California South Coast Ecoregion. Providing wildlife with refuge from anthropogenic pressures such as habitat loss, habitat fragmentation, pollution and other prominent disturbances and threats allows those species to avoid being harmed, and in some cases from going extinct. Wildlife corridors allow for the free movement of plant and animal species over time, enabling species to be more resilient when responding to human activities, climate change, disease outbreaks and competition. The unique habitats found at the Santa Margarita River Property, notably riparian areas, are important to the survival of a number of wildlife species and support critical habitat for several sensitive and endangered species.

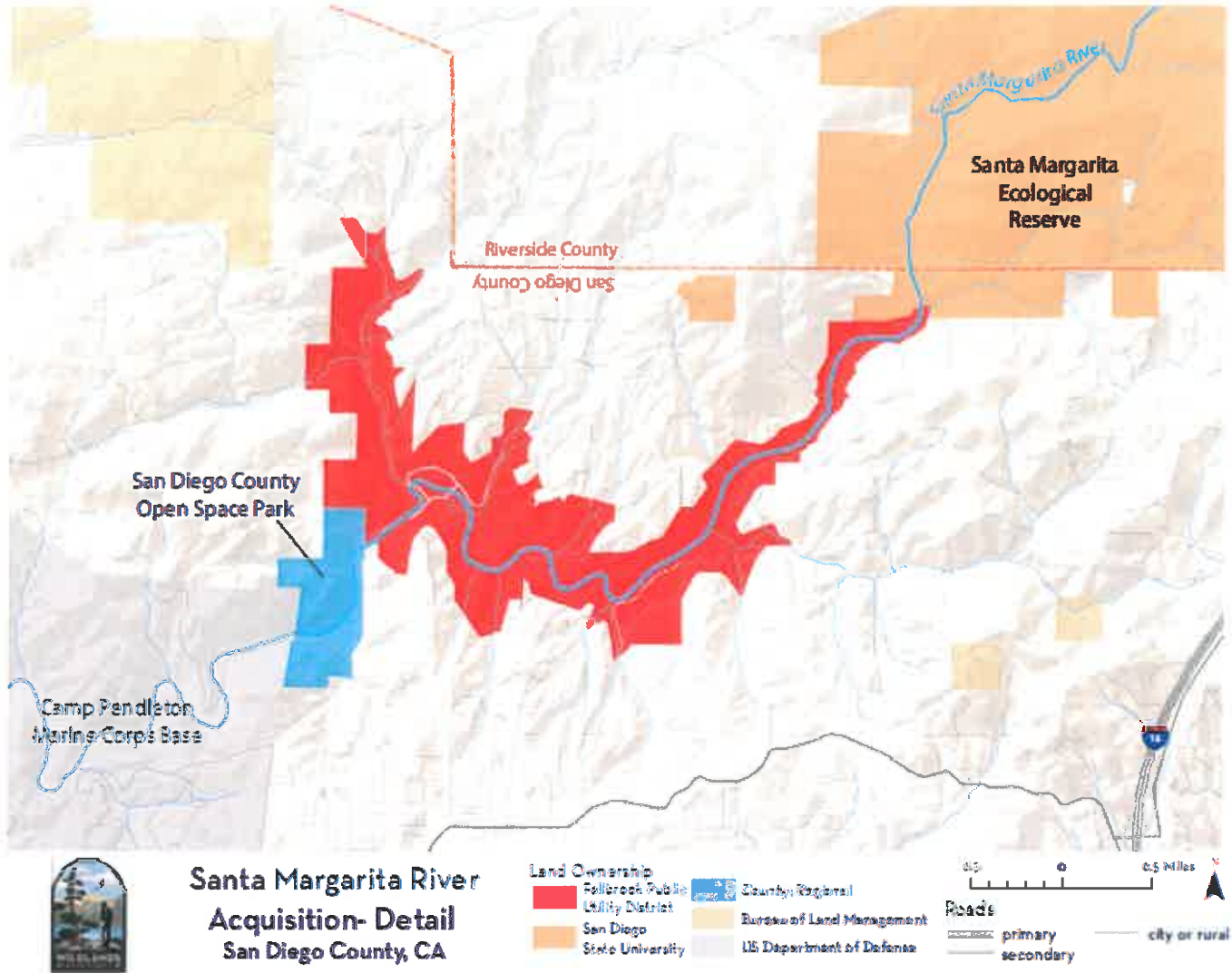


Figure 2. Map of the property and nearby protected areas

The situation of the property presents both a tremendous opportunity and a unique challenge for the project partners. While its location within the natural landscape by itself would make the property a critical target for protection, its value as a stronghold for wildlife within a relatively urbanized area only increases the importance of conservation. The Santa Margarita River’s history of public access calls out for an on-site stewardship that will encourage public education and collaboration while supporting and furthering ongoing restoration efforts.

C. Geology, Soils, Climate, Hydrology

The confluence of Murrieta and Temecula Creeks join to form the Santa Margarita River on the Santa Margarita Ecological Reserve. Geologically, the Santa Margarita River has persisted within a relatively confined space for around 70 million years.

The river is confined within the canyon formed by a weakened interface between the Bedford Canyon Formation and Woodson Mountain Formation (Abbot, 1999). The riverine environment provides habitat for aquatic species and gives rise to a lush riparian forest in an otherwise semi-arid landscape.

A variety of distinct soil units occur throughout the Santa Margarita River Valley. On the property, in particular, two soil units are most abundant. Several Cieneba soil series, which are derived from granitic parent material, compose the vast majority of soil units found on the property. Cieneba and Vista soil units support the chaparral plant communities that occur outside of the riparian area. Riverwash is the second most prominent soil unit on the property. Riverwash is a collection of soil materials transported and deposited by a river. On the Santa Margarita River, riverwash supports a riparian forest of several broadleaved tree species and a diverse understory assemblage of species that occupy the wide alluvial floodplains of the river. See appendix B for more information on the soils found on the property.

The Mediterranean climate of California is shared with the region encompassing the property. Specifically, the property belongs to the Humid Temperate Domain within the California Chaparral Province. With mild, wet winters and hot, dry summers, the Santa Margarita River Preserve is prone to flooding during winter storm events and periods of drought during the summer season. Temperatures range from as low as 43 degrees Fahrenheit to as high as 90 degrees Fahrenheit. Within the past decade, the area's precipitation has ranged from 5 inches to 25 inches annually. Much of the precipitation falls during the months of October through April. (PRISM, 2016)

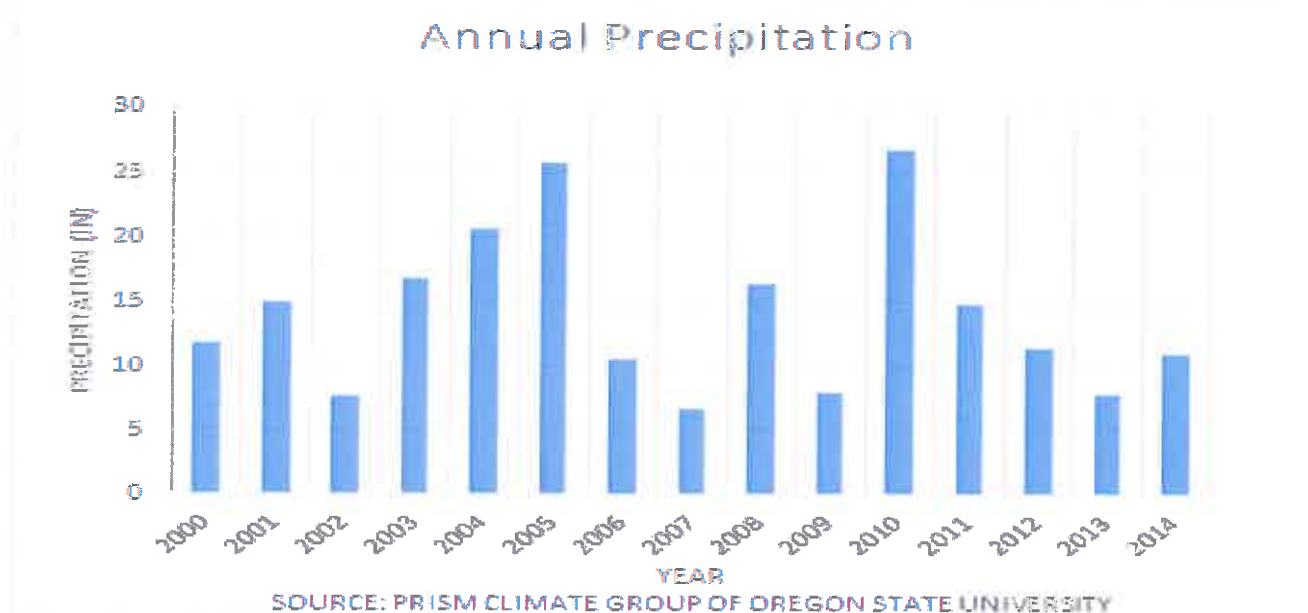


Figure 3. Annual precipitation estimated for the property from 2000 to 2014

D. Cultural Resources

The Santa Margarita River Valley was historically used by the people of the Luiseño tribe to travel between coastal village sites and inland village sites near Temecula. To this day there are signs of their presence within the river valley. A railroad was built in 1880 that connected Fallbrook to Temecula through the Santa Margarita River Valley. This railroad was used to transport visitors and goods. The railroad tracks were washed out several times by flood waters, although there are remnants of the rails that can be seen in several locations. These are but a few examples of the rich cultural history embedded in the Santa Margarita River valley. TWC intends to further study and learn about the fascinating array of cultural histories rooted in the Santa Margarita River Valley and share those with visitors.

E. Developed Infrastructure

County of San Diego maintains several miles of roads that transect through the property including Sandia Creek Drive, Rock Mountain Drive, Willow Glen Road, and North Stage Coach Lane. FPUD water supply lines traverse the property at the northwest, central and northeast portions of the property. High voltage electrical transmission lines run across the northeast portion of the property near Sandia Creek. Low voltage electrical lines run along the road near the Sandia Creek parking area and along Rock Mountain Drive.

There are a number of debris deposits within the property, some of which are associated with the sites of former structures. For the most part, the debris has been removed by FPUD before transfer of the property; the remainder will need to be further investigated and will be addressed in the management sections of this document.

F. Public Access

1. Existing Access and Use

As noted above, the Santa Margarita River Property has been owned and managed by FPUD since the 1950s. Throughout that time, FPUD has allowed public access to the property, subject to certain restrictions. The property contains a trail system dating to the 1950s or before that is used, with FPUD approval, by birders, equestrian riders, hikers, mountain bikers, naturalists and the general public alike. While some modification of the trail system may benefit sensitive species, overall the permitted trail use has not impaired resource values, as demonstrated by both the relatively intact habitats and the vitality and diversity of the wildlife populations.

Currently, public access is concentrated from two locations, the adjoining Santa Margarita County Preserve and at the Sandia Creek Drive parking area. See figure

4. Ten additional access points are located along the northern and southern borders of the property and are used primarily for management purposes. These access points are located on River Oaks Ln., Vista Del Lago, North Stagecoach Ln., Riverview Dr., Willow Glen Rd., Rock Mountain walk-in, Via Ranchitos, Via De Gavilan, Cinco Arroyo, and Via Del Rio. The trail system extends roughly from the County Preserve, past the Sandia Creek parking area, to the northeastern extent of the property near the border with the Santa Margarita Ecological Reserve. No public access is permitted to the portion of the property along Sandia Creek upstream of its confluence with the Santa Margarita River.

While FPUD has adopted formal regulations to govern use of the property and restrict off-trail activities, unpermitted public use continues to occur and could at times threaten species. FPUD has hired part time private security to help reduce unauthorized uses, but recurring problems on the site include: off-leash dogs, unauthorized access to sensitive riparian areas, drinking alcoholic beverages, graffiti and littering. Having recently determined that the property is not required for utility purposes, FPUD is seeking to divest ownership as FPUD does not have activated powers for recreation or any revenue outside of water/sewer rates, so they are unable to fund recreation and fully fund the necessary on-site enforcement of the regulations. The need for an on-site presence as well as necessary funding for enforcement and enhancement of the property stewardship will be addressed directly by The Wildlands Conservancy.

The Fallbrook Trails Council (FTC), who is affiliated with Live Oak Park Coalition, a 501(c)(3) nonprofit organization, has been responsible for the development and maintenance of recreational infrastructure within the property since 1999. The Fallbrook Trails Council and its members have diligently worked to maintain the network of trails for horseback riders, hikers, and bicyclists, including maintaining and utilizing designated river crossings for equestrians. Each year, FTC carries out trail maintenance activities on the trail system with the assistance of volunteers. The members of the FTC have also contributed to the management of trails by working alongside county and local planning commissions through fundraising efforts for their trail improvement projects. The FTC has worked in conjunction with Cal Fire, North County Fire, and the local Sheriff's department to develop first responder protocols for emergencies that may arise within the boundaries of the property.

FTC has marked the trails with georeferenced fiberglass posts to facilitate navigation of the trail system by visitors and to provide first responders with reference points in the event of an emergency. The lower network of trails has been established along the grade of the river for the majority of its length through the property, falling along river terraces and crossing sandy floodplains. Several river fords link these sandy floodplain areas with trail segments that lie along the elevated river terraces and upland slopes of the river valley. For hikers and bikers, several miles of trails may be accessed by staying on either the north or south sides of the river, without having to cross, as is required for the equestrian users to

remain on trails that are safe and appropriate for horses. Equestrian riders are required to cross the river at ford locations to avoid passing over narrow trail alignments on terrain that poses a danger to the safety of riders and their horses.

Due to the active riverine processes of flooding, erosion, sediment transportation and deposition, etc., that may affect small segments of the trail system, it will be necessary to occasionally relocate trail alignments and ford locations to accommodate such natural forces and in order to maintain connectivity between the greater trail system and protect sensitive species habitat. The riparian area is where some of the most abundant and sensitive natural resources occur, highlighting the need for additional care to be taken when recreating in these portions of the property. On the south side of the river, the Five-Hundred Foot trail traverses along the middle of the hillslope providing a number of great vantage points to view the Santa Margarita River Valley. Likewise, on the north side of the river there are multiple trail segments that rise in elevation from near the river onto surrounding ridgetops that line the rim of the river valley. These ridgetop trails have commanding views of the riparian canopy, river, and adjoining upland landscapes and granite studded horizons. The Santa Margarita River Property is a remarkable sight to behold, one worth preserving through conscientious stewardship forever.

Approximately 18 miles of multi-use trails extend throughout the property. The trail network contains a combination of single-track width and double-track width unpaved trails which are used by a variety of non-motorized recreational user groups. People on foot generally initiate their hikes from the Sandia Creek parking area. Whereas, equestrian riders typically commence their rides from the adjoining Santa Margarita County Preserve or near Willow Glen Road. The SMR Baseline Trail Map (Figure 4) provides the general arrangement of the multi-use trail system, current as of October 2016.

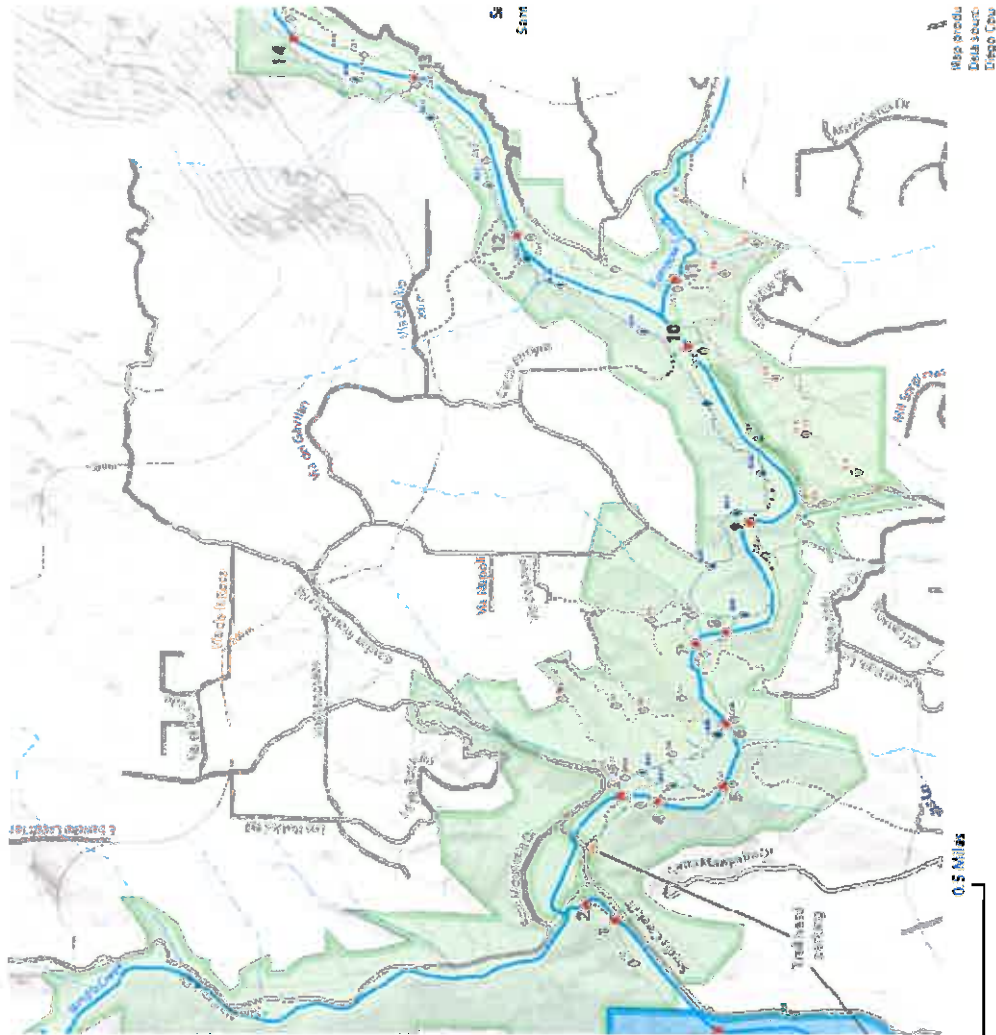


Figure 4. Topographic trail map

2. Future Use

TWC will continue providing opportunities for visitors to engage in low-intensity, passive, non-motorized recreation compatible with resource values. In addition, TWC plans to offer outdoor educational opportunities for children and adults to help deepen their understanding of natural resources, so that they are motivated not only to respect and preserve the resource values of the property, but also to apply that motivation in their daily life.

The portion of the property along Sandia Creek will be designated a wildlife refuge with no public access. In total, TWC has identified approximately 460 acres that may be set aside as wildlife refuge area (see Figure 5). TWC plans to install signage and access controls such as fencing and strips of native vegetation to curtail entry onto the property along Sandia Creek Dr and in sensitive riparian

areas along the mainstem of the Santa Margarita River. In addition, TWC will provide daily on-site patrols to ensure that the public complies with all visitor regulations, including observing temporary trail closures and natural resource protection measures described in section IV of this plan. Subject to the availability of funding, TWC plans to continue restoration of several previously disturbed areas (homesites), which FPUD has already commenced under the terms of its sales contract with WRC. Two of these homesites are located within the proposed Sandia Creek refuge area.

TWC plans to staff the preserve with an on-site Preserve Manager, Ranger(s) and/or Naturalist(s). The combination of interpretive infrastructure such as signage and informational brochures with on-site staff is expected to yield improvements in the way in which visitors access and interact with the property.

TWC's provision of an on-site Ranger residence will serve to provide the property with security 24 hours a day, each day of the week. Having an on-site Ranger will enhance the preserve stewardship by providing the public with someone who is available to answer questions and provide interpretive explanations of the natural resource management objectives and policies. In addition, the ongoing biological surveys and habitat monitoring programs discussed in section IV of the plan will help track sensitive species occurrences on the property, and provide valuable data that managers need to keep recreational visitors informed about temporary trail closures and habitat management policies.

At the same time, TWC's regular patrol presence throughout the property will ensure that the public uses the property in accordance with the regulations set down by TWC. TWC will continue to coordinate with local law enforcement agencies (San Diego Sheriff, CDFW Game Wardens, and Highway Patrol) to protect the resource values of the property and maintain a safe environment for visitors.

Finally, TWC's resource expertise, coupled with the heightened awareness of the sensitive nature of the resources on the property as exemplified by this plan, will assure that all operations and maintenance activities on the property comply with applicable regulations and best management practices. TWC staff will be trained by USFWS and US Geologic Survey (USGS) personnel on how to identify sensitive species and sensitive species habitat. This effect will be magnified by the beneficial impact of TWC's education and outreach programs.

The impact of all these actions will be to maintain appropriate access for the public while protecting the rich natural resources of the property and enhancing them over time.

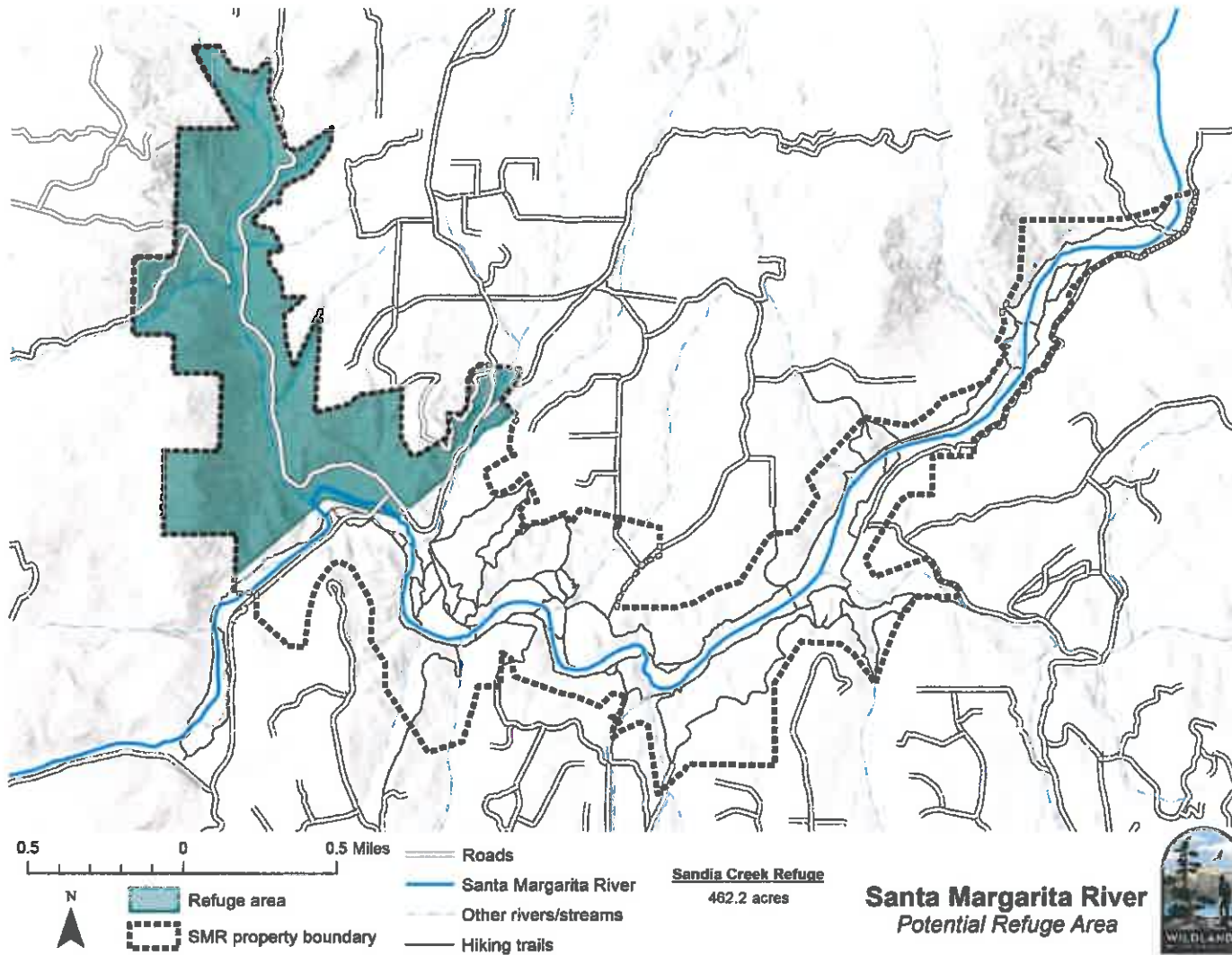


Figure 5. Potential Refuge Area

III. Habitat and Species Description

A. Vegetation Communities, Habitats, and Plant Species

The Santa Margarita River exemplifies the meaning of a high value conservation area. With the only remaining free-flowing river system in Southern California draining through a suite of biologically diverse ecosystems, this property combines to offer an exceptional opportunity for sustaining the ongoing conservation efforts of San Diego and Riverside counties, NGOs, as well as state and federal government agencies within the California South Coast Ecoregion.

The Santa Margarita River Preserve is a key wildlife corridor for many sensitive and endangered species. In addition, several endemic flora and fauna species are found on the property. Stewarding the natural resources of this vital wildlife corridor is an important component of preserving the ecology of the Palomar-Santa Ana mountain region of the South Coast Ecoregion of California. The following paragraphs draw from an analysis report composed by Helix Environmental Planning in 2015.

Over a dozen distinct vegetation communities exist on the property, harboring unique habitat for a variety of associated wildlife species. These vegetation communities include streams (open water, scoured bedrock, sand bars, and freshwater marsh) southern cottonwood-willow riparian forest, southern riparian woodland, southern coast live oak riparian forest, southern willow scrub, southern riparian scrub, coast live oak woodland, mule fat scrub, Diegan coastal sage scrub, cottonwood scrub oak chaparral, southern mixed chaparral, chamise chaparral, coastal sage-chaparral, eucalyptus woodland, and non-native grassland. Many of these habitats are designated as sensitive and are listed in Table 1 and described below (HEP, 2015).

Sensitive habitat is defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the California Environmental Quality Act (CEQA) Guidelines. San Diego County Code 86.601 Resource Protection Ordinance (RPO) outlines special controls on development for the County's wetlands, floodplains, steep slopes, sensitive biological habitats, and prehistoric and historic sites; and that present methods adopted by the County must be strengthened in order to guarantee the preservation of these sensitive lands. Sensitive vegetation communities in the study area include: southern riparian forest, southern riparian woodland, southern coast live oak riparian forest, southern willow scrub, mule fat scrub, southern riparian scrub, streambed, coast live oak woodland, Diegan coastal sage scrub, coastal sage-chaparral transition, all chaparral types, and non-native grassland.

Table 1 HABITAT/ VEGETATION COMMUNITIES	
Type*	Acre(s)
Southern Cottonwood-Willow Riparian Forest (61300)	209.1
Southern Riparian Woodlands- including disturbed	4.0

(62000)	
Southern Coast Live Oak Riparian Forest (61310)	82.5
Mule Fat Scrub (63310)	4.3
Riparian Scrub (63000)	1.6
Stream (64140; includes Freshwater Marsh [52400])	20.5
Coast Live Oak Woodland (71160)	71.4
Diegan Coastal Sage Scrub- including disturbed (32500)	64.0
Coastal sage- Chaparral Transition (37G00)	18.1
Scrub Oak Chaparral (37900)	5.9
Southern Mixed Chaparral (37121)	811.8
Chamise Chaparral (37200)	24.0
Eucalyptus Woodland (79100)	1.0
Non-native Grassland (42200)	17.2
Agriculture (18000)	6.4
Disturbed Habitat (11300)	24.2
Developed Land (12000)	13.1
Total	1,379.5

*Holland vegetation codes are provided parentheses (Oberbauer, et. al. 2008)

A total of 209.1 acres of southern riparian forest and 4.0 acres of southern riparian woodland are present in the major streambeds and canyons (HEP, 2015). Southern riparian forests and woodlands are comprised of winter-deciduous trees that rely on water availability provided by the Santa Margarita River. Western

sycamores (*Plantanus racemosa*) and Fremont Cottonwood (*Populus fremontii* spp. *fremontii*) dominate the upper canopy while a variety of willow (*Salix* spp.) occur within the lower strata of this habitat type (Holland, 1986). Associated understory species include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica* ssp. *holosericea*), and wild grape (*Vitis girdiana*). A woodland differs from a forest in arrangement rather than composition, where a forest has a dense canopy of overlapping tree crowns in the upper stratum. Woodlands, on the other hand, have large gaps between individual trees or groups of trees. Southern riparian forests and southern riparian woodlands fall under the California Department of Fish and Wildlife (CDFW) jurisdictional habitat and County Resource Protection Ordinance (RPO) wetland.

A total of 71.4 acres of southern coast live oak riparian forest is present in the upper reaches of several streams and along the edges of the canyon drainages. Southern coast live oak riparian forest is an open to locally dense, evergreen, sclerophyllous, riparian woodland that is dominated by coast live oak (*Quercus agrifolia* var. *agrifolia*), but it is common to find western sycamore interspersed within this habitat type (HEP, 2015). Southern coast live oak riparian forest occurs on fine-grained alluvial soils on the floodplains along large streams in the canyons and valleys of coastal southern California (Holland, 1986). Species associated with this vegetation community include toyon (*Heteromeles arbutifolia*), Mexican elderberry (*Sambucus mexicana*), spreading snowberry (*Symphoricarpos mollis*), California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), and poison oak (*Toxicodendron diversilobum*). South coast live oak riparian forest is CDFW habitat and RPO wetland.

Approximately one-half acre of southern willow scrub is present within the major drainages of the property (HEP, 2015). Southern willow scrub consists of dense broadleaved, winter-deciduous stands of trees dominated by short statured willows (*Salix* sp.) in association with mule fat (*Baccharis salicifolia*), and with scattered emergent cottonwood (*Populus fremontii*) and western sycamores (*Plantnus racemosa*). This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood events. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland, 1986).

Mule fat scrub composes approximately 4.3 acres of land scattered throughout the edges of the riparian corridor in patches of various sizes located on floodplains. Mule fat scrub is a shrubby riparian scrub community dominated by mule fat and interspersed with small willows. The rather frequent occurrence of floods prevents the conversion of this community to a cottonwood- or sycamore-dominated riparian woodland or forest (Holland, 1986).

A total of 1.6 acres of southern riparian scrub occurs in the larger drainages of the property. Southern riparian scrub is a generic term for several shrub dominated communities that occur along drainages and/or riparian corridors including

southern willow scrub, mule fat scrub, and tamarisk scrub. Riparian scrub habitat is CDFW jurisdictional and is considered RPO wetland.

Over twenty acres of the property is classified as belonging to stream, or freshwater marsh. The Santa Margarita River typically has slow moving or standing water flowing through it, with the exception of winter storm events that have the capacity to produce floods. Freshwater marsh is dominated by perennial, emergent monocots, 5 to 13 feet tall, forming incompletely to completely closed canopies. This marsh vegetation occurs along the coast and in coastal valleys near river mouths and around the margins of lakes and springs, and freshwater or brackish marshes. These areas are semi- or permanently flooded yet lack a significant current (Holland, 1986). Stream habitat is United State Army Corps of Engineer (USACE) and CDFW jurisdictional and is considered RPO wetland. The upper main stem of the Santa Margarita River, Rainbow Creek and Sandia Creek are listed as impaired under the US Environmental Protection Agency Clean Water Act section 303 (d) list of impaired water bodies for pollutants such as phosphorus, nitrogen, metals, sulfates, and total dissolved solids.

Approximately 71.4 acres of coast live oak woodland is present along the fringes of the major drainages and within the canyons. Coast live oak woodland is an open to dense evergreen woodland or forest community (dominated by coast live oak) that may reach a height of 35 to 80 feet. The understory is composed of toyon, blue elderberry, spreading snowberry, fuchsia-flowered gooseberry (*Ribes speciosum*), and poison oak. The herbaceous understory is dominated by miner's lettuce (*Claytonia perfoliata* var. *perfoliata*) and chickweed (*Stellaria media*). This community occurs along the coastal foothills of the Peninsular Ranges, typically on north-facing slopes and shaded ravines (Holland, 1986).

A total of 64 acres of Diegan coastal sage scrub occurs on the property. Diegan coastal sage scrub is considered a sensitive habitat by the United State Fish and Wildlife Services (USFWS), CDFW, and the County due to the destruction of nearly 72 percent of the San Diego County's original sage scrub habitat (Oberbauer and Vanderwier, 1991). Diegan coastal sage scrub may be dominated by a variety of species depending upon the edaphic, slope, and aspect of the given site. Associated species within this habitat type include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*) and black sage (*Salvia mellifera*).

Approximately 5.9 acres of scrub oak chaparral occur on the property. Scrub oak chaparral is a dense, evergreen chaparral up to 20 feet tall, dominated by scrub oak (*Quercus dumosa*) with considerable mountain mahogany (*Cercocarpus betuloides*). Scrub oak chaparral occurs in somewhat more mesic areas than many other chaparrals, such as north facing slopes, and recovers more rapidly from fires than other chaparrals due to resprouting capabilities of scrub oak (Holland 1986; Keeley and Keeley 1988).

Approximately 811 acres of southern mixed chaparral occur in the study area with the vast majority arising from granitic soils. A mafic southern mixed chaparral component of this classification occurs on 17.8 acres located on the slopes above the Santa Margarita River in the northeastern portion of the property. Southern mixed chaparral is comprised of broad-leaved sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense often nearly impenetrable stands with poorly developed understories. In this mixed chaparral, the shrubs are generally tall and deep rooted, with a well-developed soil litter layer, high canopy coverage, low light levels within the canopy, and lower soil temperatures (Keeley and Keeley 1988). This vegetation community occurs on dry, rocky, often steep north-facing slopes with little soil. As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), coast white lilac (*Ceanothus verrucosus*), Ramona lilac (*Ceanothus tomentosus*), white-stem wild-lilac (*Ceanothus leucodermis*), big-berry manzanita (*Arctostaphylos glauca*), and scrub oak (*Quercus dumosa*). This vegetation community provides important habitat for wide-ranging species such as mule deer (*Odocoileus hemionus*) and mountain lion (*Felis concolor*). This vegetation community is considered sensitive by the County.

Approximately 24 acres of granitic form chamise chaparral occur on the property. Chamise chaparral is the most widely distributed chaparral shrub and is dominated by the species chamise (*Adenostoma fasciculatum*). This vegetation community is found from Baja to northern California in pure or mixed stands. The ubiquitous distribution of chamise chaparral may be the result of chamise being the only chaparral species that regenerates from fire from both an underground root crown and the production of seeds (Rundel, 1986). It often dominates at low elevations and on xeric south facing slopes with 60 to 90 percent canopy cover. Along its lower elevation limit, chamise chaparral intergrades with coastal sage scrub (Rundel, 1986). Mission manzanita and black sage are minor plant species associated within this vegetation community. Chamise chaparral is considered a sensitive habitat by CDFW and the County. (HEP, 2015)

A total of 1.0 acre of eucalyptus woodland was identified on the property and are dominated by stands of red gum (*Eucalyptus camaldulensis*) within the major drainages. Red gum is a non-native species that is commonly found in disturbed areas; it is also widely cultivated in California and is the most widely planted species of eucalyptus. (Hickman, ed. 1993)

Non-native grassland dominated by annual grasses and a mixture of native forbs covers approximately 17.2 acres of the property. Non-native grassland is a dense to sparse cover of annual grasses, often associated with native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Most of the introduced annual species that comprise non-native grassland

originated from the Mediterranean region of Europe, an area with a climate similar to that in California and a long history of agriculture. These two factors have contributed to the successful invasion and establishment of these species and the replacement of native grasslands by annual-dominated non-native grassland (Jackson, 1985).

Approximately 6.4 acres of the property has been classified as having been under agricultural production, though none of the property is currently agricultural. Orchards in the area studied are primarily avocado, although a few citrus trees are also present. The orchards are likely associated with adjacent operations.

Disturbed habitat occupies 24.2 acres. Disturbed habitat includes land cleared of vegetation (e.g., dirt roads and borrow pits), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes valuable wildlife habitat (HEP, 2015).

B. Animal Species

The Santa Margarita River Valley is an important area for endemic wildlife in Southern California. The availability of year-round water provides a vital resource that supports an array of important wildlife habitats and is utilized by an abundance of associated wildlife species. In addition, the upland ecosystems are home to a wide variety of unique wildlife species and sensitive natural communities that make the property rich in biodiversity. Moreover, several federal and state threatened and/ or endangered species inhabit the land encompassing the Santa Margarita River Preserve. The survival of these natural communities and the individual threatened species depends largely upon the long-term existence of a wildlife corridor throughout the Santa Margarita River Valley. One critical function of the proposed preserve is to protect the wildlife habitat and the copious biological and ecological elements of the land is to ensure that the natural communities and wildlife species are given room to roam and expand over time.

A number of wildlife surveys have been completed on the property within the previous twenty years. Most recently, in 2015, Helix Environmental Planning conducted a series of wildlife surveys in the field and though the California Natural Diversity Database (CNDDDB 2015). Review of U.S. Fish and Wildlife (USFWS), MSCP sensitive species, and California Native Plant Society (CNPS; 2015) databases was also conducted. Additional biological field surveys were conducted by Davenport Biological Services, in 2008, between June 17th and July 30th. The results of these surveys have been summarized and are supplemented by additional findings that can be found in appendix D. In the period of time immediately following the transfer acquisition, additional wildlife surveys will be conducted to improve the quality of species occurrences and habitat data.

Animals observed on the property by Davenport Biological Services in 2008 are listed below.

Fish

Arroyo Chub (*Gila orcutti*) were the only native fish that were observed within the Santa Margarita River. However, three exotic fish, the mosquito fish (*Gambusia affinis*), bluegill (*Lepomis macrochirus*), and common carp (*Cyprinus carpio*) were also observed.

Amphibians

Two native amphibians, the California toad (*Bufo boreas halophilus*), and Pacific tree frog (*Pseudacris regilla*), were also abundant and commonly observed within the Santa Margarita River. The Pacific tree frog was also common within Sandia Creek. The bullfrog (*Rana catesbeiana*) was also present and was heard calling from several deep pools. Other amphibian species, including California tree frog (*Pseudacris cadaverina*) and several salamander species, may also be present near the streams and in mature oak woodlands.

Reptiles

Despite the appropriateness of the habitat for most of southern California's native reptiles, only a few reptiles were observed during this survey. Reptiles observed included the western pond turtle (*Clemmys marmorata pallida*), western skink (*Eumeces skiltonianus*), Belding orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), western fence lizard (*Sceloporus occidentalis*), alligator lizard (*Gerrhonotus multicarinatus*), and southern Pacific rattlesnake (*Crotalus oreganos helleri*).

Mammals

Other than bats, mammals detected during this survey included the big-eared woodrat (*Neotoma macrotus*), California ground squirrel (*Spermophilus beecheyi nudipus*), desert cottontail rabbit (*Sylvilagus audobonii sanctidiegi*), striped skunk (*Mephitis mephitis holzneri*), western spotted skunk (*Spilogale gracilis*), long-tailed weasel (*Mustela frenata*), coyote (*Canis latrans clepticus*), and bobcat (*Lynx rufus californicus*).

Bats

Seven species of bats were found to be occupying the site. Bats detected during this summer survey included the big brown bat (*Eptesicus fuscus*), Silver-haired bat (*Lasionycteris noctivagans*), western red bat (*Lasiurus blossevillii*), California bat (*Myotis californicus*), western small-footed bat (*Myotis ciliolabrum*), western

pipistrelle bat (*Pipistrellus Hesperus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*).

Birds

Sixty-three species of birds were detected during surveys of the site. In both total number, and number of unique species, birds accounted for the majority of vertebrates observed. Several nesting pairs of least Bell's vireo (*Vireo bellii pusillus*) were observed within and adjacent to the riparian plant communities associated with the Santa Margarita River and near the mouth of Sandia Creek. In addition, least Bell's vireos were observed nesting in the coast live oak woodlands that bordered the Santa Margarita River.

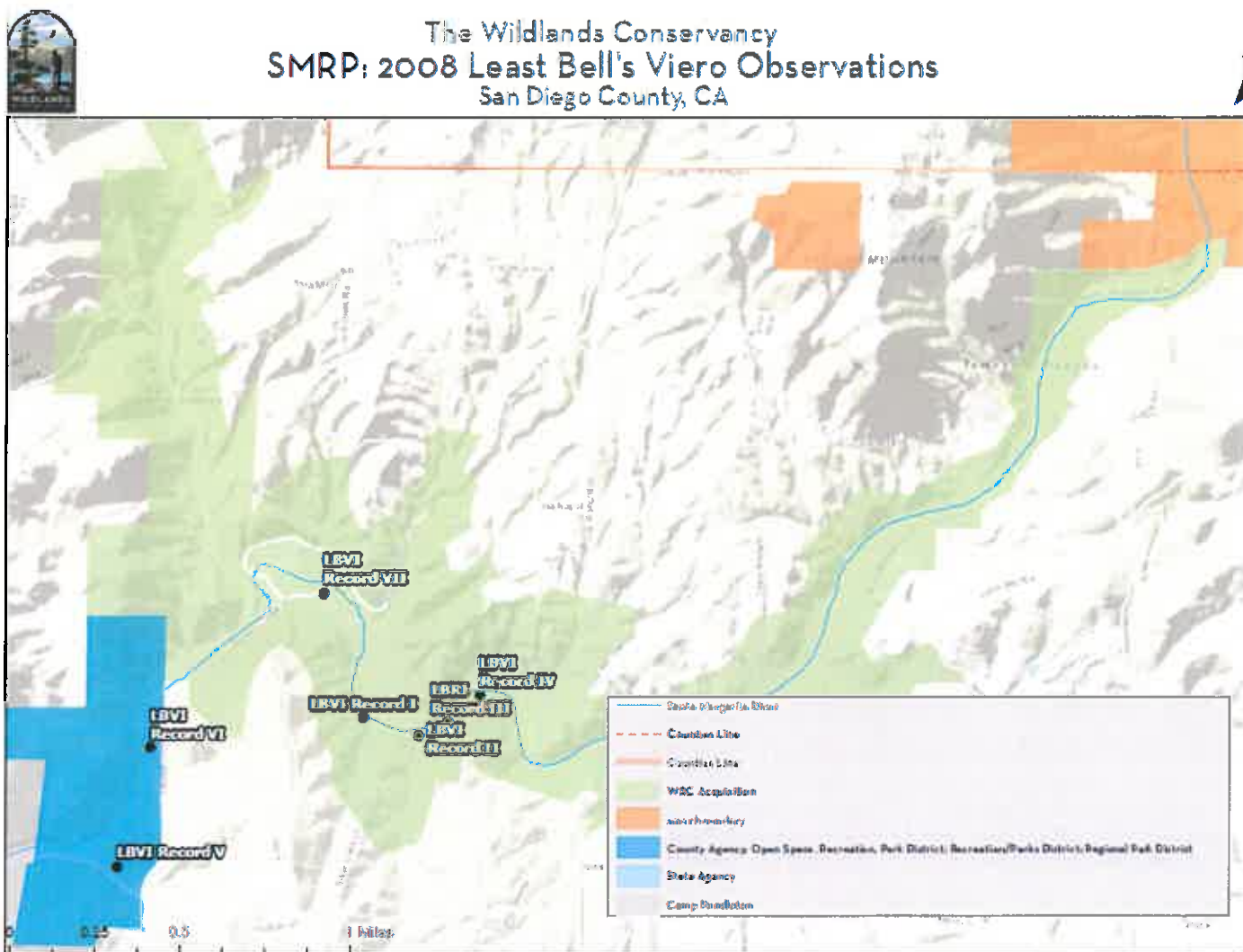


Figure 6. Least Bell's Vireo observation data from Davenport Biological Services surveys in 2008

C. Primary Threats and Stressors

Through interviews with the current land owner and stewards, review of environmental reports and online database searches, and conducting field reconnaissance tours several threats and stressors have been identified for the property. Regional threats and stressors are addressed in the Management Strategic Plan (MSP) created for the County of San Diego Natural Communities Conservation Plan (NCCP) (SDMMP, 2013). Here we describe several site-specific threats and stressors that pose a risk to the preserve and the natural resources therein.

The upper main stem of the Santa Margarita River, Rainbow Creek and Sandia Creek are listed as impaired under the US Environmental Protection Agency Clean Water Act (CWA) section 303 (d) list of impaired water bodies. Pollutants such as phosphorus, nitrogen, metals, sulfates, and total dissolved solids are responsible for the water bodies' listing impaired. Adjacent agricultural and upstream land uses likely contribute herbicides, insecticides, pesticides and pollutants from urban runoff into the watercourses resulting in harmful effects to aquatic and riparian habitats. Riparian areas and aquatic habitats are threatened by non-native invasive plants and animals.

Riparian vegetation communities are negatively affected by several threats and stressors. The combination of several of these threats and stressors pose a substantial risk of loss of habitat for many species under certain conditions. Riparian forests and woodlands are threatened by a shifting climate where droughts are more likely to occur and persist. When droughts are coupled with other threats such as invasive plants or insect pest attacks and diseases, the conditions for a significant loss of habitat or type conversion emerge. Locally, the spread of two insect pests are concerning because several of the dominant tree species within riparian systems including California sycamore (*Platanus racemosa*), cottonwood (*Populus spp.*) willow (*Salix spp.*) and oaks (*Quercus spp.*) are susceptible to Polyphagous shot hole borer (*Euwallacea sp.*) + *Fusarium* Dieback disease and/ or golden spotted oak borer (*Augrilus auroguttatus*).

Human activities threaten riparian vegetation communities as discussed below in section *D. 3 Threats to Sensitive Species*, but also to the upland habitats through numerous pathways. Illegal dumping threatens species and degrades habitat. Pollution and physical harm can result as a consequence of illegal dumping. Animals may ingest toxic substances, become entangled or trapped in waste materials. Dumping often occurs adjacent to roads in chaparral, chamise, and sage scrub habitat communities as well as, along roads within Coast Live Oak woodland communities on the property. Recreational use in chaparral, sage scrub, and chamise habitats may also alter native wildlife movements and provide disturbed areas for invasive non-native grass species to encroach upon native vegetation communities. Trails and adjacent development also alter the hydrology, creating erosion issues and impacting native plant communities.

D. Special Status Species

Based on a 2015 report by Helix Environmental Planning, both sensitive plant and animal species inhabit, or use the property. A full list of the sensitive plants and animals are presented in Appendix D along with a ranking of their relative probability to occur on the property and a discussion of the methods used to ascertain their potential for presence. Sensitive plant species were defined in the report as those considered unusual or limited in that they are: (1) only found in the San Diego region; (2) a local representative of a species or association of species not otherwise found in the region; (3) severely depleted within their ranges or within the region.

1. Sensitive Plant Species

Twenty-five sensitive plant species have the potential to occur on the property, two of which are federally listed, however both have a low probability of occurring on the property (San Diego Ambrosia [*Ambrosia pumila*] and thread-leaved brodiaea (*Brodiaea filifolia*). Please refer to Table 2 for a list of the 25 sensitive plant species, their associated listing, or sensitivity status, and potential ranking (low, moderate, high) to occur on the property. Also see Appendix D for further descriptions of all twenty-five sensitive plant species habitats and the explanation of special status codes.

Species	Listing or Sensitivity*	Potential to Occur	Species	Listing or Sensitivity*	Potential to Occur
Chaparral sand-verbena (<i>Abronia villosa var. aurita</i>)	--/-- CRPR 1B.1 County List A	Low	San Diego ambrosia (<i>Ambrosia pumila</i>)	FE/-- CRPR 1B.1 County List A	Low
Rainbow manzanita (<i>Arctostaphylos rainbowensis</i>)	--/-- CRPR 1B.1 County List A County List A	High	Jaeger's bush milkvetch (<i>Astragalus pachypus var. Jaegeri</i>)	--/-- CRPR 1B.1 County List A	Moderate
Thread-leaved brodiaea	FT/SE CRPR 1B.1	Low	Orcutt's brodiaea	--/-- CRPR 1B.1	Low

<i>(Brodiaea fulifolia)</i>	County List A		<i>(Brodiaea orcuttii)</i>	County List A	
Santa Rosa basalt brodiaea (<i>Brodiaea santarosae</i>)	--/-- CRPR 1B.2	Low	Lewis's evening- primrose (<i>Camissoniopsis lewisii</i>)	--/-- CRPR 3	Low
Payson's jewelflower (<i>Caulanthus simulans</i>)	--/-- CRPR 4.2 County List D	High	Smooth tarplant (<i>Centromadia pungens ssp. laevis</i>)	--/-- CRPR 1B.1 County List A	Low
Orcutt's pincushion (<i>Chaenactis glabriuscula var. orcuttiana</i>)	--/-- CRPR 1B.2 County List A	Low	San Miguel savory (<i>Clinopodium chandleri</i>)	--/-- CRPR 1B.2 County List A	Moderate
Many-stemmed dudleya (<i>Dudleya multicaulis</i>)	--/-- CRPR 1B.2 County List A	Low	Sticky dudleya (<i>Dudleya viscida</i>)	--/-- CRPR 1B.2 County List A	Moderate
Robinson's pepper- grass (<i>Lepidium virginicum var. robinsonii</i>)	--/-- CRPR 1B.2 County List A	High	Vernal barley (<i>Hordeum intercedens</i>)	--/-- CRPR 3.2	Low to moderate
Mesa horkelia (<i>Horkelia cuneata var. Puberula</i>)	--/-- CRPR 1B.1 County List A	Low	Romona horkelia (<i>Horkelia truncata</i>)	--/-- CRPR 1B.3 County List A	Low to moderate
Coulter's goldfields (<i>Lasthenia glabrata ssp. coulteri</i>)	--/-- CRPR 1B.1 County List A	Low	Shevock's copper moss (<i>Mielichhoferia shevockii</i>)	--/-- CRPR 1B.2	Low
Intermediate monardella (<i>Monardella hypoleuca ssp. intermedia</i>)	--/-- CRPR 1B.3	Moderate	Felt-leaved monardella (<i>Monardella hypoleuca ssp. lanata</i>)	--/-- CRPR 1B.2 County List A	High
White rabbit-tobacco (<i>Psuedognaphalium leucocephalum</i>)	--/-- CRPR 2B.2	Moderate	Parry's tetracoccus Tetracoccus	--/-- CRPR 1B.2 County List	Low

				dioicus)	A	
California screw-moss (<i>Tortula californica</i>)	--/-- CRPR 1B.2	Low				

2. Sensitive Animal Species

Thirty-seven sensitive animal species have a moderate to high potential to occur on the property. There is a high number of species that may occur on the property due to the undisturbed nature of the property and high quality of the various habitats therein. Please refer to Appendix D (Helix Environmental Planning report) for further descriptions of the sensitive animal species that may utilize or inhabit the property.

The property supports federally designated Critical Habitat for the coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo pusillus bellii*), southwestern willow flycatcher (*Empidonax traillii eximus*), arroyo toad (*Anaxyrus californicus*), and habitat for the California species of special concern, the arroyo chub (*Gila orcutti*) and southwestern pond turtle (*Actinemys marmorata pallida*), as well as potential habitat for the yellow-billed cuckoo (*Coccyzus americanus occidentalis*) and steelhead trout (*Oncorhynchus mykiss*). Below we describe the habitat for each of these species and any confirmed observations occurring on the SMRP.

The range and distribution of the coastal California gnatcatcher (*Polioptila californica californica*) is closely aligned with coastal scrub vegetation. This vegetation is typified by low, less than 1 meter (3 feet) tall, shrub and sub-shrub species that are often drought deciduous (O'Leary 1990, p. 24; Holland and Keil 1995, p. 163; Rubinoff 2001, p. 1376). As defined by Westman (1983, pp. 6 and 10), the coastal scrub plant communities that overlap the range of the gnatcatcher include Venturan, Diegan, and Riversidean coastal sage scrub communities. As detailed by Campbell et al. (1998, pp. 421–433), gnatcatchers may also occur in other nearby plant communities, especially during the non-breeding season, but gnatcatchers are closely tied to coastal scrub for reproduction (Atwood 1993, p. 151). Moreover, all coastal scrub is not equal with respect to gnatcatchers. Gnatcatchers are patchily distributed, and Winchell and Doherty (2008, p. 1325) found the density of gnatcatchers was highest in high-quality habitat and decreased as habitat quality decreased.

The vast majority of the breeding least Bell's vireo (*Vireo bellii pusillus*) population occurs in southern California from Santa Barbara County south through the lowland coastal areas to Baja, Mexico. A majority of the population currently inhabits territories in San Diego County, particularly on the Marine Corps Base Camp Pendleton (FWS, 2006). Least Bell's vireos require dense riparian woodlands and dense shrub-cover for breeding and foraging. Nests are commonly found below 20 feet in willow stands and in areas where a dense understory of herbaceous plants are present (RECON, 1989; Kus, 2002). Four least Bell's vireo territories were identified during a 2015 survey of the subject property by Marine Corps biologist Alisa Zych. See figure 7.

The Southwestern willow flycatcher (*Empidonax traillii extimus*) has a breeding range that includes southern California, Arizona, New Mexico, extreme southern portions of Nevada and Utah, far western Texas, perhaps southwestern Colorado, and extreme northwestern Mexico (USFWS, 2002). In southern California southwestern willow flycatchers breed within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons. One of the most important characteristics of the habitat appears to be the presence of dense vegetation, usually throughout all vegetation layers present. Almost all breeding habitats are within close proximity of water or very saturated soil. The southwestern flycatcher is highly likely to use the property, in fact surveys have yielded a confirmed sighting of a transient male southwestern willow flycatcher (Zych, 2015). See figure 7.

The arroyo toad (*Anaxyrus californicus*) breeding habitat is restricted to shallow, slow-moving stream habitats, and riparian habitats that are disturbed naturally on a regular basis, primarily by flooding. To provide appropriate arroyo toad habitat, a stream must be large enough for channel scouring processes to occur but not so large that habitat structure is lost after floods (Sweet, 1992). Arroyo toad larvae was discovered in a low-flow channel of the SMR mainstem in 2015 (Zych, 2015). See Figure 7.



The Wildlands Conservancy
SMRP: 2015 Federally Endangered Species Observations
San Diego County, CA



Figure 7. Location of a migrating willow flycatcher (WFL), arroyo toad larvae (ARTO) and least Bell's vireo during the 2015 breeding season

The arroyo chub (*Gila orcutti*) are native to the Santa Margarita River and are considered to be abundant in the upper reaches and in De Luz creek (Swift et al, 1993). Arroyo chub are found in habitats characterized by slow-moving water, mud or sand substrate, and depths greater than 40cm (Wells and Diana 1975). They are most common in streams with gradients of less than 2.5% slope (Feeny and Swift 2008), where water temperatures range from 10 to 28 degrees C (J. O'Brien, CDFW, unpublished data)

The southwestern pond turtle (*Actinemys marmorata pallida*) is native to central and southern California coastal areas. The western pond turtle is in decline throughout 75-80 percent of its range (Stebbins, 2003). Populations in southern California are particularly imperiled and are therefore included on the proposed list of protected species in the North County Multiple Species Conservation Plan (County of San Diego). Southwestern pond turtles occur in habitats with ponds,

streams, creeks, and slow moving rivers. Southwestern pond turtles also require basking locations and may utilize upland sites for up to seven months out of each year.

Historical occurrence records for steelhead trout (*Oncorhynchus mykiss*) in the Santa Margarita River are primarily based on anecdotal observations and CDFW reports. CDFW Warden E.H. Glidden was reported to have rescued adult steelhead in the Santa Margarita River in the 1930s or 1940s (USFWS, 1998). Steelhead fry were collected in 1939 in the Santa Margarita River near its confluence with De Luz Creek (USFWS, 1998). One adult weighing five pounds was reported near the town of Temecula in the 1940s (USFWS 1993, as cited in USFWS 1998). CDFW memos from 1947 and 1949 (as cited in USFWS 1998) note, "...a few steelhead are known to enter the river on wet years and run upstream to slightly above the Fallbrook area" and "A constant flow is present in the section opposite Fallbrook but summer temperatures and shifting sand bottom make it unsuitable for trout". However, in the spring of 2009, 3 juvenile steelhead were captured and several others were sighted on Marine Corps Base Camp Pendleton by base biologists. The three fish were captured by hook and line just upstream of the De Luz Road Bridge. Each fish displayed physical characteristics of the smolt life stage. Each fish had a fin sampled for genetic analysis by National Marine Fisheries Services. One of the fish was concluded to be of steelhead ancestry with no trace of hatchery origin. This evidence indicates that in the one to two years prior to 2009, endangered steelhead successfully spawned in the Santa Margarita River (Cardo, 2013).

3. Primary Threats and Stressors to Sensitive Animal Species

A number of threats and stressors are currently having a negative impact on sensitive animal species and habitats on the preserve. Through interviews with the current land stewards, review of reports, and conducting field reconnaissance tours it has been identified that two Federally Endangered species, the Arroyo Toad and Least Bell's Vireo are being negatively impacted by a suite of threats and stressors. On a species-specific level, threats can be described as introduced impacts such as invasive plants and animals or human activities that adversely affect a species or its habitat. Stressors, on the other hand, are classified as naturally occurring phenomena that amplify threats. Examples of stressors would include extended periods of drought or a flood event. More broadly, sensitive species, as well as, natural communities are threatened by large-scale environmental forces such as climate change, altered fire regimes and altered hydrology. Below, some of the primary threats and stressors to sensitive species are discussed. In section IV we discuss some of the priority management responses we plan to implement in order to reduce the negative impacts associated with these specific threats and stressors described for Arroyo Toad and Least Bell's Vireo. We focus on threats to these two listed endangered species because many of the threats and responses that apply to these species and their associated

vegetation communities will also apply to other sensitive species and habitats. By reducing the effects of the threats described below for two target species and vegetation communities several other sensitive species will benefit.

3.1 Threats: Arroyo Toad (*Anaxyrus californicus*)

Arroyo toad are threatened by invasive non-native aquatic species (bullfrogs, non-native game fish, crayfish), non-native invasive plant species (*Arundo donax*, *Tamarix spp.*) and indirectly by beavers which build dams that create suitable habitat for bullfrogs and other non-native predators (Madden-Smith et al. 2005; USFWS, 2009). Roads threaten arroyo toads by impacting their habitat in several ways, but also pose a direct danger of toads that may be crushed by a vehicle when crossing over the surface of the road. Specifically, the Sandia Creek Drive river crossing creates an unnatural ponding effect above and below, which in turn provides suitable habitat for bullfrogs and other invasive non-native predators. The ponding effect of the Sandia Creek Drive crossing also alters the natural hydrogeomorphic processes in such a way that the formation of arroyo toad breeding pool habitat is limited by the crossing's presence in the watercourse. Other human activities also threaten the species. Trail use and trail maintenance and associate recreational use of the property pose a threat to arroyo toads and arroyo toad habitat. Table 3. describes some of the impacts associated with recreation on the Santa Margarita River Preserve.

Table 3. Impacts to Arroyo Toad Associated with Recreation	
Activity	Adverse Impact
Trail use	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools 2. Alteration of habitat and arroyo toad movement patterns
Trail maintenance	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools
Unauthorized trail creation	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools 2. Alteration of habitat and arroyo toad movement patterns
Fishing	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools 2. Introduction of non-native fish
Swimming/ picnicking	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools 2. Alteration of habitat and arroyo toad movement patterns
Dog(s) off leash	<ol style="list-style-type: none"> 1. Mortality of toads through crushing, disruption of breeding pools 2. Alteration of habitat and arroyo toad movement patterns
Erosion/ sedimentation	<ol style="list-style-type: none"> 1. May affect breeding pool characteristics, smoother eggs.

Adjacent land use may negatively affect arroyo toad habitat on the preserve as well. Impacts to water quality associated with off-site agricultural and urban landscaping chemical use/ runoff may affect arroyo toad development and survival. Increases in fire ignitions associated with the adjacent land uses and public use of the preserve contribute to the elevated risk of extensive mortality of toads during a wildfire (Syphard and Keeley, 2015). Within the property, fire rings have been discovered in riparian habitat and indicate a clear threat of the possibility of a fire escaping and damaging property and natural resources. Wildfire suppression activities may also result in the mortality of arroyo toads. The increase in fire frequency and severity also threaten to degrade breeding and aestivation habitat immediately following the fire and if native riparian species are replaced by *Arundo donax* (Rochester and Fisher, 2014).

3.2 Threats: Least Bell’s Vireo (*Vireo bellii pusillus*)

Least Bell’s vireo are also threatened by non-native animal and plant species. Non-native Brown-headed Cowbirds pose a significant threat to LBVI populations by reducing nesting success through brood parasitism (USFWS, 2006). Non-native beavers also threaten nesting LBVI because this species can cut down potential nesting trees, leading to nest failure. Invasive non-native plant species such as *Arundo donax*, *Tamarix spp.* degrade suitable habitat and may also increase fire risk in LBVI habitat.

The increase in wildfire frequency due to local land use practices and proposed public access mentioned above also threaten LBVI. The elevated risk of the potential for wildfires exposes the local population of LBVI to an increased risk of extensive mortality during wildfire events (including suppression activities) and degradation of breeding habitat.

Recreational use of the property also contributes to the degradation of least Bell’s Vireo habitat. Table 4 describes the adverse effects that recreational activities have on LBVI.

Table 4 Impacts to Least Bell’s Vireo Associated with Recreation					
Activity	Trail use	Trail maintenance	Unauthorized trail creation	Fishing	Swimming/ picnicking
Adverse Impact	<ol style="list-style-type: none"> 1. Damage, destruction, abandonment of vireo nest 2. Alteration of habitat and/ or vireo movement pattern 3. Reduction of available vireo habitat 				

Impacts to water quality also threaten Least Bell's Vireo. Off-site use of agricultural and urban landscaping chemicals may have a toxic effect on vireos over time through trophic amplification. Toxic chemicals that are introduced into the Santa Margarita River are concentrated at higher levels of the food web and may accumulate in LBVI, affecting vireo development and survival. In addition, herbicides that enter the Santa Margarita River may have an adverse effect on the vegetation communities that comprise LBVI habitat, having an overall negative impact on the habitat.

IV. Goals, Objectives and Strategies

Vision Statement

The ultimate goal for the Santa Margarita River Preserve is to maintain and enhance the unique biological values on the property in perpetuity, and to engage the local community in the appreciation and preservation of those values by providing compatible and historic passive, trail-based, non-motorized multi-use recreational and educational opportunities.

Goals, Objectives, and Strategies

The following section describes long-term management objectives and strategies that focus on maintaining and enhancing the natural resources of the preserve. Subject to available grants and participation by partners and funders the actions proposed below will assist and enhance the long-term stewardship efforts of TWC; these may be completed by or with assistance from project partners, including universities, professional consultants, government agencies, NGOs, and volunteer citizen scientists.

A. Natural Resource Management

Goal: Identify native plant and animal species and the key habitats of sensitive species; maintain and enhance existing vegetation communities and water quality to support sensitive and other native wildlife species; identify, manage, and monitor the threats to native species and their respective habitats.

1. Water quality monitoring

Objective: Review existing data and contribute water quality monitoring data to ongoing studies on the Santa Margarita River water quality in order to inform aquatic habitat management.

Strategy 1.1: Within the first twelve months, TWC staff will establish contact with local water quality resource managers to obtain information about possible impairments to water quality and threats to aquatic habitats. The aim of the program will be to garner information regarding several water quality parameters that could be used as indicators of the health of aquatic resources and help inform future management objectives on the property.

