

Board Meeting Agenda

Russ Baggerly, Director
Mary Bergen, Director
Bill Hicks, Director

Pete Kaiser, Director
James Word, Director

CASITAS MUNICIPAL WATER DISTRICT
1055 Ventura Ave.
Oak View, CA 93022
Board Room
November 9, 2016
3:00 P.M.

Right to be heard: Members of the public have a right to address the Board directly on any item of interest to the public which is within the subject matter jurisdiction of the Board. The request to be heard should be made immediately before the Board's consideration of the item. No action shall be taken on any item not appearing on the agenda unless the action is otherwise authorized by subdivision (b) of ¶54954.2 of the Government Code and except that members of a legislative body or its staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights under section 54954.3 of the Government Code.

1. Public Comments (items not on the agenda – three minute limit).
2. General Manager comments.
3. Board of Director comments.
4. Board of Director Verbal Reports on Meetings Attended.
5. Consent Agenda
 - a. Minutes of the October 26, 2016 Board Meeting.
RECOMMENDED ACTION: Adopt Consent Agenda
6. Review of District Accounts Payable Report for the Period of 10/20/16 – 11/02/16.
RECOMMENDED ACTION: Motion approving report
7. Presentation of the Preliminary Water Security Project Analysis by Water Resources Engineering Associates.

RECOMMENDED ACTION: Direction to Staff

8. Recommend approval of a purchase order to Draper Construction in the amount of \$34,140 for the installation of fiber optic conduit between the Treatment Plant and Casitas Dam Hoist House locations.

RECOMMENDED ACTION: Motion approving recommendation

9. Information Items:

- a. Lake Casitas Monthly Status Report for October 2016.
- b. Water Consumption Report.
- c. CFD No. 2013-1 (Ojai) Monthly Cost Analysis.
- d. Investment Report.

10. Closed Session

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

(Subdivision (a) of Section 54956.9

Name of Case: Paula Suzanne Taylor v. Casitas Municipal Water District;
Stephen E. Wickstrum and DOES 1 through 10, inclusive.

Civil Action No. 2:16-cv-7864-BRO-E.

11. Adjournment

If you require special accommodations for attendance at or participation in this meeting, please notify our office 24 hours in advance at (805) 649-2251, ext. 113. (Govt. Code Section 54954.1 and 54954.2(a).

Minutes of the Casitas Municipal Water District
Board Meeting Held
October 26, 2016

A meeting of the Board of Directors was held October 26, 2016 at the Casitas Municipal Water District located at 1055 Ventura Ave. in Oak View, California. The meeting was called to order at 3:00 p.m. Directors Kaiser, Baggerly, Hicks and Bergen were present. Director Word was absent. Also present were Steve Wickstrum, General Manager, Rebekah Vieira, Clerk of the Board, and Attorney, John Mathews. There were three staff members and thirteen members of the public in attendance. President Kaiser led the group in the flag salute.

1. Public Comments (items not on the agenda – three minute limit).

Angelo Spandrio provided the board with a handout regarding State Water and the Ojai Valley and another handout showing how much water the Ojai Valley used from July 1, 2015 – June 30, 2016. The Ojai Valley used 12,305 acre feet, that is the amount needed last year in the valley to survive. To continue to live as we have this past year we need to get more water. What are Casitas goals for the tie in and the goals for Ojai Valley share of this tie in water. There is a misconception that the allocation is a Casitas allocation. This year it is 3,000 acre feet and that is not much. If there is opportunity for supplemental water how will it be distributed? Ojai valley is concerned about the distribution. Calleguas offered to look at other sources. Mr. Spandrio suggested looking for a larger tie in for more available water, running at least a 30 inch line the whole way and bringing in the capacity to bring the water up the hill.

2. General Manager comments.

Mr. Wickstrum mentioned the State Water Project Inspection tour and it was an opportunity to learn about the Project and hear the risks, concerns and challenges.

Mr. Wickstrum then mentioned that Director Baggerly had raised a question regarding stage IV. Stage IV could possibly happen, depending on rain, perhaps in September 2017. That is a rough estimate given a lot of other circumstances. We will make the assessments in April or May.

Mr. Wickstrum informed the board that the district has received one quote for the audio system and hope to receive another one and will then move forward with the work. It will take a couple of weeks for delivery and installation. He then informed the board that the water security study is in process and we hope to have that for the November 9th meeting.

3. Board of Director comments.

Director Hicks hopes the weather man is right on the rain for Thursday night. Director Baggerly requested an update on negotiations with the City of Ventura.

4. Board of Director Verbal Reports on Meetings Attended.

Director Hicks reported on his attendance at two meetings and informed the board that the Ojai valley has no subsidence and he passed out a chart on information on the Colorado River.

Director Baggerly attended the AWA Water Issues Meeting and he also discussed OBGMA alterative plan is almost ready to be sent to the Department of water Resources. He added that they have never been in overdraft in the history of the agency.

President Kaiser reported on the trip to the delta area. It was hosted by Calleguas and they coordinated a great tour of the Sacramento Delta area. There were about 40 civic leaders there to see it firsthand. One third of the water Ssouthern California receives comes from Northern California. Most of canals and rivers are above the ground. Rivers are as much as 20 – 30 feet above ground level. With one earthquake and you could see what could happen. It is a constant struggle for them. Some of it is below sea level. We learned about the tunnel projects. The guarantee of getting water through the delta is dependent on snow pack in the Sierras. Right now you can get about 60% of your allocation. It remains to be seen if you would get the same amount in future years. The trip ended at the pumping plant. President Kaiser suggested that if there is interest in attending this tour in the future or the Colorado River tour in April they should contact Calleguas.

Mr. Spandrio mentioned that Ojai Film Festival will be showing Beyond the Mirage on the water system in Arizona. Tickets are available.

Director Hicks mentioned the AWA bus tour on Nov. 10th. You can register online.

5. Consent Agenda

ADOPTED

- a. Minutes of the October 12, 2016 Board Meeting.
- b. Recommend approval of a purchase order to J & H General Contractors Inc. in the amount of \$25,200 for asphalt patching.
- c. Recommend approval of a purchase order to Great Western Installation of Ventura in the amount of \$31,848 for Campground G playground surface repairs.
- d. Recommend approval of purchase orders in the amount of \$21,489.40 to Vista Ford and \$21,982.72 to Galpin Ford for the purchase of 2017 F-150 trucks.

The consent agenda was offered by Director Hicks, seconded by Director Baggerly and approved by the following roll call vote:

AYES:	Directors:	Bergen, Hicks, Baggerly, Kaiser
NOES:	Directors:	None
ABSENT:	Directors:	Word

6. Review of District Accounts Payable Report for the Period of 10/06/16 – 10/19/16. APPROVED

On the motion of Director Hicks, seconded by Director Bergen, the Accounts Payable report was approved by the following roll call vote:

AYES:	Directors:	Bergen, Hicks, Baggerly, Kaiser
NOES:	Directors:	None
ABSENT:	Directors:	Word

7. Lake Casitas Recreation Area Public Use Fees and Charges.
a. Public Hearing

President Kaiser stated now is the time and date set for a public hearing to consider input regarding the proposed changes to the Lake Casitas Recreation Area Public use Fees and Charges and the adoption of the Notice of Exemption. President Kaiser asked the Clerk of the board to read the names of the public who called or submitted communications regarding the proposed changes. Ms. Vieira stated there were none.

Mr. Wickstrum provided his report adding that the changes will adjust camping fees to be raised approximately 5% and vehicle day use fees will rise to \$20 on high use weekends.

President Kaiser opened the public hearing at 3:32p.m. and hearing no public comments, closed the public hearing at 3:33 p.m.

- b. Resolution approving the preliminary assessment for the restructuring and revision in fees and charges for the Lake Casitas Recreation Area and adopting the Notice of Exemption. ADOPTED

The resolution was offered by Director Hicks, seconded by Director Bergen and adopted by the following roll call vote:

AYES:	Directors:	Bergen, Hicks, Baggerly, Kaiser
NOES:	Directors:	None
ABSENT:	Directors:	Word

Resolution is numbered 16-28

8. Recommend approval of a purchase order to Hawksley Consulting in a not to exceed amount of \$73,774 to conduct a financial plan, rate design and cost-of-service study and public outreach. APPROVED

Mr. Wickstrum stated this was discussed in the Finance Committee and the RFP was sent to four firms and we received two responses. The proposals were evaluated in the Finance Committee and Hawksley Consulting was selected by the committee as the firm we would like to use. Director Hicks questioned if Raftellis responded. Mr. Wickstrum stated it was not sent to

Raftellis. Director Baggerly added they seem qualified but their concept of individual water rates is not something we would like to do as it is way too complicated for our accounting system and policies.

Mr. Spandrio mentioned Executive order B37 16 and suggested making a shift to water budget rates.

Michael Shapiro mentioned Tom Ash and his drought driven, conservation driven rate structure and questioned if that will be part of the marching orders they will have. Mr. Shapiro suggested having the rate design driven by conservation and the reality of the drought.

Renee Roth with the Green Coalition suggested that the new water rates factor in the cost of service and the cost of finding new water and send a strong conservation message with incentives for homeowners to know how and where to save. She suggested using the Tom Ash water budget model and making sure the person assigned to the project from Hawksley is familiar with water budget rate studies. Consider having a water budget rate expert such as Tom Ash and consider the creation of a rate study advisory committee for better transparency to get buy in from the community and your customers. Ms. Roth also spoke about perceived equity/inequity, revenue stability, water efficiency standards, water affordability and possible investments to the billing system.

William Weirick, Councilmember for the City of Ojai and holder of a PhD in Economics, offered that rate design follows overall policy goal decisions. It seems to me there is a need to enhance the public hearing and board direction process at the beginning of this study rather than then the workshop in February. He suggested having a public process in the beginning to debate the issues. It is important to not wait to the end to sell this to the public. You should hear from the public to hear the issues and the board would want to make some decisions along the line of what Director Baggerly discussed. The revenue model has to change.

Mr. Haney suggested that the board review your business model to make better determinations.

Director Baggerly moved to approve this vendor with a scoping meeting to be held some time in November. This was seconded by Director Bergen and approved by the following roll call vote:

AYES:	Directors:	Bergen, Hicks, Baggerly, Kaiser
NOES:	Directors:	None
ABSENT:	Directors:	Word

9. Recommend approval of a purchase order to Aqua-Metric in the amount of \$22,540.95 for the purchase of a complete Sensus Vehicle Gateway Base Station and accessories. APPROVED

On the motion of Director Baggerly, seconded by Director Hicks, the above recommendation was approved by the following roll call vote:

AYES: Directors: Bergen, Hicks, Baggerly, Kaiser
NOES: Directors: None
ABSENT: Directors: Word

10. Ventura Local Agency Formation Commission Special District Alternate Member Runoff Election. Candidate Selected

Director Baggerly offered his support for Andy Waters and Director Hicks offered his support for Al Fox. President Kaiser seconded the motion to support Andy Waters. This was approved by the following roll call vote:

AYES: Directors: Bergen, Hicks, Baggerly, Kaiser
NOES: Directors: None
ABSENT: Directors: Word

11. Discussion regarding meeting dates through the end of the year.

On the motion of Director Bergen, seconded by Director Hicks, the November Executive Committee is moved to November 10th at 9:30 a.m. and the Board meeting on November 23rd will be held at 9:30 a.m. instead of 3:00 p.m. A decision on holding the December 28th meeting will be made at a later time. This was approved by the following roll call vote:

AYES: Directors: Bergen, Hicks, Baggerly, Kaiser
NOES: Directors: None
ABSENT: Directors: Word

12. Information Items:

- a. Executive Committee Minutes.
- b. Finance Committee Minutes.
- c. Water Conservation Report.
- d. Rincon Main Condition Assessment Results.
- e. Letter from County of Ventura Registrar of Voters stating Directors in Divisions 2 and 3 are appointed for full terms commencing December 2, 2016 and ending December 4, 2020.
- f. Investment Report.

On the motion of Director Hicks, seconded by Director Baggerly, the information items were approved by the following roll call vote:

AYES: Directors: Bergen, Hicks, Baggerly, Kaiser
NOES: Directors: None
ABSENT: Directors: Word

President Kaiser moved the meeting to closed session at 4:10 p.m.

13. Closed Session

- a. (Govt. Code Sec. 54957.6)
Conference with Labor Negotiators:
Agency Designated Representatives: Rebekah Vieira, Draza Mrvichin
Employee Organization: Supervisory & Professional, General Unit and
Recreation Unit.
- b. Conference with Legal Counsel -- Anticipated Litigation
Government Code Section 54956.9 subparagraph c
Based on existing facts and circumstances the district is deciding
whether to initiate litigation (number of potential cases: one)

President Kaiser moved the meeting back to open session at 5:27 p.m. with Mr. Mathews reporting on the first item there were discussions with labor negotiators and there is no reportable action. On the second item, the board had discussions and there is no reportable action.

14. Adjournment

President Kaiser adjourned the meeting at 5:28 p.m.

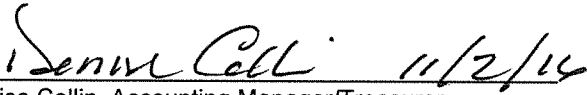
James W. Word, Secretary

A/P Fund

Publication of check register is in compliance with Section 53065.6 of the Government Code which requires the District to disclose reimbursements to employees and/or directors.

000679	A/P Checks:	024858-024876
	A/P Draft to P.E.R.S.	000000
	A/P Draft to State of CA	000000
	A/P Draft to I.R.S.	000000
	Voids:	
000680	A/P Checks:	024877-024958
	A/P Draft to P.E.R.S.	
	A/P Draft to State of CA	
	A/P Draft to I.R.S.	
	Voids:	024919, 024948, 024949

The above numbered checks, have been duly audited are hereby certified as correct.

 11/2/14

Denise Collin, Accounting Manager/Treasurer

Signature

Signature

Signature

CASITAS MUNICIPAL WATER DISTRICT
Payable Fund Check Authorization
Checks Dated 10/20/16-11/02/16
Presented to the Board of Directors For Approval November 9, 2016

Check	Payee			Description	Amount
000679	Payables Fund Account	#	9759651478	Accounts Payable Batch 102616	\$236,704.84
000680	Payables Fund Account	#	9759651478	Accounts Payable Batch 110216	\$389,993.86
					\$626,698.70
000681	Payroll Fund Account	#	9469730919	Estimated Payroll 11/23/16	\$150,000.00
				Total	\$776,698.70

Publication of check register is in compliance with Section 53065.6 of the Government Code which requires the District to disclose reimbursements to employees and/or directors.

The above numbered checks, 000679-000681 have been duly audited is hereby certified as correct.

Denise Collin

11/2/16

Denise Collin, Accounting Manager/Treasurer

Signature

Signature

Signature

CERTIFICATION

Payroll disbursements for the pay period ending 10/22/16
Pay Date of 10/27/16
have been duly audited and are
hereby certified as correct.

