

Board of Directors
Robert Eranio, President
Daniel C. Naumann, Vice President
Michael W. Mobley, Secretary/Treasurer
Sheldon G. Berger
Bruce E. Dandy
Lynn E. Maulhardt
Edwin T. McFadden III

General Manager
Mauricio E. Guardado, Jr.

Legal Counsel
David D. Boyer



UNITED WATER CONSERVATION DISTRICT
“Conserving Water since 1927”

SPECIAL BOARD MEETING – BUDGET WORKSHOP
MINUTES

Tuesday, May 22, 2018, 10:00 A.M.

Board Room, UWCD G.I. “Irv” Wilde Headquarters
106 North 8th Street, Santa Paula, California

DIRECTORS PRESENT:

Robert Eranio, President, Division 3
Daniel C. Naumann, Vice President, Division 6
Michael W. Mobley, Secretary/Treasurer, Division 2
Bruce E. Dandy, Division 5
Edwin T. McFadden III, Division 1

DIRECTORS ABSENT:

Sheldon Berger, Division 7
Lynn Maulhardt, Division 4

STAFF PRESENT:

Mauricio E. Guardado, Jr., General Manager
David D. Boyer, Legal Counsel, AALRR
Anthony Emmert, Deputy General Manager
Tina Rivera, Chief Financial Officer
Mike Ellis, Chief Operations Officer
Jim Grisham, Engineering Manager
Christy Ramirez, Executive Coordinator
Clayton Strahan, Senior Park Services Officer
Dan Detmer, Senior Hydrogeologist
Erin Gorospe, Senior Accountant
Kris Sofley, Executive Assistant/Clerk of the Board

PUBLIC PRESENT:

Megan, Court Report
Kevin Brown, Ventura Water
John Farnkoph, HFH Consultants
Jeanette Lombardo, Global Water Innovations
Tony Morgan, Groundwater Consultant
Susan Rungren, Ventura Water

1. FIRST OPEN SESSION 10:04 A.M.

1.1 Pledge of Allegiance

President Eranio called the Special Board Meeting – Budget Workshop to order at 10:04am and asked Director Mobley to lead the Pledge of Allegiance

1.2 Public Comments

President Eranio asked if there were any public comments, none were offered.

1.3 Approval of Agenda

Motion

Motion to approve the agenda, Director Mobley; Second, Director Naumann. Voice vote: five ayes (Dandy, McFadden, Mobley, Naumann, Eranio), none opposed. Motion carries unanimously, 5/0/2.

1.4 FY 2018-19 Proposed Budget Workshop

Motion

Ms. Rivera presented an overview of the District's Budget process, explaining the methods and procedures staff follow in ascertaining estimated expenses and projected revenues for each of the District's seven fund accounts. She also explained the processes for determining reserve needs based on the District's Reserve Policy, reviewed the District's Capital Improvement Plan and recommended funding for FY 2018-19 as well as corresponding rates to be charged, while meeting the mission and goals of the District. She also pointed out the District's unique characteristics, including that it is not a utility or purveyor; is subject to government accounting and financial reporting; that the District's groundwater basins are hydrologically connected, and that the District's focus is on long term benefits.

Ms. Rivera then introduced Erin Gorospe, Senior Accountant for the District, to go through the Budget details of each of the District's seven funds, including the General/Water Conservation Fund which covers Zone A; the Freeman Fund, which covers Zone B; the Oxnard Hueneme Pipeline Fund (OH Fund); the Pleasant Valley Pipeline Fund (PV Fund); the Pumping Trough Pipeline Fund (PTP Fund); State Water Fund and Overhead Fund.

Director Naumann asked several questions regarding the District's State Water Fund, including whether the budget had enough money to cover additional Article 21 Water purchases, should they be available, the reserve goal for the State Water Fund and how or if the District was communicating the goals regarding State Water to ratepayers.

Ms. Rivera responded, saying that voters approved a portion of the 5,000AF annual allocation of State Water and that any portion of that which is not received or paid for builds the State Water Fund reserve, which rolls over each year that purchases are not executed.

Mr. Guardado added that the District's goal is to establish a reserve goal to maximize a State Water "war chest," in preparation for when Article 21 water becomes available.

Director McFadden said that he believed pumpers would support building reserve funds for State Water purchases. Director Mobley agreed, stating that the District's State Water Reserve fund should be as high as possible.

President Eranio added that this was a homework assignment for the Finance Committee, and asked that the Committee members also seek input from stakeholders. He said that while there wasn't time to incorporate this in the FY 2018-19 Budget, the Committee should also develop recommendations for Cal Fix and would ample time to seek out stakeholder input on this issue.

Ms. Rivera then explained that Zone A was District wide, while Zone B was on top of Zone A.

Ms. Gorospe then continued her presentation of the Freeman Fund, OH Pipeline, PV Pipeline, PT Pipeline funds.

Director Naumann asked if, in future, the color categories used for these types of presentations be consistent throughout the presentation, rather than varying by fund.

Ms. Gorospe continued the presentation with the Overhead Fund, General/Water Conservation Fund and CIP project details. She drew the Board's attention to the fact that there are two new projects – the Santa Felicia Dam Spillway and the Alternative Solutions Alliance Pipeline (ASAP) project – in addition to the Iron and Manganese Treatment project, Freeman Diversion Rehab project, the Santa Felicia Dam Outlet and PMF Containment projects; the PTP metering project and that the Piru Solar project has been put on hold for the time being.

Director Naumann asked if the pipeline for recycled water was in the budget. Ms. Rivera answered that it was not, but did state that there is \$109,000 designated for concept work; and Mr. Guardado added it was for planning and design. Ms. Rivera said it was not included as staff didn't have information and it would impact rates.

Ms. Rivera also stated that the District was being aggressive in seeking out grant funding opportunities and the assumptions regarding District options are most beneficial to ratepayers.

Ms. Gorospe then stated that there were revisions to the District's Finance Policy, as the passage of AB522 impacts accounts receivable write offs and groundwater well registration policy. She also stated that with the recent court

ruling, Prop 218 is no longer appropriate. She added that the reserve policy for State Water was also updated.

Susan Rungren of Ventura Water asked a few questions about State Water purchases and Ms. Rivera clarified that purchases are based on the District's ability to purchase up to 5,000 acre feet per year.

President Eranio asked if there were any more public comments or questions from the Board.

Ms. Rivera said that staff would present a motion and Resolution to approve the Budget at the June 13 Board meeting.

At 12noon, President Eranio called for a lunch break.

At 12:34 p.m., President Eranio called the meeting back to order.

John Farnkopf of HF&H, presented an overview of his firm's FY 2018-19 Cost of Service Analysis. He also provided a written report to the Board.

Ms. Rivera reported that Dr. Rod Smith of Stratecon, Inc. had provided a presentation in support of his company's Analysis of the Structure of the District's Proposed Groundwater Extraction Charges for FY 2018-19 and asked Ms. Gorospe to walk the Board through the presentation. Dr. Smith also provided a written report to the Board.

President Eranio asked if there were any public comments or questions from the Board.

Jeanette Lombardo, of Global Water Innovations, asked if 100AF was the maximum before penalties kicked in.

President Eranio answered that in the tier, 100 AF above your allocation triggers a surcharge.

President Eranio then directed the Board to provide feedback and/or changes to staff prior to the Finance Committee meeting on June 12, and that the next Board meeting on June 13 will conclude the annual groundwater hearing and report.

Ms. Rivera said there were minor changes as explained and the Resolution adopting the budget will be based on those.

Director McFadden asked Ms. Rivera to build a State Water reserve in future budgets.

Mr. Guardado said that the Finance Committee was reviewing a number of alternatives.

President Eranio suggested that the Finance Committee and the Planning Committee might meet in tandem to address Cal Fix.


Ms. Rivera clarified that there were no directions or motions at this time.

ADJOURNMENT 12:53p.m.

President Eranio adjourned the Board to the next **Regular Board Meeting** on **Wednesday, June 11, 2018** or call of the President.

I certify that the above is a true and correct copy of the minutes of the Special Board of Directors meeting. Budget Workshop, of May 22, 2018.

ATTEST: 
Michael W. Mobley, Secretary/Treasurer

ATTEST: 
Kris Sofley, Clerk of the Board

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UNITED WATER CONSERVATION DISTRICT
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ATTENDANCE LIST

MEETING DATE: Tuesday, May 22, 2018

MEETING: Special Board Meeting – Budget Workshop


The signing or registering of your name on this sign-up form is not required but is voluntary. All persons may attend the meetings of the Board of Directors of United Water Conservation District without signing or registering their names on this form.

Name (Please Print)

Representing

Susan Rungren	Ventura Water
Tony Morgan	GROUNDWATER STRATEGIES, INC.
Kevin Morgan	Ventura Water
John L. [Signature]	[Signature]

J:\ADMIN\FORMS\ATTENDANCE LIST.doc



Budget Workshop


United Water

Fiscal Year 2018-19


May 22, 2018

Tina Rivera, CFO
Erin Gorospe, Sr. Accountant

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The Budget Process



- Similar Budget Process as prior years
- Guiding principles (page 4 of Budget)
 - Budget focused on achieving District Mission
- Primary objectives and goals (page 7 of Budget)

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Revenue Projections (by Fund)

- Prepared by Finance
 - Independent from budget/expenditure requests (Avoids "putting the costs where there's money")
- Groundwater Extractions
 - Historical trends
 - Zone (A or B)
 - Type of use (Ag or M&I)
 - Timing (July - Dec or Jan - June)
- Property Tax
 - Historical trends
 - General/Water Conservation Fund and State Water Fund
 - Categories (i.e. secured, supplemental, unsecured, etc.)

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Revenue Projections

- Groundwater Extraction Charge (by Zone)
 - Projected extractions @ current rate/ AF
 - Budget/costs proposed less other revenues (Property Tax, etc.)
 - Revenue needed based on Budget Proposal
- Apply Algebraic Formula for proportionality of costs for Ag vs M&I usage (per Water Code)
- Charge applied to pipeline deliveries (in lieu of extraction)

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FY 2018-19 Zone A (District-Wide) GW Extraction Charge at 3:1

- Zone A Total - \$12.11 M

Direct Extraction

Ag \$ 6.83 M (65%)

M&I \$ 3.68 M (35%)

Total \$10.51 M

In-Lieu

Ag \$0.29 M (18%)

M&I \$1.31 M (82%)

Total \$1.60 M

- Ag \$7.12 M (59%) M&I \$4.99 M (41%)

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FY 2018-19 Zone B (Freeman) GW Extraction Charge at 3:1

- Zone B Total - \$3.44 M

Direct Extraction

Ag \$ 1.75M (62%)

M&I \$ 1.07M (38%)

Total \$2.82M

In-Lieu

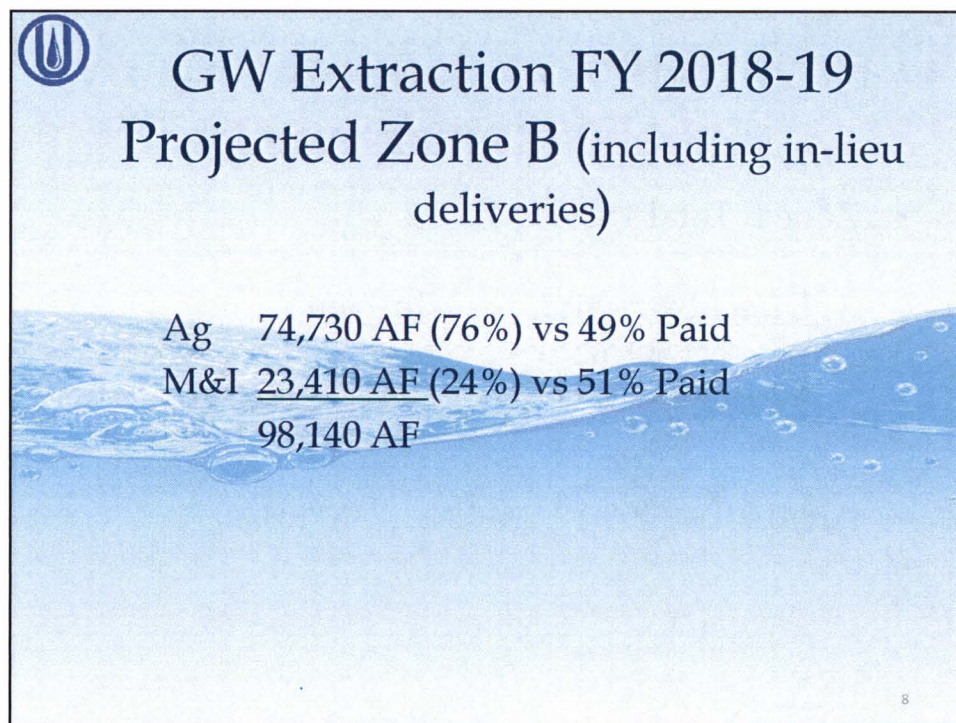
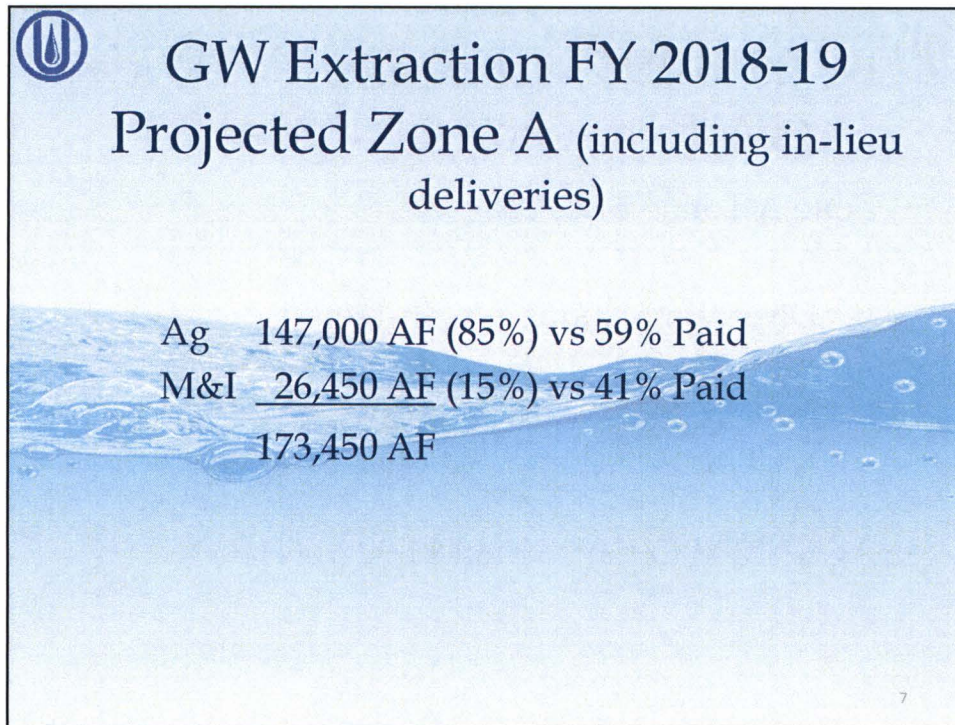
Ag \$ 0.16M (18%)

M&I \$ 0.72M (82%)

Total \$ 0.88M

- Ag \$1.70M (49%) M&I \$1.74M (51%)

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Expenditure Projection Distribution

- Allocated reasonably and proportionately to Funds (or Zones) and project/activity
 - Considers all factors
 - Direct benefit to “mission/purpose” of fund/zone
 - Indirect/Partial benefit to “mission/purpose” of fund zone - Management staff reviews and finalizes allocation percentages based on professional judgment - not fund’s “ability to pay”
- Staff time allocation (based on fund/zone & project activity)

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Expenditure Projection Distribution



- CIP Allocated proportionally to funds
 - Example: Lower River Invasive Species Control Project (Next Slide)
- Adhere to Financial Policies of District
 - Environmental Cost Allocation Policy

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Lower River Invasive Species Control Project

PROJECT FUNDING

Project 8006	Funding Split	Approved Allocation Nov 6-10-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23 and Beyond	Project Total
Funding Sources								
General/Water Conservation	20%	120,884	51,828	53,200	309,000	308,000	956,000	2,943,176
Debt Proceeds	0%	-	-	-	-	-	-	-
Freeman	0%	-	-	-	-	-	-	-
OH Pipeline	0%	-	-	-	-	-	-	-
OH Well Replacement	0%	-	-	-	-	-	-	-
PV Pipeline	40%	241,288	103,653	106,300	1,812,000	1,812,000	1,812,000	5,889,341
PT Pipeline	40%	241,288	103,653	106,300	1,812,000	1,812,000	1,812,000	5,889,341
Contributions/Grants	0%	-	-	-	-	-	-	-
Total Funding Sources	100%	603,238	257,882	265,800	4,933,000	4,933,000	4,933,000	14,716,867

PROJECT COSTS


Project Phase/Category	Approved Allocation Nov 6-10-18	CURRENT YEAR 8/1/18 Est. Exp. Thru End of Year	Est. Balance to Carryover	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23 and Beyond	Project Total
Project Administration/Inspection									
Employee Salaries	79,348	23,683	51,762	7,832	16,000	35,000	30,000	30,000	197,877
Lease Fees	-	-	-	-	-	-	-	-	-
Total Administration/Inspection	79,348	23,683	51,762	7,832	16,000	35,000	30,000	30,000	197,877
Project Planning & Design									
Design	516,876	96,983	419,892	200,000	200,000	-	-	-	1,216,876
Survey	6,000	4,000	2,000	-	-	-	-	-	6,000
Geotechnical	6,000	-	6,000	-	-	-	-	-	6,000
Total Planning & Design	528,876	100,983	427,892	200,000	200,000	-	-	-	1,228,876
Land Acquisition									
Real Estate Acquisition	-	-	-	-	-	-	-	-	-
DEQA/Permits	-	-	-	-	-	-	-	-	-
Total Land Acquisition	-	-	-	-	-	-	-	-	-
Construction									
Equipment	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	4,933,000	4,933,000	4,933,000	13,800,000
Total Improvements	-	-	-	-	-	4,933,000	4,933,000	4,933,000	13,800,000
Total Project Costs	859,239	124,666	479,654	267,832	265,800	4,933,000	4,933,000	4,933,000	14,716,867

Special Project Issues & Funding Sources

(Other Agency Permits, Grants, Assessment Districts, Coordination with Others, Etc.)


Water Conservation 250

Annual Fiscal Impact - Maintenance & Operations (Current and Future)



Use of Funds for allocation of costs

- General/Water Conservation Funds (Zone A)
 - Including Rec/Hydro-generation
- Freeman Fund (Zone B)
- OH Pipeline
- PV Pipeline
- PT Pipeline
- State Water
- Overhead Fund



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Then What?



- Management staff reviews each Department budget requests with Department Manager explaining and justifying item/cost/allocation
- Revenue Projections / Expenditure Projections pulled together, by Fund/Zone
- Balance Budget / Revenue needs / Expenditures finalized and Reserve projections / policies
- General Manager determination for "Proposed Budget"
- Final Budget Brief Reports and Reserves Status are pages you see in Proposed Budget


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In Summary

- GM presented budget proposal
 - Mission (Goals/Objectives) of District services only included.
 - Expenditures/services are reasonably and proportionately distributed based on valid, rational methodology using all relevant factors, water code mandates, Board policies and sound professional judgment by staff
 - Rates, charges and other revenues do not exceed the reasonable and necessary costs of operating the District (Board must confirm) – given the District's unique circumstances and required rates for establishing charges for WCD's
 - Revenue requirements are legitimate costs for operation of District and its financial stability
 - Reserve levels
 - Depreciation/Replacement Funding


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UWCD Unique Circumstances

- Not a utility or water purveyor
- Mission/Purpose and authorities established in Water Code and State Constitution
- Subject to Governmental Accounting/Financial reporting
- Small District - Staff works across all activities (few assigned specifically to one fund)
- Groundwater basins are hydrologically connected throughout District but one can not account for movement of each molecule
- Long-term benefits not short-term mandate of District

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UWCD Unique Circumstances (cont.)