Strategy 1.2: As funding is available, TWC and project partners will implement an independent water quality monitoring program at the preserve. The water quality monitoring program will be operated by water quality monitoring experts and focus on specific pollutants contributing to the Environmental Protection Agency's 303d listings of Rainbow and Sandia Creeks as impaired water bodies for pollutants such as phosphorus,

nitrogen, metals, sulfates, and total dissolved solids. An additional aspect of the water quality monitoring program will include regular routine testing for indicators of insecticides, pesticides, and herbicides that may harm aquatic resources when applied in excess, including to Arroyo Toad and Least Bell's Vireo.

Strategy 1.3: To the extent possible, identify sources contributing to water quality degradation and coordinate with upstream land managers and responsible agencies to limit pollution sources. In advance of the second summer, review water resource management goals and identify best management practices.

Strategy 1.4: Coordinate outreach efforts with adjacent landowners (San Diego State University, County of San Diego, and Marine Corps Base Camp Pendleton) to educate the local residential community about ways to limit water pollution. Regularly review published water quality data and collaborate with project partners to identify any changes in management strategies that are necessary to protect aquatic resources.

2. Sensitive plant and animal monitoring

Objective: Identify the habitats of sensitive plant and animal species through habitat assessments and species specific presence-absence surveys.

Strategy 2.1: In collaboration with the US Fish and Wildlife Service, California Department of Fish and Wildlife, DoD biologists from MCBCP, San Diego State University, SDMMP personnel, consultants, resource conservation districts, and citizen scientists, TWC will carry out presence-absence surveys for sensitive plant and animal species, important detection measures to support the conservation of biodiversity on the property. If additional special status species are confirmed to exist on the property or if previously-identified species are found in new locations, the locations where such species are utilizing habitat will be identified, and potential threats to the species and their habitats will be assessed in collaboration with USGS, SDMMP, USFWS and CDFW. Working in conjunction with regulatory agencies and professional biologists, habitat protection measures will be planned and implemented for special status species.

Strategy 2.2: Focused surveys for known special status bird species including, California coastal gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax trailli extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) will be carried out within the first year. Following initial surveys, monitoring programs for each special

status bird species will be conducted based on their specific recovery protocols in Table 5 or modified to apply the management needs of the preserve in collaboration with the USFWS Carlsbad Office and USGS San Diego Office.

Table 5 Survey Protocols for Sensitive Bird Species	
Species	Survey Protocol
Southwestern Willow Flycatcher (<i>Empidonax trailli extimus</i>)	A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher (Sogge et. al., 2010)
Least Bell's Vireo (<i>Vireo bellii pusillus</i>)	Least Bell's Vireo Survey Guidelines (USFWS, 2001)
California Coastal Gnatcatcher (<i>Polioptila californica californica</i>)	California Coastal Gnatcatcher Presence/ Absence Survey Guidelines (USFWS, 1997)

Strategy 2.3: Focused surveys for special status aquatic species including, Arroyo chub (*Gila orcutti*), Arroyo toad (*Anaxyrus californicus*), and Southwestern pond turtle (*Actinemys marmorata pallida*) will be carried out within the first year. Following initial surveys, monitoring programs will be developed in partnership with USFWS Carlsbad Office and USGS San Diego Office for each species confirmed to occupy the property.

3. Sensitive Animal Species Management

Objective: Manage known sensitive species habitats by eliminating threats to the extent possible.

3.1 Arroyo Toad Habitat Management

Managing the known, and suitable arroyo toad habitat on the preserve requires a multifaceted approach to address the threats described above in Section III D. 3.1 *Threats to Arroyo Toad*. The following strategies were developed in partnership with the Carlsbad Office of the USFWS.

Strategy 3.1.1: Implement annual efforts to control bullfrogs, non-native fish, and non-native crayfish on the preserve so that their effects on breeding arroyo toads are minimized.

Strategy 3.1.2: Implement annual efforts to eradicate potential beavers on the preserve so that artificial ponding due to beaver dams are eliminated. Eradication of beavers on the preserve would allow natural processes to produce habitat conditions favoring arroyo toads and reducing bullfrog establishment.

Strategy 3.1.3: Implement annual invasive plant control efforts that focus on *Arundo donax* and *Tamarix spp.* in order to prevent a substantial recolonization by these invasive species. In addition, partner with Santa Margarita Ecological Reserve (SMER) and MCBCP to identify and target other invasive plant species such as castor bean (*Ricinus communis*) that if left untreated would degrade arroyo toad habitat quality on the preserve.

Strategy 3.1.4: Coordinate with other interest groups (Cal Trout, Trout Unlimited), MCBCP, USFWS, CDFW, and County of San Diego to explore ways to fund construction of an elevated bridge where Sandia Creek Drive currently crosses the Santa Margarita River.

Strategy 3.1.5: Reduce redundant trail segments in the portion of the northern floodplain between crossings 3 and 6. See Figure 8 on pg. 41. Trail decommissioning will be achieved by constructing barriers, installing signage, and through appropriate revegetation treatments.

Strategy 3.1.6: Connect Santa Margarita South Trail and TNT Trail via crossings 3, 4, & 6 with the shortest trail alignment feasibly possible. An overall reduction in trail length will be achieved by aligning straight trails that bisect the SMR in a perpendicular manner.

Strategy 3.1.7: Seasonal (February- August) closures of specific river crossings (6, 7, 9 & 10) that may be re-opened during the breeding season if it can be verified that 1.) suitable breeding conditions are not present and 2.) arroyo toads are determined to be absent. Users observance of these restrictions is critical to the success of these habitat management measures.

3.1.7a: TWC staff will be trained to identify suitable breeding habitat conditions and all life stages of arroyo toads by the appropriate expert biologist (USGS, SDMMP, USFWS).

3.1.7b: Focused surveys will be carried out by a qualified toad biologist to make a determination about whether or not arroyo toad are present at each crossing throughout the breeding season.

3.1.7c: Only staff members who are trained in identifying arroyo toad and their breeding habitat (Biological Monitors) will conduct focused surveys for arroyo toad and evaluate habitat conditions.

3.1.7d: Educational materials and outreach sessions will be provided to groups conducting trail maintenance in order to explain the purpose of seasonal trail maintenance restrictions and the importance of observing those restrictions.

Strategy 3.1.8: Trail maintenance activities within arroyo toad (ARTO) will be scheduled to take place during the non-breeding season (September through January).

3.1.8a: Where trail maintenance activities will occur during the breeding season, a trained Biological Monitor will inspect the site to determine presence of toads, and move them away from harm as necessary or make recommendations that avoid impacts to arroyo toads.

3.1.8b: Educational materials and outreach sessions will be provided to groups conducting trail maintenance in order to explain the purpose of seasonal trail maintenance restrictions and the importance of observing those restrictions.

Strategy 3.1.9: Regularly monitor trail system and prohibit unauthorized attempts to expand trail system. Barriers and signage, as well as, authority of resource interpretation by trained staff members will be used to prevent the creation and use of unauthorized trails.

3.1.9a: Impacted areas will be immediately restored with appropriate native vegetation or access control techniques.

3.1.9b: Signage and educational materials will be provided to visitors that explain the importance of observing the boundaries of the trails.

Strategy 3.1.10: Prohibit fishing, swimming, picnicking and other recreational use of areas where arroyo toad habitat occurs.

3.1.10a: Regularly monitor any allowed recreational activities to ensure habitat protection measures are being observed by visitors.

Strategy 3.1.11: Regularly monitor problematic erosion areas, particularly those associated with the trail system.

3.1.11a: Implement erosion control techniques to prevent sedimentation from being contributed to the watercourse.

3.2 Least Bell's Vireo Habitat Management

Managing known least Bell's vireo habitat on the preserve will also require a multifaceted approach in order to address the threats described above in Section III D. 3.2. *Threats to Least Bell's Vireo*. The following strategies have been developed in partnership with the Carlsbad Office of the USFWS.

Strategy 3.2.1: Implement annual efforts to control Brown-headed Cowbirds (*Molothrus ater*) in order to reduce disturbances (brood parasitism) to nesting Least Bell's Vireo during the breeding season. Two traps will be deployed near Sandia Creek Dr. and two traps will be deployed near Willow Glen Rd. between mid-April and the end of June.

Strategy 3.2.2: Implement annual efforts to eradicate beavers on the preserve in order to reduce the risk of nest failure caused by beaver activity. Although the removal of beavers will provide only minor improvements to least Bell's vireo, eradication will be an important component of improving arroyo toad habitat on the preserve.

Strategy 3.2.3: Implement annual invasive plant control efforts that focus on *Arundo donax* and *Tamarix spp.* in order to prevent a substantial recolonization by these invasive species. In addition, partner with SMER and MCBCP to identify and target other invasive plant species that would degrade least Bell's vireo habitat quality on the preserve if left untreated.

Strategy 3.2.4: Reduce redundant trail segments in portions of the floodplain with sandy bottoms. Specifically, reduction of trail segments in the floodplain will need to be focused in the area on the north side of the mainstem of the Santa Margarita River between crossings 3 and 6, where least Bell's vireo currently occupy several territories during the breeding season. See figure 8. Trail decommissioning will be achieved by constructing barriers, installing signage, and through appropriate revegetation treatments that improve least Bell's vireo habitat.

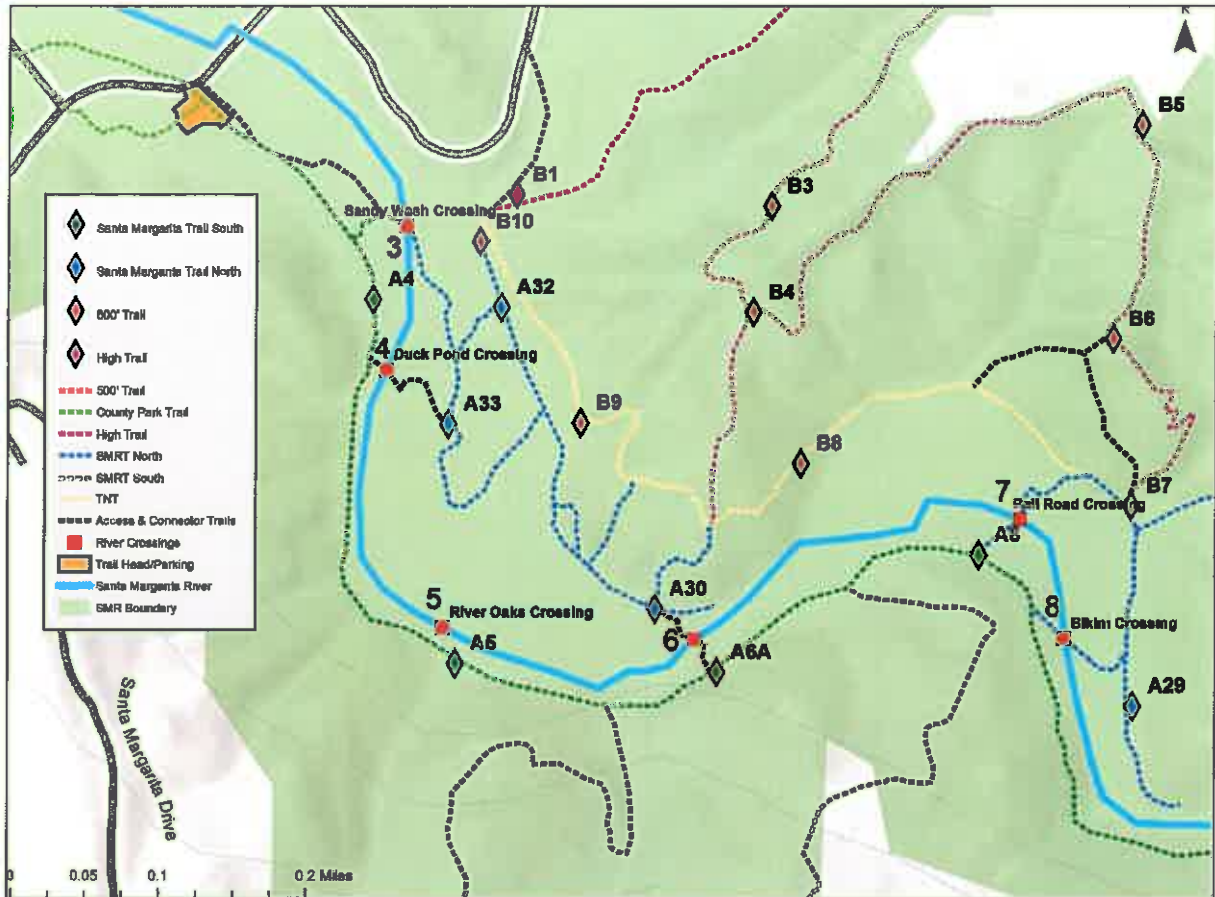


Figure 8. Map of proposed trail alignments following the decommissioning of trails within occupied LBVI habitat.

Strategy 3.2.5: Connect Santa Margarita South Trail and TNT Trail via crossings 3, 4, & 6 with the shortest trail alignment feasibly possible. An overall reduction in trail length will be achieved by aligning straight trails that bisect the SMR in a perpendicular manner.

Strategy 3.2.6: Staff members who are trained in identifying vireos and their breeding habitat (Biological Monitors) will conduct focused surveys for vireos and evaluate habitat conditions on an annual basis.

3.2.6a: Biological Monitors will be trained by qualified biologist who are certified to conduct Least Bell's Vireo surveys.

Strategy 3.2.7: On site staff will educate visitors about the importance of compliance with temporary trail closures due to least Bell's vireo breeding habitat requirements on the preserve. In addition, signage and educational material will be made available to explain the purpose of the activities proposed to protect least Bell's vireo habitat while retaining key access opportunities. Users observance of these restrictions is critical to the success of these habitat management measures.

Strategy 3.2.8: Trail maintenance activities within LBVI habitat will be scheduled to take place during the non-breeding season (September through January).

3.2.8a: Where trail maintenance activities will occur during the breeding season, a trained Biological Monitor will inspect the site to determine presence of nesting vireos, and halt activities that may damage a nest or cause significant disturbance to nesting vireos.

3.2.8b: Educational materials and outreach sessions will be provided to groups conducting trail maintenance in order to explain the purpose of seasonal trail maintenance restrictions and the importance of observing those restrictions.

Strategy 3.2.9: Regularly monitor trail system and prohibit unauthorized attempts to expand trail system. Barriers and signage, as well as, authority of resource interpretation will be used to prevent use of unauthorized trails.

3.2.9a: Impacted areas will be immediately restored with appropriate native vegetation and/ or access control techniques.

3.2.9b: Signage and educational materials will be provided to visitors that explain the importance of observing the boundaries of the trails.

Strategy 3.2.10: Prohibit fishing, swimming, picnicking and other recreational use of areas where least Bell's vireo habitat occurs.

3.2.10a: Regularly monitor any allowed recreational activities to ensure habitat protection measures are being observed by visitors.

4. Botanical inventory

Objective: Compile a master list of flora occupying the property.

Strategy 4.1: Within the first three years, project partners will establish a master list of botanical species that occupy the property; and will conduct annual surveys, commencing within the first year, to ensure that a census of annual and perennial plant species are accounted for. Existing botanical survey lists will be compiled and then amended to reflect the current assemblage of plant species occurring on the property. The botanical

surveys will include focused surveys for identifying the presence and specific locations of sensitive species.

Strategy 4.2: At the end of five years, review the inventory results to determine if species have disappeared or appear to be threatened. Develop plans to maintain vegetation communities and control threats to sensitive plant species.

Strategy 4.3: At the end of five years, review the monitoring protocols and revise to reflect best practices and lessons learned in the initial period.

Strategy 4.4: Rare, threatened and endangered plant surveys will be conducted every three to five years.

5. Forest inventory

Objective: Develop a forest inventory.

Strategy 5.1: Approximately three-hundred and fifty acres of the property supports forest and woodland habitat. Riparian forest and woodland habitats are important landscape elements within the larger mosaic of habitats found on the property, and support numerous sensitive and native wildlife species. Within the first three years, the project partners, will develop forest inventory plots designed to track the changes in southern riparian forest, southern riparian woodlands, and riparian oak woodlands, as these are designated as sensitive habitats by CDFW and County of San Diego Resource Protection Ordinances.

Strategy 5.2: Review inventory on a biennial basis to observe changes in forest cover; assess whether changes in management are required.

6. Wildlife inventory

Objective: Identify the wildlife species that utilize and occupy the property.

Strategy 6.1: An ongoing effort by the project partners to record the presence of wildlife species that utilize and occupy the property will commence within the first year of TWC management. Wildlife studies have indicated the presence of hundreds of wildlife species. Recording wildlife presence through ongoing observations will help managers to better understand the habitat requirements of the species that occupy the property and the interaction between natural resources and recreation.

Strategy 6.2: On an annual basis, review inventory results and adapt management regimes as necessary.

7. Invasive, non-native plant and animal control

Objective: Identify and address occurrences of invasive, non-native plants and animals.

Strategy 7.1: Within the first two years, the project partners will implement surveys for invasive plants and animals. The collection of GPS data of the areas where invasive plant occurrences are distributed throughout the property will be a leading priority for management.

Strategy 7.2: As funding is available, invasive plant survey and control programs will be developed in order to identify the populations, occurrences and potential threats that novel invasive plant species pose to native plant communities. Invasive plant species known to have adverse effects on native populations (such as *Arundo donax* and *Tamarix*) will be controlled annually.

Strategy 7.3: TWC and project partners will coordinate to manage invasive animal species found to have significant, negative impacts on the native flora and/ or fauna of the property. Invasive animal species such as Bullfrogs (*Rana catesbiana*) that are known to negatively impact Arroyo Toad breeding and therefore will be controlled on an annual basis.

Strategy 7.4: Due to the known presence of the non-native species of wild pigs (*Sus scrofa*) in San Diego County, TWC will coordinate with project partners to develop a contingency mitigation plan for addressing their possible future encroachment onto the property. The contingency plan will be developed within the first twenty-four months.

8. Plant pathogens

Objective: Survey the property to identify plant pathogens and disease outbreaks that pose a significant threat to the habitats of the property.

Strategy 8.1: Within the first two years, develop a survey program with assistance from project partners (UC Riverside cooperative extension, MCBCP, San Diego State University) to identify plant pathogens, disease outbreaks or other insect outbreaks that could pose a threat to the biological resources, vegetation communities or habitats found on the property.

Strategy 8.2: In collaboration with project partners, pathogens identified through surveys, and those known to project partners, will collaboratively

be assessed on a case by case basis to determine the level of threat that they pose to the habitats within the property.

Strategy 8.3: Collaborate with project partners to understand management options for addressing the impacts associated with specific plant pathogens or pests and determine if management strategies should be revised to address pest management.

Strategy 8.4: Annual surveys will be conducted to determine the presence-absence of two particularly threatening insect pests the Polyphagous shot hole borer (*Eurwallacea sp.*) and golden spotted oak borer (*Augrilus auroguttatus*).

9. Fire plan

Objective: Develop a fire plan.

Strategy: 9.1: Within the first two years, the project partners in collaboration with local fire and emergency response agencies will develop a fire plan. The fire plan will address such topics as egress routes from the property, staging areas, roads, trails and other resources available to fire crews during the event of a fire. The fire plan may also include a discussion about wildfire prevention strategies and post-fire rehabilitation options specific to the property. *Note FPUD is considering developing a fire plan for the property as of the writing of this June 2017 draft management plan.

10. Debris and Trash Clean-up

Objective: Deter illegal dumping.

Strategy: Within the first year, remove as much illegally dumped trash and debris. Maintain vigilance and remove any new trash or debris that is dumped in an effort to deter others from dumping in the future. Regularly clean up trail and road system debris, break up fire rings, remove graffiti and patrol use areas.

B. Cultural Resource Management

Goal: Identify, preserve and protect the cultural resources of the property.

1. Identify cultural sites

Objective: Locate significant historic and prehistoric cultural sites throughout the property.

Strategy 1.1: Review archeological reports and meet with archeologists and consultants to identify significant cultural sites.

2. Preserve and protect cultural resources

Objective: Ensure that culturally significant sites and artifacts are protected from looters, vandals, and share educational information about the various periods of human use of the Santa Margarita River Valley.

Strategy 2.1: Erect interpretive signage that depicts the lifestyles of past visitors and inhabitants of the Santa Margarita River Valley area during various periods of history. Interpretive signage will be designed in collaboration with project partners and be placed in areas that do not pose any threats of exposing sensitive cultural sites to anthropic disturbances but rather help to illustrate the presence of an array of past visitors and how they spent their time in the Santa Margarita River Valley.

Strategy 2.2: Realign trails to avoid human caused disturbances to sensitive cultural sites, if deemed necessary by archeologists.

C. Recreational Resource Management

Goal: Continuously review and periodically revise recreational and educational resources and activities on the property to ensure that they provide valuable services to the community while protecting the natural resources.

1. Partnership with Fallbrook Trails Council

Objective: Establish and maintain a close, working relationship with the Fallbrook Trails Council so that community priorities are reflected in the natural, recreational and educational resources of the property.

The Fallbrook Trails Council (FTC) is affiliated with Live Oak Park Coalition, a 501(c)(3) nonprofit organization. The FTC has been responsible for the development and maintenance of recreational infrastructure within the property since 1999. The Fallbrook Trails Council and its members have diligently worked to maintain the network of trails for horseback riders, hikers, and bicyclists. The FTC has also worked in conjunction with Cal Fire, North County Fire, and the local Sheriff's department to develop first responder protocols for emergencies that may arise within the boundaries of the property. TWC greatly appreciates and will continue welcoming the involvement of the volunteer workforce composed of the members of the FTC and community members, but is not able to depend on volunteers to maintain the trail system. Rather, a team of stewards that will include TWC staff, FTC members, community volunteers, paid contractors, and youth service workers will combine together to offer comprehensive care to the trails in compliance with applicable requirements. There is no doubt that the expertise and knowledge of the FTC is paramount in the continued success of the Santa Margarita River trail system. In partnership with The Wildlands Conservancy, the FTC will continue to provide the essential role of trail stewards and docents of this important recreational resource.

Strategy 1.1: Prior to close of escrow, negotiate terms for a trail easement in favor of FTC that ensures public access while providing flexibility to adapt to changing circumstances and to protect the unique natural resources on the property.

Strategy 1.2: Prior to close of escrow, enter into an agreement (Memorandum of Understanding) between TWC and FTC under which FTC will both advise and support TWC trail management initiatives in accordance with this plan.

2. Recreational use surveys

Objective: Identify use patterns and user behaviors.

Strategy 2.1: In order to better understand how the property is being used by visitors, recreational use surveys will be given to visitors throughout the first year of TWC's management. These surveys will be designed to help TWC gain valuable information such as the most popular modes of travel, popular times of day for guests to visit specific areas, which days of the week the greatest volume of visitation occurs, and during which season visitation to various sites is at its peak. Additionally, user-experience information will be collected and analyzed to identify which areas of the user experience are considered satisfactory and which aspects may benefit from changes. Understanding these use patterns and visitor experiences will help managers ensure that changes in public access that are intended to protect the natural and cultural resources of the preserve also ensure, insofar as possible, that visitors are also provided with a safe and enjoyable user experience while recreating at the preserve.

Strategy 2.2: At the end of the first year, assess the results of user surveys and revise planned changes to facilities and regulations as appropriate.

3. Trail assessment and maintenance

Objective: Evaluate the condition and impact of the trail system to identify and implement appropriate adjustments.

Strategy 3.1 An assessment of the trail system will be an immediate priority. The initial trail assessment will take place within the first six months of TWC becoming the long-term steward of the property. The trail assessment will include a detailed inspection and documentation of the existing trail network and access points. TWC staff will assess such elements of the trail network for actual and potential impacts to sensitive habitats and species, potential for erosion of the trail surfaces, and sediment loading to streams, redundancy of alignments, identification and restoration of unofficial social trails, and risks to visitor health and safety.

Strategy 3.2: The results of the trail assessment will inform TWC, its partner organizations, and the resource agencies as they design and implement changes to the trail system to realize the objectives outlined in section II.F above pertaining to public access.

Strategy 3.3: TWC will partner with the FTC and other organizations to provide comprehensive care for the trail system, in perpetuity. Together, the staff of TWC, the workforce of the FTC and other partners will

enhance the sustainability and improve the durability of the trails, reduce and mitigate impacts to natural and cultural resources on the property, and enhance user safety and experience.

3.3a: Trail maintenance occurring within the riparian area during the breeding season will be supervised by the Biological Monitor. The Biological Monitor will inspect the trail for sensitive species prior to the commencement of trail work and either halt work or take actions to avoid disturbances to any sensitive species.

3.3b: In the event that a river crossing is determined to require a seasonal closure due to the presence of sensitive species or suitable habitat, the Biological Monitor will post signage and place flagging across the trail leading the crossing on both sides of the river.

3.3c: The Biological Monitor will clearly mark trail detours to ensure that trail users are able to easily identify and follow alternate routes.

3.3d: At no time will two river crossings be seasonally closed due to sensitive species habitat restrictions. The Biological Monitor will 1.) close the crossing with the best occupied and/ or suitable habitat found on the property during the breeding season 2.) if more than one crossing is occupied by arroyo toads, the toads (egg strings or larvae) from lesser quality habitat site(s) will be relocated to better quality habitat away from the recreational river crossing(s).

3.3e: Trail surfaces outside of the riparian area will be continuously monitored and treated promptly to prevent user injuries and erosion.

4. Educational programs

Objective: To enhance the user experience by providing educational opportunities and to help inculcate a land stewardship ethic in children and other visitors to the preserve.

The Wildlands Conservancy plans to develop outdoor educational opportunities to enrich the recreational experiences of visitors to the preserve. The educational interpretation of the property will take multiple forms. Signage will be installed to describe and depict such elements of the property as, unique geologic features, land use history, detailed trail

information, botanical and wildlife species, and cultural histories to help visitors acquire a sense of place when visiting specific sites within the property.

Strategy 4.1: Within the first two years of operation, TWC and partners will formulate a plan for enhancing the existing educational opportunities on the property, including a timeline for implementing the plan.

Strategy 4.2: Over the following two years, TWC and partners will implement the outreach plan. The outreach plan will detail specific programs that TWC staff will offer and partner with other entities to host in an effort to bolster the communities awareness of issues regarding sensitive species conservation, leave no trace principles, climate change, natural resource conservation, wildfire prevention, etc.

Strategy 4.3: TWC will continuously look for opportunities to partner with schools and local community groups to offer outdoor education to those interested in learning about the preserve. Additionally, the property will be made available to those interested in nature study. Researchers interested in studying wildlife, biology, ecology, etc. are encouraged to contact the preserve manager for further details.

5. Visitor safety

Objective: Provide a safe environment for visitors to recreate.

Strategy 5.1: TWC staff will interact with the public by answering their questions, enforcing TWC's rules of conduct for visitors, interpreting the dynamic nature of the continuously changing conditions of the environment, including the weather, trail conditions, potentially dangerous wildlife, and other hazards that may be present.

Strategy 5.2: Rules and warnings of the potential dangers that may be encountered while on the property will be made available for visitors near the primary access points to the preserve, helping reduce the likelihood of injury or illness.

Strategy 5.3: The Fallbrook Trails Council has georeferenced trail markers throughout the trail system. These trail markers can be used by visitors to navigate the trail system, and report the location of unsafe conditions to management. In addition, these trail markers can be used to provide first responders with GPS coordinates in the event of an emergency.

Strategy 5.4: Emergency evacuation sites have been designated at four locations on the property. These locations will be marked on trail maps to provide visitors with important information about where safe evacuation sites are located on the property. The evacuation sites include the Sandia

Creek Dr. parking lot, in the southwestern portion of the property, the terminus of Stagecoach Rd at the “sandpit,” in the south central portion of the property, the large staging area at the intersection of Via Ranchitos and Gavilan Rd., in the north central portion of the property, and at the large staging area at the intersection of Willow Glen Rd. and N. Stagecoach Ln., in the southeastern portion of the property. Each location will be mapped with GPS coordinates and shared with local first responders and emergency personnel within the first three months of TWC taking over management of the property. Within the first two years, an Emergency Action Plan will be developed by project partners to provide guidance for the safe evacuation of the property in the event of an emergency.

6. Volunteer monitors

Objective: Establish a program of volunteer monitoring to assist with property management and public outreach.

Strategy 6.1: Within the first two years of management TWC will develop a volunteer monitoring program. The volunteer monitoring program will begin as a pilot project. A small number of volunteers that frequently visit the property and who are interested in supporting the efforts of TWC management to improve the property will be recruited as members to the initial volunteer group. Members chosen to participate in the volunteer monitoring program will be oriented on how to gather and report information to TWC Preserve Manager. Volunteers will document and then notify the Preserve Manager about issues such as damage or the threat of damage to natural resources, dangerous trail conditions, damaged property, graffiti, poaching, or any other observations of the preserve rules being breached or any unsafe situations. Individuals interested in participating in the volunteer monitoring program will be directed to Preserve Manager for further information.

Strategy 6.2: After two years of operation, TWC will review the volunteer program and revise it to ensure that it continues to serve the objectives for which it was developed.

7. Prohibited activities

Objective: Prevent the degradation, deterioration, damage or destruction of any part of the property.

Strategy 7.1: A declaration of all rules will be posted at the primary access points of the preserve, be made available online and in writing. TWC plans to develop a series of rules that will be fashioned similarly to the rules previously developed by the current owner FPUD. Those rules are included in Appendix C.

Strategy 7.2: TWC will help to maintain safety and orderly conduct by enforcing the rules through an educational approach, including principles of Authority of Resource and Leave No Trace. TWC staff will strive to make contact with individuals or groups breaking the rules to help interpret the importance of the particular rule(s) being broken and provide a verbal warning of the consequences of said breach to the offending party. This warning and educational information sharing is the first phase in response to situations where the rules are being broken. If said person(s) continue to break the rules they may lose their privileges of visiting the property and/or be prosecuted when their actions warrant a legal response.

D. Infrastructure Development

Goal: To identify needs for additional infrastructure on the property in order to ensure protection of natural resources, promote and regulate compatible recreation, and improve management efficiency, and to maintain all infrastructure in good condition throughout its useful life.

1. Capital improvements

Objective: In order to achieve the management goals of preserving the natural environment and biological resources of the property while also maintaining safe and high quality recreational opportunities, appropriate capital improvement projects will be planned and implemented. All capital improvements described below will be constructed on previously-disturbed areas at Sandia Creek or Willow Glen, which total approximately 6 acres (.43% of the property). Capital improvements will occupy less than 2 acres (.15% of the property).

Strategy 1.1: Within the first two years of management, TWC and project partners will assess the need for additional capital improvements, and will prioritize the projects that are found to be beneficial. In assessing that need, the primary objective will be to undertake the minimum level of improvements that is compatible with the need to focus, direct, and supervise public access. Capital improvement projects that will be considered include:

- a. Restrooms—it is anticipated that a restroom will be sited near the Sandia Creek Dr. parking lot. This area receives the heaviest volume of use by the public. A second restroom will be considered for the Willow Glen/Stagecoach Lane parking area.
- b. Parking lots—a parking lot currently exists on Sandia Creek Drive and is the primary access point for visitors to the property. Improvements to the existing parking lot are anticipated in order to reduce the impact of public access on resources in the immediate area. A second parking lot may be sited at the corner of Willow Glen Road and N Stagecoach Lane.

- c. Sandia Creek Drive Bridge- partnering with Cal Trout, design a fish-friendly bridge to replace the current bridge which has a negative effect on wildlife.
- d. Ranger station—a single-family dwelling (1200 sq. ft., combined with a Preserve Manager office space and visitor center 400 sq. ft.) is anticipated to be constructed at the Sandia Creek Dr. parking lot, in order to provide a continuous on-site presence.
- e. Signage—signage will be posted at the primary access points and distributed throughout the trail system in order to ensure visitors are aware of preserve regulations and understand the vulnerability of the natural communities.
- f. Interpretive kiosk—an interpretive kiosk will be placed at the Sandia Creek Dr. parking area.
- g. Litter bag dispensers—locations are yet to be determined.
- h. Stabling facilities for two horses may be built on disturbed, former agriculture land at Willow Glen in order to facilitate search and rescue operations, property security, and maintenance as needed.

Strategy 1.2: Each infrastructure development project will be proposed, planned, and permitted prior to the commencement of any construction. In some instances, funds will need to be raised to complete specific capital improvement projects.

Strategy 1.3: All development projects will be coordinated with Camp Pendleton and the applicable resource agencies (including County of San Diego, CDFW, USFWS) to ensure that the goals and objectives of this plan are addressed and all permitting requirements are identified and addressed.

Strategy 1.4: Project planning documents will be viewable by the general public during the planning phases of such projects. The goal of infrastructure development projects will be to enhance the protection of natural and cultural resources while improving the quality of user experiences.

2. Maintenance of infrastructure

Objective: Maintain infrastructure throughout its useful life.

Strategy 2.1: TWC staff and partners will maintain the infrastructure of the property. Duties of the on-site personnel will range from such tasks as trail inspections and maintenance, trash clean-up and graffiti removal, vegetation management, as well as maintenance of all structures developed by TWC including fencing, signage, visitor amenities, and buildings.

3. Restoration of disturbed sites

Objective: Subject to availability of funding, to restore all previously-disturbed sites on the property that are not required for implementation of this plan.

Strategy 3.1: TWC will cooperate with project partners to carry out restoration of areas that have been disturbed by previous land uses.

Strategy 3.2: An area approximately nine acres in size that was formerly used for the agricultural production of succulents, near N. Stagecoach Lane, should be remediated and restored with native vegetation.

Strategy 3.3: A vacant residence and outbuildings located on Sandia Creek Drive has been dismantled and removed (the site of a former residence that was removed by FPUD under the terms of its contract for sale of the property), and the site should be restored to natural habitat. The site is approximately two acres and occurs within Coast Live Oak woodland and Coast Live Oak Riparian Forest habitat.

Strategy 3.4: Approximately four acres of additional disturbed areas along Sandia Creek Dr. should be restored with native vegetation.

Strategy 3.5: Approximately one acre of eucalyptus trees will be assessed for restoration with native vegetation.

E. Operations Planning

Goal: Establish a timeline and monitoring program for evaluating the progress made toward management goals. These planning timelines and monitoring programs will inform the adaptive management process by refining future planning efforts and elucidating emerging management objectives.

1. Annual work plans

Objective: Develop a framework that describes the operations to be implemented within each calendar year.

Strategy 1.1: Preserve Manager will develop work plan calendars to schedule the sequence of operations pursuant to the management plan. An example is attached in appendix E.

Strategy 1.2: TWC will meet with MCBCP, SMER, and other natural resource management agency representatives on an annual or biennial

basis to discuss and coordinate the Preserve's current and emerging natural resource management priorities.

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Appendix A

Assessor Parcel Numbers

102-105-06-00	102-180-13-00	102-180-65-00	102-250-24-00	102-280-55-00	102-400-40-00
102-450-23-00	102-520-02-00	102-590-15-00	102-600-67-00	102-601-01-00	102-601-02-00
102-601-03-00	102-601-11-00	102-601-12-00	102-710-11-00	102-750-05-00	105-020-02-00
102-101-08-00	102-101-09-00	102-102-03-00	102-102-06-00	102-105-04-00	102-102-04-00
101-361-17-00	102-102-02-00	102-160-48-00	102-280-02-00	102-400-28-00	102-400-29-00
102-440-05-00	102-490-29-00	102-690-08-00	102-102-05-00		

Appendix C
Fallbrook Public Utility District Ordinances
No. 336

ORDINANCE NO. 336
AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE
FALLBROOK PUBLIC UTILITY DISTRICT GOVERNING ITS SANTA
MARGARITA RIVER PROPERTY

Exhibit "A" ORDINANCE NO. 336
FALLBROOK PUBLIC UTILITY DISTRICT
Regulations for Use of the Santa Margarita River Property Owned by the District

<u>Section No.</u>	<u>Section Name</u>
1.	Definitions
2.	Breaking, Cutting, or Injuring Plants
3.	Care of Wildlife
4.	Taking Wood
5.	Motor Vehicles and Other Conveyances
6.	Bicycles
7.	Glass Beverage Containers Prohibited
8.	Regulation of Equestrians
9.	Pollution of Streams (Generally)
10.	Dogs
11.	Camp Fires
12.	Camping
13.	Disposal of Rubbish and Garbage
14.	Unreasonable Noises
15.	Advertising
16.	Hunting and Fishing
17.	Possession and Use of Firearms and Weapons
18.	No Smoking Allowed
19.	Night Closing
20.	Fireworks Prohibited
21.	Permit for Organized Public Programs or Private Programs
22.	Illegal Drugs
23.	Care of District Property
24.	Off Trail Travel
25.	Care of Watershed
26.	Exemptions from Regulations
27.	Severability

Section 1: Definitions

Alcoholic Beverages. For purposes of this title, the term alcoholic beverages shall include alcohol, spirits, liquor, wine, beer and every liquid or solid containing one- half of one percent or more of alcohol by volume and which is fit for beverage purposes either alone or when diluted, mixed or combined with other substances. No alcohol is allowed within the Santa Margarita River Property.

Property Manager. Property Manager is defined as the FPUD Supervisor tasked with overseeing the Property.

Peace Officer. Peace Officer is defined as any peace officer, as defined in Chapter 4. 5 commencing with Section 830) of Title 3 of Part 2 of the Penal Code.

Trail Rights- of-Way. Trail Rights- of-Way is defined as trail usage priority to yield to traffic in the following order: horses, hikers, and bicyclists.

Section 2: Breaking, Cutting or Injuring Plants

No person shall pluck, take, remove, damage, or destroy any flower, shrubbery, plant, vine, tree, grass, ground cover or other natural or cultivated growth within the Santa Margarita River Property except with prior written permission of the Property Manager.

Section 3: Care of Wildlife

It shall be unlawful for any person to hunt, molest, harm, frighten, kill, trap, chase, tease, shoot or throw projectiles at any animal, reptile or bird within the Santa Margarita River Property.

No person shall operate a remote controlled vehicle or drone in or near the property except law enforcement or governmental authorities in the discharge of their duties.

Section 4: Taking Wood

No person shall cut or remove any wood or fallen trees within the Santa Margarita River Property except with written permission of the Property Manager.

Section 5: Motor Vehicles and Other Conveyances

a) It shall be unlawful for any person at any time to operate or drive an automobile, truck, trailer, motorcycle, motor scooter, motorbike, or any other type of motor vehicle within the Santa Margarita River Property unless such vehicles are in a designated parking or staging area or on a County of San Diego maintained road without prior written permission from the Property Manager.

b) No person within the Santa Margarita River Property shall fail to comply with all applicable provisions of the State Motor Vehicle Code and traffic laws in regard to equipment, signs, speed limits and operation of vehicles together with such regulations as are contained in these regulations.

c) No person shall park any vehicle within the Santa Margarita River Property except for the duration of their visit.

d) Vehicles parked in violation of State of California Vehicle Code Sections 22651r) or 22652, may be subject to removal from the Santa Margarita River Property at the vehicle owner's expense.

e) These provisions shall not apply to motor vehicles and motorized equipment for District maintenance, patrol vehicles, or emergency vehicles in the process of conducting maintenance, operation or enforcement activities within the Santa Margarita River Property and contractors/ consultants, performing work for the District as authorized by the Board of Directors or the District's General Manager.

Section 6: Bicycles

a) It shall be unlawful for any person to ride a bicycle of any type on other than designated trails. Bicyclists shall be permitted to use designated hiking trails, but must use due care and caution to not interfere with hikers or equestrian users.

b) Bicycle speed limits shall be as follows:

c) Fifteen (15) miles/hour maximum in all recreational and park areas

d) Five (5) miles/ hour within one hundred (100) feet of pedestrians and equestrians

e) Bicyclists must dismount and step to the side of the trail at least fifteen feet away in the presence of horses.

f) Bicyclists must observe choke points on trails and slow their speed at these choke points. Bicyclist shall verbally notify or signal with a bell when behind or in front of horses, hikers, or other bicyclist.

g) No motorized bicycles are permitted or allowed.

Section 7: Glass Beverage Containers Prohibited

No person shall possess any glass beverage container within the Santa Margarita River Property of the District except that the sponsor of an organized public event may obtain written permission in advance from the Property Manager to possess glass beverage containers, provided that the containers remain under the sponsor's control and are not distributed to participants of the event.

Section 8: Regulation of Equestrians

Horses ridden within the Santa Margarita River Property shall only be on designated equestrian routes and trails.

Section 9: Pollution of Streams (Generally)

No person shall contaminate or pollute, or cause to be contaminated or polluted, any water of any creek flowing through the Santa Margarita River Property, or to deposit or cause to be deposited any refuse, rubbish or other waste matter of any kind or character, in such waters, or to wash or clean vehicles, clothing, animals or persons in the waters of the property. No body contact or swimming is allowed. No wading or walking in the stream is allowed except at designated trail crossings.

Section 10: Dogs

Dogs will be required to remain on leash at all times in all areas of the Santa Margarita River Property. It shall be the duty of all persons having control of a dog to immediately remove any feces to a proper receptacle.

Section 11: Camp Fires

It shall be unlawful to make any fire, of any kind, or utilize a barbeque, a propane grill, enclosed fire units, or hibachi- style cooking devices at any time within the Santa Margarita River Property.

Section 12: Camping and Picnicking

No person or group of persons shall camp overnight or remain or stay overnight within the Santa Margarita River Property. The property shall be used for non- motorized trail use only. No group events, group picnicking or other group activities are allowed without a permit.

Section 13: Disposal of Rubbish and Garbage

No person shall throw, dump, or otherwise place or cause to be placed, or leave, either directly or indirectly, any rubbish, garbage, sewage or waste matter, or any trash or refuse of any kind or character, other than in receptacles established and maintained for such purposes. No person shall bring or cause to be brought, any rubbish, garbage, sewage, waste matter, trash or refuse of any kind for the purpose of disposing of same within the property either in the receptacles described herein, or at any other place.

Section 14: Unreasonable Noises

a) No person shall operate any loudspeaker or any other sound amplification device within the Santa Margarita River Property.

b) No person, either by voice, mechanical device, tumultuous or other offensive conduct or otherwise, shall create, or permit or cause to be created, any loud or unusual noises at any time which create a nuisance. Noises determined to be too loud or offensive shall be promptly reduced or discontinued as directed by any peace officer or authorized District employee.

Section 15: Advertising

No person shall display or post any plates, markers, signs, commercial or message within the Santa Margarita River Property without prior written approval of the Property Manager.

Section 16: Hunting and Fishing

No person shall take any wild game, animals, birds or eggs within the Santa Margarita River Property except with the prior written permission of the Property Manager. No fishing allowed and shall be subject to the regulations of the California Fish and Game, et al.

Section 17: Possession and Use of Firearms and Weapons

No person shall take, carry or transport any firearm, pellet gun, pump gun, zip gun, air rifle, bow and arrow, BB gun or weapon of any kind within the Santa Margarita River Property.

Section 18: No Smoking Allowed

No person shall light matches, smoke cigars, pipes, cigarettes or any other smoking device or instrument or carry, upon, or across, the Santa Margarita River Property, any lighted cigars, pipes, cigarettes or other lighted inflammable material at any time.

Section 19: Night Closing

All trails shall be closed to the public from dusk to dawn based on posted hours. The hours will be coordinated with operating hours of the County of San Diego. Santa Margarita River Property hours may also be revised as deemed necessary by the District's General Manager.

Use of the Santa Margarita River Property outside of posted hours is considered trespassing per California Penal Code 602.

Section 20: Fireworks Prohibited

No fireworks of any kind shall be lit within or discharged within the Santa Margarita River Property.

Section 21: Permit for Organized Public or Private Programs

No person shall conduct any organized public program, public assemblage or public address within the Santa Margarita River Property without first obtaining the written permission of the Property Manager. The General Manager has the authority to approve or reject Special Use or Special Event requests at his or her discretion.

Written permission is required for any uses besides non- motorized trail use on the property as described in this ordinance.

Section 22: Illegal Drugs

No person shall use or possess any illegal or illicit drug in any area within the Santa Margarita River Property.

Section 23: Care of District Property

It shall be unlawful for any person to mark, deface, disfigure, injure, destroy, tamper with, displace, or remove any equipment, buildings, tables, benches, railings, fencing, paving, utilities, or parts or appurtenances thereof, signs, notices, place cards, District property, including but not limited to, monuments, stakes posts or any other boundary markers, or other structures, equipment, facilities or materials within the Santa Margarita River Property.

Section 24: Off Trail Travel

It shall be unlawful for any person or group of persons to travel off any marked or designated trail by any means, including by foot, horse or bicycle, except to enter a developed area of the Santa Margarita River Property. Persons may briefly step off the marked trail to give right-of-way to passing horses, hikers, or bicyclists.

Section 25: Care of Watershed

It shall be unlawful for any person to conduct any activity within the Santa Margarita River Property which may degrade the watershed and/ or the resulting quality of water within that watershed.

Section 26: Exemptions from Regulations

The provisions of these regulations shall not apply to or restrict any officer, employee, volunteer or agent of the District, or any other peace officer when such person is acting to enforce any of these regulations.

Section 27: Severability

The District's regulations for the Santa Margarita River Property and their various parts, sections, and clauses thereof are declared by the Board of Directors to be severable. If any part, sentence, paragraph, section, subsection, clause, phrase, part or portion thereof is judged unconstitutional or invalid by a competent jurisdiction, the remainder of these regulations shall not be affected thereby. The Board of

Directors hereby declares that it would have passed these regulations and each part thereof, regardless of the fact that one or more of such parts would be declared unconstitutional or invalid.

Appendix D

Sensitive Animal Species

Sensitive Animal Species with Potential to Occur		
Species	Listing or Sensitivity*	Potential to occur
Invertebrates		
Hermes copper (<i>Lycaena hermes</i>)	Candidate/-- County Group 1	Low to Moderate. Occurs in southern mixed chaparral and coastal sage scrub with mature specimens of its larval host plant spiny redberry (<i>Rhamnus crocea</i>)
Vertebrates		
Fish		
Arroyo chub (<i>Gila orcuttii</i>)	/SSC	Likely present. Known from the Santa Margarita River and Sandia Creek. Found in slowly moving streams with substrates of sand or mud and depths of 40 centimeters or greater.
Amphibians and Reptiles		
Arroyo toad (<i>Anaxyrus californicus</i>)	FE/ SSC County Group 1	Likely present. Found on banks with open-canopy riparian forest characterized by willows, cottonwoods, or sycamores; breeds in areas with shallow, slowly moving streams, but burrows in adjacent uplands during dry months.
Orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	--/SSC County Group 2	Moderate to high. Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (<i>Reticulitermes sp.</i>)
Coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	--/-- County Group 2	Moderate to high. Open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions.
Red-diamond rattlesnake (<i>Crotalus ruber</i>)	--/SSC County Group 2	High. Found in chaparral, coastal sage scrub, along creek banks, particularly among rock outcrops or piles of debris with a supply of burrowing rodents for prey.
San Diego banded gecko (<i>Coleonyx variegatus abbotti</i>)	--/-- County Group 1	High. Chaparral and coastal sage scrub in areas with rock outcrops.
		High. Generally occurs in moist habitats such as

San Diego ringneck snake (<i>Diadophis punctatus similis</i>)	--/-- County Group 2	oak woodlands and canyon bottoms, but is also sometimes encountered in grassland, chaparral, and coastal sage scrub; generally restricted to leaf litter and rarely crosses open areas.
Western pond turtle (<i>Emys marmorata</i>)	--/SSC County Group 1	High. Almost entirely aquatic; occurs in freshwater marshes, creeks, ponds, rivers and streams, particularly where basking sites, deep water retreats, and egg laying areas are readily available.
Coastal rosy boa (<i>Charina [Lichanura] trivirgata [roseofusca]</i>)	--/-- County Group 2	High. Occurs among rocky outcrops in coastal sage scrub, chaparral, and desert scrub.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	--/SSC County Group 2	High. Occurs in coastal sage scrub, chaparral, open oak woodlands, and open coniferous forests. Important habitat components include basking sites, adequate scrub cover, areas of loose soil, and an abundance of harvester ants (<i>Pogonomyrmex sp.</i>) a primary prey item
Coronado skink (<i>Plestiodon [Eumeces] skiltonianus interparietalis</i>)	--/SSC County Group 2	Moderate. Occurs in grasslands, coastal sage scrub, and open chaparral where there is abundant leaf litter or low herbaceous growth.
Coast patch-nosed snake (<i>Salvadora hexalepis virgulata</i>)	--/SSC County Group 2	Low to moderate. Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.
Western spadefoot (<i>Spea hammondi</i>)	--/SSC County Group 2	Low. Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; requires temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (<i>Rana catesbiana</i>) or crayfish (<i>Procambarus sp.</i>)
California red-legged frog (<i>Rana [aurora] draytonii</i>)	FT/SSC County Group 1	Low. Found in dense, shrubby riparian vegetation with deep, slow-moving water. Known from Santa Rosa Plateau
Two-striped garter snake	--/SSC County Group 1	High. Typical habitat is along permanent and intermittent streams bounded by dense riparian vegetation; also found associated with vernal pools and stock ponds.
Birds		
Cooper's hawk (<i>Accipiter cooperii</i>)	--/WL County Group 1	Likely present. Tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields.
Sharp-shinned hawk	--/WL	Low. Usually observed in areas with tall trees or other vegetative cover but can be observed in

(<i>Accipiter striatus</i>)	County Group 1	a variety of habitats. In San Diego County occurs in small numbers and only in winter.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	--/WL County Group 1	Moderate. Occurs in coastal sage scrub on rocky hillsides and in canyons; also found in open sage scrub/ grassy areas of successional growth.
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	--/WL County Group 1	Moderate. Occurs in sunny, dry stands of coastal sage scrub or chaparral.
Golden eagle (<i>Aquila chrysaetos</i>)	BCC, BGEPA/ WL Fully Protected County Group 1	Moderate. Typical foraging habitat includes grassy and open, shrubby habitats. Generally nests on remote cliffs; requires areas of solitude at distance from human habitation. Limited foraging habitat occurs on the preserve.
Long-eared owl (<i>Asio otus</i>)	--/SSC County Group 1	Moderate. Rare resident in San Diego County in shady oak woodlands and broad riparian forests. Ideal habitat includes a closed canopy near open habitats for foraging and a supply of abandoned raptor or corvid nests or debris platforms for nesting.
Burrowing owl (<i>Athene cunicularia</i>)	BCC/ SSC County Group 1	Very low. Typical habitat is grassland open scrublands, agricultural fields, and other areas where there are ground squirrel burrows or other areas in which to burrow.
Red-shouldered hawk (<i>Buteo lineatus</i>)	--/-- County Group 1	High. Inhabits riparian and oak woodlands, orchards, and eucalyptus groves.
Turkey vulture (<i>Cathartes aura</i>)	--/-- County Group 1	High. Species occurs throughout much of San Diego County with the exception of extreme coastal San Diego where development is heaviest. Foraging habitat includes most open habitats with breeding occurring in crevices among boulders.
Northern harrier (<i>Circus cyaneus</i>)	--/SSC County Group 1	Low. Within San Diego County, distribution is primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert. Typical habitat consists of open grassland and marsh.
Yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	Candidate, BCC/ SE County Group 1	Low. Generally occurs along larger river systems, where it nests in riparian forest dominated by willows and cottonwoods.
Yellow warbler (<i>Setophaga brewsteri</i>)	--/SSC County Group 2	Likely present. Occurs in riparian forest and scrubs and almost certainly occurs throughout riparian habitats on site.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/SE County Group 1	High. Known from the Santa Margarita River. Breeds within thickets of willows or other

		riparian understory usually along streams, ponds, lakes, or canyons. One of the most important characteristics of the habitat appears to be the presence of dense vegetation, usually throughout all vegetation layers present. Almost all breeding habitats are within close proximity of water or very saturated soil.
California horned lark (<i>Eremophila alpestris actia</i>)	--/WL County Group 2	Low. Found on sandy beaches and in agricultural fields, grassland, and open areas.
Prairie falcon (<i>Falco mexicanus</i>)	BCC/WL County Group 1	High. Nests on cliffs or bluffs and forages over open desert scrub or grassland.
Yellow-breasted chat (<i>Ictera virens</i>)	--/SSC County Group 1	Likely present. Prefers mature riparian woodlands and almost certainly occurs throughout riparian habitat on site.
Loggerhead shrike (<i>Lanius ludocicianu</i>)	BCC/SSC County Group 1	Low. Typical habitat includes open habitats including grasslands, shrublands, and ruderal areas with adequate perching locations.
White-face ibis (<i>Plegadus chichi</i>)	--/WL County Group 1	Low. Occurs in large marshes, with nesting colony hidden in inaccessible reedbed or willow-covered area.
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT/SSC County Group 1	High. Occurs in coastal sage scrub and very open chaparral.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE/SE County Group 1	Likely present. Inhabits riparian woodland and is most frequent in areas that combine an understory of dense, young willows or mule fat with a canopy of tall willows and almost certainly occurs throughout riparian habitat on site.
Mammals		
Pallid bat (<i>Antrozous pallidus</i>)	--/SSC County Group 2	Moderate. Locally common species of low elevations in California. Prefers rocky outcrops, cliffs, and crevices with open habitats for foraging.
Ringtail (<i>Bassariscus astutus</i>)	--/-- County Group 2	High. Found in a mixture of shrubland and forest habitats at low to middle elevations in close association with rocky areas and riparian habitats.
Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>)	--/SSC County Group 2	High. Primarily associated with mature chaparral. It has, however, been trapped in mule fat scrub and is known to occur in coastal sage scrub.
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	--/SSC County Group 2	Low. Occurs in open areas of coastal sage scrub and weedy growth, and often on sandy substrates.

Spotted bat (<i>Euderma maculatum</i>)	--/SSC County Group 2	Low. Prefers sites with adequate roosting habitat (i.e., cliffs); feeds over water and along washes. Rare in California (Zeiner, et al. 1990).
Western mastiff bat (<i>Eumops perotis californicus</i>)	--/SSC County Group 2	Moderate. Suitable habitat consists of extensive open areas with abundant roost locations (crevices in cliff faces, high buildings, trees, tunnels).
Mountain Lion (<i>Felis concolor</i>)	--/-- County Group 2	Present. Requires extensive areas of riparian vegetation and brushy stages of various habitats wither interspersed irregular terrain, rocky outcrops, and tree/brush edges. Main prey is mule deer.
Western yellow bat (<i>Lasiurus xanthinus</i>)	--/SSC --	Low. Found in wooded areas and desert scrub, particularly in palm trees. Rare visitor to San Diego County (Bats of San Diego County 2012).
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	--/SSC County Group 2	Low. Found primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.
California leaf-nosed bat (<i>Macrotus californicus</i>)	--/SSC County Group 2	Moderate. Prefers rocky rugged terrain; roosts by day in caves, abandoned mines, and tunnels. Forages over nearby flats and washes.
Small-footed myotis (<i>Myotis ciliolabrum</i>)	--/-- County Group 2	Moderate. Occurs in arid, upland habitats. Prefers open stands in forests and woodlands as well as brushy habitats. Feeds over and drinks from streams, ponds, springs and stock tanks.
Long-eared myotis (<i>Myotis evotis</i>)	--/-- County Group 2	Moderate. In brush, woodland, and forest habitats, but coniferous woodlands and forests seem to be preferred. Roosts in rock crevices, buildings, under bark, and in snags. Feeds along habitat edges, in open habitat, and over water.
Fringed myotis (<i>Myotis thysanodes</i>)	--/-- County Group 2	Low to moderate. Occurs in a wide variety of habitats, but optimal habitats are oak and juniper forests and desert scrub. Roosts in caves, mines, buildings, and crevices. Forages in open habitats, streams, lakes, and ponds; requires water.
Long-legged myotis (<i>Myotis volans</i>)	--/-- County Group 2	Moderate. Feeds over water and over open habitats using denser woodland and forests for reproduction. Drinks regularly. Roosts in rock crevices, buildings, under tree bark, in snags, mines and caves.
Yuma myotis (<i>Myotis yumanensis</i>)	--/-- County Group 2	Low. Open forests and woodland are optimal habitat. Closely tied to bodies of water for foraging and drinking. Roosts in buildings,

		mines, crevices, caves, and under bridges.
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	--/SSC County Group 2	Moderate. Occurs in open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca.
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	--/SSC County Group 2	Low. A rare species in California (Zeiner et al. 1990). Prefers rugged, rocky canyons. Often forages over water. Roosts in crevices in high cliffs or rock outcrops.
Southern grasshopper mouse (<i>Onychomys torridus ramona</i>)	--/SSC County Group 2	Low. Desert habitat is preferred, but it also occurs in coastal scrub and mixed chaparral. It is uncommon in valley foothill and montane riparian habitats.
Townsend's western big-eared bat (<i>Corynorhinus townsendii</i>)	--/SSC County Group 2	Low. Most abundant in mesic habitats. Considered uncommon in California (Zeiner, et al. 1990). Drinks water and requires caves, mines, tunnels, buildings, or other man-made structures for roosting.
American badger (<i>Taxidea taxus</i>)	--/SSC County Group 2	Low. Uncommon resident in California that occurs in herbaceous, scrub, and open stages of most habitats with dry, friable soils (Zeiner et al. 1990).
Southern mule deer (<i>Odocoileus hemionus fuliginata</i>)	--/-- County Group 2	Present. Common in region. Inhabits coastal scrub, chaparral, riparian forests and woodlands, and grasslands.

Adapted from Helix 2015 Report

Appendix E

Explanations of Status Codes for Plant and Animal Species

U.S. Fish and Wildlife Service (USFWS)

FE Federally listed endangered

FT Federally listed threatened

BCC Birds of Conservation Concern (discussed in more detail, below)

BGEPA Bald and Golden Eagle Protection Act (discussed in more detail below)

California Department of Fish and Wildlife (CDFW)

SE State listed endangered

SR State listed rare

ST State listed threatened

SSC State species of special concern

WL Watch List

Fully Protected Fully Protected species refer to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status.

These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

County of San Diego

Plant sensitivity:

Group A Plants rare, threatened, or endangered in California or elsewhere

Group B Plants rare, threatened, or endangered in California but more common elsewhere

Group C Plants that may be quite rare, but more information is needed to determine rarity status

Group D Plants of limited distribution and are uncommon, but not presently rare or endangered

Animal sensitivity:

County Sensitive Animals considered under California Environmental Quality Act.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County has take authorization within the MSCP area.

MSCP Narrow Endemic (NE)

Narrow endemic species are native species that have “restricted geographic distributions, soil affinities, and/or habitats.” The MSCP participants’ subarea plans have specific conservation measures to ensure impacts to narrow endemics are avoided to the maximum extent practicable.

OTHER CODES AND ABBREVIATIONS

USFWS Bald and Golden Eagle Protection Act (BGEPA)

In 1782, Continental Congress adopted the bald eagle as a national symbol. During the next one and a half centuries, the bald eagle was heavily hunted by sportsmen, taxidermists, fisherman, and farmers. To prevent the species from becoming extinct, Congress passed the Bald Eagle Protection Act in 1940. The Act was extremely comprehensive, prohibiting the take, possession, sale, purchase, barter, or offer to sell, purchase, or barter, export or import of the bald eagle “at any time or in any manner.”

In 1962, Congress amended the Eagle Act to cover golden eagles, a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. The golden eagle, however, is accorded somewhat lighter protection under the Act than the bald eagle. Another 1962 amendment authorizes the Secretary

of the Interior to grant permits to Native Americans for traditional religious use of eagles and eagle parts and feathers.

USFWS Birds of Conservation Concern (BCC)

This report from 2002 aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities and draw attention to species in need of conservation action. USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. The report is available online at <http://migratorybirds.fws.gov/reports/bcc2002.pdf>.

*Adapted from Helix 2015

M E M O

TO: Board of Directors
FROM: Jack Bebee, Assistant General Manager, JAB
DATE: June 26, 2017
SUBJECT: Fire Management Plan for Santa Margarita River Property

Purpose

To provide the requested information to the Board on preparation of a Fire Management Plan for the Santa Margarita River (SMR) Property

Summary

The District is currently in escrow with Western Rivers Conservancy for the sale of the SMR Property pursuant to the terms and conditions set out in the Purchase and Sale Agreement between the District and Western Rivers Conservancy. Following acquisition of the SMR Property, Western Rivers Conservancy intends to transfer the SMR Property to a long-term steward (The Wildlands Conservancy (TWC)). TWC has worked with Western Rivers Conservancy in preparing a draft integrated resource management plan (IRMP) that sets out long-term stewardship responsibilities of TWC in collaboration with "project partners" "including universities, professional consultants, governmental agencies, NGOs, and volunteer citizen scientists." (Draft IRMP, p. 25.). With regard to fire management, the draft IRMP contemplates that a fire management plan by the "project partners in collaboration with local fire and emergency response agencies" will be completed within 2 years of acquisition of the SMR Property. (Draft IRMP, p. 29.). The Purchase and Sale Agreement between the District and Western Rivers Conservancy contains no provisions regarding development of a fire management plan.

The Board has requested information regarding the requirements for preparing a fire management plan for the property and has requested cost information and some examples.

Requirements for Preparing a Plan:

There is no legal requirement for the District to develop a fire management plan absent a specific requirement imposed by a federal, state or local agency with jurisdiction over fire protection and/or management issues for the SMR Property.

Cost Information:

Attached are two examples of fairly detailed plans for similar properties. For budgeting purposes the cost of the plan would be approximately \$50,000, but

could be reduced by doing a less robust analysis and plan. Additionally, development and/or implementation of measures identified in the plan could trigger environmental review under the provisions of the California Environmental Quality Act.

If the plan is completed and the property is sold, it would be left up to the long-term steward to address any recommendations in the plan and it cannot be guaranteed that they would complete all recommended elements. If the District continues to own the property, costs for implementing any fire management activities identified in the plan, would be borne by the District. While under the California Government Code, public agencies are generally not liable for injuries caused by a natural condition of its unimproved public property, the District could be subject to liability if it does prepare a fire management plan but does not undertake the measures identified in the plan.

Recommended Action

If the Board wishes to pursue this effort, that the Board direct staff to solicit for Professional Services to prepare a Fire Management Plan for the Santa Margarita River Property. Staff will bring back their recommendation for award to the Board for approval.

October 2, 2008

6092

Ivan Holler
Planning Director
Rancho Santa Fe Association
17022 Avenida de Acacias
Rancho Santa Fe, California 92067

David Abrams
General Manager
Fairbanks Ranch Association
P.O. Box 8166
Rancho Santa Fe, California 92067

Subject: Draft Report - San Dieguito Canyon Wildfire Hazard Reduction Project

Dear Mr. Holler and Mr. Abrams:

The following letter report provides details regarding Dudek's wildfire hazard and fuel reduction evaluation for a portion of the San Dieguito River Canyon. The goal of this study and the resulting recommendations is to reduce fuels in the project area so that structures, primarily residences, are provided additional protection, reducing the potential for ignition. Because wildfires produce embers that may travel miles, resulting in "area ignitions" or spot fires, including to vulnerable structures, the principles and recommendations provided in this report are applicable to a much broader region than the focused project area, and should be considered for all properties in the greater Rancho Santa Fe area and beyond.

The project area's approximately 1.6-mile linear Canyon location extends from its northern terminus at an unnamed road intersecting the San Dieguito River drainage, just south of an existing pond (Attachment 1) to its southern terminus approximately 0.8 mile north of an existing pond, just north of Via de Santa Fe Road. This report includes recommendations that are designed to reduce the potential for wildfire damage to existing residences through primarily defined and maintained fuel modification and provides recommendations for structural retrofits and habitat restoration for certain areas where non-native species have established.