Signed: Denise Collin 10/24/16
Denise Collin

Signed: _____
Signature

Signed: _____
Signature

Signed: _____
Signature

VENDOR SET: 01 Casitas Municipal Water D

BANK: * ALL BANKS

DATE RANGE: 10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
C-CHECK	VOID CHECK	V	11/02/2016			024919		
C-CHECK	VOID CHECK	V	11/02/2016			024948		
C-CHECK	VOID CHECK	V	11/02/2016			024949		

* * T O T A L S * *

	NO	INVOICE AMOUNT	DISCOUNTS	CHECK AMOUNT
REGULAR CHECKS:	0	0.00	0.00	0.00
HAND CHECKS:	0	0.00	0.00	0.00
DRAFTS:	0	0.00	0.00	0.00
EFT:	0	0.00	0.00	0.00
NON CHECKS:	0	0.00	0.00	0.00
VOID CHECKS:	3			
	VOID DEBITS	0.00		
	VOID CREDITS	0.00	0.00	

TOTAL ERRORS: 0

VENDOR SET: 01	BANK:	TOTALS:	NO	INVOICE AMOUNT	DISCOUNTS	CHECK AMOUNT
			3	0.00	0.00	0.00
BANK:		TOTALS:	3	0.00	0.00	0.00

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE: 10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
00049	STATE OF CALIFORNIA							
I-T2 201610251146	State Withholding	D	10/26/2016	8,597.41		000000		8,597.41
00128	INTERNAL REVENUE SERVICE							
I-T1 201610251146	Federal Withholding	D	10/26/2016	25,545.49		000000		
I-T3 201610251146	FICA Withholding	D	10/26/2016	21,607.98		000000		
I-T4 201610251146	Medicare Withholding	D	10/26/2016	5,818.72		000000		52,972.19
00187	CALPERS							
I-PBB201610251146	PERS BUY BACK	D	10/26/2016	66.87		000000		
I-PBP201610251146	PERS BUY BACK	D	10/26/2016	161.96		000000		
I-PEB201610251146	PEPRA EMPLOYEES PORTION	D	10/26/2016	2,326.90		000000		
I-PER201610251146	PERS EMPLOYEE PORTION	D	10/26/2016	8,586.55		000000		
I-PRB201610251146	PEBRA EMPLOYER PORTION	D	10/26/2016	2,047.38		000000		
I-PRR201610251146	PERS EMPLOYER PORTION	D	10/26/2016	9,495.11		000000		22,684.77
02909	Nason's Lock & Safe, Inc.							
C-65570a	Lower Vault Safe Labor	N	11/02/2016	845.00CR		000000		
I-65570	Lower Vault Safe Labor	N	11/02/2016	845.00		000000		
09182	CalPERS							
I-100000014843566	Unfunded Accrued Liab. 10/16	D	10/21/2016	18,119.49		000000		
I-100000014843574	Unfunded Accrued Liab. 10/16	D	10/21/2016	30.35		000000		18,149.84
00021	AWA OF VENTURA COUNTY							
I-102616	CCWUC Luncheon 10/26/16	R	10/24/2016	315.00		024858		
I-102616a	CCWUC Luncheon 102616	R	10/24/2016	140.00		024858		455.00
00021	AWA OF VENTURA COUNTY							
I-102716	CCWUC Treat. Oper. Workshop	R	10/24/2016	250.00		024859		250.00
00004	ACWA JOINT POWERS INSURANCE AU							
I-0438372	Health Insurance 11/16	R	10/26/2016	118,868.62		024860		118,868.62
00011	ALERT COMMUNICATIONS							
I-160900847101	Call Center 10/16	R	10/26/2016	295.15		024861		295.15
02283	Mary Bergen							
I-Aug 16	Reimburse Mileage 8/16	R	10/26/2016	27.97		024862		
I-Sept 16	Reimburse Mileage 9/16	R	10/26/2016	19.76		024862		47.73
00062	CONSOLIDATED ELECTRICAL							
I-9009-740533	Miniature Circuit Breaker -E&M	R	10/26/2016	46.71		024863		46.71

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE:10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
02720	Garda CL West, Inc. I-20186351 Excess Items - LCRA	R	10/26/2016	79.75		024864		79.75
00596	HOME DEPOT I-3012779 Outlet Materials, Lights - O&M I-9040304 Caulking Gun,Drill Bits - O&M	R R	10/26/2016 10/26/2016	238.10 77.50		024865 024865		315.60
00163	OFFICE DEPOT I-867956328001 Envelopes, Paper - LCRA & DO I-872619423001 Office Supplies - DO	R R	10/26/2016 10/26/2016	81.34 260.47		024866 024866		341.81
00947	CITY OF OJAI I-101716 Encroachment Permit	R	10/26/2016	551.00		024867		551.00
01627	OSCAR'S TREE SERVICE I-12600 Deadwood Removal - Camp C I-12601 Weight Reduction Trees -Camp C I-12602 Deadwood Trees - Camp C	R R R	10/26/2016 10/26/2016 10/26/2016	950.00 950.00 950.00		024868 024868 024868		2,850.00
00215	SOUTHERN CALIFORNIA EDISON I-102116 Acct # 2237011044 I-102216 Acct # 2157697889 I-102216a Acct # 2266156405 I-102216b Acct # 2312811532	R R R R	10/26/2016 10/26/2016 10/26/2016 10/26/2016	26.98 2,230.09 95.12 87.61		024869 024869 024869 024869		2,439.80
02583	WageWorks I-125AI0492316 FSA Monthly Admin Fee	R	10/26/2016	136.40		024870		136.40
00124	ICMA RETIREMENT TRUST - 457 I-CUI201610251146 457 CATCH UP I-DCI201610251146 DEFERRED COMP FLAT I-DI%201610251146 DEFERRED COMP PERCENT	R R R	10/26/2016 10/26/2016 10/26/2016	461.54 1,859.62 134.71		024871 024871 024871		2,455.87
01960	Moringa Community I-MOR201610251146 PAYROLL CONTRIBUTIONS	R	10/26/2016	16.75		024872		16.75
00985	NATIONWIDE RETIREMENT SOLUTION I-DCN201610251146 DEFERRED COMP FLAT I-DN%201610251146 DEFERRED COMP PERCENT	R R	10/26/2016 10/26/2016	3,405.00 319.30		024873 024873		3,724.30
00180	S.E.I.U. - LOCAL 721 I-COP201610251146 SEIU 721 COPE I-UND201610251146 UNION DUES	R R	10/26/2016 10/26/2016	9.50 674.50		024874 024874		684.00

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
01400	STATE DISBURSEMENT UNIT I-CS4201610251146 Payroll Deduction 10-D000121	R	10/26/2016	682.14		024875		682.14
00230	UNITED WAY I-UWY201610251146 PAYROLL CONTRIBUTIONS	R	10/26/2016	60.00		024876		60.00
00011	ALERT COMMUNICATIONS I-161000847101 Call Center 11/16	R	11/02/2016	289.80		024877		289.80
00029	AMERICAN TOWER CORP I-2294589 Tower Rent-Red Mtn, Rincon Pk	R	11/02/2016	1,845.59		024878		1,845.59
00014	AQUA-FLO SUPPLY I-005155 Heavy Duty Bypass Pruner I-005156 Pro Lopper w/Aluminum Handle I-007879 Threaded Plug PVC - LCRA	R R R	11/02/2016 11/02/2016 11/02/2016	24.65 61.18 1.17		024879 024879 024879		87.00
01703	ARNOLD LAROCHELLE MATTHEWS I-48635 Matter #5088-001 9/16	R	11/02/2016	13,667.00		024880		13,667.00
01666	AT & T C-000008758177 C302222128777 Adjustment I-000008716584 T-1 Lines 9391035542 I-000008766975 T-1 Lines 9391035541	R R R	11/02/2016 11/02/2016 11/02/2016	126.12CR 1,163.88 497.83		024881 024881 024881		1,535.59
00020	AVENUE HARDWARE, INC I-D65896 Wire, Gauge Box - LCRA	R	11/02/2016	70.63		024882		70.63
00021	AWA OF VENTURA COUNTY I-06-9310 Waterwise Breakfast 10/20	R	11/02/2016	75.00		024883		75.00
00679	BAKERSFIELD PIPE & SUPPLY INC I-S2298903.001 Reclaim System Check Valve-TP I-S2306366.001 Pipe Elbows - E&M	R R	11/02/2016 11/02/2016	660.95 56.70		024884 024884		717.65
02922	Bartel Associates, LLC I-16-812 Actuarial Consulting Services	R	11/02/2016	2,000.00		024885		2,000.00
02919	C.M. Industrial & Safety Suppl I-235207 Safety Supplies	R	11/02/2016	622.27		024886		622.27
01068	CAPIO I-1621 Back to Basics Reg. Fee	R	11/02/2016	20.00		024887		20.00

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE:10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
00675	Central Coast Radiology Associ I-021314 DOS 02/05/16 Claim#14-15659	R	11/02/2016	11.99		024888		11.99
01843	COASTAL COPY I-697074 Copier Maintenance - Whs	R	11/02/2016	32.46		024889		32.46
00061	COMPUWAVE I-SB02084781 Printer Ink - Management	R	11/02/2016	446.68		024890		
	I-SB02084798 Printer Ink - WP	R	11/02/2016	491.74		024890		
	I-SB02084987 Printer Ink - PL	R	11/02/2016	254.95		024890		1,193.37
02861	Confidential Data Destruction I-53201 Shredding Service	R	11/02/2016	150.00		024891		150.00
00062	CONSOLIDATED ELECTRICAL I-9009-740433 LED Warehouse Lights	R	11/02/2016	1,584.39		024892		
	I-9009-741630 Drive for VFD PO4 Pump	R	11/02/2016	710.79		024892		2,295.18
01483	CORVEL CORPORATION I-6104753931 Bill Review	R	11/02/2016	9.64		024893		
	I-6107092141 Bill Review	R	11/02/2016	9.50		024893		
	I-6107310821 Bill Review	R	11/02/2016	9.50		024893		28.64
01525	CPS HR CONSULTING I-INV353901 Proj#E3889 Assistant GM	R	11/02/2016	5,000.00		024894		5,000.00
00086	E.J. Harrison & Sons Inc C-28003a Acct#1C00054240 Correction	R	11/02/2016	149.71CR		024895		
	I-27980a Acct#1C00053370	R	11/02/2016	141.42		024895		
	I-28002 Acct#1C00054230	R	11/02/2016	2,305.00		024895		
	I-28003a Acct#1C00054240	R	11/02/2016	299.42		024895		2,596.13
00095	FAMCON PIPE & SUPPLY I-185416 Parts for Service Line - PL	R	11/02/2016	123.63		024896		123.63
02924	Michael Ferguson I-101516 Camping Fee Refund	R	11/02/2016	26.50		024897		26.50
00099	FGL ENVIRONMENTAL I-611131A Manganese Monitoring 9/20	R	11/02/2016	70.00		024898		
	I-611783A Turbidity Monitoring 10/04	R	11/02/2016	16.00		024898		
	I-611829A Manganese Monitoring 10/05	R	11/02/2016	70.00		024898		
	I-611830A Nitrate Monitoring 10/05	R	11/02/2016	43.00		024898		199.00

VENDOR SET: 01 Casitas Municipal Water D

BANK: AP ACCOUNTS PAYABLE

DATE RANGE:10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
00101	FISHER SCIENTIFIC							
I-6932968	Lab Supplies	R	11/02/2016	95.57		024899		95.57
00103	FRANK'S ROOTER & PUMPING							
I-91317	Showers House Leach Line Repair	R	11/02/2016	700.00		024900		
I-91318	Camera Use in Leach Line	R	11/02/2016	700.00		024900		1,400.00
00104	FRED'S TIRE MAN							
I-95223	Oil Filter & Change - Unit #41	R	11/02/2016	39.67		024901		39.67
01280	FRY'S ELECTRONICS, INC.							
C-6530797	Computer Supplies - IT	R	11/02/2016	53.99CR		024902		
I-6530785	Computer Supplies - IT	R	11/02/2016	124.17		024902		70.18
00216	THE GAS COMPANY							
I-102116	Acct#18231433006	R	11/02/2016	34.26		024903		
I-102116a	Acct#00801443003	R	11/02/2016	313.03		024903		347.29
02899	General Electric International							
C-Y051-32630b	Accrue Use Tax	R	11/02/2016	667.50CR		024904		
D-Y051-32630a	Accrue Use Tax	R	11/02/2016	667.50		024904		
I-Y051-32630	Spare GE Breaker - E&M	R	11/02/2016	8,900.00		024904		8,900.00
01292	GEORGE YARDLEY CO							
I-25277	ASCO Valve Repair Kits - LCRA	R	11/02/2016	363.20		024905		363.20
00115	GRAINGER, INC							
I-9253906508	Chair Mat - Warehouse	R	11/02/2016	58.06		024906		
I-9254711865	Cleanser Bottle - Lab	R	11/02/2016	14.24		024906		
I-9257401803	Shelf Bins - Warehouse	R	11/02/2016	284.09		024906		
I-9261495007	Vehicle Divider Blocks - LCRA	R	11/02/2016	436.88		024906		793.27
00121	HACH COMPANY							
I-10154462	Stablcal Verification Ampule	R	11/02/2016	33.12		024907		
I-10164282	LDO Sensor Cap - TP	R	11/02/2016	147.86		024907		180.98
02925	Matthew Hamblin							
I-102016	Camping Fee Refund	R	11/02/2016	36.50		024908		36.50
01772	HASAN CONSULTANTS							
I-103116	LCRA Sewer Study	R	11/02/2016	9,000.00		024909		9,000.00
02572	Bob Herzig and Associates, Inc							
I-HE16-10549	Arc Flash Hazard Labels	R	11/02/2016	1,600.00		024910		1,600.00

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE: 10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
02805	Hogan Company Inc.							
I-48106	Fire Pit Stakes - LCRA	R	11/02/2016	289.33		024911		289.33
00596	HOME DEPOT							
I-1612353	Sprinkler - LCRA	R	11/02/2016	141.69		024912		
I-6662164	Spring Hinge - LCRA	R	11/02/2016	156.22		024912		297.91
00894	HOSE-MAN, INC.							
C-5505139-0001-05	Hose Fittings for Pump - WP	R	11/02/2016	55.26CR		024913		
I-5230950-0001-05	Hose Quick Couplers - WP	R	11/02/2016	80.17		024913		
I-5230978-0001-05	Hose Fittings for Pump - WP	R	11/02/2016	95.35		024913		
I-5230997-0001-05	Hose Fittings for Pump - WP	R	11/02/2016	101.55		024913		221.81
00131	JCI JONES CHEMICALS, INC							
I-704268	Chlorine - TP, CM 704323	R	11/02/2016	899.94		024914		
I-704269	Chlorine - TP, CM 704322	R	11/02/2016	1,770.00		024914		
I-704874	Chlorine - TP, CM 704905	R	11/02/2016	1,770.00		024914		4,439.94
01022	KELLY CLEANING & SUPPLIES, INC							
I-1370127	Janitorial Services - LCRA	R	11/02/2016	280.00		024915		280.00
00328	LIGHTNING RIDGE							
I-10071601	Uniforms for Utility Crew	R	11/02/2016	736.08		024916		
I-9271605	Uniforms for TP	R	11/02/2016	426.86		024916		1,162.94
00329	MCMASTER-CARR SUPPLY CO.							
I-83469407	Polyethylene Sheet - E&M	R	11/02/2016	52.62		024917		
I-85595055	Wear-Res. Foam Sheet - E&M	R	11/02/2016	22.76		024917		75.38
00151	MEINERS OAKS ACE HARDWARE							
I-739020	Shop Supplies - PL	R	11/02/2016	100.74		024918		
I-741105	Chain, Spring Snap, Eyebolt-PL	R	11/02/2016	14.62		024918		
I-741284	Paint, Gloves - Maint.	R	11/02/2016	44.10		024918		
I-741877	Gasser, Bolts, Screws - Maint.	R	11/02/2016	18.65		024918		
I-742213	Chain, Clamp, Coupling - LCRA	R	11/02/2016	26.56		024918		
I-742214	Clamps - LCRA	R	11/02/2016	3.77		024918		
I-742294	Gloves, Bulb - Warehouse	R	11/02/2016	8.44		024918		
I-742325	Shovels - TP	R	11/02/2016	58.65		024918		
I-742356	Parts Box Drawer - WP	R	11/02/2016	24.45		024918		
I-742392	Wipes, Hand Sanitizer-LCRA	R	11/02/2016	53.59		024918		
I-742418	Bolts & Screws - LCRA	R	11/02/2016	8.11		024918		
I-742569	Water Heater Parts - O&M	R	11/02/2016	29.79		024918		
I-742913	Cord, Electrical Cover - E&M	R	11/02/2016	18.86		024918		
I-743266	Bolts & Screws - LCRA	R	11/02/2016	2.58		024918		
I-743295	Trash Bags, Lysol, Tape - LCRA	R	11/02/2016	35.12		024918		
I-743298	Batteries - LCRA	R	11/02/2016	25.41		024918		
I-743436	LED Bulb - LCRA	R	11/02/2016	29.34		024918		
I-743579	Circuit Breakers - LCRA	R	11/02/2016	37.11		024918		539.89