- Benefits provided by District are more accurately determined by comparing what we do to what would happen over years/decades if UWCD and its facilities didn't exist
- Utilities/ water purveyors non-action is seen/felt immediately - impacts can be reversible
- The fees do not exceed the District's reasonable groundwater management costs, and the District allocates these costs in a fair and reasonable relationship to the burdens on the resource

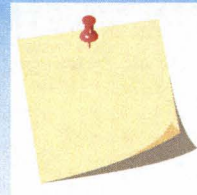
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Other Items of Note

- Quantification Analyses (2) will be presented later to support 3:1 Rate Ratio for FY 2018-19 Zone A and B
 - John Frankopf – HF & F
 - Rod Smith, Ph. D. – Stratecon

* Harmonize WC and State Constitution
WC Section 75594




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Included in Proposed Budget Plan

- Increased rates for Zone A & B to minimize the operational deficit for the upcoming fiscal years
- Rates for the three pipelines remain largely the same as FY 17-18 with the exception of a decrease in the OH Fixed Well Replacement Charge and the PV Monthly Fixed Cost
- Merged the Engineering & Groundwater Departments, to be headed by new Chief Engineer position


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Included in Proposed Budget Plan (cont.)

- Added one full-time Field Technician in Environmental Planning & Conservation Department with a reduction in part-time EPCD staff
- Reclassification of Supervising Instrument & Electrical Technician to Operations & Maintenance Manager

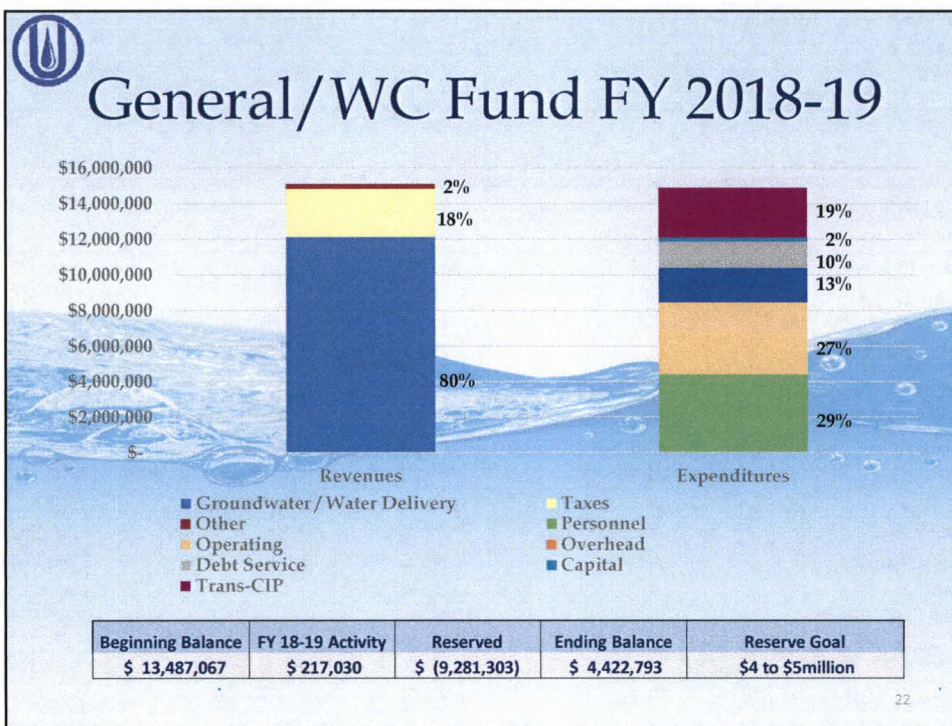
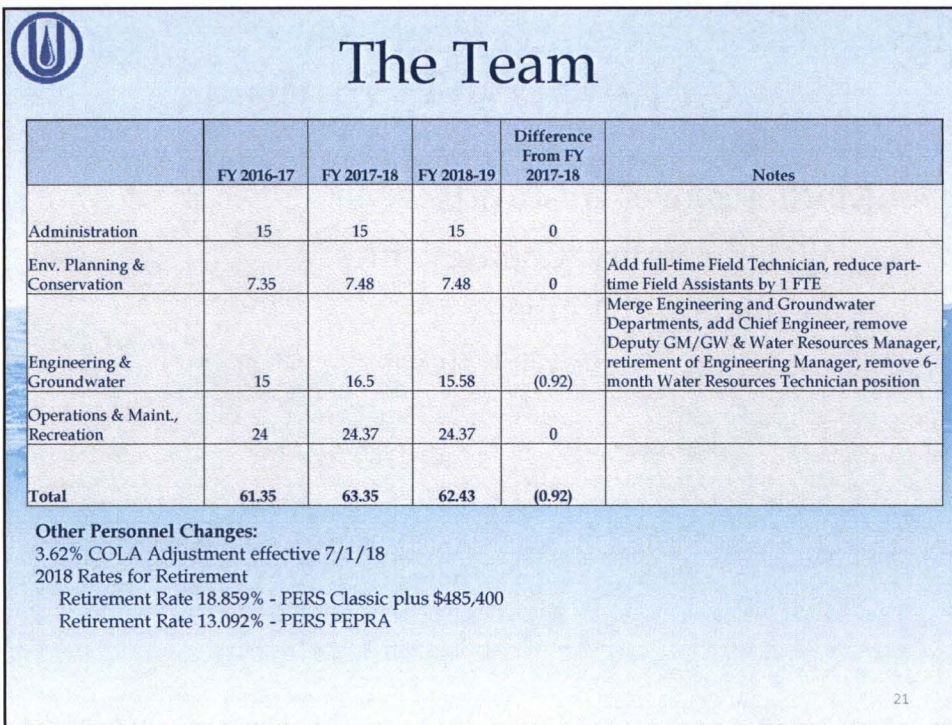
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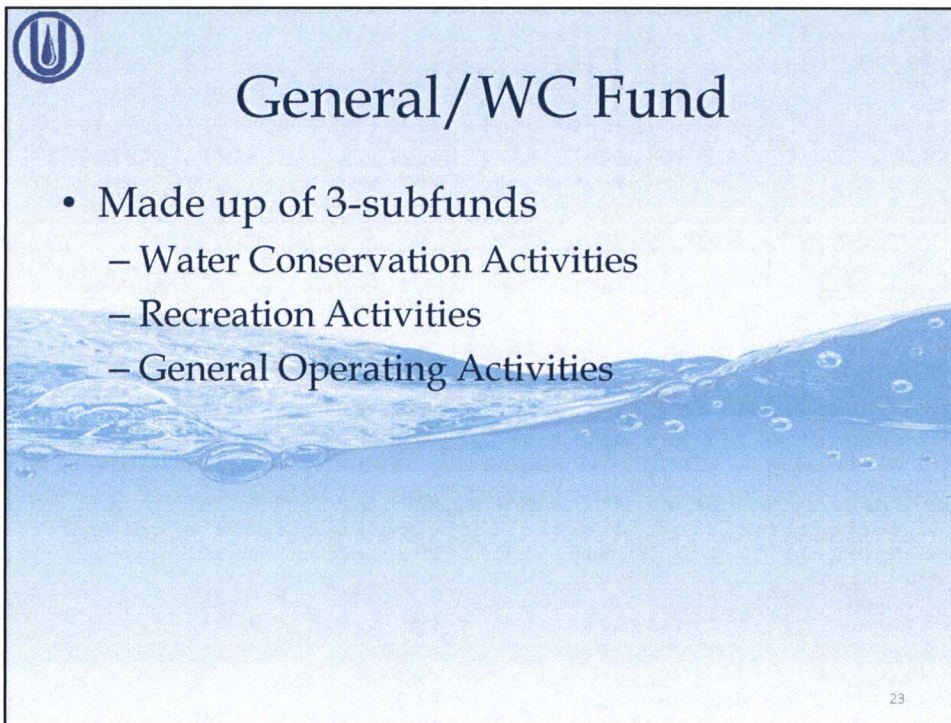



Changes to Proposed Budget Plan

- General/Water Conservation Fund - \$11,500 revenue for filming fees added
- State Water Reserve Policy - calculation for FAWP reserve component due to increase 2018 SW allocation
- Freeman fund projected ending balance as of June 30, 2018 reduced to \$727,898 due to recent supplemental appropriations. Designations for improvements to total \$5,992,187, all of which will be undesignated during FY 18-19.
- Fox Canyon GMA expense increased by \$750 in the OH Fund and \$3,000 in PTP Fund to match budgeted revenues, as this is a pass-through item
- CIP Project 8030 renamed Alternative Supply Alliance Pipeline Project (previously Santa Paula-Saticoy Conveyance Pipeline)

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 **General/WC Fund**

- Made up of 3-subfunds
 - Water Conservation Activities
 - Recreation Activities
 - General Operating Activities

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Proposed FY 2018-19	Total	Recreation	General Operating	Water Conservation Zone A
REVENUE				
Property Tax	2,712,000		2,712,000	
Water Deliveries	1,603,072	3,000		1,600,072
Groundwater	10,509,695			10,509,695
Other	293,114	12,900	85,032	195,182
Total Revenue	15,117,881	15,900	2,797,032	12,304,949
EXPENDITURES				
Personnel	4,395,100	495,070		3,900,030
Operating	4,058,259	775,263	437,010	2,845,986
Overhead	1,934,179	116,403		1,817,776
Debt Service	1,445,213	85,065	52	1,360,096
Capital Outlay	250,175	48,240		201,935
Transfers Out	2,817,925	348,398		2,469,527
Total Expenditures	14,900,851	1,868,439	437,062	12,595,350
Net: Surplus / (Shortfall)	217,030	(1,852,539)	2,359,970	(290,401)



General/WC- Additional Info

- Proposed Rates ↑ 3%
 - Extraction charge M&I ↑ \$135.24 to \$139.30 / AF
 - Extraction charge Ag ↑ \$45.08 to \$46.43 / AF
- Groundwater extractions ↑ 5% to 173,450 / AF
- GW pump charge from deliveries via:
 - OH ↑ 0.4% to 10,640 / AF
 - PV = 0 / AF
 - PT ↑ .04% to 5,000 / AF
- Pumping:
 - Ag 85% M&I 15%
 - Zone A 52% Zone B 48%



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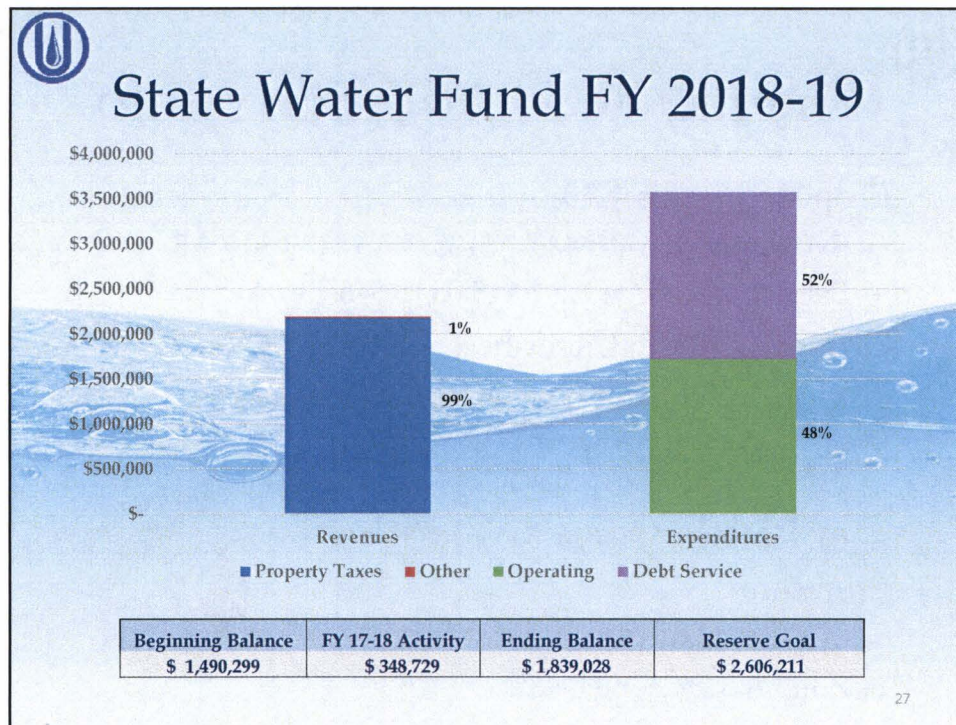


General/WC- Additional Info Continued

FY 2018-19

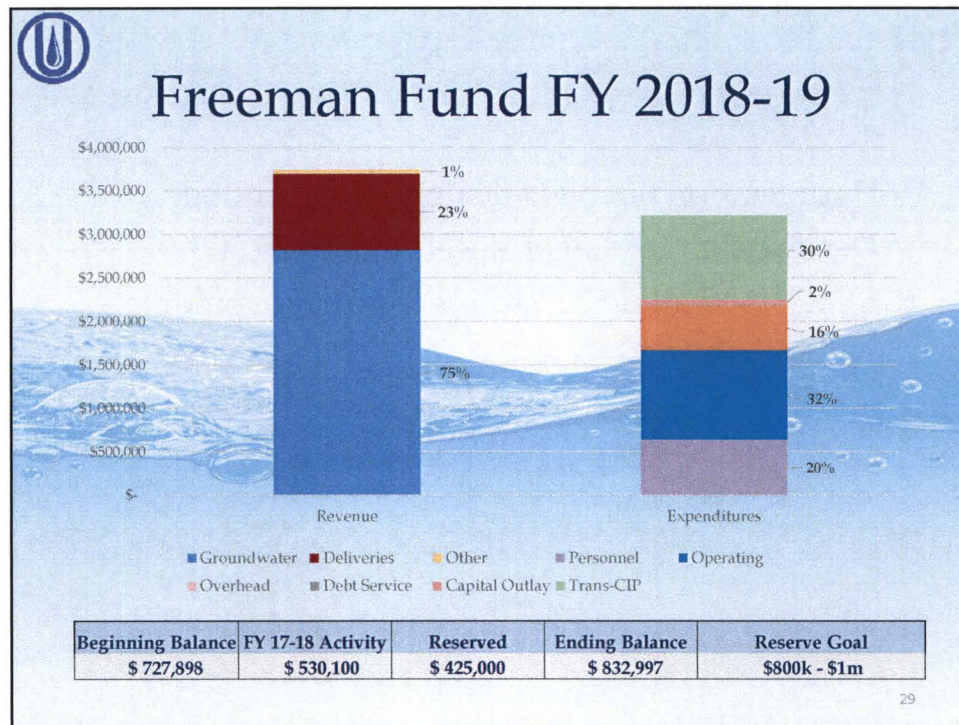
- Designations
 - \$7,504,432 for Improvements with \$3,470,129 of that undesignated to date
 - \$3,125,000 for Replacement
 - \$225,000 for Legal Reserve
 - \$1,000,000 for Water Conveyance Infrastructure
 - \$897,000 for required 2009 COP Reserve


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State Water – Additional Info

- State has indicated that in 2018 35% of allocation will be released.
- State Water project costs are funded 100% by voter approved property tax assessment, not by:
 - General Operating Activities Fund’s property tax receipts
 - Water Conservation Activities Fund (Zone A) or Freeman Diversion (Zone B) extraction charges
- City of Ventura and City of Oxnard residents pay nothing to this fund




 **Freeman – Additional Info**


- Proposed Rates ↑ 3%
 - Extraction charge M&I ↑ \$74.31 to \$76.54 / AF
 - Extraction charge Ag ↑ \$24.77 to \$25.51 / AF
- Groundwater extractions ↑ 8% to 82,500 / AF
- GW pump charge from deliveries via:
 - OH ↑ 0.4% to 10,590 / AF
 - PV = 0 / AF
 - PT ↑ 0.4% to 5,000 / AF



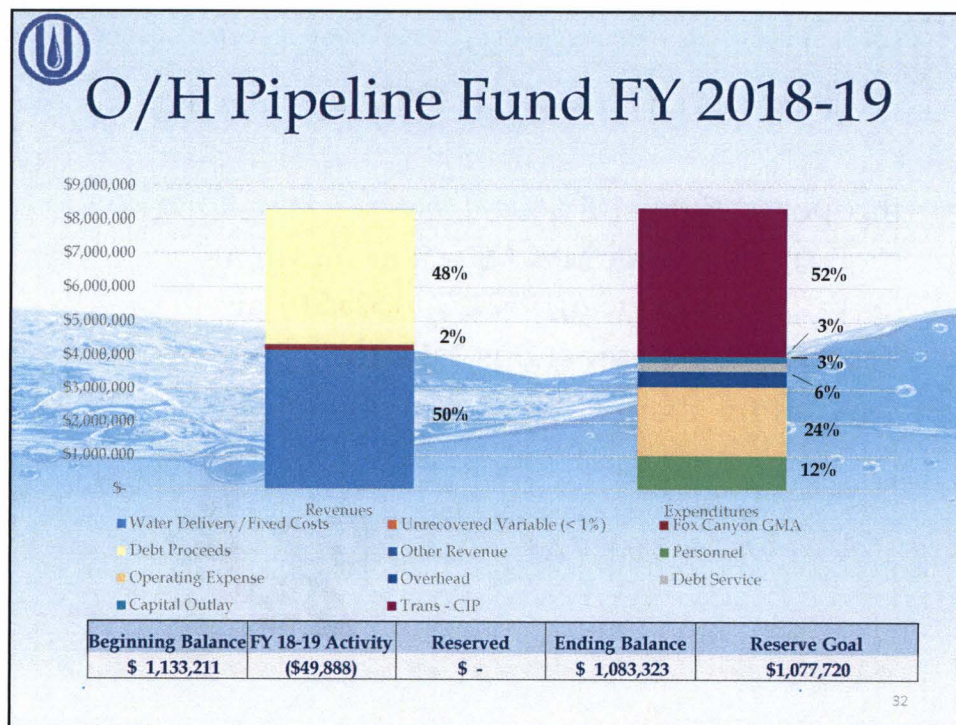
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 **Freeman – Additional Info (cont.)**

- Depreciation of \$384,000 not being funded
- Designation for Legal Reserve of \$425,000
- FY 2018-19 all designations for improvements will be undesignated



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OHP – Additional Info

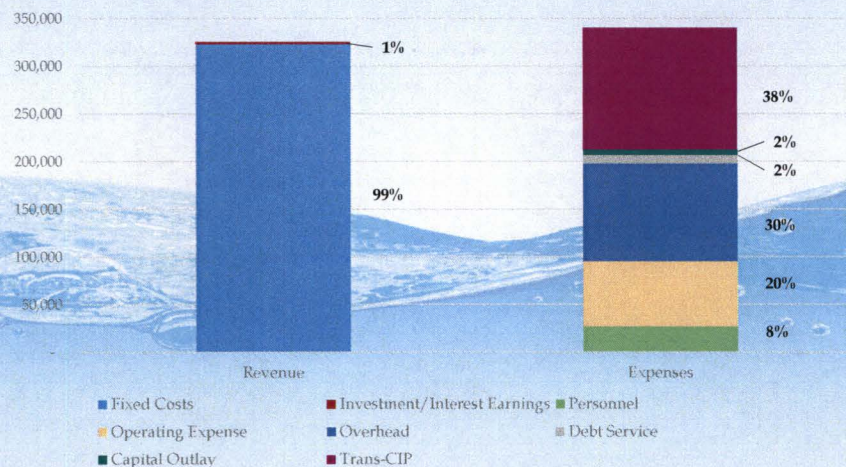
- Deliveries ↑ 0.4% to 10,640 / AF
- Depreciation of \$402,000 not being funded
- OH Users Meeting held April 26, 2017
- Proposed Rates:

	Current FY 17-18	Proposed FY 18-19	Change
Fixed Costs Per Unit of Peak Capacity	\$16,689.00	\$16,689.00	-
Fixed Well Replacement Charge	16.42	11.73	(\$4.69)
Variable Rate	306.60	306.60	-
Marginal Rate	152.25	152.25	-
Unrecovered Variable Rate	306.60	306.60	-
GMA Charge	15.00	15.00	-

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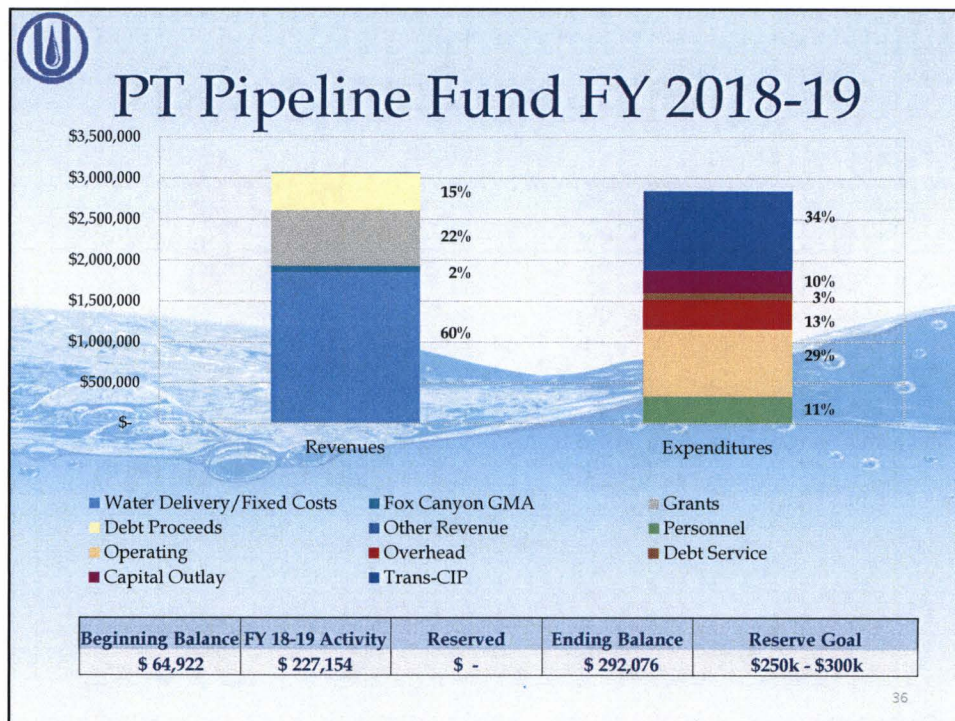
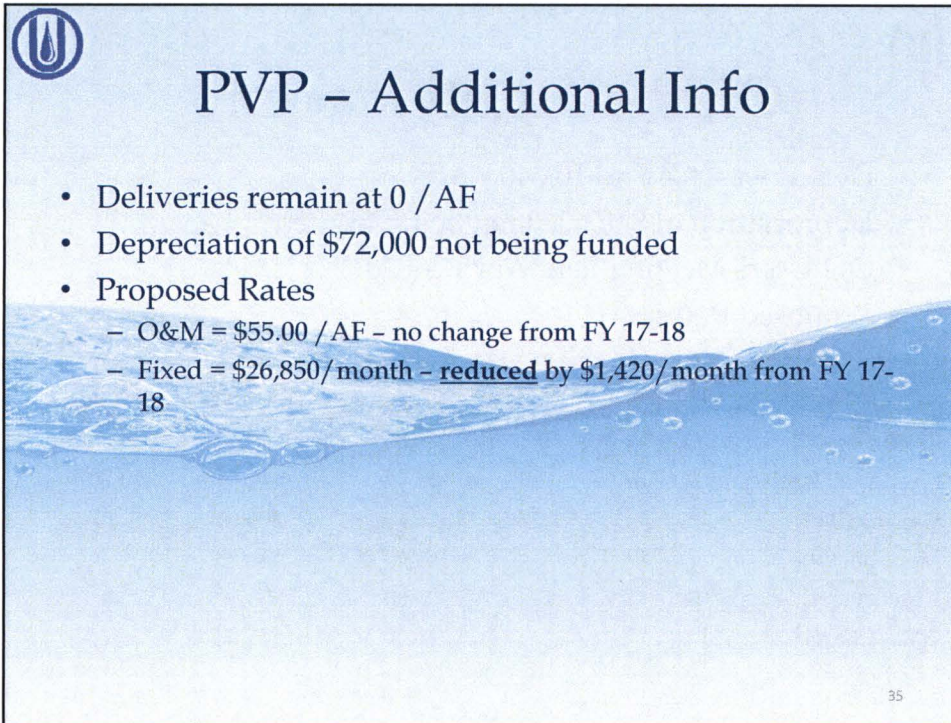


PV Pipeline Fund FY 2018-19



Beginning Balance	FY 18-19 Activity	Reserved	Ending Balance	Reserve Goal
\$ 289,575	(\$ 14,535)	\$ -	\$ 275,040	\$274,869

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PTP – Additional Info

- Deliveries ↑ 0.4% to 5,000 / AF
- Depreciation of \$456,000 not being funded
- Proposed rates
 - O&M charge \$235 – no change from FY 17-18
 - Fixed rates:
 - upper \$675 – no change from FY 17-18
 - lower \$950 – no change from FY 17-18



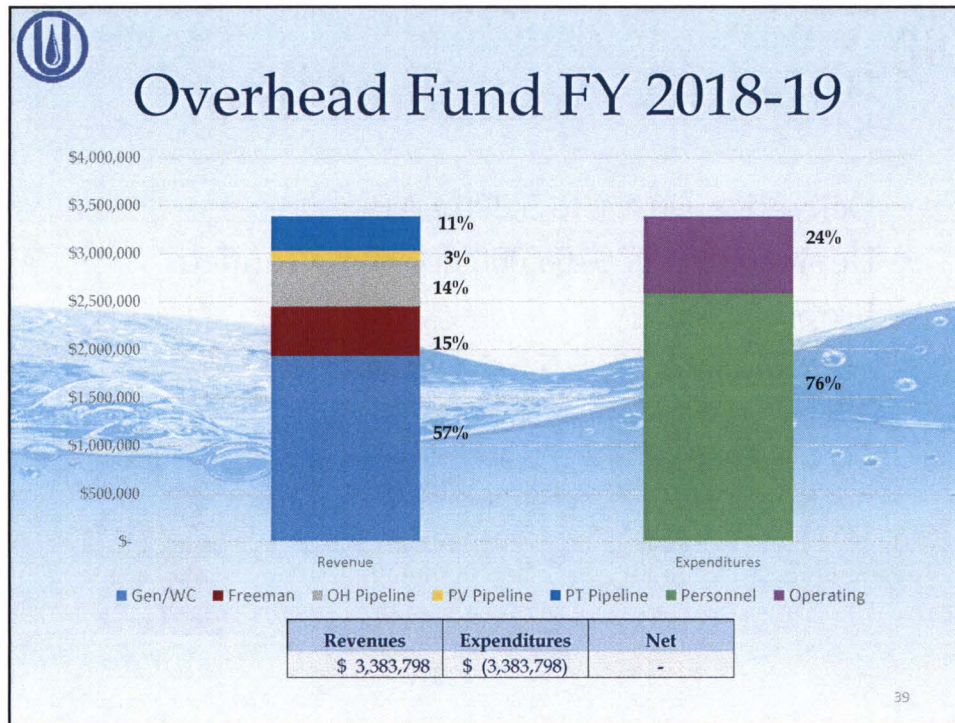
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PTP Fixed Rates Calculation

Fixed Cost Component	Fixed Costs 2018-19	Description
Personnel	\$ 81,448.25	25% of annual
Utilities	\$ 38,448.10	10% of annual
Maintenance	\$ 118,227.45	Required periodic maintenance, 55% of annual
Overhead	\$ 358,682.57	Based on prior FY figures for # of billings, labor hours, payable transactions & revenue
Debt	\$ 84,205.45	100% of annual
TOTAL	\$ 681,011.82	

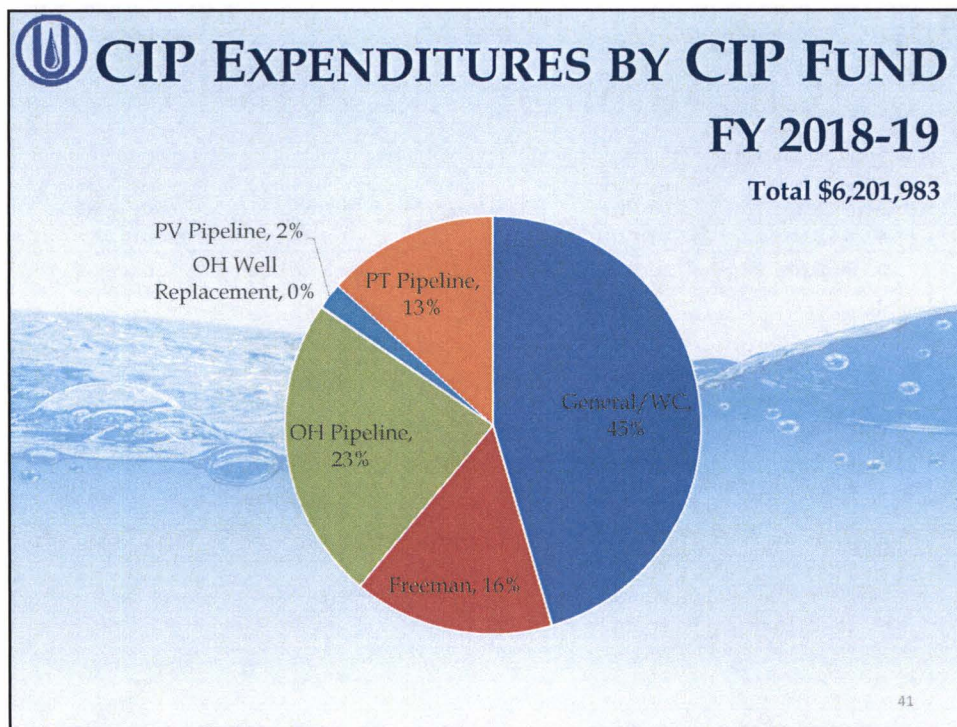
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Overhead – Additional Info

- Allocation based on prior FY figures for # of billings, labor hours, payable transaction, & revenue
- Only actual costs are charged to each fund
- Further details on pages 29-32 of Proposed Budget

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CIP List

(Proposed Budget Page 59)

• OH Well Replacement	• Solar Project - Piru
• Freeman Diversion Rehab	• Ferro-Rose Recharge
• SFD Outlet Works Rehab	• Brackish Water Treatment Plant
• SFD PMF Containment	• Recycled Water
• SFD Sediment Management	• Rice Avenue Overpass PTP
• Lower River Invasive Species Control Project	• PTP Turnout Metering System
• OHP Iron and Manganese Treatment Removal	• Pothole Trailhead
• Quagga Decontamination Station	• New Headquarters
• Park Services Officer Facility Replacement	• State Water Interconnection Project
• Lake Piru Asphalt	• Lower Piru Creek Habitat
• Day Use Pavilion Rehab	• Replace El Rio Trailer
• Day Use Restroom Rehab	• Alternative Supply Alliance Pipeline Project (ASAP)
• Juan Fernandez Day Use	• SFD Spillway Floor Repair

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CIP Summary FY 2018-19

Fund	Beginning Balance	Revenues	Expenditures	Ending Balance
General/WC	-	2,817,925	(2,817,925)	-
Freeman	-	966,254	(966,254)	-
OH Pipeline*	-	4,375,546	(1,457,456)	2,918,090
OH Well Replace.	705,421	129,000	(3,979)	830,442
PVP	-	128,117	(128,117)	-
PIP	(138,612)	966,865	(828,253)	-
Total		9,383,707	(6,201,984)	3,748,532

* OH Pipeline balance of \$2,918,090 is due to debt proceeds to be received in FY 18-19 that will be spent in FY 19-20

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CIP - Other

- CIP debt analysis (pg. 60-61) to demonstrate debt impact on rates
- Assumptions in debt analysis include:
 - Pumping and water delivery activity at 2017-18 level
 - Project cost based on most recent engineering estimates
 - CIP cost only, does not include operational and maintenance cost
 - Assumes no grant funding

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Financial Policy Revisions

- Accounts Receivable and Write-Off - Updated collection procedures as a result of the passage of AB 552
- Budget Amendment - added clarification to contract amendments and budget transfers within a specific project
- Budget Submittal - updated final paragraph to remove reference to a two-year budget
- Environmental Activity Cost Allocation - wording changes for clarity, updated status of Zone B activities
- Expense Policy - removed the word "reimbursement" from title as the policy also relates to expenses paid by the District, clarified mileage reimbursement for Board members


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Financial Policy Revisions, continued

- Groundwater Well Registration - removed reference to Prop. 218, as the CA Supreme Court has ruled that UWCD is not subject to Prop. 218
- Procurement Policy - Updated Purchasing Authority and Purchase Orders sections to reflect procedures with new accounting software, updated credit card approval procedures and list of staff positions that may be eligible for a District credit card
- Reserve Policy - updated State Water reserve maximum to AF not purchased since 2008
- Verification of Groundwater Production Statement - new policy requiring a photograph of well meter to be submitted bi-annually with groundwater statement
- Records Management Policy - Removed duplicate sentence regarding employee education

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Conclusion



- Questions
- Requests for Changes
- Next meeting – June 13, 2018
 - Approval of Budget
 - Adoption Resolution will be based on feedback given today

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United Water Conservation District

Operating Budget Summary

FY 2018-19

	General Water Conservation Fund	State Water Fund	Freeman Fund	O/H Pipeline Fund	PV Pipeline Fund	PT Pipeline Fund	TOTAL
CASH RESERVATIONS/WORKING CAPITAL							
Beginning Balance July 1, 2018	13,487,067	1,490,299	727,898	1,133,211	289,575	64,922	17,192,972
REVENUES							
Property Tax	2,712,000	2,178,500	-	-	-	-	4,890,500
Water Deliveries	1,603,072	-	879,169	4,146,741	322,812	1,855,400	8,807,194
Groundwater Revenue	10,509,695	-	2,818,995	-	-	-	13,328,690
Unrecovered Variable	-	-	-	8,692	-	-	8,692
Fox Canyon GMA	-	-	-	159,600	-	75,000	234,600
Debt Proceeds	-	-	-	3,981,091	-	452,264	4,433,355
Grant Revenue	-	-	-	-	-	677,423	677,423
Rents & Leases	147,314	-	-	11,593	-	-	158,908
Interest	79,800	16,800	30,800	2,800	2,800	4,200	137,200
Other	66,000	-	14,500	400	-	6,000	86,900
Total Revenues	15,117,881	2,195,300	3,743,464	8,310,918	325,612	3,070,287	32,763,461
EXPENDITURES							
Personnel Costs	4,395,100	-	635,435	1,023,091	26,750	325,793	6,406,169
Operating Expenditures	4,058,259	1,725,571	1,031,381	2,045,472	68,285	832,223	9,761,191
Replacement	1,260,000	-	384,000	402,000	72,000	456,000	2,574,000
Allocated Overhead	1,934,179	-	513,322	475,085	102,529	358,683	3,383,798
Debt Service	1,445,213	121,000	5,052	247,067	8,472	84,205	1,911,010
Capital Outlay	250,175	-	61,920	194,545	5,995	275,365	788,000
Transfers Out-CIP	2,817,925	-	966,254	4,375,546	128,117	966,865	9,254,707
Total Expenditures	16,160,852	1,846,571	3,597,364	8,762,806	412,147	3,299,133	34,078,874
Net Surplus/(Shortfall)	(1,042,971)	348,729	146,100	(451,888)	(86,535)	(228,846)	(1,315,412)
Reservations/Designations	(9,281,303)	-	(425,000)	-	-	-	(9,706,303)
Add back Depreciation	1,260,000	-	384,000	402,000	72,000	456,000	2,574,000
Cash Reserves/Working Capital June 30, 2019	4,422,793	1,839,028	832,997	1,083,323	275,040	292,076	8,745,257

United Water Conservation District

General/Water Conservation Fund

	Actual FY 2015-16	Actual FY 2016-17	Adjusted Budget FY 2017-18	Projected FY 2017-18	Proposed Budget FY 2018-19
Revenues:					
Taxes	\$ 2,404,270	\$ 2,553,589	\$ 2,662,000	\$ 2,662,000	\$ 2,712,000
Water Delivery/Fixed Cost	1,374,014	1,486,993	1,592,975	1,592,975	1,603,072
Groundwater	8,950,178	8,996,435	9,818,424	9,818,424	10,509,695
Supplemental Water	(229,172)	-	-	-	-
Fox Canyon GMA	2,701	-	-	-	-
Grants	-	94,649	60,500	60,500	-
Rents and Leases	100,231	129,223	138,740	138,740	147,314
Investment/ Interest Earnings	60,883	114,541	79,800	79,800	79,800
Other Revenue	70,288	108,665	66,000	66,000	66,000
Revenues	12,733,393	13,484,097	14,418,439	14,418,439	15,117,881
Transfer In	292,000	-	-	-	-
	292,000	-	-	-	-
Total Revenues	13,025,393	13,484,097	14,418,439	14,418,439	15,117,881
Expenditures:					
Regular Salaries	2,637,245	2,656,216	2,698,551	2,698,551	2,686,169
Part-Time Salaries	35,475	124,510	126,698	126,698	93,330
Overtime Salaries	27,732	35,657	46,954	46,954	51,656
Employee Benefits	1,309,778	1,398,503	1,852,553	1,852,553	1,563,945
Personnel Cost	4,010,230	4,214,886	4,724,756	4,724,756	4,395,100
Contractual Services	1,049,803	1,384,797	3,650,981	3,650,981	2,540,665
Public Information	4,191	3,829	14,500	14,500	4,500
Office Expenses	61,325	66,984	95,058	95,058	115,529
Travel, Meetings, Training	65,716	49,162	97,002	97,002	140,986
Fuel-Gasoline-Diesel	51,037	51,306	64,050	64,050	66,502
Insurance	93,442	88,902	105,600	105,600	108,240
Fox Canyon GMA	2,649	15	800	800	880
Utilities	39,026	39,771	56,725	56,725	54,126
Telephone	10,179	12,914	12,765	12,765	12,894
Safety, Supplies, Clothing	63,103	59,743	69,078	69,078	68,429
Water Treatment Chemicals	3,689	3,482	-	-	5,000
Maintenance	311,632	362,592	591,217	591,217	516,361
Small Tools & Equipment	38,221	47,325	174,035	174,035	73,428
Permits & Licenses	73,876	82,626	100,675	100,675	104,585
Water Quality Services	28,737	22,136	74,200	74,200	58,700
Miscellaneous	180,706	137,252	182,850	182,850	186,255
State Water Import Cost	117	-	1,000	1,000	1,180
Operating Expenses	2,077,449	2,412,835	5,290,536	5,290,536	4,058,259
Replacement/Depreciation	-	-	1,260,000	1,260,000	1,260,000
General & Administrative Expenses	1,597,083	1,591,090	1,936,132	1,936,132	1,934,179
Debt Repayment - Principal	781,122	746,839	775,701	775,701	803,357
Debt Repayment - Interest	724,954	693,852	664,004	664,004	632,639
Finance Costs	4,925	3,682	7,090	7,090	9,217
Debt Services	1,511,001	1,444,373	1,446,795	1,446,795	1,445,213
Capital Outlay	221,247	217,992	362,448	362,448	250,175
Transfers Out	1,671,310	2,667,814	3,477,568	3,477,568	2,817,925
Total Expenditures	11,088,320	12,548,989	18,498,235	18,498,235	16,160,852
Net : Surplus / (Shortfall)	\$ 1,937,073	\$ 935,108	\$ (4,079,796)	\$ (4,079,796)	\$ (1,042,971)