PROJECT BACKGROUND

The project area was burned as recently as October 2007 when the Witch fire, driven by Santa Ana winds spread from Ramona westward into Rancho Santa Fe over the course of less than one day (Attachment 2). As the fire approached the project area, it spread into the San Dieguito River drainage west of Lake Hodges, burning westward into the project area fueled by wind and dry coastal sage scrub and chaparral on the slopes and exotic trees in the river bottom. A total of 12 homes were lost, 1 home moderately damaged and 7 homes minimally damaged within the

immediate vicinity of the project area. The slopes in the project area were denuded of vegetation and the drainage bottom vegetation was damaged, especially the eucalyptus woodlands which are prevalent throughout the riparian corridor.

Based on the fire's spread and loss of structures realized during the Witch fire, it is apparent that short- and long- term fuel reduction and, in some areas combined with habitat restoration planning efforts within the project area, will positively impact the potential fire hazard. To that end, this letter report provides recommendations and corresponding substantiation to focus fuel treatments where they will provide the most benefit for structural protection. Secondly, the plan quantifies where habitat restoration efforts will result in reduced wildfire hazard as well as improved wildlife habitat.

As possible, this letter report incorporates fundamental components of the San Diego County FireSafe Council Community Wildfire Protection Plan (CWPP) template. One purpose of CWPPs is to streamline the process of applying for fuel reduction project grant funding. In order to apply for grant funding for the proposed fuel reduction project identified herein, this report will need to be reformatted and augmented to include required CWPP template topics.

COLLABORATION

The organizations listed in Table 1 have contributed to the completion of this fire hazard and fuel reduction assessment:

Table 1
Contributing Organizations

Organization	Roles/Responsibilities
Rancho Santa Fe Association	Organization responsible for 80-acre Arroyo Property within project area, management of association homeowner's, project funding, and information source.
Fairbanks Ranch Association	Organization responsible for management of stretch of property's homeowners, project funding, and information source
Rancho Santa Fe Fire Department	Primary fire suppression and prevention for project area, strategy development, information source
San Diego County Department of Planning and Land Use (SANGIS)	Jurisdictional, planning information source, GIS Fire Information Maps

Project Area Overview

Dudek performed wildfire hazard reduction tasks including site assessments, fire behavior modeling, and recommendation formulation for a project area within the community of Rancho Santa Fe, San Diego County. The project area is located along the San Dieguito River within the respective jurisdictions of Rancho Santa Fe Association and Fairbanks Ranch Association, the funding proponents of this project. The project area is a vegetated canyon designated a state responsibility area (SRA) within the Rancho Santa Fe Fire Protection District (RSFFPD). The

project lies within an area considered a Very High Fire Hazard Severity Zone. CalFire provides response to wildfires in the SRA and the RSFFPD provides response to structure fires, wildfire, medical and associated emergencies in the project area.

The project area includes 8,500 linear feet (1.6 miles) of canyon with ridgetop residences directly exposed to the open space. The project area includes a mix of privately owned properties including individual lots and a large 80-acre parcel owned by the Rancho Santa Fe Association.

The canyon's south and north facing slopes are steep (from 30% to 63%) while it flattens out at the bottom near the channel (Attachment 3). The slopes historically supported coastal sage scrub with some areas, notably the north-facing slopes, supporting southern mixed chaparral and scrub oak chaparral. The drainage bottom historically includes riparian tree, shrub, and groundcover (Attachment 4). The site currently includes an altered vegetation palette due to the Witch fire that temporarily converted the coastal sage scrub and chaparral vegetation to non-native grassland and herbaceous plants and damaged but did not alter the species mix in the riparian areas. Predominant weather patterns include warm, dry summers and precipitation primarily during the winters, although extended drought and climate change have decreased the annual precipitation. Typical wind is an on-shore pattern with fall Santa Ana winds that can gust to 50 miles per hour or more.

Identification of Values at Risk

There are approximately 80 residences that are directly exposed to the project area's wildland urban interface (WUI) or to secondary interface drainages which extend into residential areas. However, because wildfires produce embers which may travel for great distances, there are likely thousands of properties (1,700 in Rancho Santa Fe Covenant and 660 in Fairbanks Ranch alone) that may be affected by wildfire in the project area. The residences in the direct project area vicinity are primarily large, estate homes located on the ridge tops. The homes range in value from approximately one million to several million dollars or more. Additionally, infrastructure and other improvements occur throughout the area that may be affected by wildfire.

PRIORITIZED FUEL REDUCTION TREATMENTS

The project area was inspected and evaluated for current and potential wildfire hazard conditions. The intent of these efforts was to evaluate the fire hazard situation in the Canyon and develop fuel hazard reduction recommendations for the area.

Dudek foresters conducted wildfire hazard assessment for the 299-acre project area. The assessments included the entire canyon area so that a variety of potential treatment options could be evaluated. While in the field, detailed notes were collected indicating potentially hazardous situations and actions required to mitigate these conditions. For example, a given location within

the canyon may include continuous vegetation from structure to wildland areas. This condition is addressed and a prescriptive treatment formulated to reduce the potential hazard by vegetation removal, thinning, canopy raising, or other means to introduce horizontal and vertical spacing between plants. In addition, multiple digital photographs were collected from the site to document conditions at the time of inspection. Selected photographs are presented in Attachments 5 and 6 – the Site Photograph Logs.

Initial Conceptual Ideas found to be Infeasible

As mentioned, a number of potential treatments were evaluated for the canyon's fuel reduction goals. The following two conceptualized treatments were preliminarily considered as potentially implementable on this site. After further analysis, they were deemed inappropriate/infeasible within the project area. Explanations for why they were considered infeasible or inefficient for implementation within the project area are provided below.

1. Establishment of a Fire Break within the main canyon near the camping area – fire breaks can provide important areas for fire fighter defense, fire/fuel interruption, and segmenting fuel blocks. This concept proved infeasible for a few reasons. First, permanent impacts to coastal sage scrub on the canyon slopes and riparian and stream channel on the canyon bottom would be realized. These impacts would require costly permits and consultation with resource agencies. The RSFFPD also indicated that a fire break in that area would not provide the most benefit for the ridgetop homes, the assets that are the focus of fuel reduction in the project area. RSFFPD also indicated that a Fire Break would not make the residences more defensible, would not have an affect on a wind driven wildfire, and would not be used as a staging area due to the potential danger in the canyon. A good example of why fire breaks are not the best use of available resources includes their ineffectiveness during the San Diego County 2003 and 2007 wildfires. Very wide fire breaks represented by the multi-lane I-5, I-8, and I-15 freeways were easily overcome by wind driven fire. Fire brands and embers too easily are blown across fire breaks to receptive vegetation on the other side. Another good example is the fire break system on Camp Pendleton. These fire breaks were also overwhelmed during the 2007 fires. Fire breaks may help during a non-wind driven fire, but in this project area, the fire of most concern is a Santa Ana driven fire.
2. Goat grazing on canyon slopes – goat grazing can be an effective means to manage vegetation in a fuel modification area. Cities such as Laguna Beach and communities like Scripps Ranch successfully utilize goats to maintain fuel modification areas. Goats have numerous benefits, including lower fuel reduction cost on a long-term basis than manual fuel treatment. However, there are many constraints that must be addressed in order to implement a goat grazing program. Regulatory constraints regarding water quality, invasive species, and habitat protection create difficult issues. Additionally, overgrazing,

erosion, up front environmental costs, herd management costs, food supplements, and indiscrimination between desirable plants and target plants, are among the other constraints. Goats may have merit on portions of this site, especially on the steep canyon slopes. Based on the focus of this plan near structures and in the river bottom, goats are deemed undesirable for this project, but may be useful should large areas within San Dieguito Canyon or other large expanses of fuels require reduction.

Understanding the fire environment of the area is an important component for recommendation development. Fire behavior modeling provides insightful information about the fire environment.

Fire Behavior Modeling

Prioritization of treatment areas was aided by fire behavior modeling. Dudek utilized Geographic Information Systems (GIS) data and technology in combination with BehavePlus software to evaluate flame length and spread rate characteristics. Three separate models were run, representing average and extreme weather patterns and based on current and historic vegetation conditions. Weather inputs include a typical on-shore flow and a Santa Ana wind condition with both sustained and gust wind speeds modeled. Model run locations were conducted at various locations along the canyon sides, including variations in slope, aspect, and fuel type. The model run locations are graphically depicted in Attachment 7.

The models presented in this report attempt to represent conditions that may be experienced during a wildfire in the canyon and serve primarily as a valuable tool in prioritizing fuel treatment activities. It should be noted, however, that model outputs are representations of potential conditions, based on weather, fuel, and topographic inputs, and may or may not represent actual field conditions in the event of a wildfire event in the area. Additionally, BehavePlus software represents conditions at a fixed point in time and does not simulate temporal variations in fire behavior. Ultimately, modeling results should be used as a tool for managing fuel loads and prioritizing fuel treatment activities within the canyon while keeping in mind the limitations and assumptions made in generating the results.

Fire behavior modeling includes a high level of analysis and information detail to arrive at reasonably accurate representations of how wildfire would move through available fuels on a given site. Fire behavior calculations are based on site-specific fuel characteristics supported by fire science research that analyzes heat transfer related to specific fire behavior. To objectively predict flame lengths and spread rates, the BehavePlus (v. 3.0.2) fire behavior fuel modeling system was applied using expected low fuel moisture values during peak fire season, variable wind speeds, and 3 representative fuel models. Run locations and associated fire behavior outputs are presented in Attachment 7.

Predicting wildland fire behavior is not an exact science. As such, the movement of a fire will likely never be fully predictable, especially considering the variations in weather and the limits

of weather forecasting and the weather that is created by the firestorm. Nevertheless, practiced and experienced judgment, coupled with a validated fire behavior modeling system, results in useful and accurate fire prevention planning information.

To be used effectively, the basic assumptions and limitations of fire behavior modeling applications must be understood.

- First, it must be realized that the fire model describes fire behavior only in the flaming front. The primary driving force in the predictive calculations is the dead fuels less than 0.25 inches in diameter. These are the fine fuels that carry fire. Fuels greater than 1 inch have little effect while fuels greater than 3 inches have no effect on fire behavior.
- Second, the model bases calculations and descriptions on a wildfire spreading through surface fuels that are within 6 feet of the ground and contiguous to the ground. Surface fuels are often classified as grass, brush, litter, or slash.
- Third, the software assumes that weather and topography are uniform. However, because wildfires almost always burn under non-uniform conditions, length of projection period and choice of fuel model must be carefully considered to obtain useful predictions.
- Fourth, fire behavior computer modeling systems were not intended for determining sufficient fuel modification zone widths. However, it does provide the average length of the flames, which is a key element for determining “defensible space” distances for minimizing structure ignition.

BehavePlus Fuel Model Inputs

The following provides a description of the input variables used in processing the BehavePlus models. In addition, data sources are cited and any assumptions made during the modeling process are described.

Weather

Historical fuel moisture data for the region was utilized in determining appropriate fire behavior modeling inputs for the site. Specifically, 50th and 97th percentile moisture values derived from the Las Flores Remote Automated Weather Station (RAWS) were determined and utilized in the fire behavior modeling efforts conducted in support of this Fire Protection Plan. RAWS fuel moisture data were processed utilizing the Fire Family Plus software package to determine typical (50th percentile) and atypical (97th percentile) weather conditions. The Las Flores station, while not located near the project site, was used as no stations are situated in similar geographical settings. The Las Flores RAWS is located on Camp Pendleton in San Diego County, approximately 1.5 miles from the Pacific Ocean at an elevation of 100 feet. Data from the Las Flores RAWS was evaluated from May 1 through October 31 for each year between

1992 and 2007 (extent of available data record). Fuel moisture information was analyzed and incorporated into the model runs.

Topography

Site topography information, including elevation, aspect, and slope gradient, was derived from analyzing the U.S. Geological Survey Rancho Santa Fe quadrangle sheet (1:24,000).

Fuels

Vegetation coverage data in the form of a GIS shapefile were used in this analysis to create a fuel model file. Derived from historic (pre-Witch fire) vegetation mapping data for the site (San Diego County Department of Planning and Land Use 2008, Dudek 2007) and field observations of current conditions, vegetation types were classified into fuel models. To evaluate existing conditions, a grass fuel model (Fuel Model 1) was utilized for each of the model runs. To evaluate the wildfire potential based on historic vegetative cover, Dudek classified coastal sage scrub cover as Fuel Model SCAL 18 and chaparral (southern mixed and scrub oak) cover as Fuel Model SH7. Table 2 summarizes the input variables used in the BehavePlus modeling efforts.

Table 2
BehavePlus Fire Behavior Inputs

Model Variable	Onshore Value (50th Percentile Wx)	Offshore Value (97th Percentile Wx)
Fuel model	1, SCAL18, SH7	1, SCAL18, SH7
Maximum Temp. (°F)	76°	85°
1 h fuel moisture	6%	3%
10 h fuel moisture	8%	5%
100 h fuel moisture	10%	7%
Live herbaceous moisture	60%	30%
Live woody moisture	80%	60%
20 ft wind speed (mph)	10 mph	20 mph*
Slope steepness	variable by location, range: 0 to 63%	variable by location, range: 0 to 63%

* 97th Percentile weather also modeled with 60mph wind speeds to represent wind gusts

Fuel Model Output Results

Two outputs were generated for each of the three modeling scenarios and include representations of flame length (feet) and rate of spread (mph). Modeling output values are presented in Tables 3 through 5. Fire behavior modeling results vary depending on fuel type, slope, and differing weather conditions.

Table 3
BehavePlus Fire Behavior Outputs – 50th Percentile Weather

Run Number	Fuel Type	Slope (%)	Aspect	Elevation Range (ft.)	Flame Length (ft.)	Rate of Spread (mph)
1	SH7	30	N-NW	80 - 280	19.8	1.2
2	SCAL18	63	SE	80 - 280	23.4	1.1
3	SCAL18	63	E	60 - 300	23.4	1.1
4	SCAL18	59	NE	60 - 180	23.1	1.0
5	SCAL18	48	SW	80 - 260	22.4	1.0
6	SCAL18	38	S	60 - 220	21.9	0.9
7	SH7	50	N	60 - 240	20.7	1.3
8	SCAL18	43	NW	60 - 280	22.1	1.0

Fire behavior using the grass fuel type (Fuel Model 1) resulted in the following values for 50th percentile weather: Flame Length of 7.5 feet, Rate of Spread of 3.4 mph (results were consistent for all runs)

Table 4
BehavePlus Fire Behavior Outputs – 97th Percentile Weather
(20 mph Wind)

Run Number	Fuel Type	Slope (%)	Aspect	Elevation Range (ft.)	Flame Length (ft.)	Rate of Spread (mph)
1	SH7	30	N-NW	80 - 280	35.9	3.7
2	SCAL18	63	SE	80 - 280	39.0	2.7
3	SCAL18	63	E	60 - 300	39.0	2.7
4	SCAL18	59	NE	60 - 180	38.7	2.7
5	SCAL18	48	SW	80 - 260	38.1	2.6
6	SCAL18	38	S	60 - 220	37.6	2.5
7	SH7	50	N	60 - 240	36.6	3.9
8	SCAL18	43	NW	60 - 280	37.8	2.6

Fire behavior using the grass fuel type (Fuel Model 1) resulted in the following values for 97th percentile weather with 20mph winds: Flame Length of 10.0 feet, Rate of Spread of 5.8 mph (results were consistent for all runs)

Table 5
BehavePlus Fire Behavior Outputs – 97th Percentile Weather
(60 mph Wind)

Run Number	Fuel Type	Slope (%)	Aspect	Elevation Range (ft.)	Flame Length (ft.)	Rate of Spread (mph)
1	SH7	30	N-NW	80 - 280	64.4	13.2
2	SCAL18	63	SE	80 - 280	59.7	6.9
3	SCAL18	63	E	60 - 300	59.7	6.9
4	SCAL18	59	NE	60 - 180	59.6	6.9
5	SCAL18	48	SW	80 - 260	59.2	6.8
6	SCAL18	38	S	60 - 220	58.9	6.7
7	SH7	50	N	60 - 240	64.8	13.4
8	SCAL18	43	NW	60 - 280	59.0	6.8

Fire behavior using the grass fuel type (Fuel Model 1) resulted in the following values for 97th percentile weather with 60mph winds: Flame Length of 10.0 feet, Rate of Spread of 5.8 mph (results were consistent for all runs)

As presented, wildfire behavior in chaparral vegetation types represents the most extreme conditions, varying with different wind speeds. In this case, flame lengths can be expected to reach up to approximately 65 feet driven by 60 mph winds. Flame lengths for fires burning in coastal sage scrub, represented as a Fuel Model SCAL18, with wind speeds of 60 mph can be expected to reach approximately 60 feet.

It should be noted that the modeling results presented herein depict values based on inputs to the BehavePlus software and are static outputs dependent on static landscape variables. Changes in wind, weather, or pockets of different fuel types are not accounted for in this analysis. Model results should be used as a basis for planning only, as actual fire behavior for a given location will be affected by many factors, including unique weather patterns, small-scale topographic variations, or changing vegetation patterns.

Modeling for Crown Fire – Riparian Corridor Eucalyptus Stands

While not found adjacent to existing structures on this site, eucalyptus woodland located in the bottom of the canyon presents the potential for crown fire and spotting and increases the likelihood of a canyon fire that transitions into the riparian corridor, into the eucalyptus tree crowns and results in a wildfire that significantly damages the native habitat along the San Dieguito River. As such, Dudek evaluated the likelihood of crown fire.

Understory shrubs can serve as ladder fuels, aiding the transition of surface fires to canopy fires. Fire behavior model outputs conducted by Dudek for a project in San Diego County revealed the

importance of maintaining vertical separation between tree canopies and understory vegetation, usually a 6 to 10 foot separation is sufficient. In this scenario, model outputs for un-treated understory vegetation conditions indicated a high potential for tree torching with no wind, and the transition from surface fire to crown fire with relatively light winds (12 mph). Once an active crown fire (at 12 mph and higher), rate of spread increases with increasing wind speed. An important component to crown fire spread is the effect of canopy bulk density. Increased canopy bulk density requires less severe fire conditions to sustain a canopy fire. This relationship between canopy density and fire intensity is important in considering fuel treatment options that reduce ladder fuels, thus reducing the chance of surface to canopy fire transition.

The same project revealed that treated understory vegetation had a significant effect on fire behavior characteristics. In this model analysis, where it was assumed that the understory had been maintained to create vertical separation (6 to 10 feet) between tree canopy and the shrub layer, surface fire never transitioned to crown fire and flame length values remain below the tree canopies. The vertical separation of tree canopies from ground fuels requires that the critical surface fireline intensity be higher to transition from a surface fire to a crown fire. Therefore, the lack of transition from a surface fire to a crown fire emphasized the importance of vertical canopy separation and understory vegetation treatment.

Fuel Treatment Recommendations

The canyon's steep slopes have, post-fire, been colonized primarily by non-native grasses and herbaceous cover. However, many of the native shrubs are already sprouting from their root crowns and over time, and consistent with plant community succession, it is anticipated that the native coastal sage scrub and chaparral will reoccur on the site. The native vegetation, although representing a higher intensity fuel, provides an important soil stability function on the canyon's steep slopes. As confirmed many times and most recently in the post-Witch fire summary "Mega Fires: The Case for Mitigation" (Institute for Business and Home Safety 2008), the most critical area for structural protection is near the structure. As such, one component of this plan provides for creation of defensible space for the residences where ongoing fuel maintenance can occur vs. on the vast slopes where it may be infeasible to provide ongoing vegetation management due to erosion issues, environmental permitting, cost, and logistics, amongst others. This diligent fuel modification area maintenance must include all sides of WUI homes and will be the responsibility of individual homeowners.

A second component of the fuel reduction project focuses on the "secondary drainages" that provide favorable fuels, topography, and wind alignment for fire spread from the open space (wildland) areas into the urbanized areas. These drainages are nearby residences and include flammable native fuels as well as a large component of escaped and/or planted non-native, ornamental species. Management of these secondary drainages will include exotic and highly flammable plant removal, thinning of retained plants/trees, and fuel modification zone

establishment/maintenance for residences that interface these areas. Fuel reduction and maintenance in these areas may be the responsibility of individual homeowners, groups of homeowner's or a homeowner association, depending on the respective ownership.

The third fuel reduction component of this plan focuses on the fire damaged San Dieguito Riparian corridor as many of the burned eucalyptus and other non-native trees are recovering through sprouting and will continue to dominate. Many of the smaller exotics, such as salt cedar and palms, were only minimally affected by the fire and will continue to out-compete the native plants. In order to reduce the fuel and flammability of the riparian corridor and restore the corridor to a native condition, it is recommended that exotic species removal occur along the San Dieguito River. If exotic species removal in the canyon bottom is pursued, it should be a comprehensive treatment because the exotic species are prone to invasion, especially of disturbed areas. Replanting native species in the place of the removed exotic vegetation is recommended to help minimize the opportunities for re-invasion. Ideally, exotic species removal in the canyon bottom would be coupled with a broader management plan that includes exotic species control upstream of the project area. Adequate time for planning and permitting should be considered early so that once other fuel reduction components are completed, the river bottom work will be ready to commence.

Based on the site assessments, the 3 phases of fuel reduction treatments recommended within the project area are defined below:

1. Fuel modification zone establishment and/or maintenance for residences abutting the interface. The fuel modification zones will be delineated and treated followed by on-going annual or bi-annual maintenance, as necessary. The fuel modification zones are not limited to the exposed sides of structures, but emphasis will be placed on the interface and the first 30 feet of the non-interface sides.
2. Establishment of fuel breaks at "mouths" of and within secondary drainages along with thinning and exotic plant removal. This is essentially an extension of the fuel modification areas for the fire corridors that currently provide continuous fuels from the wildlands into the urbanized areas.
3. Riparian corridor restoration through removal of exotic trees and shrubs. This component of the fuel reduction effort provides an important dual purpose of reducing a major crown fire threat extending the length of the project area while enhancing wildlife habitat and restoring the river bottom to its natural condition.

The fuel reduction work outlined herein should be accomplished through thinning and removal of vegetation to create horizontal and vertical spacing, removal of dead and dying plants and plant parts, removal of ground litter, tree canopy raising, and creation of separation between plants, as described in more detail in following sections.

A total of approximately 40 acres is recommended for treatment directly adjacent residences, Phased Treatment Area (PTA) 1. An additional 22 acres in the secondary canyons or “wildfire corridors”, PTA 2, is recommended for treatment. Attachment 8 provides details for recommended fuel reduction efforts. In addition to these 61 acres recommended for treatment, another roughly 74 acres of riparian habitat, PTA 3, is recommended for restoration/treatment.

Dudek has estimated that the prescriptive treatments for PTAs 1 and 2, outlined in this document, would cost roughly \$278,000 to treat initially and then \$130,000 for on-going treatments thereafter if a contractor were to provide the services. The riparian corridor initial treatment is a different type of treatment, mostly tree removal, and is estimated to be roughly \$500,000 to \$750,000, due to the dense eucalyptus woodland. Costs could be minimized if an alternative labor source, such as CalFire supervised prison crews, were utilized. However, contractor selection can significantly affect the effectiveness of the proposed treatments. It is important to hire contractors with experience conducting fuel reduction work in environmentally sensitive habitats and with a solid understanding of regulations and native plant ecology in order to avoid damaging native habitat and violating regulations. Table 6 provides treatment acreages and cost estimates for fuel reduction work.

Table 6
Estimated Fuel Reduction Costs – Project Basis

Area/Canyon Location	Acreage	Estimated Cost/Acre (Initial/Ongoing)	Estimated Cost Initial Treatment	Estimated Cost Annual Maintenance
Fuel Modification Zone	39.5	\$4,500/\$2,100	\$177,750	\$82,950
Secondary drainages	22.3	\$4,500/\$2,100	\$100,350	\$46,830
Riparian Corridor	74	\$5,000 to 17,600/\$2,100*	\$370,000 - \$1,302,400	\$155,400

*Assumes approximately 100 trees per acre.

In similar projects including private property in the very high fire hazard severity zone, the initial fuel reduction project has been funded by grant funding obtained by a lead entity. Residents who did not sign up to participate missed out on funding and later were forced to provide the fuel reduction at their own expense. Ongoing fuel reduction work is funded by private property owners and enforced by the local fire authority. Grant funding may be possible for portions of this project’s recommendations.

In addition to grant funding for fuel modification, there may be opportunities for grant funding for habitat restoration through organizations such as the National Resource Conservation Service (NRCS). The NRCS Wildlife Habitat Incentive Program has a specific allocation for Emergency Watershed Protection, which funds projects that cover weed removal (e.g., eucalyptus tree

control) in canyons that may act as “wicks” during wildfires. The grant program operates on a cost share basis and will only fund labor and materials (permitting will not be funded). In order to be considered, it would be critical to determine eligibility requirements and to resolve permitting issues in advance.

The fuel treatment areas will require routine inspection and maintenance following this initial hazard reduction planning project. One time vegetation removal and thinning will not mitigate the hazard within the Canyon over the long-term. Annual or biannual inspections should be implemented to determine the status of the WUI fuels. As identified through these inspections, any recurring hazardous fuel situations should be mitigated. Dudek finds that biannual maintenance is effective in most areas, while annual maintenance can occasionally be required.

It is not the goal of this project to completely remove all vegetation, as that would be undesirable for habitat value, soil stability, aesthetics, and resident privacy. Nor is the goal to create a landscape that is fire proof, as that is infeasible given the steep slopes, indigenous (and exotic) plant community, and the seasonal Santa Ana winds that, as illustrated during the October 2007 and 1943 wildfires (Attachment 9), can result in uncontrollable fire spread through this canyon river corridor. Rather, the goal of this project is to reduce wildfire hazard to those living in the area and potentially affected by fire in the area, by strategically creating fuel (vegetation) gaps, removing dead, dying, exotic and highly flammable fuels, and creating defensible space. Defensible space allows fire fighters areas of reduced flame height and spread rates such that they can establish a defensive posture to protect structures and it also reduces the convective and radiant heat intensity directly adjacent homes. The fuel reduction efforts associated with this project will result in reduced wildfire hazard from fire spreading in the canyon to the ridge top and from fire originating in a structure or along a ridge top home or street, and spreading into the canyon.

Regulatory Requirements of Proposed Fuel Reduction Recommendations

Recommendations in this report are segregated into three components (PTAs) each with varying regulatory requirements associated with the proposed actions. The project area occurs in unincorporated lands in the County of San Diego in Rancho Santa Fe, and is covered by the approved Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan. The proposed actions are subject to various County, State and Federal regulations pertaining biological resources, which are discussed further below.

Reconnaissance plant and wildlife surveys and vegetation mapping of the study area were conducted by Dudek in August 2008. A map showing the vegetation mapping and the three PTAs is included in Attachment 10. The vegetation map also includes incidental observations of special-status plant species listed by the California Native Plant Society (CNPS). Species documented on site included three CNPS List 2 species (rare, threatened, or endangered in

California, but more common elsewhere) including San Diego barrel cactus (*Ferocactus viridescens*), California adolphia (*Adolphia californica*), and San Diego marshelder (*Iva hayesiana*), and two CNPS List 4 species (limited distribution) including Palmer’s sagewort (*Artemisia palmeri*) and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). Additionally, green-backed heron (*Butorides virescens*) and great blue heron (*Ardea Herodias*) were observed in the study area, which are both considered locally sensitive. None of these special-status plant or wildlife species is federally- or state-listed as threatened or endangered. Additional plant and wildlife species observed during reconnaissance surveys conducted by Dudek in August 2008 are included in Attachment 11.

Impacts to vegetation communities that would result from the proposed fuel modification treatments are included in Table 7.

Table 7
Impacted Vegetation Communities by Phased Treatment Areas

Phased Treatment Areas (PTA)	Vegetation Community	Acreage
PTA 1 - 100-foot Structure Buffer	Annual Grassland (AGL)	0.10
	Coastal Sage Scrub (CSS)	4.97
	Disturbed Coastal Sage Scrub (dCSS)	0.02
	Developed (DEV)	0.07
	Disturbed Habitat (DH)	2.42
	Eucalyptus (EUC)	0.92
	Ornamental (ORN)	6.20
	Southern Mixed Chaparral (SMX)	1.53
	Unmapped*	23.27
Total		39.49
PTA 2 - Secondary Canyons	Annual Grassland (AGL)	0.45
	Coastal Sage Scrub (CSS)	0.14
	Developed (DEV)	0.00
	Disturbed Habitat (DH)	0.75
	Elderberry Scrub (ES)	0.03
	Ornamental (ORN)	1.44
	Southern Mixed Chaparral (SMX)	2.99
	Unmapped*	16.58
Total		22.37
PTA 3 - Riparian Corridor	Arundo Donax (AD)	1.03
	Annual Grassland (AGL)	5.19
	Coastal Sage Scrub (CSS)	2.03
	Disturbed Alluvial Floodplain Scrub (dAFS)	0.25
	Disturbed Coastal Sage Scrub (dCSS)	0.02
	Disturbed Elderberry Scrub (dES)	0.89
	Developed (DEV)	0.60
	Disturbed Habitat (DH)	0.15
	Disturbed Land (DL)	0.31
	Disturbed Mule Fat Scrub (dMFS)	0.92
	Disturbed Southern Willow Scrub (dSWS)	1.89
	Elderberry Scrub (ES)	3.61
	Eucalyptus (EUC)	14.17

Table 7 (Continued)

	Freshwater Marsh (FWM)	6.20
	Live Oak Woodland (LOW)	0.14
	Open Channel (OC)	0.15
	Ornamental (ORN)	0.00
	Open Water (OW)	1.75
	PASTURE	0.13
	Sycamore Alluvial Woodland (SAW)	0.78
	Southern Mixed Chaparral (SMX)	0.13
	Sycamore/Oak Woodland (SOW)	0.60
	Southern Willow Scrub (SWS)	31.99
	Tamarisk Scrub (TS)	0.58
Total		73.51
Grand Total		135.37

*Unmapped areas are located outside of the main canyon and typically consist of non-native vegetation (e.g., eucalyptus, palms, etc.) that has been planted.

100-Foot Fuel Modification Zone Surrounding Residences

Clearing vegetation in County lands is governed by the San Diego County Grading, Clearing and Watercourses Ordinance (GCWO). Chapter 5 of the GCWO specifically describes the permit requirements for clearing vegetation. Clearing permits are exempted by Section 87.502 of the GCWO, which states that clearing permits are not needed when “[c]learing for fire protection purposes within 100 feet of a dwelling unit.” Further, the RPS states that “[a]ny additional clearing for fire prevention control or suppression is exempt when authorized or required, in writing, by a fire prevention or suppression agency.” Under the California Environmental Quality Act (CEQA), clearing associated with fuel modification within 100-feet of structures is categorically exempt.

Additionally, regulatory permitting associated with threatened or endangered species that may potentially be impacted as a result of vegetation thinning and/or removal within portions of the PTAs has been addressed in a Memorandum of Understanding (MOU) between the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the California Department of Forestry and Fire Protection, the San Diego County Fire Chief’s Association, and the Fire District’s Association of San Diego County signed in February of 1997. Although the recommendations contained in this document attempt to minimize impacts to native vegetation and promote the environmental quality of the surrounding area by focusing on exotics removal and limited trimming of native vegetation, there exists a potential for impacts to listed or other sensitive species. This MOU, however, authorizes the take of species listed as threatened or endangered for the purposes of maintaining fire protection and public safety. Based on the criteria specified in the MOU, it will be necessary for the Fire Chief of the Rancho Santa Fe Fire Protection District to deem this fuel reduction project necessary for protecting improved property or public safety and welfare. According to the MOU, CDFG, and USFWS shall be notified at least 10 days prior to initiating vegetation thinning operations. Should CDFG or

USFWS fail to respond within ten days, vegetation thinning may proceed without violating the agreements set for the in the MOU.

Fuel Modification Treatments in Tributary Canyons Beyond the 100-foot Distance

The GCWO Clearing Exemption and the MOU are applicable in the fuel modification zone areas within 100 feet of residences. Because the 100 feet is measured in horizontal distance, depending on the adjacent slope percent, the actual fuel modification area on the ground will be more than 100 feet. For example, corresponding with each fire behavior model run, the following slope distances will be provided with the 100 feet horizontal distance (Table 8).

Table 8
Fire Slope Distances

Fire Behavior Run (Area)	Slope Angle	Slope Distance (for 100' HD)
1	30%	104.4
2	63%	118.2
3	63%	118.2
4	59%	116.1
5	48%	110.9
6	38%	107.0
7	50%	111.0
8	43%	108.9

As such, areas where the highest flame lengths of up to 65 feet occur, due in large part to the slope, are provided just under 120 feet of actual fuel modification, nearly twice the flame length. If implemented correctly and maintained diligently, this fuel modification width is considered at least adequate and will avoid the need for environmental permitting and potentially costly mitigation.

Proposed vegetation clearing in upland habitats beyond the 100-foot horizontal distance may be allowed by the County under the GCWO clearing exemption if authorized in writing by a fire prevention or suppression agency. However, the MOU with the regulatory agencies would not apply in this instance.

Regulatory requirements for vegetation clearing of upland habitats in the zone beyond 100 feet from occupied structures would depend on the type of resource (i.e., vegetation community and/or species) present in the area proposed for clearing. Biological surveys of the site were conducted as part of this project to determine the vegetation communities that would be impacted, and the species potentially impacted. Dudek has prepared a vegetation map of the study area to quantify the vegetation impacts and it is included in Attachment 10.

Based on reconnaissance surveys by Dudek in 2008, the site supports recovering (from the 2007 wildfire) coastal sage scrub, southern mixed chaparral, scrub oak chaparral, and southern willow scrub, which have the potential to support special-status plant and wildlife species. If implementation of the fuel modification recommendations in these areas is pursued, then focused surveys for special-status plant and wildlife species during the appropriate survey periods may be required.

The project area is within a Take Authorized area of the County of San Diego MSCP Subarea Area Plan, which means that impacts to wildlife habitat are allowable provided that they are conducted consistent with the MSCP. Activities within Take Authorized areas of the MSCP are exempted from the provisions of the Biological Mitigation Ordinance (BMO); therefore, impacts to upland vegetation communities beyond the 100-foot distance that are not designated MSCP habitat preserve would be allowable and would not require mitigation.

Portions of the project area, particularly along the San Dieguito River corridor, have been designated as Multiple Habitat Planning Area (MHPA), which signifies that these areas are MSCP habitat preserves. As described in the County MSCP Subarea Plan, “[f]ire management activities are permitted within the preserve when conducted according to a fire management plan approved by the wildlife agencies, County and appropriate fire district.” Therefore, any proposed clearing of upland habitat beyond 100-feet of a structure that would impact the designated MHPA would need approval from the wildlife agencies, the County, and the RSFFPD and can be based on this fire hazard reduction plan. Upon approval by these entities, proposed activities within the preserve would be allowable provided they are implemented consistent with the MSCP. The MHPA in this area is designated primarily over the San Dieguito River corridor, which may be considered jurisdictional by state and federal entities. Fuel modification in jurisdictional habitat is discussed below.

Implementation of the proposed action beyond the 100-foot distance is not specifically exempted from CEQA, unless the proposed action would be considered a small (i.e., less than 5 acres) restoration project and would not result in impacts to special status species. If the proposed actions beyond the 100-foot distance are not exclusively associated with habitat restoration, would result in more than 5 acres of impact, and/or would result in impacts to special-status species or their habitat, then it would not be considered categorically exempt from CEQA. If the project is not determined to be exempt under CEQA, the lead agency would prepare an Initial Study to determine the potential significance of the action and the proper level of CEQA documentation, which in this case would likely be a Negative Declaration or Mitigated Negative Declaration. Numerous procedural and noticing requirements would be associated with the preparation of the CEQA documentation.

Fuel Modification Treatments in Jurisdictional Habitats

Recommended restoration/fuel reduction within the wetlands and riparian area at the bottom of the canyon is not covered under San Diego County's MOU. Compliance with state and federal laws governing impacts to jurisdictional state and federal wetlands and waters would be necessary. If restoration/fuel reduction work could be done without discharge of fill below the ordinary high water line (i.e., no stockpiling of vegetation, no soil ripping, and no vehicles driving below the ordinary high water line) then permitting from the ACOE and Regional Water Quality Control Board (RWQCB) could be avoided. However, a CDFG streambed alteration agreement would still be necessary. CEQA documentation or exemption is necessary to obtain the CDFG streambed alteration agreement.

Due to the scale of the project, and the size of some of the eucalyptus trees that would be removed, operation of heavy equipment below the ordinary high water line would likely be necessary. Operation of equipment in jurisdictional areas would trigger the need for ACOE and RWQCB permitting under Section 401 and 404 of the Clean Water Act. However, ACOE Nationwide Permit (NWP) 27 specifically covers streambed restoration, which would streamline the permitting process with the ACOE and RWQCB. Acquisition of NWP 27 authorization from ACOE coupled with a RWQCB water quality certification and a CDFG streambed alteration agreement would be required for exotics removal in the channel. CEQA documentation or exemption is necessary to obtain the RWQCB water quality certification and CDFG streambed alteration agreement.

Any vegetation removal would need to comply with the Migratory Bird Treaty Act (MBTA), which requires that vegetation removal does not harm nesting birds. Therefore, if vegetation removal is implemented during the nesting bird season (usually February 15 through September 15), then nesting bird surveys conducted by wildlife biologists would be required to determine if there are nesting birds in the vegetation. If nesting birds are discovered, avoidance of the nest and occupants is required. Typically this involves setting aside an adequate buffer area surrounding the nest that is avoided until the nesting cycle is completed. Vegetation removal after the nesting bird season is over and before the next nesting period begins would not require nesting bird surveys.

Fuel reduction within the Phased Treatment Areas

The following descriptions and diagrams of vegetation treatment/hazard reduction tasks are provided as guidelines for fuel reduction efforts within the project's PTAs. The PTAs are defined as the land areas recommended for treatment as illustrated in Attachment 8, the treatment exhibit. The intent of these descriptions is to detail vegetation treatment actions aimed at reducing combustible vegetation adjacent project area residences, breaking up fuels in potential fire spread

corridors, and creating/maintaining defensible space for firefighter safety in the WUI adjacent existing residences.

The recommendations for individual properties may include some or all of the tasks described below. Contractors performing the fuel reduction work may use these descriptions, along with a site walk through, to determine the most efficient and cost effective method to meet the project's intent. Although these treatment descriptions are aimed at reducing current and long-term fuel volumes and creating both vertical and horizontal separation between vegetation groups, long-term maintenance of the landscape within the PTAs should adhere to the vegetation spacing, fuel volume reduction contained herein. All vegetation treatment operations should be conducted with hand tools. No heavy equipment should be used on non-paved surfaces, except as allowable within the river corridor for tree removal.

SPECIFIC RECOMMENDATION DEFINITIONS

As referred to in Attachment 2, the following fuel treatment categories are defined to provide a more detailed description of the recommended treatments. The following definitions should be provided to the contractor(s)/entities involved in the implementation of this wildfire hazard reduction project.

Exotic/Invasives/Undesirables Removal. Removal of non-native and invasive plants from the defensible space zone will help reduce the presence of undesirable plant species and enhance thinning efforts aimed at reducing overall biomass levels. Exotic species observed throughout project area include flammable landscape plants within fuel modification areas as well as established exotics outside of landscaped areas. Among the exotics noted from the site are: fan palms (*Washingtonia* spp.), eucalyptus (*Eucalyptus* spp.), pepper (*Schinus molle* and *S. terebinthifolius*), castor bean (*Ricinus communis*), myoporum (*Myoporum* spp.), pines (*Pinus* spp.) and other conifers, amongst others. All of these plants have been planted by residents along the Canyon top or have opportunistically established within PTAs adjacent structures, in secondary fire spread corridors, or at the canyon bottom along the San Dieguito River. Removal of these plants shall adhere to the following conditions:

- Weed and grass-like species shall be mowed or trimmed to heights no greater than 6 inches.
- Shrub and tree species shall be treated such that all above-ground plant parts are removed. Except for trees removed from the creek area, root systems of removed shrubs and trees shall be left intact. Stump heights shall not exceed 4 inches above natural grade.

Following removal of these species, some may require routine trimming or herbicide application to eliminate sprout growth from remaining stumps. Treatment of debris generated from removal operations shall adhere to the guidelines outlined below (Debris Removal).

Vertical Separation (3x). Pruning of trees or tree-form shrubs (reaching 4 feet or taller at maturity) off the ground should provide vertical clearance that measures three times the height of the understory vegetation or 10 feet, whichever is greater. In cases where no understory vegetation exists, a minimum vertical clearance of 10 feet shall be provided. This process will remove ladder fuels and reduce the potential for fire spread from lower shrubs to higher trees and structures.

Horizontal Separation. Vegetation pruning shall also result in horizontal clearance that meets the following specifications (Table 9):

Table 9
Distance Between Tree Canopies by Percent Slope¹

Percent of Slope	Recommended Distances Between Edge of Mature Tree Canopies ²
0 to 20	10 feet
21 to 40	20 feet
41 Plus	30 feet

From Rancho Santa Fe Ordinance 2008-01

¹Adapted from Wildland Home Fire Risk Meter, Simmerman and Fischer, 1990.

²Determined from canopy dimensions as described in Sunset Western Garden Book (Current Edition).

Horizontal separation serves to minimize fire spread between plants or plant groups. Horizontal chains of fuel occur in numerous areas throughout the PTAs and effectively link the urban areas with non-maintained wildland areas prone to wildfire. The intent of the horizontal separation criteria contained herein is to break the continuity of vegetation between structures and wildland areas.

Native Shrub Thinning/Trimming. Thinning efforts are aimed at reducing woody biomass to break-up horizontally and vertically continuous fuels and shall reduce overall vegetation by 50%. Native shrubs in the project area include, but are not limited to lemonadeberry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*), laurel sumac (*Malosma laurina*), Mexican elderberry (*Sambucus mexicana*), California sage (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California encelia (*Encelia californica*), and scrub oak (*Quercus* spp.).

Mow/Trim Weeds/Exotic understory. Mowing of native and non-native grasses, weeds, thistle, and fennel in the defensible space zone shall be conducted to maintain heights at 6 inches or less.

Dead/Dying Plant Removal. Removal of dead and dying plant material from the determined PTAs will help reduce low fuel moisture biomass. This practice should also be conducted in concert with vegetation thinning efforts and may help in reaching thinning objectives.

Dead Foliage Removal. All dead twigs, branches, and/or fronds shall be removed from retained trees or shrubs within the PTAs.

Debris Removal. Removal of existing combustible debris shall be conducted within the PTAs. Combustible debris includes branches, landscape trimmings/waste, lumber, or any other combustible material (palapas, umbrellas, trellises, etc.).

Additionally, all debris generated from shrub and tree thinning and/or removal shall be completely removed from the PTAs or chipped and distributed on-site. In no case shall chipped plant material (mulch) depth exceed 5 inches. In no case shall un-chipped debris generated from trimming, thinning, or removal be left on site.

Trim Vegetation within 10 ft. of Structure. All vegetation shall be trimmed such that a clearance of 10 feet exists between structures and landscape vegetation. In cases where vegetation is planted within 10- feet of a structure (vines, shrubs), such vegetation shall be maintained free of dead material and shall be pruned and maintained to reduce overall fuel volume.

In cases where tree canopies extend over roof tops, 10 feet of clearance shall be maintained between the roof and the lowest tree branch extending over the structure.

Remove firewood within 30 ft. of Structure. Firewood shall not be stored within 15 feet of existing structures.

Remove Leaves/Needles from Roof/Rain Gutters. All combustible material, including tree leaves, pine needles, branches, and twigs shall be removed from roofs and rain gutters.

Trim Vegetation within 10 ft. of Chimney. All vegetation shall be trimmed such that a clearance of 10- feet exists in all directions between landscape vegetation and the outlet of a chimney.

Provide 5 ft. Clearance for Firefighter Access. All vegetation shall be trimmed such that a 5-foot-wide clearance exists along both sides of a structure, from the street to the rear of the property. In cases where property setback widths are less than 5 feet, the entire width shall be maintained free of obstructing vegetation.

TREATMENT OF STRUCTURAL IGNITABILITY

The fuel reduction treatments recommended for PTAs 1 and 2 (near the existing residences) will reduce the ignitability of homes by reducing the likelihood that radiant or convective heat causes structure ignition. The Witch fire provided a “real-life” fire model for this area with regards to how a fire in this portion of the San Dieguito River canyon will behave given certain conditions. Structures that were lost tended to be of older construction and/or included flammable landscaping within close proximity to the residence.

A number of retrofits are available and recommended for residences adjacent the project area. These retrofits are important for all residences within the wildland urban interface, but even more important for homes that are directly exposed to the open space, unmaintained vegetation project area:

1. Maintain all vents by ensuring metal screen is in tact and has no larger than ¼-inch openings. A more ignition resistant retrofit includes replacing old vents with fire and ember resistant vents such as Brandguard Vents. These vents, through a series of baffles, impede the penetration of embers, a major source of home ignitions.
2. Spark arrestors with 0.5-inch mesh should be installed on all chimneys in the communities affected by this fuel reduction project.
3. Wood fences should be replaced by non-combustible material fences, especially the first 5 feet where they attach to a residence.
4. Enclose decks that are built on slopes above wildland areas according to enhanced practices. Paneling products and wire mesh may be used to help inhibit embers or heat from igniting decks.
5. Replace windows on the exposed side(s) of residence with dual pane windows with one tempered pane.
6. Bird-stop all openings on tile roofs to avoid the build up of animal nests which may easily ignite from flying embers that are blown up into the roof opening.
7. Replace non-Class A roofs with Class A roofing covering.
8. Relocate any combustible outbuilding, shed, animal barns, or other structures at least 30 feet from the residence and provide fuel modification and structure retrofitting to reduce the ignition potential.
9. Relocate trellises, umbrellas, flammable patio furniture and/or pillows, children's play equipment, firewood, and other combustible landscape features at least 30 feet from residences and provide fuel modification, as appropriate.
10. Situate a non-combustible (masonry) wall in the landscape at the top of slope to help deflect flames, heat, and embers.
11. Provide rain gutter cleaning on a regular basis and upgrade the gutters with gutter covers which are designed to minimize debris accumulation.

Other products are under development and within the next several years, it can be anticipated that ignition resistance retrofits and products will be available for situations like this to reduce the vulnerability of existing structures to wildfire caused ignition.

CONCLUSION

The combined wildfire hazard reduction efforts involving field inspection of potential wildfire hazards, fire behavior modeling, and analysis for reducing the wildfire hazard provide valuable fire management guidelines based on actual site conditions. It provides a sound method for identifying and implementing hazard reductions activities within the canyon.

The project area assessment identified numerous hazardous fuel occurrences and the fire behavior modeling resulted in definable hazard with both a typical weather pattern and a Santa Ana condition. As such, Dudek's recommendations for the area assessed as part of this project are aimed at reducing hazards and structural ignition in the phased treatment areas and providing a foundation for ongoing WUI inspection and maintenance work. The initial recommendations will mitigate the immediate hazards and will result in a more manageable landscape for future maintenance. Ongoing efforts will be necessary as the area recovers from the October 2007 fires which removed most of the native fuels from the canyon's slopes. Dudek recommends at least biannual inspections and maintenance throughout the project area.

Dudek would be pleased to discuss this report further or answer any questions you may have.

Sincerely,



Michael Huff
Manager, Wildfire Protection Planning

Att: *Attachment 1 – RSFA - Fairbanks Ranch Fire Hazard Area of Concern*
Attachment 2 – Progression Map
Attachment 3 – Site Topography
Attachment 4 – Vegetation Classifications
Attachment 5 – Photograph Log, North
Attachment 6 – Photograph Log, South
Attachment 7 – BehavePlus Fire Behavior Exhibit
Attachment 8 – Phased Treatment Areas
Attachment 9 – Fire History 1910–2007
Attachment 10 – Vegetation Map with Phased Treatment Areas
Attachment 11 – Plant and Wildlife Species Observed on the Project Site

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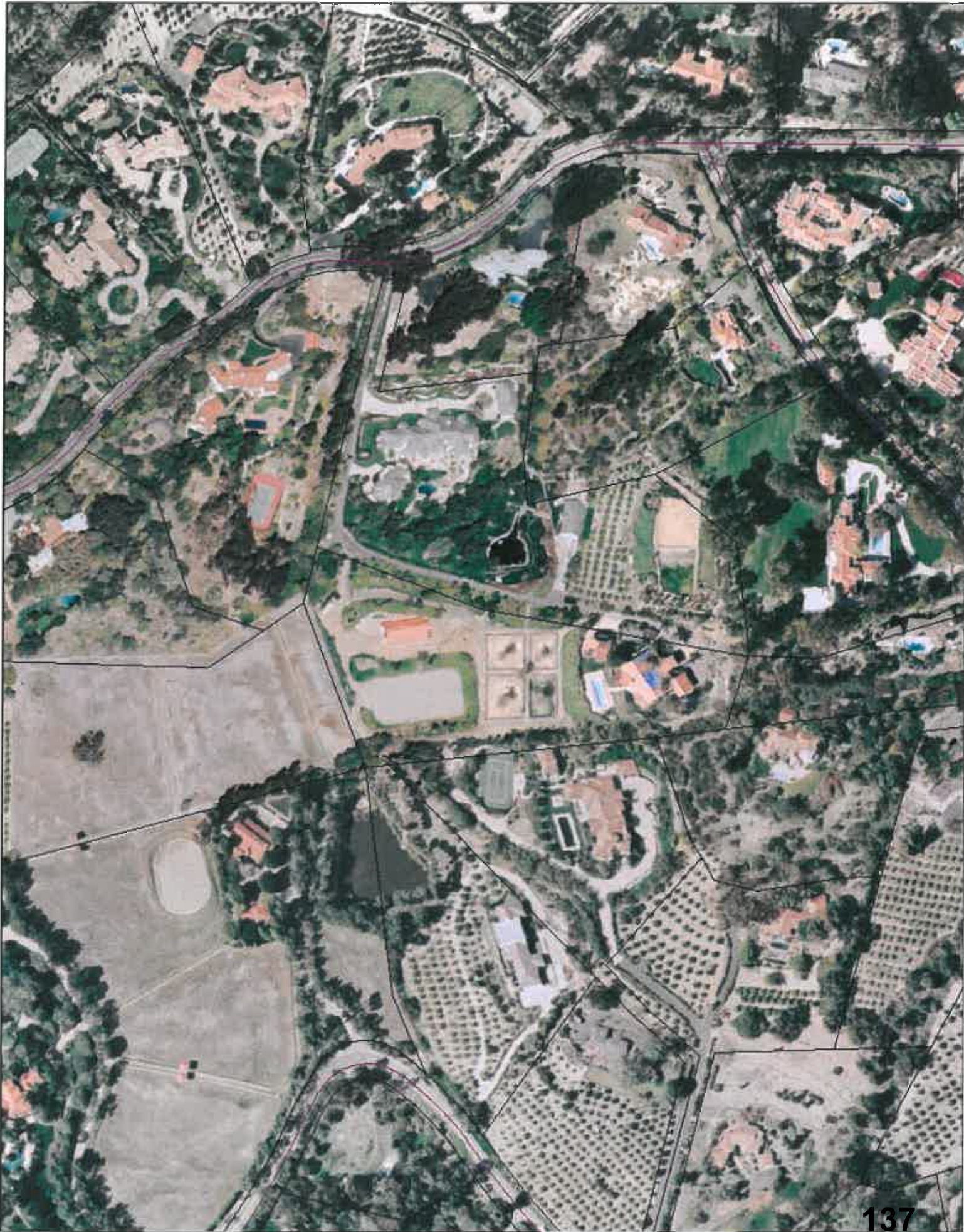
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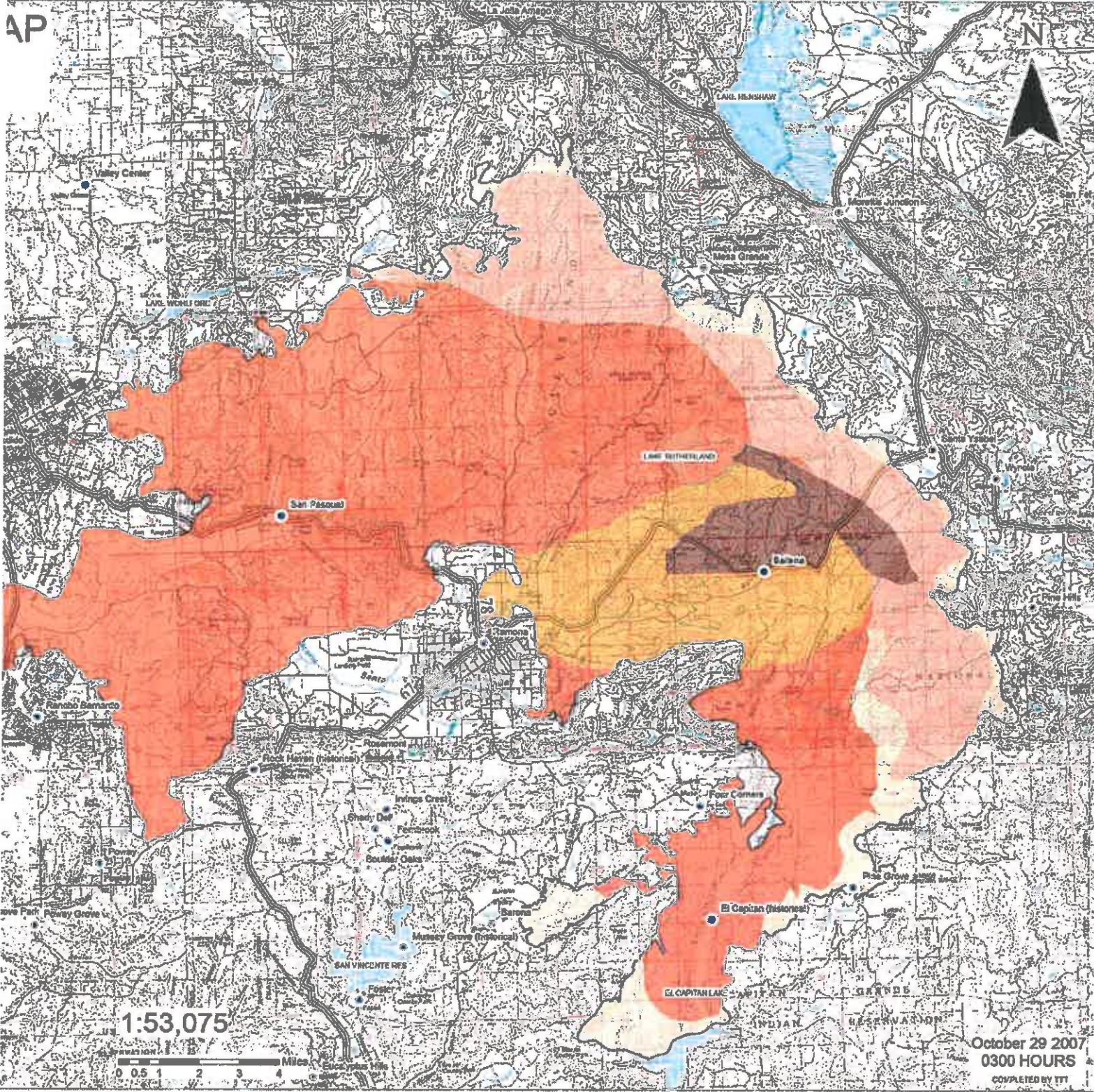
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USDA Forest Service. Farsite. Rocky Mountain Research Station, Fire Sciences Laboratory. Missoula, Montana.

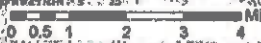


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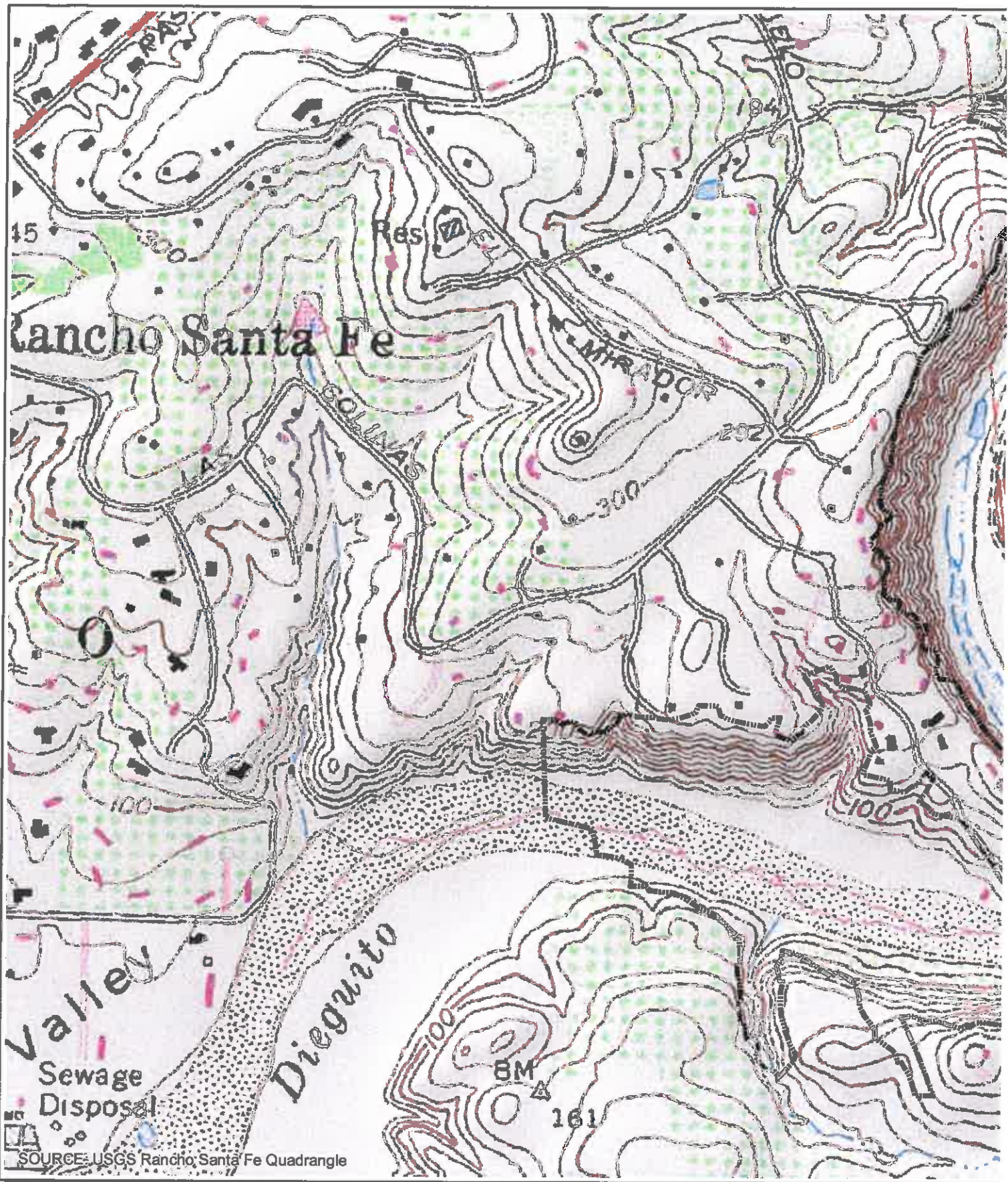
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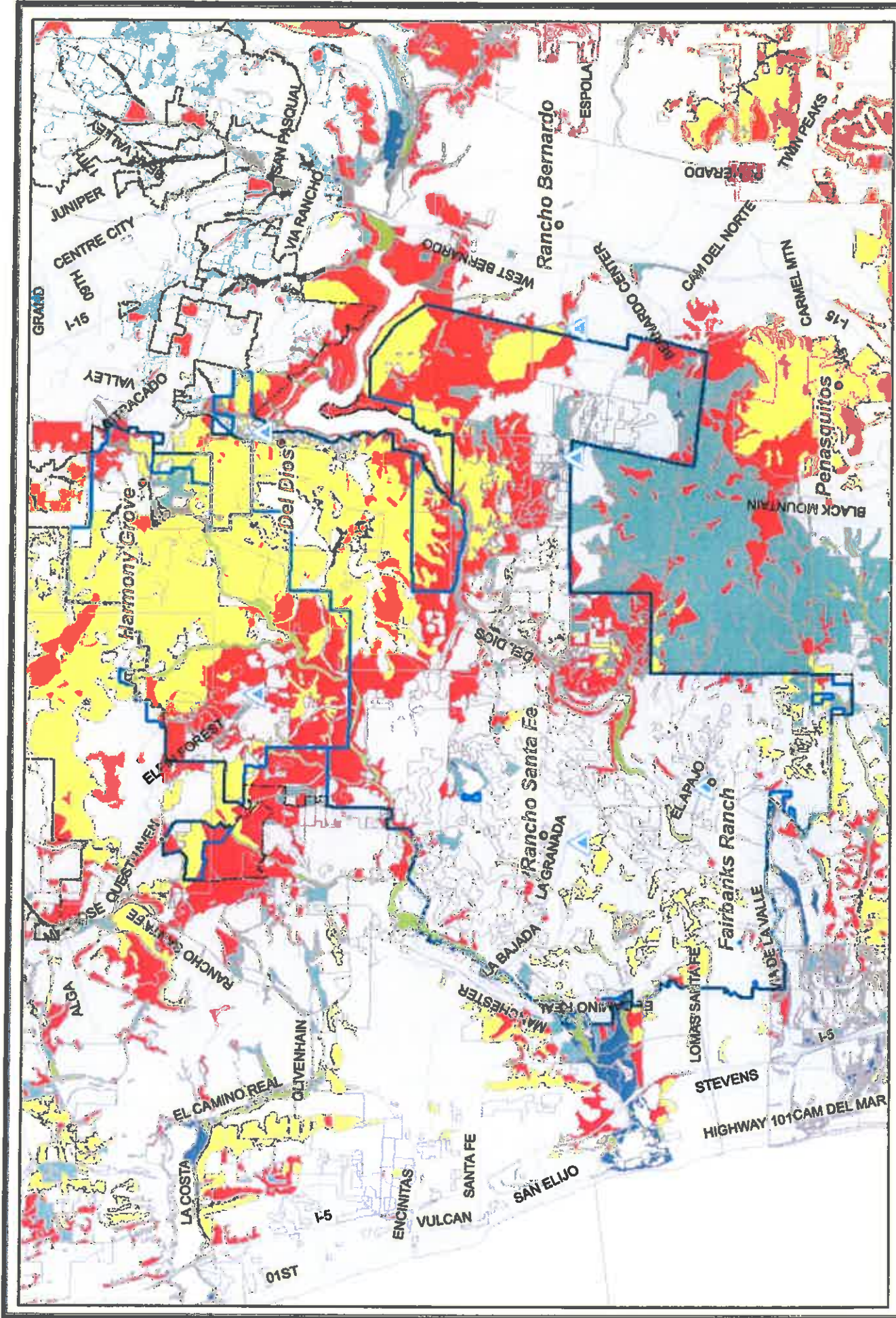
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October 29 2007
0300 HOURS
COMPLETED BY TTT



DUDEK



**RANCHO SANTA FE & ELFIN FOREST
CWPP**

Vegetation Classifications



See attached legend
for vegetation classifications

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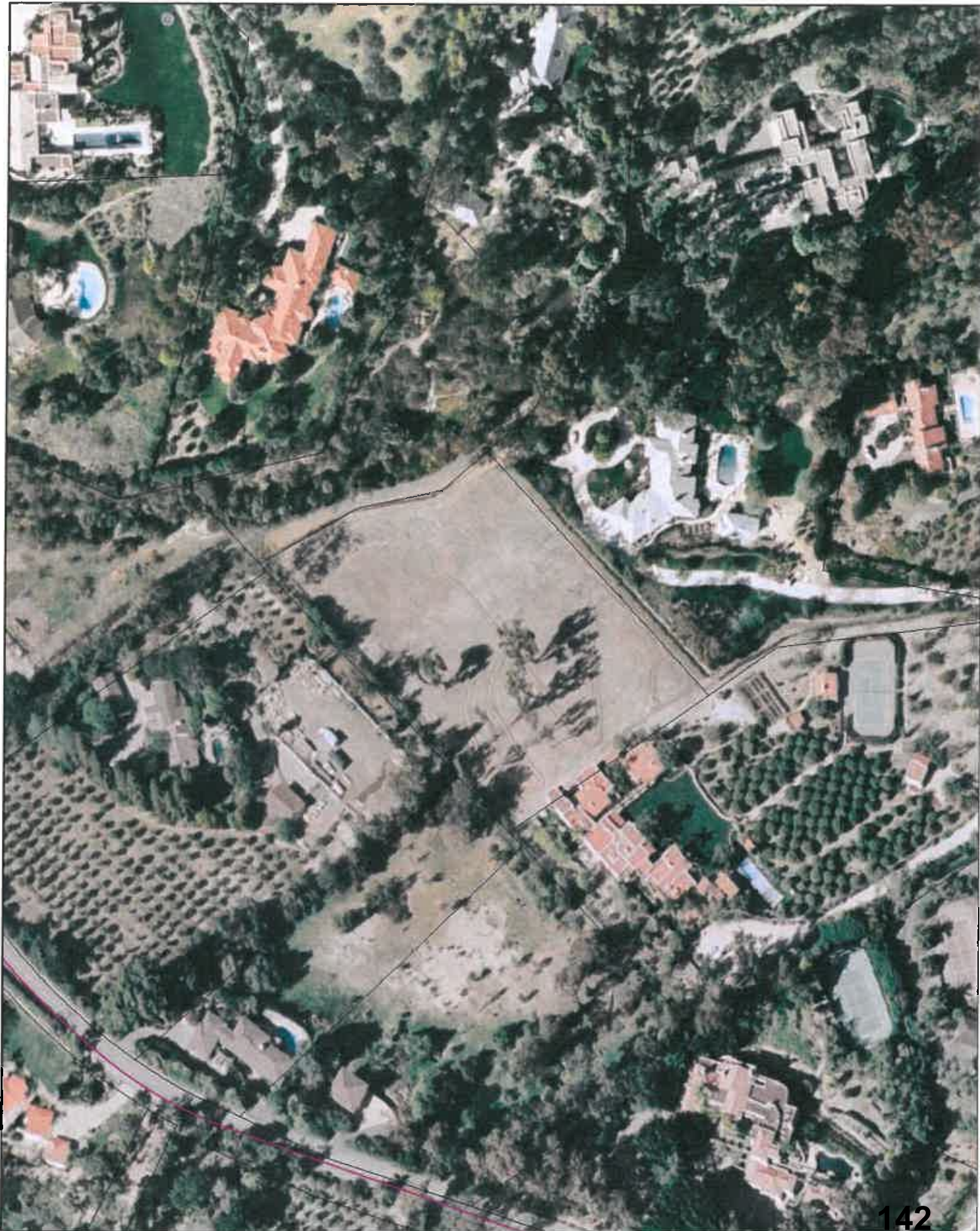


Figure 8.