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE:10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
00165	OJAI LUMBER CO, INC							
I-1610-797872	Redwood Sign Material - LCRA	R	11/02/2016	155.92		024920		155.92
00168	OJAI VALLEY NEWS							
I-300008360	Public Hearing Ad - 10/7	R	11/02/2016	20.00		024921		
I-300008715	Public Hearing Ad - 10/21	R	11/02/2016	16.00		024921		36.00
02927	The One Experience, LLC							
I-102716	Refundable Security Deposit	R	11/02/2016	231.10		024922		231.10
00178	PARADISE CHEVROLET							
I-682150CVW	Steering Column Cover -Unit 54	R	11/02/2016	53.19		024923		53.19
02833	Praxair, Inc							
I-74690018	Liquid Oxygen - TP	R	11/02/2016	2,125.67		024924		
I-74875716	Liquid Oxygen - TP	R	11/02/2016	2,030.36		024924		4,156.03
01439	PRECISION POWER EQUIPMENT							
I-2618	Chain for Saw - Dist. Maint.	R	11/02/2016	60.51		024925		60.51
10042	PSR ENVIRONMENTAL SERVICE, INC							
I-7871	Gas Tank Inspection - LCRA	R	11/02/2016	210.00		024926		
I-7872	Gas Tank Inspection -Main Yard	R	11/02/2016	210.00		024926		420.00
02759	The Pun Group							
I-1600305	Audit for Year Ending 6/30/16	R	11/02/2016	9,450.00		024927		9,450.00
00313	ROCK LONG'S AUTOMOTIVE							
I-19266	Smog Inspection - Unit #40	R	11/02/2016	44.75		024928		
I-19292	ABS Diagnostic - Unit 35	R	11/02/2016	1,374.58		024928		1,419.33
02926	Steve Ruffenach							
I-101516	Camping Fee Refund	R	11/02/2016	26.50		024929		26.50
02003	Sostre Enterprises Inc.							
I-3239	Website CMS Fee/Hosting	R	11/02/2016	249.00		024930		249.00
00215	SOUTHERN CALIFORNIA EDISON							
I-102816	Acct# 2210507034	R	11/02/2016	9,033.90		024931		
I-102916	Acct# 2210503702	R	11/02/2016	6,531.26		024931		15,565.16
02202	Stanley Pest Control							
I-870532	Monthly Pest Control - WP	R	11/02/2016	170.00		024932		170.00

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE: 10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
00048	STATE OF CALIFORNIA I-110116 State Water Plan Payment	R	11/02/2016	196,321.00		024933		196,321.00
00641	SWRCB-ELAP Fees I-EA0117-1696 ELAP Certificate	R	11/02/2016	2,193.00		024934		2,193.00
02643	Take Care by WageWorks I-4946537 Reimburse Medical	R	11/02/2016	343.20		024935		343.20
02527	Traffic Technologies LLC I-22545 No Parking Sign - LCRA I-22635 5 Gallons Yellow Paint - LCRA I-22655 Plastic Pavement Marker-LCRA	R R R	11/02/2016 11/02/2016 11/02/2016	105.84 236.52 10.48		024936 024936 024936		352.84
01662	TYLER TECHNOLOGIES, INC. I-025-171491 Monthly UB Online Fees	R	11/02/2016	153.00		024937		153.00
00234	UNITED WATER CONSERVATION I-102516 Conservation RAS Refund I-102516a Off-Aqueduct Power Facilities I-102516b Surplus Money Investment I-102516c Natural Gas Hedging Act Refund I-102516d Surplus Money Investment	R R R R R	11/02/2016 11/02/2016 11/02/2016 11/02/2016 11/02/2016	2,853.00 1,480.00 297.25 5.31 214.00		024938 024938 024938 024938 024938		4,849.56
00825	USA BLUEBOOK I-086960 Buffer Solution, Dispenser-Lab	R	11/02/2016	65.94		024939		65.94
00246	VENTURA COUNTY AIR POLLUTION I-R005382 County Testing Fuel Tank	R	11/02/2016	325.00		024940		325.00
00774	Ventura County Sheriff's Office I-16-15853 Sheriff Security 8/16 - LCRA I-16-15854 Sheriff Security 9/16 - LCRA	R R	11/02/2016 11/02/2016	41,639.52 25,730.76		024941 024941		67,370.28
00254	VENTURA LOCKSMITHS I-B13661 Duplicate Key - PL	R	11/02/2016	16.13		024942		16.13
09775	VENTURA ORTHOPEDICS MEDICAL GR I-6107310821 DOS 9/22/16 Claim #03-01792	R	11/02/2016	151.63		024943		151.63
00258	VENTURA STEEL, INC I-187274 Steel Sheet - E&M	R	11/02/2016	16.13		024944		16.13

VENDOR SET: 01 Casitas Municipal Water D
 BANK: AP ACCOUNTS PAYABLE
 DATE RANGE: 10/20/2016 THRU 11/02/2016

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
09955	VENTURA WHOLESALE ELECTRIC							
I-202101	Twist on Wire Connectors - E&M	R	11/02/2016	11.77		024945		
I-204366	Receptacle, Cord Clamp - E&M	R	11/02/2016	38.70		024945		50.47
00949	CITY OF VENTURA							
I-102516	Conservation RAS Refund	R	11/02/2016	5,706.00		024946		
I-102516a	Off-Aqueduct Power Facilities	R	11/02/2016	4,640.00		024946		
I-102616	Surplus Money Investment	R	11/02/2016	594.50		024946		
I-102616a	Natural Gas Hedging Act Refund	R	11/02/2016	10.63		024946		
I-102616b	Surplus Money Investment	R	11/02/2016	428.00		024946		11,379.13
00270	Wells Fargo Bank							
C-101016n	Accrue Use Tax	R	11/02/2016	3.68CR		024947		
C-101016p	Accrue Use Tax	R	11/02/2016	11.18CR		024947		
C-101016r	Accrue Use Tax	R	11/02/2016	3.68CR		024947		
C-101016t	Accrue Use Tax	R	11/02/2016	12.00CR		024947		
C-101016v	Accrue Use Tax	R	11/02/2016	26.23CR		024947		
C-101016x	Accrue Use Tax	R	11/02/2016	11.42CR		024947		
D-101016m	Accrue Use Tax	R	11/02/2016	3.68		024947		
D-101016o	Accrue Use Tax	R	11/02/2016	11.18		024947		
D-101016q	Accrue Use Tax	R	11/02/2016	3.68		024947		
D-101016s	Accrue Use Tax	R	11/02/2016	12.00		024947		
D-101016u	Accrue Use Tax	R	11/02/2016	26.23		024947		
D-101016w	Accrue Use Tax	R	11/02/2016	11.42		024947		
I-101016a	CALMS Conference - Lab	R	11/02/2016	250.00		024947		
I-101016b	Drought Summit Broadcasting	R	11/02/2016	99.00		024947		
I-101016c	Misc. Conservation Charges	R	11/02/2016	88.83		024947		
I-101016d	AWWA Conference - O&M	R	11/02/2016	495.00		024947		
I-101016e	Fisheries Conference	R	11/02/2016	350.00		024947		
I-101016f	Vacuum Hose - Dist. Maint.	R	11/02/2016	35.38		024947		
I-101016g	Shade Equipment - DO&LCRA	R	11/02/2016	1,888.04		024947		
I-101016h	Airfare - Lab	R	11/02/2016	316.47		024947		
I-101016i	Jabra Headset w/Lift	R	11/02/2016	159.95		024947		
I-101016j	NALMS Conference - Lab	R	11/02/2016	495.00		024947		
I-101016k	Solar Lights for Sign - LCRA	R	11/02/2016	349.78		024947		
I-101016l	AC Unit - Unit #4	R	11/02/2016	162.28		024947		4,689.73
01483	CORVEL CORPORATION							
I-C19204969733	Claim # 1076619	R	11/02/2016	100.00		024950		100.00
00086	E.J. Harrison & Sons Inc							
I-6663	Acct#1C00054230	R	11/02/2016	5,379.00		024951		
I-6664	Acct#1C00054240	R	11/02/2016	149.71		024951		5,528.71

VENDOR I.D.	NAME	STATUS	CHECK DATE	INVOICE AMOUNT	DISCOUNT	CHECK NO	CHECK STATUS	CHECK AMOUNT
01272	LISA KOLAR							
I-103116	Safety Boots	R	11/02/2016	73.94		024952		73.94
02724	Michael Moler							
I-102816	Reimburse Expenses 10/16	R	11/02/2016	738.40		024953		738.40
1	Baird Trustee							
I-000201610201145	TS Refund	R	11/02/2016	84.00		024954		84.00
1	Bill Holling							
I-000201610311147	UB Refund	R	11/02/2016	31.39		024955		31.39
1	Lisa Lopez							
I-000201610311148	UB Refund	R	11/02/2016	15.69		024956		15.69
1	Joseph Brouwer							
I-000201610311149	UB Refund	R	11/02/2016	195.80		024957		195.80
1	Sharon Brown							
I-000201611021150	UB Refund	R	11/02/2016	234.86		024958		234.86

* * T O T A L S * *

	NO	INVOICE AMOUNT	DISCOUNTS	CHECK AMOUNT
REGULAR CHECKS:	98	524,294.49	0.00	524,294.49
HAND CHECKS:	0	0.00	0.00	0.00
DRAFTS:	4	102,404.21	0.00	102,404.21
EFT:	0	0.00	0.00	0.00
NON CHECKS:	1	0.00	0.00	0.00
VOID CHECKS:	0			
VOID DEBITS		0.00		
VOID CREDITS		0.00		
		0.00	0.00	

TOTAL ERRORS: 0

VENDOR SET: 01	BANK: AP	TOTALS:	NO	INVOICE AMOUNT	DISCOUNTS	CHECK AMOUNT
			103	626,698.70	0.00	626,698.70
BANK: AP		TOTALS:	103	626,698.70	0.00	626,698.70
REPORT TOTALS:			103	626,698.70	0.00	626,698.70

Casitas Municipal Water District
Reimbursement Disclosure Report (1)
Fiscal Year 2016/17
July 1, 2016-June 30, 2017

<u>Date paid</u>	<u>Board of Director/ Employee</u>	<u>Description</u>	<u>Amount Paid</u>
7/5/2016	Vincent Godinez	Safety Boot Purchase	153.87
7/5/2016	Scott Lewis	Salmonid Genetics Conference	210.00
7/13/2016	Scott Lewis	Airfare to CMWD 7/10-7/14	425.20
7/13/2016	Scott MacDonald	Class Reimbursement	120.00
7/13/2016	Luke Soholt	Class Reimbursement	168.00
7/19/2016	Lindsay Cao	CWEA Membership	172.00
7/26/2016	Gerardo Herrera	Safety Boot Purchase	170.00
7/26/2016	Tim Lawson	Safety Boot Purchase	118.20
7/28/2016	Ron Yost	Property Tax Bill-Damtender Residence	608.65
8/4/2016	Gerardo Herrera	Utility Leadership Course	115.68
8/10/2016	Eric Behrendt	Safety Boot Purchase	156.59
8/10/2016	Scott Lewis	Lodging	348.32
8/10/2016	Scott Lewis	Car Rental	320.27
8/17/2016	Robert Vasquez	Safety Boot Purchase	170.00
8/24/2016	Larry Harris	Gray Water Workshop Refreshments	200.10
9/14/2016	Joel Cox	Safety Boot Purchase	170.00
9/14/2016	Greg Romey	Mileage Reimbursement - Offsite Training	111.24
9/21/2016	Joel Cox	T4 Certification	105.00
10/5/2016	Scott MacDonald	Safety Boot Purchase	170.00
10/13/2016	Scott Lewis	Airfare to CMWD 9/27-9/29	331.20
10/13/2016	Scott Lewis	Car Rental	254.08
10/13/2016	Scott Lewis	Lodging	189.50
10/13/2016	Brian Taylor	Safety Boot Purchase	156.59
10/19/2016	Michael Moler	Lodging for CALMS Conference	353.40
10/19/2016	Michael Moler	Mileage Reimbursement - Offsite Training	515.70
11/2/2016	Michael Moler	Lodging for CA/NV Fall Conference	377.92
11/2/2016	Michael Moler	Mileage Reimbursement - Offsite Training	222.48

Note:

1) Reimbursement Disclosure Report prepared pursuant to California Government Code 53065.5

**CASITAS MUNICIPAL WATER DISTRICT
MEMORANDUM**

TO: BOARD OF DIRECTORS
FROM: STEVE WICKSTRUM, GENERAL MANAGER
SUBJECT: PRESENTATION OF THE PRELIMINARY WATER SECURITY PROJECT ANALYSIS BY WATER RESOURCES ENGINEERING ASSOCIATES
DATE: NOVEMBER 4, 2016

RECOMMENDATION:

It is recommended that the Board of Directors receive the presentation by Water Resources Engineering Associates and provide direction to staff.

BACKGROUND:

In August 2016, Casitas awarded a contract to Water Resources Engineering Associates (WREA), teamed with Kear Groundwater, to prepare a written analysis of options that may diversify and supplement the Casitas water supply. The initial list provided by Casitas suggested eighteen various projects to be considered and to be narrowed to five projects that would be evaluated by WREA. The thirteen evaluation parameters included, but not limited to, water production capacity, reliability of supply, risks, and capital and operational cost of the project.

At this time, WREA and Kear Groundwater have provided a draft report to be presented for the initial review by the Board of Directors. There are additional project diagrams that are not a part of the current submittal, but will be provided by WREA during the November 9th Board meeting.

DIRECTION:

Upon the presentation of the report, the Board may provide direction to staff concerning the assignment additional investigations for a particular option beyond the scope of the current contract and the assignment of this report to an appropriate Committee for further consideration of the options.

If there are any questions in this regard, WREA and Kear Groundwater will be available at the meeting for answering questions.