United Water Conservation District
General/Water Conservation Fund

Cash Reserves/Working Capital:	Actual FY 2015-16	Actual FY 2016-17	Adjusted Budget FY 2017-18	Projected FY 2017-18	Proposed Budget FY 2018-19
Beginning Balance July 1	\$ 13,434,682	15,371,755	\$ 16,306,863	\$ 16,306,863	\$ 13,487,067
Net Surplus / (Shortfall)	1,937,073	935,108	(4,079,796)	(4,079,796)	(1,042,971)
Add Back Replacement/Depreciation	-	-	1,260,000	1,260,000	1,260,000
Ending Balance June 30	\$ 15,371,755	\$ 16,306,863	\$ 13,487,067	\$ 13,487,067	\$ 13,704,096
Designated to Date:					
Improvements	(6,375,443)	(7,504,432)	(7,504,432)	(7,504,432)	(7,504,432)
Replacement	(1,250,000)	(1,875,000)	(2,500,000)	(2,500,000)	(3,125,000)
Legal Reserve	(275,000)	(305,330)	(350,000)	(350,000)	(225,000)
Water Conveyance Infrastructure	-	-	-	-	(1,000,000)
Debt Service 09 COP - Reserve	(877,451)	(897,858)	(897,000)	(897,000)	(897,000)
Total Designated to Date	(8,777,894)	(10,582,620)	(11,251,432)	(11,251,432)	(12,751,432)
Undesignated to Date:					
Improvements			161,600	161,600	
Legal Reserve			350,000	350,000	
SFD Outlet Works Rehab CIP	590,432	665,432	2,500,000	2,500,000	3,470,129
Total Undesignated to Date	590,432	665,432	3,011,600	3,011,600	3,470,129
Designated Balance	(8,187,462)	(9,917,188)	(8,239,832)	(8,239,832)	(9,281,303)
Net Available	\$ 7,184,293	\$ 6,389,675	\$ 5,247,235	\$ 5,247,235	\$ 4,422,793
Reserve Requirement					\$4 - \$5 million

	FY 17-18			FY 18-19		
Groundwater Revenue:	Water Conservation Extraction Charge	Acre Feet	Forecasted Revenue	Water Conservation Extraction Charge	Acre Feet	Forecasted Revenue
Zone A - Agriculture	\$ 45.08	76,400	\$ 3,444,112	\$ 46.43	78,500	\$ 3,644,755
Zone A - Municipal & Industrial	\$ 135.24	12,300	1,663,452	\$ 139.30	12,450	1,734,285
Zone B - Agriculture	\$ 45.08	62,500	2,817,500	\$ 46.43	68,500	3,180,455
Zone B - Municipal & Industrial	\$ 135.24	14,000	1,893,360	\$ 139.30	14,000	1,950,200
Total Groundwater Revenue		165,200	\$ 9,818,424		173,450	\$ 10,509,695
Water Deliveries:	In Lieu of Extraction Charge	Acre Feet	Forecasted Revenue	In Lieu of Extraction Charge	Acre Feet	Forecasted Revenue
OH Pipeline - Municipal & Industrial	\$ 135.24	9,400	\$ 1,271,256	\$ 139.30	9,410	\$ 1,310,813
OH Pipeline - Agriculture	\$ 45.08	1,190	53,645	\$ 46.43	1,230	57,109
PV Pipeline - Agriculture	\$ 45.08	-	-	\$ -	-	-
PT Pipeline - Agriculture	\$ 45.08	4,980	224,498	\$ 46.43	5,000	232,150
Total Pipeline Deliveries Revenue		15,570	\$ 1,549,400		15,640	\$ 1,600,072
			Forecasted Revenue			Forecasted Revenue
Recreation Water Deliveries	US Forest Service Water Deliveries		\$ 3,000	US Forest Service Water Deliveries		\$ 3,000
Total Water Deliveries Revenue			\$ 1,552,400			\$ 1,603,072

United Water Conservation District
Freeman Diversion Fund (Zone B) - 420

	Actual FY 2015-16	Actual FY 2016-17	Adjusted Budget FY 2017-18	Projected FY 2017-18	Proposed Budget FY 2018-19
Revenues:					
Water Delivery/Fixed Costs	\$ 790,631	816,069	873,696	\$ 873,696	\$ 879,169
Groundwater	2,551,993	2,361,902	2,788,622	2,788,622	2,818,995
Grants	-	-	-	-	-
Investment/Interest Earnings	19,012	38,050	30,800	30,800	30,800
Other Revenue	11,195	15,886	14,500	14,500	14,500
Transfer in		107,060	-	-	-
		107,060	-	-	-
Total Revenues	3,372,831	3,338,966	3,707,618	3,707,618	3,743,464
Expenditures:					
Regular Salaries	314,278	372,848	297,608	297,608	376,871
Part-time Salaries	3,739	3,669	18,312	18,312	3,170
Overtime Salaries	8,294	15,503	17,147	17,147	17,449
Employee Benefits	170,406	201,980	186,109	186,109	237,946
Personnel Costs	496,718	593,999	519,176	519,176	635,435
Contractual Services	568,925	1,122,846	2,824,156	2,824,156	749,111
Public Information	-	-	-	-	-
Office Expenses	3,747	826	7,140	7,140	11,942
Travel, Meetings, Training	578	708	11,597	11,597	12,619
Fuel-Gasoline-Diesel	6,876	6,875	21,400	21,400	6,667
Insurance	24,348	23,180	28,600	28,600	29,315
Utilities	7,054	6,507	8,700	8,700	9,103
Telephone	935	857	830	830	931
Safety, Supplies, Clothing	13,707	13,788	16,575	16,575	17,023
Water Treatment Chemicals	-	8	-	-	20,000
Maintenance	88,583	64,816	130,791	130,791	154,811
Small Tools & Equipment	9,979	2,743	6,130	6,130	2,961
Permits & Licenses	713	912	2,000	2,000	2,000
Water Quality Services	1,054	1,343	2,000	2,000	2,500
Miscellaneous	7,431	16,670	59,250	59,250	12,400
Operating Expenses	733,932	1,262,080	3,119,169	3,119,169	1,031,381
Replacement/Depreciation	365,150	370,577	384,000	384,000	384,000
General & Administrative Expenses	416,153	414,855	522,892	522,892	513,322
Debt Repayment - Principal	3,431	3,587	3,742	3,742	3,898
Debt Repayment - Interest	954	828	955	955	763
Financing Cost	299	69	300	300	390
Debt Service	4,684	4,483	4,997	4,997	5,052
Capital Outlay	33,293	76,027	213,031	213,031	61,920
Capital Improvement Projects	-	-	-	-	-
Transfers Out	2,035,702	811,891	1,185,233	1,185,233	966,254
Total Expenditures	4,085,632	3,533,913	5,948,498	5,948,498	3,597,364
Net : Surplus / (Shortfall)	\$ (712,800)	\$ (194,947)	\$ (2,240,880)	\$ (2,240,880)	\$ 146,100

United Water Conservation District
Freeman Diversion Fund (Zone B) - 420

Cash Reserves/Working Capital:	Actual	Actual	Adjusted	Projected	Proposed
	FY 2015-16	FY 2016-17	Budget	FY 2017-18	Budget
			FY 2017-18		FY 2018-19
Beginning Balance July 1	\$ 2,756,799	\$ 2,409,148	\$ 2,584,778	\$ 2,584,778	\$ 727,898
Net Surplus / (Shortfall)	(712,800)	(194,947)	(2,240,880)	(2,240,880)	146,100
Add Back Non-cash Depreciation	365,150	370,577	384,000	384,000	384,000
Ending Balance June 30	\$ 2,409,148	\$ 2,584,778	\$ 727,898	\$ 727,898	\$ 1,257,997
Designated to Date:					
Legal Reserve	(50,000)	(150,000)	(300,000)	(300,000)	(425,000)
Improvements	(4,348,000)	(5,992,187)	(5,992,187)	(5,992,187)	(5,992,187)
Total Designated to Date	(4,398,000)	(6,142,187)	(6,292,187)	(6,292,187)	(6,417,187)
Undesignated to Date:					
Freeman Diversion Rehab CIP	2,872,187	2,872,187	3,872,187	3,872,187	4,167,187
Operations	700,000	700,000	1,825,000	1,825,000	1,825,000
Legal Reserve	50,000	150,000	300,000	300,000	-
Total Undesignated to Date	3,622,187	3,722,187	5,997,187	5,997,187	5,992,187
Designated Balance	(775,813)	(2,420,000)	(295,000)	(295,000)	(425,000)
Net Available	\$ 1,633,335	\$ 164,778	\$ 432,898	\$ 432,898	\$ 832,997
Reserve Requirement				\$800,000 - \$1,000,000	

Water Rate Summary:

	FY 17-18			FY 18-19		
	Water Conservation			Water Conservation		
	Extraction	Acre	Forecasted	Extraction	Acre	Forecasted
	Charge	Feet	Revenue	Charge	Feet	Revenue
Groundwater Revenue:						
Zone B - Agriculture	\$ 24.77	62,500	\$ 1,548,219	\$ 25.51	68,500	\$ 1,747,435
Zone B - Municipal & Industrial	\$ 74.31	14,000	1,040,403	\$ 76.54	14,000	1,071,560
Total Groundwater Revenue		76,500	\$ 2,588,622		82,500	\$ 2,818,995

	In Lieu of	Acre	Forecasted	In Lieu of	Acre	Forecasted
	Extraction Charge	Feet	Revenue	Extraction Charge	Feet	Revenue
Water Deliveries:						
OH Pipeline - Municipal & Industrial	\$ 74.31	9,400	\$ 698,556	\$ 76.54	9,410	\$ 720,241
OH Pipeline - Agriculture	\$ 24.77	1,190	29,478	\$ 25.51	1,230	31,377
PV Pipeline - Agriculture	\$ 24.77	-	-	\$ 25.51	-	-
PT Pipeline - Agriculture	\$ 24.77	4,980	123,362	\$ 25.51	5,000	127,550
Total Pipeline Water Deliveries Revenue		15,570	\$ 851,396		15,640	\$ 879,169

United Water Conservation District
Oxnard-Hueneme Pipeline Fund - 450

	Actual	Actual	Adjusted	Projected	Proposed
	FY 2015-16	FY 2016-17	Budget FY 2017-18	FY 2017-18	Budget FY 2018-19
Revenues:					
Water Delivery/Fixed Costs	\$ 3,916,809	3,910,997	4,131,412	\$ 4,131,412	\$ 4,146,741
Unrecovered Variable	156,682	194,500	24,022	24,022	8,692
Fox Canyon GMA	105,552	130,034	158,850	158,850	159,600
Debt Proceeds	-	-	-	-	3,981,091
Grants	-	34,784	-	-	-
Rents & Leases	9,946	11,016	10,360	10,360	11,593
Investment/Interest Earnings	3,299	9,831	2,800	2,800	2,800
Other Revenue	602	1,404	400	400	400
Total Revenues	4,192,889	4,292,565	4,327,844	4,327,844	8,310,918
Expenditures:					
Regular Salaries	634,602	621,053	539,788	539,788	614,541
Overtime Salaries	26,037	28,087	41,702	41,702	42,923
Employee Benefits	358,665	348,304	891,712	891,712	365,626
Personnel Costs	1,019,303	997,445	1,473,203	1,473,203	1,023,091
Contractual Services	72,957	22,321	64,481	64,481	56,464
Office Expenses	11,270	8,147	11,722	11,722	24,980
Travel, Meetings, Training	1,063	3,771	7,581	7,581	7,484
Fuel-Gasoline-Diesel	20,806	17,036	36,250	36,250	34,136
Insurance	20,076	18,741	24,200	24,200	24,805
Fox Canyon GMA	107,051	133,678	158,850	158,850	159,600
Utilities	970,472	852,059	1,152,400	1,152,400	1,152,625
Telephone	3,722	3,897	3,410	3,410	3,212
Safety, Supplies, Clothing	20,840	25,928	18,439	18,439	20,100
Water Treatment Chemicals	112,095	106,673	130,000	130,000	130,000
Maintenance	287,425	206,338	366,359	366,359	338,215
Small Tools & Equipment	4,613	8,235	7,950	7,950	7,327
Permits & Licenses	18,755	24,361	17,500	17,500	22,000
Water Quality Services	43,093	30,022	45,000	45,000	48,000
Miscellaneous	5,835	7,360	5,600	5,600	16,525
Operating Expenses	1,700,072	1,468,566	2,049,741	2,049,741	2,045,472
Replacement/Depreciation	390,827	400,163	402,000	402,000	402,000
General & Administrative Expenses	343,134	335,409	487,442	487,442	475,085
Debt Repayment - Principal	112,664	109,818	114,333	114,333	118,963
Debt Repayment - Interest	45,203	41,130	50,768	50,768	124,854
Financing Cost	1,329	1,212	2,500	2,500	3,250
Debt Service	159,195	152,160	167,601	167,601	247,067
Capital Outlay	34,555	50,768	62,305	62,305	194,545
Capital Improvement Projects	-	-	-	-	-
Transfers Out	262,242	716,250	705,581	705,581	4,375,546
Total Expenditures	3,909,328	4,120,761	5,347,873	5,347,873	8,762,806
Net : Surplus / (Shortfall)	\$ 283,561	\$ 171,805	\$ (1,020,028)	\$ (1,020,028)	\$ (451,888)

United Water Conservation District
Oxnard-Hueneme Pipeline Fund - 450

Cash Reserves/Working Capital:	Actual	Actual	Adjusted	Projected	Proposed
	FY 2015-16	FY 2016-17	Budget FY 2017-18	FY 2017-18	Budget FY 2018-19
Beginning Balance July 1	\$ 504,885	\$ 1,179,272	\$ 1,751,240	\$ 1,751,240	\$ 1,133,211
Net Surplus / (Shortfall)	283,561	171,805	(1,020,028)	(1,020,028)	(451,888)
Add Back Non-cash Depreciation	390,827	400,163	402,000	402,000	402,000
Ending Balance June 30	\$ 1,179,272	\$ 1,751,240	\$ 1,133,211	\$ 1,133,211	\$ 1,083,323
Designated to Date:					
Pers Side Fund	-	-	-	-	-
Other Post-Employment Benefits (OPEB)	-	-	-	-	-
Total Designated Balance to Date	-	-	-	-	-
Undesignated to Date:					
Pers Side Fund	-	-	-	-	-
Other Post-Employment Benefits (OPEB)	-	-	-	-	-
Total Undesignated to Date	-	-	-	-	-
Designated Balance	-	-	-	-	-
Net Available	\$ 1,179,272	\$ 1,751,240	\$ 1,133,211	\$ 1,133,211	\$ 1,083,323
Reserve Requirement	\$ 1,062,623	\$ 1,029,066	\$ 1,029,066	\$ 1,050,000	\$ 1,077,720

Water Delivery Rate Summary:	FY 15-16	FY 16-17	FY 17-18	FY 18-19
O & M Charge:				
Fixed Costs Per Unit of Peak Capacity	\$14,874.00	\$14,737.00	\$16,689.00	\$16,689.00
Fixed Well Replacement Charge	\$38.15	\$20.65	\$16.42	\$11.73
Variable Rate	\$303.66	\$306.60	\$306.60	\$306.60
Marginal Rate	\$163.38	\$163.38	\$152.25	\$152.25
Unrecovered Variable Rate	\$303.66	\$306.60	\$306.60	\$306.60
GMA Charge ¹	\$10.00	\$12.50	\$15.00	\$15.00

¹ - This rate is set by the GMA and subject to change.

United Water Conservation District
Pumping Trough Pipeline Fund - 470

	Actual FY 2015-16	Actual FY 2016-17	Adjusted Budget FY 2017-18	Projected FY 2017-18	Proposed Budget FY 2018-19
Revenues:					
Water Delivery/Fixed Costs	\$ 1,344,845	1,724,081	\$ 2,062,200	\$ 2,062,200	\$ 1,855,400
Fox Canyon GMA	53,674	65,674	74,700	74,700	75,000
Grants	-	14,907	245,431	245,431	677,423
Debt Proceeds	-	-	-	-	452,264
Investment/Interest Earnings	2,823	5,486	4,200	4,200	4,200
Other Revenue	11,701	17,342	6,000	6,000	6,000
Total Revenues	1,413,044	1,827,490	2,392,531	2,392,531	3,070,287
Expenditures:					
Regular Salaries	164,255	169,951	112,179	112,179	181,814
Overtime Salaries	7,807	12,895	14,248	14,248	14,686
Employee Benefits	105,598	109,495	91,658	91,658	129,293
Personnel Costs	277,660	292,341	218,085	218,085	325,793
Contractual Services	29,002	9,774	48,634	48,634	45,409
Office Expenses	4,151	1,058	5,125	5,125	13,384
Travel, Meetings, Training	474	922	3,320	3,320	3,618
Fuel-Gasoline-Diesel	6,616	5,856	9,750	9,750	12,916
Insurance	16,784	14,938	19,800	19,800	20,295
Fox Canyon GMA	29,661	69,007	72,000	72,000	75,000
Utilities	353,781	337,958	383,951	383,951	384,481
Telephone	1,314	1,434	995	995	1,318
Safety, Supplies, Clothing	7,146	13,869	8,789	8,789	9,992
Water Treatment Chemicals	16,388	21,102	30,000	30,000	30,000
Maintenance	104,928	94,257	181,240	181,240	214,959
Small Tools & Equipment	1,973	1,883	2,125	2,125	2,827
Permits & Licenses	554	7,512	5,589	5,589	7,000
Water Quality Services	3,459	1,382	2,000	2,000	2,500
Miscellaneous	9,001	4,633	9,300	9,300	8,525
Operating Expenses	585,231	585,585	782,617	782,617	832,223
Replacement/Depreciation	438,011	437,702	456,000	456,000	456,000
General & Administrative Expenses	286,860	267,351	357,230	357,230	358,683
Debt Repayment - Principal ¹	75,459	45,231	121,039	121,039	48,895
Debt Repayment - Interest	18,885	16,975	31,794	31,794	32,711
Financing Cost	596	394	2,000	2,000	2,600
Debt Service	94,941	62,599	154,832	154,832	84,205
Capital Outlay	24,628	201,652	129,300	129,300	275,365
Transfers Out	137,012	1,124,384	750,933	750,933	966,865
Total Expenditures	1,844,343	2,971,614	2,848,997	2,848,997	3,299,133
Net : Surplus / (Shortfall)	\$ (431,299)	\$ (1,144,124)	\$ (456,466)	\$ (456,466)	\$ (228,846)

¹ Repayment of short-term loan of \$317,500 to be made by June 30, 2019 is excluded as it will not impact working capital.