Vegetation Communities (Holland 95 Classification)

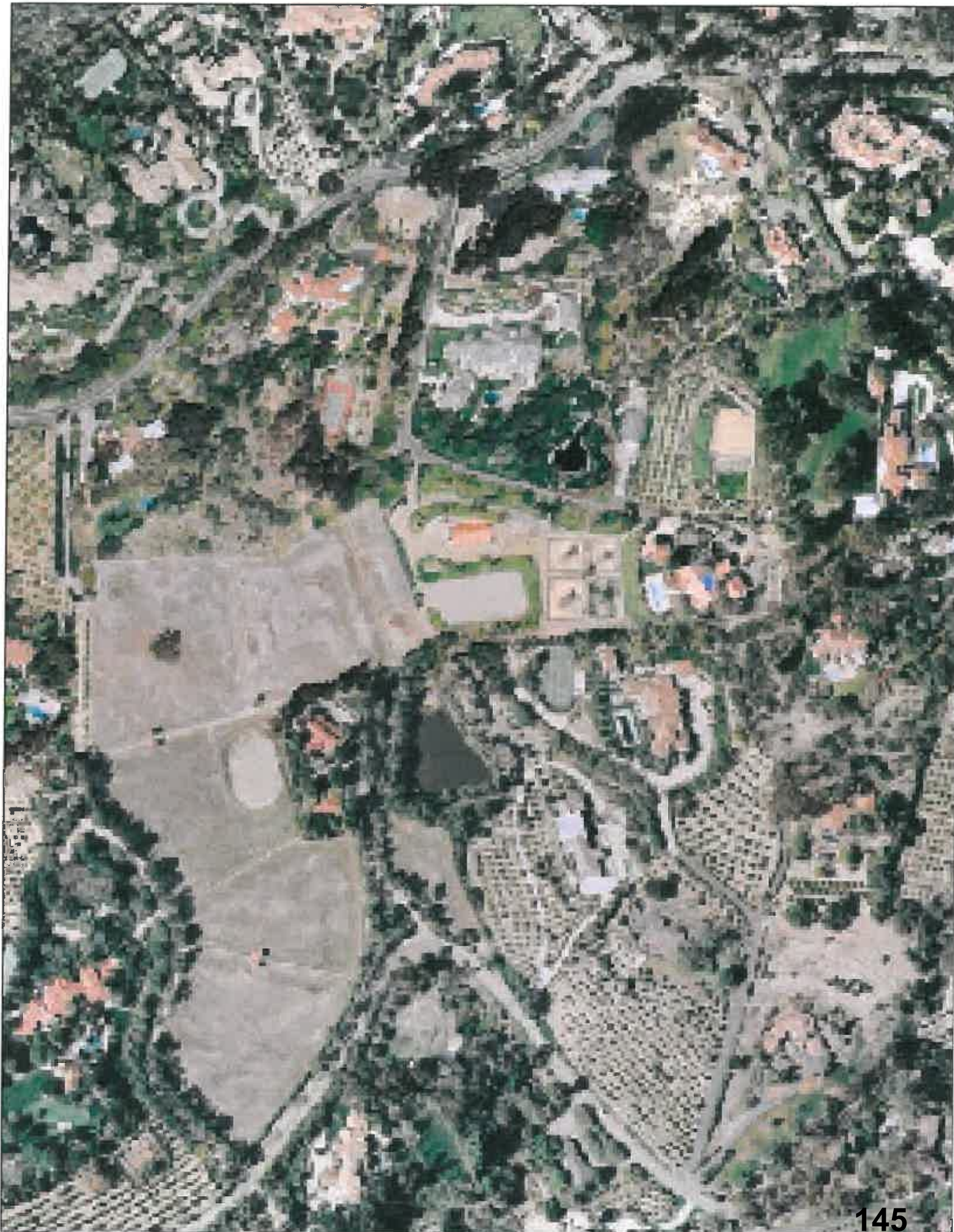
-  *Southern Foredunes, Beach,*
Saltpan, Mudflats
(13300, 13400, 21230)
-  *Coastal Sage Scrub*
(31200, 32400, 32500, 32700, 32710, 32720)
-  *Chaparral*
(35000, 35200, 35210, 37000, 37120, 37121,
37122, 37130, 37131, 37132, 37200, 37210,
37220, 37300, 37500, 37520, 37530, 37540,
37830, 37900, 37A00, 37C30, 37K00, 37G00)
-  *Grassland*
(42000, 42100, 42110, 42120, 42200, 42300, 42400,
42470)
-  *Riparian Scrub*
(60000, 63000, 63300, 63310, 63320, 63410,
63810, 63820)
-  *Riparian Woodland*
(62000, 62300, 62400)
-  *Riparian Forest*
(61000, 61300, 61310, 61320, 62330, 61510,
61810, 61820)
-  *Pinyon Juniper Woodlands*
(72300, 72310, 72320)
-  *Other Woodlands*
(70000, 71000, 71100, 71160, 71161, 71162, 71180,
71181, 71182, 75100, 77000, 78000, 79000)
-  *Oak Forest*
(81300, 81310, 81320, 81340)
-  *Meadow and Seep*
(45000, 45100, 45110, 45120, 45300, 45320, 45400)
-  *Marsh*
(52120, 52300, 52310, 52400, 52410, 52420, 52440)
-  *Coniferous Forest*
(81100, 83140, 83230, 84000, 84100, 84140, 84150,
84230, 84500, 85100)
-  *Desert Dunes*
(22100, 22300, 24000)
-  *Playas/Badlands/Mudhill Forbs*
(46000, 46100)
-  *Desert Scrub*
(33100, 33200, 33210, 33220, 33500,
33600, 34000, 34300, 36110, 39000)
-  *Desert Chaparral*
(37400, 37800)
-  *Dry Wash Woodland*
(29000, 33230, 33300, 36120, 62200)
-  *Water*
(Including 11200, 13200)
-  *Urban, Disturbed Habitat, Agriculture,*
Eucalyptus Woodland
-  *Not Mapped (Data Gaps)*

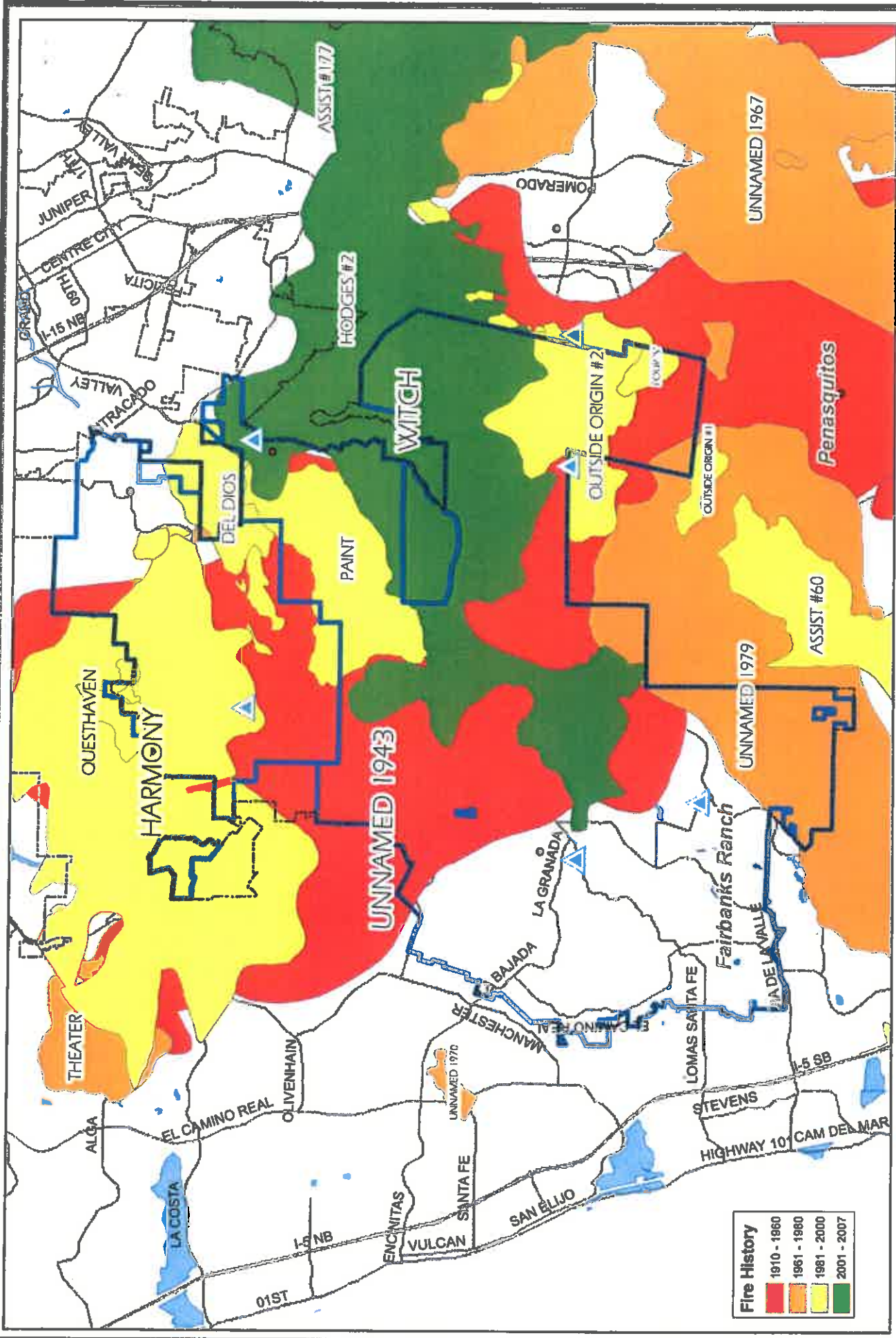
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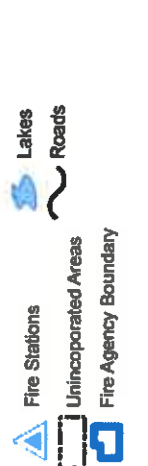








RANCHO SANTA FE & ELFIN FOREST CWPP Fire History 1910 - 2007



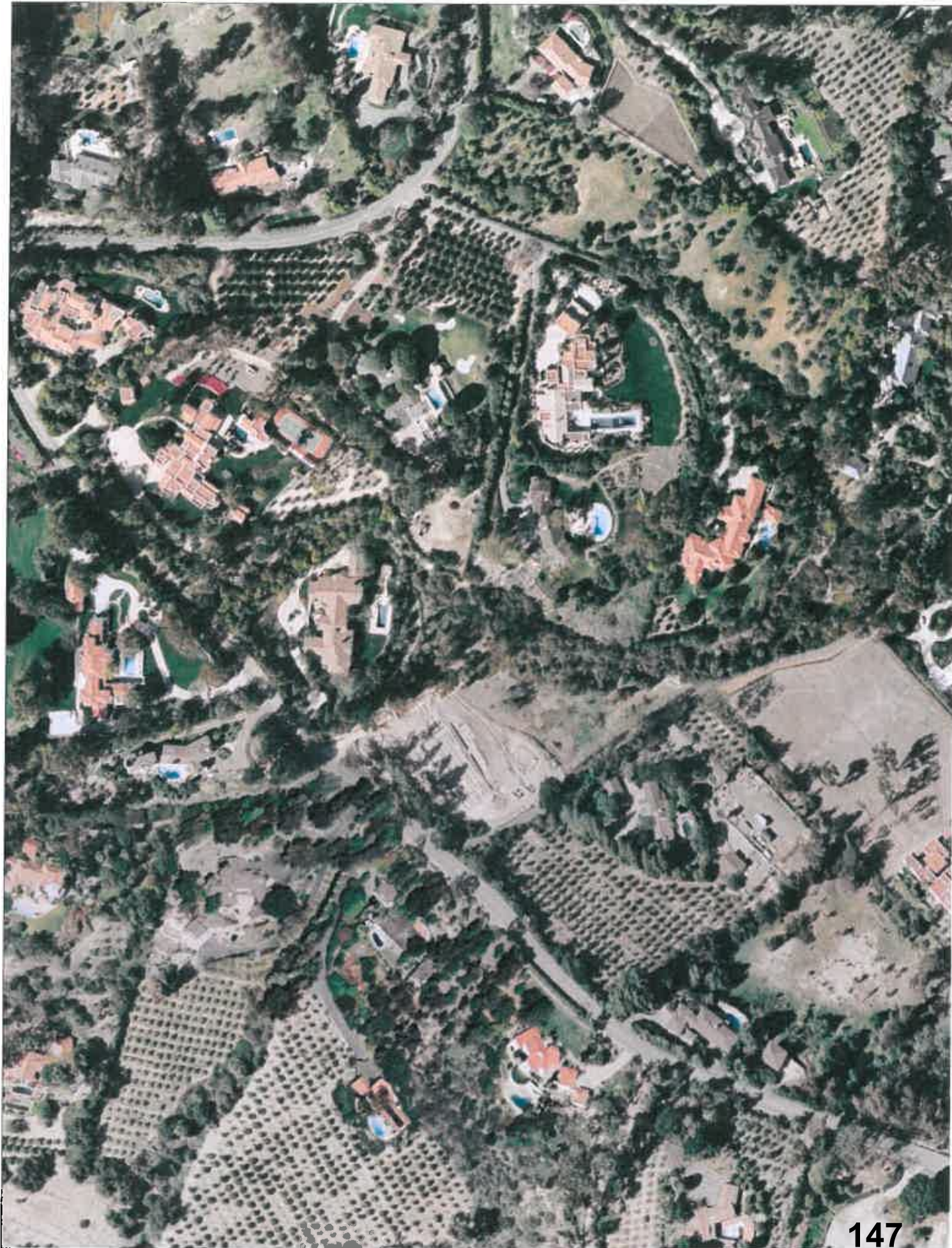
- Fire Stations
- Unincorporated Areas
- Fire Agency Boundary
- Lakes
- Roads

Fire History	
■	1910 - 1960
■	1961 - 1980
■	1981 - 2000
■	2001 - 2007

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Figure 6.



**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

CONIFERAE

PINACEAE - PINE FAMILY

- * *Pinus* sp. - ornamental pine

ANGIOSPERMAE (DICOTYLEDONES)

AIZOACEAE - CARPET-WEED FAMILY

- * *Aptenia cordifolia* - baby sun rose
- * *Carpobrotus edulis* - hottentot-fig

ANACARDIACEAE - SUMAC FAMILY

- Malosma laurina* - laurel sumac
- Rhus integrifolia* - lemonadeberry
- * *Schinus molle* - Peruvian pepper tree
- * *Schinus terebinthifolius* - Brazilian pepper tree
- Toxicodendron diversilobum* - poison-oak

APIACEAE - CARROT FAMILY

- * *Apium graveolens* - celery
- * *Conium maculatum* - poison hemlock
- Daucus pusillus* - American wild carrot
- * *Foeniculum vulgare* - sweet fennel

APOCYNACEAE - DOGBANE FAMILY

- * *Nerium oleander* - oleander

ASCLEPIADACEAE – MILKWEED FAMILY

- Sarcostemma cynanchoides* - climbing milkweed

ASTERACEAE - SUNFLOWER FAMILY

- Acourtia microcephala* - acourtia
- Ambrosia psilostachya* var. *californica* - western ragweed
- Artemisia californica* - coastal sagebrush
- Artemisia douglasiana* - mugwort
- Artemisia dracuncululus* - tarragon
- Artemisia palmeri* - Palmer sagewort
- Aster subulatus* var. *ligulatus* - annual water-aster
- Baccharis pilularis* - coyote brush
- Baccharis salicifolia* - mule fat
- Baccharis sarothroides* - chaparral broom

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

- Bebbia juncea* – sweetbush
- Brickellia californica* – California brickellbush
- * *Centaurea melitensis* - tocalote
- * *Cirsium vulgare* - bull thistle
- * *Conyza bonariensis* - asthma weed
- Conyza canadensis* - horseweed
- * *Cotula coronopifolia* - African brass-buttons
- * *Cynara cardunculus* - cardoon, artichoke thistle
- Deinandra fasciculata* – fascicled tarplant
- Encelia californica* - California bush sunflower
- Eriophyllum confertiflorum* – golden yarrow
- * *Gazania linearis* - African daisy
- Gnaphalium bicolor* - bicolor cudweed
- Gnaphalium californicum* - California everlasting
- Gnaphalium canescens* – felt-leaved everlasting
- * *Gnaphalium luteo-album* - white cudweed
- Hazardia squarrosa* ssp. *grindelioides* - saw-toothed goldenbush
- Helianthus annuus* – common sunflower
- Heterotheca grandiflora* - telegraph weed
- Isocoma menziesii* ssp. *veneta* - coastal goldenbush
- Iva hayesiana* - San Diego marsh elder
- * *Lactuca serriola* - prickly lettuce
- Lessingia filaginifolia* - virgate cudweed aster
- * *Picris echioides* - bristly ox-tongue
- Pluchea odorata* - marsh-fleabane
- Pluchea sericea* – arrow-weed
- * *Silybum marianum* – milk thistle
- Stephanomeria exigua* - small wreathplant
- Xanthium strumarium* - cocklebur

BORAGINACEAE - BORAGE FAMILY

- Amsinckia menziesii* – rancher’s fireweed
- * *Echium candicans* - Pride of Madeira
- Heliotropium curassavicum* - wild heliotrope

BRASSICACEAE - MUSTARD FAMILY

- * *Brassica nigra* - black mustard
- * *Hirschfeldia incana* – short pod mustard
- * *Raphanus sativus* – wild radish
- Rorippa nasturtium-aquaticum* - water cress

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

CACTACEAE - CACTUS FAMILY

Ferocactus viridescens - San Diego barrel cactus

- * *Opuntia ficus-indica* – Indian-fig
- Opuntia littoralis* - coastal prickly-pear

CAPPARACEAE - CAPER FAMILY

Isomeris arborea – bladderpod

CAPRIFOLIACEAE – HONEYSUCKLE FAMILY

Lonicera subspicata var. *denudata* – southern honeysuckle

Sambucus mexicana – Mexican elderberry

CHENOPODIACEAE - GOOSEFOOT FAMILY

- * *Atriplex semibaccata* – Australian saltbush
- Atriplex triangularis* – spearscale
- * *Chenopodium ambrosioides* – Mexican tea
- Chenopodium californicum* – California goosefoot
- * *Chenopodium murale* – nettle-leaf goosefoot
- * *Salsola tragus* - Russian-thistle

CONVOLVULACEAE - MORNING-GLORY FAMILY

Calystegia macrostegia – morning glory

- * *Convolvulus arvensis* - bindweed

CRASSULACEAE - STONECROP FAMILY

Crassula connata - dwarf stonecrop

Dudleya edulis - ladies-fingers

Dudleya pulverulenta - chalk dudleya

CUCURBITACEAE - GOURD FAMILY

Cucurbita foetidissima - coyote-melon, calabazilla

Marah macrocarpus - wild cucumber

CUSCUTACEAE – DODDER FAMILY

Cuscuta californica – chaparral dodder

EUPHORBIACEAE - SPURGE FAMILY

Chamaesyce albomarginata - rattlesnake spurge

- * *Chamaesyce maculata* – spotted spurge

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

Croton californica – California croton

Eremocarpus setigerus - doveweed

* *Ricinus communis* - castor-bean

FABACEAE - PEA FAMILY

* *Acacia longifolia* - Sydney golden wattle

Amorpha fruticosa- desert indigobush

* *Lotus corniculatus* – bird foot trefoil

* *Lotus purshianus* – Spanish clover

Lotus scoparius – Deerweed

Lotus strigosus – bishop lotus

Lupinus bicolor - Lindley's annual lupine

Lupinus hirsutissimus – stingy annual lupine

* *Medicago polymorpha* - California burclover

* *Medicago sativa* – alfalfa

* *Melilotus alba* – white sweetclover

* *Melilotus indica* - sourclover

FAGACEAE - OAK FAMILY

Quercus agrifolia - coast live oak

Quercus berberidifolia - scrub oak

GERANIACEAE - GERANIUM FAMILY

* *Erodium cicutarium* - red-stemmed filaree

GROSSULARIACEAE – GOOSEBERRY FAMILY

Ribes speciosum – fuschia-flowered gooseberry

HYDROPHYLLACEAE - WATERLEAF FAMILY

Eucrypta chrysanthemifolia - eucrypta

Phacelia cicutaria - caterpillar phacelia

Phacelia minor – California bluebell

LAMIACEAE - MINT FAMILY

* *Marrubium vulgare* - horehound

Salvia apiana - white sage

Salvia columbariae - chia

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

Salvia mellifera - black sage

LYTHRACEAE – LOOSESTRIFE FAMILY

- * *Lythrum hyssopifolia* – Hyssop loosestrife

MALVACEAE - MALLOW FAMILY

- Malacothammus fasciculatus* - chaparral mallow
- * *Malva parviflora* - cheeseweed

MYOPORACEAE - MYOPORUM FAMILY

- * *Myoporum laetum* - myoporum

MYRTACEAE - MYRTLE FAMILY

- * *Callistemon viminalis* – weeping bottlebrush
- * *Eucalyptus globulus* - blue gum

NYCTAGINACEAE - FOUR O'CLOCK FAMILY

Mirabilis californica var. *californica* - California wishbone-bush

OLEACEAE – OLIVE FAMILY

- * *Olea europaea* - olive

ONAGRACEAE - EVENING-PRIMROSE FAMILY

Camissonia bistorta - California sun cup
Epilobium canum – California fuschia
Epilobium ciliatum - California cottonweed
Ludwigia peploides – false loosestrife

PLANTAGINACEAE - PLANTAIN FAMILY

- * *Plantago lanceolata* - English plantain
- * *Plantago major* - common plantain

PLATANACEAE - SYCAMORE FAMILY

Platanus racemosa - western sycamore

POLYGONACEAE - BUCKWHEAT FAMILY

- Eriogonum fasciculatum* - California buckwheat
- * *Polygonum arenastrum* - knotweed

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

* *Rumex crispus* - curly dock

PRIMULACEAE – PRIMROSE FAMILY

* *Anagallis arvensis* – scarlet pimpernel
Samolus parviflorus – water-pimpernel

RANUNCULACEAE – BUTTERCUP FAMILY

Clematis ligusticifolia – yerba de chiva

RHAMNACEAE - BUCKTHORN FAMILY

Adolphia californica - California adolphia
Rhamnus crocea – spiny redberry

ROSACEAE - ROSE FAMILY

Heteromeles arbutifolia - toyon
Prunus ilicifolia - holly-leaf cherry

RUTACEAE – RUE FAMILY

Cneoridium dumosum - bushrue

SALICACEAE - WILLOW FAMILY

Populus fremontii - Fremont's cottonwood
Salix exigua – sandbar willow
Salix gooddingii var. *gooddingii* - black willow
Salix lasiolepis – arroyo willow

SAURURACEAE – LIZARD’S-TAIL FAMILY

Anemopsis californica – yerba mansa

SCROPHULARIACEAE - FIGWORT FAMILY

Antirrhinum nuttallianum – wild snapdragon
Keckiella antirrhinoides ssp. *antirrhinoides* - chaparral beard-tongue
Mimulus aurantiacus - bush monkeyflower

Scrophularia californica – California bee plant

SOLANACEAE - NIGHTSHADE FAMILY

Datura wrightii – jimson weed

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

- * *Nicotiana glauca* - tree tobacco
- * *Nicotiana quadrivalvis* – Indian tobacco
- Solanum douglasii* – Douglas' nightshade
- Solanum xanti* – chaparral nightshade

TAMARICACEAE - TAMARISK FAMILY

- * *Tamarix* sp. - tamarisk

URTICACEAE - NETTLE FAMILY

Urtica dioica - giant creek nettle

ANGIOSPERMAE (MONOCOTYLEDONES)

ARECACEAE - PALM FAMILY

- * *Phoenix canariensis* - Canary Island date palm
- * *Washingtonia robusta* - Mexican fan palm

CYPERACEAE - SEDGE FAMILY

Cyperus eragrostis – tall flatsedge
Cyperus esculentis – yellow nutgrass
Eleocharis macrostachya - spikerush
Scirpus americanus - winged three-square

IRIDACEAE - IRIS FAMILY

Sisyrinchium bellum - blue-eyed grass

JUNCACEAE - RUSH FAMILY

Juncus acutus ssp. *leopoldii* – southwestern spiny rush

LEMNACEAE - DUCKWEED FAMILY

Lemna minuta - least duckweed

LILIACEAE - LILY FAMILY

- * *Asparagus asparagoides* – smilax

- * *Asparagus officinalis* – garden asparagus
- Calochortus* sp. - Mariposa lily species
- Bloomeria crocea* - goldenstars
- Dichelostemma capitata* - blue dicks

**VASCULAR PLANT SPECIES OBSERVED
ON THE PROJECT SITE**

POACEAE - GRASS FAMILY

- * *Arundo donax* - giant reed
- * *Avena barbata* - slender oat
- * *Bromus diandrus* - ripgut grass
- * *Bromus hordeaceus* - soft chess
- * *Bromus madritensis* ssp. *rubens* - foxtail chess
- * *Carduus pycnocephalus* – Italian thistle
- * *Cortaderia selloana* - pampas grass
- * *Cynodon dactylon* - Bermuda grass
- Distichlis spicata* - salt grass
- Leymus condensatus* – giant wildrye
- Leymus triticoides* – creeping wildrye
- * *Lolium multiflorum* - English ryegrass
- Melica imperfecta* – melic grass
- Muhlenbergia microsperma* – little-seed muhly
- Nassella pulchra* - purple needlegrass
- * *Paspalum dilatatum* – Dallis grass
- * *Piptatherum miliaceum* - smilo grass
- * *Polypogon monspeliensis* – rabbit’s-foot grass
- * *Vulpia myuros* – foxtail fescue

TYPHACEAE - CATTAIL FAMILY

- Typha angustifolia* - narrow-leaved cattail
- Typha latifolia* - broad-leaved cattail

- * signifies introduced (non-native) species

**WILDLIFE SPECIES OBSERVED
ON THE PROJECT SITE**

WILDLIFE SPECIES -VERTEBRATES

AMPHIBIANS

HYLIDAE - TREEFROGS

Hyla regilla - Pacific treefrog

RANIDAE - TRUE FROGS

* *Rana catesbeiana* - bullfrog

REPTILES

IGUANIDAE - IGUANID LIZARDS

Sceloporus occidentalis - western fence lizard

Uta stansburiana - side-blotched lizard

SCINCIDAE - SKINKS

Eumeces skiltonianus - western skink

ANGUIDAE - ALLIGATOR LIZARDS

Gerrhonotus multicarinatus - southern alligator lizard

BIRDS

ARDEIDAE - HERONS

Ardea herodias - great blue heron

Butorides virescens - green heron

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura - turkey vulture

ACCIPITRIDAE - HAWKS

Buteo jamaicensis - red-tailed hawk

COLUMBIDAE - PIGEONS & DOVES

Zenaida macroura - mourning dove

TROCHILIDAE - HUMMINGBIRDS

Calypte anna - Anna's hummingbird

PICIDAE - WOODPECKERS

Picoides nuttallii - Nuttall's woodpecker

DUDEK

**WILDLIFE SPECIES OBSERVED
ON THE PROJECT SITE**

TYRANNIDAE - TYRANT FLYCATCHERS

Myiarchus cinerascens - ash-throated flycatcher
Sayornis nigricans - black phoebe
Tyrannus vociferans - Cassin's kingbird
Tyrannus verticalis - western kingbird

CORVIDAE - JAYS AND CROWS

Apelocoma californica - western scrub-jay
Corvus brachyrhynchos - American crow
Corvus corax - common raven

AEGITHALIDAE - BUSHTITS

Psaltriparus minimus - bushtit

TROGLODYTIDAE - WRENS

Thryomanes bewickii - Bewick's wren
Troglodytes aedon - house wren

TIMALIIDAE - LAUGHINGTHRUSH AND WRENTIT

Chamaea fasciata - wrentit

MIMIDAE - THRASHERS

Mimus polyglottos - northern mockingbird

EMBERIZIDAE - BUNTINGS AND SPARROWS

Pipilo crissalis - California towhee

FRINGILLIDAE - FINCHES

Carpodacus mexicanus - house finch
Carduelis psaltria - lesser goldfinch

MAMMALS

DIDELPHIDAE - NEW WORLD OPOSSUMS

* *Didelphis virginiana* - Virginia opossum

SORICIDAE - SHREWS

Notiosorex crawfordi - desert shrew
Sorex ornatus - ornate shrew

**WILDLIFE SPECIES OBSERVED
ON THE PROJECT SITE**

TALPIDAE - MOLES

Scapanus latimanus - broad-footed mole

LEPORIDAE - HARES AND RABBITS

Sylvilagus bachmani - brush rabbit

SCIURIDAE - SQUIRRELS

Spermophilus beecheyi - California ground squirrel

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae - Botta's pocket gopher

CANIDAE - WOLVES AND FOXES

Canis latrans - coyote

PROCYONIDAE - RACCOONS AND RELATIVES

Procyon lotor - common raccoon

WILDLIFE SPECIES - INVERTEBRATES

BUTTERFLIES AND MOTHS

HESPERIIDAE - SKIPPERS

Erynnis funeralis - funereal duskywing

PAPILIONIDAE - SWALLOWTAILS

Papilio rutulus - tiger swallowtail

PIERIDAE - WHITES AND SULFURS

Pieris rapae rapae - cabbage butterfly

Pontia protodice - checkered white

Colias Eurydice - California dogface

NYMPHALIDAE - BRUSH-FOOTED BUTTERFLIES

Nymphalis antiopa – mourning cloak

* signifies introduced (non-native) species

**WILDLIFE SPECIES OBSERVED
ON THE PROJECT SITE**

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FIRE PROTECTION PLAN

Prepared for:

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY COASTAL TREATMENT PLANT

Administration Offices:

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JANUARY 2011

**South Orange County Wastewater Authority
Fire Protection Plan**

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page No.</u>
EXECUTIVE SUMMARY	III
1.0 INTRODUCTION.....	1
1.1 Project Summary.....	2
1.1.1 Intent and Purpose	2
1.1.2 Location	2
1.1.2 Site Description.....	5
1.1.3 Environmental Setting	6
2.0 ANTICIPATED FIRE BEHAVIOR	11
2.1 Fire Behavior Modeling.....	11
2.1.1 Fuel Model Output Results	16
2.2 On-Site Risk Assessment.....	16
2.2.1 Emergency Response and Service	18
2.3 Buildings, Infrastructure and Defensible Space	19
2.3.1 Access	20
2.3.2 Water.....	21
2.4 Ignition Resistant Construction and Fire Protection Systems	22
2.5 Defensible Space and Vegetation Management	22
2.5.1 Vegetation Management	23
3.0 EMERGENCY PLANNING.....	25
3.1 Evacuation	26
3.2 Temporary Shelter-in-Place.....	28
4.0 RECOMMENDATIONS FOR COASTAL TREATMENT PLANT.....	31
5.0 CONCLUSION	35
6.0 LIST OF PREPARERS	37
7.0 REFERENCES.....	39
 APPENDICES	
A	Photograph Log
B	Coastal Treatment Plant Emergency Fire Safety Plan
C	Fire History Exhibit

**South Orange County Wastewater Authority
Fire Protection Plan**

TABLE OF CONTENTS (Continued)

Page No.

LIST OF FIGURES

1	Site Location	3
2	Fire Behavior Modeling.....	13

LIST OF TABLES

1	Vegetation Communities – Coastal Treatment Plant.....	7
2	FlamMap Fire Behavior Inputs.....	15
3	Chula Vista Fire Department Responding Stations Summary.....	18
4	Chula Vista Fire Department Responding Stations Call Volumes.....	19

South Orange County Wastewater Authority Fire Protection Plan

EXECUTIVE SUMMARY

This Fire Protection Plan (FPP) was prepared for the South Orange County Wastewater Authority (SOCWA) Coastal Treatment Plant located in Laguna Niguel, California. The Coastal Treatment Plant is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 million gallons per day. The Coastal Treatment Plant is located within a semi-remote area that is designated a Very High Fire Hazard Severity Zone.

Fire history and site fire risk analysis indicate that wildfire has occurred and will likely occur again in the vicinity of the Coastal Treatment Plant and that Aliso Canyon has not burned for a considerable period of time, resulting in accumulation of fuels. Several fire protection and emergency planning measures are currently employed at the plant, but there are areas where improvements can be implemented to improve readiness, communication, ignition resistance, and overall risk reduction, as discussed within this FPP.

This FPP provides a summary of the Coastal Treatment Plant's wildfire risk associated with specific operations, staffing, and its wildland urban intermix location. In addition, this FPP provides a summary of existing conditions and recommended measures for "enhanced" fire protection and safety based on the site's unique function, facilities, and location within a wilderness park. Among the recommended measures are strategic fuel modification, building ignition resistance retrofits, fire suppression equipment, and training.

Lastly, this FPP provides an overview of current emergency planning and preparedness procedures and describes recommendations for including wildfire-focused training, emergency planning, and evacuation and sheltering on-site provisions.

**South Orange County Wastewater Authority
Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

1.0 INTRODUCTION

This Fire Protection Plan (FPP) provides focused and site specific evaluation and recommendations for the South Orange County Wastewater Association's (SOCWA) Coastal Treatment Plant. The Coastal Treatment Plant is within a Local Responsibility Area (LRA) provided fire protection by Orange County Fire Authority (OCFA) and directly adjacent a State Responsibility Area (SRA) designated as a Very High Fire Hazard Severity Zone and provided fire protection by CAL FIRE.

Traditionally, wildland fires that have occurred within the Laguna Beach/Laguna Niguel/Aliso Canyon area have been contained as small brush fires or in the case of larger events, they were contained along the main ridgelines and/or within the lower foothill areas. Although wildfire has not significantly threatened the existing Coastal Treatment Plant facility since it was built in 1967 (original structures were built in 1940 and replaced/added in 1967), a wildland fire within Aliso and Woods Canyon Park occurring under extreme weather conditions are modeled to burn quickly toward the Plant.

The primary wildfire threat is from the open space to the north, northeast, and south. However, wind-borne embers from distant wildfires or ridge top structure fires may also result in a threatening situation due to the receptive fuel beds and topography which, under extreme conditions, can result in numerous spot fires and even "Area Ignitions," where "mass-ignition" of an entire hillside occurs.

The Coastal Treatment Plant is located on the Aliso Canyon floor, as presented in Figure 1. The site is largely free of vegetation with paved surfaces, concrete, metal, and stucco buildings, tanks, and structures, steel pipelines, and related infrastructure. The naturally vegetated slopes adjacent to the treatment plant are populated primarily by native coastal sage and other mixed scrub vegetation types while Aliso Creek directly to the west, includes native riparian tree species and non-native, flammable vegetation, most notably the highly invasive arundo (*Arundo donax*).

As detailed in this FPP, the treatment plant's current fire protection system includes measures that reduce risk, including structures built of ignition resistant materials, conversion of native fuels to lower flammability fuels on site, emergency training, and annual OCFA inspections, amongst others. However, there are opportunities to provide a more deliberate program for fire safety that includes formally delineated and customized fuel modification zones, structural vulnerability retrofits, fire suppression systems, an emergency landscape irrigation system (water cannon), on-site fire-fighting equipment such as a hose closet, and fire emergency training and planning.

South Orange County Wastewater Authority Fire Protection Plan

A designated structure (the Administration Building) is recommended to serve as the site's primary emergency shelter facility. This means that in a rare circumstance where evacuation of staff and visitors to an off-site location away from the canyon is not feasible, such as when a fire or other impediment would expose evacuees to danger, the Administrative Building will be used to temporarily accommodate people during a wildfire emergency. Early evacuation of staff and visitors from the area will remain the preferred action during an emergency situation but only when adequate time is available and the safety of evacuees can be confirmed.

1.1 Project Summary

1.1.1 Intent and Purpose

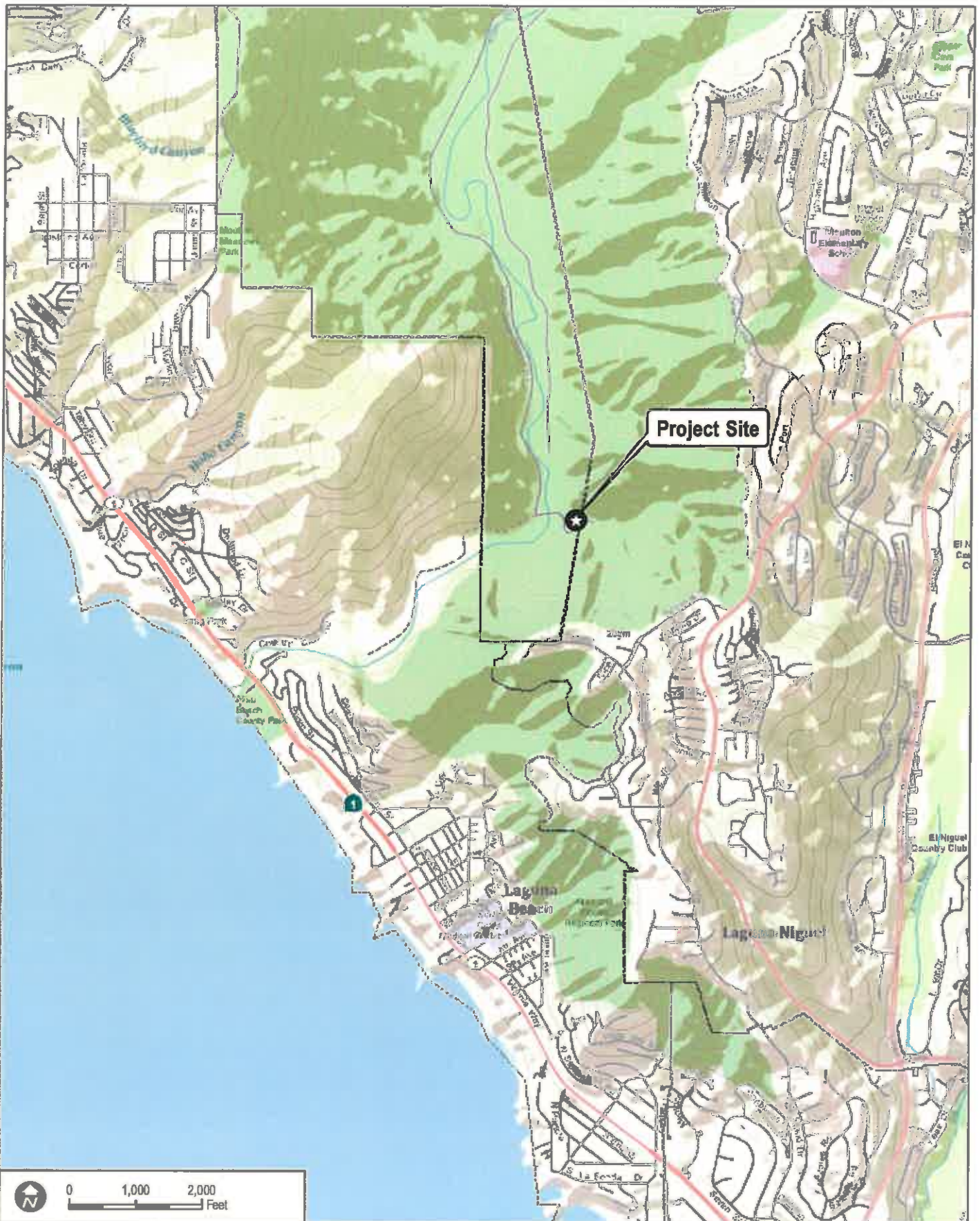
This FPP is intended to guide the enhancement and maintenance of project-related features and emergency planning protocols at the Coastal Treatment Plant so that when properly implemented and maintained, fire hazard risk reduction and improved staff and visitor safety along with continued operation of the Plant are facilitated.

The purpose of this plan is to generate and memorialize fire safety recommendations for use by current and future Coastal Treatment Plant employees by outlining procedures and protocols that result in reduced wildfire risk, improved staff safety, and "hardening" of the Coastal Treatment Plant against wildfire.

The FPP assesses the overall (on-site and adjacent off-site) wildland fire hazards and risks that may threaten life and property and provides direction for "mitigating" fire hazards in a cost effective, environmentally sensitive manner.

1.1.2 Location

The Coastal Treatment Plant is located in Aliso Canyon within the City of Laguna Niguel in the southwest portion of Orange County. Specifically, the site is located at 28303 Alicia Parkway, just east of the Aliso Creek Inn (City of Laguna Beach) where Aliso Canyon turns northward (Figure 1). The site lies roughly 1 mile east of Highway 1 and the Pacific Ocean.



Z:\Projects\6812-01\FinalMap\Fig1_SiteLocation.mxd



DUDEK

SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 1
Site Location

6812-01
JANUARY 2011

FIRE PROTECTION PLAN - SOCWA COASTAL TREATMENT PLANT

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**South Orange County Wastewater Authority
Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

The Coastal Treatment Plant is located within an area considered LRA under the jurisdiction of OCFA. The site is directly adjacent a Very High Fire Hazard Severity Zone (VHFHSZ), as statutorily designated by CAL FIRE and, therefore, carries the same designation. Fire Hazard Severity classification is based on the type of vegetation, fire history, weather patterns, and steep topography in an area. The Coastal Treatment Plant is within the potential ember zone associated with Aliso Canyon open space to the north, east, south, and west and the region, like most of Southern California, is subject to seasonal weather conditions that can heighten the likelihood of fire ignition and spread through seasonal drying of vegetation and dry, warm winds that may blow from the northeast/east during the fall.

The Coastal Treatment Plant is within the jurisdiction of the OCFA which provides fire protection for Laguna Niguel. The OCFA operates three fire stations in Laguna Niguel that could respond to an incident on the site, including Station Nos. 5, 39, and 49 as well as response from nearby OCFA Fire Station no. 57, which is approximately 5.1 miles from the site in Aliso Viejo. Laguna Beach Fire Station No. 4 (31646 2nd Ave, Laguna Beach) approximately 2 miles from the site and would likely also be dispatched to a fire emergency at the Plant.

1.1.2 Site Description

The Coastal Treatment Plant includes a variety of structures, infrastructure, and equipment. The plant has been in operation since 1940, with only one above-ground structure still remaining from that era (circular concrete tank). Modernization of the plant began in 1967 when some of the structures, clarifiers, and basins were constructed. A new Headworks, Pump Station, Administration Building, and Advanced Wastewater Treatment Facility were constructed in 1982. Other upgrades occurred in 1988 and 1992. In 1993, the access bridge across Aliso Creek was replaced after storms damaged the previous bridge. Upgrades to odor control, aeration, SCADA system and tertiary filters were completed in 2001, 2004, 2005, and 2007, respectively.

Appendix A presents select photographs of the site in its current condition along with views of the surrounding Aliso Park slopes. Appendix 2 provides a Coastal Treatment Plant structural location exhibit.

Site Population

The Plant includes a typical population of less than 10 people at any one time from 7:00 am to 5:00 pm. Typical SOCWA staff levels are:

- Monday – 3 staff
- Tuesday, Wednesday, Thursday – 5 staff

South Orange County Wastewater Authority Fire Protection Plan

- Friday – 2 staff
- Saturday and Sunday – 1 staff

Staff typically work a 9 or 10 hour workday.

Approximately 3 to 10 contractors may be on site for special projects. Additionally, the Plant offers tours that may include up to 70 persons.

1.1.3 Environmental Setting

Dudek conducted a site review on December 16, 2010. The site inspection included a tour of the treatment plant, evaluation of topography, vegetation/fuel, existing infrastructure and documentation of the existing off-site fuel and topography conditions, surrounding land use confirmations, and necessary fire behavior modeling data collection. Summaries of findings follow.

The site currently consists of a wastewater treatment plant on relatively level ground within Aliso Canyon and surrounded by Aliso and Woods Canyon Regional Park. Besides the park, surrounding land uses include a golf course and related facilities/housing to the west, and ridge top homes to the south and east. The wilderness park in Aliso Canyon dominates the landscape to the north.

1.1.3.1 Topography

The topography of Laguna Beach is dominated by steep hillsides with incised canyons that trend primarily in an east-west direction. The Coastal Treatment Plant site is a relatively flat area at the bottom of one of the Laguna Beach area canyons, lower Aliso Canyon, adjacent to Aliso Creek. Steep slopes to the northwest, south and east and flatter canyon bottoms to the north and west characterize the site.

Slopes on the property range from flat to roughly 20°, while site elevations range from just above sea level (approximately 40 feet above mean sea level (AMSL)) in the southwestern portion of the property, to approximately 135 feet AMSL in the extreme southeastern portion of the property. The alignment of the canyons, the steep terrain, and regional topographic conditions of the area can have considerable effect on wildland fire behavior and on the ability of fire fighters to suppress those fires. These topographic factors can channel, deflect, concentrate, or disperse winds, creating extremely erratic conditions on the slopes and in the canyons. Due to these topographic features, it is not unusual for Aliso Canyon to experience unpredictable weather, such as on-shore winds during Santa Ana events, which bring offshore winds to the remainder of Southern California.

South Orange County Wastewater Authority Fire Protection Plan

1.1.3.2 Fuels

Along with the local topography and climate, vegetation plays a major role in shaping the fire hazard potential for the area. As previously described, the treatment plant is almost exclusively landscaped with irrigated ornamental species. The adjacent slopes and the large expanse of undisturbed areas outside the treatment plant property include a variety of native vegetation communities, but predominantly native coastal sage scrub with smaller areas of chaparral, which are considered “High Value” or “Very High Value” and protected habitat.

The mature coastal sage and mixed sage scrub fuels found on the slopes adjacent to the Coastal Treatment Plant are classified as Fuel Model SCAL 18. While this fuel type can burn intensely under strong, dry wind patterns, it does not typically produce the high fire intensity and fast-spreading wildland fires found with chaparral fuel types. Chamise and southern maritime chaparral vegetation does occur adjacent to the Coastal Treatment Plant and is classified as Fuel Model SH7 and is capable of producing higher intensity fires. The scrub vegetation types will typically burn with about half the intensity and flame length expected for chaparral fuels under similar climatic conditions. Other vegetation types adjacent to the Coastal treatment Plant include a small area of grassland (classified as a Fuel Model 1) and riparian woodland (classified as a Fuel Model TL2). Table 1 presents a summary of vegetation types adjacent to the Coastal Treatment Plant, and associated fuel model.

Table 1
Vegetation Communities – Coastal Treatment Plant

Vegetation Type	Corresponding Fuel Model
Annual Grasslands	1
Chaparral	SH7
Coastal Sage Scrub	SCAL18
Riparian Woodland	TL2

As presented, the majority of the vegetative cover on site is irrigated ornamental landscaping including eucalyptus, pine and other trees and ice plant groundcover. Off site, but within a sphere of influence of the Coastal Treatment Plant, is coastal sage or other scrub habitat types, chaparral, grassland, and riparian woodland types. Both scrub and chaparral vegetation communities are located primarily on steep slopes throughout Aliso Canyon. Other vegetation types present include riparian or other aquatic vegetation types as well as other developed/disturbed habitats characterized by relatively discontinuous fuels.

The vegetation characteristics described above and presented in Table 2 are used to model fire behavior, discussed in this FPP. Variations in vegetative cover type and species composition

South Orange County Wastewater Authority Fire Protection Plan

have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (leaf size, branching patterns), and overall fuel loading. For example, the native shrub species that compose the chaparral and coastal sage–chaparral scrub plant communities adjacent the treatment plant are a high potential hazard based on such criteria.

As described, vegetation plays a significant role in fire behavior, and is an important component to the fire behavior models discussed in this report. A critical factor to consider is the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes affects plant community succession. Succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on the fire regime. Biomass and associated fuel loading will increase over time, assuming that disturbance or fuel reduction efforts are not diligently implemented.

1.1.3.3 Fuel Loads

The vegetation described above translates to fuel models used for fire behavior modeling, discussed in Chapter 3 of this FPP. Fuel loading on site is low for the majority of the landscape. However, fuels associated with eucalyptus trees and other site tree species is considered moderate to high based on accumulation of dense canopies, dead and dying branches, leaf litter and debris.

1.1.3.4 Fire History

Fire history is an important component of a site-specific FPP. Fire history information can provide an understanding of fire frequency, fire type, most vulnerable project areas, and significant ignition sources, amongst others. Appendix B presents a fire history exhibit for the Coastal Treatment Plant vicinity. As presented in the exhibit, the most recent large fire to occur in the vicinity of the project is the Laguna Fire of 1993 which destroyed 366 homes and structures. The vegetative fuels, low humidity and strong, dry wind conditions converged to result in a significant wildland fire. The wildfire moved from north of Laguna Canyon Road to the Pacific Coast Highway in El Moro. A southern flank of this fire crossed Laguna Canyon Road, (Highway 133), and burned south through the Canyon Acres Drive area into Skyline Drive/Park Avenue areas of Laguna Beach. The fire was spread through windblown embers and wind driven flames consuming many of the homes on Canyon Acres Drive. Wind shifts resulted in the fire not burning into Aliso Canyon.

South Orange County Wastewater Authority Fire Protection Plan

Other fires that have occurred in the vicinity of the project site include:

- The El Moro and Antonio Fires in 2004
- The Avery, Laguna, and Shady Canyon Fires in 2002
- The El Moro Fire in 1997
- The Ridgeline Fire in 1994
- The Laguna Fire in 1993
- The Monarch Fire in 1990
- The Ortega Fire in 1988
- The Ortega, Laguna (Boat), and Niguel Fires in 1979.

Fire return intervals for the vicinity range between one and nine years, depending on location, although, as depicted in Appendix B, the Aliso Canyon area associated with the Coastal Treatment Plant has not burned during the recorded fire history period (FRAP 2010)¹. Typical fire return intervals for sage scrub vegetation types ranges between 20 and 30 years, while that for chaparral vegetation ranges between 40 and 60 years, indicating that the area is currently susceptible to wildfire.

1.1.3.5 Climate

The climate in the project area is typified by warm, dry summers and wetter winters. Precipitation in Orange County typically occurs between November and March and averages between 9 and 15 inches per year. The prevailing wind is an onshore flow with fall winds (Santa Ana Winds) from the northeast that may gust to 70 miles per hour (mph) or higher and result in single-digit humidity. The area's climate has a large influence on the fire risk as drying vegetation during the summer months becomes fuel available to advancing flames should an ignition be realized. Extreme conditions, used in fire modeling for this site include temperatures in excess of 90° during summer and wind gusts of 20 and 40 mph for onshore events and 30 and 60 mph during fall offshore wind patterns. Relative humidity of less than 10% is possible during fire season.

¹ Based on polygon GIS data managed by CAL FIRE's Fire and Resource Assessment Program (FRAP). Includes fire data from 1878–2009. For the National Park Service, Bureau of Land Management, and US Forest Service, fires of 10 acres and greater are reported. For CAL FIRE, timber fires greater than 10 acres, brush fires greater than 50 acres, grass fires greater than 300 acres, and fires that destroy three or more residential dwellings or commercial structures are reported.

South Orange County Wastewater Authority Fire Protection Plan

Local weather patterns may vary in the Laguna Niguel area with humidity and plant moisture higher than inland locations due to the Pacific Ocean influence. Wind patterns may also vary in the canyons with onshore, humid wind possible even during a region-wide Santa Ana condition leaving the rest of the County dry with strong offshore gusts.

1.1.3.6 Land Use

The Coastal Treatment Plant is an active wastewater treatment facility with structures and infrastructure supporting that function on an approximately 15 acre property. Roads/driveways within the property consist of a single entrance road across Aliso Creek Bridge, a loop road along the perimeter of the project to the north and a southerly road to the vehicle storage building. Access is good throughout the facility. Parking is provided at various locations throughout the site and there is ample room for parking in areas without designated spaces.

South Orange County Wastewater Authority Fire Protection Plan

2.0 ANTICIPATED FIRE BEHAVIOR

2.1 Fire Behavior Modeling

Following field data collection efforts and available data analysis, fire behavior modeling was conducted to document the type and intensity of fire that would be expected within Aliso Canyon given characteristic site features such as topography, vegetation, and weather.

Dudek utilized FlamMap software to graphically depict fire modeling results for the Aliso Creek area. FlamMap utilizes the same fire spread equations built into the BehavePlus software package, but allows for a geographical presentation of fire behavior outputs as it applies the calculations to each pixel in an associated Geographic Information Systems (GIS) landscape. For this analysis, extreme fall, offshore weather conditions (60 mph maximum wind speeds) were modeled in order to understand worst-case fire behavior in the canyon.

FlamMap software requires a minimum of five separate input files that represent field conditions in the Aliso Creek area, including elevation, slope, aspect, fuel model, and canopy cover. Each of these files was created as a raster GIS file using ArcGIS 9.3 software, exported as an ASCII grid file, then utilized in creating a FARSITE (Finney 1998) Landscape file that served as the base for the FlamMap runs. The resolution of each grid file and associated ASCII file that was used in the FlamMap models described herein is 10 meters (32.8 feet). In addition to the Landscape file, wind and weather data are incorporated into the model inputs. The output file chosen for the modeling run included flame length (feet). The map included in Figure 2 depicts the results of the modeling run.

The following provides a description of the input and output variables used in processing the FlamMap models. In addition, data sources are cited and any assumptions made during the modeling process are described.

Weather

Historical fuel moisture data for the region was utilized in determining appropriate fire behavior modeling inputs for the site. Specifically, 97th percentile moisture values derived from the Las Flores Remote Automated Weather Station (RAWS) were determined and utilized in the fire behavior modeling efforts conducted in support of this FPP. RAWS fuel moisture data were processed utilizing the Fire Family Plus software package to determine atypical (97th percentile) weather conditions. The Las Flores station, while not located near the project site, was used as no stations in Orange County are situated in similar geographical settings. The Las Flores RAWS is located on Camp Pendleton in San Diego County, approximately 1.5 miles from the Pacific Ocean at an elevation of 100 feet, a similar geographical setting to that of the project

South Orange County Wastewater Authority Fire Protection Plan

development area. Data from the Las Flores RAWs was evaluated from May 1 through October 31 for each year between 1992 and 2007 (extent of available data record). Fuel moisture information was analyzed and incorporated into the Initial Fuel Moisture file used as an input in FlamMap. In addition, wind direction and wind speed values for the different FlamMap runs were manually entered during the data input phase and were based on four separate wind scenarios, consistent with those for extreme weather during the 1993 Laguna Fire.

Elevation

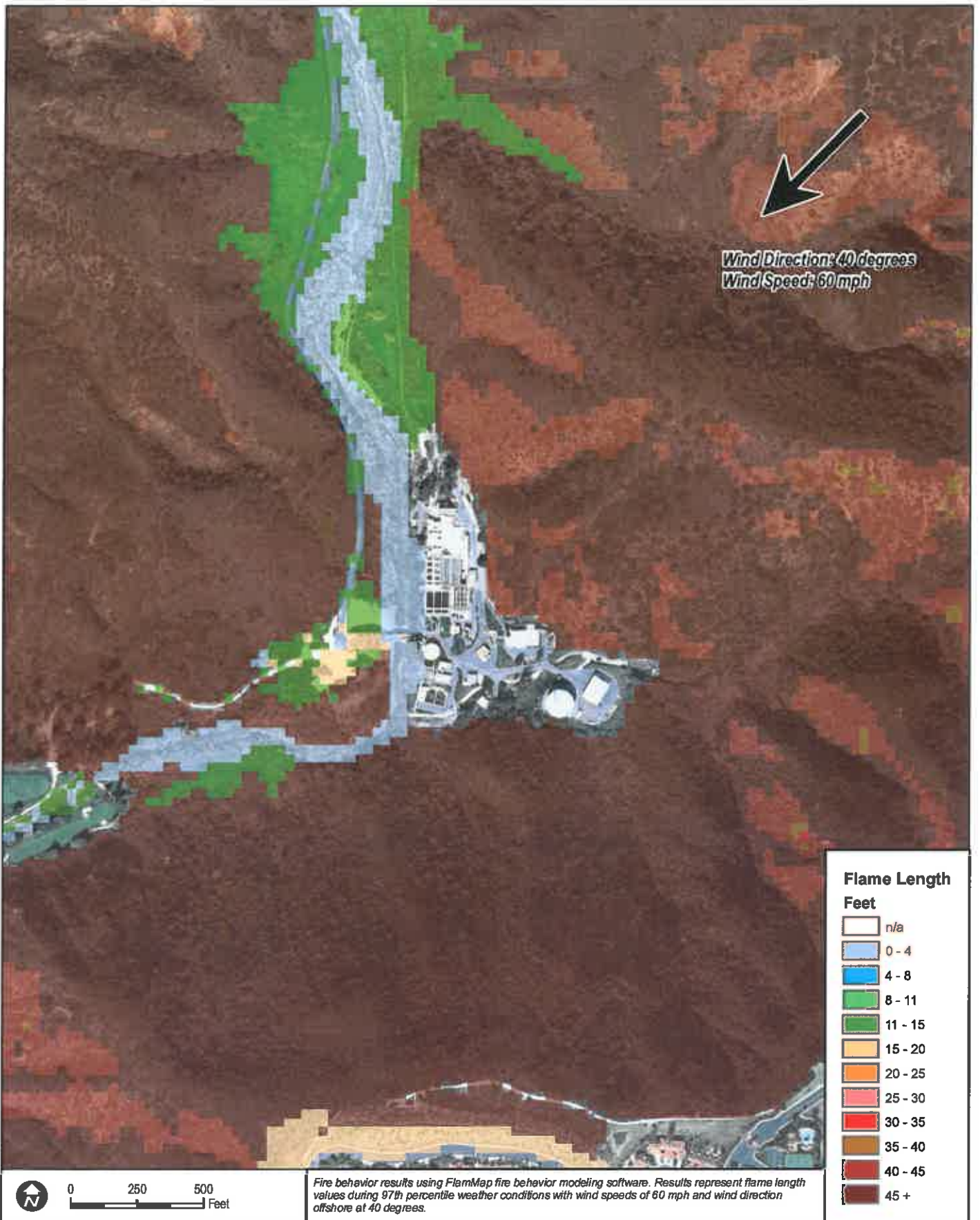
Elevation data were derived from a U.S. Geologic Survey (USGS) Digital Elevation Model (DEM) with a resolution of 10 meters and projected in the NAD 1983, California State Plane, Zone 6 coordinate system. Elevation values throughout the FlamMap analysis area range from 0 (sea level) to 1,000 feet AMSL. These data were utilized to create an elevation grid file, using units of feet above sea level. The elevation data are a necessary input file for FlamMap runs and are necessary for adiabatic adjustment of temperature and humidity and for conversion of fire spread between horizontal and slope distances.

Slope

Using ArcGIS Spatial Analyst tools, a slope grid file was generated from the elevation grid file described above. Slope measurements utilized values in degrees of inclination from horizontal. Slope values on site range from 0° (flat) to 80°. The slope input file is necessary for computing slope effects on fire spread and solar radiance.

Aspect

Using ArcGIS Spatial Analyst tools, an aspect grid file was generated from the elevation grid file described above. The aspect values utilized were azimuth degrees. Aspect values are important in determining the solar exposure of grid cells.



Z:\Project\6812-01\FireMap\Fig_2_FireBehav.mxd

DUDEK

6812-01
JANUARY 2011

SOURCE: ESRI World Imagery

FIRE PROTECTION PLAN - SOCWA COASTAL TREATMENT PLANT

FIGURE 2
Fire Behavior

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Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

Fuel Model

Vegetation coverage data in the form of a GIS shapefile were used in this analysis to create a fuel model file. Based on available vegetation mapping data, vegetation types were classified into fuel models. Vegetation mapping data was utilized in field efforts to classify vegetation cover type with an appropriate fuel model. Specifically, 5 separate fuel models were utilized for the area adjacent to the Coastal Treatment Plant, of which, one was a non-combustible classifications (e.g., bare soil, pavement). Once fuel model values were assigned to vegetation cover types, the vector-based vegetation data file was converted to a grid file for inclusion in FlamMap modeling. Table 2 outlines the fuel model values applied to the different vegetation types found on and adjacent to the Coastal Treatment Plant site.

**Table 2
FlamMap Fire Behavior Inputs**

Model Variable	Offshore Value
Fuel model	1, SCAL18, SH7, TL2
1 h fuel moisture	2%
10 h fuel moisture	3%
100 h fuel moisture	5%
Live herbaceous moisture	30%
Live woody moisture	50%
20 ft wind speed (mph)	60 mph
Wind direction	Off Shore: 40°
Slope steepness	variable by location, range: 0 to 80°

Canopy Cover

Canopy cover is measured as the horizontal fraction of the ground that is covered directly overhead by tree canopy. Crown closure refers to the ecological condition of relative tree crown density. Stands can be said to be “closed” to recruitment of canopy trees but still only have 40% or 50% canopy cover. Coverage units can be categories (0–4) or percentage values (0%–100%). For the purposes of the FlamMap analysis, non- woodland cover types (Fuel Models 1, SCAL18, and SH7) were classified as 0, while woodland types (Fuel Models TL2) were classified as 3.