PRELIMINARY WATER SECURITY PROJECT ANALYSIS

*Casitas Municipal Water District
Ventura County, CA*

Draft Published: November 4, 2016

Prepared By:

WREA

Water Resource Engineering Associates
2300 Alessandro Drive, Suite 215 Ventura, CA 93001
(805) 653-7900 ♦ (800) 25-WATER ♦ (805) 653-0610 (fax)
www.wreassoc.net



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Santa Barbara, CA 93103
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www.keargroundwater.com

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

TABLE OF CONTENTS

CONTENTS	PAGE
ANALYSIS AUTHORIZATION AND PURPOSE AND APPROACH.....	1
Authorization.....	1
Purpose	1
Approach	1
Glossary	1
UPPER TIER PROJECTS	2
UPPER TIER PROJECT LIST	2
ITEM 1. Matilija Formation Horizontal Bores	3
ITEM 2. Ojai East Septic Collection, Package Treatment, Recharge	7
ITEM 3. State Water Project Transfers, City of Ventura Calleguas emergency Inter-Tie ...	10
ITEM 4. Pipeline from Matilija Chlorinator to Matilija Hot Springs.....	14
ITEM 5. Renovate Senior Canyon Mutual water company Horizontal Well	16
ITEM 6. Ojai Desalter Project.....	18
LOWER TIER PROJECTS	20
LOWER TIER PROJECT LIST	20
ITEM 7. Scalping Plant on OVSD Collector Main for Wastewater Re-Use at Ojai Valley Inn	21
ITEM 8. Fire Hydrant and Dead End Flush Water Re-Use	23
ITEM 9. Matilija Dam Groundwater/Surface Water.....	23
ITEM 10. Debris Basin "Enhanced" Percolation	24
ITEM 11. Santa Ana Road Underground Stream	25
ITEM 12. Environmental/Habitat Modifications.....	26
General Information on Grant Funding for Emergency Drought Preparedness	27

APENDIX

ITEM 1 Preliminary Opinion of Probable Cost	Page A
ITEM 2 Preliminary Opinion of Probable Cost	Page B
ITEM 4 Preliminary Opinion of Probable Cost	Page C
ITEM 5 Preliminary Opinion of Probable Cost	Page D
ITEM 6 Preliminary Opinion of Probable Cost	Page E
Attachment 1: Geologic Cross Section	Page F
Attachment 2: Geologic Map	Page F
Attachment 3: Items 1-6 Project Location Plan	Page H

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Analysis Authorization and Purpose and Approach

Authorization

In a letter to WREA dated August 12, 2016, at the direction of the Board of Directors, Casitas Municipal Water District (CMWD) General Manager Steve Wickstrum requested a proposal on a reconnaissance level analysis of a number of “new” water supply projects (initially 5) (some of which were suggested by CMWD Board Members.) The task was given the name “Water Security Project Analysis” (Analysis).

Along with Kear Groundwater, WREA submitted a proposal for the Analysis which was verbally accepted by CMWD on August 17, 2016.

Purpose

The purpose of the analysis is to estimate the technical and financial feasibility of a list of projects supplied by CMWD and/or other projects discussed and agreed to be included in the list. We anticipate that selected projects from this list and preliminary evaluation will be further evaluated for feasibility.

Approach

In discussions with CMWD staff, and results of a September 8, 2016 meeting that included Jordan Kear of Kear Groundwater, Lou Nagy of WREA, Steve Wickstrum, Neil Cole, and Mike Moler of CMWD, the general ranking of projects was discussed and a general categorical ranking scheme was developed. It consists of two “tiers”. The top tier projects to be studied in relatively greater detail than those in the lower tier. Please note that the order in which the tier items are presented has no significance.

Glossary

Terms used in this Analysis are as follows:

A	Acre
AF	Acre Feet
AFY	Acre Feet/Year
AMSL	Above Mean Sea Level
Bathal	Ocean bottom sedimentary depositional environment
Calleguas	Calleguas Municipal Water District
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CFS	Cubic Feet/Second
City	City of Ventura
CMWD	Casitas Municipal Water District
DWR	Department of Water Resources

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

F, FT	Foot or Feet
Faunal	Relating to non-plant life
GPD	Gallons per Day
GPM	Gallons per Minute
GSP	Groundwater Sustainability Plan
HoBo	Horizontal Bore
Lake	Lake Casitas
MGD	Million Gallons per Day
MGL	Milligrams per Liter
MWD	Metropolitan Water District of Southern California
NEPA	National Environmental Policy Act
Netric	Zone where sunlight reaches ocean floor
OBGMA	Ojai Basin Groundwater Management Agency
OVSD	Ojai Valley Sanitary District
POC	Point of Connection
SACSG	San Antonio Creek Spreading Grounds
TDS	Total Dissolved Solids
United	United Water Conservation District
UVRB	Upper Ventura River Basin
Y	Year

Upper Tier Projects

Upper tier projects are to be evaluated using the following parameters as they may apply to the particular project being evaluated.

- Water Production Capacity
- Water Quality
- Reliability of Supply
- Water Rights (as evaluated by the consultancy team; to be verified by Casitas' qualified water rights attorney)
- Public Agency of Involvement
- CEQA and Environmental Impacts
- Opinion of Probable Cost
- Project Timeline

Upper Tier Project List

A list of upper tier projects follows:

- Item 1. Matilija Formation Horizontal Bores
- Item 2. Ojai East Septic Collection, Package Treatment, Recharge
- Item 3. State Water Project Transfers, City of Ventura Calleguas Emergency Inter-Tie
- Item 4. Pipeline from Matilija Chlorinator to Matilija Hot Springs

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

- Item 5. Renovate Senior Canyon Mutual Water Company Horizontal Well
- Item 6. Ojai Desalter Project

ITEM 1. MATILIJA FORMATION HORIZONTAL BORES

Project Description

Item 1, the Matilija Formation Horizontal Bores (Matilija HoBos) Target project is comprised of drilling bores and well completions in the Matilija sandstone which would begin vertically then change direction to eventually become horizontal, directed to the north, and target the stratigraphic base of the Matilija Formation along the easternmost portion of the Santa Ynez Mountains. The Project would allow for drought-period release of groundwater impounded within the target formation. With low-elevation well head points, water would conceptually drain to the well heads under pressure and be controlled via a valve or series of valves for redundancy and safety. When opened, the valves would allow for water to flow a dedicated pipeline (temporary or permanent) discharging directly to the canal or the Lake¹.

Target Formation

The Matilija Sandstone is known to be among the more porous and permeable local bedrock formations. Recharge to the Matilija Sandstone aquifers which would feed the HoBos conceptually appears to occur primarily via precipitation on the ridges of the Santa Ynez Mountains to the west and up to 3,000 FT higher in elevation than Lake Casitas.

The Matilija Sandstone forms prominent strike ridges in the Santa Ynez Mountains for more than 48 mi (80 km), from east of Highway 154 to northeast of Ojai. It is exposed on both sides of the Santa Ynez fault, thinning both westward and eastward from its maximum exposed thickness of 2,624 FT (800 m) at the type section, Matilija Springs.

Lithologically, the Matilija Sandstone consists of a medium to thick-bedded sandstone sequence at the base that is overlain by massive and cross-bedded sandstone units, and in turn, by interbedded gray to red siltstone and cross-bedded sandstone. Within the predominantly siltstone section, there are thin beds of limestone and gypsum, containing mud cracks and abundant mollusk fossils. The siltstone and cross-bedded sandstone unit passes upward into laminated sandstone and siltstone beds which are transitional with the overlying Cozy Dell Formation. Faunal data indicate a shallowing sequence from bathyal depths at the base of the Matilija to neritic and locally non-marine conditions in the cross-bedded sandstone and siltstone beds, about two-thirds of the way through the unit, and deepening toward the top of the formation and overlying Cozy Dell Formation (Link and Welton, 1982). The vertical sequence of facies indicates

¹ Alternately, the water could be allowed to flow into Santa Ana Creek and possibly other tributary waters to the Lake, but may not be environmentally feasible.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

that the Matilija Sandstone records a major regressive event (exposure of sea floor above sea level) filling the Santa Ynez basin. A second regressive episode of deposition (Cozy Dell-Coldwater-Sespe Formations) followed in the late Eocene to Oligocene.

Production

Item 1 production is estimated to be approximately 8,000 Acre Feet per Year (AFY), with production during dry years only. During wet years when other sources of water are more readily available, we would expect depleted reserves to be restored at an estimated rate of greater than 2,000 AFY within the aquifers intersected by the HoBos. Adaptive management would be an absolute necessity for this project.

The target portion of the formation outcrops between the Ventura River and the Juncal Pass. This is a 6-mile ridge, where 2,000 FT of stratigraphic thickness of this formation is exposed. Assuming 2,000 vertical feet of saturation, a block of $1,26 \times 10^{11}$ cubic feet of material may be available for groundwater storage. Assuming a 1% specific yield, on average for this formation block, we calculate over 29,000 AF of water in storage. This is thought to be a conservative estimate of available water.

On a more liberal end of the estimation spectrum, a specific yield of 5 percent may be assumed, and a 3,000-foot saturated thickness may be assumed. This could bring a potential amount of water in available storage upwards of 200,000 acre feet.

A 5,000 Gallons per Minute (GPM) rate, per well, is assumed based on Tecolote tunnel data for design considerations. The Matilija Formation is penetrated by several adits and tunnels to the west of the target area, namely in Santa Barbara County. Many of these were drilled or hand-excavated during the 1800s and only limited anecdotal information of their construction is available. However, the Tecolote Tunnel, connecting Lake Cachuma and the South Coast, was constructed from 1950 to 1956 and detailed geologic information is available. The Mission Tunnel between Gibraltar Reservoir and Santa Barbara and the Doulton Tunnel serving the Montecito area have been in operation longer and are cited to add about 1,000,000 GPD and 300,000 GPD to diverted surface flows from bedrock formations including the Matilija Formation (Muir, 1968).

Tecolote Tunnel data indicate an increase in flow from about 1,000 gpm (1.4 MGD) to 7,000 gpm (10 MGD) while drilling through the Matilija Formation (USBoR, 1959). Other flows also emerged from the relatively thin sandstone units within the Cozy Dell formation. This significant resource is an excellent proxy for the postulated Matilija HoBos.

Three spudding (pilot well) locations are considered. West to east, these are referred to as the 12,000-FT West HoBo, the 10,000-FT Central HoBo, and the 10,000-FT East Hobo. Locations and approximate trajectories of each well are presented on

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Attachments 1 and 2. Summaries of each are presented below. Most of these involve construction on Bureau of Land Management and U.S. Forest Service lands.

Note that the target formation exists at great vertical depth beneath the District area. The Chismahoo oil exploration well encountered the Matilija Formation at 5,800 FT and remained within the formation until the exploration well's total depth of over 8,000 FT. No significant oil or gas shows were encountered in this bore.

12,000-FT West HoBo: Postulated to be spudded at an elevation of about 1900 FT, just north of Superior Ridge and directed toward White Ledge Peak. Over the bore target formation exposure elevations are typically above 3,000 FT AMSL. Flow would enter Coyote Creek when opened, tributary to Lake Casitas. This location is outside of the District Boundary but within the Lake Casitas Watershed Wilderness. Los Padres National Forest permitting will be essential for construction and operations and maintenance.

15,000-FT Central HoBo: Postulated to be spudded at an elevation of about 860 FT, just south of the intersection of Cooper Canyon Road and the District Boundary. Direction of the bore would be to the north, just east of North Fork Santa Ana Creek. Over the bore target formation exposure elevations are typically above 3,000 FT AMSL. Flow would enter Cooper Canyon when opened, tributary to Santa Ana Creek and Lake Casitas. This location is inside of the District Boundary and within the Lake Casitas Watershed Wilderness. Los Padres National Forest permitting will be essential for construction and operations and maintenance as the intended as the majority of the bore will underlie LPNF lands. Some private property owner negotiations are anticipated to be required.

10,000-FT Central HoBo: Postulated to be spudded at an elevation of about 1200 FT, near lightly cultivated land associated with the Taft lease / property. Direction of the HoBo would be generally under the North Fork Santa Ana Creek. Over the bore target formation exposure elevations are typically above 3,000 FT AMSL. Flow would enter Santa Ana Creek when opened, tributary to Lake Casitas. This location is outside of the District Boundary but within the Lake Casitas Watershed Wilderness. Private property owner/lessee negotiations and Los Padres National Forest permitting will be essential for construction and operations and maintenance.

10,000-FT East HoBo: Postulated to be spudded at an elevation of about 850 FT, just inside the District boundary at Rice Canyon. Direction of the East HoBo would be generally north-northwest. Over the bore target formation exposure elevations are typically above 2,000 FT AMSL. Flow would enter the creek in Rice Canyon when opened and be directed to the Robles Canal, tributary to Lake Casitas. Private property owner negotiations and Los Padres National Forest permitting will be essential for construction and operations and maintenance. This HoBo would be likely lowest pressure/production of the described bores.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Water Quality

Groundwater Quality from Matilija Formation wells and springs locally is expected to be consistent with the water generated by the Matilija HoBo. Total Dissolved Solids (TDS) in the range of 400 to 800 MGL and calcium-bicarbonate water character are expected. Iron, manganese, sulfates may be elevated but not expected to be detrimental to project implementation. Pilot project efforts would be implemented to detail actual water quality.

Reliability

Using an adaptive management strategy, the reliability of the HoBo is high, in that water could be extracted on an as-needed basis (during droughts) and allowed to recharge during periods of higher precipitation. Conceptually, when a target/threshold low lake level is reached, the HoBos would be opened, but remain shut-in and monitored during other times.

Water Rights

The district must explore the extraction of this percolating groundwater and its appropriative right to extract. Other than some minor spring use (Ojala), this resource appears to be untapped as effectively all water in storage has bypassed the root zone of flora in the headwaters along the ridge. We expect that a physical solution (such as serving affected spring owners with a water source during drought periods and HoBo use) would be offered as offsets of potential water rights issues.

Public Agency Involvement

For this project it is anticipated that the involved agencies will include the U.S. Bureau of Land Management and the USDA Forest Service, from whom a permit must be acquired. The project involves discharging raw water into watercourses that for the most part are jurisdictional. Additional agencies likely to be involved are the Regional Water Quality Control Board, the CA Department of Fish and Wildlife, the US Army Corps of Engineers, the Ventura County Watershed Protection District the National Marine Fisheries Service/NOAA, and possibly others. Well site preparation may involve a grading permit from the Ventura County Development Services Department.

Private landowners, whose property could be used for access, pipeline alignment and drilling if CMWD property is not available for drilling, will also be involved.

California Environmental Quality Act, National Environmental Policy Act

This will trigger the California Environmental Quality Act (CEQA) process due to their discretionary permitting requirements. An Initial Study will be required to determine the level of environmental documentation to be prepared. While it is possible that a Mitigated Negative Declaration may be implemented, there remains the possibility that

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

an Environmental Impact Report (EIR) will be required. Additionally, since the horizontal bore project involves work on federal lands, adherence to the National Environmental Policy Act (NEPA) will be required. This may include significant and extensive studies on groundwater supplies. NEPA will require that CMWD engage an initial analytical approach to determine if pursuit of a Categorical Exclusion (CE), an Environmental Assessment (EA), or an Environmental Impact Statement (EIS) is required.

When it is uncertain that a CE will apply, an EA will be required to be prepared to determine if there are significant environmental effects. This will determine the appropriate NEPA document for the Project.