United Water Conservation District
Pumping Trough Pipeline Fund - 470

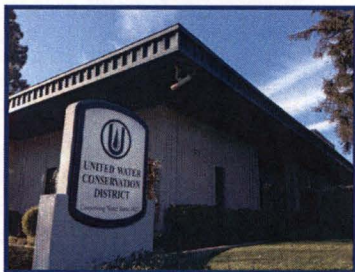
Cash Reserves/Working Capital:			Adjusted		Proposed
	Actual	Actual	Budget	Projected	Budget
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Beginning Balance July 1	\$ 765,099	\$ 771,811	\$ 65,388	\$ 65,388	\$ 64,922
Net Surplus / (Shortfall)	(431,299)	(1,144,124)	(456,466)	(456,466)	(228,846)
Add Back Non-cash Depreciation	438,011	437,702	456,000	456,000	456,000
Ending Balance June 30	\$ 771,811	\$ 65,388	\$ 64,922	\$ 64,922	\$ 292,076
Designated to Date:					
Pers Side-Fund	-	-	-	-	-
Other Post-Employment Benefits (OPEB)	-	-	-	-	-
Total Designated Balance	-	-	-	-	-
Undesignated to Date:					
Pers Side-Fund	-	-	-	-	-
Other Post-Employment Benefits (OPEB)	-	-	-	-	-
Total Undesignated to Date	-	-	-	-	-
Designated Balance	-	-	-	-	-
Net Available	\$ 771,811	\$ 65,388	\$ 64,922	\$ 64,922	\$ 292,076
Reserve Requirement					\$250k - \$300k

Water Delivery Rate Summary:

	FY 17-18			FY 18-19		
	Delivery	Acre	Forecasted	Delivery	Acre	Forecasted
	Rate	Feet/Turnout	Revenue	Rate	Feet/Turnout	Revenue
O&M Rate	\$ 235.00	4,980	\$ 1,170,300	\$ 235.00	5,000	\$ 1,175,000
Fixed Costs - (Monthly)	\$ 950.00	54	\$ 615,600	\$ 950.00	54	\$ 615,600
Fixed Costs - Upper System (Monthly)	\$ 675.00	8	\$ 64,800	\$ 675.00	8	\$ 64,800

UNITED WATER CONSERVATION DISTRICT

Cost-of-Service Analysis FY 2018-19



Board Presentation

May 22, 2018



HF&H Consultants, LLC

United Water Conservation District

Board Presentation

Presentation Outline

- Background
- Cost-of-service analysis
 - Purpose and analytical steps
 - Cost categories and classifications
 - Cost of service allocations
- Summary of results
 - Ag and M&I costs of service
 - Ratio of M&I to Ag costs



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May 22, 2018

Background

- District Act specifies a range for setting groundwater extraction charges
 - Act recognizes that the District provides service to two classes of pumpers: municipal and industrial (M&I) and agricultural (Ag)
 - Act requires that M&I extraction charge must exceed Ag charge by at least 3 times but no more than 5 times
- District Act does not specify how to determine the differential
- District has historically set M&I extraction charge at 3 times the Ag extraction charge (3 to 1 ratio)
- District developed a cost-of-service methodology for confirming the differential beginning with FY 2013-14
 - Results for FY 2018-19 are being presented today



Purpose of Cost-of-Service Analysis

- Purpose of cost-of-service (COS) analysis
 - Allocate costs associated with providing service to Ag and M&I pumpers in Zones A & B
- Allocations are proportionate to the services each class receives
- The COS analysis determines the quantitative *difference* between Ag and M&I costs
 - The difference determines the ratio
- The COS analysis does not determine extraction charges for Zones A and B
 - Extraction charges are determined by District based on minimum 3 to 1 ratio



Standard Steps in COS Analysis

1. Classify costs by services provided to pumpers
2. Determine unit costs for each service
 - Unit costs apply equally to Ag and M&I
3. Allocate the cost of service to each class based on each class' units of service

COS analysis relies on

- Appropriate rate-making standards
- Best available data
- Reasonable assumptions



Three Cost Categories

The cost categories correspond to the District's core services

	Cost Categories		
	Replenishment	Reliability	Regulatory Compliance
Services	Zone A/B management and administration	Facilities constructed to improve groundwater reliability (Santa Felicia and Freeman Diversion Dams)	Regulatory compliance for facilities that improve groundwater reliability
Costs - O&M	Administration, management, and overhead	Operating personnel for storage and diversion facilities	Studies for ESA compliance, Dam Safety
- Capital	Equipment used for management and administration	Storage and diversion facilities	Facilities that are needed to comply with regulation of reliability facilities



District Budget Related to Zones A and B

- Total District budget of \$32.2 million*
 - 6.4% increase over FY 2017-18
 - \$15.3 million is related to other activities:
 - \$16.9 million is related to Zone A/B

	FY 2017-18	FY 2018-19	Variance	
Total District Budget	\$30,270,786	\$32,193,974	\$1,923,188	6.4%
Less:				
State Water Fund Expenses	(\$1,600,970)	(\$1,846,571)	(\$245,601)	15.3%
O/H Pipeline Fund Expenses	(\$4,760,289)	(\$8,360,056)	(\$3,599,767)	75.6%
PV Pipeline Fund Expenses	(\$442,845)	(\$340,678)	\$102,167	-23.1%
PT Pipeline Fund Expenses	(\$3,030,472)	(\$2,840,133)	\$190,339	-6.3%
Recreation-related Costs	(\$2,379,706)	(\$1,875,395)	\$504,310	-21.2%
Subtotal Non-Zone A/B Expenses	(\$12,214,282)	(\$15,262,834)	(\$3,048,552)	25.0%
Total Zone A/B Budget	\$18,056,504	\$16,931,140	(\$1,125,364)	-6.2%

* Excluding non-cash depreciation expense



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Costs By Category

Zone A/B Budget	FY 2017-18	FY 2018-19	Variance	
Replenishment Costs				
Personnel Costs	\$582,572	\$1,085,107	\$502,535	86.3%
Program Costs	\$1,014,262	\$1,425,890	\$411,628	40.6%
Overhead Allocation	\$310,762	\$558,599	\$247,838	79.8%
Capital Equipment Costs	\$16,634	\$7,733	(\$8,901)	-53.5%
Debt Service	\$0	\$0	\$0	
Transfer to Capital Reserves	\$69,558	\$102,500	\$32,942	47.4%
Subtotal - Replenishment	\$1,993,788	\$3,179,830	\$1,186,042	59.5%
Reliability Costs				
Personnel Costs	\$1,374,885	\$1,369,550	(\$5,336)	-0.4%
Program Costs	\$845,161	\$715,682	(\$129,478)	-15.3%
Overhead Allocation	\$733,405	\$705,027	(\$28,379)	-3.9%
Capital Equipment Costs	\$13,861	\$3,881	(\$9,979)	-72.0%
Debt Service	\$1,363,543	\$1,365,200	\$1,657	0.1%
Transfer to Capital Reserves	\$2,368,514	\$995,387	(\$1,373,127)	-58.0%
Subtotal - Reliability	\$6,699,369	\$5,154,727	(\$1,544,641)	-23.1%
Regulatory Compliance Costs				
ESA & Dam Safety - Personnel Costs	\$1,956,859	\$1,647,046	(\$309,813)	-15.8%
ESA & Dam Safety - Program Costs	\$2,096,198	\$2,435,150	\$338,952	16.2%
Other Personnel Costs	\$471,863	\$426,573	(\$45,290)	-9.6%
Other Program Costs	\$200,500	\$44,000	(\$156,500)	-78.1%
Overhead Allocation	\$1,295,553	\$1,067,473	(\$228,081)	-17.6%
Capital Equipment Costs	\$37,666	\$13,445	(\$24,220)	-64.3%
Debt Service	\$0	\$0	\$0	
Transfer to Capital Reserves	\$3,304,708	\$2,962,895	(\$341,813)	-10.3%
Subtotal - Regulatory Compliance	\$9,363,348	\$8,596,583	(\$766,765)	-8.2%
Total	\$18,056,504	\$16,931,140	(\$1,125,364)	-6.2%

- Replenishment costs
 - 19% of total
 - 59% increase
 - Increased personnel costs and program costs
- Reliability costs
 - 30% of total
 - 23% decrease
 - Decreased capital spending
- Regulatory Compliance costs
 - 51% of total
 - 8% decrease



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Capital Projects – FY 2018-19 Budget

Zone A/Zone B Capital Projects		Replenishment	Reliability	Regulatory Compliance	Total
8001	421 Freeman Diversion Rehab		\$93,862	\$688,323	\$782,185
8002	051 SFD Outlet Works Rehab		\$35,586	\$438,898	\$474,484
8003	051 SFD PMF Containment			\$495,645	\$495,645
8005	051 SFD Sediment Management		\$0		\$0
8006	052 Lower River Invasive Species Control Project			\$51,526	\$51,526
8008	051 Quagga Decontamination Station			\$149,868	\$149,868
8014	052 Solar Project - Piru		\$756		\$756
8018	051 Ferro-Rose Recharge		\$159,606		\$159,606
8019	051 Brackish Water Treatment Plant			\$40,153	\$40,153
8020	052 Recycled Water		\$108,979		\$108,979
8025	051 State Water State Interconnection Project		\$212,078		\$212,078
8026	051 Lower Piru Creek Habitat			\$202,985	\$202,985
8029	052 El Rio Asphalt Repairs		\$0		\$0
8030	051 SFD Fish Passage			\$300,000	\$300,000
8031	052 Replace El Rio Trailer			\$82,516	\$82,516
8024	New Headquarters (allocated based on personnel costs)	89,861	\$113,416	\$171,723	\$375,000
Total		\$89,861	\$724,284	\$2,621,637	\$3,435,782

- FY 2017-18 budget
 - Replenishment \$49,087
 - Reliability \$1,510,155 (\$1.0 million for SFD outlet works)
 - Reg Comp \$2,538,819
 - Total \$4,098,781



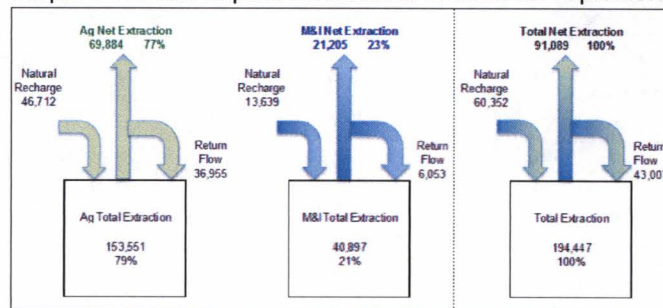
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Replenishment Cost Allocations

- Service provided by District
 - Zone A/B management and administration
- Units of service: adjusted consumptive use (net extractions)
 - Total pumpage minus return flow and natural recharge
 - Represents net impact on basin and need for replenishment



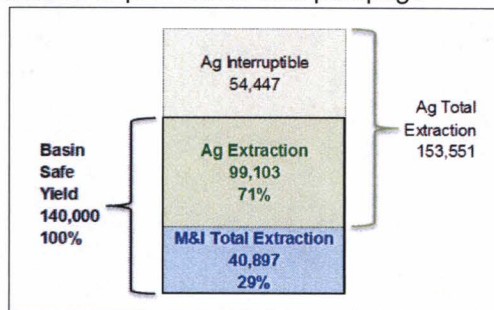
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May 22, 2018

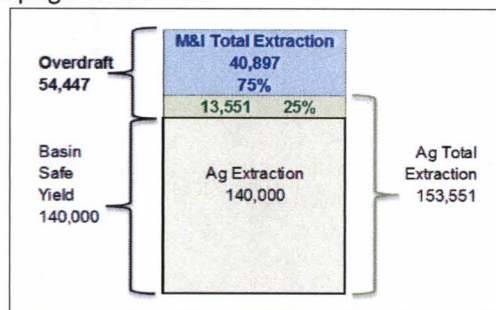
Reliability Cost Allocations

- Service provided by District
 - Facilities constructed to improve safe yield
- Units of service: pumpage within basin safe yield
 - Pumpage within safe yield is basis for allocation
 - *M&I receives higher priority for higher beneficial use*
 - Ag is reduced to provide for M&I pumpage



Regulatory Compliance Cost Allocations

- Service provided by District
 - Regulatory compliance related to facilities that provide reliability
- Units of service: contribution to overdraft in the basin
 - Pumpage in excess of safe yield is basis for allocation
 - *Ag has historical priority over M&I*
 - Ag pumpage comes first



Allocation Factor Summary

	Allocation Factors by Cost Category		
	Replenishment	Reliability	Reg Comp
- Ag	77%	71%	25%
- M&I	<u>23%</u>	<u>29%</u>	<u>75%</u>
	100%	100%	100%

Proportionate to net extractions from basin

Proportionate to basin safe yield

- M&I requires greater reliability
- some Ag is interruptible

Proportionate to overdraft

- Ag development preceded M&I
- M&I development worsened overdraft



Replenishment Cost of Service (\$/AF)

I. Replenishment Unit Costs

Replenishment costs	\$3,179,830
Adjusted consumptive use (AF)	91,089
Unit cost of service (\$/AF)	\$34.91

The same unit costs apply equally to Ag and M&I

	Ag	M&I	Total
I. Replenishment Cost of Service			
Unit cost of service (\$/AF)	\$34.91	\$34.91	\$34.91
Adjusted consumptive use (AF)	69,884	21,205	91,089
Cost-of-service allocation	\$2,439,594	\$740,236	\$3,179,830



Reliability Cost of Service

II. Reliability Unit Costs

Reliability Costs	\$5,154,727
Pumpage within basin safe yield	140,000
Unit cost of service (\$/AF)	\$36.82

The same unit costs
apply equally to Ag
and M&I

	Ag	M&I	Total
II. Reliability Cost of Service			
Unit cost of service (\$/AF)	\$36.82	\$36.82	\$36.82
Pumpage within basin safe yield	99,103	40,897	140,000
Cost-of-service allocation	\$3,648,935	\$1,505,792	\$5,154,727



Regulatory Compliance Cost of Service

III. Regulatory Compliance Unit Costs

Regulatory Compliance costs	\$8,596,583
Overdraft contribution (AF)	54,447
Unit cost of service (\$/AF)	\$157.89

The same unit costs
apply equally to Ag
and M&I

	Ag	M&I	Total
III. Regulatory Compliance Cost of Service			
Unit cost of service (\$/AF)	\$157.89	\$157.89	\$157.89
Overdraft contribution (AF)	13,551	40,897	54,447
Cost-of-service allocation	\$2,139,485	\$6,457,097	\$8,596,583



Summary of COS Allocations and Composite Ratio

	Ag	M&I	Total
IV. Total Cost of Service			
Replenishment	\$2,439,594	\$740,236	\$3,179,830
Reliability	\$3,648,935	\$1,505,792	\$5,154,727
Regulatory Compliance	<u>\$2,139,485</u>	<u>\$6,457,097</u>	<u>\$8,596,583</u>
	\$8,228,015	\$8,703,125	\$16,931,140
Total pumpage (AF)	153,551	40,897	194,447
Composite unit cost (\$/AF)	\$53.59	\$212.81	\$87.07
Ratio of M&I to Ag unit costs	1.00	3.97	

- Ag is allocated majority of Replenishment and Reliability
 - Proportionate to its use of the basin safe yield
- M&I is allocated majority of Regulatory Compliance
 - Regulatory costs associated with M&I's impact of exacerbating overdraft conditions



Summary

- Methodology consistent with past years
- FY 2018-19 cost-of-service analysis confirms 3-to-1 ratio

	Composite Unit Costs (\$/AF)		Ratio M&I to Ag
	Ag	M&I	
FY 2013-14	\$56.51	\$178.43	3.16
FY 2014-15	\$50.94	\$165.32	3.25
FY 2015-16	\$54.44	\$171.74	3.15
FY 2016-17	\$49.64	\$169.80	3.42
FY 2017-18	\$55.38	\$227.80	4.11
FY 2018-19	\$53.59	\$212.81	3.97
Average	\$53.42	\$187.65	3.51



Questions?





HILTON FARNKOPF & HOBSON

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Managing Tomorrow's Resources Today

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May 22, 2018

Mr. Mauricio Guardado
General Manager
United Water Conservation District
106 North 8th Street
Santa Paula, CA 93060

Subject: **FY 2018-19 Cost-of-Service Analysis Report**

Dear Mr. Guardado:

HF&H Consultants, LLC prepared a cost-of-service analysis for FY 2018-19 groundwater extraction charges for United Water Conservation District's Zones A and B. The cost-of-service analysis estimates the differential between the unit costs of serving municipal and industrial (M&I) and agricultural (Ag) pumpers. The purpose of this report is to document our findings. Our report describes the background and overall methodology before presenting a step-by-step description of the cost-of-service analysis.

I. BACKGROUND AND METHODOLOGY

Water Code §75594 requires the District to charge M&I pumpers at least three times but no more than five times the charge to Ag pumpers. It has been the District's practice in recent years to set the M&I charge at three times the Ag charge. In response to litigation,¹ the District has conducted annual cost-of-service analyses beginning with FY 2013-14. The present analysis for FY 2018-19 is the sixth such cost-of-service analysis.

In setting the multiple of M&I to Ag charges at 3-to-1, the District has chosen the minimum differential. §75594 does not require the District to conduct cost-of-service analyses in setting the differential nor does §75594 prescribe any formula, methodology, or approach for setting a higher differential up to the 5-to-1 maximum allowed. In conducting the cost-of-service analyses for each of the years beginning with FY 2013-14, we developed a methodology that conforms to the rate-making standards and industry

¹ *City of San Buenaventura v. United Water Conservation District*, California Supreme Court, Case No. S226036.



practices as promulgated in the American Water Works Association's *Principles and Practices of Water Rates, Fees, and Charges* (also known as the M1 Manual or Manual M1. The M1 Manual's "Overview of the Key Technical Analyses Associated With Cost-Based Rate Making" provides the following guidance:

In establishing cost-based water rates, it is important to understand that a cost-of-service methodology does not prescribe a single approach. Rather, as the first edition of AWWA's Manual M1 noted, "the [M1 manual] is aimed at outlining the basic elements involved in water rates and suggesting alternative rules of procedure for formulating rates, thus permitting the exercise of judgment and preference to meet local conditions and requirements" (AWWA 1954).² This manual, like those before it, provides the reader with an understanding of the options that make up the generally accepted methodologies and principles used to establish cost-based rates. From the application of these options within the principles and methodologies, a utility may create cost-based rates that reflect the distinct and unique characteristics of that utility and the values of the community.³

From its earliest days, the AWWA has recognized the need to exercise judgment in deriving reasonable rates. Reasonable rates are not arbitrary, capricious, or discriminatory. Arbitrary rates reflect choices in classifying and allocating costs for which there is no rationale. Capricious rates contain data and assumptions for which there is no factual basis. Discriminatory rates are disproportionate to the cost of providing service, favoring one class of customers to the detriment of another class. The analyst must exercise judgment to ensure that rates are reasonable in each case.

A review of the literature finds that there is no reference to agricultural rates in the classic rate-making texts.⁴ There is no practice (e.g., formula, quantitative framework) that is considered the industry-standard economic analysis or the rate-making practice. The closest to a practice for setting agricultural rates that could be considered an industry practice is the M1 Manual's principles to apply judgment appropriate to the District in conducting a cost-of-service analysis that establishes a reasonable rate differential.

In addition to conforming to rate-making standards and industry practices, our

² AWWA M1 Manual, *Water Rates Manual*, First Edition, 1954, p. 1.

³ AWWA M1 Manual of Water Supply Practices, *Principles of Water Rates, Fees, and Charges*, Seventh Edition, 2017, page 5. The M1 Manual is a useful reference for retail and wholesale water suppliers, although as a water conservation district, United differs from a conventional water utility.

⁴ In this group we include the M1 Manual; *Principles of Public Utility Rates*, James C. Bonbright; *The Process of Rate Making*, Leonard S. Goodman; *The Regulation of Public Utilities*, Charles F. Phillips, Jr.; and *The Economics of Regulation*, Alfred E. Kahn. *Water and Wastewater Finance and Pricing*, by George A. Raftelis, the founder of the City's consulting rates firm, makes no reference to agricultural rates.



increased familiarity with the District's financial and engineering data has led to refinements that improve the stability of the calculation. Stability is an important consideration in view of the fact that §75594 calls for a rate differential for an indefinite period.

This report describes our cost-of-service analysis, which follows the steps prescribed by the AWWA. The methodology first requires the classification of costs by service or function provided. The units of service provided to customers, which are associated with each function, are then determined. Each class is then allocated its share of the services based on the number of units of service that it requires of each service. The total cost allocated to each class is used to determine the differential in the cost of service. Note that the cost-of-service analysis did not calculate separate Zone A and Zone B rates, which is how the District charges its water users. Instead, the analysis was applied to Zones A and B to determine the differential between the Ag and M&I cost of service.

II. CLASSIFICATION OF COSTS

The process of classifying costs begins with the District's total budgeted operating and capital expenses for FY 2018-19, which are being presented to the Board for approval at its May 22, 2018 Board meeting. Certain expenses were deducted that are not related to Zones A and B, namely, the State Water Fund, other pipelines, and recreation, as shown in **Figure 1**. These items were excluded from the cost allocations to Zones A and B. The remaining budget was classified among the three services required by Ag and M&I water users.

