

RFP EVALUATION
AGRICULTURAL IRRIGATION SYSTEM AUDITOR

Basic Fee Structure	Riverside Corona (RCRCD) NO BID	Valley Soil Inc. (VSI) NO BID	Mission RCD (MRCD)	Profitable Crop Productions LLC (PCP)	William Baker & Associates LLC* (WB&A)	Comments
Planted Area 1.0-5.0 Acres			\$335.00	\$400.00	\$715.00	
Planted Area 5.1-10.0 Acres			\$415.00	\$450.00	\$715.00	
Planted Area 10.1-15.0 Acres			\$495.00	\$500.00	\$715.00	
Planted Area 15.1-20.0 Acres			\$575.00	\$550.00	\$715.00	
Planted Area 20.1-25.0 Acres			\$655.00	\$600.00	\$715.00	
Planted Area Above 25.0 Acres			\$695.00	\$700.00	\$715.00	
Subtotal, base prices per audit			\$3,170.00	\$3,200.00	\$4,290.00	Comparison assuming equal proportions of planted areas**
Adder, annual administrative cost*				\$2,400.00		
Grand totals including PCP's 1-year administrative cost			\$3,170.00	\$5,600.00	\$4,290.00	
Adders						
PCP's follow-up or "hand holding" time adder quoted				\$75.00/hour		Not included in grand total
PCP's monthly admin cost adder quoted				\$200.00/month		12 x \$200 = \$2400*
Legend						
Green = Subtotals						
Lavender = Adder quoted by PCP						
Rose = Grand totals and Analysis						
Analysis of Bids						
Through resources including discussions with water professionals and use of the website "Irrigation.org", Director Brady conducted research to develop a list of qualified bidders to be invited to participate in this EMARCD RFP for Agricultural Irrigation System Auditor. Criteria used to determine those firms able to meet the minimum qualifications included the following:						
1) Experience performing this scope of work						
2) Access to proper equipment and/or lab						
3) Appropriate professional/technical certifications (CAIS)						
4) Geographic proximity (50 mile radius)						
RFPs (reviewed and approved by District Counsel) were sent out. Two of the five firms declined to bid (RCRCD and VSI) as noted above. The remaining three bidders' proposals have been evaluated to determine ability to meet minimum qualifications, price, and quality of product (deliverables.)						
1) Qualification: MRCD has significant experience performing agricultural audits, holds the appropriate credentials and has access to the proper equipment and lab.						
2) Pricing: As detailed above, the basic fee structure of all bidders has been itemized with and totaled, highlighted in green (please see the "Comments" column for assumptions.) MRCD is the low bidder using simple summation of their pricing for all planted area ranges**. In reviewing a sampling of past invoices by the previous firm (RCRCD) holding this contract, the historical trend has shown that most audits have generally been performed for planted areas <10 acres. This further supports award of this contract to MRCD, because their pricing is most competitive in that range.						
3) Deliverables: MRCD's proposal was thorough and professionally prepared. Their computerized audit report is superior to other RFP respondents, and the quality of their proposal reflects their industry reputation of providing excellent service and output.						

WILLIAM BAKER

ASSOCIATES LLC

Consultants to the Green Industry

January 4, 2016

Rose Corona
Vice President, EMARCD
P. O. Box 2078
Temecula, CA 92592

Re: Agricultural Irrigation System Auditor

Dear Rose:

We appreciate the opportunity to submit a proposal to the RCD for Agricultural Irrigation Auditing. Our irrigation auditing experience is extensive. We are the contractor for a multi-year irrigation study, sponsored by the Dept. of Water Resources (DWR) and administered by the University of California Agriculture and Natural Resources Division (UCANR). This study will help determine the next round of horticultural irrigation regulations for the State. It involves 32 sites over six geographic and climate regions of California. We did a previous study with the same clients on 30 sites over a three county region of Southern California. These were "no bid" contracts, demonstrating their confidence in our company and our qualifications.

Please note from our proposal and professional biographies that we hold numerous industry certifications, including Certified Agricultural Irrigation Specialist. Our team includes several other certified individuals that are not listed in this proposal, but who are available if we need them. The proposal pricing allows for the auditing of several valves/zones/sections, depending on the size of the farm, but there is also unit pricing if fewer areas are tested.

My own history includes serving on the Coachella Valley RCD Board of Directors, and I personally hold eight professional certifications and licenses – and I have an Environmental Studies degree. Several of my credentials are farm and Ag related, including PCA, QAL, and CCA licenses.

I should also mention that we are in the neighborhood. Our office is on Margarita and DePortola in Temecula, probably a little over a mile from Big Horse Feed and Mercantile. Both our office manager and I live in the Vintage Hills community, just off Butterfield Stage Road.

We look forward to hearing from you. We would be happy to make a formal presentation to you and the Board.

Best Regards,

William Baker

William Baker, Principal
William Baker & Associates LLC

Enclosures

Proposal

Elsinore – Murrieta – Anza Resource Conservation District Agricultural Irrigation System Auditor

January 5, 2016



Submitted by William Baker & Associates LLC

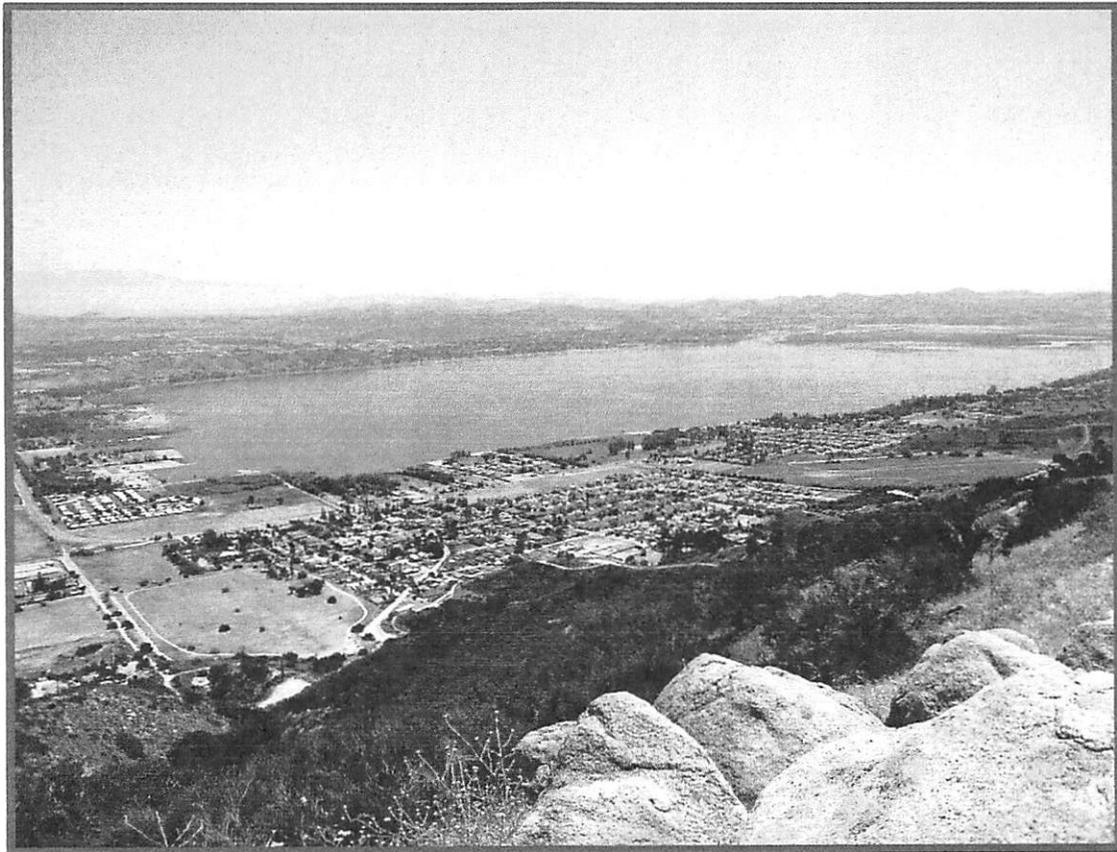
WILLIAM BAKER
ASSOCIATES LLC

44045 Margarita Road, Suite 204, Temecula, CA 92592

Website: www.wbaconsulting.com

951-741-0443 telephone ----951-308-1194 fax

Email: bbaker@wbaconsulting.com



WILLIAM BAKER
ASSOCIATES LLC

**Elsinore - Murrieta - Anza Resource Conservation District
Agricultural Irrigation System Auditor
Proposal**

Table of Contents

	Page No.
Services Provided by William Baker & Associates	1
Experience - Representative Projects	1
Statement of Qualifications	2-3
Scope of Work	3-4
Audit Time Schedule	4
Fee Structure	5
Insurance Coverages	6
Bios	
Sample Drip/Micro System Review Sheet	
Sample Sprinkler System Review Sheet	

WILLIAM BAKER

ASSOCIATES LLC

44045 Margarita Road, Suite 204, Temecula, CA 92592

www.wbaconsulting.com

951-741-0443 telephone — 951-308-1194 fax — bbaker@wbaconsulting.com

Agricultural Irrigation System Auditor Summary

Consulting Proposal

Services Provided by William Baker & Associates LLC

William Baker & Associates LLC (WBA) provides management and coordination for projects that involve government agencies, municipalities, industry associations, and the private sector. We offer comprehensive irrigation audits and evaluations of large landscapes, golf courses, community associations and city parks departments. The firm provides support in making necessary alterations in both management and cultural practices.

Experience -- Representative Projects

- Evapotranspiration Adjustment Factor Study – California Department of Water Resources (*Study involves irrigation audits and evaluations of 30 sites of various landscapes throughout California*)
- Forest Lawn Memorial Parks Mortuaries – Irrigation Audit and Evaluation of five cemeteries
- City of Newport Beach - Soil and Water Assessment for Sports Parks Development
- Red Hill Country Club - Golf Course Assessment, Irrigation Evaluation and Training Program
- Hidden Valley Lake Association – Golf Course Review
- City of Bellevue Washington - Assessment of 58 park sites
- Lake Forest Homeowners Association I - Tree and Landscape Assessment (1,800 homes)
- Lake Forest Homeowners Association II - Tree and Landscape Assessment (3,436 homes)
- Nelligale Ranch - Landscape review
- Laguna Woods Village - Landscape review
- Los Serranos Country Club- Golf Course Assessment and Training Program
- Capitol Park - Landscape Assessment and Training Program
- Big Canyon Country Club - Turfgrass and Trees Assessment
- Bermuda Dunes Country Club - Golf Course and Operational Assessment
- Capitol Park - Assessment and Training Program
- Borrego Springs Resort - Golf Course Assessment
- California Baptist University - Tree and Landscape Assessment
- Disney Studios - Tree Assessment Program
- Redhawk Country Club - Turfgrass and Tree Assessment
- San Gabriel Country Club - Tree Assessment
- City of La Verne - Sports Fields Assessment and Management Program
- City of Murrieta - Tree Management Plan and Training Program
- Dos Lagos Development, Corona - Environmental Review

Statement of Qualifications

The primary individuals who will be assigned to this project are Bruce Duenow, John Rodriguez, William Baker and WBA administrative staff, Meredith Odom.