Opinion of Probable Cost

Anticipated capital cost of the project is \$5.6 million per well for drilling and construction, and the pipeline to the canal. Operation costs on the order of \$10,000 per year. (See Item 1 Preliminary Opinion of Probable Cost attached).

Project Timeline

From initiation of design through the environmental review process to completion of construction, if the project is allowed to progress without delay, the total time is estimated at 5 years. It is anticipated that the project would be conducted in phases, with the initial HoBo constructed during the earliest phase as a pilot test/proof of concept project that could be utilized accordingly. Subsequent HoBos could be completed as needed and as the adaptive management of the initial HoBo proves worthwhile.

**ITEM 2. OJAI EAST SEPTIC COLLECTION,
PACKAGE TREATMENT, RECHARGE**

Project Description

Item 2, the Ojai East Septic Collection, Package Treatment, Recharge project is comprised of installing a package wastewater treatment plant and a network of sewer collection mains and laterals along with appurtenances such as manholes, cleanouts, siphons and lift stations for the project area, a relatively densely populated section ("cell") of the East Ojai area currently utilizing ISDS (Individual Sewage Disposal Systems) (septic systems) for sewage disposal. The initial candidate project area is generally higher in elevation than the San Antonio Creek Spreading Grounds and injection well site (SACSGRP). (See Project Location Plan.)

The sewer mains will be directed to a package treatment plant, ideally located at a low point in the selected area. The treatment plant will need to be sited in an area of easy access near the SACSGRP on a parcel that CMWD will need to acquire if not compatible with existing CMWD or partner agency parcels.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

The influent will be treated by means of a centralized redundant extended aeration system including anoxic chambers and clarification followed by membrane filtration and disinfection to meet tertiary standards. A sludge processing system will be included to decant the sludge (which will need to be handled offsite periodically), reducing volume and decreasing water loss. The treated effluent would then be piped to the lower pond in the SACSGRP to help recharge the Ojai Groundwater Basin, preferably by passive infiltration with an option for direct injection to the basin through the injection wells located there.

Production

Assuming a “cell” of approximately 300 residences at 3.5 persons per residence at 60 GPD/Person¹, Item 2 “production” (treated wastewater) is estimated to be approximately 70 AFY. However, the net volume may be less given that at least some of the recharged water would have percolated into the Ojai Basin via existing ISDS. It is estimated that the project would improve recharge by allowing water to bypass the root zone of flora capable of transpiring water near leach lines at ISDS facilities. For example, if the estimated 70 AF/Y were delivered to the centralized treatment project location and recharged, current conditions may allow upwards of 35 AF/Y to recharge with 35 AF/Y taken up cumulatively by local trees and plants at individual sites.

There appear to be about two additional “cell” areas in East Ojai of about the same size that could be sewered. Those would not be as close to and will be downhill from the SACSGRP, so the cost would be even higher for those systems.

Water Quality

Due to the fact that the proposed system will normally be discharging treated effluent to SACSGRP, the quality of the treated water must meet or exceed that of the Groundwater Basin Plan as administered by the Los Angeles Regional Water Quality Control Board (Water Board). Lowering the levels of nitrate and chloride will be the challenge for this system. Due to the proposed high level of treatment (final membrane filtration) of this water, overall quality is expected to be good.

Reliability

Judging relative reliability relating to production Item 2 is high in that the residences will be constantly occupied so the daily inflow would be relatively constant.

Water Rights

There do not appear to be any water rights issues to be dealt with if this item is implemented. However since the SACSGRP has defined rights to the inflow from San

¹ Per Metcalf and Eddy, Wastewater Engineering 2003 Page 156, Table 3-1.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Antonio Creek, the additional water from the treatment plant will need to be accounted for separately.

Public Agency Involvement

For this project it is anticipated that the involved agencies will include the Water Board, the Ojai Basin Groundwater Management Agency, and Ventura County Planning. Since Ventura County Watershed Protection District owns the SACSGRP parcel, they as well as other partner and regulatory agencies in the SACSGRP facilities (e.g. CMWD, Golden State Water) will also be involved. Additionally, pipeline creek crossings of Thatcher Creek to the east and San Antonio Creek to the west, will involve the CA Department of Fish and Wildlife, the US Army Corps of Engineers, the National Marine Fisheries Service/NOAA, and possibly others.

California Environmental Quality Act

This project will trigger the California Environmental Quality Act (CEQA) process due to possible discretionary permitting requirements. It is likely that the change from septic systems to a centralized treatment plant and the open cutting of the trench for pipes in the project area will have potential for resulting in either a direct or potential physical change in the environment. An Initial Study will be required to determine the level of environmental documentation to be prepared, most likely an Environmental Impact Report (EIR).

As part of the development of the SACSGRP, an EIR was compiled and certified. With the additional use presented by the infiltration of the treated water, the EIR will likely be required to be amended.

Opinion of Probable Cost

Anticipated capital cost of the project is \$11 million, and operation costs approximately \$100K per year. It should be noted that East Ojai is very rocky, and as a result, cost for the pipeline installation is anticipated to be very high. (See Item 2 Preliminary Opinion of Probable Cost attached.)

This or a similar project in the area that involves a new sewer system in a developed area would likely never be developed as a water source, but more likely for the reason of water quality concerns exacerbated by the ISDS effluent. In that case, State or Federal monies may be available for the construction, or an Assessment District formed.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Project Timeline

From initiation of design through the environmental review process to completion of construction, if the project is allowed to progress without delay, the total time is estimated at 8 years.

**ITEM 3. STATE WATER PROJECT TRANSFERS,
CITY OF VENTURA CALLEGUAS EMERGENCY INTER-TIE**

Project Description

Item 3 consists of State Water Project Water “wheeling” through an emergency inter-tie between City of Ventura (City) and Calleguas Municipal Water District (Calleguas).

In 1971 CMWD entered into an agreement with the City and the California State Department of Water Resources (DWR) to purchase the allocation rights to up to 15,000 Acre Feet per Year (AFY) of State Water Project water (10,000 AFY-City, 5,000 AFY-CMWD), none of which has ever been delivered to CMWD or the City. Additionally, United Water Conservation District (United) has the rights to approximately 3,500 AFY¹ also yet to be delivered. The agreement states that the City will have the responsibility and discretion to determine how and where the agreed upon water deliveries would take place.

Historically, short of building a 45-mile-long pipeline and appurtenances from the Interstate 5 corridor to deliver the water to the City, there was no practical way to deliver the allocation. Certain other ideas were reviewed including de-sal (approved over the idea of a pipeline by a City Advisory vote in the early 1990’s), “wheeling” from the Metropolitan Water District of Southern California (MWD) through Calleguas and presumably the City of Oxnard, but it was determined unacceptable unless the area where the final points of use (in this case the combined service area of the City and CMWD) was annexed to MWD.

Annexation costs were considered prohibitive, and so with the exception of 1990-91 drought-caused wheeling action from the City of Oxnard through the City and CMWD to Santa Barbara through southern Santa Barbara districts, there was no movement in this regard.

Within the past two years the concept of wheeling without annexation was reconsidered by Calleguas, and has now been deemed acceptable. The City has begun planning the alignment and hydraulic design of the pipeline. The POC is at the dead end of the Calleguas 24” “Las Posas Feeder” pipeline at Price Road and Highway 118 in Somis. The proposed alignment proceeds west and north on 118 crossing the Santa Clara River Bridge and terminating at the City’s Saticoy water conditioning facility at

¹ Originally, it was a 5,000 AFY allocation but approximately 1,500 AFY was transferred to the Port of Hueneme, which is being delivered through the City of Oxnard system.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Telephone Road and Wells Road, a total distance of about 7 miles. (See Items 1-6 Project Location Map.)

Production

Per the agreement between the DWR, the City and CMWD, CMWD has the rights to up to 5,000 AFY of the subject State Water project allocation. The “production” could essentially be the in - lieu delivery of the wheeled water to the City, which would eliminate the need for the City to buy and serve CMWD water from the Lake, preserving Lake water for future drought conditions. Depending on available capacity, this could be done in small increments over time. The in-lieu deliveries would be considered a benefit to CMWD and the City as a whole even though the water may be used anywhere in the City, due to the fact that the in-lieu volumes “remain” in the Lake.

Alternately, on the west side of the City, a modification to the Olive-Ramona/ City turnout (or other appropriate point that works best for the hydraulics of the system) to allow two-way flow could be completed to allow wheeling through the City from east to west (as opposed to the current configuration, west to east) into the CMWD delivery system in Ventura Avenue. This alternative would be needed for water deliveries during minimum pool conditions of the Lake. Pressure regulation, and a reservoir and a pump plant might be required. This approach has the limitation of only delivering the instantaneous demand in that portion of the system as there is no method of back-feeding the surplus (i.e. wheeled supply minus instantaneous demand) into Lake Casitas short of constructing a bypass near the dam.

However, there is a limit on the Calleguas line capacity at the proposed 24-inch point of connection (POC). The maximum capacity at the POC is approximately 11 Cubic Feet per Second (CFS) during the low water usage period, and 4 CFS during the high usage period. It should also be noted that Ventura County Waterworks District 19 and California American Water both have existing Calleguas turnouts at the POC. The maximum annual delivery volume has been calculated to be approximately 5,400 AFY assuming 6 months each for the high and low periods. This does not consider competing demands from the existing two turnouts. The actual volume available after accounting for the existing turnouts is probably considerably less.

It has not yet been determined what portion of the actual volume available will be allocated to the City, CMWD and United, but the above figures demonstrate that without changes to the existing and planned delivery systems, the volumes will be only a fraction of the contracted water rights.

A solution that would increase the available volume would be to move the POC east to the intersection of Somis Road and Highway 118 where two Calleguas 30-inch pipes interconnect (Somis Cross-Tie). The maximum capacity at that point not accounting for competing demands, is in excess of 28,000 AFY¹. Connecting to the Calleguas system

¹ The actual reserve capacity at the Somis inter-tie is currently being verified by Calleguas.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

at the Somis Cross-Tie presents a much better chance of receiving deliveries more in line with the DWR contracted volumes. However, it will require approximately 3 miles of additional pipeline, and possibly an upsize of a portion of the existing pipeline.

Water Quality

Wheeled water quality is dependent on the last delivery purveyor in the pipeline. Considering the City, the last purveyor is Calleguas, and in this case per the City and Calleguas annual reports, the quality is very similar. Any internal adjustments in disinfection etc. downstream of the inter-tie would be addressed routinely by City operations.

In the case of water from the inter-tie being supplied to the CMWD served portion of the City (which at that point would be a blend of Calleguas and City water), it would slightly decrease the water quality since CMWD water is of higher quality than the blend, but the difference is not substantial.

Reliability

As the delivery of any State water is drought sensitive, the allocation is not dependable. The use of the in-lieu water by the City would mean that the City would use the State Water, and the water that would have been delivered to the City would remain in Lake Casitas for the future use and benefit of all CMWD customers. This water could be held in the Lake as curtailed delivery during higher rainfall periods or when allocation is available, and as such increase the “reliability” during drought periods.

Water Rights/Legal Issues

It is assumed that the agreements in place that are pertinent to the projects in Item 3 include appropriate dealings with water rights issues. Construction of the inter-tie pipeline would entail legal agreements concerning issues such as first come first serve rights, easements, operation and maintenance, and cost sharing will have to be negotiated, compiled and agreed on.

Public Agency Involvement

Since the City is apparently taking the responsibility for the implementation of the inter-tie project there should no direct Public Agency involvement for CMWD, other than that of the City, Calleguas and possibly United. Construction project involved agencies will include Regional Water Quality Control Board, the CA Department of Fish and Wildlife, the US Army Corps of Engineers, the Ventura County Watershed Protection District the National Marine Fisheries Service/NOAA, and possibly others.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

California Environmental Quality Act

The inter-tie project will trigger the California Environmental Quality Act (CEQA) process due to their discretionary permitting requirements. An Initial Study will be required to determine the level of environmental documentation to be prepared, most likely an Environmental Impact Report (EIR).

It is assumed that the City will be implementing the project, and will be the Lead Agency under CEQA and compile the Environmental Document. Since CMWD is a party to the allocation agreement, it is likely that there will be considerable documentation to be compiled by all participants for inclusion in the EIR.

Opinion of Probable Cost

Anticipated capital cost of the 7-Mile emergency inter-tie project is said to be approximately \$20 Million. Adding the additional 3 miles to increase available capacity on a pro-rata basis will total approximately \$29 Million. See the table below for a construction cost share program based on DWR allocation¹.

Participant	Allocation, AFY	% of Total	Cost, 7 Mile Pipeline	Cost, 10 Mile Pipeline
City	10,000	54	\$10.8M	\$15.7M
CMWD	5,000	27	\$5.4M	\$7.8M
United	3,500	19	\$3.8M	\$5.5M
Total	18,500	100	\$20M	\$29M

Specific cost of water from the Project has not yet been determined, but it is assumed that the rates and fees would be worked out and be part of the legal agreement between the parties.

Project Timeline

For the inter-tie portion of the project, from initiation of design through the environmental review process to completion of construction, if the project is allowed to progress without delay, a conservative estimate of the total time required could be as short as 3-5 years.

¹ Cost/AF to the participants, could be as high as \$2,000 and depending on water quality, disinfection may increase the cost another \$100-\$200/AF.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

**ITEM 4. PIPELINE FROM MATILIJA CHLORINATOR
TO MATILIJA HOT SPRINGS¹**

Project Description

Item 4 consists of the evaluation of replacing a portion (Approximately 9,800') of the existing 27-inch Matilija Conduit with smaller pipe. Currently, the size is incompatible (too large) for the existing demand, therefore water in the pipe is not "turned over" as often as it should be to avoid low chlorine residual and the formation of undesirable disinfection byproducts.

The relative low velocity in the pipe during normal operations necessitates frequent flushing with high flows to artificially "turn over" the water in the pipe. CMWD staff has stated that, occasionally, the pipe is flushed once per week due to low chlorine residual levels. Replacement will be with 12-inch and 8-inch pipe which will also need periodic flushing (as with all pipes) but the current demand will allow constant automatic turn-over, so the flushing frequency can be substantially reduced.

The alignment starts at the Matilija chlorination station, where a 12-inch pipe will be connected and run northwest across the Ventura River to Camino Cielo where it will be downsized to an 8-inch pipe, running northwest and west to a fire hydrant at Ojala. There, a 2-inch line would start, running to the end at the Matilija Hot Springs meter. Some 12 existing metered connections would also need to be connected to the new line.

It is assumed that the replacement pipeline will be installed generally along the same alignment as the existing pipe with the possibility of using the existing pipe for sliplining, especially for the Ventura River crossing.

Production

Production for Item 4 is comprised of the water saved by not having to flush the large pipe. According to CMWD records, flushing the Matilija conduit in the area consumes approximately 12 AFY which is discharged into the groundwater basin, as opposed to going back into the Lake. By changing to smaller pipe and assuming the same flushing frequency and time, based solely on pipe diameters, the total flush volume "saved" would be approximately 9.6 AFY. This water will remain in the Lake. The volume would probably be more since the number of flushes will probably be lower due to the smaller pipe having fewer water quality issues.

¹ This project is included in the CMWD 2016-2025 10 Year Capital Improvement Program named "Replace Matilija Conduit from Robles to Camino Cielo or Matilija Dam".

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Water Quality

The effect on (local) water quality will be positive, as the contents of the pipe will be turned over more frequently.

Reliability

The “reliability” of the water saved annually by the decrease in flushing and the pipeline downsizing is very high.