Table 2 summarizes the input variables used in the FlamMap modeling efforts.

South Orange County Wastewater Authority

Fire Protection Plan

2.1.1 Fuel Model Output Results

One output grid files was generated for the FlamMap run and includes representations of flame length (feet). The graphical output from the modeling runs is presented in Figure 2. The fire behavior analysis results for the Aliso Creek area vary depending on fuel type. As FlamMap utilizes site-specific digital terrain data (including slope, vegetation, aspect, and elevation data) slight variations in predicted flame length values can be observed based on fluctuations of these attributes across the landscape. As presented, wildfire behavior in each of the fuel types varies, based on differing weather conditions.

Given the climatic, vegetation, and topographic characteristics along with the fire behavior modeling results discussed in this FPP, the project site is determined to be potentially receptive to wildfire starting on, burning onto, or spotting onto the site. Under extreme weather conditions, fire can move rapidly through the site's fuels. The most common type of fire anticipated in the vicinity of the project area is a fire burning onto the project site from a location up Aliso Canyon, possibly igniting from a nearby highway or roadway and fanned by off shore Santa Ana winds. Worst-case modeled flame lengths near the Coastal Treatment Plant were calculated at 55 feet in southern maritime chaparral and up to 45 feet in coastal sage scrub. As such, it is necessary to provide fuel management areas to reduce the site wildfire risk.

As presented, wildfire behavior in chaparral vegetation types represents the most extreme conditions. In this case, flame lengths can be expected to reach up to approximately 55 feet with 60 mph wind speeds. Flame lengths for fires burning in coastal sage scrub, represented as a Fuel Model SCAL18, with wind speeds of 60 mph can be expected to reach 45 feet.

It should be noted that the modeling results presented herein depict values based on inputs to the FlamMap software, which are help constant for each cell in the analysis landscape. Changes in wind, weather, or pockets of different fuel types are not accounted for in this analysis. Model results should be used as a basis for planning only, as actual fire behavior for a given location will be affected by many factors, including unique weather patterns, small-scale topographic variations, or changing vegetation patterns.

2.2 On-Site Risk Assessment

Dudek conducted a field assessment of the Coastal Treatment Plant and surrounding areas in order to confirm digital data accuracy, document existing site conditions, and potential risk, and to determine actions for addressing the protection or relocation of the site's staff and visitors. While on site, Dudek assessed the plant's topography, natural vegetation and fuel loading,

South Orange County Wastewater Authority Fire Protection Plan

available setback areas, structures, and general susceptibility to wildfire. SOCWA engineers and Coastal Treatment Plant staff were also interviewed.

Site photographs were collected and fuel conditions were mapped using 100-scale aerial images. Field observations were utilized to augment existing digital site data in generating the fire behavior models and formulating the recommendations outlined in this FPP. Refer to Appendix A for site photographs and brief discussions of existing site conditions.

As experienced as recently as 1993, the Coastal Treatment Plant vicinity is potentially vulnerable to wildfire, given the climatic, vegetation, wildland-urban interface (WUI) location, and topographical characteristics of the area, along with the fire history and fire behavior modeling results previously discussed in this FPP. In summary, wind or topography driven wildfire burning under a northeastern (Santa Ana) wind pattern (offshore) through the adjacent slopes to the north and northeast will result in an extreme wildland fire and potential hazard (airborne firebrands) to the structures and surrounding hillsides on the site. Wind-driven wildfire in Aliso Canyon would result in aggressive fire behavior and given the proximity of the Coastal Treatment Plant to surrounding slopes, would result in difficult conditions, including smoke, radiant heat, wind-blown embers, spot fires, and low visibility for an estimated period of 30 minutes to 1 hour.

Based on the FlamMap analysis conducted in support of this FPP and fire spread modeling conducted as part of a study for a project in the Aliso Canyon area in 2009, under extreme conditions, it is anticipated that a fire originating near the intersection of El Toro Road and Highway 73 may reach the project site in as little as 4 hours, assuming 30 mph sustained winds with 60 mph gusts aligned with the canyon topography. A fire originating from the Wood Canyon Ranger Station may reach the project site between 3 and 4 hours with the same weather and wind variables. However, it is expected that spot fires would reduce the time necessary for fire to travel the length of the canyon, possibly by 30 minutes or more, depending on the ember decay rate and wind speeds. Fires originating closer to the project would result in minimal effect on fire spread from embers as the fuel beds will be irrigated landscaping and fuel modification areas, which are less receptive to embers and spot fires.

Wildland fires starting north or east of the development on a typical fire day with a southwest wind will typically burn away from the treatment plant and will generally not be a significant wildland fire hazard if confined to the canyon bottom. However, a fire starting south or west of the development on a typical summer day with a southwest wind will create a wildland fire hazard and potential threat.

South Orange County Wastewater Authority Fire Protection Plan

The preceding sections have outlined the site, its existing structures and fire protection features, and the overall site risk level. The following section details the fire safety requirements that are currently in place and measures that are recommended to reduce risk further.

2.2.1 Emergency Response and Service

2.2.1.1 Emergency Response

OCFA provides fire protection for Orange County through a contract with CAL FIRE. Additionally, Laguna Niguel contracts with OCFA for fire protection services. CAL FIRE operates three Fire Stations in Laguna Niguel (Stations 5, 39, and 49) and one Fire Station in Aliso Viejo (Station 57) that would receive dispatch notification for response to an incident in Aliso Canyon at the Coastal Treatment Plant, each of which may send an apparatus. Initial response to the site would include up to three engines, as available.

Table 3 presents a summary of the location, equipment, staffing levels, travel distance, and travel time for the three Laguna Niguel stations. Travel distances are derived from City GIS road data while travel times are calculated using response speeds of 35 mph, consistent with the Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard and do not include turnout time.

**Table 3
Chula Vista Fire Department Responding Stations Summary**

Station	Location	Equipment	Staffing	Travel Distance	Travel Time*
Station 5	23600 Pacific Island Dr. Laguna Niguel	Engine 5 Medic Van 5	Assigned: 15 On-duty: 5	5.5 mi.	9.4 min.
Station 39	24241 Avilia Road Laguna Niguel	PAU Engine 39 Engine 339	Assigned: 9 On-duty: 3	4.8 mi.	8.2 min.
Station 49	31461 Golden Lantern Laguna Niguel	Engine PAU Truck 49	Assigned: 12 On-duty: 4	8.7 mi.	14.9 min.
Station 57	57 Journey Aliso Viejo	PAU Engine 57 Medic 57	Assigned: 11 On-duty: 3-5	5.1 mi.	8.7 min.

* Assumes travel to the project entrance, a 35 mph travel speed, and does not include turnout time

South Orange County Wastewater Authority Fire Protection Plan

Table 4 presents a summary of call volumes for 2009 for Stations 5, 39, 49, and 57. Based on the Coastal Treatment Plant site location in relation to existing Laguna Niguel and, Aliso Viejo Fire Stations, travel time to the site is expected to exceed the national standard of 5 minutes with the fastest calculated response of just over 8 minutes from Station 39. Travel to the most remote portion of the treatment plant may require up to an additional 0.5 minute. Because of this slower than desired response time, it is anticipated that Laguna Beach Fire Station 4 (31646 2nd Ave) may be called upon since the station is within 2 miles of the Treatment Plant. All response calculations are based on an average response speed of 35 mph.

**Table 4
Chula Vista Fire Department Responding Stations Call Volumes**

Station	Total Annual Calls (2009)	Average Monthly Calls	Average Daily Calls
Station 5	3,003	250	8.2
Station 39	1,599	133	4.4
Station 49	1,098	92	3.0
Station 57	3,544	295	9.8

2.2.1.2 Emergency Service Level

Based on Laguna Niguel Fire Station call volumes presented in Table 4, service levels are expected to remain constant for Station 39, the closest station, and Station 49, due to the currently lower volume of less than 5 calls per day. Stations 5 and 57 are considered busy stations and depending on growth within the response area for these stations, could result in erosion of service level. For reference, a station that responds to 5 calls per day is considered average and 10 calls per day is considered busy. The recommendations described in this FPP are intended to aid firefighting personnel and minimize the demand placed on the existing emergency service system. The recommendations of this FPP discussed in a later section are designed to assist the responding fire agency by improving overall fire safety and evacuation protocols and subsequently, minimizing the demand placed on the busier Fire Stations.

Additional response may occur from Laguna Beach, Aliso Viejo, and may include OCFA/CAL FIRE aerial resources, depending on the type of incident.

2.3 Buildings, Infrastructure and Defensible Space

The following summaries highlight important fire protection features currently employed at the Coastal Treatment Plant.

South Orange County Wastewater Authority Fire Protection Plan

2.3.1 Access

2.3.1.1 Primary

The primary project access is via AWMA Road/Aliso Canyon Road through Aliso Canyon. AWMA Road/Aliso Canyon Road intersects with Alicia Parkway. AWMA Road/Aliso Canyon Road approaches the treatment plant and ends at a “T” where a right turn leads to an approximately 300 foot driveway across Aliso Creek bridge and enters the site while a left turn leads to the Plant’s secondary ingress/egress through Aliso Creek Golf Course property.

2.3.1.2 Secondary/Emergency

One emergency ingress/egress way is provided by a narrow roadway that intersects AWMA Road/Aliso Canyon Road at its terminus and intersection with the Treatment Plant driveway. This gated access travels ¼ mile through native fuels at the toe of a south-facing slope until it enters the existing Aliso Creek Inn Golf Course. From there, the road travels another 9/10 of a mile where it intersects Highway 1. This road is gated and Coastal Treatment Plant staff has a key/card for passage. This road is only accessible during emergency and will not be used by staff for typical ingress/egress.

A second potential emergency ingress/egress is a dirt road on the east side of Aliso Creek. The road enters/leaves the Coastal Treatment Plant at its northernmost perimeter and parallels Aliso Creek, offering a bridge crossing approximately 1.9 miles from the plant and an additional 1.2 miles to Alicia Parkway. This road is subject to tertiary drainage washouts that leave the road impassible, so it should not be relied upon for vehicular ingress or egress until such time that the roadway is improved.

Exploration of the possibility of relocating the primary access road to east of Aliso Creek – in coordination with trail creation in that same location. Relocating the access road to the east side of Aliso Creek would not significantly affect ingress to, or egress from the site. A positive benefit is that it may limit the damage associated with flooding in Aliso Creek, which has eroded portions of the access road in the past. Moving to the east side of Aliso Creek would also eliminate the vulnerability associated with the Aliso Creek bridge crossing to the Plant.

2.3.1.3 Entrances

The Coastal Treatment Plant is accessed over a bridge that was rebuilt in 1993 and is capable of supporting the weight of anticipated fire apparatus (50,000 pounds) that would respond to the site. A series of gates are located along AWMA/Aliso Canyon Road for access to the Aliso and Woods Canyon Regional Park and the Coastal Treatment Plant. An existing gate also occurs on

South Orange County Wastewater Authority Fire Protection Plan

the emergency access way. Access gates comply with OCFA and include Knox keys for Fire access. Appendix C provides access road information.

2.3.1.4 Dead Ends

Site access is not classified as a dead-end. The primary site access road consists of an approximately 3 mile long AWMA Road/Aliso Canyon Road with an emergency ingress/egress intersection at its terminus.

2.3.1.5 Grade

The maximum grade for roads and driveways are relatively flat, not exceeding approximately 10% with most of the Plant roadways less than 3%.

2.3.1.6 Surface

All fire access and vehicle roadways are pavement or asphaltic concrete and designed and maintained to support the imposed loads of fire apparatus that may respond, including engines, water tenders, and trailered dozers.

Road resurfacing is planned in 2018–2019. Road resurfacing will provide a smooth surface for ingress/egress. No road widening is anticipated.

2.3.1.7 Identification

Identification of roads and structures via signage is provided. Continued coordination with OCFA and other local responders to ensure familiarity with site access.

2.3.2 Water

Water service for the Coastal Treatment Plant is provided by the South Coast Water District. The static hydraulic pressures are estimated to meet OCFA fire pressure needs.

2.3.2.1 Hydrants

A total of 7 fire hydrants located throughout the site, with one of the hydrants located on the west side of the access bridge. Appendix C provides fire hydrant locations, amongst other important fire safety information.

South Orange County Wastewater Authority Fire Protection Plan

2.3.2.2 Fire Sprinklers

None of the structures is provided interior fire sprinklers.

2.4 Ignition Resistant Construction and Fire Protection Systems

The site's structures were built between 1962 and 1982. The structures generally exceed the building codes requirements for ignition resistance applicable at the time of construction. The buildings are of concrete, steel, and wood frame/stucco construction and meet current building codes for ignition resistance walls. Wall openings may be improved with retrofits.

A variety of projects are planned over the next 10 to 15 year horizon according to the Capital Improvement Project planning document. The most notable relating to fire safety in the site's structures is the planned renovation of the Administration Building in 2024–2025. The renovation will include primarily interior upgrades along with doors, windows, and the HVAC system. Several improvements should be made prior to this larger renovation, as detailed in the recommendations section of this report.

2.5 Defensible Space and Vegetation Management

The Coastal Treatment Plant is exposed to wildland fuels in all directions with the heaviest fuels on the slopes to the east and south. The primary wildland fire threat will be from direct flame/heat from adjacent slopes and embers associated with distant, wind-driven fires to the northeast/east and from wildfire in open space area to the west under on-shore wind conditions.

The treatment plant is currently provided defensible space through cleared areas and ornamental landscaping. Some portions of the plant receive adequate fuel modification setbacks while others do not. The combination of the irrigated landscape areas and the paved roadways on the perimeter of most of the plant result in favorable fuel modification around the vehicle storage building, along the eastern edge of the facilities central and northern areas, and in the interior of the facility between structures. Fuel modification is provided via mowing along the majority of the access roadway to a distance of approximately 10 feet.

Areas where the structural setback from neighboring vegetation could be improved include the western side of the facility where it abuts Aliso Creek, the northern portion of the facility where ornamental trees are planted in a turf area, and at the southern property boundary where fuels are allowed to grow in the area between the water tank and generator building.

It is noted that the larger vegetation, primarily the site's trees, provide an important screening function from recreational users in Aliso and Woods Canyon Regional Park. The screening

South Orange County Wastewater Authority Fire Protection Plan

function is important for maintaining the aesthetics of a wilderness park. Recommended fuel reduction treatments discussed herein consider maintenance of the aesthetic function.

2.5.1 Vegetation Management

Vegetation management on this site should include regular maintenance of trees, shrubs, and ground cover to remove accumulated fuels, dead and dying branches, and leaf litter. The highest wildfire threat is from large eucalyptus tree and other fuels that are relatively close to structures and from wind-carried embers. As such, site landscaping and maintenance should follow the standards described in the following section.

2.5.1.1 Landscape Vegetation Management

The following recommendations are provided for landscape vegetation on site:

- High-leaf-moisture plants as ground cover, less than 4 inches high
- No tree crowns within 10 feet of structures (at maturity)
- Tree spacing of a minimum 10 feet between crowns
- No tree limb encroachment within 10 feet of a structure
- Tree maintenance includes limbing-up (canopy raising) 6 feet or one-third the height of the tree
- Shrubs less than 2 feet tall, on 5-foot centers
- Highly flammable and high BTU producing plants are unacceptable within designated fuel modification areas on site
- All dead and dying vegetation shall be routinely removed
- Use of native species within 30 feet of buildings is not recommended unless they are tolerant of consistent irrigation and meet the height, density, and lower flammability recommendations listed in this section.

2.5.1.2 Vegetation Maintenance

All vegetation management shall be performed routinely throughout the year. Annually, conducting vegetation management prior to June is recommended to reduce fuels prior to the start of the high fire season.

**South Orange County Wastewater Authority
Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

3.0 EMERGENCY PLANNING

The Coastal Treatment Plant emergency preparedness includes training and annual coordination with OCFA. Pre-planning information is provided to OCFA on the Hazardous Materials Inventory Reporting Form and includes an extensive listing of the plant's chemicals along with contact information, a site plan with buildings numbered and labeled, individual building footprints and chemical locations.

The Coastal Treatment Plant follows a pre-planned response to emergencies, including fires. Generally, the following protocol guides response:

1. Employees receive communications via cell phones/radio phones/reverse 911.
2. A facility wide loud speaker can be used to broadcast emergency messages.
3. When an emergency is realized, a "Code 2" alarm would be called and employees gather in front of the maintenance shop.
4. Evacuation of the site would occur following notification and the Code 2 alarm as part of the "Life First" protocol.
5. Operators and mechanics receive training in hazardous communications, emergency response, and disaster contingency planning and first responder HAZWOPER.
6. Procedures and back-up, secondary containment measures for chemical leaks are in place.
7. Emergency exits are located at the main entrance gate to the West and to the North end of the plant.
8. All new employees are trained on the MSDS located at the plant.
9. Employees are trained in first aid, CPR and attend refresher courses for HAZWOPER and emergency response.
10. Emergency response drills are conducted quarterly and include review of the Emergency Plan.

Wildfire Emergencies

South Orange County Wastewater Authority Fire Protection Plan

Wildfire emergencies may present the most significant fire risk at the Coastal Treatment Plant because they may be large, far-reaching, and capable of cutting off evacuation routes. With regard to wildfire emergencies, the following components should be added to the Coastal Treatment Plant emergency preparedness planning:

- Staff training for fire safety (coordinated with OCFA)
- Building and Facility Protection and measures
 - Upon Code 2 Alarm – close doors/windows to buildings, automate computers, as needed, convoy out of the treatment plant and canyon.
- Grounds Protection (fuel modification zone purpose)
- Fire Prevention during High Fire Danger and Extreme High Fire Danger periods
- Emergency Supplies
- Communications
- Command List
- Emergency Response Notebook
- Annual Review and Update
- Emergency Notification Procedures
- Advisement of Potential Fire Danger
- Emergency Relocation/Evacuation Plan.

The Coastal Treatment Plant should conduct at least annual fire drill exercises to ensure efficient decision making and proper safety measures are implemented. The OCFA is encouraged to observe these drills to provide input and clarification. After this annual observation and review, the fire authority may require alterations to the Emergency Preparedness plan. Coastal Treatment Plant staff should receive annual training at time of employment and then to coincide with the fire relocation drill regarding relocation, shelter in place, and the various fire protection features available. OCFA can provide training on various aspects of structural and wildfire emergencies.

3.1 Evacuation

In case of wildfire, the preferred plan is early evacuation from the site, consistent with SOCWA goals for staff safety. Accordingly, notification of a wildfire, especially during fire weather periods (normally during summer and fall) would result in staff leaving the site via AWMA Road/Aliso Canyon Road, unless it is not passable and the secondary egress through Aliso Creek

South Orange County Wastewater Authority Fire Protection Plan

Golf Course property must be utilized. When adequate time is not available for evacuation, and attempts at evacuation could put staff and/or visitors in harms way, then the shelter in place option would be utilized.

Early notification of the Coastal Treatment Plant staff and visitors is critical to a timely and safe relocation. Because cell phones do not always work and the primary land line is not consistent and could be compromised, communication with staff may be difficult and may require direct contact.

When conditions are such that distant wildfire may move toward the Aliso Canyon area, evacuations should occur with a conservative trigger threshold. Site staff will be trained by OCFA for the rare occurrence that a decision regarding evacuation or temporary shelter-in-place has to occur without OCFA or other fire or law enforcement input. As such, the decision will be made by informed individuals considering numerous factors.

If a relocation of staff and visitors is required, the following procedures will be followed:

Since the relocation of the Coastal Treatment Plant staff and possibly visitors, at maximum usage, may require in excess of 45 minutes, if adequate time is not available, the decision to remain in the shelter-in-place site will be made by trained staff or fire and law enforcement personnel, and evacuations will cease.

Evacuation from the site will follow an organized plan, including:

- Code 2 declaration.
- Mobilizing staff to provide direction to visitors, as necessary.
- Communicating with local law enforcement and fire officials to determine the best course of action.
- Evacuation vehicle management will be provided by law enforcement, if available, or by site staff. The preferred evacuation route will be the shortest, most direct, and least exposed route out of the Canyon. Most of the time, this may require using the secondary ingress/egress which travels through the Aliso Creek Golf Course property to the west.
- Evacuating staff and visitors should convoy out of the canyon onto PCH (if using the secondary, shorter evacuation route), or onto Alicia Parkway (if using the AWMA Road/Aliso Canyon exit).
- The vehicles would proceed toward areas out of harm's way, presumably to the urbanized areas to the east, south, and west.

South Orange County Wastewater Authority Fire Protection Plan

- If the typical average of up to 10 people were on site, evacuation is estimated to require up to 15 minutes.
- If the maximum estimated 70 people were on site (during a college or other school tour of the facility) and were to be evacuated, it is estimated that evacuation may require up to 45 minutes.

3.2 Temporary Shelter-in-Place

If evacuation from the site to an off-site area away from wildfire threat is not an option due to lack of adequate time, as determined by trained staff or law/fire authorities, staff will implement the last-resort, temporary shelter-in-place alternative.

As detailed in this FPP, the project features, including ignition resistant structures, site-specific fuel modification zones and enhanced, recommended protection including emergency landscape irrigation system, enhanced, ignition-resistant construction retrofits, interior sprinklers, and infrastructure improvements is designed to provide safe areas for sheltering during a wildfire.

To avoid the possibility that visitors ignore shelter-in-place orders, the Coastal Treatment Plant should institute the following protocol for all visitors to the site as a means to enforce shelter-in-place when it is designated the safest alternative:

- Educational material will be available to visitors regarding the shelter-in-place capabilities of the Coastal Treatment Plant and the strict requirement that they follow directions in the event of an emergency.
- In a wildfire emergency requiring temporary shelter-in-place, staff will position at the access way on the plant side of the Aliso Creek bridge and proactively direct individuals attempting to leave to the Administrative Building.

The Administration Building has capacity to shelter the estimated 70 maximum staff and visitors, based on worst-case calculations. However, it is advised that group tours are minimized during the months of October through December to reduce the likelihood that a large wildfire threatens the area when a large number of visitors are present.

Although the preferred shelter-in-place facility is the Administration Building, almost any of the site's structures could be utilized for a temporary shelter during a wildfire, considering that a wildfire would typically burn around the facility within a 30-minute or faster timeframe.

Additional amenities that may improve communication and sheltering staff/visitors ability to stay informed and calm include:

South Orange County Wastewater Authority Fire Protection Plan

- Large-panel television monitor so those that are interested may track newscasts during a wildfire event
- Satellite internet connection
- Large computer monitors and capable computers for tracking fire incident status
- Several computer terminals available for communicating via e-mail
- Second utility source or U.L.-rated diesel generator for emergency load
- Emergency preparedness supplies.

**South Orange County Wastewater Authority
Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

4.0 RECOMMENDATIONS FOR COASTAL TREATMENT PLANT

The following recommendations are the direct result of the Coastal Treatment Plant fire safety assessment conducted for this project and described in this FPP. The recommendations are inclusive of a comprehensive list of measures, equipment, technology and protocols that would improve overall site safety and reduce fire related risk.

RECOMMENDATIONS:

1. Provide Appendix C (or a modified version) to the OCFA in hard and digital copies. This will augment existing pre-plans and provide for more informed response to the site.
2. Capital Improvement Projects call for a renovation of some buildings, including the Administration Building in 2024. It is recommended that specific retrofits be provided as soon as possible including:
 - a. Provide interior fire sprinklers for the Administration Building. Automatic interior fire sprinklers will provide life safety improvements, especially considering the Administration Buildings dual role as the on-site fire shelter.
 - b. Replace wire mesh behind open louver/vent openings on all structures. Utilize 0.125 inch wire mesh to minimize the likelihood of ember penetration.
 - c. Replace roof vents on Administration Building with BrandGuard type vents that minimize the possibility of ember penetration.
 - d. Replace cyclone vents on Administration and other buildings or ensure only one-way travel to avoid sucking embers into interior spaces.
 - e. Replace windows with dual pane, one pane insulated, especially on wildland exposed sides of Administrative Building.
3. Improve fuel modification areas by thinning (both in terms of total numbers and crown densities) shrubs and trees that are within 30 feet of the Administration Building. Primarily, the area to the north and to a lesser extent, to the east of the Administration Building should be maintained free of highly flammable fuels to the property line. This would provide approximately 70 feet of modified fuels, which combined with the upslope away from the building, would be sufficient for keeping direct heat and flames off the structure. Currently, shrubs are allowed to grow within 10 feet of the structure.

South Orange County Wastewater Authority Fire Protection Plan

4. Provide thinning of trees along Aliso Creek and in the northern and southern portion of the Plant. Trees should be limbed up to 6 feet (canopy raised) and dead and dying materials pruned out and removed off site annually, or as necessary.
5. In addition to vegetation treatments north of the Administration Building, move flammable objects within the building away from the north-facing windows. Provide metal blinds that can be drawn in the event of a wildfire to prevent radiant heat igniting interior objects.
6. Consider installing a perimeter water cannon system. These systems can throw a “heavy” stream of water as a pre-treatment or fire suppression tool in an emergency situation and provide an effective moistened barrier to fire spread. The most effective and advanced systems utilize a fire retardant system that coats perimeter vegetation with a gel-form fire retardant that will not burn and can be easily washed off vegetation at a later date to avoid plant chemical burns. This system can be designed to use available reclaimed water or an off-the-shelf, self-contained system can be purchased.
7. Widen and re-pave secondary ingress/egress through Aliso Creek Golf Course property and provide a fuel buffer along both sides of the road. This should be a priority once redevelopment of the Golf Course property occurs. SOCWA has already discussed this with the developer of a resort at the site.
8. Explore possibility of maintaining road east of Aliso Creek through Aliso Canyon as a permanent access/emergency egress option. This would require environmental studies, so may be infeasible.
9. Provide employee first aid training specifically related to initial burn treatment. The treatment plant’s remote location could result in delayed response, especially if local engines/paramedics are fighting a large wildland fire.
10. Provide filtration breathing masks (such as the 3M full face respirator or similar) for use during potential shelter in place. Filters should remove airborne smoke.
11. Improve emergency communications so Treatment Plant staff is notified when an emergency occurs or can notify authorities of an emergency quickly if needed. Among potential technology that could be used are:
 - a. Satellite/wireless link for internet and telephone service for emergency communications.

South Orange County Wastewater Authority Fire Protection Plan

- b. Consider undergrounding telephone line when it can be completed in tandem with other infrastructure/utility projects to improve existing, unreliable service and minimize likelihood of interruption of service in an emergency.
 - c. Another option being considered is the installation of fiber optic cable coinciding with pipeline maintenance/replacement. Utility upgrades may require waiting until neighboring Aliso Creek Golf Course redevelopment occurs and a cooperating agreement can be in place.
12. Implement annual fire safety training drill with OCFA coordination/supervision.
13. Lobby the Park to patrol more diligently along the access roadway as a deterrent to illegal/unauthorized uses, especially considering the use of the paved area outside the SOCWA gate as a party area by local teenagers. Cigarette smoking or other activities could result in vegetation fire.
14. Hot work (welding, grinding, plasma cutting, torches, etc.) should not be conducted on Red Flag Warning or Watch days, as declared by the National Weather Service for the Orange County area. History indicates that the majority of large fires occur during Red Flag weather. These days usually occur in the late summer and fall and the project area may be under Red Flag Conditions for 15 days per year, on average.
- a. Hot work outside of Red Flag weather conditions should include precautions to minimize chance of vegetation ignition.
 - b. Fire suppression equipment (at minimum a shovel and fire extinguisher) should be immediately available at hot work sites.
15. A red flag or sign indicating Red Flag weather conditions should be posted at the site's entrance as a reminder to staff, contractors, and visitors that restrictions on activities are required to reduce the potential for vegetation fire.
16. Contractors should be educated and sign a form indicating they understand the importance of fire safety at the site and along the site's access road(s). Contractors are responsible for avoiding equipment-related or other ignition sources along the access roads and on site. Require contractors to carry fire suppression equipment (extinguisher and shovel, at minimum) in their vehicles.

South Orange County Wastewater Authority Fire Protection Plan

17. Fire extinguishers and/or water pump backpacks should be located and visible in strategic locations throughout the site in case needed to suppress a small vegetation or equipment ignition.
18. Smoking should be prohibited throughout the site, except in 1 or 2 designated areas. The designated areas should be away from vegetation and provided fire proof cigarette butt receptacles.
19. The typical site population is small and manageable. Site tours result in groups up to 70 people who may be unfamiliar with the area and would require significant time to evacuate. To minimize the effect tours have on fire safety, it is recommended that:
 - a. Tours are not allowed to occur on Red Flag Warning or Red Flag Watch Days, as designated by the National Weather Service.
 - b. Tours that occur during the summer and fall should be required to use small passenger vans or shuttles to reduce the number of vehicles entering the canyon.
 - c. Vehicles should be lead in to the project by staff in a convoy. A staff person should also lead the convoy out of the canyon at the end of the tour.

South Orange County Wastewater Authority Fire Protection Plan

5.0 CONCLUSION

This FPP is submitted in support of fire safety and risk reduction at SOCWA's Coastal Treatment Plan in Aliso Canyon. The facility performs an important function that is imperative that interruptions are minimal, even during a fire event.

The recommendations outlined in this FPP have been designed specifically for the Coastal Treatment Plan and its adjacency to the Aliso Canyon wildland fuels. The plant's fire safety system includes a variety of measures to reduce risk of structure ignition, and to aid in early evacuation for staff. Additionally, the site includes the ability to temporarily shelter staff on site during wildfire (and other emergencies including floods).

Ultimately, it is the intent of this FPP to guide, through site-specific recommendations, measures that improve site safety while also improving the site's defensibility from wildfire and, in turn, do not represent significant threat of ignition source for the adjacent native habitat. It must be noted that during extreme fire conditions, there are no guarantees that a given structure will not burn. Precautions and mitigating actions identified in this report are designed to reduce the likelihood that fire would impinge upon the proposed structures. There are no guarantees that fire will not occur in the area or that fire will not damage property or cause harm to persons or their property. Implementation of the required enhanced construction features provided by the applicable codes and the mitigating vegetation management requirements provided in this FPP will accomplish the goal of this FPP to assist firefighters in their efforts to defend these structures and reduce the risk associated with this project's WUI location.

**South Orange County Wastewater Authority
Fire Protection Plan**

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**South Orange County Wastewater Authority
Fire Protection Plan**

6.0 LIST OF PREPARERS

Project Manager:

Michael Huff
Fire Protection Planner/Certified Forester
Dudek

GIS Analysis, Fire Behavior Modeling and Mapping:

Scott Eckardt
Registered Professional Forester
Dudek

**South Orange County Wastewater Authority
Fire Protection Plan**

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South Orange County Wastewater Authority Fire Protection Plan

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South Orange County Wastewater Authority Fire Protection Plan

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APPENDIX A
Photograph Log

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



1. View to the east from administration building at adjacent native vegetation dominated slopes.



2. View to the southeast at large tank and steep slopes.



3. View to the southwest at adjacent steep slopes and native fuels.



4. View to the west at slopes and various structures on the Coastal Treatment Plant site.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



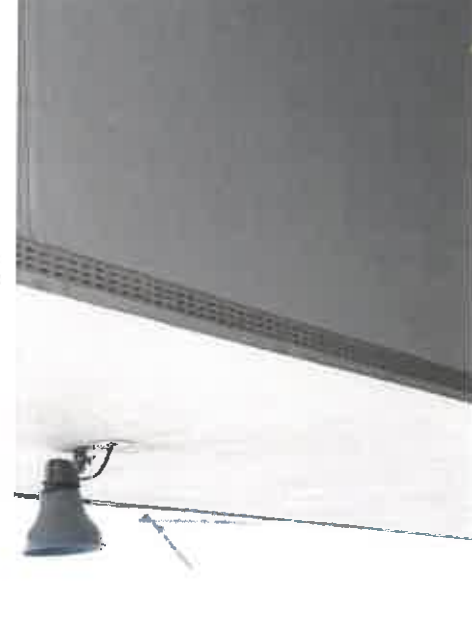
5. View to the northwest at CTP facilities and distant fuel covered slopes.



6. View to the north from administration building into Aliso and Woods Canyon.



7. View to the east at administration building (constructed in 1982) exterior construction and landscaping.



8. View of administration building under eaves strip vents.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



9. View of the administration building's west side and landscaping.



10. View of iceplant to the west of the administrative building on a small slope.



11. View of the Lower Personnel Building, constructed in 1967.



12. View to the east/northeast adjacent the administration building. This steep slope and heavier fuels are within 50 feet of the building.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



13. View to the east at v-ditch to the north of the administration building. Note fuels along ditch and proximity to administration building.



14. View to the north along eastern property boundary at native fuels and cleared area.



15. View of the aeration blower and adjacent non-native vegetation.



16. View of wall vent in aeration blower building. 1/2 inch wire mesh is placed behind the louvers.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



17. View of treatment facility infrastructure in the east-central portion of the plant site.



19. View of the Headworks Building which is a virtually non-combustible structure.



18. View of the Low Pressure Blower Building and wall openings (doors/windows/vents).



20. View to the northeast at the northern end of the site at adjacent native fuels and steep upslopes.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



21. View to the north at the northern end of the project site at Ferric Chloride tank and ornamental trees.



22. View to the north at ornamental trees located in the far northeastern portion of the plant.



23. View to the northwest at ornamental trees in the turf area in the northern portion of the plant.



24. View to the west/northwest at cleared area adjacent Aliso Creek. Note arrundo and other species in Aliso Creek.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



25. View to the north in the northwest corner of the plant. This area has been cleared and is used for storage of pipeline.



26. View to the west at Aliso Creek and dense vegetation within.



27. View to the east at ice-plant and cut and stored wood, which is recommended for removal.



28. View to the southwest toward the Drainage Pump Station structure and its proximity to Creek Vegetation.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



29. View to the west/southwest toward plant boundary and adjacent Aliso Creek.



30. View of elephant yucca and untrimmed petticoats on the plant site.



31. View to the south along plant's western boundary and vegetation (fuel) from creek and on site.



32. View to the south along plant boundary and ornamental (eucalyptus) trees just outside fence..

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



33. View of fire hydrant in west-central portion of the treatment plant. Note cut wood that should be removed.



34. View of structure in west-central portion of plant. Open doors can allow embers in and flammables to ignite.



35. View to the west at treatment plan access road and bridge over Aliso Creek.



36. View of large eucalyptus very close to plant facilities.

**South Orange County Wastewater Authority – Coastal Treatment Plant
Photograph Log**



37. View to the west at the extreme southwestern portion of the treatment plant.



38. View to the southwest from extreme southwestern portion of the treatment plant.



39. View to the southeast toward the Generator Building in the extreme south-central portion of the plant.



40. View of vent opening in Generator Building. Wire mesh is in place behind the louvers.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



41. View of Diesel Tank near Generator Building. Tank is a ConVault type tank.



42. View to the west at non-native vegetation at southern project site location.



43. View to the northwest toward Administration Building from the Large Reservoir in the southeastern portion of the plant.



44. View to the northeast at adjacent upslopes and fenced treatment plan boundary.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



45. View to the northeast at upslopes and stored pipes/tanks in extreme southeastern plant location.

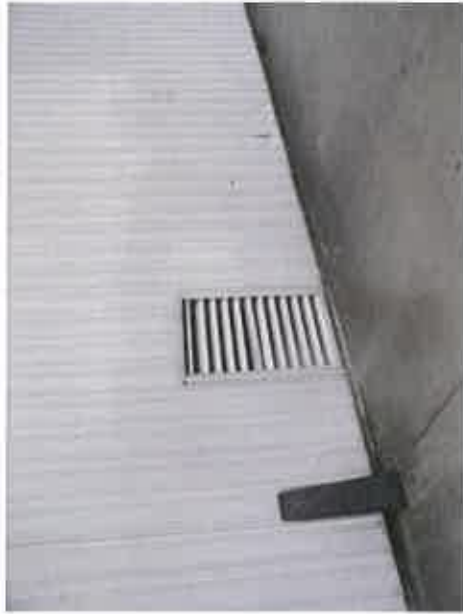


46. View to the southwest toward large reservoir and adjacent ornamental vegetation.



47. View to the north from extreme southeastern plant location at upslopes and converted vegetation.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



48. View at vent louvers in the vehicle storage building that are exposed to wildland. Wire mesh is in place behind the louvers.



49. View of the large reservoir in the southern portion of the plant.



50. View to the northwest toward Administration Building.



51. View of access roadway toward Aliso Creek Inn. This is a secondary evacuation route.

**South Orange County Wastewater Authority – Coastal Treatment Plant
Photograph Log**



52. View to the west along Awma Road toward Aliso Creek Inn.



53. View to the north along Awma Road. This is the primary ingress and egress route to the plant.



54. View to the north along Awma Road within Aliso and Woods Canyon.



55. View to the north along Awma Road within Aliso Canyon.

**South Orange County Wastewater Authority – Coastal Treatment Plant
Photograph Log**



56. View along Awma Road within Aliso Canyon.



57. View along Awma Road within Aliso Canyon.



58. View at gate location within Aliso Canyon.



59. View along Awma Road within Aliso Canyon.

South Orange County Wastewater Authority – Coastal Treatment Plant Photograph Log



60. View at automatic gate location for access to Aliso Creek and Coastal Treatment Plant.



61. View of controller for automatic gate including Knox key access for fire department.



62. View of access way/Awma Road which connects to Alicia Parkway and is the primary access.

APPENDIX B
Coastal Treatment Plant
Emergency Fire Safety Plan

APPENDIX C
Fire History Exhibit



Laguna Beach

Aliso Viejo

SOCM
COASTAL TREAT

M E M O

TO: Board of Directors
FROM: Jack Bebee, Assistant General Manager, JRB
DATE: June 26, 2017
SUBJECT: Coating Inspection Services – 8 MG, Sandia, and 2.8 MG Reservoirs

Purpose

To present for Board approval a professional services contract with MCS Inspection Group for coating inspection for the 8 MG, Sandia, and 2.8 MG Reservoir Recoating projects.

Summary

The District has developed a 10-year program to recoat the steel reservoirs. The District has completed coating of five of the nine reservoirs. There are three remaining to recoat and one smaller reservoir (Bucknell) that will be removed from service.

The District prepared a Request for Proposals (RFP) for coating inspection services to ensure the coating is applied properly for the remaining coating projects. District staff does not have the required expertise to provide full coating inspection services, but can provide general oversight. In order to supplement District staff, staff prepared an RFP to procure specialized coating inspection services. The District issued the RFP to four coating inspection firms and advertised for services on the District's website for firms with experience in the area. The District only received one proposal from MCS Inspection Group.

Staff reviewed the proposal and MCS Inspection Group has previously performed this service for the District satisfactorily and has competitive rates for inspection staff. Based on their daily rate and estimated inspection needs, the overall cost for inspection services is \$85,652 for the inspection services for the remaining projects. One hundred seventy thousand dollars (\$170,000) was budgeted for these projects in the FY 2017-18 through FY 2020-2021, including District staff time doing construction management for these projects.

Recommended Action

That the Board authorize execution of a professional services contract between the District and MCS Inspection Group for the approved budgeted coating inspection for the 8 MG, Sandia, and 2.8 MG Reservoirs for coating inspection services at a cost not to exceed \$86,000.

M E M O

TO: Board of Directors
FROM: Marcie Eilers, Administrative Services Manager/Treasurer 
DATE: June 26, 2017
SUBJECT: 2017-18 Final Budget
Resolution No. 4913

Purpose

To approve budgeted expenses for Water, Wastewater and Recycled Operating funds and Capital funds and to approve Water, Wastewater, and Recycled Debt Service expenses. Rates and charges will be set after the completion of the Raftelis Cost of Services Study and will become effective January 1, 2018.

Summary

The Final Budget FY 2017-18 covers the District's operational activities.

The District is divided into three operating departments: Water, Wastewater, and Recycled. The departments are then further divided into functional programs. Each functional program is an accumulation of functional-related jobs. As an example, meter reading is a job that is within the Customer Service Program in the Water Department. By job costing, the District is able to identify its workload and effectiveness levels.

The Final Budget also incorporates the Capital Budget for Water, Wastewater, Recycled, and Administration with detail for the budget projects and projections for the five out-years as well.

Calendar year 2018 rates will be updated and changed effective January 1, 2018, and will be presented in a Board Workshop to be held in November 2017.

Additionally, the Debt Service Budget is presented which designates all payments to be made on District debt as well as the funding sources for those payments.

Recommended Action

That the Board adopt Resolution No. 4913 adopting the final budget for fiscal year 2017-18.



Operating & Capital Budget

Fiscal Year 2017-2018

Adopted by the Board of Directors on June 26, 2017

TABLE OF CONTENTS

FALLBROOK PUBLIC UTILITY DISTRICT.....	3
BUDGET PROCESS AND SUMMARY.....	4
OPERATING BUDGET GOALS AND OBJECTIVES	5
CAPITAL ASSET MANAGEMENT.....	7
BUDGET SCHEDULES	8
• Budget Trend Overview (Schedule A).....	9
• Budget Breakdown by Revenue and Expense Category (Schedule B).....	10
• Operations Budget by Enterprise Fund (Schedule C).....	11
• Capital Asset Management Budget (Schedule D)	12
SUPPLEMENTAL INFORMATION	13
• Labor Costs	14
• Amortization Schedules	
○ Debt Service.....	15
○ CalPERS	16
• Authorized Personnel.....	17

FALLBROOK PUBLIC UTILITY DISTRICT

Fallbrook Public Utility District (FPUD) operates as a public agency under the Public Utility District Act of the State of California. The District was incorporated as a political subdivision of the State of California in 1922. Significant expansions of the District area took place in 1950 and in 1958. In 1990, the voters in the De Luz Heights Municipal Water District, whose service area joins Fallbrook to the northwest, chose to dissolve their 17-year old district and its entire service area was annexed to FPUD.

Then in 1994, FPUD'S scope of operations grew one more time when the Fallbrook Sanitary District was dissolved and FPUD took over sewer collection and treatment service responsibilities of downtown Fallbrook.

Today, the District provides imported water and sewer service to 35,000 residents living in 44 square miles in Fallbrook and De Luz.

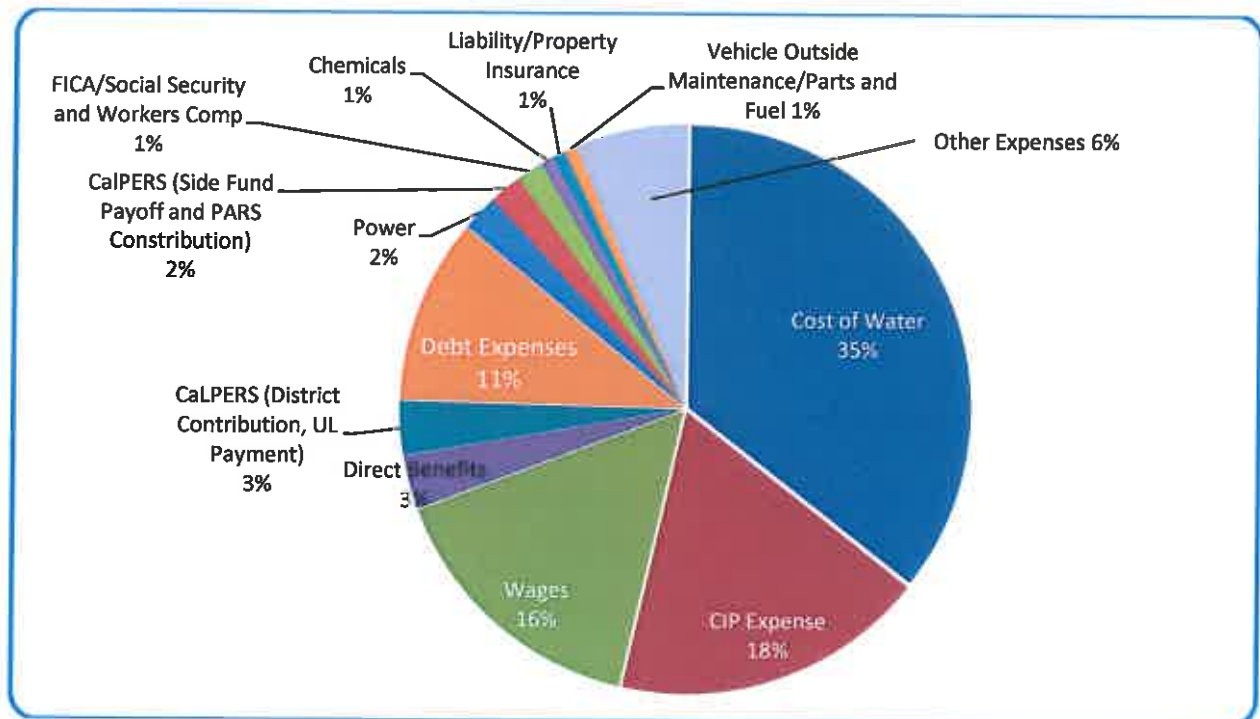
BUDGET PROCESS AND SUMMARY

The final budget for Fiscal Year 2017-18 is submitted herewith. The budget breaks operating activities into three separate operating funds: Water, Wastewater, and Recycled Water. Separate Capital and Debt Service funds have also been established in both water and wastewater divisions.

The budget reflects the FPU D Board's commitment to serving customers throughout the Fallbrook Public Utility District economically and efficiently during the next year as well as long-term planning to provide for current and future customers' needs for reliable, cost effective water and sewer service. The budget was prepared by:

- 1) Analyzing past performance;
- 2) Conducting a comprehensive study of the service level requirements for the upcoming year;
- 3) Considering the long-term program of capital equipment replacement and system improvements;
- 4) Developing alternative water supply sources; and
- 5) Board review of the preliminary budget submitted in May/June

The total budget of \$38,908,732 for the fiscal year ending June 30, 2018, contains \$26,576,304 in Operating expenses, \$8,395,283 in Capital expenditures, and \$3,937,145 in Debt Service expenses. The operating department budgets for Water, Wastewater, and Recycled Water are prepared with job level detail and incorporate workload measurements as they relate to goals and objectives. Funding is provided for 68 staff positions, unchanged from FY 16-17.



OPERATING BUDGET GOALS AND OBJECTIVES

Operating Budget Goals and Objectives for 2017-2018 are segregated into components as shown below:

Water Operations

Goal

Provide reliable water that meets or exceeds all regulatory requirements while reducing water use and waste.

Objectives

- Maintain zero water system regulatory compliance violations.
- Complete replacement of District AMR meters with AMI meters in Fallbrook Service Area to allow real time monitoring of water use by customers by end of FY 2019/20.
- Complete exercising of all valves on a three year cycle and replace inoperable valves to reduce water loss and service interruptions during leaks.
- Begin to track and reduce unplanned service interruptions.

Wastewater Operations

Goal

Optimize wastewater collections and treatment.

Objectives

- Reduce power and chemical use by 10% by optimizing operation.
- Achieve zero NPDES and WDR permit compliance violations.
- Continue CCTV, flushing programs, pipe replacements and relining to achieve less than 2 Sanitary Spill Overflow Events per 100 miles of collections piping annually.

Recycled Water Operations

Goal

Produce reliable recycled water supplies for the community.

Objectives

- Achieve zero regulatory compliance violations.
- Maintain 100% recycled water operations without potable water augmentation.

Operations and Engineering
Planning, Engineering and Capital Program

Goal

Develop a diverse water supply portfolio by maximizing available local water resources. Implement a long-term sustainable infrastructure replacement program to ensure reliability of the District's assets.

Objectives

- Double existing recycled water sales to a total of 1200 AFY by 2020.
- Complete the Santa Margarita Conjunctive Use project to begin delivery of an average of 3,100 AFY of local water by 2020.
- Complete capital projects in accordance with 10-year capital budget. Increase utilization of District construction resources on proactive capital replacements versus repairs.
- Complete comprehensive update to Asset Management Plan by end of FY 2017-18.

CAPITAL ASSET MANAGEMENT

The District has implemented a capital program to improve the overall reliability of the water, wastewater and recycled systems. The most significant on-going component of the capital program is replacement of aging infrastructure. In addition to rehabilitation, the construction of the \$45 million Santa Margarita Conjunctive Use Project in Fiscal years 18/19 and 19/20 will be the most significant single project for the next 15-20 years and will provide a long-term cost effective local water supply. A summary of key capital projects in FY17/18 are summarized below.

Water Capital Projects

The District will continue the reservoir coating projects to ensure reliable water storage facilities and will complete coating of the 8 MG reservoir in Deluz. District construction staff will continue with valve replacement projects to reduce outage impacts of breaks and failures. The District implemented an escalating capital improvement charge to ensure the District is meeting pipeline infrastructure replacement needs due to the growing age of the District's infrastructure and two pipeline replacement projects will be bid out. The two major pipeline projects for FY 18/19 include replacing 4,500 lf of deteriorated 6" piping along Pheasant Run Rd. in the southern section of our service area and replacing 1,700 lf of 24" piping that runs under I-15 and provides the backbone of our water service.

The completion of the water rights permitting, completion of the settlement agreement with Camp Pendleton and advertising for construction are anticipated to be completed for the Santa Margarita Conjunctive Use Project. Funding for construction will also be secured in FY 17/18 as construction of the Santa Margarita Conjunctive Use project is planned to begin in FY 18/19.

Electrical Gear at Harris Pump Station that has reached the end of its useful life will be replaced and Variable Frequency Drives (VFDs) will be added to reduce power use.

In accordance with the Meter Replacement Program Budget, the District will complete the third year of a five year program to replace existing Automatic Meter Reading (AMR) meters with Advanced Metering Infrastructure (AMI) meters to provide for real time data collection and alerts.

Wastewater Capital Projects

As part of the long-term sewer system replacement plan, construction of an awarded project will be completed to replace the sewer piping that has capacity and condition concerns in Brandon and Alvarado.

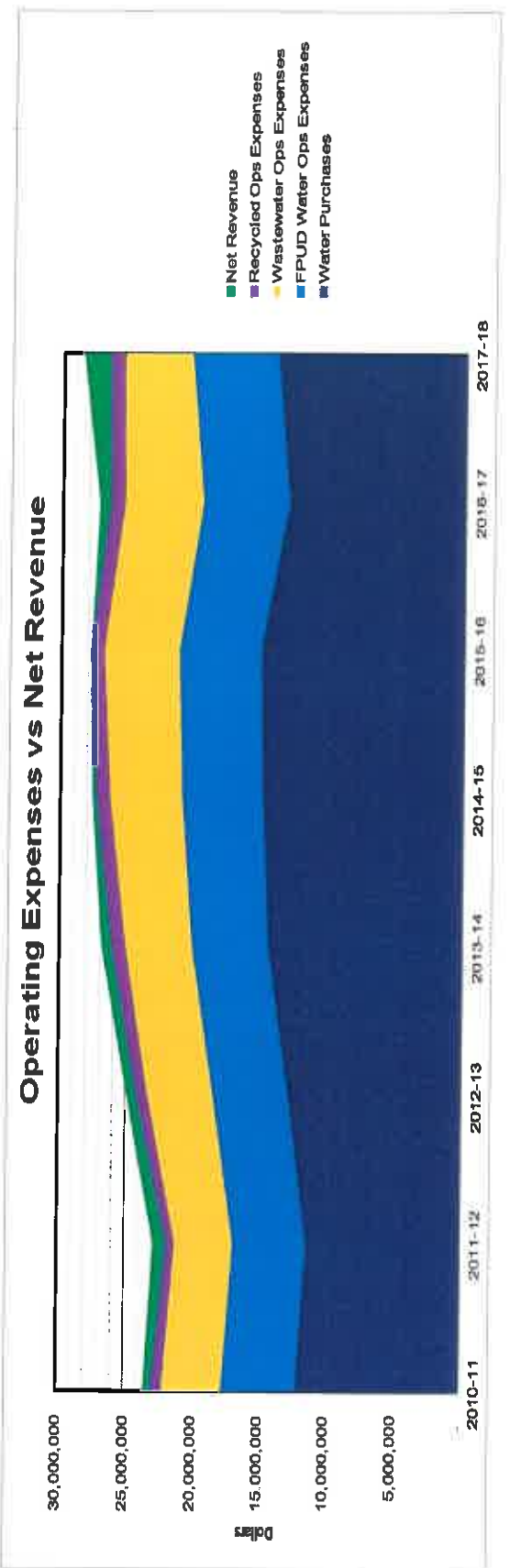
At the Water Reclamation Plant, older equipment and facilities that was not included in the plant rehabilitation project will be repaired or replaced. Design of rehabilitation of the Overland Trail Lift Station will be completed.

On the outfall line, replacements of drain and air/vacuum valves and appurtenances on the outfall that are no longer functioning and require replacement will be completed.

BUDGET SCHEDULES

Budget Trend Overview

	Adopted 2010-11	Adopted 2011-12	Adopted 2012-13	Adopted 2013-14	Adopted 2014-15	Adopted 2015-16	Adopted 2016-17	Proposed 2017-18
Operations Revenue								
Potable Water Revenue	18,095,629	17,636,256	19,032,276	20,708,554	21,258,087	21,140,578	20,227,269	21,228,396
Recycled Water Revenue	903,430	790,251	938,942	1,036,757	993,464	1,003,653	1,215,250	1,528,377
Wastewater Revenue	4,527,051	4,432,491	4,928,317	5,086,486	5,350,892	5,635,932	5,805,479	5,789,004
Operations Revenue	23,526,110	22,858,998	24,899,535	26,831,797	27,602,443	27,780,163	27,247,998	28,545,777
Operations Expense								
Water Authority Expense	12,128,245	11,400,551	12,834,173	14,436,295	14,917,419	15,158,603	13,060,217	14,045,184
FPUD Water Expense	5,607,787	5,522,949	5,675,337	5,736,972	6,070,391	6,152,541	6,519,228	6,483,530
Wastewater Expense	4,404,170	4,282,414	4,832,294	4,890,382	5,299,703	5,516,153	5,793,445	4,973,005
Recycled Water Expense	852,588	704,592	869,189	1,062,406	1,022,906	987,002	1,085,906	1,074,585
Operations Expense	22,992,790	21,910,506	24,210,993	26,126,055	27,310,419	27,814,299	26,458,796	26,576,304
Net Revenue	533,320	948,492	688,542	705,742	292,024	(34,136)	789,202	1,969,473



Budget Breakdown by Revenue and Expense Category

	2017-18 Proposed Budget	2016-2017 Adopted Budget	2016-17 Projected	Change from Proposed to Adopted Budget	% Change from Proposed to Adopted
REVENUES:					
Water Sales	8,673	9,000	8,767	(327)	-3.6%
Recycled Sales	850	740	670	110	14.9%
	9,523	9,740	9,437		
Operating Revenues:					
Water Sales	16,124,308	14,854,447	14,129,434	1,269,861	8.5%
MWD Readiness to Serve	405,267	398,232	506,718	7,035	1.8%
CWA Infrastructure Access Charge	411,331	398,056	396,979	13,275	3.3%
Meter Service Charges	5,348,419	5,338,784	5,431,248	9,635	0.2%
Wastewater Service Charges	5,787,904	5,804,379	5,518,871	(16,475)	-0.3%
Overuse Penalties	0	0	0	-	0.0%
Sundry Other Revenue	306,100	306,100	263,126	-	0.0%
CWA Recycled Rebates	162,448	148,000	146,827	14,448	9.8%
Total Operating Revenue	28,545,777	27,247,998	26,393,203	1,297,779	4.8%
Non Operating Revenues:					
Capital Improvement Charge	2,396,200	2,282,000	2,282,860	114,200	5.0%
Property Taxes*	1,916,938	1,814,077	1,916,939	102,861	5.7%
Water Standby/Availability Charge	203,000	203,000	203,000	-	0.0%
Water/Wastewater Capacity Charges	136,914	107,315	212,966	29,599	27.6%
Portfolio Interest**	207,356	175,000	213,920	32,356	18.5%
Pumping Charge	131,840	60,000	39,022	(20,048)	-33.4%
Prop 84 & 50 Funds	0	0	773,163	-	0.0%
SRF Loan Proceeds	0	0	0	-	0.0%
CSI Rebate	0	559,450	234,930	(559,450)	-100.0%
Facility Rents & Other Non Operating Revenues	173,055	185,000	214,616	(11,945)	-6.5%
Total Non Operating Revenues	5,165,303	5,385,842	6,091,416	(312,427)	-5.8%
*FY 16-17 Opening Balances (did not use Raftelis figures)					
**Portfolio interested as calculated on actual investments					
Total Budgeted Revenues	33,711,080	32,633,840	32,484,619	985,352	3.0%
EXPENDITURES:					
Operating Expenses:					
AF Purchased Potable Water	9,223				
AF Produced Recycled Water	902				
	10,125				
Purchased Water Expense	13,228,586	12,263,929	12,102,900	964,657	7.9%
MWD Readiness to Serve	405,267	398,232	398,232	7,035	1.8%
CWA Infrastructure Access Charge	411,331	398,056	398,056	13,275	3.3%
Production-Water Quality & Treatment	1,388,176	1,270,610	1,083,357	117,566	9.3%
Distribution	1,896,071	2,047,562	1,443,408	(151,491)	-7.4%
Customer Service	1,421,119	1,290,349	1,256,554	130,770	10.1%
General Administration	5,094,194	5,182,798	4,729,461	(88,604)	-1.7%
Collection, Treatment & Disposal	2,731,560	2,818,664	2,426,680	(87,104)	-3.1%
Total Operating Expenses	26,576,304	25,670,200	23,838,648	906,104	3.5%
Debt Service Expenses:					
Red Mountain SRF	395,893	395,893	395,893	-	0.0%
WWTP SRF	1,845,746	1,845,746	1,845,746	-	0.0%
QECB Solar Debt	372,854	349,024	349,024	23,830	6.8%
CalPERS 15-16 Unfunded Actuarial Liability Lump Sum	572,652	466,860	466,860	105,792	22.7%
Prefund CalPERS UAL Lump Sum Pymt to PARS	750,000	0	500,000	750,000	0.0%
Total Debt Service Expenses	3,937,145	3,057,523	3,557,523	879,622	28.8%
Net Revenue/(loss) From Operations and Debt Service	3,197,631	3,906,117	5,088,448	(708,486)	-20.5%
Capital Project Expenses - completed and ongoing projects	8,395,283	5,966,926	5,835,507	2,428,357	38.1%
NET REVENUES & EXPENDITURES	(5,197,652)	(2,060,809)	(747,059)	(3,136,843)	149.1%
Estimated Reserves as of 7/1/17	11,349,777	14,841,858	14,841,858	-	
Estimated Reserves as of 6/30/18	6,152,125	12,781,049	14,094,799	(6,628,924)	-51.4%

Operations Budget by Enterprise Fund

	2017-18 Water Ops Proposed Budget	2017-18 WW Ops Proposed Budget	2017-18 Recycled Ops Proposed Budget	2017-18 Total
REVENUES:				
AF Sales	8,673	-	850	9,523
Operating Revenues:				
Water Sales	14,842,821	-	1,281,487	16,124,308
MWD Readiness to Serve	405,267	-	-	405,267
CWA Infrastructure Access Charge	411,331	-	-	411,331
Meter Service Charges	5,268,977	-	79,442	5,348,419
Wastewater Service Charges	-	5,787,904	-	5,787,904
Overuse Penalties	-	-	-	-
Sundry Other Revenue	300,000	1,100	5,000	306,100
CWA Rebates	-	-	162,448	162,448
Total Operating Revenue	21,228,396	5,789,004	1,528,377	28,545,777
Non Operating Revenues:				
Capital Improvement Charge	1,272,836	1,123,364	-	2,396,200
Property Taxes	1,005,488	911,450	-	1,916,938
Water Standby/Availability Charge	203,000	-	-	203,000
Water/Wastewater Capacity Charges	102,779	34,135	-	136,914
Portfolio Interest	103,678	91,237	12,441	207,356
Pumping Charge	131,840	-	-	131,840
Prop 84 & 50 Funds	-	-	-	-
SRF Loan Proceeds	-	-	-	-
CSI Rebate	-	0	-	-
Facility Rents & Other Non Operating Revenues	173,055	-	-	173,055
Total Non Operating Revenues	2,992,676	2,160,186	12,441	5,165,303
Total Budgeted Revenues	24,221,072	7,949,190	1,540,818	33,711,080
EXPENDITURES:				
AF Purchased Potable and Produced Recycled	9,223	-	902	10,125
Operating Expenses:				
Purchased Water Expense	13,228,586	-	-	13,228,586
MWD Readiness to Serve	405,267	-	-	405,267
CWA Infrastructure Access Charge	411,331	-	-	411,331
Production-Water Quality & Treatment	732,360	-	655,816	1,388,176
Distribution	1,782,954	-	113,117	1,896,071
Customer Service	1,421,119	-	-	1,421,119
General Administration	2,547,097	2,241,445	305,652	5,094,194
Collection, Treatment & Disposal	0	2,731,560	-	2,731,560
Total Operating Expenses	20,528,714	4,973,005	1,074,585	26,576,304
Debt Service Expenses:				
Red Mountain SRF	395,893	-	-	395,893
WWTP SRF	-	1,107,448	738,298	1,845,746
QECB Solar Debt	-	372,854	-	372,854
Prefund CalPERS UAL Lump Sum Pymt to PARS	375,000	330,000	45,000	750,000
CalPERS Unfunded Actuarial Liability Lump Sum Pymt	286,281	251,927	34,444	572,652
Total Debt Service Expenses	1,057,174	2,062,229	817,743	3,937,145
Net Revenue/(loss) From Operations and Debt Service	2,635,184	913,956	(351,509)	3,197,631
Capital Project Expenses-completed and ongoing projects	6,268,783	2,061,500	65,000	8,395,283
NET REVENUES & EXPENDITURES	(3,633,599)	(1,147,544)	(416,509)	(5,197,652)
Estimated Reserves as of 7/1/17	5,674,889	4,993,902	680,987	11,349,777
Estimated Reserves as of 6/30/18	2,041,290	3,846,358	264,477	6,152,125

Capital Asset Management Budget

	Budget 2017-18	Outyear 2018-19	Outyear 2019-20	Outyear 2020-21
<u>Water Capital Improvement Projects</u>				
Field Equipment	698,500	243,500	533,500	333,500
Reservoirs	1,264,697	8,144	703,812	531,192
Pipelines	2,049,586	1,215,645	1,093,042	1,251,033
Yard/SCADA/Facility	99,000	60,000	50,000	0
DeLuz Improvements	90,000	100,000	100,000	100,000
Pressure Stations	70,000	10,000	20,000	20,000
Santa Margarita Conj. Use	100,000	22,440,000	25,940,000	220,000
Santa Margarita Water Rights	124,000	186,670	106,670	106,670
Pump Stations	750,000	195,000	50,000	50,000
Water Supply Facilities	105,000	40,000	80,000	40,000
Meter Service Replacement	400,000	400,000	300,000	50,000
New Meter Installations	20,000	20,000	20,000	20,000
Facility Upgrades & Security	144,000	144,000	124,000	124,000
Total Water Capital Improvement	5,914,783	25,062,959	29,121,024	2,846,395
<u>Wastewater Capital Improvement Projects</u>				
Collection System	1,681,500	799,225	844,186	959,396
Treatment Works	250,000	150,000	150,000	150,000
Outfall	80,000	80,000	80,000	80,000
Developer	50,000	50,000	50,000	50,000
Total Wastewater Capital Improvement	2,061,500	1,079,225	1,124,186	1,239,396
<u>Recycled Capital Improvement Projects</u>				
New Services	5,000	5,000	-	4,000
Improvements/Extensions	-	-	100,000	100,000
Tertiary Treatment Rehab:	60,000	85,000	10,000	10,000
Total Recycled Capital Improvement	65,000	90,000	110,000	114,000
<u>Admin Capital Improvement Projects</u>				
System & Server Upgrades	159,000	25,000	25,000	20,000
CADD/GIS/GPS	115,000	55,000	30,000	30,000
Facility Improve/Upgrades/Security	80,000	60,000	50,000	25,000
Total Admin Capital Improvement	354,000	140,000	105,000	75,000
Total Capital Improvements	8,395,283	26,372,184	30,460,210	4,274,791

SUPPLEMENTAL INFORMATION

Labor Costs

	2017-18 Proposed Budget	2016-2017 Adopted Budget	2016-17 Projected	Change from Proposed to Adopted Budget
Labor Costs:				
Annual Wages	5,828,492	5,698,680	5,704,586	129,812
Direct Benefits:				
Medical/Dental/Vision	908,782	964,259	946,781	(55,477)
Other Post Employment Benefits (OPEB) contribution	150,000	150,000	150,000	-
Life Insurance/Long Term Disability	35,780	38,418	36,000	(2,638)
Uniforms/Safety Equipment	38,317	38,317	43,260	(0)
Auto Allowance & Rec Fund	18,700	18,700	18,490	-
Total Wages & Direct Benefits	6,980,070	6,908,374	6,899,117	71,696
Indirect Benefits:				
CalPERS/401A*	558,770	438,162	511,926	120,608
CalPERS Lump Sum Unfunded Liability Payment	572,652	459,468	459,468	113,184
CalPERS Side Fund Payoff**	585,000	485,000	485,000	100,000
CalPERS Unfunded Liability contribution	100,000	100,000	100,000	-
FICA/Social Security	426,321	419,177	427,907	7,144
Workers Comp Premiums	127,023	130,558	134,800	(3,535)
Other-Unemployment Insurance	0	0	11,734	-
**Reimburse Reserves for 6/30/14 Side Fund Payoff				-
***Actuarial Unfunded Liability of \$9.8M				-
Total Indirect Benefits	2,369,765	2,032,365	2,130,835	337,400
Total Wages and Fringe Benefits	9,349,835	8,940,739	9,029,952	409,096

*Employer Contribution 10.848% for Misc Members and 6.908% for PEPRAs Members

**Reimburse Reserves for 6/30/14 Side Fund Payoff
Balance remaining is \$2,058,848 as of 6/30/17

***Unfunded Actuarial Liability (UAL) of \$9.8M. This action prefunds a portion of the UAL into PARS

Amortization Schedule Debt Service

WATER DEPT Year Ending June 30	Water Dept		Wastewater Dept		FPUD CalPERS	District Totals
	Red Mtn SRF*	Conjunctive Use	Solar QECB**	WWTP SRF***	UAL ****	
2018	395,893		372,854	1,845,746	572,682	\$ 3,187,175
2019	395,893	1,496,183	384,506	1,845,746	731,719	\$ 4,854,047
2020	395,893	2,992,366	397,027	1,845,746	842,422	\$ 6,473,454
2021	395,893	2,992,366	409,965	1,845,746	1,058,781	\$ 6,702,751
2022	395,893	2,992,366	423,335	1,845,746	1,100,213	\$ 6,757,553
Totals	1,979,466	10,473,281	1,987,687	9,228,729	4,326,416	\$ 27,974,980

*\$4,776,244 is the balance of the Red Mountain SRF. The loan will be paid off on January 1, 2031.