Staff Credentials

- Environmental Studies Degree – University of Redlands, Redlands, California
- Certified Agricultural Irrigation Specialist (CAIS)
- Certified Crop Advisor—American Society of Agronomy
- Certificate in Turfgrass Management – University of California Extension, Riverside, California
- Certified Golf Course Superintendent – Golf Course Superintendents Association of America (GCSAA)
- Certified Arborist – International Society of Arboriculture (ISA)
- Pest Control Advisers License – California Department of Pesticide Regulation
- Qualified Applicators License – California Department of Pesticide Regulation
- Qualified Applicators Certificate – California Department of Pesticide Regulation
- Certified Irrigation Designer (CID)
- Certified Irrigation Contractor (CIC)
- Certified Landscape Irrigation Auditor (CLIA)
- Certified Landscape Water Manager (CLWM)
- EPA WaterSense Partner
- QWEL Certification
- Licensed Landscape Contractor

Specific Staff Training

- California Golf Course Management Institute, Asilomar Conference Center
- Dale Carnegie Management and Supervision Certification
- Union Labor Relations and National Labor Relations Board Resolutions
- National Institute of Golf Course Management

Associations – Current and Former Affiliations and Positions

- Coachella Valley Resource Conservation District – Board of Directors
- Southern California Turfgrass Council – Board of Directors/Past President
- Friends of the University of California, Riverside Botanic Gardens – Board of Directors
- Golf Course Superintendents Association of America – Delegate and Committee Assignment
- California Golf Course Superintendents Association – Board of Directors/Past President
- HI-Lo Desert Golf Course Superintendent Association – Board of Directors/Past President
- San Diego Golf Course Superintendent Association – Board of Directors/Past President
- International Society of Arboriculture – Member
- Pesticide Applicators Professional Association – Member
- California Association of Pest Control Advisers – Member
- Professional Landcare Network – Member
- Mosquito and Vector Control Association of California – Member
- Vintage Hills Homeowners Association Board of Directors – Vice President

Training Conducted

- Los Angeles County Department of Parks and Recreation
- Los Angeles County Department of Education
- National Forestry School, Dominican Republic
- Professional Golfers Career College
- UC Riverside Extension

Former Superintendent Positions – Senior WBA Staff

- La Jolla Country Club
- La Quinta Country Club
- The Club at Morningside
- The Lakes Country Club
- Sun City West, AZ (7 golf courses)
- Pauma Valley Country Club
- Riviera Country Club
- Escondido Country Club
- Thunderbird Country Club
- MountainGate Country Club

Scope of Work

WBA will evaluate the irrigation system performance and conduct extensive irrigation efficiency tests at each of the sites requested by Rancho California Water District agricultural customers. This includes providing post-retrofit audits for customers who decide to retrofit their irrigation systems to improve distribution uniformity and irrigation efficiency. The evaluation will include a system tune-up that will perform pressure tests matching the best pressure setting for the either the nozzle or emitter and proper spacing to the manufacturer's sprinkler performance data.

WBA will compare sites' histories of water consumption to actual water requirements to determine irrigation efficiency. Other data that will be collected will include the irrigated acreage, crop type, crop age, tree/vine spacing, sprinkler data, water meter data, and soil types.

The irrigation system will be checked for the following:

- Check for sprinklers not at grade
- Pressure and flow
- Broken sprinklers and pipes
- Sprinkler arc not adjusted properly
- Sprinklers tilted at an angle
- Valves not closing
- Improperly mixed equipment
- Missing emitters
- Clogged emitters
- Incorrect placing of emitters
- Broken stakes

- Cut tubing
- Kinked tubing
- Broken fittings
- Flush plugs buried
- Filters needing servicing

Attached to this proposal are two forms: 1) Sprinkler System Review form; and (2) Drip and Micro System Review form. Both forms would be used as a checklist when evaluating the irrigation systems and can be used as backup documentation.

WBA will also provide an oversight regarding the present irrigation system to determine the following:

- Old or worn out equipment
- Improperly spaced sprinklers or emitters
- Improper zoning
- Limited controller capability
- Incorrect pressure
- Improperly sized components
- Lack of adequate flows

WBA will submit soil and water samples to analyze soil fertility and water quality. Irrigation audits will be performed to determine distribution uniformity and precipitation rate. After data from these tests is received and reviewed we shall help prepare proper irrigation scheduling based on local water patterns. WBA will develop equipment cost estimates for making any recommended improvements. Recommendations will be made to accomplish the following:

- Cost savings on water and power
- Reduction of runoff
- Reduction of water lost below the root zone (leaching)
- Reduce fertilizer and chemical usage
- Reduction of pump station operation and maintenance costs

Potential for recommendation of new system design and installation if necessary.

Audit Time Schedule

WBA staff will be available Monday through Friday, between the hours of 7:00 AM and 5:00 PM or hours most convenient for the grower.

Fee Structure

The fee is based on a per audit amount of \$715.

PLANTED AREA	AUDIT COST
1.0 to 5.0 Acres (4 audits)	\$2,860.
5.1 to 10.0 Acres (6 audits)	\$4,290.
10.1 to 15.0 Acres (7 audits)	\$5,005.
15.1 to 20.0 Acres (9 audits)	\$6,435.
20.1 to 25.0 Acres (12 audits)	\$8,580.
Above 25.0 Acres (15 audits)	\$10,725.

Insurance Coverages

WBA carries the following insurance coverages:

Professional Liability Policy: Lloyds of London – Per Claim: \$1,000,000

General Liability Policy: Farmers Insurance Exchange – Per Claim: \$2,000,000

Workers Compensation Insurance: Mid-Century Insurance Company – Per Claim: \$1,000,000

Business Auto Insurance: Farmers Insurance Exchange – Per Claim: \$1,000,000

Umbrella Policy: Farmers Insurance Exchange – Per Claim: \$5,000,000

We look forward to working with Elsinore-Murrieta-Anza Resource Conservation District.

William Baker

Academic Background

- University of Redlands, Redlands, CA – BS, Environmental Studies

Certifications and Licenses

- ISA Certified Arborist
- Certified Golf Course Superintendent
- California Pest Control Advisers License
- Qualified Applicators License for Pesticides
- Certified Landscape Irrigation Auditor
- Certified Crop Advisor
- Certified Agricultural Irrigation Specialist
- Qualified Water Efficient Landscaper (QWEL)

Professional Affiliation

Membership

- Southern California Turfgrass Council, Past President
- Golf Course Superintendents Association of America, Past National Delegate
- California Golf Course Superintendents Association, Past President
- Hi-Lo Desert Golf Course Superintendent Association, Past President
- San Diego Golf Course Superintendent Association, Past President
- International Society of Arboriculture
- American Society of Agronomy
- Irrigation Association
- California Association of Pest Control Advisers

Special Training

- National Institute of Golf Course Management, Wheeling, WV

Committee Assignments

- Advisory Committee for all UCR Extension Horticulture Programs

William Baker, WBA Principal, has been active in the Green Industry for over three decades, frequently taking leadership roles in several of the Industry's professional associations. He is a past president of four separate Industry-related associations and has served as an officer and director of others. Bill has authored over 50 articles for industry publications. He has participated as a guest speaker, trainer, and facilitator at numerous seminars and conferences.

He is a certified arborist, a certified golf course superintendent, a California licensed pest control advisor, and has served as an expert witness in the San Diego Witch Fire lawsuits. He serves as the Consultant for all Green Industry Certification Programs at University of California Extension at Riverside. He was instrumental in developing the original programs and has provided instruction in numerous classes. He develops one-day seminars, and training institutes that run from one to two weeks in length. He is also conversational in Spanish.

Selected Accomplishments

Noteworthy and/or Recent Publications

- Capitol Park Training Manual 2002, Co-Author
Descriptions and Guidelines for Horticultural Practices
- University of California and Integrated Waste Management Board Publication, 2007, Contributor
Compost Use for Landscape and Environmental Enhancement
- California Association of Pest Control Advisers, CAPCA Adviser Magazine, 2012, Co-Author
IPM Tools for Turfgrass Management

Notable Speaking Engagements

- International Lawn and Garden Show, Louisville, KY
- Golf Industry Show, Orlando, FL
- Indiana Arborist Association Winter Conference, Indianapolis, IN
- Alberta Golf Course Property Managers Conference, Calgary, Canada
- California Weed Conference, Santa Barbara, CA

Bruce Duenow

Academic Background

- Union Labor Relations NLRB Resolutions
- Public Relations and Public Speaking
- Turfgrass Botany and Physiology
- Management Supervision
- Tree Management

Certifications and Licenses

- Certificate Turfgrass Management, University of California – Riverside June 2000
- Certified Landscape Irrigation Auditor - #69674
- California Qualified Applicator Certificate – QC90044
- Dale Carnegie Management & Supervision Certificate
- Golf Course Superintendent Class ART – 012317

Professional Affiliation Membership

- Golf Course Superintendents Association of America, Member 1984
- San Diego Golf Course Superintendents Association, Member 1979
- Board of Directors 2003 – 2005
- Pesticide Applicators Professional Association, Member 1990

Bruce has been a golf course superintendent for 25 years at four private country clubs and one public course in the Southern California area.

Bruce was the Senior Project Manager for a State Water Conservation Study that involved thirty sites throughout Southern California. During the time of the study, he conducted over sixty water audits which concentrated on improving sprinkler distribution uniformity. As a result of troubleshooting problem irrigation systems he was able to improve the average distribution uniformity by 10% throughout 25 sites involved.

Bruce is currently conducting fire damage assessments to trees and ornamental landscapes involved with the San Diego County 2007 fires. He visits sites to determine the extent of damage and evaluate the condition of the landscape as it exists today.

Bruce has served as a board member for the San Diego Golf Course Superintendent's Association as well as the Hi-Lo Desert Golf Course Superintendent's Association.