Water Rights/Legal Issues

There do not appear to be any water rights or legal issues to be dealt with if this item is implemented.

Public Agency Involvement

Since at least part of the pipeline alignment will be crossing and within the bed and bank of Matilija Creek and the Ventura River. The involved agencies will include the Regional Water Quality Control Board, the CA Department of Fish and Wildlife, the US Army Corps of Engineers, the Ventura County Watershed Protection District the National Marine Fisheries Service/NOAA, and possibly others. In addition, the change in system configuration will require interaction with the California Department of Public Health.

California Environmental Quality Act

Most projects covered in this study will trigger the California Environmental Quality Act (CEQA) process due to their discretionary permitting requirements. It is likely that since this is technically a reconstruction project, it will be categorically exempt from CEQA per Section 15302. Replacement or Reconstruction: (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

Opinion of Probable Cost

Anticipated capital cost of the project is \$ 1.13 million. (See Item 4. Preliminary Opinion of Probable Cost attached).

Project Timeline

From initiation of design through the environmental review process to completion of construction, if the project is allowed to progress without delay, the total time is estimated at 2 years, and is tentatively scheduled for 2020-2022.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

**ITEM 5. RENOVATE SENIOR CANYON MUTUAL
WATER COMPANY HORIZONTAL WELL**

Project Description

Item 5. Evaluates the potential production increase of the Senior Canyon Mutual Water Company (a major CMWD customer) horizontal well, the concept being that the increased volume of water produced will not have to be purchased from CMWD, and that water will remain in the Lake.

Senior Canyon Mutual Water Company (SCM) owns a 3,000 FT long horizontal well or tunnel constructed in 1929 that initially was the main supply for the SCM system. The horizontal well has supplied water virtually on an uninterrupted basis. Records from 30 years ago show that the tunnel occasionally produced in excess of 400 GPM. More recently the flow had decreased to below half that amount. Not surprisingly with the extended drought the flow rate has been reduced to approximately 50 GPM. SCM has three metered connections to CMWD that were initially installed as emergency backup and auxiliary supply to the system. However, as the drought has progressed, with the decrease in flow from the tunnel, SCM has been using CMWD water almost exclusively.

Periodic inspections have revealed substantial debris on the tunnel floor, calcification scale on the tunnel walls and a major rock fall at approximately 2200 FT from the entrance.

Dr. James Scott, a Mining Engineer who had been involved in the tunnels in Santa Barbara, visited the site in 1994, (when presumably the flow was approximately 200 GPM) said that the condition of the tunnel had a direct impact on the tunnel yield, and that it may be possible to double flow quantities from the tunnel if improved. However, no work has been done by SCM since then.

Improvements that may increase tunnel flow include:

- Cleaning the floor of the tunnel of debris;
- Sealing permeable sections of the floor;
- De-scaling the walls of the tunnel;
- Drilling multiple holes in permeable (fissured) tunnel wall formations;
- Advancing a separate bore due north from tunnel portal to target Juncal Sandstone.

Production

Assuming Dr. Scott is correct, during normal years, the increase of 200 GPM would result in a theoretical "production" of approximately 320 AFY.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

The benefit for CMWD will be that there will be a one to one correlation between increase in tunnel production and decrease in SCM purchases, freeing up that volume for other parts of the CMWD system.

Note that improvements should be captured by SCM infrastructure to avoid losses to Senior Canyon/San Antonio Creek for which others may have Senior water rights.

Water Quality

There will be no anticipated change in water quality. The water from the tunnel is considered surface water and SCM has the equipment in place to comply with the Surface Water Treatment Rule, for a production of approximately 400 GPM.

Reliability

Based on the SCM production records, although the flow varied from time to time due to rainfall patterns, flow from the tunnel has been remarkably constant.

Water Rights

SCM has appropriative rights to approximately 270 GPM direct diversion and a total of 434.4 AFY. SCM also has riparian rights. Although yet to be confirmed, most likely the diversion rates and volumes are only limited by the capacity of the horizontal well, and what can be claimed as beneficially used riparian water.

Public Agency Involvement

Since there will be at least a modest amount of debris removed from the tunnel, the collection and hauling to first a stockpile area then loaded on trucks to a disposal site would normally trigger the requirement for obtaining a Grading Permit and possibly a Stockpiling Permit from the Ventura County Development Services Department.

California Environmental Quality Act

Most projects covered in this study will trigger the California Environmental Quality Act (CEQA) process due to their discretionary permitting requirements. It is likely that since this is technically a maintenance project, it will be categorically exempt from CEQA per Section 15302. Replacement or Reconstruction: (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

Opinion of Probable Cost

Anticipated capital cost of the project is \$134,000 (See Item 5 Preliminary Opinion of Probable Cost attached).

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Project Timeline

From initiation of design through the environmental review process (if applicable) to completion of construction, if the project is allowed to progress without delay, the total time is estimated at 1 year.

ITEM 6. OJAI DESALTER PROJECT

Project Description

Item 6. consists of the Ojai Desalter Project (ODP). This project conceptually would target otherwise unusable high chloride water from the lowest aquifers in the Ojai Basin to allow for its potable use and allow for recharge water to replace the poorest quality water over time. Delivering the water acquired from the ODP will require installation of a membrane treatment system, and connection to the existing Golden State Water Company (GSWC) transmission system, as well as targeting a well, (existing or new) to supply the high chloride water. Additionally, the brine water would be delivered to the existing Ojai Valley Sanitary District (OVSD) collector lines in the project area.

Production

Production for Item 6. is estimated to be in a range from 300 to 400 AFY. Estimated maximum flow rate to be used in facility design is approximately 200 GPM.

Water Quality

Based on the aquifer zone isolation testing during recent well drilling, it appears that Ojai aquifers below 500 FT on the west central portion of the basin are targeted for the ODP. Produced water is expected to be sodium-chloride in character, with TDS in the near brackish state (around 2,000 MGL TDS). Desalting would result in the water quality target of 500 MGL TDS being added to the system. (See Exhibit 1 herein.)

Reliability

Relative reliability of Item 6. is high due to the lack of use of these aquifers by municipal and agricultural interests.

Water Rights

The ODP project, if pursued, will not create the need for acquiring water rights. Effectively, the ODP would reduce demand on upper, higher quality water-bearing aquifers within the Ojai Basin and shift the pumping from current GSWC wells to deeper pumping from the those wells, other wells to be constructed, or other wells to be dedicated to the project.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Public Agency Involvement

It is anticipated that the involved agencies will include the Ojai Basin Groundwater Management Agency (OBGMA), County of Ventura, and OVSD. Private property owners may be involved in the project as there may be water from existing wells that meet desalter criteria either not used or are yielding high chloride water.

California Environmental Quality Act

On the environmental impact scale, the project is not anticipated to have a significant effect on the environment based on the tenets of CEQA. The environmental document anticipated to be required is an MND, because the ODP would modify existing water facilities. Due to the fact that brine from the desalter project will change the wastewater characteristics, more environmental documentation will likely be necessary.

Opinion of Probable Cost

Anticipated cost of the OD project ranges from \$2.6 million to \$2.9 million, depending on whether or not an existing well can be used or if a new well has to be drilled.

Project Timeline

The time required from conception to completion is allowed to progress without delay is estimated at 1 year if a categorical exemption is available and an existing well can be used. Additional time may be required if a new well or wells are to be constructed.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

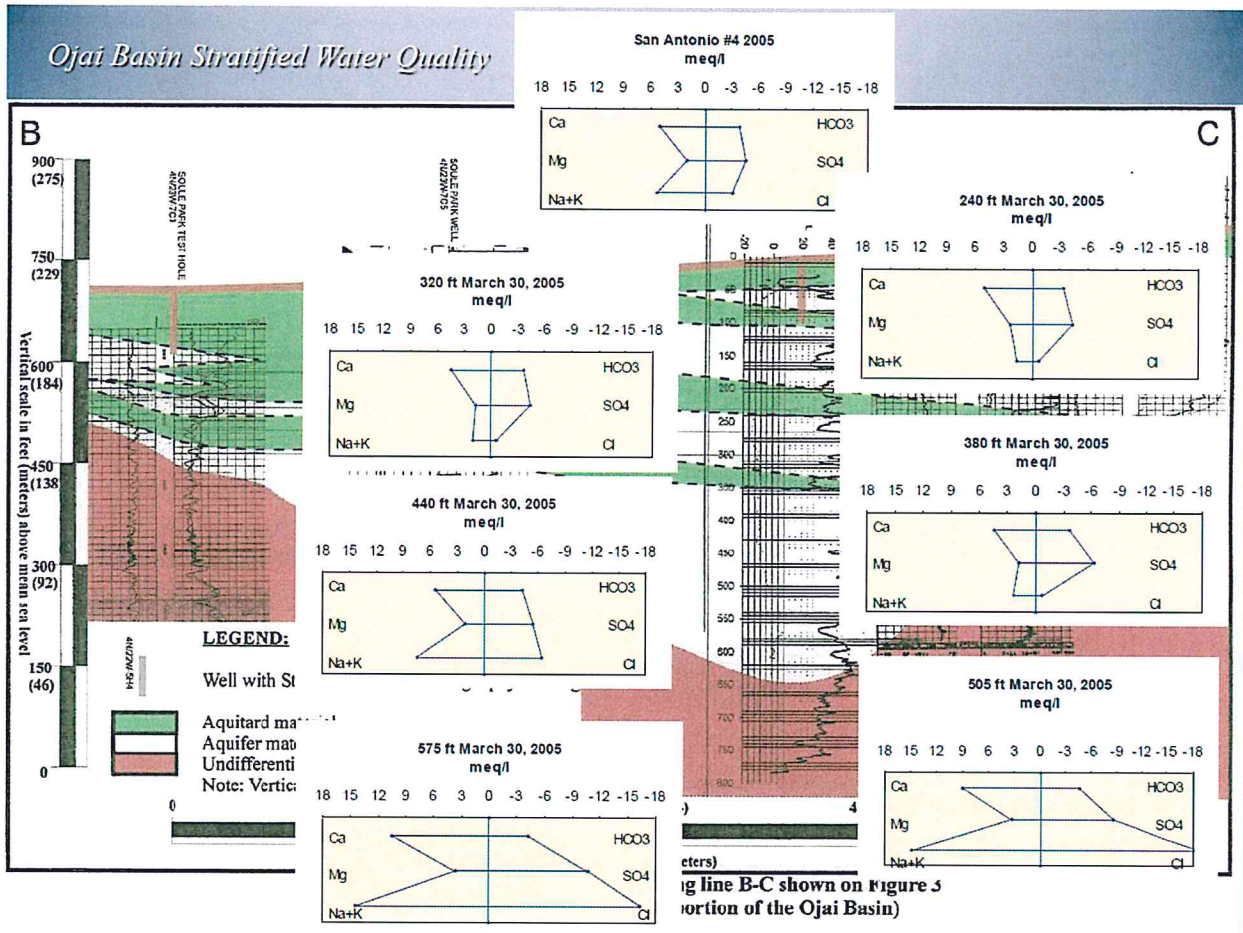


EXHIBIT 1: Ojai Basin Stratified Water Quality

Lower Tier Projects

Lower tier projects will be examined briefly, with enough information to determine the initial feasibility.

Lower Tier Project List

The list of lower tier projects follows:

- Item 7. Scalping Plant on OVSD Collector Main for Wastewater Re-Use at Ojai Valley Inn
- Item 8. Fire Hydrant and Dead End Flush Water Re-Use
- Item 9. Matilija Dam Groundwater/Surface Water
- Item 10. Debris Basin Enhanced Percolation Stations, Etc.
- Item 11. Santa Ana Road Underground Stream
- Item 12. Environmental/Habitat Modifications

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

**ITEM 7. SCALPING PLANT ON OVSD COLLECTOR
MAIN FOR WASTEWATER RE-USE AT OJAI VALLEY INN**

Project Description

The Item 7 Scalping Plant on Ojai Valley Sanitary District (OVSD) Collector Main for Wastewater Re-Use at Ojai Valley Inn project is comprised of evaluating the installation of a package wastewater treatment plant (“scalping plant”) along with appurtenances such as manholes, cleanouts, siphons and lift stations to deliver treated wastewater to the Ojai Valley Inn Golf Course irrigation system. (See Item 1-6 Project Location Plan.)

The “scalped” wastewater from the OVSD collector main will be directed to the package treatment plant, ideally located at a low point in the selected area. The treatment plant will need to be sited in an area of easy access near the OVI water service on a parcel that CMWD may need to acquire.

The “scalped” influent will be treated by means of a centralized redundant extended aeration system including anoxic chambers and clarification followed by membrane filtration and disinfection to meet tertiary standards. A sludge processing system will be included to decant the brine/sludge, reducing volume and decreasing water loss. (Alternatively, the brine could be returned to the collector main.) The treated effluent would then be piped to the OVI irrigation system.

Production

OVSD Staff have stated that as much as 100,000 gallons per day could be “scalped” from the nearby collection main. Since treated wastewater storage is not contemplated, the “production” will be limited to what can be used on a daily basis. Assuming that the rainfall ETo deficit is positive 8 months of the year, the plant can produce and irrigation system deliver approximately 74 AFY.

By installing an injection well, the remaining 4 months discharge (37 AF) can be introduced into the groundwater basin.

Water Quality

Due to the fact that the proposed system will normally be discharging treated effluent to the OVI irrigation system, the quality of the treated water must meet or exceed that of the Groundwater Basin Plan as administered by the Los Angeles Regional Water Quality Control Board (Water Board), as well as the requirements of CDPH for recycled water. Lowering the levels of nitrate and chloride will be the challenge for this system. Due to the proposed high level of treatment (final membrane filtration) of this water, overall quality is expected to be good.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Reliability

Judging relative reliability relating to production, Item 7 is high in that the system only “scalps” a fraction of the OVSD flow at the point of connection.

Water Rights

There do not appear to be any water rights issues to be dealt with if this item is implemented.

Public Agency Involvement

For this project it is anticipated that the involved agencies will include the Water Board, California Department of Public Health, the Ojai Basin Groundwater Management Agency, and Ventura County Planning. Additionally, work on the OVSD CUP such as a modification or possibly a new CUP, may be necessary. Other issues related to reducing the waste stream at the OVSD plant may arise, which may involve the CA Department of Fish and Wildlife, the US Army Corps of Engineers, the National Marine Fisheries Service/NOAA, the City of Ventura (regarding rights to the discharge), and possible others.

California Environmental Quality Act

This project will trigger the California Environmental Quality Act (CEQA) process due to possible discretionary permitting requirements. It is likely that the “scalped” water to a centralized treatment plant and the development of a site will have potential for resulting in either a direct or potential physical change in the environment. An Initial Study will be required to determine the level of environmental documentation to be prepared, most likely an Environmental Impact Report (EIR).

Opinion of Probable Cost

Anticipated capital cost of the project is \$2.0 million, and operation costs approximately \$150,000 per year.

Project Timeline

From initiation of design through the environmental review process to completion of construction, if the project is allowed to progress without delay, the total time is estimated at 4 years.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

**ITEM 8. FIRE HYDRANT AND DEAD END
FLUSH WATER RE-USE**

Project Description

Item 8, Fire Hydrant and Dead End Flush Water Re-Use addresses the concept of capturing the flush water and using it for irrigation. CMWD completes fire hydrant and dead end flushing on an as-needed basis, whenever the chlorine residual drops below a pre-determined level or when other water quality issues are present. A large diameter hose and 5,000 gallon truck could be utilized to capture and temporarily store the water and then deliver it to a prearranged user.