Figure 1. FY 2018-19 Budget

	FY 2017-18	FY 2018-19	Variance	
Total District Budget	\$30,270,786	\$32,193,974	\$1,923,188	6.4%
Less:				
State Water Fund Expenses	(\$1,600,970)	(\$1,846,571)	(\$245,601)	15.3%
O/H Pipeline Fund Expenses	(\$4,760,289)	(\$8,360,056)	(\$3,599,767)	75.6%
PV Pipeline Fund Expenses	(\$442,845)	(\$340,678)	\$102,167	-23.1%
PT Pipeline Fund Expenses	(\$3,030,472)	(\$2,840,133)	\$190,339	-6.3%
Recreation-related Costs	(\$2,379,706)	(\$1,875,395)	\$504,310	-21.2%
Subtotal Non-Zone A/B Expenses	(\$12,214,282)	(\$15,262,834)	(\$3,048,552)	25.0%
Total Zone A/B Budget	\$18,056,504	\$16,931,140	(\$1,125,364)	-6.2%

We note that although the District's overall budget is increases \$1.9 million, the Zone A/B portion of the budget is decreasing \$1.1 million.

IIA. Cost Categories



The District performs three functions for Ag and M&I pumpers: replenishment, reliability, and regulatory compliance, which are summarized in **Figure 2**.

Figure 2. Functions and Costs Associated with Cost Categories

	Cost Categories		
	Replenishment	Reliability	Regulatory Compliance
Services	Zone A/B management and administration	Facilities constructed to improve groundwater reliability (Santa Felicia and Freeman Diversion Dams)	Regulatory compliance for facilities that improve groundwater reliability
Costs - O&M	Administration, management, and overhead	Operating personnel for storage and diversion facilities	Studies for ESA compliance, Dam Safety
- Capital	Equipment used for management and administration	Storage and diversion facilities	Facilities that are needed to comply with regulation of reliability facilities

Replenishment Cost Category. Replenishment costs are the costs associated with the District's core function, which is to manage and administer groundwater replenishment activities in the District. Most of this cost is personnel costs associated with managers, administrators, and planners who oversee the District's replenishment programs. A portion of overhead is allocated to the replenishment cost category based on its pro rata share of personnel costs. These costs would be incurred regardless of the advent of urban development.

Reliability Cost Category. Reliability costs are the costs associated with the District's storage and diversion facilities (i.e., Santa Felicia Dam and Freeman Diversion Dam). These facilities were constructed following the formation of the District to improve the reliability of groundwater supply for anticipated growth in M&I water users. The construction of these dams enabled the District to accommodate urbanization through improved conjunctive use operations. These facilities helped firm up the District-wide safe yield and enable the District to manage the impacts of meeting the higher reliability needs of M&I water users.

Absent these facilities, M&I reliability would be subject to the same interruptions that agriculture is exposed to and which agriculture is in a far better position to tolerate through land fallowing. The personnel and program costs of operations and maintenance staff associated with the District's storage and diversion facilities are included in the reliability cost category. The capital costs of these facilities (i.e., pay-as-you-go capital projects, debt service, and transfers to capital reserves) are also included in this category.



Regulatory Compliance Cost Category. Regulatory compliance costs are a consequence of constructing facilities that were required to improve reliability for growth in the basin, which for the most part is attributable to urbanization. The costs are related to complying with regulations such as the Endangered Species Act (ESA) and Dam Safety requirements. These costs are in addition to the cost of construction of dams but do not improve reliability. These costs are distinct from reliability costs, which are directly related to the facilities and the reliability that they provide.

The term “Regulatory Compliance” replaces “Overdraft Mitigation,” which was used in previous years for this cost category. The term “Overdraft Mitigation” was chosen because it reflects how these costs are allocated. Experience has shown, however, that the costs in this category are largely related to regulatory compliance, which is a more descriptive term for this cost category and will be used henceforth.

IIB. Cost Classification

Figure 3 summarizes the costs related to providing service to Zones A and B. The costs are shown for each of the three cost categories. Costs for the FY 2018-19 draft budget are compared with the FY 2017-18 budget. The significant variances are noted below.

Replenishment Cost Category. Of the three cost categories replenishment costs are the smallest category. The classification of replenishment costs for FY 2018-19 is consistent with prior years. In other words, there were no existing costs that the District determined should be reclassified nor were there new costs for which there was no classification precedent. Overall, there is a \$1,186,000 increase in costs in this category.

Reliability Cost Category. Reliability costs are the second largest cost category. The classification of existing reliability costs for FY 2018-19 is consistent with prior years; no existing operations and maintenance costs were reclassified. Overall, there is a \$1,545,000 decrease in costs in this category.



Figure 3. FY 2018-19 Zone A/B Budget

Zone A/B Budget	FY 2017-18	FY 2018-19	Variance	
Replenishment Costs				
Personnel Costs	\$582,572	\$1,085,107	\$502,535	86.3%
Program Costs	\$1,014,262	\$1,425,890	\$411,628	40.6%
Overhead Allocation	\$310,762	\$558,599	\$247,838	79.8%
Capital Equipment Costs	\$16,634	\$7,733	(\$8,901)	-53.5%
Debt Service	\$0	\$0	\$0	
Transfer to Capital Reserves	\$69,558	\$102,500	\$32,942	47.4%
Subtotal - Replenishment	\$1,993,788	\$3,179,830	\$1,186,042	59.5%
Reliability Costs				
Personnel Costs	\$1,374,885	\$1,369,550	(\$5,336)	-0.4%
Program Costs	\$845,161	\$715,682	(\$129,478)	-15.3%
Overhead Allocation	\$733,405	\$705,027	(\$28,379)	-3.9%
Capital Equipment Costs	\$13,861	\$3,881	(\$9,979)	-72.0%
Debt Service	\$1,363,543	\$1,365,200	\$1,657	0.1%
Transfer to Capital Reserves	\$2,368,514	\$995,387	(\$1,373,127)	-58.0%
Subtotal - Reliability	\$6,699,369	\$5,154,727	(\$1,544,641)	-23.1%
Regulatory Compliance Costs				
ESA & Dam Safety - Personnel Costs	\$1,956,859	\$1,647,046	(\$309,813)	-15.8%
ESA & Dam Safety - Program Costs	\$2,096,198	\$2,435,150	\$338,952	16.2%
Other Personnel Costs	\$471,863	\$426,573	(\$45,290)	-9.6%
Other Program Costs	\$200,500	\$44,000	(\$156,500)	-78.1%
Overhead Allocation	\$1,295,553	\$1,067,473	(\$228,081)	-17.6%
Capital Equipment Costs	\$37,666	\$13,445	(\$24,220)	-64.3%
Debt Service	\$0	\$0	\$0	
Transfer to Capital Reserves	\$3,304,708	\$2,962,895	(\$341,813)	-10.3%
Subtotal - Regulatory Compliance	\$9,363,348	\$8,596,583	(\$766,765)	-8.2%
Total	\$18,056,504	\$16,931,140	(\$1,125,364)	-6.2%

Regulatory Compliance Cost Category. Regulatory Compliance costs constitute the largest cost category and amount to nearly half the Zone A/B costs. The classification of regulatory compliance costs for FY 2018-19 is consistent with prior years. Costs are decreasing by \$767,000.

Figure 4 lists the budgeted capital improvement projects for Zones A and B categorized accordingly that are summarized in **Figure 3**. In some cases, the projects are classified into a single category corresponding their function. Some projects are related to more than one cost category. The basis for the allocations was established by District staff when the projects were originally budgeted. We note that **Figure 3** also includes a cost for capital replacement, which is an allowance that is not specific to individual facilities.



Figure 4. FY 2018-19 Budgeted Capital Expenses

Zone A/Zone B Capital Projects		Replenishment	Reliability	Regulatory Compliance	Total
8001	421 Freeman Diversion Rehab		\$93,862	\$688,323	\$782,185
8002	051 SFD Outlet Works Rehab		\$35,586	\$438,898	\$474,484
8003	051 SFD PMF Containment			\$495,645	\$495,645
8005	051 SFD Sediment Management		\$0		\$0
8006	052 Lower River Invasive Species Control Project			\$51,526	\$51,526
8008	051 Quagga Decontamination Station			\$149,868	\$149,868
8014	052 Solar Project - Piru		\$756		\$756
8018	051 Ferro-Rose Recharge		\$159,606		\$159,606
8019	051 Brackish Water Treatment Plant			\$40,153	\$40,153
8020	052 Recycled Water		\$108,979		\$108,979
8025	051 State Water State Interconnection Project		\$212,078		\$212,078
8026	051 Lower Piru Creek Habitat			\$202,985	\$202,985
8029	052 El Rio Asphalt Repairs		\$0		\$0
8030	051 SFD Fish Passage			\$300,000	\$300,000
8031	052 Replace El Rio Trailer			\$82,516	\$82,516
8024	New Headquarters (allocated based on personnel costs)	89,861	\$113,416	\$171,723	\$375,000
Total		\$89,861	\$724,284	\$2,621,637	\$3,435,782

III. COST ALLOCATION FACTORS

Costs could be allocated simply by dividing the total cost by the total Ag and M&I pumpage without regard to the nature of the costs and the impact of the pumping. However, as previously noted, the District's costs vary according to the associated service. For that reason, allocation factors are tailored to each service to determine the pumpers' proportionate shares of each service. The basis for allocating costs to the Ag and M&I classes for each cost category is summarized in **Figure 5**.

Figure 5. Allocation Basis for Determining Units of Service

	Cost Categories		
	Replenishment	Reliability	Regulatory Compliance
Ag	Total Ag pumpage minus return flow and natural recharge	Ag is interruptible. Pumpage is reduced so that sum of Ag and M&I does not exceed basin safe yield	Only pumpage in excess of 140,000 AF basin safe yield
M&I	Total M&I pumpage minus return flow and natural recharge	All pumpage	All pumpage
Pumpage Period	Most recent eleven years of historic pumpage	Same as Replenishment period	Same as Replenishment period

Each of the cost allocation factors relies on average historic pumpage (both direct pumpage as well as in-lieu pumpage for pipeline deliveries). To help reduce fluctuations from year to year, we have used the running average pumpage for an eleven-year period. This long-term average adds stability to the calculation, which is commensurate with the District's programs that are not confined to individual years but, rather, span many years. An eleven-year period was used because it was the most



number of years that were available for the first year we analyzed, FY 2013-14.

Figure 6 summarizes the historic Ag and M&I pumpage for Zones A and B and for the pipeline service areas. We note that M&I pumpage in FY 2017-18 was 1% higher than the prior year and Ag pumpage was about 13% lower. No pumping continued to occur on the PVP pipeline.

Figure 6. Historic Ag and M&I Pumpage

M&I Pumping (AF)						
Fiscal Year	Zone A	Zone B	PVP*	PTP*	OHP	Total
2007	15,092	18,495	-	-	14,957	48,543
2008	15,254	14,336	-	-	19,026	48,616
2009	12,645	15,967	-	-	16,029	44,642
2010	11,192	16,504	-	-	15,524	43,220
2011	10,600	18,384	-	-	10,982	39,966
2012	11,285	15,301	-	-	11,424	38,011
2013	12,550	16,230	-	-	11,329	40,108
2014	13,133	17,316	-	-	10,967	41,416
2015	11,905	14,714	-	-	10,130	36,749
2016	11,796	13,101	-	-	9,255	34,152
2017	11,784	13,575	-	-	9,079	34,438
Subtotal M&I	137,237	173,924	-	-	138,702	449,863
Average**	12,476	15,811	-	-	12,609	40,897
Ag Pumping (AF)						
Fiscal Year	Zone A	Zone B	PVP*	PTP*	OHP	Total
2007	84,206	58,515	13,083	9,295	1,102	166,201
2008	83,112	60,134	8,808	9,465	1,341	162,859
2009	79,658	54,877	14,529	10,040	1,566	160,670
2010	75,446	50,809	13,077	9,174	1,282	149,788
2011	71,122	48,461	10,482	7,847	1,109	139,022
2012	73,719	51,054	12,858	8,762	1,182	147,574
2013	78,053	63,554	7,088	8,447	1,244	158,386
2014	84,971	74,214	339	8,400	1,327	169,251
2015	76,531	62,974	5	5,140	836	145,485
2016	77,988	70,428	-	5,032	1,295	154,743
2017	71,824	56,557	-	5,357	1,340	135,078
Subtotal Ag	856,630	651,576	80,269	86,959	13,624	1,689,057
Average**	77,875	59,234	7,297	7,905	1,239	153,551
Total Pumping (AF)						
Fiscal Year	Zone A	Zone B	PVP*	PTP*	OHP	Total
2007	99,298	77,009	13,083	9,295	16,058	214,744
2008	98,366	74,470	8,808	9,465	20,367	211,476
2009	92,303	70,844	14,529	10,040	17,596	205,312
2010	86,638	67,313	13,077	9,174	16,806	193,008
2011	81,722	66,846	10,482	7,847	12,091	178,988
2012	85,004	66,355	12,858	8,762	12,606	185,585
2013	90,603	79,784	7,088	8,447	12,573	198,495
2014	98,104	91,530	339	8,400	12,294	210,667
2015	88,436	77,688	5	5,140	10,966	182,234
2016	89,784	83,529	-	5,032	10,550	188,895
2017	83,608	70,132	-	5,357	10,419	169,517
District Total	993,867	825,499	80,269	86,959	152,326	2,138,920
Average**	90,352	75,045	7,297	7,905	13,848	194,447

* Includes direct pumping and surface water deliveries in lieu of pumping (all subject to 3:1 ratio)

** To Figures 7, 9, 11 & 16



IIIA. Replenishment Cost Allocation Factors

Replenishment costs are allocated between Ag and M&I based on the amount of replenishment that their respective groundwater pumpage causes. The amount of replenishment is the amount of their pumpage net of return flows and natural recharge from precipitation. Return flows and precipitation reduce the impact of pumpage because they reduce the amount of replenishment that is needed to offset pumpage.

Figure 7 shows how return flows and precipitation are netted out of gross pumpage to yield "adjusted consumptive use," which is a more accurate representation of the amount of replenishment that is needed to offset Ag and M&I pumpage.

Figure 7. Cost Allocation Factors - Replenishment Cost Category

	Total	Ag	M&I
a I. Consumptive Use			
b Pumpage (AF)	194,447	153,551	40,897
c Consumptive use factor		75.9%	85.2%
d Consumptive use (AF)	151,440	116,596	34,844
e Return flow (AF)	43,007	36,955	6,053
f II. Precipitation Contribution to Overlying Land			
g District-Wide (Acres)	120,996	80,078	40,918
h Average precipitation (Inches)		7.00	4.00
i Precipitation contribution (AF)	60,352	46,712	13,639
j III. Consumptive Use			
k Consumptive use (AF)	151,440	116,596	34,844
l Precipitation contribution (AF)	60,352	46,712	13,639
m Adjusted consumptive use (AF)	91,089	69,884	21,205
n Share of replenishment costs	100%	77%	23%

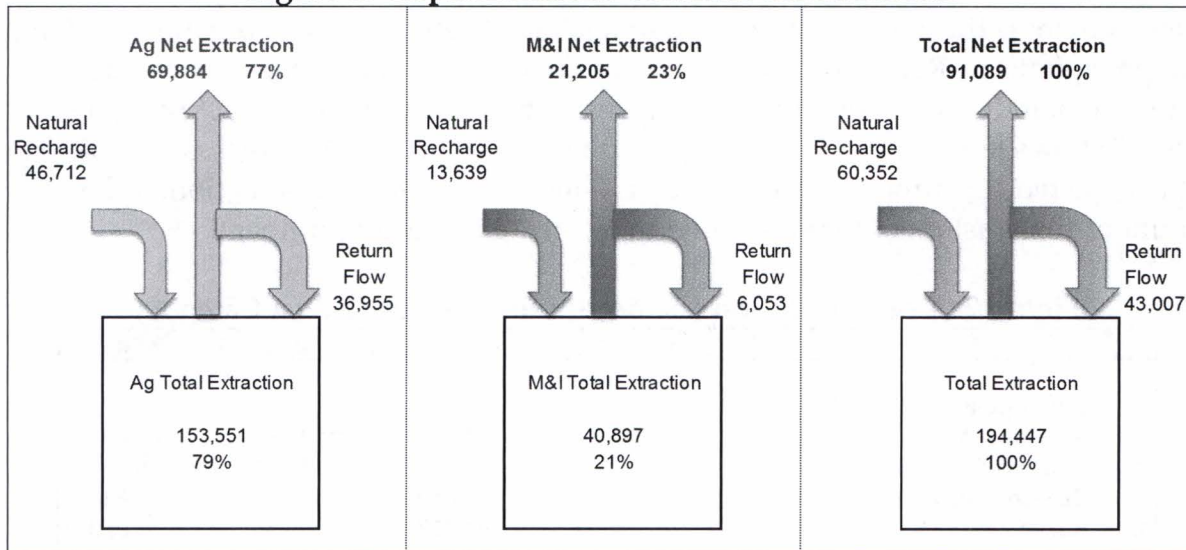
Different consumptive use factors were developed by District staff to adjust the gross pumpage to consumptive use, which is the amount of pumpage that does not return to the basin after it is applied to crops or used in urban areas. Ag's 75.9% consumptive use is lower than M&I's 85.2% because more of Ag's pumpage returns to the basin.

Natural recharge was also accounted for because precipitation that recharges a basin reduces the need for replenishment water that would otherwise be needed. With Ag's larger surface area and greater permeability, Ag receives a greater benefit from precipitation recharge than M&I.

When return flows and natural recharge are accounted for, the resulting adjusted consumptive uses indicate the net impact of Ag and M&I pumpage on the basin. For purposes of allocating the Zone A and B replenishment costs, adjusted consumptive use is used because it reflects that actual burden that Ag and M&I pumpage places on the

basin. **Figure 8** is a graphical depiction of the derivation of the replenishment allocation factors.

Figure 8. Replenishment Cost Allocation Factors



IIIB. Reliability Cost Allocation Factors

Reliability costs are allocated between Ag and M&I to reflect the fact that M&I requires higher reliability than Ag. M&I is a higher beneficial use than Ag use.⁵ By definition, reliability is threatened when basin pumpage exceeds the safe yield because overdrafting is unsustainable. Pumpage in excess of the safe yield is therefore at risk of being interrupted. Because of M&I's higher beneficial use, M&I pumpage is given first priority to the basin safe yield. Ag receives the remaining basin safe yield. Any Ag pumpage that exceeds the basin safe yield is considered interruptible and is not included in calculating the allocation factors.⁶

Figure 9 shows the cost allocation factors that result when Ag pumpage is reduced so that the combined pumpage of Ag and M&I water users does not exceed 140,000 AF, which is the District-wide safe yield.⁷ The Ag interruption amounts to 54,447 AF. As with the derivation of the replenishment cost allocation factors, the calculation was stabilized by using an eleven-year running average of actual pumpage for the period from FY 2006-07 to FY 2016-17.

Figure 9. Cost Allocation Factors – Reliability Cost Category

⁵ Water Code Section 106.

⁶ Evidence of the lower reliability of Ag supplies is shown in Figure 6 for PVP Ag deliveries. After peaking in FYE 2009, the District completely reduced PVP pipeline deliveries by FYE 2016.

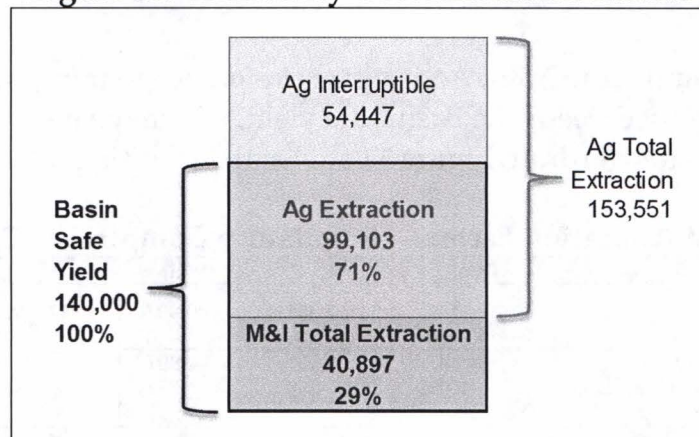
⁷ Conversations with District staff.