Selected Accomplishments

- AMERICAN GOLF CORPORATION MOUNTAINGATE COUNTRY CLUB – LOS ANGELES, CA, Golf Course Superintendent
- AMERICAN GOLF CORPORATION LOS VERDES GOLF COURSE – RANCHO PALOS VERDES, CA, Golf Course Superintendent
- CALIFORNIA COUNTRY CLUB – WHITTIER, CA, Assistant Golf Course Superintendent
- LA JOLLA COUNTRY CLUB – LA JOLLA, CA, Consultant
- LA JOLLA COUNTRY CLUB – LA JOLLA, CA, Golf Course Superintendent
- THUNDERBIRD COUNTRY CLUB – RANCHO MIRAGE, CA, Golf Course Superintendent

Meredith Odom

Academic Background

- Brandywine College, Wilmington, Delaware, 1974
- Fred Pryor Excel Training – Basics and Beyond the Basics
- Fred Pryor Adobe Acrobat XI Training

Meredith has had a career in the legal field spanning 30 years. She was a legal assistant for the San Diego firm of Cooley Godward where she worked in white collar crime, securities fraud and general litigation. She was responsible for preparation of all correspondence, pleadings, maintaining trial calendars, travel arrangements, client bills and checking court dockets. In Washington, D.C. she worked for the international firm of Steptoe & Johnson, LLP where she worked in white collar crime, general litigation; international trade and immigration; space law/satellite contracts and government contracts. She was responsible for preparation of all correspondence, pleadings, maintaining trial calendars, travel arrangements, clients' bills.

Meredith is familiar with APO and JPO filing procedures with the Court of International Trade and the Department of Commerce. She also assisted at a high profile trial in the U.S. District Court for the Southern District of New York, which included preparing the attorney each day for trial.

Meredith was given paralegal duties which included maintaining privilege logs and implementing filings with the United States District Court, Department of Commerce, Court of International Trade and the SEC in attorney's absence. She was the Floor Coordinator for three years wherein she supervised the work load and was responsible for the overflow for 9 secretaries and 24 attorneys.

Currently Meredith is the Office Manager for William Baker & Associates where she manages the daily operations of the business. This includes payroll, preparing reports, excel spreadsheets, Power Point presentations, research and troubleshooting office programs.

Meredith also serves as Vice President of the Board of Directors for Vintage Hills Homeowners Association, Temecula, California

John Rodriguez

Academic Background

- University of California Extension, Turfgrass Management, Introduction to Chemistry, Irrigation Principles, Pesticide use on Turf Grass & Ornamental Plants, Soil Fertility & Fertilizers
- Mira Costa College, Botany, Plant Identification
- Palomar College, Supervision

Retired Memberships

- Golf Course Superintendents Association of America - 16 years
- Hi-Lo Desert Golf Course Superintendents Association - 16 years
- Former member of the Board of Directors for the Hi-Lo

John's career in Golf Course Maintenance/Management has spanned over thirty-eight years. He has held supervisory positions at the following facilities:

Pauma Valley Country Club, Pauma Valley, CA - Foreman
Sun City North Course, Sun City, CA - Superintendent
Tanglewood of Menomonie, Menomonie, WI - Superintendent
The Lakes Country Club, Palm Desert, CA - Foreman
The Lakes Country Club, Palm Desert CA- Asst. Superintendent
Chaparral Country Club, Palm Desert, CA - Superintendent
La Mirada Golf Course, La Mirada, CA - Superintendent
California Country Club, Whittier, CA - Superintendent
Cerbart Cliffs Golf Course, Kingman, AZ -Superintendent
Bermuda Dunes Country Club, Bermuda Dunes, CA - Asst. Superintendent
Portola Country Club, Palm Desert, CA - Superintendent

John has also held maintenance positions at the following clubs:

Camelot Golf Course, Mojave, CA
Horse Thief Country Club, Tehachapi, CA
Bakersfield Country Club, Bakersfield, CA
Stardust Country Club, San Diego, CA

John is currently preparing for the CLIA certification in Landscape Irrigation as well as the Arborist Certification.

WILLIAM BAKER
ASSOCIATES LLC
 Consultants to the Green Industry

DRIP/MICRO SYSTEM REVIEW

Project Name

Address

City, State

Date

Auditor

Page

Station #		Observed Problems	
Plant Material		Emission devices	
Plant Condition		Missing emitters	
Microclimate		Clogged emitters	
Soil Category		Emitters in wrong place	
Pressure regulator in place (Y/N)		Broken stakes	
Flow rating	gpm		
Pressure setting	psi	Tubing and fittings	
Pressure readings		Cut tubing	
Beginning	psi	Kinked tubing	
Middle	psi	Broken fittings	
End	psi	Flush plugs buried	
Filter in place (Y/N)			
Filter type		Filter needs servicing	
Size (mesh or micron)			
Emitter type			
Flow rate	gph		
Emitter spacing	in.		
Line spacing	in.		
Tubing size (in./mm)			
Air/vacuum relief (Y/N)			
Flush plugs accessible (Y/N)			

WILLIAM BAKER
ASSOCIATES LLC
 Consultants to the Green Industry

SPRINKLER SYSTEM REVIEW

Project Name	Sample	Date	
Address		Auditor	
City, State		Page	

Abbreviation Key: S = Spray, fixed nozzle R = Rotor, MSMT nozzles I = Impact X = Needs correction ✓ = Correction completed

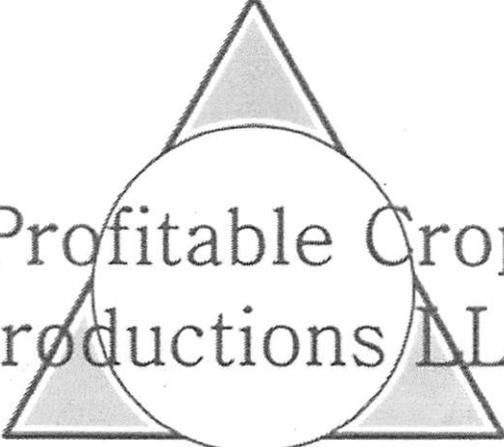
Controller ID Name	Vineyard									
Station	1		2		3		4		5	
Sprinkler type (choose one)	S		S		R		R		S-12"	
Station flow	12	gpm	15.5	gpm	8	gpm	8	gpm	7.5	gpm
High Pressure	46	psi	46	psi	56	psi	56	psi	45	psi
Low Pressure	42	psi	43	psi	54	psi	52	psi	45	psi
Action Required	X	✓	X	✓	X	✓	X	✓	X	✓
Broken Pipes										
Missing/broken heads									X	✓
Missing nozzle										
psi adjustment needed	X		X							✓
Clogged nozzle			X	✓		✓				
Heads not turning										
Arc misalignment				✓			X	✓		
Low head drainage			X				X			
Leaking seals/fittings		✓								
Spray deflected/blocked						✓				
Sunken head			X			X	✓			
Tilted heads					✓	X	✓		✓	
Mismatched heads										
Spray/rotor separation										
Spacing uneven	X		X							X
Valve malfunction										

Observations on Maintenance Frequency

1/4/2016

EMARCD RFP

Agricultural Irrigation System Auditor



Profitable Crop
Productions LLC

Alec Mayall
PROFITABLE CROP PRODUCTIONS LLC

PROFITABLE CROP PRODUCTIONS LLC

PROPOSAL FOR AGRICULTURAL IRRIGATION SYSTEM AUDITOR

for District of San Diego County Regional Conservation District (EMARCD)

Profitable Crop Productions LLC is pleased to submit this proposal for services to support EMARCD in achieving its goals for improving water use efficiency by providing excellent Agricultural Irrigation System Audits.

The Proposal

- Examine Agricultural Irrigation Systems
- Analyze Crop Water Use Efficiency
- Provide reports to customer with findings and recommendations for improvements if needed.

The Opportunity

- Understand general irrigation system uniformity.
- Understand general crop water use efficiency.
- Educate customers and improve both irrigation uniformity and efficiency.

The Solution

- With onsite irrigation system evaluations to determine irrigation system uniformities, the general uniformity can be determined and if needed, recommendations for improvements via equipment upgrades can be provided to assist customers in improving irrigation system uniformities.
 - Though evaluating irrigation system uniformities, local crop conditions, and irrigation schedules and water usage history over time, irrigation use efficiency can be analyzed and then graded from poor to excellent on a site specific basis.
- By Providing reports outlining irrigation system uniformity and irrigation efficiency to customers along with recommendations for improving both aspects, customers can be educated, systems improved, and water used more efficiently.

OUR PROPOSAL

EMARCD has a well-deserved reputation for quality customer service and helping its customers with water use efficiency needs. The agricultural irrigation system audit is a vital component in helping to understand and improve water use efficiency. Profitable Crop Productions LLC (PCP) specializes in all aspects of irrigation water use efficiency which allows us to provide this service with a high level of expertise and efficiency.

With onsite visits to determine irrigation system uniformities along with local site, planting, crop conditions, etc. PCP can gather the needed information to provide the customers with a report outlining the site specific irrigation system uniformity, irrigation water use efficiency, and an outline for improvements via equipment upgrades and better scheduling. With a 1 week turnaround from the appointment date, sites can quickly be evaluated, recommendations for improvements made, and water use efficiency improved.

Company Experience/Background

Profitable Crop Productions LLC is owned and managed by Alec Mayall, a California Polytechnic State University (San Luis Obispo) graduate with a B.S. in Environmental Horticultural Science. The programs developed to evaluate irrigation system uniformities and water use efficiency were developed and instructed at Cal Poly SLO, and were part of Mayall's studied curriculum and practice. After graduation Mayall worked for Mission Resource Conservation District (MRCD) as the Ag Water Management Program Director, directly providing Agricultural Irrigation System Audits for San Diego and Riverside Counties covering roughly 4,000 acres of avocados, citrus, wine grapes, and other specialty crops where systems were evaluated and reports provided for the customers. Following MRCD, Mayall works full time for PCP providing crop management services, consultations, and technical services. Mayall holds several licenses including a Certified Crop Advisor (CCA) license, Pest Control Advisor (PCA) license, as well as a Certified Agricultural Irrigation Specialist (CAIS) license.

Project Team

Project team will consist of Alec Mayall to do all required activities and tasks outlined in the RFP. Alec Mayall has all the experience and background mentioned in PCP Experience/Background. Mayall has also provided irrigation system evaluations for RCWD in a past program working under MRCD and PCP and is familiar with the area of service, the criteria required for evaluation, reporting format, and RCWD requirements.

Scope of Work

PCP meets and accepts the requirements of Exhibit B in the RFP. Following reception of a Contact for an audit, PCP will promptly schedule and evaluate the irrigation system on the Contact's site. Within 1 week of contact's evaluation date, a report will be provided to Contact containing all required information from Exhibit A in the RFP. The methodology developed by Cal Poly SLO will be employed to evaluate both irrigation systems and water use efficiency for a Contact irrigation system and site. With over 4 years of direct customer service work evaluating irrigation systems covering 4,000 acres, using the Cal Poly method, Mayall is quite experienced in evaluating agricultural irrigation systems. Reports will be returned to Contact or Representative and a report follow up will be provided as needed. Timeliness of evaluations will be maintained and schedules will be flexible. Most evaluations will take a few hours on site, another couple hours for analysis and report generation, and an hour or so for follow up if needed. Professional demeanor will be maintain throughout the process. All completed reports will be submitted to RCWD/EMARCD by the 6/30/2016 deadline, containing the required information. Monthly invoices will be provided to EMARCD by the 25th of the month. Accounting and Admin will be a few hours each month.