Production

Generally, the flushed water enters the stormdrain system. CMWD records show that approximately 105,000 G/Y water is lost to flushing.

Water Quality

Once the water comes in contact with atmosphere, it becomes non-potable. This is not an issue since it would conceivably be used for irrigation.

Reliability

Quantities may vary due to the as-needed basis of flushing.

Public Agency Involvement

CDPH would likely need to be noticed about the re-use arrangement.

Conclusion

Although it is a good practice not to “waste”¹ water, the re-use of flush water does not represent a major factor in “new” water for CMWD.

ITEM 9. MATILIJA DAM GROUNDWATER/SURFACE WATER

Project Description

Item 9, Matilija Dam Groundwater/Surface Water involves collecting and ultimately transmitting and storing water that currently exists in the shallow sediments in and near Matilija Lake, and water behind the dam.

¹ Please note that currently the discharged flush water enters the storm drain which eventually helps recharge the groundwater basin.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

At present, this water spills over the dam and flows into the Upper Ventura River groundwater basin and is also used by several retail purveyors and private parties. Additionally, it maintains a significant level of the diverse habitat on the local portion of the River.

Production

Based on USACE information and information presented in the EIR associated with the Matilija Dam Removal, it is estimated that there is approximately 500 AF in surface and subsurface storage behind the dam which could be piped directly to the Robles Diversion, then directed into the canal to be stored in Lake Casitas.

While this water may be accessible for short-term use, it is estimated that if the entire 500 AF were extracted, and the current drought continues, it would take some 2 years for that amount to be available again.

Additionally, there are several issues with its extraction, including dam stability hydrocompaction of sediment materials, and water quality, not to mention that the water in subsurface storage helps to maintain the Lake "full" and allows for spilling over the dam face.

Conclusion

Based on the above, the groundwater and surface water resources of Matilija Lake and the sediments therein are discounted as a significant "new" potential water source for CMWD.

ITEM 10. DEBRIS BASIN "ENHANCED" PERCOLATION

Project Description

Item 10 consists of examining if percolation can be enhanced by changing practices at debris basins.

There are 3 existing debris basins in the Ventura River Watershed that could aid in re-charging the groundwater basin.

An appropriate technique to improve a relatively flat area to allow higher (enhanced) percolation is to "scarify" the surface with a springtooth or ripper. Focusing on the debris basins, during operations to remove debris, the basin bottom is left in a similar condition and so the percolation will be "enhanced" as a matter of normal maintenance.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

In other words, if the debris basin is maintained properly, the resultant percolation will be “enhanced”.

Production

If the debris basins are maintained properly as suggested above, there should be no appreciable difference in recharge from cleanout to cleanout.

Conclusion

Debris basin “enhanced” percolation practices are being followed presently and so there is little if any benefit to doing more. Therefore, this practice will not be a source of “new” water for CMWD.

ITEM 11. SANTA ANA ROAD UNDERGROUND STREAM

Project Description

Item 11 is the “Santa Ana Road Underground Stream”. Based largely on anecdotal information, the Santa Ana Road "underground stream" is a term given to a portion of subsurface water draining into the Upper Ventura River groundwater basin near Oak View.

Production

This water has been indicated by observations of a relatively shallow and stable water level in a local, lightly-used groundwater well. In reality, this water is likely of very limited utility due to low production capacity if stressed, and reported high and consistent water levels are likely a result of low use and bedrock/alluvium morphology rather than a significant resource that may be available to CMWD.

Please also note that water flowing into the Upper Ventura River Basin (UVRB) via the local creeks and streams, including subsurface flow similar to the “Underground Stream”, will likely be subject to management or allocation under the forthcoming groundwater sustainability plan (GSP) for the UVRB. Any additional withdrawal may be subject to review per the tenets of the GSP and/or challenge by downstream users.

Conclusion

Based on the above, the Santa Ana road "Underground Stream" has been discounted as a potential new water source for CMWD.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

ITEM 12. ENVIRONMENTAL/HABITAT MODIFICATIONS

Project Description

Item 13 Environmental/Habitat Modification, for the focus of this Analysis, consists of modifying (removal) of two major water consuming plants; turfgrass and arrundo donax (arrundo).

Production

In a moderately high temperature environment such as Ojai, turfgrass can take up to 4.0 AFY/A of irrigation water. Removal and replacement with low water usage plants. Removal offers and approximate 3.0 AFY/A direct savings of water that will stay in the Lake.

Arundo can take up to 24¹ AFY per AFY/A. Arundo removal and replacement with native riparian plants will result in a savings in the riparian water and ultimately the groundwater of approximately 20 AF/A/Y. This would be a “savings” that would help recharge the groundwater basin as well as help keep the river alluvium saturated.

Reliability

Reliability of the savings due to turfgrass removal is very high. Savings due to arrundo removal is subject to maintaining the native plantings and not letting the arrundo re-establish itself.

Water Rights/Legal Issues

There appear to be no water rights or legal issues.

Public Agency Involvement (Mostly for Arundo Removal)

The involved agencies will include: Watershed Protection District, CA DFW, USACE, NMFS/NOAA and the Regional Water Quality Control Board.

California Environmental Quality Act

The removals detailed herein will not likely trigger CEQA. There are removal projects within the watershed that have already been permitted.

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

Opinion of Probable Cost

Turfgrass removal and replacement with drought tolerant landscape meeting all County requirements: \$100,000-\$125,000/A

Arundo removal and replacement with natives: approximately \$20,000/A

General Information on Grant Funding for Emergency Drought Preparedness

¹ Impacts of Arundo, Section 4.2 by Mr. .

**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

PRELIMINARY OPINION OF PROBABLE COST

Item 1. Matilija Formation Horizontal Bores

Item	Qty	Description	Unit	Total
1.	1	Job, Drill well	\$2,000,000	\$2,000,000
2.	1	Job, Plumb well discharge	50,000	50,000
3.	1	Job, Well site preparation	25,000	25,000
4.	1	Job, Construct headworks discharge structure and pipe to lake or canal	2,000,000 ^{1,2}	2,000,000
5.	1	Job, Geologist consulting, project management	50,000	50,000
6.	1	Job, Engineering	25,000	25,000
7.	1	Job, Permitting	10,000	10,000
8.	1	Job, Environmental, CEQA work	125,000	125,000
			Sub-total =	\$4,285,000
			Contingencies @ 30% =	1,285,500
			Item 1 Grand Total =	\$5,570,500

Notes:

1. Cost shown is for 1-well. Some of Line Item 8, Environmental, CEQA Work, would be applicable to all 3 wells.
2. Item 4 is to be considered an allowance, based on the 10,000 central HoBo distance to the canal (15,000+/-).

Prepared by:

WREA

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10/18/2016, Rev. 11/04/2016



**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

PRELIMINARY OPINION OF PROBABLE COST

Item 2. Ojai East Septic Collection, Package Treatment and Recharge
Preliminary Opinion of Probable Capital Cost

Item	Qty	Description	Unit	Total
1.	1	EA, 75,000 GPD Extended Aeration Package Plant in place with membrane filtration, sludge processing system	\$750,000	\$750,000
2.	1	Job, Site prep, grading, drainage	25,000	25,000
3.	1	Job, Site and plant electrical	50,000	50,000
4.	1300	L.F., 3" Force main	30	39,000
5.	1	Job, Post treatment lift station in place	50,000	50,000
6.	90	EA, Manholes	3,500	315,000
7.	8,500	L.F., 8" Sewer main	100	850,000
8.	36,500	L.F., 6" Sewer main	85	3,102,500
9.	300	EA, Sewer lateral connections	150	600,000
10.	15,000	L.F., 4" Lateral pipe	40	600,000
11.	300	Jobs, Abandon septic tank/leachfields	3,000	900,000
12.	2	Jobs, Cross creek	100,000	200,000
13.	1	Job, Environmental, CEQA work	100,000	100,000
14.	1	Job, Engineering and project management	700,000	700,000
15.	1	Lot, 100' x 100' Purchase @ \$500,000/AC	115,000	115,000
16.	1	Job, Legal fees	50,000	50,000
			Sub-total =	\$8,446,500
			Contingencies @ 30% =	2,533,950
			Item 1 Grand Total =	\$10,980,450

Note: No costs or fees relating to Special District formation (if required) are included herein.

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10/14/2016



**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

PRELIMINARY OPINION OF PROBABLE COST

Item 4. Replace Matilija Conduit from Matilija Chlorinator to Matilija Hot Springs

Item	Qty	Description	Unit	Total
1.	6,680	L.F. 12" DR 14 C900 PVC Pipe	\$85	\$567,800
2.	2,380	L.F. 8" DR 14 C900 PVC Pipe	70	166,600
3.	780	L.F. 2" Sch 80 PVC Pipe	20	15,600
4.	3	12" Gate valve	3,000	9,000
5.	2	8" Gate valve	2,000	4,000
6.	2	2" Gate valve	150	300
7.	1	Tie in at Chlorinator	15,000	5,000
8.	2	Fire hydrant assembly	4,000	8,000
9.	2	Air and vacuum valve assembly	2,000	4,000
10.	12	Jobs, Service connections	200	2,400
11.	1	Job, cross river (slipline in existing pipe)	50,000	50,000
12.	1	Job, Environmental and CEQA work	50,000	50,000
13.	1	Job, Surveying, engineering and project management.	50,000	50,000

Sub-total = \$932,700
Contingencies @ 30% = 279,810
Item 4 Grand Total = \$1,212,510

Note: Item 4 is currently included with other projects in the CMWD 10 year 2017-2026 Capital Improvement Program. The scheduled construction period is currently 2020 to 2022, assuming the removal of the Matilija Dam takes place beforehand.

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10/18/2016



**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

PRELIMINARY OPINION OF PROBABLE COST

Item 5. Renovate Senior Canyon Mutual Water Company Horizontal Well

Item	Qty	Description	Unit	Total
1.	1	Job, Consult with Geologist	\$7,500	\$7,500
2.	1	Job, Project permitting, obtain exemption	5,000	5,000
3.	1	Job, Clean 2200' of tunnel including "de-scaling" walls and floor	22,000	22,000
4.	1	Job, Remove debris and stockpile with small loader	11,000	11,000
5.	1	Job, Load dump truck and stockpile down canyon.	12,000	12,000
6.	1	Job, Load truck and trailer and dispose of at approved site	15,000	15,000
8.	1	Job, Tunnel safety, oxygenation, confined space requirements	20,000	20,000
9.	1	Job, Seal permeable formations in floor	5,000	5,000
10.	1	Job, Drill holes in walls	5,000	5,000
			Sub-total =	\$102,500
			Contingencies @ 30% =	30,750
			Item 5 Grand Total =	\$133,250

Note: Based on removal of 350 Y³ of material.

Prepared by:

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10/14/2016



**CASITAS MUNICIPAL WATER DISTRICT
Ventura County, CA**

Preliminary Water Security Project Analysis

PRELIMINARY OPINION OF PROBABLE COST

Item 6. Ojai Desalter

Item	Qty	Description	Unit	Total
1.	1	EA, 300,000 GPD membrane filtration (desalter) plant, with provisions for brine to be directed to OVSD collector	\$850,000	\$850,000
2.	1	Job, Site prep, grading, drainage	10,000	10,000
3.	1	Job, Site and plant electrical	50,000	50,000
4.	1	Job, Modifications to existing well for use as brackish water supply, install well pump	200,000	200,000
5.	1	Job, Post treatment potable water booster pump station in place, including piping and connection to existing distribution system.	100,000	100,000
6.	1	Job, Piping from existing well to treatment system	10,000	10,000
7.	1	Job, Environmental, CEQA, CUP work	100,000	100,000
8.	1	Job, Engineering and project management	600,000	600,000
9.	1	Lot, 50' x 50' Purchase @ \$500,000/AC	30,000	30,000
10.	1	Job, Legal work	50,000	50,000

Sub-total = \$2,000,000
Contingencies @ 30% = 600,000
Item 6 Grand Total = \$2,600,000

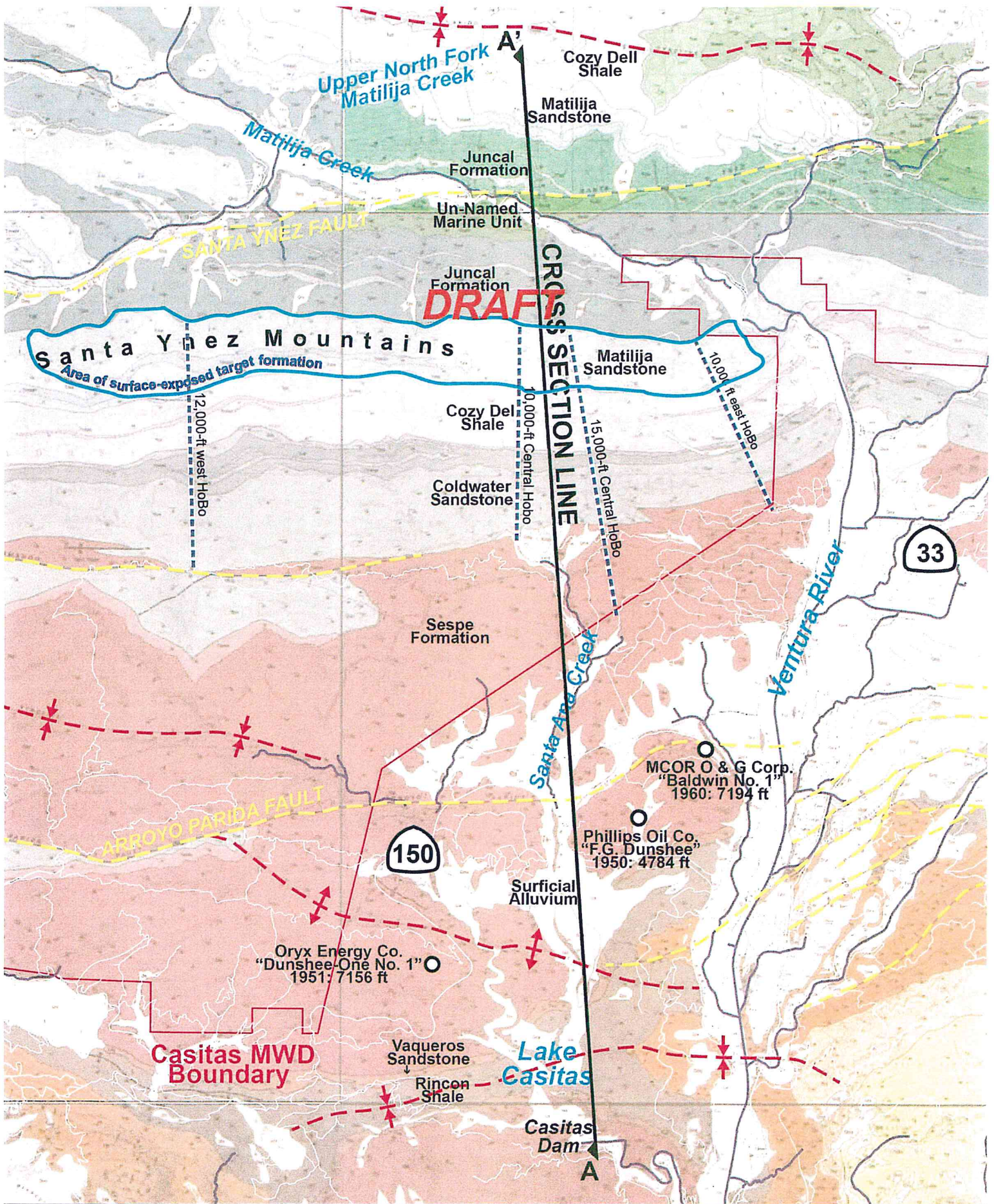
Note: Add \$300,000 if a new well is needed.