	Total	Ag	M&I	Source Notes
a Pumpage (AF)	194,447	153,551	40,897	FY2007 - FY2017 Average AF per Year (Fig. 6) Excess interruptible pumpage a - b c
b Pumpage reduction to basin safe yield	(54,447)	(54,447)	0	
c Pumpage within basin safe yield	140,000	99,103	40,897	
d Share of reliability costs	100%	71%	29%	

It can be seen that the allocation of reliability costs to M&I (29% in **Figure 9**) is greater than the allocation of replenishment costs (23% in **Figure 7**), which is the premium that M&I is allocated in return for a higher level of reliability. **Figure 10** is a graphical depiction of the derivation of the reliability allocation factors.

Figure 10. Reliability Cost Allocation Factors



M&I is allocated a higher percentage of reliability costs than replenishment costs in return for improved reliability. Although Ag's percentage share of reliability costs is lower than its share of replenishment costs, Ag is still allocated the majority of reliability costs. However, Ag's allocation of reliability costs does not include the interruptible portion of Ag's demand. In this way, Ag is not allocated costs of reliability that it does not receive.

IIIC. Regulatory Compliance Cost Allocation Factors

The construction of facilities that provide reliability has resulted in subsequent regulatory compliance costs that do not improve reliability. Regulatory compliance costs in effect represent additional costs of reliability for which there is no corresponding improvement in basin safe yield. Existing regulatory compliance costs, which have been related to ESA and Dam Safety regulation, are projected by the District to continue to increase. Future regulatory compliance costs, as yet unknown, pose considerable uncertainty to the District.

Because current and future regulatory compliance costs are not providing additional



basin safe yield (and may even result in reduced basin safe yield), they should not be allocated based on basin safe yield as are reliability costs. The reliability facilities (which have led to regulatory compliance costs) improved reliability for M&I but did not eliminate overdraft. Because overdraft is mostly attributable to the advent of M&I pumpage, the allocation of regulatory compliance costs should reflect Ag's and M&I's contributions to overdraft.

The District's regulatory compliance costs are allocated based on the portion of pumpage that is attributable to overdraft. Overdraft represents the impact that urban development has on the basin and for which dams were constructed to increase the basin's yield. The presence of dams has led to regulatory actions to mitigate for the dams.

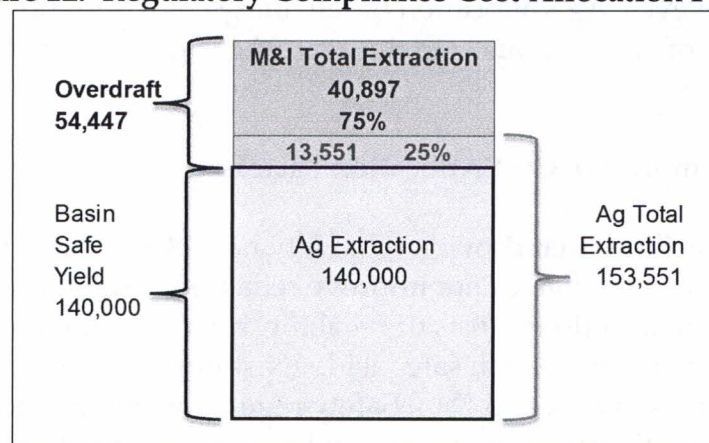
As the predecessor pumper to M&I, Ag is given preference to pumping the safe yield. Ag's pumpage currently exceeds the basin safe yield, which means that all of the M&I pumpage contributes to overdraft. **Figure 11** shows the resulting allocation.

Figure 11. Cost Allocation Factors - Regulatory Compliance Cost Category

	Total	Ag	M&I	Source Notes
a Pumpage (AF)	194,447	153,551	40,897	FY2007 - FY2017 Average AF per Year (Fig. 6) UWCD Staff a - b c
b Basin safe yield (AF)	140,000	140,000	0	
c Overdraft contribution (AF)	54,447	13,551	40,897	
d Share of regulatory compliance costs	100%	25%	75%	

Figure 12 is a graphical depiction of the derivation of the regulatory compliance allocation factors.

Figure 12. Regulatory Compliance Cost Allocation Factors



IIID. Summary of Cost Allocation Factors



The cost allocation factors for replenishment, reliability, and regulatory compliance are summarized in **Figure 13**. Ag's highest allocation is for the District's basic replenishment activities. With the growth in M&I pumpage, the cost of reliability shifts somewhat away from Ag to M&I because M&I requires a more reliable supply. The facilities that were constructed to improve reliability bring regulatory compliance costs with them.

Figure 13. Summary of Cost Allocation Factors

	Cost Categories		
	Replenishment (from Figure 7)	Reliability (from Figure 9)	Regulatory Compliance (from Figure 11)
Allocation Factors			
- Ag	77%	71%	25%
- M&I	<u>23%</u>	<u>29%</u>	<u>75%</u>
	100%	100%	100%

It can be seen that M&I is allocated a much greater share of regulatory compliance costs, which is commensurate with M&I's contribution to overdraft.

IV. UNIT COSTS OF SERVICE

The units of service from **Figure 7** (Total Adjusted Consumptive Use), **Figure 9** (Total Pumpage Within Basin Safe Yield), and **Figure 11** (Total Overdraft Contribution) are combined with the costs in **Figure 2** to yield the unit costs of service shown in **Figure 14**.

Figure 14. Unit Costs of Service

Total		Source Notes	
a I. Replenishment Unit Costs			
b	Replenishment costs	\$3,179,830	Fig. 2 line o
c	Adjusted consumptive use (AF)	91,089	Fig. 7 line m
d	Unit cost of service (\$/AF)	\$34.91	b / c
e II. Reliability Unit Costs			
f	Reliability Costs	\$5,154,727	Fig. 2 line w
g	Pumpage within basin safe yield	140,000	Fig. 9 line c
h	Unit cost of service (\$/AF)	\$36.82	f / g
i III. Regulatory Compliance Unit Costs			
j	Regulatory Compliance costs	\$8,596,583	Fig. 2 line ag
k	Overdraft contribution (AF)	54,447	Fig. 11 line c
l	Unit cost of service (\$/AF)	\$157.89	j / k

Each unit cost has its respective costs and units of service. Overdraft has the highest cost allocation and the lowest units of service, namely, the pumpage in excess of the



basin safe yield, which results in the highest cost per unit (\$157.89 per AF).

V. COST-OF-SERVICE ALLOCATIONS

The unit costs in **Figure 14** are applied to the Ag and M&I units of service in **Figure 15** to yield the following cost-of-service allocations. Ag and M&I are both subject to the same unit costs for each service.

Figure 15. Cost-of-Service Allocations

	Total	Ag	M&I	Source Notes
a I. Replenishment Cost of Service				
b Unit cost of service (\$/AF)	\$34.91	\$34.91	\$34.91	Fig. 14 line d
c Adjusted consumptive use (AF)	91,089	69,884	21,205	Fig. 7 line m
d Cost-of-service allocation	\$3,179,830	\$2,439,594	\$740,236	b * c
e II. Reliability Cost of Service				
f Unit cost of service (\$/AF)	\$36.82	\$36.82	\$36.82	Fig. 14 line h
g Pumpage within basin safe yield	140,000	99,103	40,897	Fig. 9 line c
h Cost-of-service allocation	\$5,154,727	\$3,648,935	\$1,505,792	f * g
i III. Regulatory Compliance Cost of Service				
j Unit cost of service (\$/AF)	\$157.89	\$157.89	\$157.89	Fig. 14 line l
k Overdraft contribution (AF)	54,447	13,551	40,897	Fig. 11 line c
l Cost-of-service allocation	\$8,596,583	\$2,139,485	\$6,457,097	j * k
m IV. Total Cost of Service	\$16,931,140	\$8,228,015	\$8,703,125	d + h + l

VI. COMPOSITE UNIT COST RATIOS

The total costs of service for Ag and M&I shown in **Figure 15** are then used to calculate their respective composite unit costs in **Figure 16**. As previously mentioned, these amounts are not the same as the District's extraction charges, which are calculated separately for Zones A and B. These composite unit costs of \$212.81 for M&I and \$53.59 for agriculture are a blend of the Zone charges and stand in a ratio of 3.97 to 1.00.

Figure 16. Composite Unit Cost Ratio

	Total	Ag	M&I	Source Notes
a I. Composite Unit Costs				
b Cost of service	\$16,931,140	\$8,228,015	\$8,703,125	Fig. 15 line m
c Pumpage (AF)	194,447	153,551	40,897	Fig. 7 line b
d Composite unit cost (\$/AF)		\$53.59	\$212.81	b / c
e II. Ratio of Composite Unit Costs		1.00	3.97	d



VII. SUMMARY AND CONCLUSION

VIIA. Compliance With Rate-Making Standards and Industry Practices

The foregoing cost-of-service analysis fully complies with relevant rate-making standards and industry practices as defined by the City of San Buenaventura's rate consultant: "Cost of Service involves identifying and apportioning annual revenue requirements to the different cost centers and defining unit costs so that costs can be allocated to the different user classes proportionate to their demand on the water system ..." ⁸ This is a conventional definition of cost-of-service analysis. The City's consultant lists three steps in cost-of-service analysis:

1. Allocate revenue requirements to functional cost components.
2. Determine unit costs of components.
3. Determine user class costs.

Figures 1 and 3 of our report correspond to Step 1. **Figure 3** shows the allocation of United's revenue requirement to its three cost centers: for replenishment, for reliability, and for regulatory compliance. These are appropriate cost centers for a water conservation district. These allocations are a matter of cost accounting performed by the District.

Figure 14 of our report corresponds to Step 2. **Figure 14** shows unit costs per acre-foot of \$34.91 for replenishment, \$36.82 for reliability, and \$157.89 for regulatory compliance. These amounts were derived by dividing the functionalized revenue requirements in Step 1 by the units of service. The units of service for replenishment are shown in **Figure 7**, which are the adjusted consumptive uses. The units of service for reliability are shown in **Figure 9**. The units of service for overdraft are shown in **Figure 11**. The resulting unit costs are directly proportionate to the units of service for replenishment, reliability, and regulatory compliance.

Figure 15 of our report corresponds to Step 3. **Figure 15** shows the proportionate results of multiplying unit costs times units of service for Ag and M&I, respectively. Ag is allocated \$8,228,015 of the total revenue requirement and M&I is allocated \$8,703,125. Our report follows the standard steps commonly accepted in the industry for cost-of-service analysis. The allocations are proportionate to the costs of providing service.

⁸ *Cost of Service and Rate Design Study Report*. Prepared by RFC for Ventura Water. March 2012. Page 15 *et seq.*. See also *Cost of Service and Rate Design Study Report*. Prepared by RFC for Ventura Water. January 2014. Page 32 *et seq.*.



VIIB. Conclusion

The analysis indicates the proportional cost of service between Ag and M&I pumpers. The analysis does so by first differentiating between replenishment, reliability, and regulatory compliance costs. Replenishment costs are then allocated in proportion to the impacts of pumping when consumptive use and natural recharge are factored in, resulting in an allocation that reflects the net impact of basin pumpage. The reliability costs represent the O&M and capital costs of the storage and diversion facilities needed to provide the safe yield. The regulatory compliance costs are allocated in proportion to contributions to overdraft. In this allocation, agriculture, as the historically predominant predecessor to M&I, is able to pump within the safe yield for the most part, with some pumpage that is overdraft. M&I pumpage, having largely developed later than agricultural pumpage, is unable to pump within the safe yield because agricultural pumpage currently exceeds the District-wide safe yield and for which Ag's allocation of regulatory compliance costs increased.

The analysis substantiates the 3-to-1 ratio called for in the District's Act by showing that the unit cost of serving M&I water users is over three times the cost of serving Ag water users. The methodology has evolved slightly by converting from using budgeted pumpage to historical averages and the inclusion of total Ag and M&I pumpage including the pipelines. The resulting composite unit costs and ratios for each of the five years are shown in **Figure 17**.

Figure 17. Ratio Summary (FY 2013-14 through FY 2018-19)

Composite Unit Costs (\$/AF)	Ag	M&I	Ratio M&I:Ag
FY2013-14	\$56.51	\$178.43	3.16
FY2014-15	\$50.94	\$165.32	3.25
FY2015-16	\$54.44	\$171.74	3.15
FY2016-17	\$49.64	\$169.80	3.42
FY2017-18	\$55.38	\$227.80	4.11
FY2018-19	\$53.59	\$212.81	3.97
Average	\$53.42	\$187.65	3.51

* * *

We believe this methodology complies with industry rate-making standards because it yields cost-based rates that reflect the distinct and unique characteristics of the District that are proportionate to the cost of providing service.

We look forward to presenting the results of this analysis to the Board of Directors.

Very truly yours,



HF&H CONSULTANTS, LLC

John W. Farnkopf, P.E., Senior Vice President
Rick Simonson, C.M.C., Vice President



Rodney T. Smith, Ph.D. President

Reasonable Ratio of M&I to AG Groundwater Extraction Charges

United Water Conservation District
Santa Paula, CA
May 22, 2018

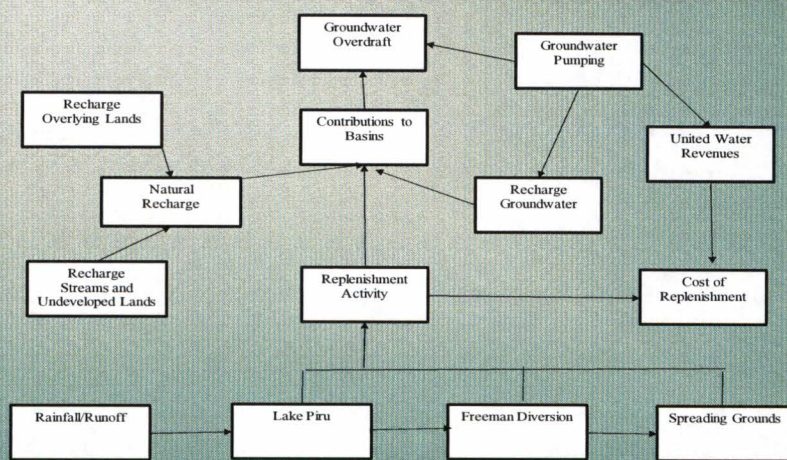
Statement of Question

- Develop a quantitative method to determine a reasonable ratio of groundwater extraction charges Municipal & Industrial ("non-agricultural") water to agricultural ("AG") water
 - ❑ Focus on the differential hydrological impact of M&I and AG groundwater usage and land use on the eight inter-connected basins within United
 - ❑ How differential hydrological impact creates a need for replenishment projects and activities from United
 - ❑ How the rate structure should reflect these differences

Economic Principles of Rate Structure

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United Water's Objectives and Sources of Revenues and Costs



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Principle 1: Components of Fee for Water User Class

- $\text{Fee} = \text{Variable Cost Component} + \text{Fixed Cost Component}$
- Variable Cost Component: replenishment costs that vary with the volume of replenishment projects and activities (estimated @ 10% of total replenishment costs)
- Fixed Cost Component: replenishment costs that do not vary with the volume of replenishment projects and activities (estimated @ 90% of total replenishment costs)

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Principle 2: Variable Cost Component Based on Impact of Pumping on Overdraft

- Impact of pumping on overdraft: pumping less groundwater reuse
 - AG Variable Cost Component: 75.9% of variable cost
 - M&I Variable Cost Component: 85.2% of variable cost

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Principle 3: Fixed Cost Component based on apportionment rules

- Rule 1: apportion fixed cost according to relative demands water user class places on United for replenishment projects and activities
 - ❑ Share based on groundwater pumping adjusted for reuse
- Rule 2: credit water user class based on amount of differential recharge on overlying lands relative to districtwide average
 - ❑ Differential recharge per acre: AG (0.07 AF/acre); M&I (-0.14 AF/acre) adjusted by portion of recharge that benefits the inter-connected basins
 - ❑ Annual cost of replenishment projects and activities

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Consistent With Cost-of-Service, Rate-Making Principles

- United Water undertakes projects to mitigate the effects of groundwater overdraft
- For a parcel, demand for United Water's services reflect water use and land use
- Stratecon's method
 - ❑ United Water's variable cost: comparable to commodity charge
 - ❑ United Water's fixed cost: comparable to demand charge

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United Water's Cost of Replenishment Projects and Activities

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United Water Projects to Address Groundwater Overdraft

- Ferro/Rose (retirement of groundwater allocation)
 - ❑ annual cost of replenishment activity: \$1,131 per acre-foot (firm replenishment)
- Ferro/Rose (recharge project)
 - ❑ annual capital cost of replenishment activity: \$820/acre-foot (non-firm replenishment)
- Desalination of brackish groundwater project (annual cost)
 - For 10,000 acre-foot annual design capacity: \$1,217 per acre-foot to \$1,399 per acre-foot
 - For 20,000 acre-foot annual design capacity: \$1,093 per acre-foot to \$1,238 per acre foot
- Reasonable estimate for United Water's Annual Cost of Replenishment is \$1,100 per acre-foot

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Other Water Initiatives in Ventura County

- City of Ventura "Water Rights Dedication and Water Resources Net Zero Fee Ordinance"
 - ❑ Estimated fee for 2018: \$28,204
 - ❑ Annual cost of \$1,722 per acre foot
- Fox Canyon Groundwater Management Agency surcharge to bring pumping to safe yield
 - ❑ \$1,815/AF for excess pumping of more than 100 acre feet per year
- Casitas Connection to State Water Project (annual cost per expected yield)
 - Capital Cost: \$1,450/AF
 - Replacement Cost: \$237/AF
 - SWP charges: \$1,453/AF
 - Total: \$3,140/AF

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Reasonable Ratio for Groundwater Extraction Charges

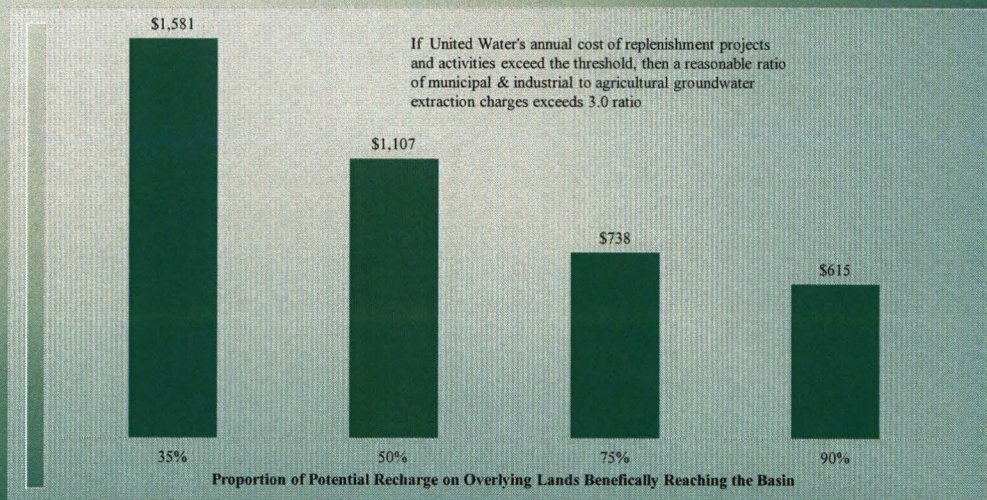
12

Assumptions

- Groundwater Revenue including in-lieu: \$15,807,931
- Groundwater pumping and in-lieu: agricultural (221,730 acre-feet) and municipal & industrial (49,860 acre feet)
- Hydrologic Conditions
 - ❑ Reuse of groundwater: agricultural (24.1%) and municipal & industrial (14.8%)
 - ❑ Overlying recharge for lands: agricultural (0.56 acre-feet per acre) and municipal & industrial (0.35 acre-feet per acre)
- Acreage: Agricultural (80,078 acres) and Municipal & Industrial (40,918 acres)

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Threshold Annual Cost of Replenishment Projects and Activities by
Proportion of Potential Recharge on Overlying Lands Beneficially Reaching the Basin
(\$/AF)



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Conclusion

- A ratio of at least 3.0 for M&I to AG groundwater extraction charges reasonably reflects the quantitative differences between the hydrologic impacts of the different water user classes



May 18, 2018

VIA EMAIL

Mauricio E. Guardado,
Jr., General Manager
United Water Conservation
District 106 N. 8th Street
Santa Paula, CA 93060

RE: Stratecon Analysis of the structure of United Water Conservation District's Water Conservation Extraction Charges for FY 2018-2019

Dear Mr. Guardado:

You requested that Stratecon Inc. prepare an economic analysis regarding the structure of United Water Conservation District's ("United Water") Groundwater Extraction Charges for FY 2018-2019. This is the sixth year that Stratecon has addressed this issue with consistent analysis and factual support. Below, I briefly summarize the approach Stratecon developed five years ago, discuss how that approach is consistent with principles of cost-of-service rate-making and present information on United Water's cost of replenishment projects and activities.