Audit Time Schedule

Audit times will be as flexible as possible for both parties, the Contact and PCP. PCP will keep a window open to schedule appointment start times **6 days a week, Monday through Saturday, from 8am to 3pm**, schedule and weather permitting. First priority will be the Contact's preferred timing, with the reservation to adjust to a time that is convenient to both parties. Once an appointment is made for a reasonable time and date between Contact and PCP, the evaluation will be conducted as scheduled on that date and time as agreed. Should an issue arise, Contact will be contacted appropriately and appointment rescheduled ASAP.

Report Fee

Audits will be billed for on a per acre evaluation basis for a given property size. The rates for the evaluations will be as follow below. Fees shall cover travel to site, evaluation time, and reporting time, hand holding or follow-ups as needed and approved, and a flat administration cost.

Planted Area	Audit Cost
1.0-5.0 acres	\$400
5.1-10.0 acres	\$450
10.1-15.0 acres	\$500
15.1-20.0 acres	\$550
20.1-25.0 acres	\$600
Above 25.0 acres	\$700
Follow-up or "Hand Holding" time approved for by EMARCD	\$75/hr
Monthly Admin cost	\$200

EXPECTED RESULTS

We expect our proposed solution to EMARCD's requirements to provide the results desired for an Agricultural Irrigation System Evaluation program. With ample practical in-the-field experience, a solid customer service background, and a knowhow to get the site evaluated, data collected, and proper recommendations made, the only limitation to improving the RCWD customer water use efficiency will be the willingness or ability of the customer to commit to and implement the suggested recommendations for improvements. With many systems out there testing FAIR regarding uniformity, and a highly variable factor regarding water use efficiency (scheduling properly with a highly uniform irrigation system), there is plenty of potential to improve even the sites which many people consider to be in "good" or "acceptable" condition. When the typical FAIR system customer implements the most basic changes of sprinkler modifications and pressure regulation, FAIR system uniformities can easily become EXCELLENT, for not much money invested on a cost-benefit basis. Then when customers implement proper irrigation scheduling (soil probes, soil sensors, ET monitoring, irrigation controllers/valves, etc.) FAIR irrigation efficiency can become EXCELLENT as well, which ultimately results in comparative water savings, improved water use efficiency, and possibly better crop health and productivity under the ideal conditions.

CONCLUSION

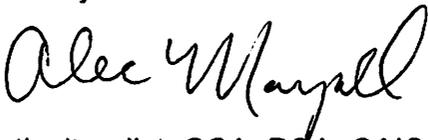
We look forward to working with EMARCD and supporting your efforts to improve water use efficiency for the RCWD customers. We are confident that we can meet the objectives of the program and will perform as required. Through personal one-on-one site visits with the Contact or Representative, the irrigation system evaluation is an effective way to provide the proper information in a site specific fashion to improve irrigation system uniformities and overall application efficiencies relative to the crop demand.

These results are often accomplished with basic modifications such as implementing pressure regulation, standardizing sprinklers or drippers, and then scheduling irrigations properly taking into account crop type, size, soil type, sprinkler aspects, and other constraints such that the crop water applications match the crop water usage in a beneficial fashion. With standardized sprinklers and pressures, and proper scheduling (ideal irrigation runtimes at the ideal intervals), it is fairly easy to achieve excellent irrigation uniformity and water use efficiency ($\geq 90\%$).

If you have questions on this proposal, feel free to contact Alec Mayall at your convenience by email at profitablecrop@gmail.com or by phone at 951-847-2131. References can be provided upon request.

Thank you for your consideration,

Alec Mayall



Horticulturalist, CCA, PCA, CAIS
Owner/Manager
Profitable Crop Productions LLC



MISSION
RESOURCE
CONSERVATION DISTRICT

Phone (760) 728-1332
Fax (760) 728-1331

1588 South Mission Road, Suite 100
Fallbrook, California 92028

www.missionrccd.org

January 5, 2016

Rose Corona
Elsinore-Murrieta-Anza Resource Conservation District
P.O. Box 2078
Temecula, CA 92593-2078

RE: RFP Response from Mission Resource Conservation District

Dear Ms Corona,

Mission Resource Conservation District is pleased to respond to your Request for Proposal for an Agricultural Irrigation Auditor. To be sure we can meet your program requirements in a timely manner, we contacted both San Diego and Riverside LAFCO and have been told that this project would meet the exemption of Government Code Section 56133 which would allow Mission to work in your District. Riverside LAFCO Director George Spiliotos has given us a written opinion that there should be no reason to hold up any potential agreement between the two RCDs in the event our proposal is accepted.

Thank you for the opportunity to submit our bid and in any event, we will look forward to cooperating with you on future projects that benefit people in our mutual watershed.

Sincerely,

Judith Mitchell
District Manager

MISSION RESOURCE CONSERVATION DISTRICT

Agricultural Irrigation System Auditor

Response to RFP

1/4/2016



Table of Contents

Experience of the Firm2

Qualifications of Project Team.....4

Detailed Scope of Work.....4

Audit Time Schedule.....5

Project Fee Schedule.....5

Appendix.....6

Experience of the firm:

Mission Resource Conservation District (District) was founded in Fallbrook, California in 1944. Organized by local farmers and ranchers under the Provisions of Division 9 of the Public Resources Code of the State of California, the District continually seeks to serve landowners and managers by addressing pressing conservation issues. From a beginning of just offering soil conservation services, the District, faced with the shift in cropping patterns and land use in San Diego County, expanded services. Spurred by the increasing price of imported water in the late 1970's and early 1980's, the District's Board of Directors sought and received funding from the California Department of Water Resources to establish one of the first Mobile Irrigation Laboratories in the State and has maintained that service for 32 years. Since 1983, the District has performed over 2,114 agricultural irrigation system evaluations on a wide variety of irrigation systems and crops, covering over 35,699 acres of San Diego County farm land. In addition to the Department of Water Resources, funding for agricultural irrigation system evaluations has been provided by the San Diego County Water Authority and the United States Department of the Interior, Bureau of Reclamation. The District's Agricultural Water Management Program currently provides irrigation system evaluations to San Diego County growers. The District is prepared to provide similar service to the growers within the Elsinore Murrieta Anza Resource Conservation District's (EMARCD) service area which will meet the describe scope of work in the EMARCD Request for Proposal for an Agricultural Irrigation System Auditor.

From July 19, 1983 to current, Mission Resource Conservation District (District) conducted 2,114 agricultural irrigation system evaluations covering 35,699 acres of farmland in San Diego County. A wide variety of San Diego County crops have been evaluated including avocados, citrus, field flowers, macadamia, persimmon, apples, grapes, tomatoes, kiwi, date palms, ornamental palms, cucumbers, alfalfa, cherimoya, herbs, Asian pears, guava, mangos, Christmas trees, blueberries and strawberries. Irrigation system types evaluated include micro-sprinkler, above ground drip, sub-surface drip and overhead sprinklers. Evaluation activity since 1983 is summarized below:

Table 1. Number, acreage, and mean emission uniformity of irrigation system evaluations performed in San Diego County by year between 1983 and 2015

<u>Year</u>	<u>Number of Evaluations</u>	<u>Acres Evaluated</u>	<u>Mean Emission Uniformity</u>
1983	25	390	72%
1984	93	2,562	78%
1985	79	1,566	81%
1986	63	1,403	79%
1987	70	1,843	74%
1988	56	2,010	69%
1989	37	801	72%
1990	31	931	66%
1991	99	1,566	67%
1992	111	2,176	72%
1993	107	1,698	72%
1994	68	466	70%
1995	61	823	70%
1996	49	486	64%
1997	63	1,041	68%
1998	45	442	68%
1999	74	925	66%
2000	78	2,099	71%
2001	43	540	73%
2002	28	442	72%
2003	87	1,813	71%
2004	92	1,004	70%
2005	67	750	71%
2006	43	588	69%
2007	37	403	65%
2008	85	754	65%
2009	26	331	66%
2010	36	1,224	70%
2011	76	696	77%
2012	64	1,199	77%
2013	63	664	75%
2014	101	1,171	76%
2015	74	1,313	74%

In addition to the District's work in San Diego County the District has performed Irrigation System Evaluations for the Rancho California Water District's, Agricultural Irrigation Efficiency Program, from November 15, 2010 until June 30, 2014. Through this program the District provided growers who participated in the program with Emission Uniformity data on their irrigation system and recommendations for system improvement for greater irrigation efficiency.

Organized as a non-enterprise Special Purpose District, Mission Resource Conservation District has no profit motive. The District's Board of Directors and Staff are conscientious stewards of public money and strive to provide our funding agencies and their ratepayers with a superior level of service within budget. The District has always successfully completed contracts without exceeding budget. With this in mind, the District sees it as a privilege to serve the people.

REVISED:

Mission Resource Conservation District (MRCD) was organized on September 14, 1944 under the provisions of Division 9 of the Public Resources Code of the State of California. Initial efforts of MRCD focused on the need to store runoff water, correct erosion, and protect the level land along streams and rivers. Farming methods and land use patterns have changed dramatically in the 70 years since MRCD's conception. Farming changed from non-irrigated crops to irrigated orchards, row crops and pasture; and the trend of land ownership has been toward small farms averaging five to ten acres. MRCD has, throughout its operation, kept in tune with farming trends and conservation needs of Southern California agricultural producers.

Spurred by the increasing price of imported water in the late 1970's and early 1980's, MRCD sought and received funding from the in 1983 to establish one of the first Mobile Irrigation Laboratories in the state. MRCD has maintained this service, under the umbrella of the Agricultural Water Management Program, for the past 32 years with funding from various agencies including the California Department of Water Resources, the San Diego County Water Authority, the United States Department of the Interior, Bureau of Reclamation, and the Natural Resources Conservation Service.

In its 32 years of operations, MRCD's Agricultural Water management Program has performed over 2,100 agricultural irrigation evaluations on roughly 35,699 acres of farmland within San Diego County (Table 1). A wide variety of crops and irrigation system types have been evaluated. Evaluated Crops include avocados, citrus, field flowers, macadamia, persimmon, apples, grapes, tomatoes, kiwi, date palms, ornamental palms, cucumbers, alfalfa, cherimoya, herbs, Asian pears, guava, mangos, Christmas trees, blueberries and strawberries. Evaluated irrigation system types include micro-sprinkler, above ground drip, sub-surface drip and overhead sprinklers.

MRCD has also performed irrigation system evaluations within Riverside County for the Rancho California Water District under the Agricultural Irrigation Efficiency Program. Between November 15, 2010 and June 30, 2014, MRCD provided growers who participated in the program with emission uniformity data on their irrigation system, as well as site specific recommendations to improve system efficiency.