**\$4,330,461 is the balance of the Solar QECB loan. The loan will be paid off on November 18, 2027.

***\$29,609,644 is the balance of the WWTP SRF loan. The loan will be paid off on March 31, 2036.

****CalPERS is changing the discount rate by .25% over a seven year period. UAL will increase substantially due to this change. Current balance of the UAL is \$9,798,549 amortized over 30 years.

**Amortization Schedule for CalPERS Miscellaneous Plan
as of 6/30/15 actuarial valuation date**

Year	Totals		With Discount	% Increase
	Balance	Payment	Rate Changes	
17-18	9,798,549	593,281		
18-19	9,918,313	691,335	731,719	3%
19-20	9,945,396	794,738	842,422	6%
20-21	9,867,298	841,108	967,274	15%
21-22	9,735,267	882,318	1,058,781	20%
22-23	9,550,605	880,170	1,100,213	25%
23-24	9,354,321	906,576	1,178,548	30%
24-25	9,115,937	933,773	1,307,282	40%
25-26	8,831,476	961,786		
26-27	8,496,636	990,640		
27-28	8,106,767	1,020,359		
28-29	7,656,844	1,050,969		
29-30	7,141,439	1,082,499		
30-31	6,554,688	1,114,974		
31-32	5,890,261	1,148,423		
32-33	5,141,320	1,117,896		
33-34	4,367,859	1,084,505		
34-35	3,571,010	1,048,104		
35-36	2,752,139	1,008,543		
36-37	1,912,869	317,475		
37-38	1,727,169	326,999		
38-39	1,517,667	336,809		
39-40	1,282,281	346,914		
40-41	1,018,764	357,321		
41-42	724,693	251,558		
42-43	518,224	240,008		
43-44	308,245	169,117		
44-45	156,019	93,757		
45-46	70,511	13,723		
46-47	61,571	63,838		
	0			

Authorized Personnel

	FY 2016-17 Current	FY 2017-18 Add/(Delete)	Total
Administration			
General Manager	1		1
Administrative Services Manager/Treasurer	1		1
Human Resources Manager	1		1
Public Affairs Specialist	0.8		0.8
Secretary	1		1
Accounting Supervisor	1		1
Accounting/Customer Service Assistant I/II	2		2
Information Systems Technician	1		1
Customer Service Specialist	1		1
Customer Service Representative I/II	2		2
Administration	11.8	0	11.8
Engineering			
Assistant General Manager	1		1
Engineering Supervisor	1		1
Engineering Technician I/II/III	3		3
GIS Specialist	1		1
Administrative Office Specialist	1		1
Drought Management Coordinator	1		1
Operations Specialist	1		1
Engineering	9	0	9
Collections			
Collections Supervisor	1		1
Utility Technician	2		2
Utility Worker I/II/III	5		5
Collections	8	0	8
Construction/Maintenance			
Construction/Maintenance Supervisor	1		1
Utility Technician	2		2
Utility Worker I/II/III	5		5
Construction/Maintenance	8	0	8
System Services			
System Service/Shop Supervisor	1		1
Utility Technician	2		2
Backflow/Cross-Connection Tech	1		1

	FY 2016-17	FY 2017-18	
	Current	Add/(Delete)	Total
Equipment Technician	1		1
Equipment Mechanic	1		1
Utility Worker I/II/III	4		4
System Services	10	0	10
System Operations			
System Operations Manager	1		1
Lead System Operator	1		1
System Operator I/II	3		3
Utility Tech	1		1
Instrumentation & Controls Specialist	1		1
Utility Worker I/II/III	1		1
Maintenance Electrician	1		1
System Operations	9	0	9
Operations Support			
Safety & Risk Administrator	1		1
Warehouse Supervisor	1		1
Warehouse/Purchasing Specialist	1		1
Operations Support	3	0	3
Wastewater Plant Operations			
Chief Plant Operator	1		1
Lead Plant Operator	2		2
Environmental Compliance Tech	1		1
Plant Operator I/II	2		2
Mechanical Technician	1		1
Laboratory Technician I	1		1
Plant Maintenance Worker I/II	1		1
Wastewater Plant Operations	9	0	9
Total District	67.8	0	67.8

RESOLUTION NO. 4913

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
FALLBROOK PUBLIC UTILITY DISTRICT APPROVING AND
ESTABLISHING THE BUDGET OF SAID DISTRICT FOR FISCAL YEAR
2017-18 INCLUDING EXPENSES OF ADMINISTRATION,
OPERATIONS, MAINTENANCE, CAPITAL IMPROVEMENTS,
EQUIPMENT, DEBT SERVICE, AND CONTINGENCIES
AGGREGATING AND APPROPRIATING THE MONEY TO BE
EXPENDED PURSUANT THERETO FROM APPROPRIATE FUNDS**

* * * * *

BE IT RESOLVED BY the Board of Directors of the Fallbrook Public Utility District that the budget for financing District operations for fiscal year 2017-18, be and the same, is hereby adopted in the following particulars:

For administration, operations,
maintenance, water purchases,
and contingencies: \$35,022,215

For capital improvements,
equipment, and contingencies:..... \$42,482,678

For Debt Service G.O. Bonds -
Series 1977 and 1993, interest,
bond redemption, and
reserves:..... \$ -0-

For Debt Service Certificates of
Participation, State Revolving Fund,
and lease / purchase; interest and
principal and reserves: \$ 5,228,986

TOTAL..... \$82,733,879

BE IT FURTHER RESOLVED THAT expenditure thereunder is hereby appropriated from the following funds, to wit:

Operations Fund..... \$35,022,215

Construction Funds \$42,482,678

Debt Service Funds
Red Mountain SRF \$ 791,786

DeLuz Improvement District.....	\$	-0-
Improvement District "S" - Solar.....	\$	745,708
Recycled SRF	\$	-0-
Wastewater Rehabilitation SRF	\$	3,691,492

TOTAL..... \$82,733,879

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:

AYES:
 NOES:
 ABSTAIN:
 ABSENT:


 President, Board of Directors

ATTEST:

 Secretary, Board of Directors

|

M E M O

TO: Board of Directors
FROM: Brian J. Brady, General Manager 
DATE: June 26, 2017
SUBJECT: Exception to 180 Day Waiting Period

Purpose

To obtain approval of Resolution No. 4915 to waive 180 day waiting period for Marcie Eilers to return as a retired annuitant.

Summary

Under CalPERS regulations a retiree from a CalPERS agency must wait 180 days after retirement to return to employment at a CalPERS agency. An exception to this rule can be made for key positions within an organization with certain requirements being met. The timing of the position being vacated is in conjunction with the District's fiscal operations. It is essential to have staff in this position during the transition between two operating years.

Recommendation

It is the recommendation that Resolution No. 4915 be approved by the Board along with the employment agreement to have Marcie Eilers return as a retired annuitant prior to the 180 day waiting period to serve in the interim. The position is a key position and serves as the lead on the finance and budget operations for the District.

RESOLUTION NO. 4915

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE FALLBROOK
PUBLIC UTILITY DISTRICT CERTIFYING EXCEPTION TO THE 180 –
DAY WAIT PERIOD PURSUANT TO GOVERNMENT CODE SECTIONS
7522.56 AND 21221(H)**

*** * * * ***

WHEREAS, in compliance with Government Code section 7522.56 the Board of Directors must provide CalPERS this certification resolution when hiring a retiree before 180 days has passed since his or her retirement date; and

WHEREAS, Marcella Eilers 3870 retired from Fallbrook Public Utility District in the position of the Administrative Services Manager/Treasurer effective July 6, 2017; and

WHEREAS, section 7522.56 requires that post-retirement employment commence no earlier than 180 days after the retirement date, which is January 3, 2018, without this certification resolution; and

WHEREAS, section 7522.56 provides that this exception to the 180 day wait period shall not apply if the retiree accepts any retirement-related incentive; and

WHEREAS, the Board of Directors, the Fallbrook Public Utility District, and Marcella Eilers certify that Marcella Eilers has not and will not receive a Golden Handshake or any other retirement-related incentive; and

WHEREAS, the Board of Directors hereby appoints Marcella Eilers as an interim appointment retired annuitant to the vacant position of Assistant General Manager/Chief Financial Officer for the Fallbrook Public Utility District under Government Code section 21221(h) effective July 10, 2017; and

WHEREAS, an appointment under Government Code section 21221(h) requires an active, publicly-posted recruitment for a permanent replacement; and

WHEREAS, the current status of this recruitment is active and posted publicly; and

WHEREAS, this section 21221 (h) appointment shall only be made once and therefore will end on or before November 7, 2017; and

WHEREAS, the entire employment agreement, contract, or appointment document between Marcella Eilers and the Fallbrook Public Utility District has been reviewed by this body and is attached herein; and

WHEREAS, no matters, issues, terms or conditions related to this employment and appointment have been or will be placed on a consent calendar; and

WHEREAS, the employment shall be limited to 960 hours per fiscal year; and

WHEREAS, the compensation paid to retirees cannot be less than the minimum nor exceed the maximum monthly base salary paid to other employees performing comparable duties, divided by 173.333 to equal the hourly rate; and

WHEREAS, the maximum base salary for this position is \$15,487.68 and the hourly equivalent is \$89.35, and the minimum base salary for this position is \$12,402.52 and the hourly equivalent is \$71.55; and

WHEREAS, the hourly rate paid to Marcella Eilers will be \$82.98; and

WHEREAS, Marcella Eilers has not and will not receive any other benefit, incentive, compensation in lieu of benefit or other form of compensation in addition to this hourly pay rate; and

THEREFORE, BE IT RESOLVED THAT the Board of Directors hereby certifies the nature of the appointment of Marcella Eilers as described herein and detailed in the attached employment agreement/contract/appointment document and that this appointment is necessary to fill the critically needed position of Assistant General Manager/ Chief Financial Officer for the Fallbrook Public Utility District July 10, 2017 because this position is critical to the financial structure and budget needs of the Fallbrook Public Utility District.

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

**TEMPORARY AT-WILL EMPLOYMENT AGREEMENT OF RETIRED ANNUITANT,
MARCELLA EILERS,
DURING RECRUITMENT FOR A PERMANENT REPLACEMENT
FOR ASSISTANT GENERAL MANAGER/CHIEF FINANCIAL OFFICER**

This Temporary At-Will Employment Agreement ("Agreement") is made and entered into this July 10, 2017, by and between the FALLBROOK PUBLIC UTILITY DISTRICT, a public entity ("District") and MARCELLA EILERS, ("Employee").

1. District has a need for the Assistant General Manager/Chief Financial Officer position be filled while recruitment for a permanent position is ongoing.
2. Employee desires to accept employment, on a temporary, at-will basis, as the Assistant General Manager/Chief Financial Officer for the District working no more than 960 hours in a fiscal year.
3. Employee agrees that this is the sole and entire Agreement between the District and employee regarding the term of the employment and the termination thereof, and that this Agreement can be terminated at anytime by either party.

IN CONSIDERATION OF THE MUTUAL COVENANTS AND AGREEMENT HEREIN CONTAINED, IT IS HEREBY AGREED AS FOLLOWS:

1. **Employment:** Employee shall serve as Assistant General Manager/Chief Financial Officer during the term of this agreement, beginning July 10, 2017 and ending on or before November 7, 2017. Employee will perform such duties specified in the job description of the position subject to modification by the General Manager, or his delegate. Employee agrees to abide by all District policies and procedures. Where there is a conflict between those procedures and specific terms of this Agreement, this Agreement shall prevail.
2. **Term:** District agrees to employ and Employee accepts employment with the District under the terms of this Agreement until Employee's employment is terminated in accordance with this Agreement which will be on or before November 7, 2017.
3. **Salary and Benefits:** Employee will receive an hourly rate of \$82.98 payable biweekly at the same time as other employees of the District are paid. Employee is not entitled to other employee benefits and programs established for Management or Regular employees, including but not limited to health benefits, holiday pay, vacation, sick or other paid leave, or any severance pay on termination of employment. Contributions for Employee will be made by District to workers' compensation and any other benefit or program required by State or Federal law. Employee will be enrolled as a "retired annuitant" with CalPERS but

no contributions or service time will be credited to Employee during this interim, at-will employment.

4. **At-Will Employment:** Employee may be terminated by District through the General Manager, at any time with or without cause and without notice. This agreement on at-will employment status is the sole and entire agreement between District and Employee regarding the term of employment and termination thereof. This agreement on at-will status cannot be modified in anyway, whatsoever, except in writing which has been approved and signed by the General Manager. This agreement supersedes and replaces any prior agreements, whether oral or written, regarding the term of employment and termination. Insofar as other District policies or procedures are inconsistent with the express terms of this offer and agreement, this agreement on at-will status shall prevail.

5. **Withholding of Taxes:** District will withhold any monies payable pursuant to this Agreement all Federal State, District or other taxes as may be required by any law, or governmental regulation or ruling.

6. **Hours of Work:**
 - a. Employee is expected to conduct District business and perform Employee's duties for the District during the District's normal business hours, when requested by the District. Employee will record all hours worked on District's standard time card form. The parties expressly agree that under no circumstances will Employee work for the District more than 960 hours in any fiscal year and the Employee's termination from at-will employment will be no later than November 7, 2017.
 - b. Except upon prior written consent of the General Manager, Employee, during the term of this Agreement and while employed by the District, shall not engage, directly or indirectly, in any other business, commercial or professional activity, whether or not pursued for pecuniary advantage, that might create a conflict of interest with District, or that otherwise might interfere with business of District, or any affiliated party.

7. **Waiver of Breach:** The waiver by either party, or the failure of either party to claim a breach of any provision of this Agreement, shall not operate or be construed as a waiver of any subsequent breach.

8. **Assignment:** The rights and obligations of the respective parties hereto under this Agreement shall inure to the benefit and shall be binding upon heirs, legal representatives, successors and assigns of the parties hereto; provided, however, that this Agreement shall not be assignable by either party without prior written consent of the other party. Any attempted assignment is void.

9. **Entire Agreement:** This Agreement supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the subject matter hereof and contains all of the covenants and agreements between the parties with respect to said subject matter in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing and signed by both Employee and General Manager.

10. **Governing Law:** This Agreement shall be governed by, construed and enforced in accordance with the laws of the State of California. Any action to interpret or enforce terms of this Agreement shall be held exclusively in the state court in San Diego County, California. Employee expressly waives any right to remove any such action from San Diego County otherwise permitted by the California Code of Civil Procedures section 394.

11. **Partial Invalidity:** If any provision of this Agreement is found to be invalid or unenforceable by any court, the remaining provisions hereof shall remain in effect unless such partial invalidity or unenforceability would defeat an essential business purpose of this Agreement.

IN WITNESS WHEREOF, The parties hereto have caused this Agreement to be duly executed on this _____ of June, 2017.

BY:

Brian J. Brady, General Manager

BY EMPLOYEE:

Marcella Eilers

MEMO

TO: Board of Directors
FROM: Marcie Eilers, Administrative Services Manager/Treasurer *ME*
DATE: June 26, 2017
SUBJECT: Microsoft Office 2016 Upgrade and licensing requirements

Purpose

To upgrade District to 2016 Microsoft Office Suite and ensure that all users have licenses to use the upgrade by purchasing 65 licenses.

Summary

The District is currently using Microsoft Office Suite 2007, which will no longer supported by Microsoft. When support ends, we will also no longer receive security updates. The last time we upgraded was in 2007 when we went from Microsoft Office Suite 2003 to 2007.

The cost to purchase 65 licenses including tax is \$28,365.19, which is \$405 per license before tax. This is the cost quoted by Data Net Solutions, a Microsoft Certified Programmer with approval to use State negotiated prices as listed on the California Local Government price sheets. Because the State has negotiated the pricing, experience dictates that this is the lowest bid due to the extremely high volumes.

The Capital budget for Fiscal Year 2017-2018 contains funding for this upgrade.

Recommended Action

That the Board approve the upgrade to Microsoft Office 2016 and purchase 65 licenses in the amount of \$28,365.19.



PO Box 758
 Escondido, Ca. 92033
 Phone: 760-466-1200
 Fax: 760-466-1201

ESTIMATE

Estimate # DNSQ13414
 Date 05/02/17
 Sales Rep Jason

Estimated To: _____

Ship To: _____

Fallbrook Public Utilities District
 Mickey Case
 P.O. Box 2290
 990 East Mission Road
 Fallbrook, CA 92028
 (760)728-1125

Qty	Description	Unit Price	Ext. Price
	MICROSOFT OFFICE PROFESSIONAL 2016 LIC ONLY - 65U		
65	LIC MICROSOFT OFFICE PROFESSIONAL PLUS GOVT OLP	\$405.00	\$26,325.00
	SubTotal		\$26,325.00
	SubTotal		\$26,325.00
	Sales Tax		\$2,040.19
	Shipping		\$0.00
	Total		\$28,365.19

TERMS: All hardware and software licensing must be pre-paid in full at time the order is placed. Credit Card Payments via Mastercard and Visa require additional 1.5% and American Express require additional 3% of total amount. Labor is quoted as an estimate and actual labor times may vary. Work after 5:00 p.m. during the normal work week will be considered as overtime with weekend hours calculated at time and a half. Customer is responsible for any additional labor charges in excess of estimated amount with customer approved change order. Quoted hardware and software prices will be valid for 30 days. Additional shipping charges may apply to drop shipped orders. There will be a 15% restocking fee on all cancelled orders.

Signature _____ Print Name _____ Date ___/___/2017

Signature _____ Print Name _____ Date ___/___/2017
 DATA NET SOLUTIONS SIGNATURE

TO PLACE THIS ORDER PLEASE SIGN AND E-MAIL OR FAX QUOTE ALONG WITH A COPY OF CHECK TO 760-466-1201

MEMO

TO: Board of Directors
FROM: Marcie Eilers, Administrative Services Manager/Treasurer
DATE: June 26, 2017
SUBJECT: Update on Development of a policy for closing the fiscal year

Purpose

To develop a policy that details the timeframe of closing the fiscal year.

Summary

At the most recent Fiscal Policy and Insurance Committee meeting, the Committee asked staff to begin creating a procedure for closing the month of June and the fiscal year.

Tasks to close the year which are done after the June month-end close include:

1. Counting inventory to include pipeline and appurtenances, water in Red Mountain Reservoir and fuel.
2. Reconciliation of property tax receivables once Apportionment #13 is received.
3. Capitalization and closing of district and developer jobs. In the past, this has been done at year end but current practice is to close as jobs are completed.
4. Write off fixed asset retirees.
5. Balance CIP (Construction in Progress)
6. Balance retainer payable
7. Reconcile sick/vacation/comp time and age balances (current liability exists for current year accrual, long term liability exists for prior time on the books.)
8. Calculate accrued interest receivable from investments and interest payable from debt service.
9. Calculate and make adjusting entry for OPEB ARC
10. Calculate unbilled receivables after cycles 1 and 2 have been billed in July. Cycle 2 is billed by July 23rd.
11. Calculate debt covenant coverage
12. Reconcile HRA (health retirement account-for retirees) and OPEB balance (Other Post Employment Benefits).
13. Book GASB 68 entry as provided by auditor.

During the FY 15-16 close, items 3, 4 and 5 were delayed due to the Springbrook conversion and the way staff was advised to set up the Springbrook Capital Assets module.

During a routine year, it is reasonable that the fiscal year be closed out by the 20th of August.

If a deviation from the August 20th schedule is anticipated, staff will request a Fiscal Policy & Insurance Committee meeting to discuss the actions staff is proposing to offset any expected delays.

Recommended Action

For information purposes; no action is being requested of the Board at this time.

M E M O

TO: Board of Directors
FROM: Jack Bebee, Assistant General Manager *NRO*
DATE: June 26, 2017
SUBJECT: Establishing District Procurement Procedures compliant with the Uniform Public Construction Cost Accounting Act (Public Contract Code Section 22000 et seq.), and Electing to Become Subject to the Act (Resolution electing to become subject to the provisions of the Act and Ordinance repealing and replacing Article 14)

Purpose

To introduce for Board consideration updates to Article 14 of the Administrative Code to incorporate the District electing to become subject to the Uniform Public Construction Cost Accounting Act, Public Contract Code § 22000 et seq.

Background

At the September 2016 regular Board meeting, the Board requested a review of the District's local preferences policy for purchases, which staff and legal counsel conducted. At the December regular 2016 Board meeting, staff and legal counsel provided an overview of the results of that review, informing the Board that a local preference for local vendors could be implemented, to a limited extent, for purchases for public projects and goods which fall beneath the dollar thresholds for contracts that must be awarded to the lowest responsible bidder. Staff and legal counsel cautioned that constitutional equal protection issues must be considered in implementing such a policy to mitigate the risk of legal challenge. The Board then directed staff and legal counsel formalize a local preference policy for inclusion in the District's Administrative Code, for Board review and approval including a process to better solicit local vendors.

Thereafter, staff and legal counsel, while moving forward with the update to the District's Administrative Code bidding and purchasing provisions, identified an opportunity to increase efficiency and implement a more workable cohesive bidding and purchasing procedure in light of the current legal requirements under which the District operates by selecting to operate under the Uniform Public Construction Cost Accounting Act. The Act enables the District to raise its bidding threshold to \$45,000 and establishes both informal and formal bidding procedures. The informal bid procedures would apply to public projects in excess of \$45,000 and less than or equal to \$175,000. At the May 2017 regular board meeting the Board directed staff and legal counsel to move forward with formalizing changes necessary to operate under the Act.

Summary

The District presently operates under Public Contract Code §§ 20200 et seq. and 20202.1 et seq., which generally require competitive bidding for all contracts for construction (including alteration, maintenance, and repair) in excess of \$15,000 and contracts for “articles” in excess of \$10,000.

As identified in the May 2017 meeting, staff has concluded that there is a need to increase efficiency and implement a more workable, cohesive bidding and purchasing procedure. To achieve these goals, staff proposes that the District elect to follow the alternate bidding and purchasing procedures known as the Uniform Public Construction Cost Accounting Act, Public Contract Code § 22000 et seq., (the “Act”).

An updated Article 14 of the Administrative Code is attached and it has been updated to incorporate operation under the Act. Because the revisions to current Article 14 (Purchases and Sales, Regulations Governing) were so extensive, a redline version was not created. If approved, the Board’s action will repeal the current version of Article 14 and replace it with the updated Article 14 (District Procurement Procedures)

The Act enables the District to raise its bidding threshold to \$45,000 and establishes both informal and formal bidding procedures. The informal bid procedures would apply to public projects in excess of \$45,000 and less than or equal to \$175,000, and the formal bid procedures would apply to public projects in excess of \$175,000. While the purchase of articles is not included in the Act’s definition of a “public project,” the Act does permit a public agency which has elected to become subject to the Act to utilize the bidding procedures “when contracting for any other work which does not fall within the definition of ‘public project.’” (Pub. Contract Code § 22003.) Therefore, should the District elect to become subject to the Act, it may utilize the same bidding procedures for both construction projects and the purchase of articles.

In sum, opting into the Act would enable the District to create a single cohesive bidding procedure for all contracts, whether for construction contracts or for purchases of articles, instead of the bifurcated Public Contract Code scheme public utility districts must otherwise follow. In addition, staff has determined that 1) opting in will ensure the District’s job cost accounting provides an apples to apples comparison of outside contractor costs to better evaluate internal versus external services 2) the Act provides the District greater flexibility to address procurement needs over the existing somewhat outdated procurement requirements, and 3) the streamlined procurement process, especially the informal bidding process, will also help the District to better utilize local suppliers.

In order to take advantage of the benefits of the Act, the District must adopt the attached resolution (Attachment 1) to elect to become subject to the Act and notify the State Controller. The District will also need adopt the attached revised Administrative Code Article 14 (Attachment 2) to implement the updated procurement procedure.

As part of the revisions to the Administrative Code it is also recommended to adjust the GM authorization from \$22,000 to \$45,000 to make the authorization consistent with the bidding limit of the Act and to assist with streamlining of purchases for equipment, valves, pipe and other materials. As material and equipment costs have continued to rise the authorization limit has only slightly increased which has started to require Board approval of more routine items such as valves, hydrants and routine services. This modification will also make the GM authority for the District similar to other District's as shown in Table 1.

Agency	Limit
Eastern MWD	\$100,000
Elsinore Valley MWD	\$50,000
Encina Wastewater Authority	\$50,000
Helix WD	\$50,000
Leucadia Wastewater District	\$25,000
Olivenhain MWD	\$50,000
Otay Water District	\$75,000
Padre Dam MWD	\$50,000
Rainbow MWD	\$50,000
Santa Fe Irrigation District	\$35,000
SDCWA	\$150,000
Sweetwater Authority	\$50,000
Vallecitos Water District	\$50,000
	\$35,000; \$100,000 immediate non-emergencies
Valley Center MWD	
Vista Irrigation District	\$50,000
Yuima MWD	\$35,000

Table 1 – GM purchasing authority for other Agencies

In addition to the above changes the following additional updates are included in the proposed revised Article 14:

1. Added Section 14.7 to specify requirements to prequalify contractors. Contractors for the Santa Margarita Conjunctive Use Project will be pre-qualified in accordance with the Section.
2. Added Section 14.10 to formalize a local procurement preference with a 5% preference to local suppliers for contracts under \$45,000.
3. Updated Section 14.12 regarding use of the District Credit Card and developed a more detailed policy on credit card use (See Attachment 3)

4. Adjusted the percentage that can be requested from the board regarding charge order allowance from 5% to 10% in Section 14.13. The Board is not required to grant this authority and it must be requested for each project.

Recommendation

It is recommended that the Board take the following actions:

1. Adopt Resolution 4916 electing to become subject to the provisions of the Uniform Public Construction Cost Accounting Act.
2. Adopt Ordinance 339 Repealing current Article 14 (Purchases and Sales, Regulations Governing) and replacing it with revised Article 14 (District Procurement Procedures), which establishes procurement procedures compliant with the Uniform Public Construction Cost Accounting Act, will help streamline the purchasing and contracting process, and maximize the use of qualified local contractors and service providers where possible.

ATTACHMENT "1"

RESOLUTION NO. 4916

**A RESOLUTION OF THE BOARD OF DIRECTORS OF
THE FALLBROOK PUBLIC UTILITY DISTRICT ELECTING
TO BECOME SUBJECT TO THE UNIFORM PUBLIC
CONSTRUCTION COST ACCOUNTING ACT (PUBLIC
CONTRACT CODE SECTION 22000 ET SEQ.)**

* * * * *

WHEREAS, prior to the passage of Assembly Bill No. 1666, Chap. 1054 Stats. 1983, which added Chapter 2 commencing with Section 22000 to Part 3 of Division 2 of the Public Contract Code, existing law did not provide a uniform cost accounting standard for construction work performed or contracted by local public agencies; and

WHEREAS, the Uniform Public Construction Cost Accounting Act (the "Act"), codified at Public Contract Code Section 22000 et seq., establishes such a uniform cost accounting standard; and

WHEREAS, the California Uniform Construction Cost Accounting Commission ("Commission"), established under the Act, has developed uniform public construction cost accounting procedures for implementation by local public agencies in the performance of, or in, the contracting for construction of public works projects; and

WHEREAS, the Board of Directors Fallbrook Public Utility District desires to adopt and implement the uniform public construction cost accounting procedures as set forth in the Act.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Board of Directors of the Fallbrook Public Utility District hereby elects under Public Contract Code Section 22030 to become subject to the uniform public construction cost accounting procedures set forth in the Act and to the Commission's policies and procedures manual and cost accounting review procedures, as they may each from time to time be amended, and directs that the Board Secretary notify the State Controller forthwith of this election.

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

ATTACHMENT "2"

ORDINANCE NO. 339

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE
FALLBROOK PUBLIC UTILITY DISTRICT
REPEALING ADMINISTRATIVE CODE: ARTICLE 14, PURCHASES
AND SALES, REGULATIONS GOVERNING
AND REPLACING IT WITH ADMINISTRATIVE CODE: ARTICLE 14,
DISTRICT PROCUREMENT PROCEDURES

* * * * *

WHEREAS, Article 14 of the Fallbrook Public Utility District ("District") Administrative Code governs the contracting, purchasing and sales activities of the District in accordance with the provisions of the California Government Code, Public Contract Code and the provisions of the Public Utility District Act;

WHEREAS, the Uniform Public Construction Cost Accounting Act (the "Act"), codified at Public Contract Code Section 22000 et seq., establishes a uniform cost accounting standard and the California Uniform Construction Cost Accounting Commission ("Commission") established under the Act, has developed uniform public construction cost accounting procedures for implementation by local public agencies in the performance of or in the contracting for construction of public works projects; and

WHEREAS, the Board of Directors desires to adopt and implement the uniform public construction cost accounting procedures as set forth in the Act, which requires, in part, that the District enact procurement procedures for public projects as defined in the Act, of \$45,000 or less, adopt an informal bidding ordinance to govern the selection of contractors to perform public projects of in excess of \$45,000 and less than or equal to \$175,000, and to implement procedures in accordance with the Act for public projects in excess of \$175,000; and

WHEREAS, Administrative Code Article 14: *Purchases and Sales, Regulations Governing*, requires substantial revision to formalize the District procurement procedures, including those required by the Act, and therefore, the desire of the Board is to repeal existing "Article 14: *Purchase and Sales, Regulations*," and to replace it with "Article 14 *District Procurement Procedures*."

BE IT ENACTED BY the Board of Directors of Fallbrook Public Utility District as follows:

SECTION I. The Board of Directors of the District hereby repeals in its entirety current "Article 14: *Purchases and Sales, Regulations Governing*" and hereby adopts and approved new "Article 14: *District Procurement Procedures*" attached to Ordinance No. 339 as Exhibit "A" and incorporated herein by this reference.

SECTION II. If any clause or provision of this Ordinance is found to be void or unenforceable by a court of competent jurisdiction, the remaining provisions of this Ordinance shall nonetheless continue in full force and effect.

SECTION III. This Ordinance shall be posted at three public places in the District and to cause the same to be published pursuant to Section 6061 of the Government Code in the Fallbrook Village News, a newspaper of general circulation, printed, published and circulated in said District. This Ordinance shall take effect 30 days after its passage.

PASSED AND ADOPTED by the Board of Directors of the Fallbrook Public Utility District at a regular meeting of the Board held on the 26th day of June, 2017, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

EXHIBIT "A"

Article 14. District Procurement Procedures.

Sec. 14.1 Authority.

California Public Contract Code Sections 20200-20207.7, as well as other provisions in the California Public Contract Code, certain miscellaneous statutes found in the Public Utility District Act (Public Utilities Code Section 15501 et seq.), and the California Government Code, govern procurement (purchasing and contracting) by the District of the following:

- Articles such as goods, materials, supplies, equipment, capital assets, and advertising
- Works of construction, alteration, and non-professional services (including repair and maintenance)
- Professional services

The District has elected to become subject to the provisions of the Uniform Public Construction Cost Accounting Act (the "Act"), Public Contract Code Section 22000 et seq., which provides alternative procedures for the bidding and awarding of public contracts. As provided in Public Contract Code Section 22003, these procedures may also be utilized for maintenance work and other work that does not fall within the definition of "public project." Accordingly, it is the District's intent to utilize these procedures for "public projects" and all other purchases otherwise subject to Public Contract Code Sections 20200-20207.7.

The provisions of this Article 14 shall not apply to the acquisition of land by the District.

Sec. 14.2 General.

The ongoing operation of the District requires the procurement of various items, construction and services. Since it is necessary to procure these items, construction and services on a regular basis to carry on the day-to-day operations of the District, and since the Board of Directors reviews and approves all procurements through the budgeting process, or otherwise approves procurements by separate action from time to time, the following formal procurement policies and procedures are provided for implementation by District staff. These formal procedures are intended to implement the above-listed requirements of the California Public Contract Code, California Government Code, and California Public Utilities Code, which are mandatory for Public Utility Districts located within the State of California. State law forbids any director or other officer of the District from being interested, directly or indirectly, in any contract awarded or to be awarded by the Board, or in the profits to be derived from it.

Sec. 14.3 Procurement Philosophy.

Purchases of goods, materials, supplies, equipment, and capital assets shall be made from time to time, in the most economical quantity, in order to provide the District with maximum benefit for minimum expenditures. Quality and reliability of products are also important factors which may, on a case-by-case basis, cause rejection of an inferior product that does not meet specified requirements. It is also essential that purchases of all goods, materials, supplies, equipment, and capital assets be done by the District in a fair and open manner that promotes public confidence in the District and reinforces the public perception of fairness and equal opportunity for all competing vendors offering their products or services to the District. Contracts for works of construction and all services shall be made from time to time, after complying with applicable legal requirements and these procurement policies and procedures. To the extent permitted by law, and subject to the limitations established in Section 14.10, purchases should be made from vendors located within the boundaries of the District.

Sec. 14.4 Definitions.

- a. Articles. Goods, materials, supplies, equipment, capital assets, and advertising required to carry on the day-to-day operations of the District, including without limitation, office supplies, computer hardware and software, communications equipment, equipment, materials and supplies for distribution and treatment, including meters, meter parts, and pipeline materials.
- b. Commission. The California Uniform Construction Cost Accounting Commission.
- c. Designee. The General Manager may authorize the following persons as his designee in those areas in which they exercise budgeting control:
 - (1) Assistant General Manager – (construction and field equipment and materials, contract change orders, engineering items, Inventory and supplies).
 - (2) Assistant General Manager/Chief Financial Officer – (Articles related to office equipment and supplies, all computer hardware and software, communication equipment, and contract services).
 - (3) Operations Manager – (construction and field equipment and materials, contract change orders).
 - (4) System Operations Manager – (Articles used for distribution and treatment, and SCADA).
 - (5) Chief Plant Operator – (Articles used for treatment).

- (6) Supervisor – (Articles such as field equipment and materials).
 - (7) Warehouse Supervisor – (Warehouse related Articles).
- d. Maintenance. As defined in Public Contract Code § 22002, Maintenance includes all of the following: (1) routine, recurring, and usual work for the preservation or protection of any publicly owned or publicly operated facility for its intended purposes (2) minor repainting (3) resurfacing of streets and highways at less than one inch (4) landscape maintenance, including mowing, watering, trimming, pruning, planting, replacement of plants, and servicing of irrigation and sprinkler systems (5) work performed to keep, operate, and maintain publicly owned water, power, or waste disposal systems, including, but not limited to, dams, reservoirs, powerplants, and electrical transmission lines of 230,000 volts and higher.
 - e. Open Purchase Order. A purchase order for Articles which is effective for a specified period of time, not more than annually, and within the same budget year, i.e., office supplies and auto parts.
 - f. Professional Services. Professional services, such as services involving provision of a report, study, plan, design, specification, document, program, advice, recommendation, analysis, review, inspection, investigation, audit, brokering or representation of the District before or in dealings with another party, or any other services which require a special skill or expertise of a professional, scientific or technical nature. Professional Services include architectural, landscape architectural, engineering, environmental, land surveying, construction project management services. Professional Services also include legal, financial, accounting, and planning services.
 - g. Public Project. Defined in Cal. Public Contract Code § 22002, means any of the following: (1) Construction, reconstruction, erection, alteration, renovation, improvement, demolition, and repair work involving any publicly owned, leased, or operated facility and (2) Painting or repainting of any publicly owned, leased, or operated facility.

Sec. 14.5 Procedures for the Purchase of Public Projects, Maintenance, and Articles

- a. Purchase Procedures for Public Projects, Maintenance, and Articles in the Amount of \$45,000 or Less (“Small Purchase Procedures”).

The General Manager or Designee may make purchases of Public Projects, Maintenance, and Articles in an amount of \$45,000 or less, in accordance with the following Small Purchase Procedures, which the Board has imposed for such purchases, in the interests of sound business judgment.

- (1) Purchases of \$10,000 or more shall be made after obtaining three (3) written quotations. Purchases under \$10,000 shall be purchased in the

most prudent and economical manner possible, but do not require multiple competitive quotations.

- (2) The requirement for three (3) quotations is not required in those cases where the Board has approved the purchase as a “standardized item” such as meters, or for Open Purchase Orders as provided below.
- (3) Small Purchase Procedures specific to Articles. All purchases shall be made by purchase order after a properly authorized Purchase Order Requisition (POR) has been completed, signed and forwarded in the required manner. The only exceptions to this requirement are purchases made under a pre-existing Open Purchase Order, purchase of small routine items from suppliers with open purchase order or accounts, or purchases made during emergency. The purchase order must indicate the name of the suggested vendor and an exact description and price of each Article. Shipping charges, if any, and applicable taxes must also be included in the total price. The purchase order shall be reviewed and signed by the General Manager or Designee.

Open Purchase Orders shall generally be utilized for the purchase of repetitive need, low-valued Articles or for the purchase of Articles (such as automotive supplies) which must be available on short notice. Open Purchase Orders shall not be utilized as a substitute for the normal requisition and purchase order process described in this section. Open Purchase Orders may be written for a single class of consumable Articles i.e., office supplies, without listing specific, exact descriptions of each Article, but not to exceed the authority listed above and cannot span a period of time which includes more than one fiscal year.

- (4) Small Purchase Procedures specific to Public Projects and Maintenance. All purchases shall be made by written contract. Any such contracts shall be awarded on the basis of price and such other criteria established by the General Manager or Designee, as may be in the best interest of the District, in light of the type of work involved. Contracts for Public Projects shall require the successful bidder to execute a bond, in a form approved by the Board, for the faithful performance of the contract. Additionally if the contract exceeds \$25,000 and involves erection, construction, alteration, repair or improvement of any public structure, building, road or other public improvement of any kind, the successful bidder shall execute a payment bond, as required by the provisions of the California Civil Code.
- (5) Petty cash. Occasionally purchases of minor items may be required. Payments for such items may be authorized from petty cash funds by the General Manager or Designee. In no case will approval exceed \$50.00.

- (6) Quote information shall be retained until completion of the annual audit for the fiscal year in which purchased, or as otherwise established in the District's Records Retention Schedule.
- (7) Nothing in these Small Purchase Procedures shall prevent the General Manager, or Designee, from obtaining multiple quotations or from implementing the Informal Bid Procedures or Formal Bid Procedures if it is in the best economic interests of the District to do so. This judgment shall be made in the sole discretion of the General Manager or Designee.
- (8) Nothing in these Small Purchase Procedures shall prohibit the District from doing or causing to be done directly by the District, and without any contract, any or all work necessary or proper in or about the making of all current and ordinary repairs or in or about current and ordinary upkeep or maintenance.
- (8) Under no circumstances shall purchases be split or separated into multiple purchases in order to avoid the Small Purchase Procedures, Informal Bid Procedures and/or Formal Bid Procedures set forth herein

b. Purchase Procedures for Public Projects, Maintenance, and Articles in Excess of \$45,000 and \$175,000 or Less ("Informal Bid Procedures").

In accordance with Public Contract Code section 22034, the District adopts the following Informal Bid Procedures, applicable to purchases of Public Projects, Maintenance, and Articles in excess of \$45,000 and \$175,000 or less. Contract award shall be made by the Board.

- (1) The District shall maintain a list of qualified contractors, identified according to categories of work. Minimum criteria for development and maintenance of the contractors list shall be as required by the Commission.
- (2) All contractors on the list for the category of work being bid or all construction trade journals pursuant to in Public Contract Code Section 22036, or both all contractors on the list for the category of work being bid and all construction trade journals pursuant to in Public Contract Code Section 22036, shall be mailed, faxed or emailed, a notice inviting informal bids unless the product or service is proprietary.
- (3) All delivery of notices inviting informal bids to contractors and construction trade journals shall be completed not less than 10 calendar days before bids are due. The notice inviting informal bids may also be published in in a newspaper of general circulation.

- (4) The notice inviting informal bids shall describe the project in general terms and how to obtain more detailed information about the project, and state the time and place for the submission of bids.
- (5) If all bids received are in excess of \$175,000, the Board may, by adoption of a resolution by a four-fifths (4/5) vote, award the contract, at one \$187,500 or less, to the lowest responsible bidder, if it determines the cost estimate of the District is reasonable.
- (6) If awarded, a contract will be awarded to the lowest responsible bidder, consistent with the quality and delivery requirements.
- (7) All contracts for Public Projects shall require the successful bidder to execute a bond, in a form approved by the Board, for the faithful performance of the contract. Additionally if the contract involves erection, construction, alteration, repair or improvement of any public structure, building, road or other public improvement of any kind, the successful bidder shall execute a payment bond, as required by the provisions of the California Civil Code.
- (8) The Board shall have the right to reject all or any of the bids received.

c. Purchase Procedures for Public Projects, Maintenance, and Articles in Excess of \$175,000 (“Formal Bid Procedures”).

Purchases of Public Projects, Maintenance, and Articles in an amount exceeding \$175,000 shall be procured pursuant to the following Formal Bid Procedures. Contract award shall be made by the Board. Additionally, all plans and specifications for Public Projects shall be adopted by the Board or General Manager/ Designee.

- (1) In accordance with Public Contract Code section 22037, a notice inviting formal bids shall be published in a newspaper of general circulation, printed and published, at least 14 calendar days before the date of opening the bids, in the jurisdiction of the District and any such other newspaper publications deemed appropriate by the General Manager or Designee. Notice inviting formal bids shall state the time and place for the receiving and opening of sealed bids and distinctly describe the project.

If applicable, the notice inviting formal bids shall also be sent electronically, if available, by either facsimile or electronic mail and mailed to all construction trade journals. The notice shall be sent at least 15 calendar days before the date of opening the bids.

- (2) All bids for shall be presented under sealed cover. If awarded, a contract will be awarded to the responsible bidder who submits the lowest responsive bid.
- (3) All bids for Public Projects shall be accompanied by one of the following forms of bidder's security:
 - i. Cash
 - ii. A cashier's check made payable to the District
 - iii. A certified check made payable to the District
 - iv. A bidder's bond executed by an admitted surety insurer made payable to the District in the form provided by the District

Upon an award to the lowest bidder, the security of an unsuccessful bidder shall be returned in a reasonable period of time, but in no event shall that security be held by the District beyond 60 days from the time the award is made.

- (4) All contracts for Public Projects shall require the successful bidder to execute a bond, in a form approved by the Board, for the faithful performance of the contract. Additionally if the contract involves erection, construction, alteration, repair or improvement of any public structure, building, road or other public improvement of any kind, the successful bidder shall execute a payment bond, as required by the provisions of the California Civil Code.
 - (5) The Board shall have the right to reject all or any of the bids received.
- d. Nothing in this Section shall preclude the District from utilizing the design-build project delivery method where authorized by and in accordance with the provisions and requirements set forth in California Public Contract Code Section 22160 et seq., as it may be amended from time to time.

Sec.14.6 Procedures for Procurement of Professional Services.

- a. Pursuant to California Government Code Section 4526 et seq., the District shall secure professional services on the basis of demonstrated competence and on the professional qualifications necessary for the satisfactory performance of the services required. When specific technical expertise or experience is required, the District may negotiate the scope and fee for these services with an individual firm with this specific expertise.
- b. The District may, for procurement of architectural, landscape architectural, engineering, environmental, land surveying, and construction management services, utilize the Qualification-Based Selection procedures adopted by the

Architects and Engineers Conference Committee of California, as deemed appropriate by the General Manager or Designee.

- c. If the value of the services are estimated to be \$45,000 or more, the District shall issue a formal Request for Proposals for the services. Additionally, if deemed in the best interests of the District as determined by the General Manager or Designee, the District may first issue a Request for Qualifications to solicit firms with the necessary qualifications for the services.
- d. If the value of the services are estimated to be less than \$45,000, where practical, three proposals shall be obtained unless the General Manager or Designee deems otherwise appropriate.
- e. Award of Professional Services Contracts may be made by the General Manager for contracts in the amount of \$45,000 or less. Contracts in excess of \$45,000 shall be awarded by the Board.
- f. The contract amendment procedures outlined in this Article apply to Professional Services Contracts.

Sec. 14.7 Prequalification.

The District may prequalify contractors, pursuant to the provisions and requirements of California Public Contract Code Section 20101, as determined appropriate in the reasonable discretion of the General Manager or District Engineer. Prequalification shall be through a uniform system of rating bidders on the basis of completed questionnaires and financial statements in a form specified by the Board. The District may accordingly limit bids or proposals it receives to those contractors who are prequalified.

Sec. 14.8 Emergencies.

California Public Contract Code Section 22050 authorizes special contracting procedures in cases of “emergency.” An “emergency” for purposes of Section 22050 is defined as a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.

In the case of an emergency, as defined herein, the General Manager or Designee, may repair or replace a public facility, take any directly related and immediate action required by the emergency, and procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts. The General Manager, or Designee, must report to the Board at its next meeting required pursuant to this Section 14.8, the reasons justifying why the emergency will not permit a delay resulting from a competitive solicitation for bids and why the action is necessary to respond to the emergency.

If the General Manager or Designee, orders any action specified herein, the Board shall initially review the emergency action not later than seven days after the action, or at its next regularly scheduled meeting if that meeting will occur not later than 14 days after the action, and at least at every regularly scheduled meeting thereafter until the action is terminated, to determine, by a four-fifths vote, that there is a need to continue the action, unless the General Manager or Designee, has terminated that action prior to the Board reviewing the emergency action and making a determination. When the Board reviews the emergency action, it shall terminate the action at the earliest possible date that conditions warrant so that the remainder of the emergency action may be completed by giving notice for bids to let contracts.

Sec. 14.9 Exceptions to Procurement Requirements.

a. Sole Source Exception.

Notwithstanding any provision in this Article 14, the procurement requirements set out in this Article 14 shall not apply to the procurement of Articles, Professional Services, Public Projects, or Maintenance that can only be obtained from one supplier or contractor and for which obtaining quotes or bids is therefore impossible or not in the public interest, such that no competitive advantage can be gained by soliciting quotes or bids. Sole source contracts or agreements up to \$45,000 may be procured by the General Manager or Designee. The Board must approve any source contracts or agreements of \$45,000 or more.

b. Purchases when Price Controlled by an Official Rate-Making Body.

Whether approved by the General Manager or Designee, or the Board, the District is authorized to procure services or Articles without quotation or bid if the price is controlled by an official rate-making body such as is the case with wholesale water from SDCWA, electricity, gas and telephone, and the services are provided for in the operating budget.

Sec. 14.10 Local Procurements.

- a. It is the District's policy to encourage local businesses to provide goods and services to the District in order to maintain a healthy local economy, to increase local competition, and to lower core costs of goods and services. Local

preference for the procurement of eligible contracts may be allowed, so long as it is not otherwise prohibited by funding sources, by providing a 5% local preference where the purchase or contracts with a respective local vendor or business during any fiscal year do not exceed \$45,000. In order to qualify for this local preference, a vendor or business must either (a) be a District rate payer in good standing for the past six months, or (b) receive District utility services at its business location for the past six months, paid by a third party.

- b. Eligible procurements include those contracts which are not otherwise subject to competitive bidding, including contracts for the following:
 - (1) Purchases of Public Projects, Maintenance, and Articles in the amount of \$45,000 or less, pursuant to Section 14.5(a).

Sec. 14.11 Sale of Surplus Property/Equipment and Scrap Metal.

- a. Surplus Property/Equipment. When it has been determined by the General Manager that equipment is no longer appropriate because of capability, size, age, etc., to fulfill the District's mission or if a particular piece of equipment is more costly to maintain than to replace, the item will be disposed of through the next scheduled San Diego County auction. Should property become surplus through obsolescence or through a change in operating methodology, the excess property will be disposed of, as determined by District staff, as follows:
 - (1) To other public agencies on a bid basis;
 - (2) San Diego County Auction, or
 - (3) Internet-based inline auction services.
- b. Scrap Metal. The scrap metal which accumulates through the replacing of damaged and/or unserviceable items in the course of District operations, shall be sold as scrap to local scrap dealers at prevailing rates. Sales receipts shall be miscellaneous revenues of the District.

Sec. 14.12 Use of District Credit Card.

- a. There are certain transactions that are more efficient using a credit card transaction. Examples include small purchases that are lower cost on-line, travel arrangements, registration for training and other similar services.
- b. The credit card shall never be used to circumvent established competitive purchasing procedures. The credit card is prohibited from being used to purchase items for personal use under all circumstances. Personal use of the credit card will result in disciplinary action.
- c. Authorized cardholders and credit card use shall be per the District Credit Card Users Guide as approved by the General Manager.

Sec. 14.13 Contract Amendment Procedures.

As delegated by the Board of Directors of the District pursuant to the provisions of the Public Utility District Act, the General Manager is authorized to issue amendments to contracts as follows:

- a. A purchase order or contract may be amended by the issuance of a change order or amendment, provided the change which is the subject of the change order or amendment is reasonably related to the scope of the original contract. The General Manager may issue a change order or amendment which results in a total contract price of \$45,000.00 or less. The General Manager may request approval authority from the Board to issue contract amendments for up to 10% of the total contract value for specific projects with an initial contract value of greater than \$45,000.

- b. When the cumulative sum of amendments to a contract would exceed the limits in (a) above, a report of such amendments will be presented to the Board at its next meeting. Upon acceptance of the amendments by the Board, the General Manager shall have additional authorization to issue amendments as if the original contract amount were the total of the original amount and all accepted amendments.

ARTICLE 14
Sec. 14.7 - Rev. 4/95
Sec. 14.10 - Rev. 3/96
Sec. 14.5(a), 14.6(a) & (d), 14.7(d) - Rev. 6/99
Sec. 14.11 - Added 10/05
Sec. 14.4(c)(2), 14.10(c) & 14.12(g) - Rev. 6/06
Sec. 14.5(g) - Rev. 8/08
Sec. 14.4(e), Rev 01/09
Secs. 14.4(e)1,3,4,5,(f); 14.5(a)(d); 14.6(c)(d); 14.7(d); 14.9(b); 14.11(c) - Rev. 2/10
Add Sec. 14.12 - Rev. 2/11
Secs. 14.4; 14.9 - Rev. 1/13
Secs. 14.4; 14.13 - Rev. 7/13
Sec. 14.4 - Rev. 5/15
Sec. 14.4(f), 14.9(c) - Rev. 1/16
All Secs. Repealed and Replaced - Rev. 6/17

ATTACHMENT "3"

**DISTRICT CREDIT CARD
USERS GUIDE**

FOR

**FALLBROOK PUBLIC UTILITY
DISTRICT**

District Credit Card

Objectives

The use of District credit cards instead of other payment options may result in:

- Reduced procurement and payment processing costs.
- Improved vendor relations by making “doing business” with the District easier.
- Enhanced internal control by better identifying specific employees making minor supply and service purchases on behalf of the District and improving the accuracy of account distribution between programs and projects.
- Taking advantage of cost-saving opportunities by purchasing on the Internet or through catalogs.
- Enhancing the ease or education and training processes.
- Allow purchasing to focus on procurement of more significant items, which will help increase quality control and improve pricing.

OBTAINING AND ACTIVATING A CREDIT CARD

1. A credit card Request form is generated by the department director and forwarded to the General Manager. The form is approved or denied by the General Manager and sent to the Finance Department for processing.
2. Once the card is received, Finance Department will contact the newly approved cardholder (“Cardholder”) to attend a mandatory training. During this training the Cardholder is given their credit card along with a copy of this District Credit Card Users Guide.. The Cardholder will also sign any Credit Cardholder Agreement required by the credit card issuer, Union Bank/1st Bankcard.
3. The Cardholder will activate the credit card by following the instructions provided with the card.

NOTE: The issuance of District credit card in an employee’s name does not allow Union Bank/1st Bankcard to check the employee’s personal credit history. However, as part of the process for issuing a credit card in an employee’s name, the District provides Union Bank/1st Bankcard, with the last four digits of the employee’s social security number. The employee’s whole social security number will not be provided to Union Bank/1st Bankcard. Should a Cardholder need to contact Union Bank/1st Bankcard regarding billing questions, they will identify themselves using the last four digits of their social security number.

SPENDING LIMITS and CARDHOLDERS

The below list provides positions eligible for District credit cards based off department needs and staffing. The limit amounts in each category are expenditure limits and may not reflect that actual amounts of the card limit. The listing of a position eligible for a District credit card in this Credit Card Users Guide does not guarantee approval/ issuance of a District Credit Card.

•

Supervisors (Collections Supervisor, Construction/Maintenance Supervisor, System Services Supervisor)

- Single Purchase Limit: Not-to-exceed \$2,500 per transaction including tax and shipping /handling.
- Monthly Transaction Limit: Not-to-exceed \$5,000 per 30 day billing cycle and/or the limit of the credit card.

Managers (Human Resources Manager, System Operations Manager, Chief Plant Operator)

- Single Purchase Limit: Not-to exceed \$2,500 per transaction including tax and shipping/handling.
- Monthly Transaction Limit: Not- to- exceed \$5,000 per 30 day billing cycle and/or the limit of the credit card.

General Manager, Assistant General Manager, Assistant General Manager/Chief Financial Officer, Operations Manager, Warehouse/Shop Supervisor, Warehouse/Purchasing Specialist

- Single Purchase Limit: Not-to-exceed \$5,000 per transaction including tax and shipping/handling.
- Monthly Transaction Limit: Not-to-exceed \$10,000 per 30 day billing cycle and/or the limit of the credit card.

Processing and Payment Statements

Cardholders will:

1. Receive notification that their credit card statements are available.
2. Assemble all supporting documentation such as itemized receipts and/or packing slips, as well as credit clips for returned items.
3. Match receipts/packing slips to the transactions listed on their card statement.
4. Verify the charges on the statement are valid: the good were received and were acceptable, the price is correct, there are no duplicate charges, none of the charges have already been paid, and none of the charges are fraudulent.
5. Enter required information on Reconciliation form (may be performed by a Cardholder proxy)
6. Mark the appropriate account/project/fund balances to ensure sufficient funds are available to pay Cardholder department's charges on the statement.
7. Assemble the credit card statement and supporting documents:
 - Affidavit of fraudulent charges (if applicable)
 - Credit card statement report
 - All ORIGINAL ITEMIZED receipts/packing lists (and credit memos, if any), preferably in the order in which they are listed on the statement
 - Statement of questioned items forms (if applicable)
 - Copy of approved Travel Authorization and Advance Request form (if applicable)
 - Other documentation/checks requested by purchasing such as proof of competitive bids or quotes (if applicable)
8. Sign the Credit Card Statement Report.

9. If any transactions are being charged to another department's account(s), route the Credit Card Statement Report and attachments to the appropriate department(s) for required signatures. After other department(s) sign, packet is returned to originating department.
10. Route credit card statement report with attachments to approving official for signature approval.
11. Submit credit card statement report and attachments to Accounts payable for payment processing.

Note: The use of the credit card shall never be used to circumvent established competitive purchasing procedures. The credit card is prohibited from being used to purchase items for personal use under all circumstances. Failure to comply with the requirements of this District Credit Card Users Guide may result in disciplinary action.

Cancelling a Credit Card

If a District credit card is cancelled because the Cardholder is leaving employment with the District, the Cardholder must:

1. Submit credit card receipts to their approving official.
2. Give credit card to the Human Resources Department.
3. The card will be canceled by the Finance Department once notified by the Human Resources Department.

If a District credit card is cancelled for other reasons (not due to the Cardholder leaving employment with the District) the Cardholder must:

1. Return the credit card to the Finance Department and request cancellation of the card.

Lost or Stolen Card

If a District credit card is lost or stolen, the Cardholder must immediately notify Union Bank/1st Bankcard, the Cardholder's approving official, and the Finance Department. If theft is involved, the Police Department should also be notified.

- Contact Union Bank/1st Bankcard at 1-800-819-4249
- Notify the Assistant General Manager/Chief Financial Officer

Policy Violations

Cardholders who are found to be in violation of this District Credit Card Users Guide and/or District procurement requirements face possible disciplinary measures including, but not limited to:

- Suspension or termination of credit card privileges
- Suspension or termination of employment
- Civil or criminal action

Suspension or termination of credit card privileges may be documented in the Cardholder's personnel file in the Human Resources Department. If the offense warrants possible suspension or termination of employment, established District disciplinary guidelines will be followed. **Questions**

Questions regarding specific credit card procedures and this District Credit Card Users Guide should be directed to the Finance Department.

Approved by:

Date: _____

GENERAL MANAGER

M E M O

TO: Board of Directors
FROM: Jack Bebee, Assistant General Manager, JRB
DATE: June 26, 2017
SUBJECT: Replacement of 5th Wheel 3-Axle Tractor

Purpose

To present to the Board a request for the replacement of one 5th Wheel 3-axle tractor in accordance with the approved District Fleet and Heavy Equipment Replacement Program and associated budget.

Summary

As part of the District's asset management plan to maintain reliable infrastructure, it is important to have a reliable fleet and heavy equipment to support the replacement program and the District's operational needs. In March 2015, the Board approved an Off Road Heavy Equipment and Fleet Replacement Program to ensure reliability of the District's vehicles and equipment. In April 2017, the District provided some updates to the plan to help prioritize equipment replacements. The District has also developed scoring criteria to determine appropriate timing and prioritization of equipment replacements.

District Field Equipment Replacement

The approved Field Equipment Replacement Budget includes the replacement of the existing 5th Wheel 3 axle tractor. The existing tractor is 26 years old and is in poor condition. It is undersized to haul some heavy equipment and materials to job sites, which can result in unsafe conditions or the need to drive off-road equipment to certain job sites throughout Fallbrook. This equipment is critical to bringing larger pipe, valves and equipment to and from the job sites.

The District issued a Request for Proposals (RFP), which was sent to nine companies that supply this equipment as well as advertised in the paper and on the District website. Two companies bid the project. The bid results are included in Attachment 1. One company (San Diego Freightliner) provided two bids, one of which was compliant with the equipment requirements specified in the RFP. The other was non-compliant because it proposed an aluminum versus steel bed. The other company (Dion International Trucks) provided a single non-compliant bid that did not include the specified air lines to the trailer to support the braking systems for existing trailers. This system would have to be added after market by the District with a substantial cost. Accordingly, it is recommended that the District replace its existing Vehicle 1106 and purchase one 5th Wheel 3 axle day cab tractor from San Diego Freightliner in San Diego for \$138,754.93. \$148,000 was budgeted for this item in the approved FY 16/17 budget, which was carried forward into the 17/18 budget.

Recommended Action

That the Board approve the purchase of one 5th Wheel 3 axle day cab tractor for \$138,754.93 from San Diego Freightliner in San Diego, which was the lowest responsive bidder, in order to maintain a reliable District fleet to complete necessary infrastructure repairs and replacement.