Prepared by:

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10/14/2016





Geology: Dibblee
(1985a,b; 1987a,b; 1988)



Casitas MWD

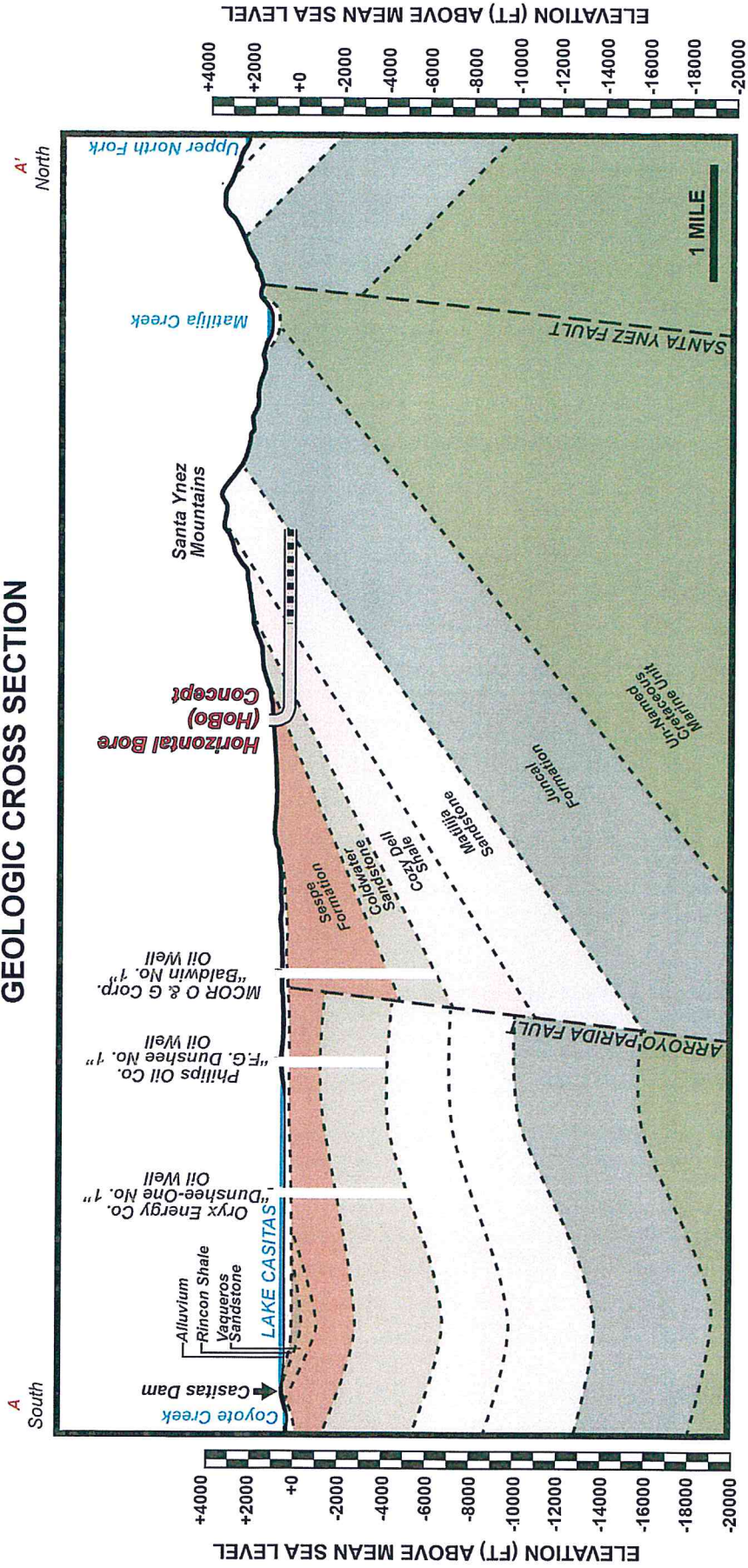
KG16-0335

Geologic Map



DRAFT

GEOLOGIC CROSS SECTION



APPROX. NO VERTICAL EXAGGERATION
See Aerial/Geologic Map Figures for Cross Section Line

Ground Surface Profile: Google Earth
Surface Geology: Dibblee (1965, 1987, 1988)

Casitas Municipal Water District
KG16-0335
Cross Section



**CASITAS MUNICIPAL WATER DISTRICT
MEMORANDUM**

TO: STEVE WICKSTRUM, GENERAL MANAGER
FROM: MICHAEL MOLER, O&M MANAGER
SUBJECT: AUTOMATION UPGRADE – FIBER OPTIC CONDUIT INSTALL
DATE: NOVEMBER 3, 2016

RECOMMENDATION:

It is recommended that the Board of Directors approve a purchase order contract to Draper Construction in the amount of \$34,140 for the installation of fiber optic conduit between the Treatment Plant and Casitas Dam Hoist House locations. This project is funded in the FY 2016-2017 capital budget (GL# 11-5-52-5912-00)

BACKGROUND:

Casitas seeks to modernize components of its existing SCADA system communication infrastructure. A portion of the districts existing radio frequency based communication protocol (serial data) will be upgraded to a fiber based Ethernet communication system. Taking into consideration the existing facilities layout at the treatment plant and dam locations, bandwidth, and potential frequency interference it has been determined that a communication network design utilizing fiber optic cabling will provide the greatest cost/benefit to the district and will ensure ongoing performance and reliability in the future.

This phase of the Automation Upgrade capital project is to install the conduit necessary to pull fiber optic cable.

The project was recently advertised on the District's web site; eight bidders completed the mandatory job walk and submitted proposals. The work required to install conduit for fiber optic cable requires knowledge and experience to ensure cable integrity. Draper Construction has performed similar projects including a 2012 job completed for the City of Port Hueneme. Additionally, Draper Construction has performed work for the Districts' Water Park with satisfactory results. District personnel are confident in their ability to accomplish the above work. Draper Construction has an active contractor's license and is registered with the Department of Industrial Relations.

**CASITAS MUNICIPAL WATER DISTRICT
INTEROFFICE MEMORANDUM**

TO: STEVE WICKSTRUM, GENERAL MANAGER
FROM: NEIL COLE, PRINCIPAL CIVIL ENGINEER
SUBJECT: LAKE CASITAS MONTHLY STATUS REPORT FOR OCTOBER 2016
DATE: NOVEMBER 1, 2016

RECOMMENDATION:

This item is presented for information only and no action is required.

DISCUSSION:

Rainfall Data for October 2016

	<u>Casitas Dam</u>	<u>Matilija Dam</u>
As of October 31, 2016	0.59"	0.90"
Water Year (WY) to Date (Oct 1-Sep 30)	0.59"	0.90"
Average Annual Rainfall	23.70"	28.33"

Robles Fish Passage and Diversion Facilities

Diversion Data

October 2016:	0 A.F.	Total Diversions to Date:	0 A.F.
Diversion Days in October:	0	Diversion Days this WY:	0

Reservoir Data

Water Surface Elevation (10/31/16):	487.62 feet
Water Storage on October 1, 2016:	91,540 A.F.
Water Storage Last Month:	93,464 A.F.
Net Change in Storage	-1924 A.F.

Change in Storage from October 31, 2015: -20,197 A.F.



Consumption Report

Water Sales FY 2016-2017 (Acre-Feet)

Classification	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Month to Date		
													2016 / 2017	2015 / 2016	
													Total	Total	
AD Ag-Domestic	564	513	570	0	0	0	0	0	0	0	0	0	0	1647	1486
AG Ag	451	386	382	0	0	0	0	0	0	0	0	0	0	1219	1050
C Commercial	75	80	71	0	0	0	0	0	0	0	0	0	0	225	222
DI Interdepartmental	8	7	7	0	0	0	0	0	0	0	0	0	0	22	24
F fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I Industrial	2	1	1	0	0	0	0	0	0	0	0	0	0	3	5
OT Other	28	19	18	0	0	0	0	0	0	0	0	0	0	65	43
R Residential	121	117	122	0	0	0	0	0	0	0	0	0	0	360	355
RS - P Resale Pumped	147	236	248	0	0	0	0	0	0	0	0	0	0	632	303
RS - G Resale Gravity	163	169	165	0	0	0	0	0	0	0	0	0	0	496	1396
TE Temporary	3	1	2	0	0	0	0	0	0	0	0	0	0	7	8
Total	1,562	1,528	1,586	0	0	0	0	0	0	0	0	0	0	4,676	4,891
Total 2015 / 2016	1,421	1,689	1,781	1,559	1,396	1,364	373	660	555	1,001	1,142	1,404		N/A	14,345



CFD No. 2013-1 (Ojai) - Cost Analysis

	Services & Suplies	Legal Fees	Labor Expense	Other Services	Total Expenses
2011 / 2012	-289.50	42,560.00	11,098.37	0.00	53,368.87
2012 / 2013	831.82	223,462.77	14,836.68	0.00	239,131.27
2013 / 2014	29.89	91,878.06	3,835.65	0.00	95,743.60
2014 / 2015	0.00	68,457.10	0.00	0.00	68,457.10
2015 / 2016	6.12	152,811.84	2,938.86	0.00	155,756.82
July	0.00	5,624.87	0.00	0.00	5,624.87
August	0.00	21,652.74	221.06	0.00	21,873.80
September	97.98	19,326.07	0.00	0.00	19,424.05
October	0.00	11,486.55	552.67	0.00	12,039.22
November	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00
January	0.00	0.00	0.00	0.00	0.00
Feburary	0.00	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00	0.00
Total YTD Cost	<u>97.98</u>	<u>58,090.23</u>	<u>773.73</u>	<u>0.00</u>	<u>58,961.94</u>
Total Cost	<u>676.31</u>	<u>637,260.00</u>	<u>33,483.29</u>	<u>0.00</u>	<u>671,419.60</u>
Tax Assessment - County of Ventura: 2015 / 2016					<u>-460,342.64</u>
Total CMWD CFD 2013-1 Cost					<u><u>211,076.96</u></u>

**CASITAS MUNICIPAL WATER DISTRICT
TREASURER'S MONTHLY REPORT OF INVESTMENTS
11/02/16**

Type of Invest	Institution	CUSIP	Date of Maturity	Adjusted Cost	Current Mkt Value	Rate of Interest	Date of Deposit	% of Portfolio	Days to Maturity
*TB	Federal Farm CR Bank	31331VWN2	4/13/2026	\$930,338	\$918,039	1.901%	5/9/2016	4.52%	3401
*TB	Federal Farm CR Bank	3133EFK71	3/9/2026	\$854,097	\$842,999	2.790%	3/28/2016	4.15%	3367
*TB	Federal Farm CR Bank	3133EFNR4	11/18/2024	\$808,441	\$798,591	2.870%	11/18/2015	3.93%	2896
*TB	Federal Farm CR Bank	3133EFYH4	2/8/2027	\$1,015,334	\$1,001,490	3.000%	3/24/2016	4.93%	3696
*TB	Federal Home Loan Bank	3130A3DL5	9/8/2023	\$1,586,544	\$1,563,675	1.486%	10/13/2016	7.70%	2466
*TB	Federal Home Loan Bank	313379EE5	6/14/2019	\$1,367,339	\$1,371,290	1.625%	10/3/2012	6.75%	942
*TB	Federal Home Loan Bank	3130A0EN6	12/10/2021	\$543,738	\$534,655	1.107%	5/9/2016	2.63%	1838
*TB	Federal Home Loan Bank	3130A5R35	6/13/2025	\$769,716	\$765,186	2.875%	2/19/2016	3.77%	3101
*TB	Federal Home Loan Bank	313383YJ4	9/8/2023	\$474,075	\$458,940	1.203%	7/14/2016	2.26%	2466
*TB	Federal Home Loan Bank	313383YJ4	9/8/2023	\$938,236	\$904,015	1.203%	7/14/2016	4.45%	2466
*TB	Federal Home Loan Bank	3133XFKF2	6/11/2021	\$663,113	\$665,207	5.625%	1/16/2013	3.28%	1659
*TB	Federal Home Loan MTG Corp	3137EABA60	11/17/2017	\$1,038,585	\$1,045,380	5.125%	1/3/2012	5.15%	375
*TB	Federal Home Loan MTG Corp	3137EADB2	1/13/2022	\$677,029	\$694,079	2.375%	9/8/2014	3.42%	1871
*TB	Federal National Assn	3135G0ES80	11/15/2016	\$683,100	\$683,266	1.375%	3/12/2012	3.36%	13
*TB	Federal National Assn	31315P2J7	5/1/2024	\$805,171	\$783,239	1.721%	5/1/2016	3.86%	2699
*TB	Federal National Assn	3135G0ZR7	9/6/2024	\$1,483,467	\$1,473,329	2.625%	5/25/2016	7.26%	2824
*TB	Federal National Assn	3135G0K36	4/24/2026	\$2,531,621	\$2,502,700	2.125%	5/25/2016	12.33%	3412
*TB	US Treasury Inflation Index NTS	912828JE10	7/15/2018	\$1,126,638	\$1,162,680	1.375%	7/6/2010	5.73%	613
*TB	US Treasury Inflation Index NTS	912828MF4	1/15/2020	\$1,125,308	\$1,181,831	1.375%	11/18/2015	5.82%	1153
*TB	US Treasury Note	912828WE6	11/15/2023	\$768,713	\$823,484	2.750%	12/13/2013	4.06%	2533
Accrued Interest					\$131,102				
Total in Gov't Sec. (11-00-1055-00&1065)				\$20,190,602	\$20,305,178			99.98%	
Total Certificates of Deposit: (11.13506)				\$0	\$0			0.00%	
**	LAIF as of: (11-00-1050-00)		N/A	\$449	\$449	0.61%	Estimated	0.00%	
***	COVI as of: (11-00-1060-00)		N/A	\$2,859	\$2,854	0.73%	Estimated	0.01%	
TOTAL FUNDS INVESTED				\$20,193,910	\$20,308,481			100.00%	
Total Funds Invested last report				\$20,199,121	\$20,374,884				
Total Funds Invested 1 Yr. Ago				\$19,030,148	\$19,218,790				
****	CASH IN BANK (11-00-1000-00) EST.			\$5,081,069	\$5,081,069				
	CASH IN Western Asset Money Market			\$7	\$7	0.01%			
TOTAL CASH & INVESTMENTS				\$25,274,987	\$25,389,557				
TOTAL CASH & INVESTMENTS 1 YR AGO				\$22,228,985	\$22,417,626				

- *CD CD - Certificate of Deposit
- *TB TB - Federal Treasury Bonds or Bills
- ** Local Agency Investment Fund
- *** County of Ventura Investment Fund
- Estimated interest rate, actual not due at present time.
- **** Cash in bank

No investments were made pursuant to subdivision (i) of Section 53601, Section 53601.1 and subdivision (i) Section 53635 of the Government Code.
All investments were made in accordance with the Treasurer's annual statement of investment policy.