Due to its organization as a non-enterprise Special District of the State of California, MRCD can focus its attention on providing a customer service based approach to conservation. MRCD is committed to providing expert technical assistance and Best Management Practices recommendations to further conservation goals within the state. During its over 70 years of operations, MRCD has proven itself as a conscientious steward of public money while striving to provide funding agencies and ratepayers with a superior level of service within budget.

MRCD is prepared to provide similar service to agricultural producers within the Elsinore Murrieta Anza Resource Conservation District's (EMARCD) service area. MRCD has an experienced Agricultural Irrigation System Auditor on staff that can begin fulfilling contract requirements immediately.

Qualifications of Project Team:

Lance Andersen, MRCD Agricultural Program Director, will be the primary person responsible for fulfilling the contract requirements. In addition to over a decade as a agricultural producer and land manger, Lance has successfully completed the California Polytechnic State University San Luis Obispo Irrigation Designer/Manger Short Course.

Lance has served as MRCD's Agricultural Program Director since 2013. During this time, Lance has performed over 200 irrigation system evaluations. In addition through this work with area growers, Lance has assisted them to maximize system efficiency with an average improvement of 15% to system DU's when growers follow system improvement recommendations.

Detailed Scope of Work:

- MRCD's Agricultural Program Director will schedule irrigation system evaluation appointments. The Program Director will allot one hour per week to schedule appointments and will aim to schedule two appointments per week.
-
- MRCD's Agricultural Program Director will visit the property at the scheduled time to complete the audit. An irrigation system evaluation will be performed. Dependent upon the irrigated area, the Program Director will assess the appropriate number of irrigation blocks (Table 3). One irrigation block consists of eight pressure measurements and 20 flow measurements. In addition to the irrigation system evaluations, the Program Director will assess the soil types present on the property and will gain a basic understanding of the irrigation system design based upon observation and conversation with property representative. The total time to complete an audit is dependent upon the irrigated area being assessed. Initial irrigation system and property observations require 30 minutes to complete and record, one irrigation block takes approximately 60 minutes to assess, and roughly 30 minutes is allotted to answer questions or concerns of the property representative.

Table 2.Number of blocks to be collected based upon irrigated acreage.

Planted Area	Blocks of Data to be collected
1.0 to 5.0 Acres	1
5.1 to 10.0 Acres	2
10.1 to 15.0 Acres	3
15.1 to 20.0 Acres	4
20.1 to 25.0 Acres	5
Above 25.0 Acres	5

- If offered the contract and upon approval of the MRCD Board of Directors,tMRCD agrees to meet and maintain all requirements of the Professional Service Agreement, Exhibit B found in EMARCD's RFP.

- MRCD agrees to use only auditors that have completed training provided by Cal Poly SLO's Irrigation Technology Research Center and have the required amount of experience in the industry as stipulated in the RFP.
- The property representative will receive a copy of the irrigation audit report which will detail the site/system description, soil environment information, audit data collected on site, recommendations for system improvement, and water usage history analysis along with recommended irrigation schedule appropriate for the crop found on the property. See the attached sample report in appendix A. Irrigation audit reports will be returned to the property representative no later than 3 weeks after the site visit.
- All services carried out by MRCD employees will be conducted promptly and in a professional manner consistent with industry standards. MRCD employees will wear a uniform shirt identifying them as an employee of MRCD and will also carry a photo ID issued by MRCD.
- All project work and subsequent reporting will be completed and submitted to EMARCD no later than June 30, 2016.
- MRCD will provide a monthly invoice to EMARCD for all project services requested. Invoices will be submitted on the 25th day of the month payable within 30 days of receipt by EMARCD.

Audit Time Schedule:

Audits will be performed during MRCD business hours: Monday through Friday, between the hours of 8:00 a.m. and 3:00 p.m.

Project Fee:

Planted Area	Audit Cost
1.0 to 5.0 Acres	\$335
5.1 to 10.0 Acres	\$415
10.1 to 15.0 Acres	\$495
15.1 to 20.0 Acres	\$575
20.1 to 25.0 Acres	\$655
Above 25.0 Acres	\$695

Appendix Sample Report

Site Description		Joe Farmer Acct # 1234567890			
Crop Type	Avocado	Crop Age	30 years	Sprinkler Type/GPH*	Various
Acres	13	Canopy Diameter	18	Wetted Radius*	5
Tree Spacing	20 by		20	Wetted Area	201 ft2
Sprinklers per tree	1				
Meter Size	2"	Submain Size	2" 1 1/2"	2 max emitters/lateral	15
Main Line Size	3"	Lateral Type/Size	3/4" PVC	max emitters/set	600

Soil Type

Sandy Loam
 Available Water Holding Capacity 0.14 inches per inch
 Root Depth 24 inches

Summary of Audit Findings

Audit Date_ 5/7/2014
 Average Lateral Line Pressure 35 PSI
 Average Sprinkler Flow 13 GPH
 Distribution Uniformity Findings 66%

Audit Data

Audit Data is included on separate page

Recommendations for Improvements

- 1) Pressures are all running on the high side for sprinkler specifications
- 2)Wetted area is very small need new sprinklers to properly wet the tree rootzone.
- 3) Many of the submain valves are damaged and need replacing.

System would also benefit from soil moisture mointoring system through NRCS EQIP.

Recommended Sprinkler Flow 15 GPH Wetted Radius 8 feet

Parts List and Cost Estimate (please include list of parts or attach quote/invoice)

Part	Cost	Quantity	Total
1) 3/4" in-line @ 25 PSI mid flow	\$7.15	30	\$214.50
2)Pressure Compensating Nozzle	\$0.83	500	\$415.00
3) PVC Ball Vlv 2"	\$5.89	12	\$70.68

Total \$700.18

Estimated Water Savings Resulting From Improvements

Budget Based on Current Uniformity	Budget Based on Improved Uniformity		
5.75 AF per acre per year	4.23 AF per acre per year		
10 Years of Water Savings	198.08 AF	50% of Equipment Costs	\$350
Potential Funding from MWD	\$350.09		

Irrigation Water Use Analysis - Avocados 2011

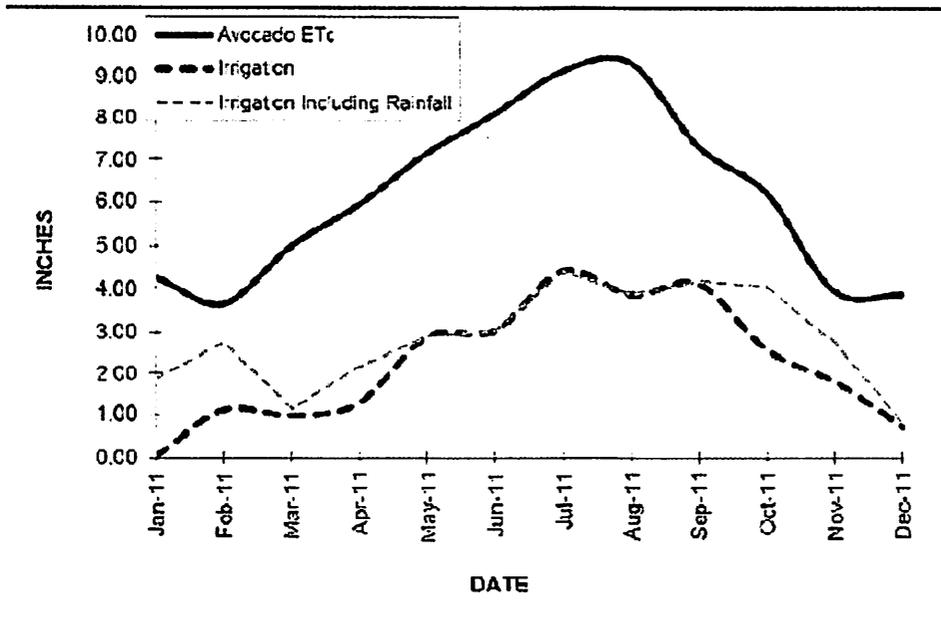
CDMS Station: **Temecula**

Water Unit: **748 Gallons**

EU **66%**

Leaching **10%**

Date	Water Units	ETc	Adjusted Etc	Inches of Irrigation	Effective Rainfall	Percent of ETc
Jan-11	7	2.56	4.27	0.0	1.83	44
Feb-11	161	2.19	3.66	1.1	1.65	75
Mar-11	141	2.99	4.99	1.0	0.18	23
Apr-11	186	3.57	5.95	1.3	0.90	37
May-11	421	4.30	7.17	2.9	0.02	41
Jun-11	443	4.87	8.11	3.1	0.00	38
Jul-11	642	5.48	9.13	4.4	0.00	48
Aug-11	562	5.60	9.33	3.9	0.00	41
Sep-11	598	4.39	7.31	4.1	0.07	57
Oct-11	375	3.73	6.22	2.6	1.48	65
Nov-11	260	2.37	3.96	1.8	0.98	70
Dec-11	104	2.33	3.88	0.7	0.06	20
Year Totals =	3900	44.4	74.0	26.9	7.2	46
Acre Feet =	9.0	<small>irrigated average does not include use of drip, trickle or subsurface</small>				
Gallons =	2917200			Irrigated Acres =		4.0



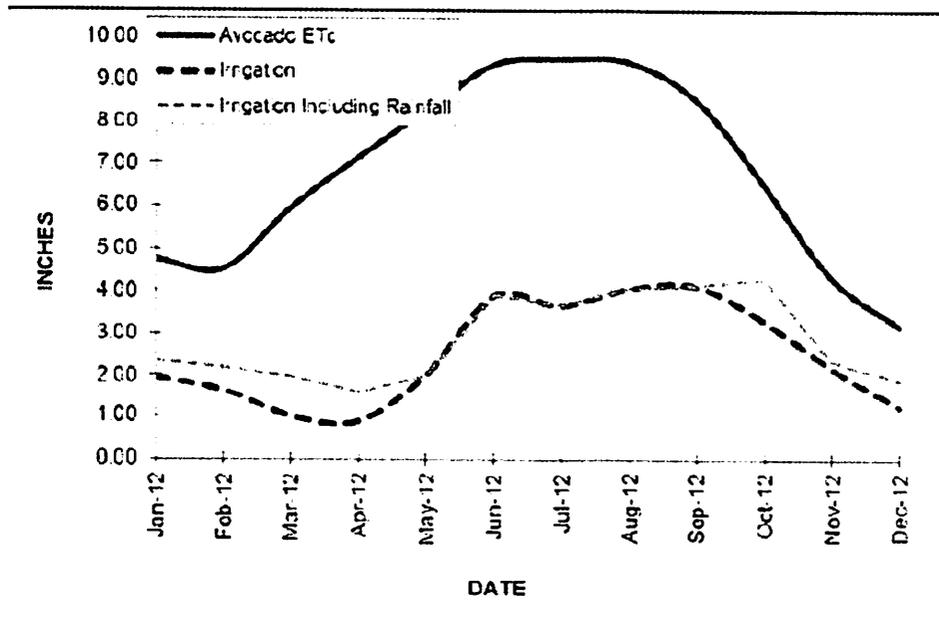
Irrigation Water Use Analysis - Avocados 2012