Fallbrook Public Utility District
Summary of RFP 2017- 98
5th Wheel 3 Axle Day Cab Tractor

VENDOR	Manufacturer	LOT PRICE (Tax Included)
San Diego Freightliner 6006 Miramar Road, San Diego, CA 92121 <i>Delivery: 120-140 Days</i>	<u>Option B</u> 2018 Freightliner Model # 114SD	<i>Non-Compliant –</i> \$ 128,580.50 <i>Specification: Galvanealed Steel Cab</i> <i>Bidding: Aluminum cab w/steel reinforcement</i> <i>(Aluminum softer metal than galvanealed steel and will</i> <i>not hold up as well with construction use.)</i>
Dion International Trucks 5255 Federal Blvd. San Diego, CA 92105 <i>Delivery: 98 Days</i>	2018 International Model #7600 SBA	<i>Non-Compliant –</i> \$ 134,883.34 <i>Specification: air and electric lines will be provided</i> <i>at back of cab and end of frame from the factory to</i> <i>allow trailer towing capability.</i> <i>Bidding: No Air Lines to end of frame.</i> <i>(FPUD crews will not be able to tow all existing trailers</i> <i>currently in fleet.)</i>
San Diego Freightliner * 6006 Miramar Road, San Diego, CA 92121 <i>Delivery: 120-140 Days</i>	<u>Option A</u> 2018 Western Star Model #4700SB	\$ 138,754.93 *

* Indicates Lowest Responsive Bid

NO RESPONSE FROM:

- Rush Truck Center,
- Inland Kenworth,
- Transwest Truck Center,
- Durham Pentz Truck Center,
- Delta Truck Center,
- Rincon Truck Center,
- Southbay Truck Center,
- Velocity Truck & Trailer,
- Petro Stopping Center



Vehicle/Equipment Evaluation Form

990 E Mission Rd
 Fallbrook, CA
 Phone:(760) 728-1125
 Fax:(760) 728-8491

Vehicle or Equipment VIN or Serial # 1HTSDNHN1MH348636
 Vehicle or Equipment # 1106
 Make: International Model: S4000 Year: 1991
 Mileage: 112,987 Hours of Operation: N/A
 Date of Evaluation: 6/15/2017 Evaluator: Todd Lange/Kerry Mehrens

System	Points	Comments
Age	26	Build date 10/17/1991
Miles Hours	11.2	112,987
Type of service	5	Heavy Equipment /Pipe
Reliability	3	Misc Repairs due to age
Maintenance Costs	5	(3) clutches/ (1) Transmission
Condition	5	Hood/Body Damage
Total Points	55.2	

- Age** 1 point for each year of chronological age, based on in-service date
- Miles/Hours** 1 point for each 10,000 miles or 750 hours of use
- Type of Service** 1, 3, or 5 points are assigned based on the type of service that the vehicle had during most of its life. The more severe the type of service performed the higher the number assigned.
- Reliability** 1, 3, or 5 points are assigned depending on the frequency that a vehicle is in the shop for repair. The more the frequency of shop visits the higher the number.
- Maintenance Costs** 1 to 5 points are assigned based on total life maintenance and repair costs (not including repair of accident damage). A 5 is assigned to a vehicle with life repair costs equal or greater to the vehicle's original purchase price and a 1 is given to a vehicle with life repair costs equal to 20% or less of its original purchase cost.
- Condition** This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, etc. a scale of 1 to 5 points is used with the higher the number the worse the condition.



Point Ranges	
Under 20 points	Condition I: Excellent
20 to 23 points	Condition II: Good
24 to 30 points	Condition III: Qualifies for replacement
31 or more points	Condition IV: Needs immediate consideration

Evaluator's Comments:

Engine: Needs new piston rings and compressor

Drivetrain: Transmission (3rd gear is missing) Rear differential needs rebuilding

Body: Fiberglass hood needs replacing/ numerous dents/damage to cab

Vehicle is undersized and under powered for hauling heavy equipment and pipe



RUD





990 East Mission Road
P. O. Box 2290
Fallbrook, California
92088-2290

(760) 728-1125
Fax (760) 728-5943

Board of Directors:

Milt Davies
Jennifer DeMeo
Al Gebhart
Don McDougal
Charley Wolk

Staff:

Brian J. Brady
General Manager

Jack Bebee
Assistant General Manager

Marcie Eilers
Admin Services Manager

Paula de Sousa Mills
General Counsel

Robert H. James
Of Counsel to the District

Mary Lou West
Board Secretary

**Treasurer's Report
May 31, 2017**

Money Market Account

Disbursements		2,326,830.25
Receipts	\$	2,793,569.34
Interest		
Balance as of 4/30/17	\$	1,635,490.80
Balance as of 5/31/17	\$	2,102,229.89

Operating Account

Disbursements	\$	3,577,006.64
Receipts	\$	2,283,271.24
Balance as of 4/30/17	\$	10,896.77
Balance as of 5/31/17	\$	(1,282,838.63)

All investments have been made in accordance with the District's Annual Statement of Investment Policy.

Marcie Eilers
May 31, 2017

Transaction Type	Trade Date	Settle Date	Security Description	CUSIP	Principal Proceeds	Accrued Interest	Total Amount
INTEREST	5/1/2017	5/25/2017	FNMA SERIES 2016-M9 ASQ2	3136ASPX8	-	221.11	221.11
PAYDOWNS	5/1/2017	5/25/2017	FNMA SERIES 2016-M9 ASQ2	3136ASPX8	27,649.21	-	27,649.21
INTEREST	5/1/2017	5/1/2017	MONEY MARKET FUND	MONEY0002	-	19.47	19.47
BUY	5/3/2017	5/4/2017	SUMITOMO MITSUI BANK NY CD	86563YVNO	250,000.00	-	250,000.00
SELL	5/4/2017	5/4/2017	BANK TOKYO MITSUBISHI UFJ LTD COMM PAPER	06538BV26	249,268.75	-	249,268.75
INTEREST	5/5/2017	5/5/2017	AMERICAN EXPRESS CREDIT CORP NOTES	0258M0EB1	-	3,206.25	3,206.25
BUY	5/8/2017	5/10/2017	NORINCHUKIN BANK NY CERT DEPOS	65602USD1	125,000.00	-	125,000.00
BUY	5/8/2017	5/10/2017	US TREASURY N/B	912828S76	170,016.60	538.42	170,555.02
SELL	5/8/2017	5/10/2017	CELTIC BANK LT CD	15118RJL2	245,073.50	1,183.05	246,256.55
INTEREST	5/10/2017	5/10/2017	BRANCH BANKING & TRUST CORP NOTE	05531FAV5	-	2,562.50	2,562.50
SELL	5/11/2017	5/12/2017	FHLB NOTES	3130A8PK3	59,511.60	-	59,511.60
BUY	5/11/2017	5/12/2017	FEDERAL HOME LOAN BANK AGENCY NOTES	3130ABF92	59,886.60	-	59,886.60
INTEREST	5/15/2017	5/15/2017	CNH EQUIPMENT TRUST POOL	12636WAB2	-	205.00	205.00
INTEREST	5/15/2017	5/15/2017	TOYOTA ABS 2016-C A3	89237WAD9	-	42.75	42.75
INTEREST	5/15/2017	5/15/2017	TOYOTA ABS 2016-B A3	89231UAD9	-	119.17	119.17
INTEREST	5/15/2017	5/15/2017	FORDO 2017-A A3	34531EAD8	-	132.21	132.21
INTEREST	5/15/2017	5/15/2017	CARMAX ABS 2016-3 A2	14314EAB7	-	110.58	110.58
INTEREST	5/15/2017	5/15/2017	HYUNDAI AUTO RECEIVABLES TRUST	44891EAC3	-	80.63	80.63
INTEREST	5/15/2017	5/15/2017	JOHN DEERE ABS 2016-B A3	47788NAC2	-	36.46	36.46
INTEREST	5/15/2017	5/15/2017	JDOT 2017-A A3	47787XAC1	-	44.50	44.50
PAYDOWNS	5/15/2017	5/15/2017	CARMAX ABS 2016-3 A2	14314EAB7	9,747.64	-	9,747.64
INTEREST	5/16/2017	5/16/2017	CHEVRON CORP NOTES	166764BH2	-	2,341.50	2,341.50
INTEREST	5/17/2017	5/17/2017	MORGAN STANLEY BONDS	61746BED4	-	2,887.50	2,887.50
INTEREST	5/30/2017	5/30/2017	CANADIAN IMPERIAL BANK NY CD	13606ASZ7	-	2,409.24	2,409.24
INTEREST	5/30/2017	5/30/2017	NORDEA BANK FINLAND NY CD	65558LWA6	-	2,409.24	2,409.24
INTEREST	5/31/2017	5/31/2017	US TREASURY NOTES	912828XE5	-	3,937.50	3,937.50
INTEREST	5/31/2017	5/31/2017	US TREASURY NOTES	912828WN6	-	4,000.00	4,000.00
INTEREST	5/31/2017	5/31/2017	US TREASURY NOTE	912828AA2	-	7,300.00	7,300.00
INTEREST	5/31/2017	5/31/2017	US TREASURY NOTES	912828XE5	-	2,700.00	2,700.00
INTEREST	6/1/2017	6/1/2017	CATERPILLAR FINANCIAL CORP NOTES	14912L6F3	-	6,356.25	6,356.25



FALLBROOK PUBLIC UTILITY DISTRICT
PARS Post-Employment Benefits Trust

Monthly Account Report for the Period
4/1/2017 to 4/30/2017

Brian Brady
General Manager
Fallbrook Public Utility District
PO Box 2290
Fallbrook, CA 92088

Account Summary

Source	Beginning Balance as of 4/1/2017	Contributions	Earnings	Expenses	Distributions	Transfers	Ending Balance as of 4/30/2017
OPEB	\$738,519.32	\$0.00	\$7,480.49	\$153.86	\$0.00	\$0.00	\$745,845.95
PENSION	\$600,292.46	\$0.00	\$4,516.63	\$125.06	\$0.00	\$0.00	\$604,684.03
Totals	\$1,338,811.78	\$0.00	\$11,997.12	\$278.92	\$0.00	\$0.00	\$1,350,529.98

Investment Selection

Source

OPEB **Moderate Index PLUS**
PENSION **Moderately Conservative Index PLUS**

Investment Objective

Source

OPEB The dual goals of the Moderate Strategy are growth of principal and income. It is expected that dividend and interest income will comprise a significant portion of total return, although growth through capital appreciation is equally important. The portfolio will be allocated between equity and fixed income investments.

PENSION The dual goals of the Moderately Conservative Strategy are current income and moderate capital appreciation. The major portion of the assets is committed to income-producing securities. Market fluctuations should be expected.

Investment Return

Source	1-Month	3-Months	1-Year	Annualized Return			Plan's Inception Date
				3-Years	5-Years	10-Years	
OPEB	1.01%	1.37%			-	-	2/16/2017
PENSION	0.76%	0.83%				-	2/16/2017

Information as provided by US Bank, Trustee for PARS; Not FDIC Insured; No Bank Guarantee; May Lose Value
Past performance does not guarantee future results. Performance returns may not reflect the deduction of applicable fees, which could reduce returns. Information is deemed reliable but may be subject to change.
Account balances are inclusive of Trust Administration, Trustee and Investment Management fees
Investment Return: Annualized rate of return is the return on an investment over a period other than one year multiplied or divided to give a comparable one-year return.



Managed Account Summary Statement

For the Month Ending **May 31, 2017**

FPUD - INVESTMENT PORTFOLIO - 28710100

Transaction Summary - Managed Account		Cash Transactions Summary - Managed Account	
Opening Market Value	\$14,239,961.59	Maturities/Calls	0.00
Maturities/Calls	(37,396.85)	Sale Proceeds	555,135.86
Principal Dispositions	(553,853.85)	Coupon/Interest/Dividend Income	34,765.61
Principal Acquisitions	604,903.20	Principal Payments	37,396.85
Unsettled Trades	0.00	Security Purchases	(605,441.62)
Change in Current Value	20,788.18	Net Cash Contribution	0.00
Closing Market Value	\$14,274,402.27	Reconciling Transactions	0.00

Remaining Steady →

Earnings Reconciliation (Cash Basis) - Managed Account		Cash Balance	
Interest/Dividends/Coupons Received	36,047.62	Closing Cash Balance	\$83,816.41
Less Purchased Interest Related to Interest/Coupons	(538.42)		
Plus Net Realized Gains/Losses	453.67		
Total Cash Basis Earnings	\$35,962.87		

Earnings Reconciliation (Accrual Basis)		Total	
Ending Amortized Value of Securities	14,270,593.69		
Ending Accrued Interest	55,841.62	← At 5/31/17	
Plus Proceeds from Sales	555,135.86		
Plus Proceeds of Maturities/Calls/Principal Payments	37,396.85		
Plus Coupons/Dividends Received	34,765.61		
Less Cost of New Purchases	(605,441.62)		
Less Beginning Amortized Value of Securities	(14,259,729.87)		
Less Beginning Accrued Interest	(68,317.04)	← At 4/30/17	
Total Accrual Basis Earnings	\$20,245.10		



Portfolio Summary and Statistics

For the Month Ending **May 31, 2017**

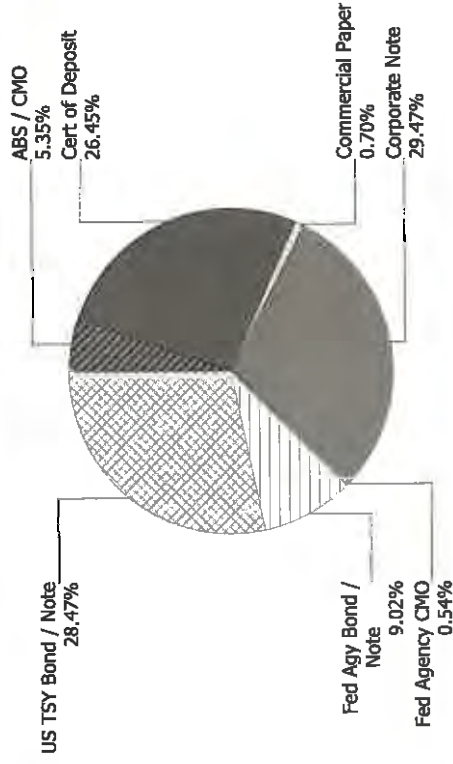
FPUD - INVESTMENT PORTFOLIO - 28710100

Account Summary

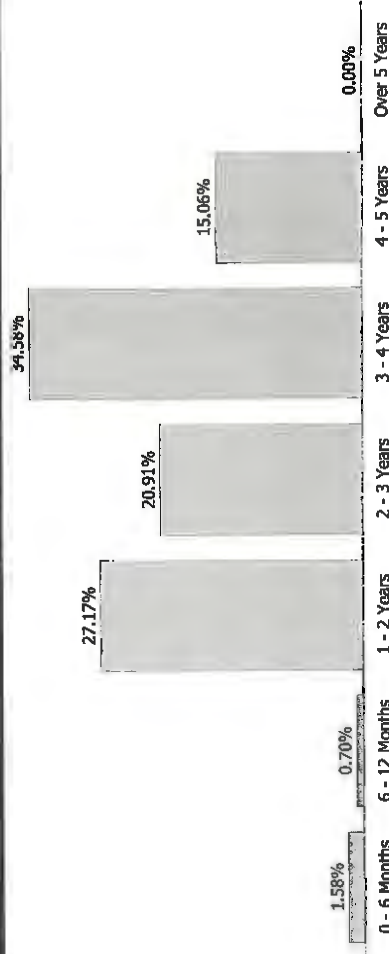
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	4,045,000.00	4,063,566.97	28.47
Federal Agency Collateralized Mortgage Obligation	77,350.79	77,462.09	0.54
Federal Agency Bond / Note	1,295,000.00	1,287,598.30	9.02
Corporate Note	4,142,000.00	4,206,619.39	29.47
Commercial Paper	100,000.00	99,456.30	0.70
Certificate of Deposit	3,755,000.00	3,776,181.94	26.45
Asset-Backed Security / Collateralized Mortgage Obligation	763,665.54	763,517.28	5.35
Managed Account Sub-Total	14,178,016.33	14,274,402.27	100.00%
Accrued Interest		55,841.62	
Total Portfolio	14,178,016.33	14,330,243.89	

Market value is greater than par value

Sector Allocation



Maturity Distribution



Characteristics

Yield to Maturity at Cost	<i>Was 1.67% at 4/30/17</i>	1.70%
Yield to Maturity at Market		1.63%
Duration to Worst		2.63
Weighted Average Days to Maturity	<i>1021</i>	1021

Holding Steady



Managed Account Issuer Summary

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Issuer	Market Value of Holdings	Percent
SYNCHRONY BANK	247,737.14	1.74
THE BANK OF NEW YORK MELLON CORPORATION	354,573.12	2.48
THE NORINCHUKIN BANK	125,036.51	0.88
TOYOTA AUTO RECEIVABLES	154,549.95	1.08
UNITED STATES TREASURY	4,063,566.97	28.46
WELLS FARGO & COMPANY	389,575.34	2.73
Total	\$14,274,402.27	100.00%

Changing by ± 1% per month



For the Month Ending May 31, 2017

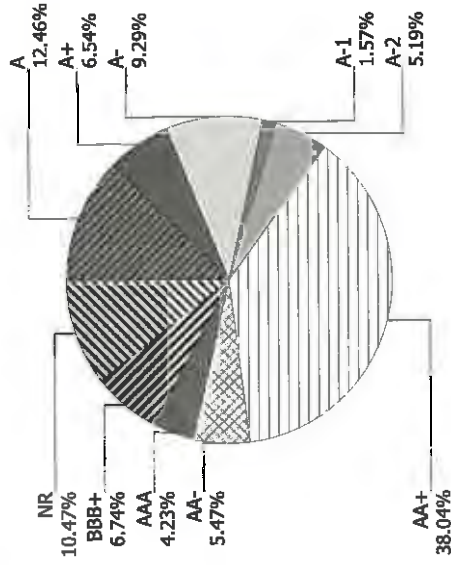
Managed Account Issuer Summary

FPUD - INVESTMENT PORTFOLIO - 28710100

Issuer Summary

Credit Quality (S&P Ratings)

Issuer	Market Value of Holdings	Percent
AMERICAN EXPRESS CO	532,444.59	3.73
AMERICAN HONDA FINANCE	90,367.47	0.63
BANK OF BARODA	247,023.95	1.73
BANK OF MONTREAL	282,071.16	1.98
BANK OF NOVA SCOTIA	280,186.20	1.96
BB&T CORPORATION	554,135.10	3.88
BURLINGTON NORTHERN SANTA FE	213,667.20	1.50
CANADIAN IMPERIAL BANK OF COMMERCE	281,597.68	1.97
CAPTIAL ONE FINANCIAL CORP	493,759.29	3.46
CARMAX AUTO OWNER TRUST	103,584.36	0.73
CATERPILLAR INC	571,088.44	4.00
CHEVRON CORPORATION	299,471.40	2.10
CIT GROUP INC	100,206.00	0.70
CITIBANK CREDIT CARD ISSUANCE	120,423.05	0.84
CITIGROUP INC	100,055.60	0.70
CNH EQUIPMENT TRUST	150,452.78	1.05
FANNIE MAE	828,659.29	5.81
FEDERAL HOME LOAN BANKS	239,481.20	1.68
FIRST RESOURCE BANK	246,297.52	1.73
FORD CREDIT AUTO OWNER TRUST	95,101.34	0.67
FREDDIE MAC	296,919.90	2.08
GOLDMAN SACHS GROUP INC	291,409.11	2.04
HYUNDAI AUTO RECEIVABLES	74,469.15	0.52
ING GROUP NV	99,456.30	0.70
JOHN DEERE OWNER TRUST	64,936.65	0.45
JP MORGAN CHASE & CO	486,100.62	3.41
MORGAN STANLEY	570,916.07	4.00
NORDEA BANK AB	281,597.68	1.97
RONDOUT SAVINGS BANK	246,263.96	1.73
STATE BANK OF INDIA	247,238.08	1.73
SUMITOMO MITSUI FINANCIAL GROUP INC	250,302.50	1.75
SVENSKA HANDELSBANKEN AB	199,679.60	1.40





Managed Account Detail of Securities Held

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value	
U.S. Treasury Bond / Note												
US TREASURY NOTES	DTD 01/31/2013 1.375% 01/31/2020	912828JL2	AA+	Aaa	05/03/16	05/06/16	106,185.35	1.07	482.58	105,850.77	104,983.62	
US TREASURY NOTES	DTD 06/01/2015 1.500% 05/31/2020	912828XE5	AA+	Aaa	06/27/16	06/29/16	368,704.69	0.87	14.75	366,681.60	360,520.20	
US TREASURY NOTES	DTD 06/01/2015 1.500% 05/31/2020	912828XE5	AA+	Aaa	09/01/16	09/02/16	533,469.73	1.06	21.52	531,810.65	525,758.63	
US TREASURY NOTES	DTD 06/30/2015 1.625% 06/30/2020	912828XH8	AA+	Aaa	11/01/16	11/02/16	325,300.00	1.16	2,183.43	324,475.89	321,462.40	
US TREASURY NOTE	DTD 12/02/2013 2.000% 11/30/2020	912828A42	AA+	Aaa	04/27/16	04/29/16	752,299.22	1.31	39.89	747,123.10	741,120.82	
US TREASURY NOTES	DTD 05/02/2016 1.375% 04/30/2021	912828O78	AA+	Aaa	02/01/17	02/03/17	147,035.16	1.86	179.35	147,255.40	148,599.60	
US TREASURY NOTES	DTD 05/02/2016 1.375% 04/30/2021	912828O78	AA+	Aaa	01/03/17	01/05/17	328,326.17	1.86	400.54	328,931.98	331,872.44	
US TREASURY NOTES	DTD 06/02/2014 2.000% 05/31/2021	912828WNG	AA+	Aaa	10/04/16	10/05/16	413,828.13	1.23	21.86	411,929.14	405,667.60	
US TREASURY N/B	DTD 08/01/2016 1.125% 07/31/2021	912828S76	AA+	Aaa	05/08/17	05/10/17	170,916.60	1.83	658.06	170,085.96	171,206.00	
US TREASURY N/B	DTD 07/31/2014 2.250% 07/31/2021	912828WY2	AA+	Aaa	11/22/16	11/23/16	301,268.75	1.78	2,218.61	300,598.84	301,890.91	
US TREASURY NOTES	DTD 09/02/2014 2.000% 08/31/2021	912828D72	AA+	Aaa	12/01/16	12/05/16	401,406.25	1.92	2,021.74	401,271.38	405,250.00	
US TREASURY NOTES	DTD 10/31/2016 1.250% 10/31/2021	912828T67	AA+	Aaa	03/14/17	03/16/17	240,703.13	2.10	271.74	241,110.77	245,214.75	
Security Type Sub-Total							4,089,543.18	1.44	8,514.07	4,077,125.48	4,063,566.97	
Federal Agency Collateralized Mortgage Obligation												
FNMA SERIES 2016-M9 ASQ2	DTD 06/01/2016 1.785% 06/01/2019	3136ASPX8	AA+	Aaa	06/09/16	06/30/16	78,124.26	1.05	115.06	77,840.12	77,462.09	



Managed Account Detail of Securities Held

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Federal Agency Collateralized Mortgage Obligation											
Security Type Sub-Total		77,350.79					78,124.26	1.05	115.06	77,840.12	77,462.09
Federal Agency Bond / Note											
FHLB NOTES DTD 07/08/2016 0.625% 08/07/2018	3130A8PK3	65,000.00	AA+	Aaa	08/01/16	08/02/16	64,769.25	0.80	128.65	64,863.99	64,534.15
FHLB NOTES DTD 12/08/2016 1.250% 01/16/2019	3130AAE46	115,000.00	AA+	Aaa	12/07/16	12/08/16	114,995.40	1.25	539.06	114,996.15	114,911.11
FNMA BENCHMARK NOTE DTD 02/23/2016 1.000% 02/26/2019	3135G0J53	285,000.00	AA+	Aaa	04/27/16	04/29/16	284,495.55	1.06	752.08	284,688.79	283,441.62
FEDERAL HOME LOAN BANK AGENCY NOTES DTD 05/12/2017 1.375% 05/28/2019	3130ABF92	60,000.00	AA+	Aaa	05/11/17	05/12/17	59,886.60	1.47	43.54	59,889.37	60,035.94
FILMC REFERENCE NOTE DTD 07/20/2016 0.875% 07/19/2019	3137EAE81	300,000.00	AA+	Aaa	07/19/16	07/20/16	299,274.00	0.96	962.50	299,481.17	296,919.90
FANNIE MAE GLOBAL NOTES DTD 10/25/2016 1.000% 10/24/2019	3135G0R39	255,000.00	AA+	Aaa	10/24/16	10/25/16	254,224.80	1.10	262.08	254,377.99	252,565.52
FNMA NOTES DTD 02/28/2017 1.500% 02/28/2020	3135G0T29	215,000.00	AA+	Aaa	02/24/17	02/28/17	214,862.40	1.52	815.21	214,873.90	215,190.06
Security Type Sub-Total		1,295,000.00					1,292,508.00	1.15	3,503.12	1,293,171.36	1,287,598.30
Corporate Note											
CHEVRON CORP NOTES DTD 05/16/2016 1.561% 05/16/2019	166764BH2	300,000.00	AA-	Aa2	05/09/16	05/16/16	300,000.00	1.56	195.13	300,000.00	299,471.40
CITIGROUP INC CORP NOTES DTD 06/09/2016 2.050% 06/07/2019	172967KS9	100,000.00	BBB+	Baa1	06/02/16	06/09/16	99,948.00	2.07	990.83	99,964.59	100,055.60
BURLINGTON WRTH CORP DTD 09/24/2009 4.700% 10/01/2019	12189TBC7	200,000.00	A	A3	06/03/16	06/08/16	220,780.00	1.48	1,566.67	214,736.76	213,667.20
CATERPILLAR FINANCIAL CORP NOTES DTD 12/01/2014 2.250% 12/01/2019	14912L6F3	565,000.00	A	A3	04/24/15	04/24/15	577,181.40	1.76	6,356.25	571,740.60	571,088.44



Managed Account Detail of Securities Held

For the Month Ending May 31, 2017

PFUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate Note											
AMERICAN HONDA FINANCE	02/16/2017 2.000% 02/14/2020	02665WBM2	A+	A1	02/13/17	02/16/17	89,872.20	2.05	525.00	89,884.31	90,367.47
BNY MELLON (CALLABLE) CORP NOTE	02/24/2015 2.150% 02/24/2020	06406HCZ0	A	A1	07/07/15	07/07/15	352,148.30	2.14	2,039.16	352,091.50	354,573.12
JP MORGAN CHASE & CO NOTES	07/22/2010 4.400% 07/22/2020	46625HHS2	A-	A3	04/27/16	04/29/16	493,065.30	2.31	7,173.83	483,624.37	486,100.62
WELLS FARGO & COMPANY NOTES	12/07/2015 2.550% 12/07/2020	94974BGR5	A	A2	04/27/16	04/29/16	391,579.65	2.16	4,745.13	390,085.49	389,575.34
MORGAN STANLEY CORP NOTES	04/21/2016 2.500% 04/21/2021	61746BEA0	BBB+	A3	05/10/16	05/13/16	352,009.00	2.38	972.22	351,603.29	350,456.05
GOLDMAN SACHS GRP INC CORP NT (CALLABLE)	04/25/2016 2.625% 04/25/2021	38141GVU5	BBB+	A3	08/10/16	08/15/16	296,893.20	2.11	761.25	295,589.26	291,409.11
AMERICAN EXPRESS CREDIT CORP NOTES	05/05/2016 2.250% 05/05/2021	0258M0EB1	A-	A2	05/05/16	05/10/16	286,558.95	2.13	463.13	286,241.97	285,259.92
BRANCH BANKING & TRUST CORP NOTE	05/10/2016 2.050% 05/10/2021	05531FAV5	A-	A2	05/10/16	05/16/16	249,835.00	2.06	298.96	249,868.46	249,537.00
MORGAN STANLEY BONDS	11/17/2016 2.625% 11/17/2021	61746BED4	BBB+	A3	02/01/17	02/03/17	216,755.00	2.96	224.58	216,967.86	220,460.02
BB&T CORP NOTES	03/21/2017 2.750% 04/01/2022	05531FAX1	A-	A2	04/03/17	04/06/17	302,265.00	2.59	1,604.17	302,200.56	304,598.10
Security Type Sub-Total							4,228,691.00	2.12	27,916.31	4,204,599.02	4,206,619.39
Commercial Paper											
ING (US) FUNDING LLC COMM PAPER	02/06/2017 0.000% 11/01/2017	4497W0Y10	A-1	P-1	02/06/17	02/06/17	98,928.00	1.46	0.00	99,388.00	99,456.30
Security Type Sub-Total							98,928.00	1.46	0.00	99,388.00	99,456.30
Certificate of Deposit											



For the Month Ending May 31, 2017

Managed Account Detail of Securities Held

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Certificate of Deposit												
NORINCHUKIN BANK NY CERT DEPOS	DTD 05/10/2017 1.400% 11/10/2017	65602USD1	125,000.00	A-1	P-1	05/08/17	05/10/17	125,000.00	1.40	106.94	125,000.00	125,036.51
CIT BANK LT CD	DTD 03/13/2013 1.100% 03/13/2018	17284A6P8	100,000.00	NR	NR	03/14/13	03/14/13	100,000.00	1.08	241.10	100,000.00	100,206.00
RONDOUT SAVINGS BANK LT CD	DTD 01/23/2015 1.350% 07/23/2018	776322AP4	245,000.00	NR	NR	01/24/15	01/24/15	245,000.00	1.32	1,168.95	245,000.00	246,263.96
FIRST RESOURCE BANK LT CD	DTD 01/28/2015 1.300% 07/30/2018	336177A03	245,000.00	NR	NR	01/29/15	01/29/15	245,000.00	1.10	1,082.03	245,000.00	246,297.52
CAPTIAL ONE BANK USA NA LT CD	DTD 08/12/2015 1.700% 08/13/2018	14042E5N6	245,000.00	A-2	P-1	08/12/15	08/12/15	245,000.00	1.40	1,243.79	245,000.00	246,183.11
SYNCHRONY BANK LT CD	DTD 10/25/2013 2.150% 10/25/2018	36157OSM0	245,000.00	NR	NR	10/25/13	10/25/13	245,000.00	2.05	533.97	245,000.00	247,737.14
BANK OF BARODA LT CD	DTD 10/28/2013 2.050% 10/29/2018	0606246K4	245,000.00	NR	NR	10/29/13	10/29/13	245,000.00	1.96	467.85	245,000.00	247,023.95
CANADIAN IMPERIAL BANK NY CD	DTD 12/05/2016 1.760% 11/30/2018	13606A5Z7	280,000.00	A+	Aa3	12/01/16	12/05/16	279,781.60	1.78	13.69	279,835.22	281,597.68
NORDEA BANK FINLAND NY CD	DTD 12/05/2016 1.760% 11/30/2018	65558LWA6	280,000.00	AA-	Aa3	12/01/16	12/05/16	280,000.00	1.74	27.38	280,000.00	281,597.68
STATE BANK OF INDIA LT CD	DTD 12/18/2013 2.050% 12/18/2018	856283VY9	245,000.00	NR	NR	12/19/13	12/19/13	245,000.00	1.96	2,270.45	245,000.00	247,238.08
SVENSKA HANDELSBANKEN NY LT CD	DTD 01/12/2017 1.890% 01/10/2019	86958JH88	200,000.00	AA-	Aa2	01/10/17	01/12/17	200,000.00	1.91	1,470.00	200,000.00	199,679.60
BANK OF MONTREAL CHICAGO CERT DEPOS	DTD 02/09/2017 1.880% 02/07/2019	06427KRC3	280,000.00	A+	Aa3	02/08/17	02/09/17	280,000.00	1.90	1,637.69	280,000.00	282,071.16
BANK OF NOVA SCOTIA HOUSTON LT CD	DTD 04/06/2017 1.910% 04/05/2019	06417GUE6	280,000.00	A+	Aa3	04/05/17	04/06/17	280,000.00	1.91	831.91	280,000.00	280,186.20
SUMITOMO MITSUI BANK NY CD	DTD 05/04/2017 2.050% 05/03/2019	86563YVNO	250,000.00	A	A1	05/03/17	05/04/17	250,000.00	2.05	384.38	250,000.00	250,302.50



Managed Account Detail of Securities Held

For the Month Ending **May 31, 2017**

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Certificate of Deposit												
AMERICAN EXPRESS BK FSF LT CD	02587CAJ9		245,000.00	A-2	P-1	07/25/14	07/25/14	245,000.00	1.92	1,718.36	245,000.00	247,184.67
DTD 07/24/2014 2.000% 07/24/2019												
CAPTIAL ONE BANK USA NA LT CD	140420UE8		245,000.00	A-2	P-1	08/12/15	08/12/15	245,000.00	1.94	1,463.29	245,000.00	247,576.18
DTD 08/12/2015 2.000% 08/12/2019												
Security Type Sub-Total			3,755,000.00					3,754,781.60	1.75	14,661.78	3,754,835.22	3,776,181.94
Asset-Backed Security / Collateralized Mortgage Obligation												
CARMAX ABS 2016-3 A2	14314EAB7		103,665.54	AAA	NR	07/14/16	07/20/16	103,657.08	1.18	53.91	103,659.57	103,584.36
DTD 07/20/2016 1.170% 08/15/2019												
TOYOTA ABS 2016-B A3	89231UAD9		110,000.00	AAA	Aaa	05/02/16	05/11/16	109,994.38	1.30	63.56	109,996.13	109,778.90
DTD 05/11/2016 1.300% 04/15/2020												
JOHN DEERE ABS 2016-B A3	47788NAC2		35,000.00	NR	Aaa	07/19/16	07/27/16	34,997.21	1.25	19.44	34,997.92	34,851.16
DTD 07/27/2016 1.250% 06/15/2020												
CNH EQUIPMENT TRUST POOL	12636WAB2		150,000.00	AAA	Aaa	03/15/17	03/22/17	149,994.24	1.80	109.33	149,994.46	150,452.78
DTD 03/22/2017 1.640% 07/15/2020												
TOYOTA ABS 2016-C A3	89237WAD9		45,000.00	AAA	Aaa	08/01/16	08/10/16	44,998.79	1.14	22.80	44,999.08	44,771.05
DTD 08/10/2016 1.140% 08/15/2020												
CCCCIT 2017-A2 A2	17305EGA7		120,000.00	AAA	Aaa	01/19/17	01/26/17	119,977.02	1.75	725.00	120,000.00	120,423.05
DTD 01/26/2017 1.740% 01/17/2021												
JDOT 2017-A A3	47787XAC1		30,000.00	NR	Aaa	02/22/17	03/02/17	29,995.73	1.79	23.73	29,996.02	30,085.49
DTD 03/02/2017 1.780% 04/15/2021												
HYUNDAI AUTO RECEIVABLES TRUST	44891EAC3		75,000.00	AAA	Aaa	09/14/16	09/21/16	74,989.91	1.30	43.00	74,991.61	74,469.15
DTD 09/21/2016 1.290% 04/15/2021												
FORDO 2017-A A3	34531EAD8		95,000.00	NR	Aaa	01/18/17	01/25/17	94,999.65	1.67	70.51	94,999.70	95,101.34
DTD 01/25/2017 1.670% 06/15/2021												
Security Type Sub-Total			763,665.54					763,604.01	1.51	1,131.28	763,634.49	763,517.28
Managed Account Sub-Total			14,178,016.33					14,305,180.05	1.70	55,841.62	14,270,593.69	14,274,402.27



Managed Account Detail of Securities Held

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Securities Sub-Total	\$14,178,016.33	\$14,305,180.05	1.70%	\$55,841.62	\$14,270,593.69	\$14,274,402.27
Accrued Interest				\$55,841.62		
Total Investments					\$14,330,243.89	



Managed Account Fair Market Value & Analytics

For the Month Ending **May 31, 2017**

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description Dated Date/Coupon/Maturity U.S. Treasury Bond / Note	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM
US TREASURY NOTES DTD 01/31/2013 1.375% 01/31/2020	912828U12	105,000.00	RBC CAP		99.98	104,983.62	(1,201.73)	(867.15)	2.60	2.60	1.38
US TREASURY NOTES DTD 06/01/2015 1.500% 05/31/2020	912828XE5	360,000.00	CITIGRP		100.14	360,520.20	(8,184.49)	(6,161.40)	2.92	2.92	1.45
US TREASURY NOTES DTD 06/01/2015 1.500% 05/31/2020	912828XE5	525,000.00	TD SEC U		100.14	525,758.63	(7,711.10)	(6,052.02)	2.92	2.92	1.45
US TREASURY NOTES DTD 06/30/2015 1.625% 06/30/2020	912828XH8	320,000.00	HSBC		100.46	321,462.40	(3,837.60)	(3,013.49)	2.98	2.98	1.47
US TREASURY NOTE DTD 12/02/2013 2.000% 11/30/2020	912828A42	730,000.00	CITIGRP		101.52	741,120.82	(11,178.40)	(6,002.28)	3.37	3.37	1.55
US TREASURY NOTES DTD 05/02/2016 1.375% 04/30/2021	912828O78	150,000.00	CITIGRP		99.07	148,599.60	1,564.44	1,344.20	3.79	3.79	1.62
US TREASURY NOTES DTD 05/02/2016 1.375% 04/30/2021	912828O78	335,000.00	MERRILL		99.07	331,872.44	3,546.27	2,940.46	3.79	3.79	1.62
US TREASURY NOTES DTD 06/02/2014 2.000% 05/31/2021	912828WN6	400,000.00	MORGANST		101.42	405,687.60	(8,140.53)	(6,241.54)	3.83	3.83	1.63
US TREASURY N/B DTD 08/01/2016 1.125% 07/31/2021	912828S76	175,000.00	CITIGRP		97.83	171,206.00	1,189.40	1,120.04	4.03	4.03	1.67
US TREASURY N/B DTD 07/31/2014 2.250% 07/31/2021	912828WY2	295,000.00	BNP PARI		102.34	301,890.91	622.16	1,292.07	3.94	3.94	1.67
US TREASURY NOTES DTD 09/02/2014 2.000% 08/31/2021	912828D72	400,000.00	MORGANST		101.31	405,250.00	3,843.75	3,978.62	4.04	4.04	1.68
US TREASURY NOTES DTD 10/31/2016 1.250% 10/31/2021	912828T67	250,000.00	CITIGRP		98.09	245,214.75	4,511.62	4,103.98	4.27	4.27	1.70
Security Type Sub-Total		4,045,000.00				4,063,566.97	(24,976.21)	(13,558.51)	3.51	3.51	1.57
Federal Agency Collateralized Mortgage Obligation											
FNMA SERIES 2016-M9 ASQ2 DTD 06/01/2016 1.785% 06/01/2019	3136ASPX8	77,350.79	CSFB		100.14	77,462.09	(662.17)	(378.03)	0.96	1.81	1.64
Security Type Sub-Total		77,350.79				77,462.09	(662.17)	(378.03)	0.96	1.81	1.64
Federal Agency Bond / Note											



Managed Account Fair Market Value & Analytics

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM
Federal Agency Bond / Note												
FHLB NOTES												
DTD 07/08/2016 0.625% 08/07/2018		3130A8PK3	65,000.00	TD SEC U		99.28	64,534.15	(235.10)	(329.84)	1.17	1.17	1.24
FHLB NOTES												
DTD 12/08/2016 1.250% 01/16/2019		3130AAE46	115,000.00	BAML		99.92	114,911.11	(84.29)	(85.04)	1.60	1.60	1.30
FNMA BENCHMARK NOTE												
DTD 02/23/2016 1.000% 02/26/2019		3135G0J53	285,000.00	NOMURA		99.45	283,441.62	(1,053.93)	(1,247.17)	1.71	1.71	1.32
FEDERAL HOME LOAN BANK AGENCY NOTES												
DTD 05/12/2017 1.375% 05/28/2019		3130ABF92	60,000.00	MERRILL		100.06	60,035.94	149.34	146.57	1.96	1.96	1.34
FHLMC REFERENCE NOTE												
DTD 07/20/2016 0.875% 07/19/2019		3137EAE81	300,000.00	TD SEC U		98.97	296,919.90	(2,354.10)	(2,561.27)	2.10	2.10	1.36
FANNIE MAE GLOBAL NOTES												
DTD 10/25/2016 1.000% 10/24/2019		3135G0R39	255,000.00	TD SEC U		99.05	252,565.52	(1,659.28)	(1,812.47)	2.36	2.36	1.41
FNMA NOTES												
DTD 02/28/2017 1.500% 02/28/2020		3135G0T29	215,000.00	JPM_CHAS		100.09	215,190.06	327.66	316.16	2.68	2.68	1.47
Security Type Sub-Total			1,295,000.00				1,287,598.30	(4,909.70)	(5,573.06)	2.06	2.06	1.37

Corporate Note	Security Type	Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM
CHEVRON CORP NOTES													
DTD 05/16/2016 1.561% 05/16/2019		1667648H2	300,000.00	WELLSFAR		99.82	299,471.40	(528.60)	(528.60)	1.92	1.92	1.65	
CITIGROUP INC CORP NOTES													
DTD 06/09/2016 2.050% 06/07/2019		172967KS9	100,000.00	CITIGRP		100.06	100,055.60	107.60	91.01	1.95	1.95	2.02	
BURLINGTON NRTH CORP													
DTD 09/24/2009 4.700% 10/01/2019		12189TBC7	200,000.00	GOLDMAN		106.83	213,667.20	(7,112.80)	(1,069.56)	2.21	2.21	1.70	
CATERPILLAR FINANCIAL CORP NOTES													
DTD 12/01/2014 2.250% 12/01/2019		14912L6F3	565,000.00	NEW ACCT		101.08	571,088.44	(6,092.96)	(652.16)	2.40	2.40	1.81	
AMERICAN HONDA FINANCE													
DTD 02/16/2017 2.000% 02/14/2020		02665WBW2	90,000.00	MIZUHO		100.41	90,367.47	495.27	483.16	2.61	2.61	1.84	
BNY MELLON (CALLABLE) CORP NOTE													
DTD 02/24/2015 2.150% 02/24/2020		06406HCZ0	352,000.00	NEW ACCT	01/24/20	100.73	354,573.12	2,424.82	2,481.62	2.59	2.55	1.87	
JP MORGAN CHASE & CO NOTES													
DTD 07/22/2010 4.400% 07/22/2020		46625HHS2	455,000.00	BONY		106.84	486,100.62	(6,964.68)	2,476.25	2.90	2.90	2.14	



Managed Account Fair Market Value & Analytics

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM	
Corporate Note												
WELLS FARGO & COMPANY NOTES DTD 12/07/2015 2.550% 12/07/2020	94974BGR5	385,000.00	WELLSFAR		101.19	389,575.34	(2,004.31)	(510.15)	3.31	3.31	2.20	
MORGAN STANLEY CORP NOTES DTD 04/21/2016 2.500% 04/21/2021	61746BEA0	350,000.00	SCOTTIA		100.13	350,456.05	(1,552.95)	(1,147.24)	3.68	3.68	2.46	
GOLDMAN SACHS GRP INC CORP NT (CALLABLE)	38141GVU5	290,000.00	JPMCHASE	03/25/21	100.49	291,409.11	(5,284.09)	(4,180.15)	3.67	3.60	2.49	
AMERICAN EXPRESS CREDIT CORP NOTES DTD 05/05/2016 2.250% 05/05/2021	0258M0EB1	285,000.00	GOLDMAN		100.09	285,259.92	(1,299.03)	(982.05)	3.73	3.73	2.23	
BRANCH BANKING & TRUST CORP NOTE DTD 05/10/2016 2.050% 05/10/2021	05531FAV5	250,000.00	KEYBAN		99.81	249,537.00	(298.00)	(331.46)	3.76	3.76	2.10	
MORGAN STANLEY BONDS DTD 11/17/2016 2.625% 11/17/2021	61746BED4	220,000.00	MORGAN_S		100.21	220,460.02	3,705.02	3,492.16	4.18	4.18	2.57	
BB&T CORP NOTES DTD 03/21/2017 2.750% 04/01/2022	05531FAX1	300,000.00	MORGAN_S		101.53	304,598.10	2,333.10	2,397.54	4.48	4.48	2.41	
Security Type Sub-Total		4,142,000.00				4,206,619.39	(22,071.61)	2,020.37	3.12	3.11	2.11	

Commercial Paper												
ING (US) FUNDING LLC COMM PAPER DTD 02/06/2017 0.000% 11/01/2017	4497W0Y10	100,000.00	BONY		99.46	99,456.30	528.30	68.30	0.42	0.42	1.28	
Security Type Sub-Total		100,000.00				99,456.30	528.30	68.30	0.42	0.42	1.28	

Certificate of Deposit												
NORINCHUKIN BANK NY CERT DEPOS DTD 05/10/2017 1.400% 11/10/2017	65602USD1	125,000.00	TRADITIO		100.03	125,036.51	36.51	36.51	0.44	0.44	1.37	
CIT BANK LT CD DTD 03/13/2013 1.100% 03/13/2018	17284A6P8	100,000.00	NEW ACCT		100.21	100,206.00	206.00	206.00	0.78	0.78	0.79	
ROUNDOUT SAVINGS BANK LT CD DTD 01/23/2015 1.350% 07/23/2018	776322AP4	245,000.00	NEW ACCT		100.52	246,263.96	1,263.96	1,263.96	1.14	1.14	0.87	
FIRST RESOURCE BANK LT CD DTD 01/28/2015 1.300% 07/30/2018	336177A03	245,000.00	NEW ACCT		100.53	246,297.52	1,297.52	1,297.52	1.16	1.16	0.82	



Managed Account Fair Market Value & Analytics

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM
Certificate of Deposit												
CAPTIAL ONE BANK USA NA LT CD	08/12/2015 1.700% 08/13/2018	14042ESN6	245,000.00	NEW ACCT		100.48	246,183.11	1,183.11	1,183.11	1.20	1.20	1.26
SYNCHRONY BANK LT CD	10/25/2013 2.150% 10/25/2018	36157OSM0	245,000.00	NEW ACCT		101.12	247,737.14	2,737.14	2,737.14	1.39	1.39	1.23
BANK OF BARODA LT CD	10/28/2013 2.050% 10/29/2018	0606246K4	245,000.00	NEW ACCT		100.83	247,023.95	2,023.95	2,023.95	1.40	1.40	1.34
CANADIAN IMPERIAL BANK NY CD	12/05/2016 1.760% 11/30/2018	13606A5Z7	280,000.00	GOLDMAN		100.57	281,597.68	1,816.08	1,762.46	1.48	1.48	1.36
NORDEA BANK FINLAND NY CD	12/05/2016 1.760% 11/30/2018	65558LWA6	280,000.00	MERRILL		100.57	281,597.68	1,597.68	1,597.68	1.50	1.50	0.79
STATE BANK OF INDIA LT CD	12/18/2013 2.050% 12/18/2018	856283VY9	245,000.00	NEW ACCT		100.91	247,238.08	2,238.08	2,238.08	1.54	1.54	1.34
SVENSKA HANDELSBANKEN NY LT CD	01/12/2017 1.890% 01/10/2019	86958JH88	200,000.00	MERRILL		99.84	199,679.60	(320.40)	(320.40)	1.60	1.60	1.53
BANK OF MONTREAL CHICAGO CERT DEPOS	02/09/2017 1.880% 02/07/2019	06427KRC3	280,000.00	GOLDMAN		100.74	282,071.16	2,071.16	2,071.16	1.68	1.68	1.09
BANK OF NOVA SCOTIA HOUSTON LT CD	04/06/2017 1.910% 04/05/2019	06417GUE6	280,000.00	MERRILL		100.07	280,186.20	186.20	186.20	1.83	1.83	1.71
SUMITOMO MITSUI BANK NY CD	05/04/2017 2.050% 05/03/2019	86563YVNO	250,000.00	JPM_CHAS		100.12	250,302.50	302.50	302.50	1.90	1.90	1.95
AMERICAN EXPRESS BK FSB LT CD	07/24/2014 2.000% 07/24/2019	02587CAJ9	245,000.00	NEW ACCT		100.89	247,184.67	2,184.67	2,184.67	2.13	2.13	1.48
CAPTIAL ONE BANK USA NA LT CD	08/12/2015 2.000% 08/12/2019	140420UE8	245,000.00	NEW ACCT		101.05	247,576.18	2,576.18	2,576.18	2.18	2.18	1.44
Security Type Sub-Total			3,755,000.00				3,776,181.94	21,400.34	21,346.72	1.52	1.52	1.29

Asset-Backed Security / Collateralized Mortgage Obligation												
CARMAX ABS 2016-3 A2	07/20/2016 1.170% 08/15/2019	14314EAB7	103,665.54	CSFB		99.92	103,564.36	(72.72)	(75.21)	0.48	2.02	1.21
TOYOTA ABS 2016-B A3	05/11/2016 1.300% 04/15/2020	89231UAD9	110,000.00	CITIGRP		99.80	109,778.90	(215.48)	(217.23)	1.24	1.93	1.40



Managed Account Fair Market Value & Analytics

For the Month Ending **May 31, 2017**

FPUD - INVESTMENT PORTFOLIO - 28710100

Security Type/Description	Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst at Mkt	YTM
Asset-Backed Security / Collateralized Mortgage Obligation												
JOHN DEERE ABS 2016-B A3	07/27/2016 1.250% 06/15/2020	47788NAC2	35,000.00	RBC CAP		99.57	34,851.16	(146.05)	(146.76)	1.27	2.14	1.45
CNH EQUIPMENT TRUST POOL	03/22/2017 1.640% 07/15/2020	12636WAB2	150,000.00	CITIGRP		100.30	150,452.78	458.54	458.32	1.44	1.26	1.40
TOYOTA ABS 2016-C A3	08/10/2016 1.140% 08/15/2020	89237WAD9	45,000.00	MITSU		99.49	44,771.05	(227.74)	(228.03)	1.47	2.35	1.36
CCCI 2017-AZ A2	01/26/2017 1.740% 01/17/2021	17305EG7	120,000.00	CITIGRP		100.35	120,423.05	446.03	423.05	1.60	1.83	1.55
JDOT 2017-A A3	03/02/2017 1.780% 04/15/2021	47787XAC1	30,000.00	MERRILL		100.29	30,085.49	89.76	89.47	1.98	1.93	1.63
HYUNDAI AUTO RECEIVABLES TRUST	09/21/2016 1.290% 04/15/2021	44891EAC3	75,000.00	JPMCHASE		99.29	74,469.15	(520.76)	(522.46)	2.00	3.27	1.51
FORDO 2017-A A3	01/25/2017 1.670% 06/15/2021	34531EAD8	95,000.00	CITIGRP		100.11	95,101.34	101.69	101.64	2.19	3.00	1.63
Security Type Sub-Total			763,665.54				763,517.28	(86.73)	(117.21)	1.47	2.09	1.45
Managed Account Sub-Total			14,178,016.33				14,274,402.27	(30,777.78)	3,808.58	2.59	2.63	1.63
Securities Sub-Total			\$14,178,016.33				\$14,274,402.27	(30,777.78)	\$3,808.58	2.59	2.63	1.63%
Accrued Interest							\$55,841.62					
Total Investments							\$14,330,243.89					



Managed Account Security Transactions & Interest

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Transaction Type	Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
BUY											
	05/03/17	05/04/17	SUMITOMO MITSUBI BANK NY CD	86563YVW0	250,000.00	(250,000.00)	0.00	(250,000.00)			
			DTD 05/04/2017 2.050% 05/03/2019								
	05/08/17	05/10/17	US TREASURY N/B	912828S76	175,000.00	(170,016.60)	(538.42)	(170,555.02)			
			DTD 08/01/2016 1.125% 07/31/2021								
	05/08/17	05/10/17	NORINCHUKIN BANK NY CERT DEPOS	65602USD1	125,000.00	(125,000.00)	0.00	(125,000.00)			
			DTD 05/10/2017 1.400% 11/10/2017								
	05/11/17	05/12/17	FEDERAL HOME LOAN BANK AGENCY NOTES	3130ABF92	60,000.00	(59,886.60)	0.00	(59,886.60)			
			DTD 05/12/2017 1.375% 05/28/2019								
Transaction Type Sub-Total					610,000.00	(604,903.20)	(538.42)	(605,441.62)			

INTEREST											
05/01/17	05/01/17		MONEY MARKET FUND	MONEY0002	0.00	0.00	19.47	19.47			
05/01/17	05/25/17		FNMA SERIES 2016-M9 ASOZ	3136ASPX8	105,000.00	0.00	221.11	221.11			
05/05/17	05/05/17		AMERICAN EXPRESS CREDIT CORP NOTES	0258M0EB1	285,000.00	0.00	3,206.25	3,206.25			
05/10/17	05/10/17		BRANCH BANKING & TRUST CORP NOTE	05531FAV5	250,000.00	0.00	2,562.50	2,562.50			
05/15/17	05/15/17		HYUNDAI AUTO RECEIVABLES TRUST	44891EAC3	75,000.00	0.00	80.63	80.63			
05/15/17	05/15/17		CARMAX ABS 2016-3 A2	14314EAB7	113,413.18	0.00	110.58	110.58			
05/15/17	05/15/17		FORDO 2017-A A3	34531EAD8	95,000.00	0.00	132.21	132.21			
05/15/17	05/15/17		TOYOTA ABS 2016-B A3	89231UAD9	110,000.00	0.00	119.17	119.17			
05/15/17	05/15/17		TOYOTA ABS 2016-C A3	89237WAD9	45,000.00	0.00	42.75	42.75			
05/15/17	05/15/17		CNH EQUIPMENT TRUST POOL	12636WAB2	150,000.00	0.00	205.00	205.00			
			DTD 03/22/2017 1.640% 07/15/2020								



Managed Account Security Transactions & Interest

For the Month Ending May 31, 2017

FPUD - INVESTMENT PORTFOLIO - 28710100

Transaction Type	Trade Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
INTEREST										
	05/15/17	JDOT 2017-A A3	47787XAC1	30,000.00	0.00	44.50	44.50			
	05/15/17	DTD 03/02/2017 1.780% 04/15/2021								
	05/15/17	JOHN DEERE ABS 2016-B A3	47788NAC2	35,000.00	0.00	36.46	36.46			
	05/16/17	DTD 07/27/2016 1.250% 06/15/2020								
	05/16/17	CHEVRON CORP NOTES	166764BH2	300,000.00	0.00	2,341.50	2,341.50			
	05/16/17	DTD 05/16/2016 1.561% 05/16/2019								
	05/17/17	MORGAN STANLEY BONDS	61746BED4	220,000.00	0.00	2,887.50	2,887.50			
	05/17/17	DTD 11/17/2016 2.625% 11/17/2021								
	05/30/17	NORDEA BANK FINLAND NY CD	65558LWA6	280,000.00	0.00	2,409.24	2,409.24			
	05/30/17	DTD 12/05/2016 1.760% 11/30/2018								
	05/30/17	CANADIAN IMPERIAL BANK NY CD	13606A5Z7	280,000.00	0.00	2,409.24	2,409.24			
	05/31/17	DTD 12/05/2016 1.760% 11/30/2018								
	05/31/17	US TREASURY NOTES	912828XE5	360,000.00	0.00	2,700.00	2,700.00			
	05/31/17	DTD 06/01/2015 1.500% 05/31/2020								
	05/31/17	US TREASURY NOTES	912828XE5	525,000.00	0.00	3,937.50	3,937.50			
	05/31/17	DTD 06/01/2015 1.500% 05/31/2020								
	05/31/17	US TREASURY NOTE	912828A42	730,000.00	0.00	7,300.00	7,300.00			
	05/31/17	DTD 12/02/2013 2.000% 11/30/2020								
	05/31/17	US TREASURY NOTES	912828WN6	400,000.00	0.00	4,000.00	4,000.00			
	05/31/17	DTD 06/02/2014 2.000% 05/31/2021								
Transaction Type Sub-Total				4,388,413.18	0.00	34,765.61	34,765.61			
PAYDOWNS										
	05/01/17	05/25/17 FNMA SERIES 2016-M9 ASQ2	31366ASPX8	27,649.21	27,649.21	0.00	27,649.21	(276.48)	0.00	
	05/15/17	DTD 06/01/2016 1.785% 06/01/2019								
	05/15/17	CARMAX ABS 2016-3 A2	14314EAB7	9,747.64	9,747.64	0.00	9,747.64	0.80	0.00	
	05/15/17	DTD 07/20/2016 1.170% 08/15/2019								
Transaction Type Sub-Total				37,396.85	37,396.85	0.00	37,396.85	(275.68)	0.00	
SELL										
	05/04/17	05/04/17 BANK TOKYO MITSUBISHI UFJ LTD COMM PAPER	06538BV26	250,000.00	249,268.75	0.00	249,268.75	931.25	100.00	FIFO
	05/04/17	08/02/2017 0.0000% 08/02/2017								
Transaction Type Sub-Total				250,000.00	249,268.75	0.00	249,268.75	931.25	100.00	FIFO



Managed Account Security Transactions & Interest

For the Month Ending **May 31, 2017**

FPUD - INVESTMENT PORTFOLIO - 28710100

Transaction Type	Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
SELL											
	05/08/17	05/10/17	CELTIC BANK LT CD	15118RJL2	245,000.00	245,073.50	1,183.05	246,256.55	73.50	73.50	FIFO
			DTD 12/20/2013 1.250% 12/20/2017								
	05/11/17	05/12/17	FHLB NOTES	3130A8PK3	60,000.00	59,511.60	98.96	59,610.56	(275.40)	(357.28)	FIFO
			DTD 07/08/2016 0.625% 08/07/2018								
Transaction Type Sub-Total					555,000.00	553,853.85	1,282.01	555,135.86	729.35	(183.78)	
Managed Account Sub-Total						(13,652.50)	35,509.20	21,856.70	453.67	(183.78)	
Total Security Transactions						(\$13,652.50)	\$35,509.20	\$21,856.70	\$453.67	(\$183.78)	

**Fallbrook Public Utility District
2016-17 Budget Overview-Through 5/31/17**

	2016-2017 Adopted Budget	2016-2017 Actual YTD	2016-17 Projected	Change from Projected to Adopted Budget	Percent Change from Prior Budget
REVENUES:					
Water and Recycled Sales	9,740	8,573	9,515	(225)	-2.3%
Operating Revenues:					
Water Sales	14,854,447	12,497,393	14,201,583	(652,864)	-4.4%
MWD Readiness to Serve	398,232	464,516	506,745	108,513	27.2%
CWA Infrastructure Access Charge	398,056	364,010	397,102	(954)	-0.2%
Meter Service Charges	5,338,784	4,861,653	5,303,822	(35,162)	-0.7%
Wastewater Service Charges	5,804,379	5,064,774	5,525,208	(279,171)	-4.8%
Overuse Penalties	0	0	0	-	0.0%
Sundry Other Revenue	308,100	235,850	257,291	(48,809)	-15.9%
CWA Rebates	148,000	117,300	130,189	(17,811)	-12.0%
Total Operating Revenue	27,247,998	23,805,487	26,321,739	(926,259)	-3.4%
Non Operating Revenues:					
Capital Improvement Charge	2,282,000	2,092,444	2,282,666	666	0.0%
Property Taxes	1,814,077	1,852,663	1,916,939	102,862	5.7%
Water Standby/Availability Charge	203,000	182,902	203,000	-	0.0%
Water/Wastewater Capacity Charges	107,315	213,244	213,244	105,929	98.7%
Portfolio Interest	175,000	219,132	239,053	64,053	36.6%
Pumping Charge	60,000	140,858	156,335	96,335	160.6%
Prop 84 & 50 Funds	0	773,163	773,163	773,163	100.0%
SRF Loan Proceeds	0	0	0	-	0.0%
CSI Rebate	559,450	234,930	234,930	(324,520)	-58.0%
Facility Rents & Other Non Operating Revenues	185,000	216,593	236,284	51,284	27.7%
Total Non Operating Revenues	5,385,842	5,925,931	6,255,615	869,773	16.1%
Total Budgeted Revenues	32,633,840	29,531,427	32,577,354	(56,486)	-0.2%
EXPENDITURES:					
Operating Expenses:					
Purchased Water Expense	12,263,929	11,894,465	12,613,431	349,502	2.8%
MWD Readiness to Serve	398,232	365,046	398,232	-	0.0%
CWA Infrastructure Access Charge	398,056	362,588	398,056	-	0.0%
Production-Water Quality & Treatment	1,270,610	972,124	1,060,499	(210,111)	-16.5%
Distribution	2,047,562	1,372,682	1,497,471	(550,091)	-26.9%
Customer Service	1,290,349	1,147,892	1,252,246	(38,103)	-3.0%
General Administration	5,182,798	4,349,035	4,744,401	(438,397)	-8.5%
Collection, Treatment & Disposal	2,818,664	2,206,847	2,407,470	(411,194)	-14.6%
Total Operating Expenses	25,670,200	22,670,660	24,371,807	(1,298,393)	-5.1%
Debt Service Expenses					
Red Mountain SRF	395,893	395,893	395,893	-	0.0%
WWTP SRF	1,845,745	1,845,745	1,845,745	-	0.0%
QECB Solar Debt	349,024	349,024	349,024	-	0.0%
CalPERS 15-16 Unfunded Actuarial Liability Lump Sum	466,860	466,860	466,860	-	0.0%
Prefund FY 16-17 CalPERS UAL Lump Sum Pymt to PARS	0	500,000	500,000	500,000	100.0%
Total Debt Service Expenses	3,057,522	3,557,522	3,557,522	500,000	16.4%
Net Revenue/(loss) From Operations and Debt Service	3,906,118	3,303,245	4,648,025	741,907	19.0%
Capital Project Expenses-completed and ongoing projects	5,966,926	4,597,830	5,015,815	(951,111)	-15.9%
NET REVENUES & EXPENDITURES	(2,060,808)	(1,294,585)	(367,789)	1,693,019	-82.2%
Estimated Reserves as of 7/1/16	14,841,858	14,988,998	14,988,998	-	
Estimated Reserves as of 6/30/17	12,781,050	13,694,414	14,621,209	1,840,159	14.4%

**Fallbrook Public Utility District
2016-17 Budget Overview-Through 5/31/17**

	2016-2017 Adopted Budget	2016-2017 Actual YTD	2016-17 Projected	Change from Projected to Adopted Budget
Labor Costs:				
Annual Wages	5,698,680	5,248,541	5,685,919	(12,760)
Direct Benefits:				
Medical/Dental/Vision	964,259	873,744	953,175	(11,084)
Other Post Employment Benefits (OPEB) contribution	150,000	150,000	150,000	-
Life Insurance/Long Term Disability	38,418	33,000	36,000	(2,418)
Uniforms/Safety Equipment	38,317	39,655	43,260	4,943
Auto Allowance & Rec Fund	18,700	14,332	18,490	(210)
Total Wages & Direct Benefits	6,908,374	6,359,272	6,886,844	(21,529)
Indirect Benefits:				
CalPERS/401A*	438,162 *	487,736	430,977	(7,185)
CalPERS Lump Sum Unfunded Liability Payment	459,468	459,468	459,468	-
CalPERS Side Fund Payoff**	485,000 **	485,000	485,000	-
CalPERS Unfunded Liability contribution	100,000 ***	100,000	100,000	-
FICA/Social Security	419,177	363,369	430,649	11,472
Workers Comp Premiums	130,558	108,129	134,800	4,242
Other-Unemployment Insurance	0	11,734	11,734	11,734
**Reimburse Reserves for 6/30/14 Side Fund Payoff				-
***Actuarial Unfunded Liability of \$9.8M				-
Total Indirect Benefits	2,032,365	2,015,436	2,052,628	20,263
Total Wages and Fringe Benefits	8,940,739	8,374,707	8,939,473	(1,266)
 *Employer Contribution 10.808% for Misc Members and 6.93% for PEPRA Members				
 **Reimburse Reserves for 6/30/14 Side Fund Payoff Balance remaining is \$2,058,848 as of 6/30/16				
 ***Unfunded Actuarial Liability (UAL) of \$9.8M. This action prefunds a portion of the UAL into PARS				

5/31/2017

Treasurer's Warrant No. May

TO: Treasurer of the Fallbrook Public Utility District

The bills and claims listed below are approved as authorized by resolution no. 3538 of the Board of Directors dated July 8, 1985. You are hereby authorized and directed to pay said prospective claims in the amounts stated (less discounts in instances where discounts are allowed).