CMS Station: Temecula

Water Unit: 748 Gallons
EU 66%

Leaching 10%

Date	Water Units	ETc	Adjusted Etc	Inches of Irrigation	Effective Percent of Rainfall	Percent of ETc
Jan-12	285	2.85	4.74	2.0	0.38	49
Feb-12	238	2.71	4.52	1.6	0.57	49
Mar-12	145	3.58	5.96	1.0	0.98	33
Apr-12	127	4.29	7.15	0.9	0.72	22
May-12	292	4.97	8.28	2.0	0.00	24
Jun-12	565	5.62	9.36	3.9	0.00	42
Jul-12	532	5.69	9.49	3.7	0.00	39
Aug-12	589	5.64	9.40	4.1	0.00	43
Sep-12	598	5.11	8.51	4.1	0.04	49
Oct-12	478	3.89	6.48	3.3	0.99	66
Nov-12	317	2.59	4.31	2.2	0.16	54
Dec-12	177	1.91	3.18	1.2	0.69	60
Year Totals =	4343	48.8	81.4	29.9	4.5	42
Acres Feet =	10.0					
Gallons =	3248564					
				Irrigated Acres =		4.0

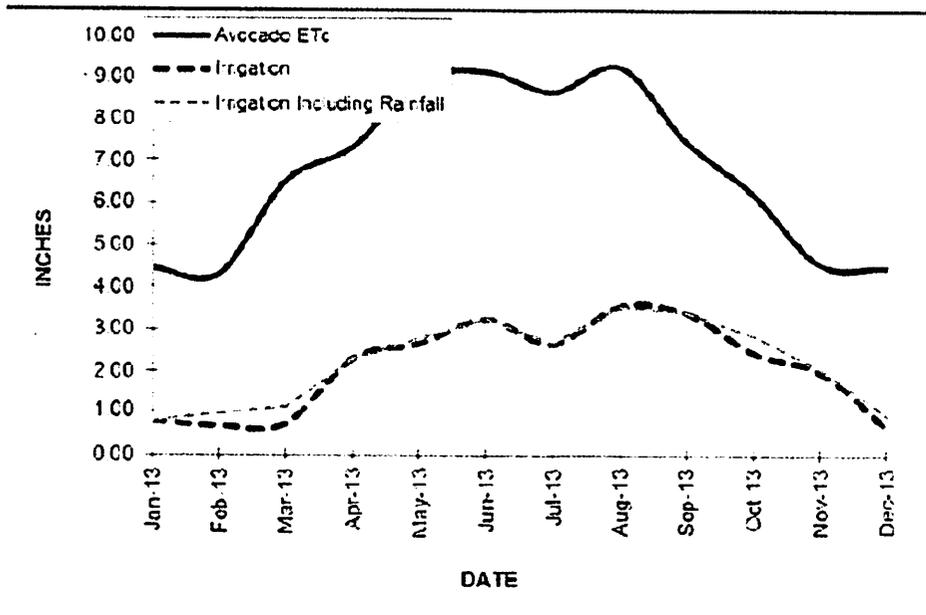


Irrigation Water Use Analysis - Avocados 2013

CIMIS Station: **Temecula**
 Water Unit: **748 Gallons**
 EU: **66%**

Leaching: **10%**

Date	Water Units	ETc	Adjusted Etc	Inches of Irrigation	Effective Rainfall	Percent of ETc
Jan-13	109	2.67	4.46	0.8	0.01	17
Feb-13	93	2.59	4.31	0.6	0.30	22
Mar-13	100	3.91	6.52	0.7	0.43	17
Apr-13	334	4.40	7.34	2.3	0.01	31
May-13	386	5.37	8.94	2.7	0.14	31
Jun-13	471	5.48	9.13	3.2	0.00	36
Jul-13	384	5.19	8.64	2.6	0.02	31
Aug-13	516	5.55	9.25	3.6	0.00	38
Sep-13	494	4.48	7.47	3.4	0.00	46
Oct-13	355	3.73	6.22	2.4	0.41	46
Nov-13	285	2.73	4.56	2.0	0.10	46
Dec-13	87	2.69	4.49	0.6	0.29	20
Year Totals =	3617	48.8	81.3	24.9	1.7	33
Acres =	8.3	<small>total acreage for which irrigation data is tabulated</small>				
Gallons =	2705516			Irrigated Acres =		4.0



Simplified Irrigation Calculations

Example for summer months (Avocados)

Input Variables	Enter Here
Emitter Flow Rate (gph):	13
Emitter Wetted Radius (ft):	8
Emitter Pattern:	Full Circle
Emitters/Plant:	1
Crop Canopy Diameter(ft):	18
Crop Spacing Length(ft):	20
Crop Spacing Width(ft):	20
Average Daily ETo:	0.21
Crop Kc:	0.86
Soil Water Hold Cap. (In/in):	0.14
Soil Rooting Depth (in):	24
Irrigation System Uniformity (%):	85%
Desired Leaching Requirement (%):	10%

After system improvement

Output Variables	
Soil Total AWHC (in):	3.36
30% Soil AWHC (in):	1.008
Emitter Wetted Area (sq-ft):	200.96
Emitter Soil Reservoir (gals):	422
30% Soil Reservoir (gals):	127
Emitter Precip Rate (in/hr):	0.10
Canopy Area (sq-ft):	254
Emitter:Canopy Area (%):	79%
Canopy:Emitter Area (%):	127%
Weekly Water Req. (in/plant):	1.3
Weekly Water Req. (gals):	201
Daily Water Req. (gals):	29
30% Soil Refill Runtime (hrs):	12.7
*30% Soil Refill Freq. (days):	4.4

Weekly Soil Refill Runtime (hrs):	20.2
**Relative Weekly SMD (%):	48%

* UCCE recommended soil moisture depletion

** SMD= soil moisture depletion

DECLINES

Subject **RE: IWM Invoice Dec. 10, 2015**
From Shelli Lamb <lamb@rcrcd.org>
To rose.corona@emarcd.org <rose.corona@emarcd.org>
Cc Melissa Cushman <MCushman@co.riverside.ca.us>, carol.brady@emarcd.org <carol.brady@emarcd.org>, 'Steve Anderson' <Steve.Anderson@bbklaw.com>
Date 2015-12-30 09:35



Rose:

I have checked with Kerwin and our accounting department and want to clarify everything up to this point:

1. We have completed all audits as of December 10th and they have been included in the two invoices that were provided to you previous. Those amounts are \$11,005, dated November 4, 2015 and \$10,360, dated December 10, 2015
2. No further invoices will be issued.
3. All audit reports have been provided for the work done by email. We are also going to mail a hard copy and digital disk so that everything is in one place for you.
4. Kerwin is working on a final summary report that will highlight work done and recommendations to assist you going forward. We will send you a digital copy of this summary report and will also include it with the hard copy binder and on digital disk. We plan on sending the hard copy binder out next week and will put it to your attention. The most current address I have is PO Box 2078, Temecula, CA 92593.

I believe that this should satisfy our assistance to you regarding the audit program.

Thank you for sending the new RFP on the audit program but I wanted to let you know that due to our heavy workload, we will not be in a position to submit anything to you.

Thank you for the opportunity to partner on this very important program.

On behalf of our Board and staff, we wish continued success to you and the EMA RCD Board of Directors in 2016.

Shelli Lamb
District Manager
Riverside-Corona RCD
4500 Glenwood Dr, #A
Riverside, CA 92501
951-683-7691, ext 202
951-683-3814 (fax)
www.rcrcd.org

Check us out on Facebook

Healthy Soils, Healthy Life!

-----Original Message-----

From: rose.corona@emarcd.org [mailto:rose.corona@emarcd.org]
Sent: Tuesday, December 29, 2015 1:39 PM
To: Shelli Lamb

Subject **R.F.P. - Agricultural Irrigation System Auditor Proposal for the EMARCD**
From Eric Anderson <eric@valleysoil.com>
To <rose.corona@emarcd.org>
Cc 'Terry Anderson' <terry@valleysoil.com>
Date 2016-01-05 23:16



Good Morning Rose and the Board Members of the EMARCD,

Thank you so much for the opportunity to bid.
However and unfortunately, time constraints were too short for us to provide an in depth proposal.

We believe that we could have provided quality service and look forward to future opportunities.
Also, I would like to become personally more involved with the EMARCD or assist in any way possible. Would it be possible to provide a meeting schedule?

Thank you again, and if there is a proposal due date extension please and by all means, let us know.

Eric Anderson

President

Valley Soil, Inc



A Water Conservation Company

p: 951.767.2215 f: 866.729.1784

e: eric@valleysoil.com

This email has been checked for viruses by Avast antivirus software.
www.avast.com

Mou

MEMORANDUM OF UNDERSTANDING BETWEEN THE ELSINORE-MURRIETA-ANZA RESOURCE CONSERVATION DISTRICT AND MISSION RESOURCE CONSERVATION DISTRICT

This Memorandum of Understanding (“MOU”) is entered into this February ____, 2016, by and between the Elsinore-Murrieta-Anza Resource Conservation District (“EMARCD”), a California resource conservation district, and Mission Resource Conservation District (“Mission”), a California resource conservation district (EMARCD and Mission may each be referred to separately as a “Party” or together as the “Parties” or the “Districts”).

RECITALS

WHEREAS, pursuant to Public Resources Code section 9001, the California Legislature has found that resource conservation is of fundamental importance to the prosperity and welfare of the state and has authorized resource conservation districts to organize and operate for the purposes of soil and water conservation, among other purposes, in open areas, agricultural areas, urban areas, wildlife areas, and residential areas; and

WHEREAS, EMARCD is a resource conservation district created and authorized pursuant to Public Resources Code section 9001 et seq., with a service area covering approximately 789 square miles in northwestern Riverside County; and

WHEREAS, the Riverside County Board of Supervisors has recently approved a name change for EMARCD to the Temecula-Elsinore-Anza-Murrieta Resources Conservation District (“TEAM RCD”), a name which may therefore appear on future documentation or payment from EMARCD but which will otherwise have no effect on any legal obligations in this MOU or otherwise; and

WHEREAS, Mission is a neighboring resource conservation district also created and authorized pursuant to Public Resources Code section 9001 et seq., with a service area covering approximately 185.2 square miles in northwestern San Diego County; and

WHEREAS, Mission currently has a program for irrigation system evaluations within its service area, is qualified to provide such services, and has personnel and other resources necessary to accomplish the services; and

WHEREAS, EMARCD has been implementing an irrigation system auditing program (the “Program”) within its service area utilizing employees of the Riverside-Corona Resource Conservation District, but those employees are no longer available to the extent needed to continue implementation of the program, and EMARCD issued a request for proposals for another public or private entity to carry out certain actions in association with implementation of the Program; and

WHEREAS, Mission responded to the request for proposals and, on February 11, 2016, was selected by the EMARCD Board of Directors to carry out certain actions in support of EMARCD’s Program; and

WHEREAS, the Parties wish to enter into this MOU to provide for cooperation between the Districts in implementing EMARCD's Program and memorializing the rights and obligations of the Parties in relation to such Program.