Payroll -5/17

Computer Check Register

Payroll #1	128,841.88
Payroll #2	<u>133,113.60</u>
	<u>261,955.48</u>

Accounts Payable

Checks by Date - Summary by Check Date

User: annaleceb
Printed: 6/1/2017 7:36 AM



Fallbrook Public Utility District

Purchasing Dept. Phone: (760) 728-1151, Fax: (760) 728-8491

Main Office Phone: (760) 728-1125, Fax: (760) 728-6029

Check No	Vendor No	Vendor Name	Check Date	Check Amount
74975	01460	AFLAC	05/03/2017	1,627.11
74976	06403	APPLEONE EMPLOYMENT SERVICES	05/03/2017	980.80
74977	02743	BEST BEST & KRIEGER	05/03/2017	10,381.78
74978	91154	ANNALECE BOKMA	05/03/2017	499.00
74979	00898	BP BATTERY	05/03/2017	199.26
74980	03134	CALIFORNIA WATER ENVIRONMENT	05/03/2017	172.00
74981	03978	CAMERON WELDING SUPPLY	05/03/2017	831.55
74982	05714	COUNTY OF SD DEPT PUBLIC WORKS	05/03/2017	302.50
74983	05180	NOELLE DENKE	05/03/2017	100.67
74984	04425	DOMINICK'S SANDWICHES	05/03/2017	31.00
74985	05177	DOWNEY BRAND, LLP	05/03/2017	532.00
74986	06383	DUDEK INC	05/03/2017	4,997.50
74987	06144	DUPERON CORPORATION	05/03/2017	38,790.00
74988	06020	BABCOCK & SONS, INC.	05/03/2017	505.00
74989	03087	MARCELLA M. EILERS	05/03/2017	60.00
74990	03391	ELECTRICAL SALES INC	05/03/2017	159.93
74991	09523	FALLBROOK EQUIP RENTALS	05/03/2017	984.17
74992	05987	FALLBROOK GARAGE & QWIK LUBE	05/03/2017	337.50
74993	00169	FALLBROOK OIL COMPANY	05/03/2017	2,048.18
74994	01432	FERGUSON WATERWORKS #1083	05/03/2017	1,631.34
74995	05733	FIRST BANKCARD	05/03/2017	6,560.48
74996	09517	GENCO	05/03/2017	242.44
74997	00182	GLENNIE'S OFFICE PRODUCTS, INC	05/03/2017	210.74
74998	05925	HD SUPPLY WATERWORKS	05/03/2017	2,610.79
74999	06429	HEALTHPOINTE MEDICAL GROUP, INC	05/03/2017	75.00
75000	UB*00055	JOSEPHINE HICKS	05/03/2017	240.75
75001	06577	INFOSEND INC	05/03/2017	2,824.63
75002	90953	JR FILANC CONSTRUCTION CO., INC.	05/03/2017	18,715.00
75003	06479	KNOCKOUT PEST CONTROL & TERMI	05/03/2017	250.00
75004	UB*00054	LEON & GILLIAN KULP	05/03/2017	32.54
75005	91120	L.C. Paving & Sealing, Inc.	05/03/2017	12,600.00
75006	06263	LOS ANGELES FREIGHTLINER, LLC	05/03/2017	1,020.69
75007	04638	LOWE'S CORPORATION	05/03/2017	1,190.47
75008	06123	MACIAS GINI & O'CONNELL	05/03/2017	10,000.00
75009	06338	MYTHOS TECHNOLOGY INC	05/03/2017	481.76
75010	03201	NATIONAL SAFETY COMPLIANCE INC	05/03/2017	962.41
75011	00718	NATIONWIDE RETIREMENT SOLUTIO	05/03/2017	2,108.07
75012	06298	ONESOURCE DISTRIBUTORS, LLC	05/03/2017	253.53
75013	01267	PACIFIC PIPELINE	05/03/2017	82.23
75014	00215	PETTY CASH	05/03/2017	97.25
75015	06199	PLUMBERS DEPOT INC	05/03/2017	459.06
75016	91104	RAFTELIS FINANCIAL CONSULTANTS	05/03/2017	13,150.73
75017	91077	RED WING SHOE STORE	05/03/2017	157.13
75018	06485	FABRIENNE ROBINSON	05/03/2017	60.00
75019	00231	SAN DIEGO COUNTY WATER AUTH	05/03/2017	866,018.70
75020	00232	SAN DIEGO GAS & ELECTRIC	05/03/2017	27,387.80
75021	UB*00053	FRANK SMITH	05/03/2017	17.38

Check No	Vendor No	Vendor Name	Check Date	Check Amount
75022	04434	SNAP ON TOOLS	05/03/2017	927.67
75024	00159	SUPERIOR READY MIX	05/03/2017	3,724.53
75025	02748	TREBOR COMPANY	05/03/2017	1,269.00
75026	06005	UNIFIRST CORP.	05/03/2017	393.18
75027	04330	UNION BANK	05/03/2017	1,443.00
75028	02329	VALLECITOS WATER DISTRICT	05/03/2017	2,195.04
75029	00233	WAXIE SANITARY SUPPLY	05/03/2017	3,920.65
75030	02570	CHERYL WILLIAMS	05/03/2017	455.00
Total for 5/3/2017:				1,047,308.94
ACH	00152	FPUD EMPL ASSOCIATION	05/10/2017	909.78
ACH	06758	US TREASURY - PAYROLL TAXES	05/10/2017	56,686.05
ACH	06759	STATE OF CA - PR TAXES	05/10/2017	7,849.01
ACH	06760	STATE OF CA - SDI	05/10/2017	1,859.55
ACH	06761	LINCOLN FINANCIAL GROUP	05/10/2017	6,187.84
ACH	06763	PERS - PAYROLL	05/10/2017	33,974.61
75039	06403	APPLEONE EMPLOYMENT SERVICES	05/10/2017	1,961.60
75040	06696	AT & T MOBILTY	05/10/2017	55.32
75041	05958	BAMM! PROMOTIONAL PRODUCTS, I	05/10/2017	35.54
75042	02743	BEST BEST & KRIEGER	05/10/2017	21.00
75043	00898	BP BATTERY	05/10/2017	107.52
75044	06012	CALIFORNIA DEPT OF CSS	05/10/2017	231.00
75045	06336	CAPITAL ONE COMMERCIAL	05/10/2017	197.43
75046	01719	MICKEY M. CASE	05/10/2017	60.00
75047	03205	CITY OF OCEANSIDE	05/10/2017	1,136.34
75048	00370	CROP PRODUCTION SERVICES, INC.	05/10/2017	2,299.68
75049	02925	DATA NET SOLUTIONS	05/10/2017	2,399.40
75050	02901	DAVID DEEM	05/10/2017	631.51
75051	05180	NOELLE DENKE	05/10/2017	873.95
75052	05192	DIAMOND ENVIRONMENTAL SERVIC	05/10/2017	169.99
75053	91123	DIGITAL DEPLOYMENT, INC.	05/10/2017	550.00
75054	06020	BABCOCK & SONS, INC.	05/10/2017	620.00
75055	03391	ELECTRICAL SALES INC	05/10/2017	264.17
75056	05987	FALLBROOK GARAGE & QWIK LUBE	05/10/2017	587.08
75057	00169	FALLBROOK OIL COMPANY	05/10/2017	2,386.34
75058	04494	FEDERAL EXPRESS CORPORATION	05/10/2017	57.73
75059	02170	GRAINGER, INC.	05/10/2017	1,112.04
75060	05925	HD SUPPLY WATERWORKS	05/10/2017	28,361.58
75061	04027	JOES HARDWARE	05/10/2017	1,482.42
75062	04926	KONICA MINOLTA PREMIER FINANCE	05/10/2017	3,334.31
75063	06261	LAWTON GROUP	05/10/2017	556.20
75064	03322	LIGHTHOUSE AUTOMOTIVE	05/10/2017	1,623.70
75065	90887	LLOYD PEST CONTROL	05/10/2017	198.00
75066	06614	MITEL LEASING	05/10/2017	815.15
75067	90932	NAPA AUTO PARTS	05/10/2017	96.43
75068	00718	NATIONWIDE RETIREMENT SOLUTIO	05/10/2017	2,018.07
75069	91151	OCEAN DATA SYSTEMS INC	05/10/2017	5,723.00
75070	03708	PAULEY EQUIPMENT CO INC	05/10/2017	266.92
75071	UB*00056	RAMONA PAVING	05/10/2017	1,113.37
75072	00216	PINE TREE LUMBER	05/10/2017	17.13
75073	91155	QUALITY GATE COMPANY	05/10/2017	954.95
75074	06237	LARRY RAGSDALE	05/10/2017	768.49
75075	06485	FABRIENNE ROBINSON	05/10/2017	147.00
75076	00232	SAN DIEGO GAS & ELECTRIC	05/10/2017	41.50
75077	UB*00057	DAVID SHEETZ	05/10/2017	79.34
75078	00159	SUPERIOR READY MIX	05/10/2017	565.75

Check No	Vendor No	Vendor Name	Check Date	Check Amount
75079	02815	SWRCB ACCOUNTING OFFICE	05/10/2017	27,504.00
75080	05883	TESTAMERICA LABORATORIES, INC.	05/10/2017	373.28
75081	91107	TIME WARNER CABLE ENTERPRISES,	05/10/2017	101.60
75082	91091	ORNEEN TOMA	05/10/2017	698.91
75083	06005	UNIFIRST CORP.	05/10/2017	411.42
75084	00458	VERIZON WIRELESS	05/10/2017	666.17
75085	05909	WAGNER & BONSIGNORE, CONSULTI	05/10/2017	393.75
75086	02570	CHERYL WILLIAMS	05/10/2017	577.50
75087	90934	CHARLIE WOLK	05/10/2017	27.82
Total for 5/10/2017:				202,142.24
75088	UB*00063	YK RANCH INC	05/17/2017	28.25
75089	06403	APPLEONE EMPLOYMENT SERVICES	05/17/2017	5,660.80
75090	91164	ARTERY	05/17/2017	75.00
75091	05088	AT&T	05/17/2017	857.07
75092	00898	BP BATTERY	05/17/2017	217.13
75093	03134	CALIFORNIA WATER ENVIRONMENT.	05/17/2017	83.00
75094	03978	CAMERON WELDING SUPPLY	05/17/2017	880.37
75095	06336	CAPITAL ONE COMMERCIAL	05/17/2017	129.31
75096	05915	CHEM ONE LTD	05/17/2017	12,201.89
75097	02176	CORELOGIC SOLUTIONS, LLC	05/17/2017	225.00
75098	05953	CORODATA RECORDS MANAGEMENT	05/17/2017	655.22
75099	06675	CORODATA SHREDDING, INC	05/17/2017	54.50
75100	05714	COUNTY OF SD DEPT PUBLIC WORKS	05/17/2017	249.00
75101	06169	CS-ASSOCIATED MUNICIPAL SALES C	05/17/2017	1,099.73
75102	91141	CURTIS E. STIKA	05/17/2017	3,931.00
75103	02925	DATA NET SOLUTIONS	05/17/2017	140.00
75104	05180	NOELLE DENKE	05/17/2017	27.00
75105	05192	DIAMOND ENVIRONMENTAL SERVIC	05/17/2017	333.74
75106	06020	BABCOCK & SONS, INC.	05/17/2017	475.00
75107	03391	ELECTRICAL SALES INC	05/17/2017	8.06
75108	UB*00058	RICHARD W & BEVERLY J ERICKSON	05/17/2017	10.22
75109	04122	EVOQUA WATER TECHNOLOGIES LLC	05/17/2017	3,943.20
75110	02647	FALLBROOK AWARDS	05/17/2017	32.33
75111	09523	FALLBROOK EQUIP RENTALS	05/17/2017	258.18
75112	02411	FALLBROOK PRINTING CORP	05/17/2017	698.25
75113	01155	FALLBROOK REFUSE	05/17/2017	3.54
75114	91108	FLEETCREW	05/17/2017	625.00
75115	04958	GOSCH FORD TEMECULA	05/17/2017	759.60
75116	90906	BRETT GRAHAM	05/17/2017	255.31
75117	02170	GRAINGER, INC.	05/17/2017	6,560.54
75118	UB*00059	GREGORIO & CECILIA GUADARRAM	05/17/2017	31.57
75119	05380	HACH CO	05/17/2017	2,040.10
75120	03276	HOME DEPOT CREDIT SERVICES	05/17/2017	3,376.48
75121	06426	INDUSTRIAL SAFETY PROFESSIONAL	05/17/2017	3,150.00
75122	06577	INFOSEND INC	05/17/2017	1,293.26
75123	06463	IOTUM INC.	05/17/2017	5.49
75124	06261	LAWTON GROUP	05/17/2017	278.10
75125	UB*00060	FREO CALIFORNIA LLC	05/17/2017	15.11
75126	90887	LLOYD PEST CONTROL	05/17/2017	169.00
75127	06660	MCCROMETER INC	05/17/2017	1,263.80
75128	90932	NAPA AUTO PARTS	05/17/2017	790.44
75129	06707	NATIONAL METER & AUTOMATION	05/17/2017	234,196.78
75130	06335	OCCU-MED LTD	05/17/2017	153.00
75131	06298	ONESOURCE DISTRIBUTORS, LLC	05/17/2017	210.11
75132	01267	PACIFIC PIPELINE	05/17/2017	19,239.84

Check No	Vendor No	Vendor Name	Check Date	Check Amount
75133	05033	PACKARD GOVERNMENT AFFAIRS	05/17/2017	10,000.00
75134	UB*00061	JOEL PEREZ	05/17/2017	26.38
75135	91007	PFM ASSET MANGEMENT LLC	05/17/2017	2,742.99
75136	03137	GARY PITTS	05/17/2017	530.55
75137	05792	POLLARD WATER CO INC	05/17/2017	2,591.95
75138	02662	QUALITY CHEVROLET	05/17/2017	81.74
75139	91155	QUALITY GATE COMPANY	05/17/2017	125.00
75140	91077	RED WING SHOE STORE	05/17/2017	591.01
75141	05636	SAM'S CLUB	05/17/2017	2,331.19
75142	UB*00062	MAUREEN SANDERSON-MURDOCK	05/17/2017	50.71
75143	06563	SCHNEIDER ELECTRIC USA INC	05/17/2017	11,766.30
75144	00236	SCRAPPYS	05/17/2017	984.21
75145	91152	SOLARWINDS, INC	05/17/2017	1,015.00
75146	90929	SOUTHWEST ANSWERING SERVICE, I	05/17/2017	882.19
75147	04092	STATE WATER RESOURCES CONT BRI	05/17/2017	325.00
75148	00621	TERRA TECHNOLOGY ENGINEERING	05/17/2017	519.20
75149	05883	TESTAMERICA LABORATORIES, INC.	05/17/2017	753.53
75150	04296	TRENCH PLATE RENTAL CO	05/17/2017	1,593.50
75151	06005	UNIFIRST CORP.	05/17/2017	393.18
75152	03027	UPS STORE	05/17/2017	83.00
75153	04313	USA BLUE BOOK	05/17/2017	2,398.67
75154	00458	VERIZON WIRELESS	05/17/2017	957.45
75155	02570	CHERYL WILLIAMS	05/17/2017	437.50
Total for 5/17/2017:				347,870.57
ACH	00152	FPUD EMPL ASSOCIATION	05/24/2017	909.78
ACH	02582	EMPLOYMENT DEVELOPMENT DEPT	05/24/2017	6,620.00
ACH	06758	US TREASURY - PAYROLL TAXES	05/24/2017	58,270.87
ACH	06759	STATE OF CA - PR TAXES	05/24/2017	8,001.20
ACH	06760	STATE OF CA - SDI	05/24/2017	1,906.88
ACH	06761	LINCOLN FINANCIAL GROUP	05/24/2017	6,187.84
ACH	06763	PERS - PAYROLL	05/24/2017	34,213.13
75163	04995	AMERICAN MESSAGING	05/24/2017	120.41
75164	06403	APPLEONE EMPLOYMENT SERVICES	05/24/2017	980.80
75165	06235	JACK BEBEE	05/24/2017	60.00
75166	06402	BRIAN BRADY	05/24/2017	100.45
75167	06012	CALIFORNIA DEPT OF CSS	05/24/2017	231.00
75168	03134	CALIFORNIA WATER ENVIRONMENT.	05/24/2017	768.00
75169	06676	CAROLLO ENGINEERS, INC	05/24/2017	3,453.95
75170	03205	CITY OF OCEANSIDE	05/24/2017	1,039.73
75171	00370	CROP PRODUCTION SERVICES, INC.	05/24/2017	50.84
75172	02925	DATA NET SOLUTIONS	05/24/2017	100.00
75173	06022	JAMISON DAVIS	05/24/2017	166.49
75174	05180	NOELLE DENKE	05/24/2017	25.00
75175	00143	DEPARTMENT OF WATER RESOURCE	05/24/2017	20,120.00
75176	04425	DOMINICK'S SANDWICHES	05/24/2017	37.29
75177	03087	MARCELLA M. EILERS	05/24/2017	858.50
75178	06303	EXECUTIVE LANDSCAPE INC.	05/24/2017	417.50
75179	01099	FALLBROOK IRRIGATION INC	05/24/2017	106.64
75180	00169	FALLBROOK OIL COMPANY	05/24/2017	1,285.71
75181	00170	FALLBROOK WASTE & RECYCLING	05/24/2017	549.70
75182	01432	FERGUSON WATERWORKS #1083	05/24/2017	2,589.95
75183	05560	FRANCHISE TAX BOARD	05/24/2017	250.00
75184	06286	GARDA CL WEST, INC.	05/24/2017	228.46
75185	02974	GOLDEN BELL PRODUCTS, INC.	05/24/2017	305.93
75186	04958	GOSCH FORD TEMECULA	05/24/2017	1,654.55

Check No	Vendor No	Vendor Name	Check Date	Check Amount
75187	02170	GRAINGER, INC.	05/24/2017	2,233.61
75188	06577	INFOSEND INC	05/24/2017	2,328.34
75189	05255	INLAND WATER WORKS SUPPLY CO.	05/24/2017	4,040.63
75190	06267	J2 GLOBAL IRELAND LIMITED	05/24/2017	59.91
75191	06380	JANI-KING OF CALIFORNIA, INC - SAI	05/24/2017	2,117.39
75192	00190	JCI JONES CHEMICALS INC.	05/24/2017	4,301.06
75193	05401	JOE'S PAVING	05/24/2017	5,410.95
75194	90924	LAW OFFICES OF STEPHEN V. LOPARI	05/24/2017	183.00
75195	06261	LAWTON GROUP	05/24/2017	278.10
75196	03765	LENNIHAN LAW	05/24/2017	4,603.08
75197	91130	LINCOLN NATIONAL LIFE INSURANC	05/24/2017	3,956.56
75198	90887	LLOYD PEST CONTROL	05/24/2017	210.00
75199	06633	MAINTENANCE CONNECTION INC	05/24/2017	756.20
75200	91029	MALLORY SAFETY AND SUPPLY CO	05/24/2017	269.38
75201	04649	MAR-CON PRODUCTS, INC	05/24/2017	6,138.00
75202	03944	MISSION RESOURCE CONSV DISTRIC	05/24/2017	31.25
75203	06338	MYTHOS TECHNOLOGY INC	05/24/2017	2,750.89
75204	90932	NAPA AUTO PARTS	05/24/2017	1,303.09
75205	06707	NATIONAL METER & AUTOMATION	05/24/2017	2,736.47
75206	01267	PACIFIC PIPELINE	05/24/2017	15,542.11
75207	90939	PCM SALES, INC.	05/24/2017	1,072.26
75208	91007	PFM ASSET MANGEMENT LLC	05/24/2017	1,181.88
75209	04075	RAYNE WATER SYSTEMS	05/24/2017	125.00
75210	90944	ROBERT H JAMES	05/24/2017	950.00
75211	06666	SAGINAW CONTROL & ENGINEERINC	05/24/2017	213.60
75212	90925	SHERWIN-WILLIAMS	05/24/2017	204.75
75213	00159	SUPERIOR READY MIX	05/24/2017	1,244.89
75214	05904	RICHARD TANNER	05/24/2017	1,137.80
75215	06735	TCN, INC.	05/24/2017	123.90
75216	00250	TRY ENTERPRISES	05/24/2017	2,320.00
75217	06512	ULINE, INC	05/24/2017	586.01
75218	00724	UNDERGROUND SERVICE ALERT	05/24/2017	283.50
75219	06005	UNIFIRST CORP.	05/24/2017	506.01
75220	00458	VERIZON WIRELESS	05/24/2017	666.17
75221	04290	VILLAGE NEWS, INC.	05/24/2017	990.00
75222	06231	WESTERN WATER WORKS SUPPLY CC	05/24/2017	11,831.39
75223	91100	WESTIN ENGINEERING, INC.	05/24/2017	11,977.42
75224	02570	CHERYL WILLIAMS	05/24/2017	367.50
75225	UB*00064	PRISCILLA YOCK	05/24/2017	1,626.01
Total for 5/24/2017:				248,268.71
75226	UB*00065	THOMPSON AND ASSOCIATES	05/31/2017	5.22
75227	00101	ACWA JPIA	05/31/2017	87,295.38
75228	06323	ADVANCED COMMUNICATION SYSTE	05/31/2017	514.61
75229	01460	AFLAC	05/31/2017	1,627.11
75230	06661	MARK APRIL	05/31/2017	57.30
75231	06696	AT & T MOBILTIY	05/31/2017	56.09
75232	06020	BABCOCK & SONS, INC.	05/31/2017	530.00
75233	06402	BRIAN BRADY	05/31/2017	184.02
75234	04178	CALOLYMPIC SAFETY CO., INC.	05/31/2017	1,338.71
75235	03978	CAMERON WELDING SUPPLY	05/31/2017	991.27
75236	UB*00066	DAVID CROCKER	05/31/2017	9.77
75237	06299	D & H WATER SYSTEMS, INC	05/31/2017	360.88
75238	02925	DATA NET SOLUTIONS	05/31/2017	345.00
75239	05180	NOELLE DENKE	05/31/2017	27.38
75240	04425	DOMINICK'S SANDWICHES	05/31/2017	33.99

Check No	Vendor No	Vendor Name	Check Date	Check Amount
75241	03391	ELECTRICAL SALES INC	05/31/2017	458.67
75242	01099	FALLBROOK IRRIGATION INC	05/31/2017	44.53
75243	00169	FALLBROOK OIL COMPANY	05/31/2017	2,875.54
75244	04494	FEDERAL EXPRESS CORPORATION	05/31/2017	126.45
75245	01432	FERGUSON WATERWORKS #1083	05/31/2017	2,831.67
75246	05733	FIRST BANKCARD	05/31/2017	9,615.52
75247	06071	AL GEBHART	05/31/2017	594.60
75248	00182	GLENNIE'S OFFICE PRODUCTS, INC	05/31/2017	1,246.83
75249	04958	GOSCH FORD TEMECULA	05/31/2017	195.40
75250	02170	GRAINGER, INC.	05/31/2017	1,386.14
75251	03174	HAAKER EQUIPMENT COMPANY	05/31/2017	51.48
75252	06429	HEALTHPOINTE MEDICAL GROUP, INC	05/31/2017	210.00
75253	06577	INFOSEND INC	05/31/2017	1,339.84
75254	00190	JCI JONES CHEMICALS INC.	05/31/2017	3,020.88
75255	06479	KNOCKOUT PEST CONTROL & TERMI	05/31/2017	200.00
75256	06324	LA TESTING	05/31/2017	361.50
75257	90916	KELLY LAUGHLIN	05/31/2017	35.85
75258	06261	LAWTON GROUP	05/31/2017	417.15
75259	06156	LOMACK SERVICE CORPORATION	05/31/2017	181.00
75260	04638	LOWE'S CORPORATION	05/31/2017	784.41
75261	06123	MACIAS GINI & O'CONNELL	05/31/2017	12,500.00
75262	04649	MAR-CON PRODUCTS, INC	05/31/2017	4,478.00
75263	00718	NATIONWIDE RETIREMENT SOLUTIO	05/31/2017	2,018.07
75264	06298	ONESOURCE DISTRIBUTORS, LLC	05/31/2017	844.39
75265	01267	PACIFIC PIPELINE	05/31/2017	202.61
75266	04236	PALOMAR INVESTIGATIVE GROUP, IN	05/31/2017	405.00
75267	04900	PARADISE CHEVROLET CADILLAC	05/31/2017	296.69
75268	91104	RAFTELIS FINANCIAL CONSULTANTS	05/31/2017	2,412.50
75269	00231	SAN DIEGO COUNTY WATER AUTH	05/31/2017	1,293,669.30
75270	00232	SAN DIEGO GAS & ELECTRIC	05/31/2017	25,046.34
75271	91094	SCADA INTEGRATIONS	05/31/2017	7,865.25
75272	06401	SONSRAY MACHINERY LLC	05/31/2017	91.54
75273	02310	DAVID STAGG	05/31/2017	180.00
75274	00621	TERRA TECHNOLOGY ENGINEERING	05/31/2017	519.20
75275	05883	TESTAMERICA LABORATORIES, INC.	05/31/2017	55.12
75276	06005	UNIFIRST CORP.	05/31/2017	396.55
75277	06211	UNITED IMAGING	05/31/2017	420.25
75278	03027	UPS STORE	05/31/2017	23.09
75279	05909	WAGNER & BONSIGNORE, CONSULTI	05/31/2017	176.25
75280	02570	CHERYL WILLIAMS	05/31/2017	428.75

Total for 5/31/2017: 1,471,383.09

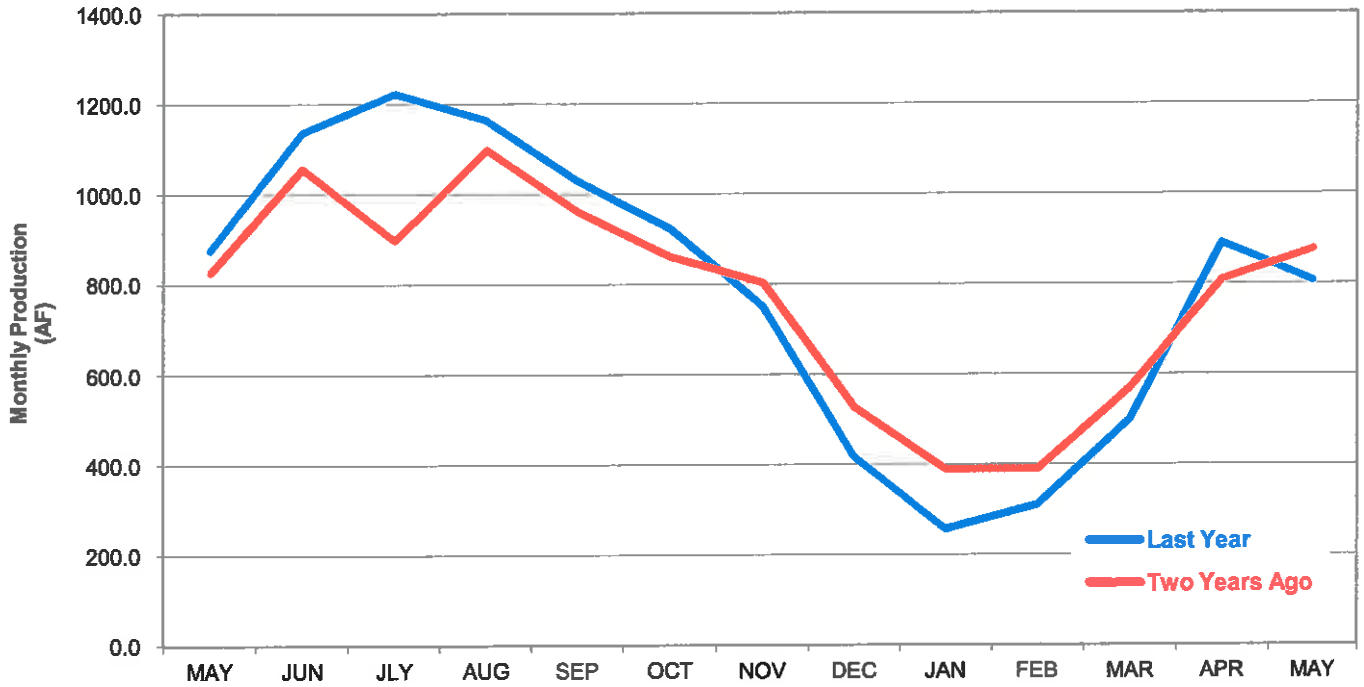
Report Total (303 checks): 3,316,973.55



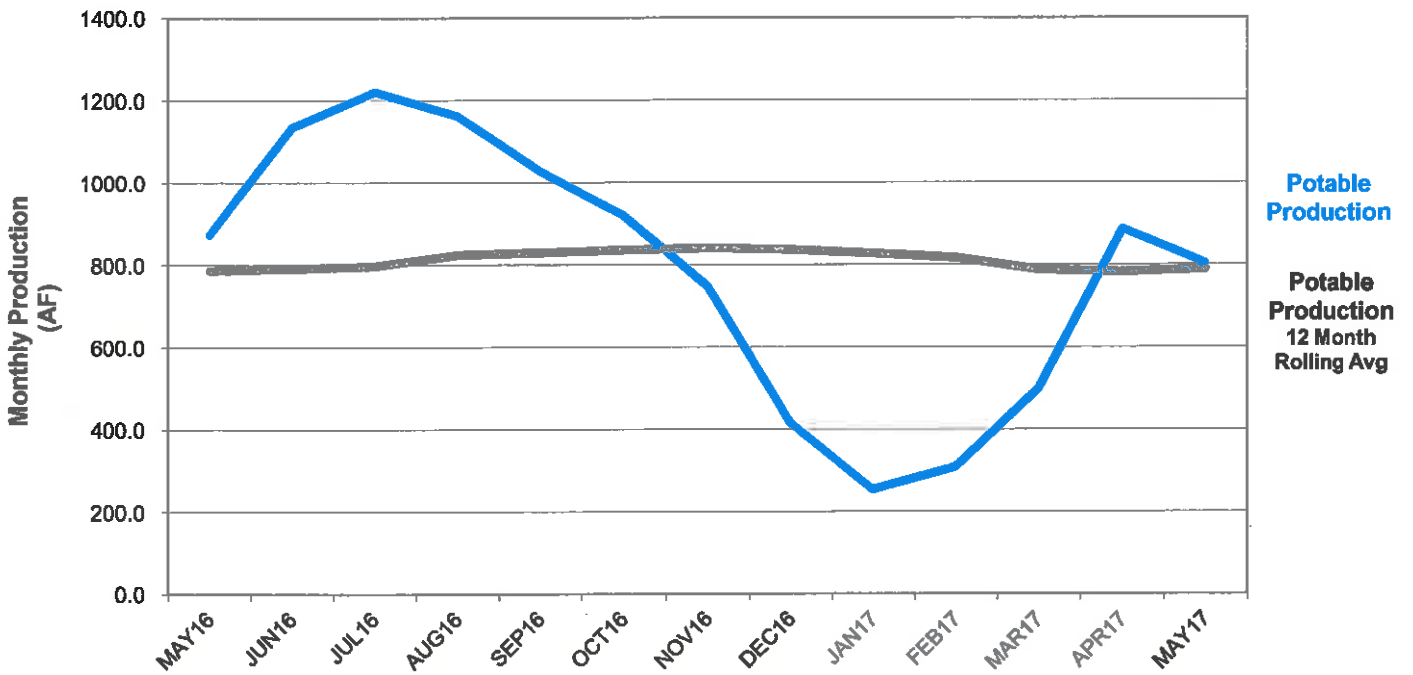
Brian J. Brady

General Manager

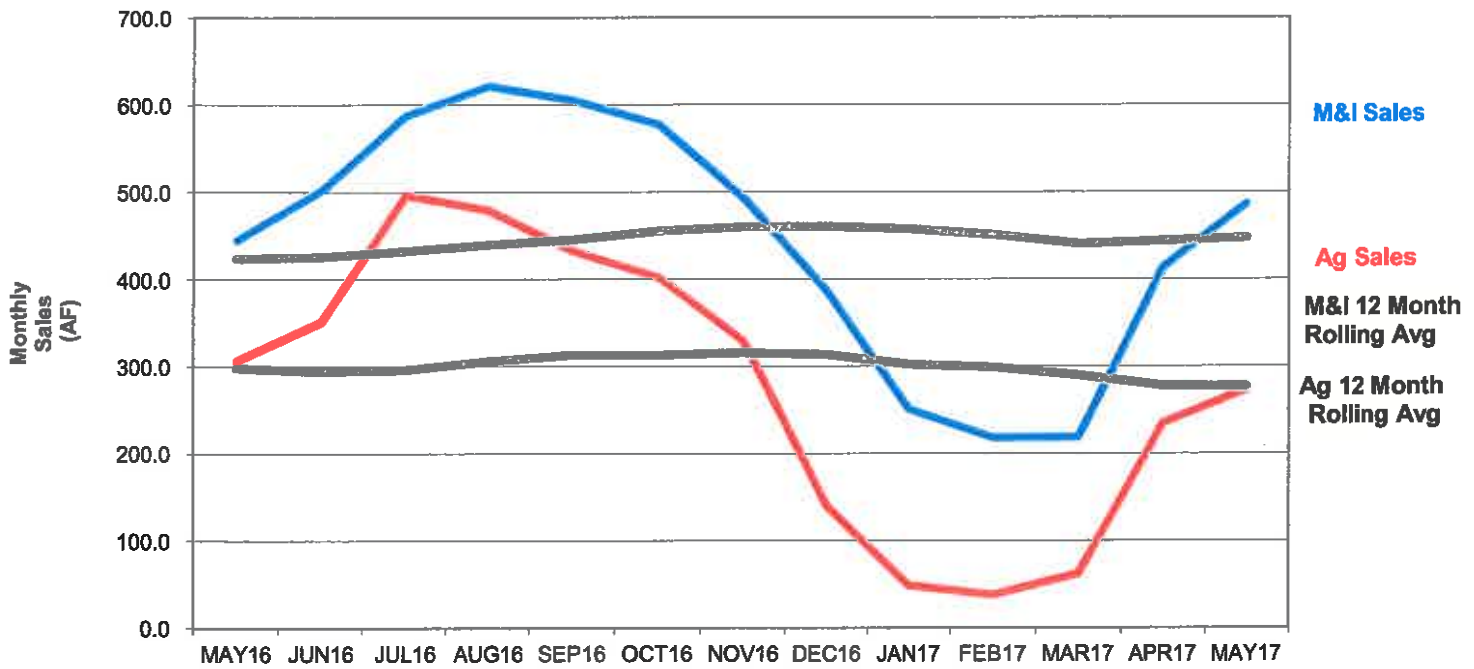
Fallbrook Public Utility District Annual Production



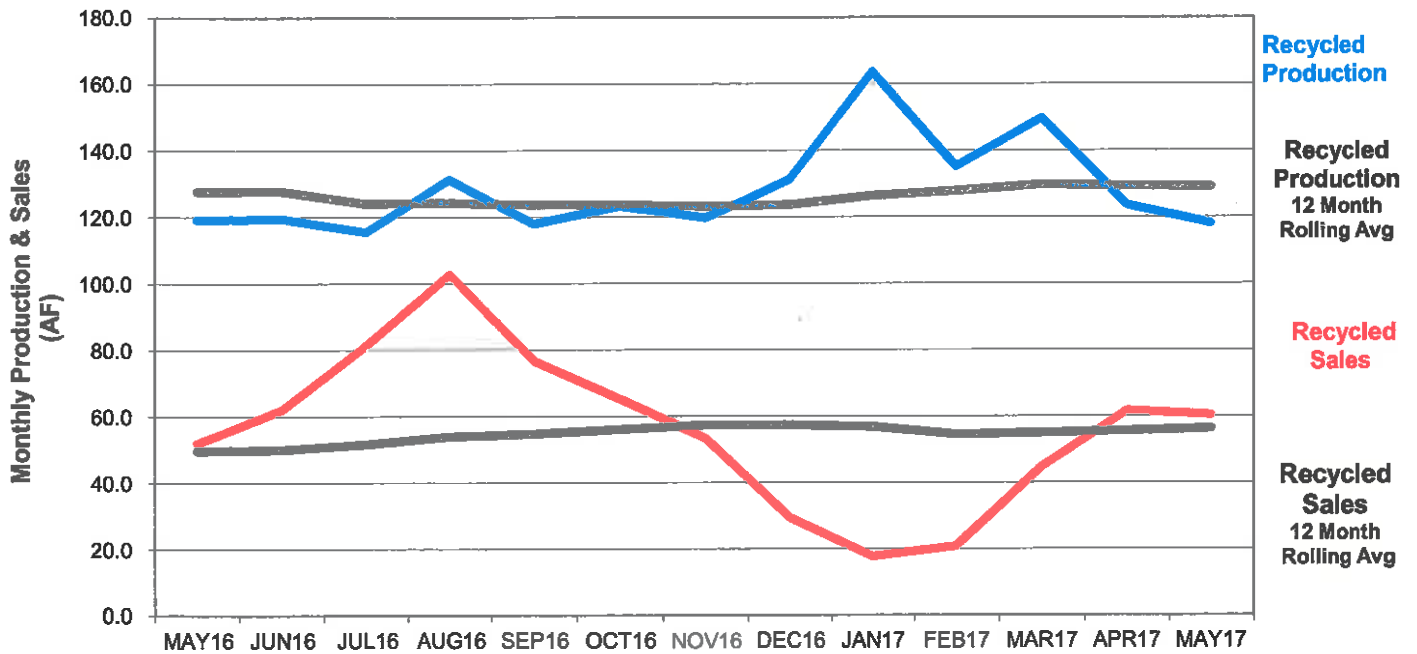
Fallbrook Public Utility District Total Potable Production



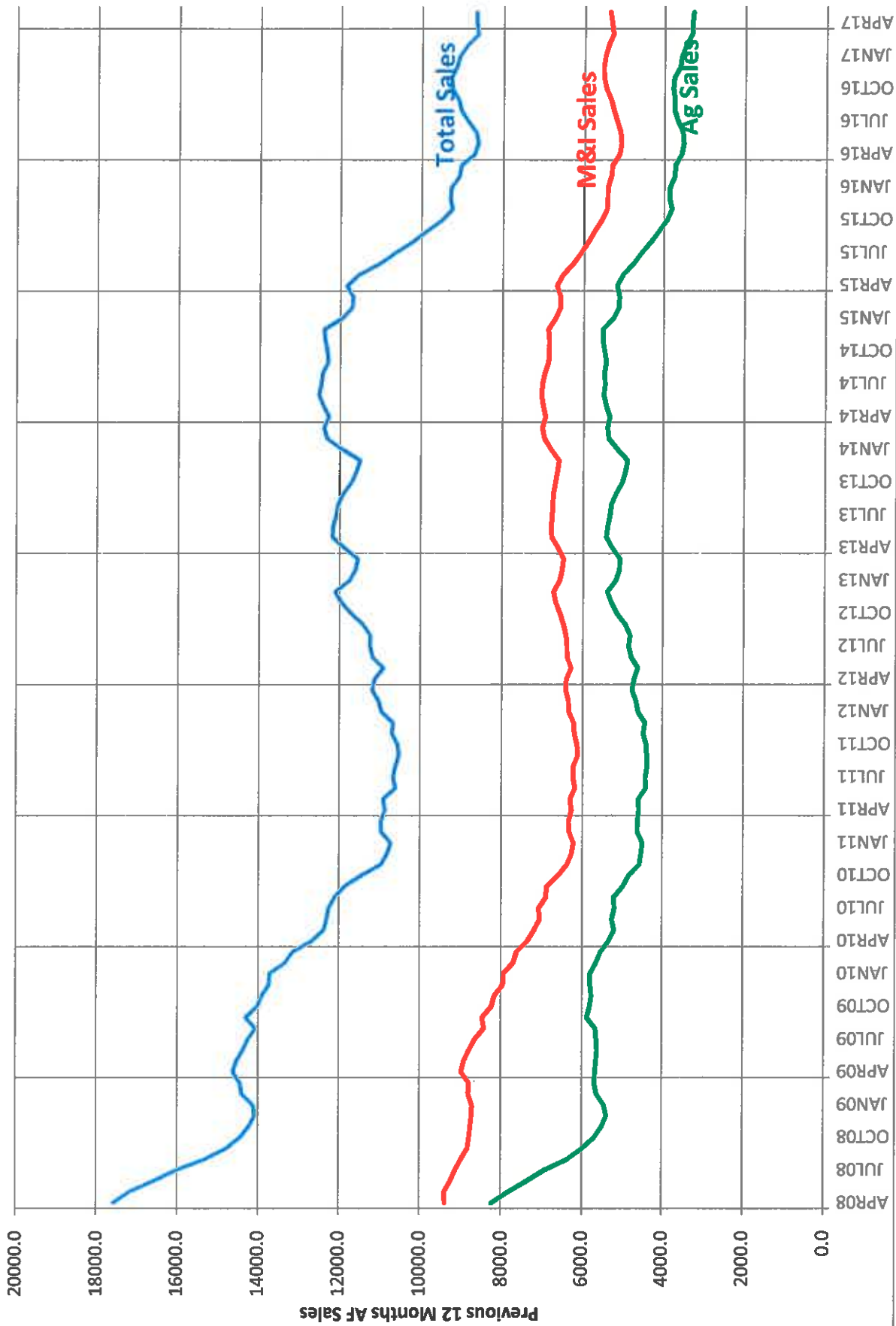
Fallbrook Public Utility District Ag and M&I Sales



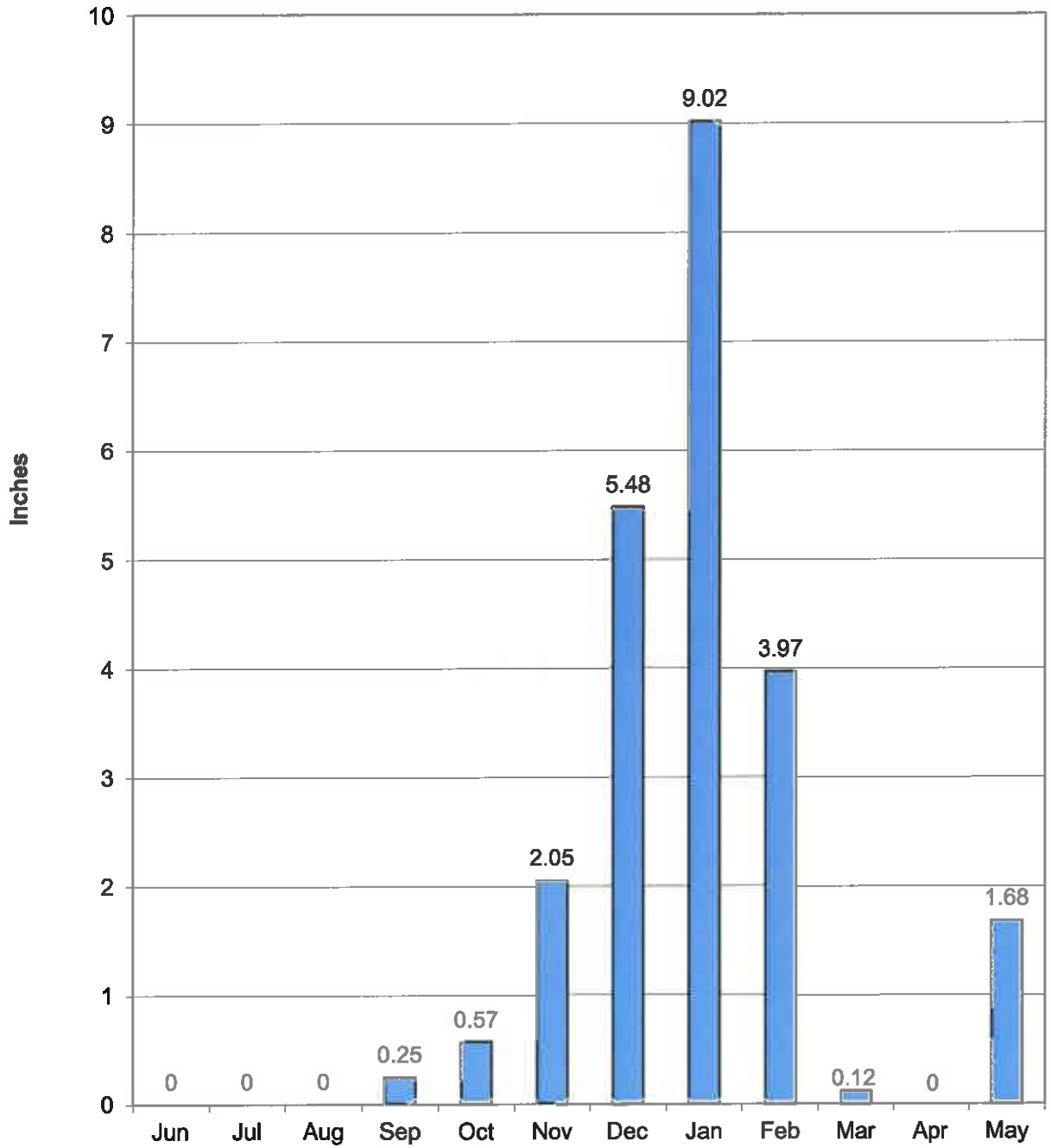
Fallbrook Public Utility District Recycled Water Production & Sales



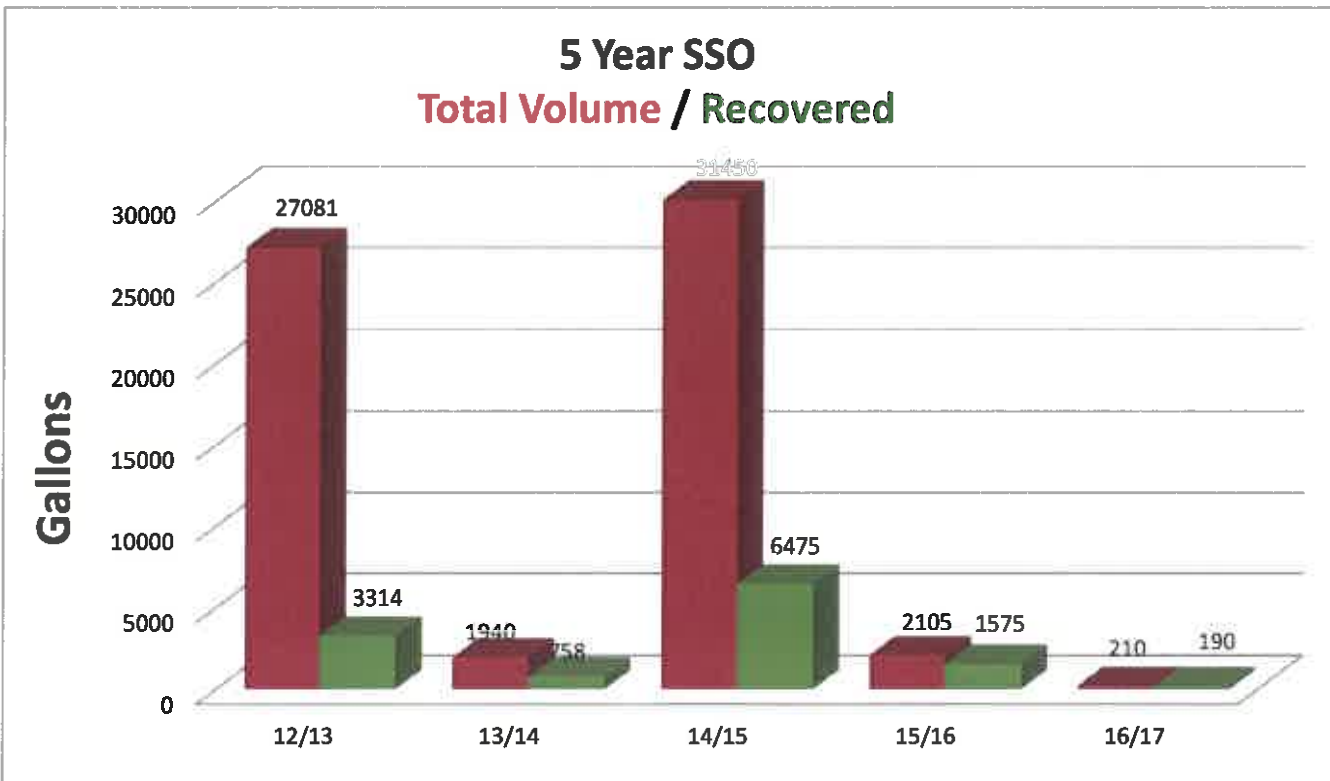
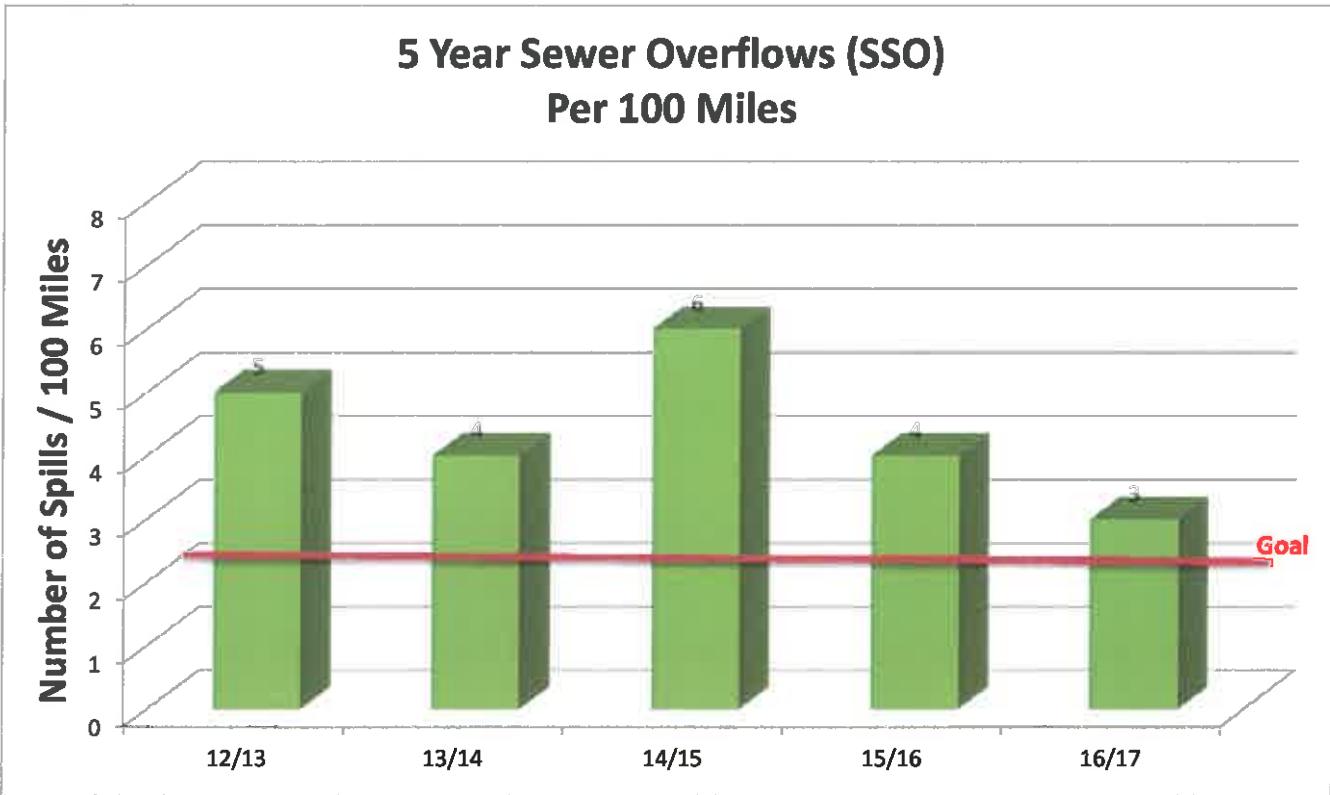
FPUD 12 Month Running Water Sales



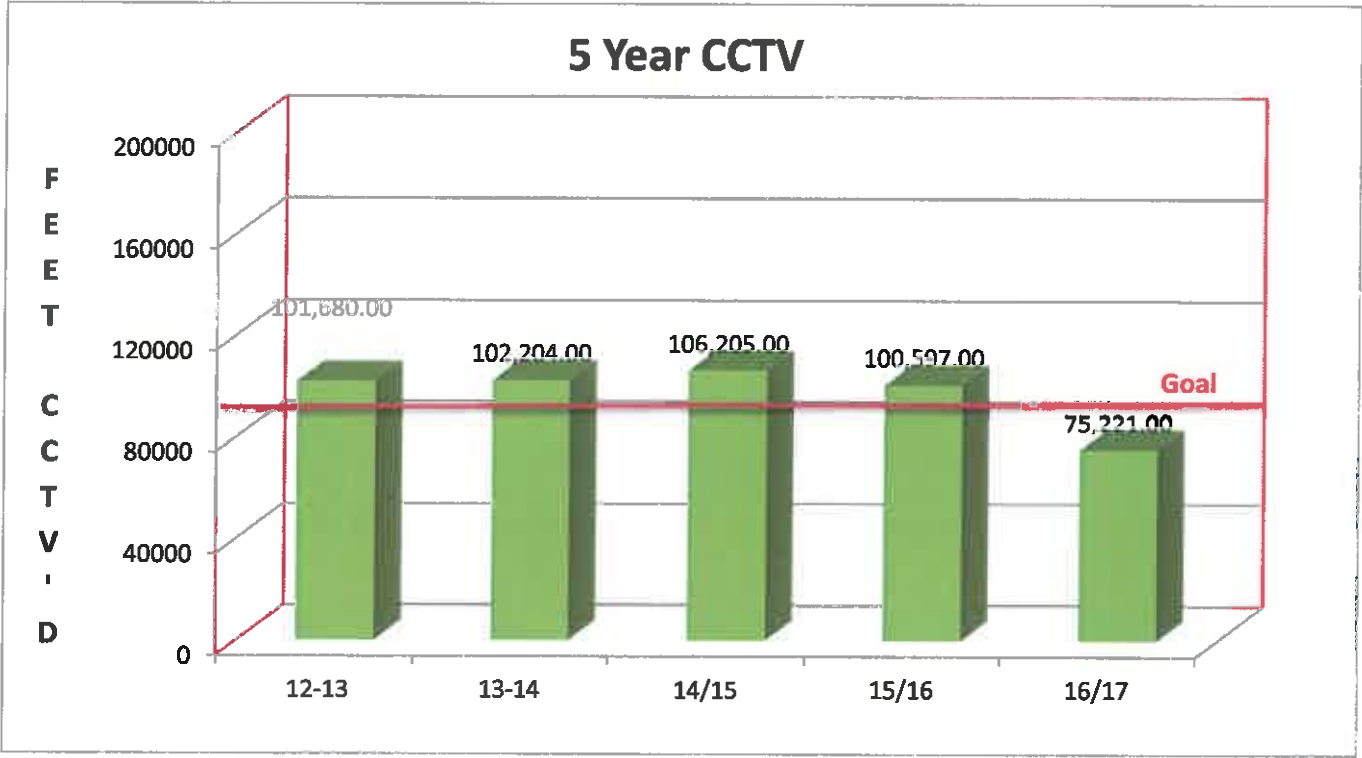
Fallbrook Rainfall In The Last 12 Months



COLLECTION MONTH REPORT

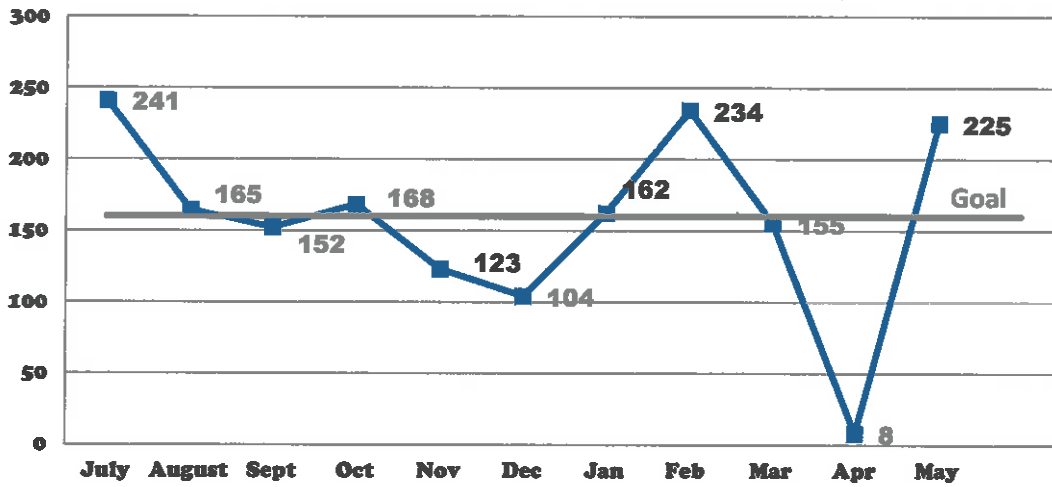


COLLECTION MONTHLY REPORT



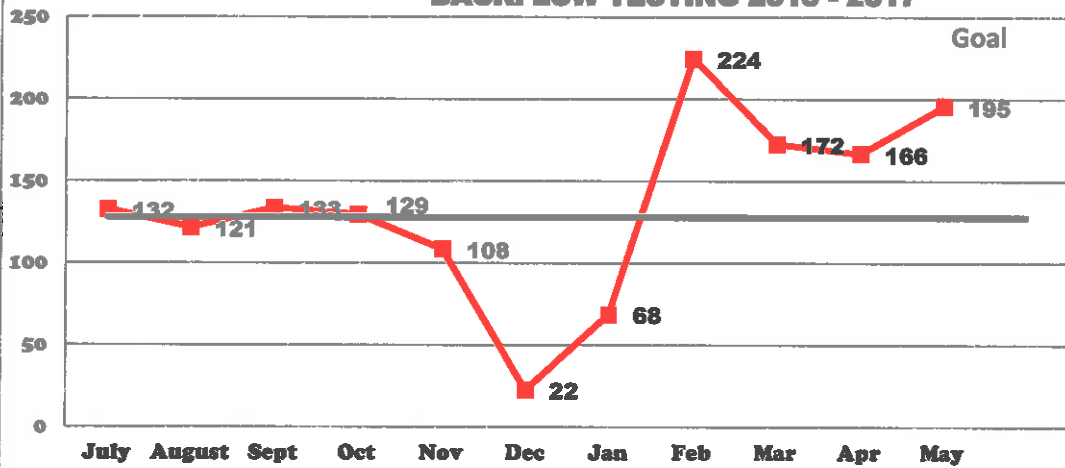
**DEPT 5
MONTHLY REPORTS**

METER EXCHANGE PROGRAM 2016 - 2017



TOTAL # METERS TO EXCHANGE: 1920
TOTAL # METERS EXCHANGED: 1737
METERS LEFT TO EXCHANGE: 183
PERCENTAGE REMAINING 9.53%

BACKFLOW TESTING 2016 - 2017



TOTAL TESTED GOAL: 1505
TOTAL TESTED TO DATE: 1470
TOTAL NUMBER OF DEVICES ON STAND BY: 126
DEVICES REMAINING TO TEST: 0
PERCENTAGE REMAINING 0%

System Operations Report - May 2017

Item	May-17	Year to Date
Valve Exercising Goal	189	945
Valves Exercised	234	696
Percentage Complete	123.8%	73.7%
Valves Replaced	0	78
Broken Valves Identified in System	9	297
Main Line leaks	5	17
Service Line Leaks	6	10
Approx. Gallons Lost Flushing	73,450	240,825
Approx. Gallons Lost to Leaks	134,505	794,050
Sewer Leaks	0	0

LOG OF BOARD REQUESTS
June 26, 2017 Regular Board Meeting

Item No.	Date Requested	Requestor and Request	Action by Staff/Schedule	Date Completed
1	1) 12/12/16 2) 2/25/16	<u>Charley Wolk:</u> Requested 1) a workshop be held to provide sufficient time for discussion of matters relating to the Santa Margarita River property and 2) a meeting with legal representation re: property.	<u>Jack Bebee</u> We are waiting to receive comments from resource agencies on the management plan and to complete an initial review with project partners. Workshop is anticipated in April 2017.	
5	1/27/17	<u>Al Gebhart:</u> Requested that staff prepare rate models based on decreased water sales over five years, to include funding of the CUP.	Request has been included in Raftelis rate model analysis. Fiscal Policy & Insurance Committee recommended projection with 9,000, 7,000 and 5,000 AFY sales. Committee review scheduled for March 6, 2017; Scheduled Board review March 20, 2017. Postponed by President Wolk. Rescheduling for mid-May 2017.	
6	GM Target Activities	<u>Board: SMR CUP</u> Maintain current schedule for finalizing MOU and EIS with USMC and necessary work with California SWRCB.	<u>Status:</u> On-going. (a) EIR to Board for certification by September 2016. Complete. (b) Final Settlement Agreement to Board by May 2017. (c) Prepare quarterly reports to Board. Last quarterly report given February 2017.	
7	GM Target Activities	<u>Board:</u> Finalize SMR CUP financing plan (options) by November 2016.	<u>Status:</u> Ongoing discussions with Fiscal Policy and Insurance Committee. Resolutions for SRF funding approved by Board at January 2017 meeting and sent to state. Audit and debt policy sent to SWRCB on 6/9/17.	6/9/17
10	GM Target Activities	<u>Board:</u> General Manager to actively participate in SDCWA board policy discussion.	<u>Status:</u> On-going.	
12	GM Target Activities	<u>Board:</u> Urban Water Standards (SWRCB); Urban Advisory Group (UAG) process. Targeted community outreach to be developed working with Conservation Committee.	<u>Status:</u> On-going. Status of SWRCB guidelines to Board by November 2016 (complete). Comment period extended by SWRCB until March 2017. (complete) Next Board update in March 2017. This activity to be combined with outcome of B-3 (Urban Water Standards), now targeted for March 2017.	
13	GM Target Activities	<u>Board:</u> Metropolitan (new fixed charge on treated water)	<u>Status:</u> Complete/monitor on-going. Board briefed on 1/23/17. On-going analysis and development of rate alternatives w/SDCWA general managers group. Report progress to Board in April 2017.	

LOG OF BOARD REQUESTS
June 26, 2017 Regular Board Meeting

Item No.	Date Requested	Requestor and Request	Action by Staff/Schedule	Date Completed
14	GM Target Activities	<u>Board:</u> SDG&E General Rate Case re: Solar Contracts	<u>Status:</u> Water district consortium coordinating with BB&K special counsel. CPUC hearings originally scheduled for 10/17-10/21/2016. Opening briefs now set for 1/20/17 and reply briefs for 2/10/17. Proposed decision scheduled for February 27, 2017 unlikely. Update Board in May 2017.	
22	GM Target Activities	<u>Board:</u> Explore functional consolidation opportunities with neighboring water districts (Valley Center, Yuima, Rainbow) in areas of information services, engineering, technical assistance, equipment sharing.	<u>Status:</u> General Managers are meeting in January 2017 to establish scope. At request of VCMWD and RMWD general managers, meeting postponed past March 2017. This activity postponed until after July 1, 2017.	
24	GM Target Activities	<u>Board:</u> Update FPUD board room audio-visual equipment in conjunction with North County Fire.	<u>Status:</u> Upgrade to projection equipment complete. Audio equipment vendor proposal to be funded through MOU with NC Fire.	
26	GM Target Activities	<u>Board:</u> Complete general office space planning. Report to Board by October 2016.	<u>Status:</u> Plans and budget transmitted to Board in January 2017. On-going construction, as available, during rainy season.	
32	GM Target Activities	<u>Board:</u> Establish a 5-year strategic plan with 6 month updates. Complete by first quarter 2017.	<u>Status:</u> Need Board input.	
36	February 2017	<u>FP&I Committee:</u> Revise purchasing guidelines (Articles 14).	Being reviewed by BB&K. Scheduled for June board meeting.	
37	2/21/17	<u>Director Walk:</u> Sit down with staff to walk-through the steps to the monthly accounting closing process.	<u>Marcie Eilers:</u> To schedule time with Director Wolk.	
41	4/24/17	<u>Director Gebhart:</u> In lieu of paper board packets, request to be provided laptop computers.	<u>Brian J. Brady:</u> In the process of getting quotes.	

Note: Number sequencing is not in order as those tasks completed are removed from this list. New tasks are assigned a new number.