AGREEMENT

NOW, THEREFORE, in consideration of the above and the mutual covenants, terms and conditions contained herein, and pursuant to the laws of the State of California, EMARCD and Mission hereby agree as follows:

1. **Audit:** Mission agrees to audit as many irrigation systems as are requested by Rancho California Water District's ("RCWD") agricultural customers by June 30, 2016, through RCWD's Agricultural Irrigation Efficiency Program and to provide EMARCD the services described in the scope of work in EMARCD's Request for Proposal, attached hereto as Exhibit A.

2. **Authorization:** A Notice to Proceed containing specific authorization to proceed with all or a portion of the services described in the scope of work shall be granted in writing by EMARCD or such individual as has been delegated such authority by EMARCD. Mission shall commence services immediately upon receipt of the Notice to Proceed.

3. **Payment:** EMARCD shall pay for services in accordance with the payment schedule attached as Exhibit B. Mission shall submit, by the 25th of each month, invoices for services rendered and for reimbursable expenses incurred. EMARCD shall pay properly submitted invoices within thirty (30) days of receipt, or within three (3) business days of the next EMARCD Board of Directors' meeting following the receipt of the properly submitted invoice, whichever is later. All invoices must identify: (1) the name of the RCWD agricultural customer audited, (2) acreage audited, (3) the date(s) of service, (4) authorized charges, (5) any revised contract amount, and (6) the amount of the invoice in question. Payments shall be subject to review for compliance by EMARCD with the requirements of this MOU and shall be subject to an audit upon completion of services. No other compensation will be paid except for services done under an amended agreement approved pursuant to Article 6, below, "Amendment and Cancellation."

4. **Wage Payment.** Mission expressly agrees that it will be solely responsible for the payment of any and all wages due and owing its employees or contractors arising out of services to EMARCD pursuant to this Agreement and that all payments will be made in accordance with California, federal, and any other applicable law.

5. **Time of Performance:** Mission shall complete each audit and submit an audit report within three (3) weeks after receiving from the EMARCD coordinator information relating to the name(s) of the RCWD agricultural customer(s) to be audited. If there are extenuating circumstances that make compliance with this three-week period infeasible, upon written notice to EMARCD explaining such circumstances, Mission shall have one (1) additional week in which to submit the audit report.

6. **Insurance:** Mission shall procure and maintain during the period of performance of this MOU, and for twelve (12) months thereafter, adequate third party policies of insurance from an

insurance company or companies authorized to do business in the State of California that covers any activities performed by Mission under this Agreement. Proof of this insurance shall be provided to EMARCD within one (1) week of the effective date of this Agreement.

7. Amendment and Cancellation: This MOU shall be effective when signed. It contains the entire agreement between the Parties with respect to the matters herein provided for. It may be amended only by mutual written consent of both Parties, and either Party may cancel this MOU at any time upon thirty (30) days' written notice by so notifying the other Party by certified mail.

8. Notices. Any notice, demand, request, consent, approval, or communication that either Party is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, to the appropriate address. Either EMARCD or Mission may change the name or address to which its notices are sent by delivering written notice to the other Party at the address listed in this subsection. The addresses for the Parties are as follows:

To EMARCD at:

To Mission at:

Elsinore-Murrieta-Anza
Resource Conservation District
P.O. Box 2078
Temecula, CA 92593-2078

Mission Resource Conservation District
1588 South Mission Road, Suite 100
Fallbrook, CA 92028

9. Authority. Each Party to this Agreement warrants to the other that it is duly organized and existing and that it and the respective signatories have full right and authority to enter into and consummate this Agreement and all related documents and bind the parties thereto.

10. Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original and which collectively shall constitute one instrument.

ELSINORE-MURRIETA-ANZA
RESOURCE CONSERVATION
DISTRICT, a California resource
conservation district

MISSION RESOURCE CONSERVATION
DISTRICT, a California resource conservation
district

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

EXHIBIT A:
REQUEST FOR
PROPOSAL SCOPE
OF WORK

EXHIBIT B: PAYMENT
SCHEDULE

Posts for

INTERNE



Elsinore - Murrieta - Anza
Resource Conservation District

Welcome to the
Elsinore/Murrieta/Anza Resource Conservation District and Rancho California Water District
Irrigation Efficiency Program

If you are interested in having your grove, winery or agricultural property audited for potential water savings, please fill out the form below either by e-mail to: dave.mcelroy@emarcd.org

Or mail to: **EMARCD**
P.O. Box 2078
Temecula, CA 92593-2078

Name _____

Address: _____

City/State/Zip _____

Phone # _____
(Best number to reach you cell , business or home)

If you would prefer we speak to your grove management company please give contact name and number below:

Grove Management CompanyContact: _____

Phone Number _____

Location of property that will be audited _____

Address: _____

of acres owned _____

of acres planted _____

Type of irrigation system presently in use _____

THINGS TO KNOW ABOUT THE AGRICULTURAL EFFICIENCY PROGRAM

Please note that the Agricultural irrigation Efficiency Program is a program run jointly by the EMARCD and the Rancho California Water District. Once you have filled out the initial application and forwarded it to us, you will be contacted by a representative of the EMARCD who will gather pertinent information in order to conduct an audit on your property. Following are just a few points that will be covered in the initial information gathering phone call.

- All information will be discussed in advance with all paperwork signed and submitted to the EMARCD prior to the scheduling of an audit appointment and prior to an auditor arriving at your location. No work will be conducted without properly signed documentation and information as to what work will occur during the audit.
- Please note that all property owners or their representatives must sign a Liability Waiver in order for our auditors to enter the property and commence with their work. No work can commence without the signed liability waiver granting permission for our auditors to enter your property.
- The cost of the audit itself is free to the landowner. **However , the Rancho Water District will only pay for 50% of your APPROVED irrigation system retrofit and actual equipment costs. Labor costs are additional and not covered by the EMARCD or RCWD policy or program. Please make sure you or your representative has a full understanding of what portion of this program is reimbursable to the landowner prior to changing out your irrigation system.**
- Please be clear on the information you are providing to our representative. We often are asked to do an additional audit while we are out in the field at the last minute which may be adjacent or close by the existing audited property. Please note that the auditors will only do an audit on the property that is scheduled and cannot add additional property audits without prior authorization and paperwork. If you have additional properties, please address this with our representative when filling out your audit application.. This may require filling out two or three different applications depending on the number of properties you wish to have audited.
- Once all the information and paperwork is processed you or your designated representative will be contacted by the EMARCD representative to arrange an appointment to come out and conduct the audit. Due to the amount of audits that have been requested, we may be asking you for several different dates that may work for both the auditor and yourself in order to maximize convenient times for all people requesting audits.
- Once the audit is completed, we will create a report with all the appropriate information necessary to submit to the RCWD for reimbursement (if applicable) and recommendations for your property.
- Once your audit is completed you will be asked to contact the RCWD in order to complete the reimbursement process.
- The EMARCD audit representative will be more than happy to walk you through the Water Efficiency program paperwork process and help you with any questions you may have. Should you require further information regarding the reimbursement program, we will be more than happy to put you in contact with the representative from the Rancho Water District.



Agricultural Irrigation Efficiency Program



What is the Agricultural Efficiency Program?

- With grant money awarded through the State Department of Water Resources, Rancho California Water District is helping its agricultural customers to pay for irrigation system retrofits. For this program, up to 50% of approved equipment costs can be provided for successful retrofits.

How does it work?

- **Step 1:** Call to schedule a free irrigation system evaluation. This evaluation requires you to turn on your irrigation system and to allow the District's approved auditor to perform a system test while it is running.
- **Step 2:** Review the recommended irrigation system improvements detailed in the irrigation system evaluation report that will be provided to you by the approved auditor following the irrigation system evaluation.
- **Step 3:** The District will review the report and will determine your eligibility for a financial incentive. If eligible, you will be sent a project approval letter that will provide information financial incentive amounts and approved equipment types.
- **Step 4:** Complete your irrigation system retrofit within 90 days after receiving your project approval letter. After completing your project, call the District's approved auditor to perform another free irrigation system evaluation to verify that the retrofit was successful.
- **Step 5:** Send all of your equipment receipts to the District.
- **Step 6:** If your project was successful, 50% of the approved equipment costs for your project will be credited to your water bill.



To schedule an irrigation system evaluation, call RCWD's approved contractor:

EMARCD
(XXX) XXX-XXXX

Beaver Creek

HOA



92611
(951) 780-1012
Fax (951) 780-5893
<http://www.sawatershed.org>

**Board of
Directors:**

February 4th, 2016

**Mandy Parkes,
Chair**

RE: Bear Creek Project Proposal Additional Service

**Kerwin Russell,
Vice-Chair**

The Santa Ana Watershed Association (SAWA) has drafted two separate proposals for your Bear Creek Masters Association project. The difference between the two proposals is the assistance of Williams Landscape in hauling and disposing of biomass removed from the project.

**Rick Neugebauer,
Treasurer**

**Kerwin Russell,
Secretary**

Proposal A3 Williams Landscape Haul and Dispose: SAWA will cut all ladder fuels up to six feet, any dead biomass, non-native vegetation and will treat any non-native species encountered within the project area. SAWA will leave all cut biomass along the "biomass haul point" (yellow line), at the toe of slope on the attached map. All biomass will be disposed of from that point by Williams Landscaping. SAWA's total not to exceed amount for this proposal is **\$9,113.78**. If the HOA prefers that SAWA move the cut materials to the road, an additional day will be required and the not to exceed cost would rise to **\$11,772.49**.

**Richard Zembal,
Director**

Proposal A4: SAWA will cut all ladder fuels up to six feet, any dead biomass, non-native vegetation and will treat any non-native species encountered within the project area. In addition, SAWA will cut and haul the cattails to the top of the access trail on the north side of the drainage. SAWA will dispose of all biomass off-site. The total not to exceed amount for this proposal is **\$13,394.96**.

If you would like to move forward with one of these proposals please contact James Law for scheduling and logistics.

Cordially,

James Law
Project Manager
Santa Ana Watershed Association
Cell – (909)771-6903

EXHIBIT A
2nd Proposal for BEAR CREEK MASTER ASSOCIATION

DATE: 2/4/2016

INVOICE #:

Employee Name	Classification	Total Project Hours	Hourly Billing Rate	Total Amount
CREW LEAD	RESTORATION TECH.	80.00		
TECH # 1	RESTORATION TECH.	80.00		
TECH #2	RESTORATION TECH.	80.00		
JAMES LAW	PROJECT MANAGER	48.00		
STAFF TOTALS				\$12,600.96
REPORTING				\$0.00
MILEAGE	1320 Miles @ .59 = \$778.80			\$778.80
HERBICIDE TYPES		TOTAL OZ	COST PER OZ	TOTAL COST
RODEO		0.00	0.41	\$0.00
HABITAT		10.00	1.15	\$11.50
SUPER 7 SURFACTANT		0.00	0.28	\$0.00
COMPETITOR		10.00	0.37	\$3.70
NOT TO EXCEED: \$13,394.96				
<p>** This costs includes all tools, material, staff time and mileage to cut, treat and haul non-native biomass, ladder fuels up to 6 feet and dead biomass off-site from Bear Creek Master Association Project. Costs is not to exceed amount.</p>				

**EXHIBIT A3
FAIRWAY ESTATES HOA**

With Biomass Hauling Conducted by Williams Landscape

DATE: 2/4/2016

INVOICE PERIOD:

INVOICE #: XX

Employee Name	Classification	Total Project Hours	Hourly Billing Rate	Total Amount
CREW LEAD	RESTORATION TECH.	15.00		
TECH # 1	RESTORATION TECH.	15.00		
TECH #2	RESTORATION TECH.	15.00		
JAMES LAW	PROJECT MANAGER	6.00		
STAFF TOTALS				\$2,128.62
MILEAGE	330 Miles @ .59 = \$194.70			\$194.70
HERBICIDE TYPES		TOTAL OZ	COST PER OZ	TOTAL COST
RODEO		0.00	0.41	\$0.00
HABITAT		6.00	1.15	\$6.90
SUPER 7 SURFACTANT		0.00	0.28	\$0.00
COMPETITOR		6.00	0.37	\$2.22
NOT TO EXCEED: \$2,332.44				
<p>** This costs includes all tools, material, staff time and mileage to cut, treat, and clear ladder fuels up to six feet to biomass haul point (yellow line) for Fairway Estates HOA.</p>				

BEAR CREEK MASTER ASSOCIATION



Legend

 Riverside County Parcel Layer

 Biomass Haul Point

 Bear Creek Master Association Project Area ~ 2.2 Acres





INLAND EMPIRE, ORANGE COUNTY, RIVERSIDE-CORONA, SAN JACINTO, ORANGE COUNTY WATER DISTRICT
(951) 780-1012
Fax (951) 780-5893
<http://www.sawatershed.org>

**Board of
Directors:**

**Mandy Parkes,
Chair**

**Kerwin Russell,
Vice-Chair**

**Rick Neugebauer,
Treasurer**

**Kerwin Russell,
Secretary**

**Richard Zembal,
Director**

February 4th, 2016

Re: Fairway Estates Project Additional Work Request:

The Santa Ana Watershed Association (SAWA) has drafted two separate proposals for your Fairway Estates project. The difference between the two proposals is the assistance of Williams Landscape in dragging and disposing of biomass removed from the project.

Proposal A3 Williams Landscape Haul and Disposal: SAWA will cut all ladder fuels up to six feet, any dead biomass, non-native vegetation and will treat any non-native species encountered within the project area and hauled to top of access trail. In addition, SAWA will cut and haul the cattails to the top of the access trail on the north side of the drainage. All biomass from that point will be up to the responsibility of Williams Landscape to dispose of. SAWA's total not to exceed amount for this proposal is \$2,332.44.

Proposal A4 SAWA Haul and Disposal: SAWA will cut all ladder fuels up to six feet, any dead biomass, non-native vegetation and will treat any non-native species encountered within the project area. In addition, SAWA will cut and haul the cattails to the top of the access trail on the north side of the drainage. SAWA will dispose of all biomass off-site. The total not to exceed amount for this proposal is \$3,041.98.

If you would like to move forward with one of these proposals please contact James Law for scheduling and logistics.

Cordially,

James Law
Project Manager
Santa Ana Watershed Association
Cell – (909)771-6903



IRVINE, CA 92617
(951) 780-1012
Fax (951) 780-5893
<http://www.sawatershed.org>

**EXHIBIT A4
FAIRWAY ESTATES HOA**

DATE: 2/4/2016

INVOICE PERIOD:

INVOICE #: XX

Employee Name	Classification	Total Project Hours	Hourly Billing Rate	Total Amount
CREW LEAD	RESTORATION TECH.	20.00		
TECH # 1	RESTORATION TECH.	20.00		
TECH #2	RESTORATION TECH.	20.00		
JAMES LAW	PROJECT MANAGER	8.00		
STAFF TOTALS				\$2,838.16
MILEAGE	330 Miles @ .59 = \$194.70			\$194.70
HERBICIDE TYPES		TOTAL OZ	COST PER OZ	TOTAL COST
RODEO		0.00	0.41	\$0.00
HABITAT		6.00	1.15	\$6.90
SUPER 7 SURFACTANT		0.00	0.28	\$0.00
COMPETITOR		6.00	0.37	\$2.22
NOT TO EXCEED: \$3,041.98				
<p>** This costs includes all tools, material, staff time and mileage to cut, treat, and clear ladder fuels up to six feet off-site for Fairway Estates HOA.</p>				

EXHIBIT A3
2nd Proposal for BEAR CREEK MASTER ASSOCIATION
With Hauling Conducted by Williams Landscape

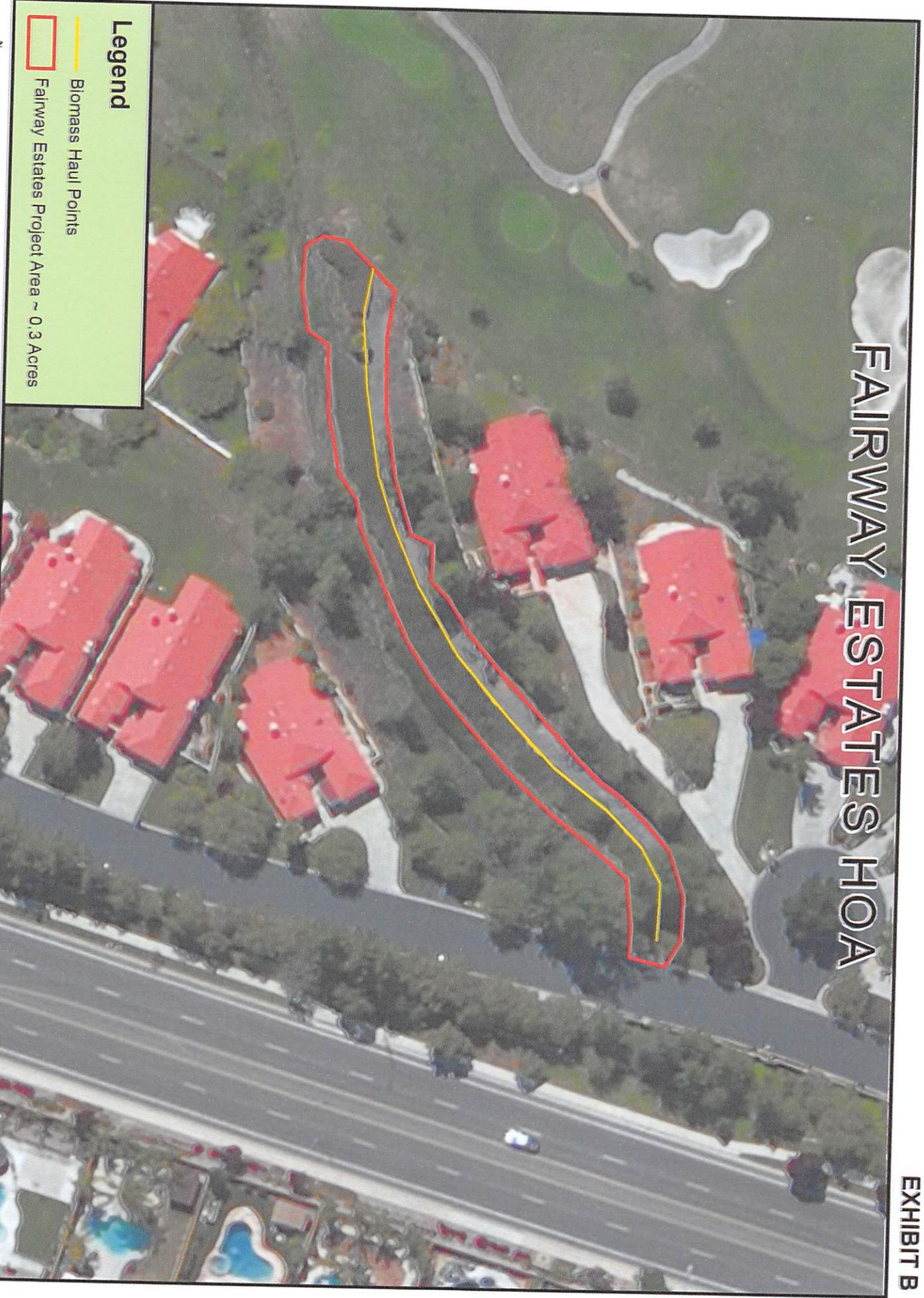
DATE: 2/4/2016

INVOICE #:

Employee Name	Classification	Total Project Hours	Hourly Billing Rate	Total Amount
CREW LEAD	RESTORATION TECH.	60.00		
TECH # 1	RESTORATION TECH.	60.00		
TECH #2	RESTORATION TECH.	60.00		
JAMES LAW	PROJECT MANAGER	24.00		
STAFF TOTALS				\$8,514.48
REPORTING				\$0.00
MILEAGE	990 Miles @ .59 = \$584.10			\$584.10
HERBICIDE TYPES		TOTAL OZ	COST PER OZ	TOTAL COST
RODEO		0.00	0.41	\$0.00
HABITAT		10.00	1.15	\$11.50
SUPER 7 SURFACTANT		0.00	0.28	\$0.00
COMPETITOR		10.00	0.37	\$3.70
NOT TO EXCEED: \$9,113.78				
<p>** This costs includes all tools, material, staff time and mileage to cut, treat and haul non-native biomass, ladder fuels up to 6 feet and dead biomass to yellow line (Biomass Haul Point) from Bear Creek Master Association Project. Costs is not to exceed amount.</p>				

FAIRWAY ESTATES HOA

EXHIBIT B



Legend

-  Biomass Haul Points
-  Fairway Estates Project Area ~ 0.3 Acres



NAD 83
2-4-16-JL
Fairway Estates HOA
Map produced by SAWVA