Based on the economic principles, information and analysis presented below, I conclude that a ratio of the Municipal and Industrial rate per acre-foot of groundwater pumped to the Agricultural rate per acre-foot of groundwater pumped of at least 3.0 reasonably reflects the quantitative differences between hydrological impact of municipal and industrial pumping and land use versus agricultural pumping and land use in the eight interconnected basins within United Water.

STRATECON APPROACH

A reasonable rate structure considers the impact of pumping on the demand for United Water's replenishment projects and activities and the relative contribution of different types of land use decisions on direct recharge on overlying lands.

Figure 1 illustrates the relation between United Water's Objective (addressing groundwater overdraft and ensuring reliable groundwater supplies) and undertaking replenishment activity within the context of groundwater pumping and land uses. Groundwater pumping generates United Revenues to cover the cost of replenishment activity. Groundwater pumping also contributes to groundwater overdraft, although the quantitative impact depends on the portion of applied groundwater that does not return as beneficial recharge to United Water's basins. Natural recharge offsets groundwater overdraft from two sources: (i) recharge from streams and undeveloped lands, and (ii) recharge from overlying lands. The change in groundwater overdraft reflects the balance between the impact of groundwater pumping (adjusted for the return of applied groundwater to the basins) versus the impact of recharge from streams and undeveloped lands and from overlying lands.

As discussed in Stratecon's letter regarding the charges for FY 2013-2014, there are three principles:¹

Principle 1: Fee for a water user class is the sum of a variable cost component and a fixed cost component

Principle 2: Variable cost component is based on the variable cost of replenishment projects and activities to offset the impact of an acre-foot of groundwater usage on groundwater overdraft

Principle 3: Fixed cost is apportioned by the share of demands for replenishment projects and activities by water user class, adjusted by a credit based on the differential contribution of a water user's class to recharge from overlying lands.

As discussed more extensively in Stratecon's 2013 letter, Principle 2 means that the variable cost component of the water rate equals United Water's variable cost of replenishment projects and activities per acre-foot of groundwater usage adjusted for the portion of groundwater usage that beneficially returns to the basin for reuse. Principle 3 means that the fixed cost component of the water rate is an apportionment based on the share of demands for replenishment projects and activities by water user class (groundwater usage adjusted for reuse), adjusted by a credit based on United Water's cost of replenishment projects and activities and the difference in average direct recharge per acre of a water use class and average direct recharge per acre district-wide.

¹ "Stratecon Analysis of the structure of United Water Conservation District's Water Conservation Extraction Charges", letter dated June 11, 2013 from Rodney T. Smith, Ph.D. to Mr. Mike Solomon, General Manager, United Water Conservation District, pp. 5-7.

CONSISTENCY WITH COST OF SERVICE PRINCIPLES

Stratecon's approach is consistent with *Principles of Water Rates, Fees and Charges* (Manual of Water Supply Practices), American Water Works Association, Fifth Edition (hereinafter cited as "Principles"). The two most common methods are cost allocation under the "base-extra capacity" and "commodity-demand" methods.² *"In their respective ways, both methods of cost allocation recognize that the cost of serving customers depends not only on the total volume of water used but also on the rate of use, or peaking requirement."*³ Under either method, "it is useful to consider the distinctions between variable and fixed cost."⁴

Under the Base-Extra Capacity Method, costs are separated into base costs and extra capacity costs. "Base costs are costs that tend to vary with the total quantity of water used plus those O&M expenses and capital costs associated with service to customers under average load conditions, without the elements of cost incurred to meet water use variations and resulting peaks in demand."⁵ "Extra capacity costs are costs associated with meeting rate of use requirements in excess of average."⁶

Under the Commodity-Demand Method, costs are separated into commodity costs and demand costs. "Commodity costs are costs that tend to vary with the quantity of water produced."⁷ "Demand costs are associated with providing facilities to meet the peak rates of use, or demands, placed on the system by the customers."⁸

While these two methods differ in their mechanics, they share common principles. For a water system, there are two dimensions about water demand that impact the cost of a system—volume and timing. Infrastructure must be sized to meet peak demand, not average demand. To the extent that water users have different peak demands, the cost of service will be different.

As we have discussed on many occasions, United Water is not a water utility. Instead, it undertakes projects to mitigate the effects of groundwater overdraft. For a parcel, the demand for United Water's services reflects water use and land use decisions.

Now consider the three rate-making principles of Stratecon's approach. Principle 1 (distinguish between variable and fixed cost) follows general water rate-making where it is useful to distinguish between variable and fixed cost. Principle 2 (variable cost component based on variable cost of replenishment to offset the impact of an acre-foot of groundwater pumping on

² *Principles*, p. 50

³ *Ibid* (emphasis added)

⁴ *Principles*, p. 51.

⁵ *Ibid*.

⁶ *Ibid*.

⁷ *Principles*, p. 57

⁸ *Ibid* (emphasis added).

groundwater overdraft) is comparable to the “Commodity” component of the Commodity-Demand Method. Principle 3 (apportion fixed cost by water class share of net groundwater use—pumping less reuse—adjusted for the difference between direct recharge on water class lands from district average) is comparable to the Demand component of the Commodity-Demand Method. Principle 3 captures all dimensions of how pumping and land use decisions place a demand for United Water’s replenishment projects and activities.

United Water’s Cost of Replenishment Projects and Activities

United Water is exploring projects and activities to address groundwater overdraft and to enhance groundwater supply reliability within its boundaries. As elsewhere in California and the western states generally, water agencies must make significant investments.

Ferro/Rose Properties

United Water acquired the Ferro/Rose properties in 2010 for a total cost of \$14 million. The acquisition included a total of 11,000 acre-feet of Fox Canyon Groundwater Management storage credits and an annual groundwater allocation of 1,000 acre-feet. United Water entered into an agreement with the City of Oxnard where Oxnard would use the storage credits and the annual allocation for nine years and pay United Water in accordance with a defined payment schedule. Those payments offset the cost of the property acquisition.

Stratecon has reviewed the *Agreement Between United Water Conservation District and the City of Oxnard for the Purchase of Supplemental Water* (dated 1st day of December 2009). Using a 5% annual interest rate, the present value of the monthly payments specified in the agreement is \$5.2 million with a valuation date of January 1, 2010.⁹

Starting in July 1, 2019, United Water will have control of the 1,000 acre-foot annual groundwater allocation. At that time, United Water will not utilize the allocation as an “in lieu” replenishment activity. By not pumping the groundwater allocation, United Water does not have to replenish pumping from that groundwater allocation. Assuming the pumping would have been for the historical use of the Ferro/Rose property (agriculture), 16% of the amount of groundwater pumped would be available for re-use in the basin.¹⁰ Therefore, not using the groundwater

⁹ The interest rate assumption reflects the view that the long-term, risk-free interest rate is 4.5% (see *Project Evaluation II: Thoughts on Interest Rates*, Rodney T. Smith, Ph.D., Hydrowonk Blog, <http://hydrowonk.com/blog/2013/01/11/project-evaluation-ii-thoughts-about-interest-rates/>) and a reasonable assumption about the default risk of a water right is 0.5% (see *Project Evaluation III: Risk Premium and Risk Assessment*, Rodney T. Smith, Ph.D., Hydrowonk Blog, <http://hydrowonk.com/blog/2013/01/19/project-evaluation-iii-risk-premium-and-risk-assessment/>).

¹⁰ Table B1 *Supplemental Technical Memorandum to Infiltration Potential of Precipitation Fall on Developed Lands and the Fate of Applied Groundwater within UWCD*, Staff, May 23, 2014.

allocation reduces United Water's replenishment needs by 840 acre-feet.¹¹

What is United Water's cost of replenishment activity from this transaction? There are four steps to the calculation:

1. United Water's Net Acquisition Cost: Payment for land (\$14 million) less present value of Oxnard Payments (\$5,196,583) = \$8,803,407
2. Calculate costs per acre-foot of replenishment avoided: Divide net acquisition cost by 840 acre-feet = \$10,480 per acre foot
3. Adjustment for nine-year delay in receipt of groundwater allocation:¹² $(1 + \text{interest rate})^9 = 1.55$
4. Capital Cost of Replenishment: \$16,244

Amortizing this capital cost over 35 years @ 5% interest yields an annual cost of replenishment activity of \$992 per acre-foot. Since the valuation date is January 1, 2010, I adjust this estimate by changes in the Consumer Price Index to 2018. According to the CPI calculator of the U.S. Department of Labor, Bureau of Labor Statistics, the adjustment is 1.14.¹³ Therefore the annual cost of United Water's replenishment activity as of 2018, is \$1,131 per acre-foot.¹⁴

Connecting Ferro/Rose Property to Freeman Diversion

United Water is studying a project to connect the Ferro/Rose property to the Freeman Diversion. The objective is to intercept water during high flow periods where water would otherwise be lost to the ocean and convey water to the property for recharge. The capital cost of the connection is estimated at \$15 million. The anticipated average annual recharge is between 1,000 acre-feet and 1,500 acre-feet. Assuming a one-year construction period, the average annual capital cost of replenishment water from this project is \$820 per acre-foot.¹⁵

The cost of replenishment water from this project exceeds the average annual capital cost. In addition to capital costs, the project will incur operations and maintenance costs and the cost of replacement and renewals.

¹¹ $840 = (1 - .16) \times 1,000$ acre feet.

¹² The benefit of a groundwater allocation is deferred nine years. The interest rate is a measure of the time value of money.

¹³ <http://www.in2013dollars.com/2010-dollars-in-2017?amount=100>

¹⁴ \$1,131 per acre-foot \approx \$992 per acre-foot multiplied by 1.14.

¹⁵ The capital cost per acre-foot is \$12,000 (\$15 million divided by 1,250). The accrued interest during the one-year construction period @ 5% interest increases the capital cost to \$12,600 per acre-foot. Amortizing this capital cost over 30 years @ 5% interest yields an annual cost of \$819.65 per acre-foot.

Desalination of Brackish Groundwater

United Water is investigating the desalination of brackish groundwater as a source of replenishment water. I have reviewed information on the project which presents estimates for 2014 cost conditions.¹⁶ The project proposes to treat brackish groundwater and deliver the treated water to agricultural water users. Such a project would provide in lieu water to offset groundwater pumping in the coastal plain areas that are directly impacted by the threat of seawater intrusion.

The annual O&M cost and capital recovery depends on the scale of the project (see table). For a 10,000 acre-foot per year capacity project, the annual cost ranges from \$1,111 per acre foot to \$1,278 per acre foot. For a 20,000 acre-foot per year capacity project, the annual cost ranges from \$998 per acre foot to \$1,130 per acre foot. Adjusting these 2014 cost estimates for the change in the Engineering News Record's Construction Cost price from 2014 through 2017 (9.5%), this project provides replenishment water at an annual cost in the range of \$1,217 per acre foot to \$1,399 per acre foot for a 10,000 acre foot per year design capacity, and in the range of \$1,093 per acre foot to \$1,238 per acre foot for a 20,000 acre foot per year design capacity.

Range of Annual Cost for United Water's Brackish Desalination Project

<i>Design Capacity (acre feet per year)</i>	<i>2014 Cost Estimate (\$/acre foot)</i>	<i>Updated Cost Estimate (\$/acre foot)</i>
10,000	\$1,111 to \$1,278	\$1,217 to \$1,399
20,000	\$998 to \$1,130	\$1,093 to \$1,238

Other Water Initiatives in Ventura County

On June 6, 2016, the City Council for the City of Ventura adopted the "Water Rights Dedication and Water Resources Net Zero Fee Ordinance and Resolution, imposing an initial fee of \$26,457 per acre foot (per year of additional water demand)."¹⁷ This policy requires development to secure the water rights necessary to serve a development project or pay the fee. Stratecon estimates that the fee for 2018 at \$28,204 per acre foot, reflecting the adjustments provided for in the ordinance (see Attachment 1). Amortizing this fee over a 35-year period at a 5% interest rate, this fee represents an annual charge of \$1,722 per acre foot.

The Fox Canyon Groundwater Management Agency levies a surcharge fee on the amount of groundwater pumping that exceeds extraction allocations.¹⁸ The surcharge is \$1,315 per acre

¹⁶ *Brackish Water Treatment Feasibility Study*, United Water Conservation District, November 2014. *South Oxnard Plain Brackish Water Treatment Feasibility Study*, prepared for United Water Conservation District by Carollo Engineers, August 2014.

¹⁷ Memorandum to Honorable Mayor and City Council from Mark D. Watson, City Manager, and Shana Epstein, Ventura Water General Manager, dated May 16, 2016 for Council action on June 6, 2016.

¹⁸ For current surcharges, see <http://www.fcgma.org/semi-annual-extraction-statement/extraction-fees>.

foot for excess pumping up to 25 acre feet per year, \$1,565 per acre foot of excess pumping more than 25 acre feet per year and up to 1000 acre feet per year, and \$1,815/AF for excess pumping of more than 100 acre feet per year. The surcharges are “necessary to eliminate overdraft caused by excess pumping from the aquifer systems within the Agency and to bring the groundwater basins within the Agency to safe yield.”¹⁹

Casitas Municipal Water District administers the Ventura County 20,000 acre foot Table A Contract Amount for the State Water Project (“SWP”) on behalf of itself (5,000 acre feet), City of Ventura (10,000 acre feet) and United Water (5,000 acre feet). Casitas and Ventura lack a physical connection to the SWP; therefore, they have not exercised their entitlements.²⁰ Casitas identified a preferred pipeline project in 1987 with an estimated capital cost of \$109 million in 1987 (nearly \$200 million in 2016).²¹ Adjusting this estimate by the increase in the Engineering News Record (“ENR”) Construction Cost Index since 2016, the estimated capital cost as of 2018 is \$213 million.²² The average annual yield of a SWP Table A contract is about 60%.²³ Therefore, the capital investment cost of connecting to the SWP is \$23,690 per acre foot of expected supply. Amortizing this capital cost over 35-year term @ 5%, the annual capital cost equals about \$1,450 per acre foot. Assuming that capital replacement requires an annual sinking fund of 1% of initial capital investment, the annual replacement charge would be \$237 per acre foot. The current unit charge for Ventura’s expected water supply from the SWP for the delta water charge and transportation is \$1,453 per acre foot.²⁴ Therefore, connecting to the SWP and paying SWP charges yields a new water supply at an annual cost of \$3,140 per acre foot of expected annual water supply (see table).

¹⁹ See Resolution 2013-03 of the Fox Canyon Groundwater Management Agency, “A Resolution Adopting Tiered Groundwater Extraction Surcharge Rates,” p. 1.

²⁰ “Final Urban Water Management Plan and Agricultural Water Management Plan 2016 Update,” *Casitas Municipal Water District*, June 2016 (hereinafter cited as “Casitas Urban Water Management Plan”), pp. 92-93.

²¹ Casitas Urban Water Management Plan, p. 93.

²² See Attachment 1 for discussion of the increase in the ENR Construction Cost Index of 3.7% for 2017 and 2.8% through May 2018. \$213 million = \$200 million multiplied by 1.037 multiplied by 1.028.

²³ The State Water Project Draft Water Capability Report 2017,” California Department of Water Resources, December 2017, average annual yield of 2,571 thousand acre feet (p.21) and total Table A Water Delivery Amounts for SWP Contractors of 4,172,786 AF (p.15).

²⁴ Management of the California State Water Project,” California Department of Water Resources, Bulletin 132-16, Table B-24.

Annual Cost of Connecting to SWP

<i>Item</i>	<i>\$/Acre Foot</i>
Pipeline Connection	\$1,450
Pipeline Replacement	\$237
SWP Charges	\$1,453
Total	\$3,140

United Water's Cost of Replenishment Projects and Activities

Based on the information discussed above, Stratecon concludes that a reasonable estimate of United Water's annual costs of replenishment projects and activities is about \$1,100 per acre foot. This estimate is consistent with the cost of the acquisition of the Ferro/Rose property and the updated estimated cost of desalination of brackish groundwater. The cost is below other water initiatives in Ventura County, such as Ventura's Water Resources Net Zero Fee and the surcharges levied by the Fox Canyon Groundwater Management Agency. Connecting to the SWP and subscribing to California WaterFix will be even more expensive propositions.

Ratio of Municipal & Industrial to Agricultural Water Conservation Extraction Fees

Stratecon's model for calculation of the ratio of Municipal & Industrial to Agricultural Water Conservation Extraction fees requires three types of information:

- Revenue requirement for the extraction fees
- Estimated groundwater pumping
- Hydrologic conditions

The key information used in the Stratecon model is the following:

- Revenue Requirement:²⁵ \$15,807,931
- Groundwater pumping:²⁶ agricultural (221,730 acre-feet) and municipal & industrial (49,860 acre feet) including in lieu deliveries
- Hydrologic Conditions:²⁷
 - Reuse of groundwater by agricultural water users: 24.1%

²⁵ The number in the text is the sum of Zone A groundwater revenues and in lieu charges and Zone B groundwater revenues and in lieu extraction charges. Data from spreadsheet "All Revenues 2018-2019", tab "GW", Tab "OH", Tab "PV", Tab "PTP".

²⁶ *Ibid.*

²⁷ The best available information regarding the long-term reuse of groundwater and recharge on overlying lands of groundwater users has remained unchanged from last year. See *Supplemental Technical Memorandum to Infiltration Potential of Precipitation Fall on Developed Lands and the Fate of Applied Groundwater within UWCD*, Staff, May 23, 2014.

- Reuse of groundwater by municipal & industrial water users: 14.8%
- Overlying recharge for lands in agricultural use: 0.56 acre-feet per acre
- Overlying recharge for lands in municipal & industrial use: 0.35 acre-feet per acre
- Lands in agricultural use: 80,078 acres
- Lands in municipal & industrial use: 40,918 acres

Figure 2 shows the threshold annual cost of United Water's replenishment projects and activities per acre foot where a reasonable ratio of municipal & industrial groundwater extraction charge to agricultural extraction charge exceeds 3.0 depending on the proportion of recharge on overlying lands beneficially reaching United Water's eight interconnected basins. For the three assumptions Stratecon has used in prior years (50%, 75% and 90%), the threshold annual costs are below the annual cost of United Water's projects and activities. Even if the proportion of recharge beneficially reaching United Water's was even lower (35%), the threshold annual cost \$1,581 per acre foot is below Fox Canyon's surcharge for an owner pumping more than 100 acre feet per year of excess groundwater. Given United Water's annual cost of replenishment projects and programs, United Water's board could reasonably set the ratio at least equal to the minimum ratio allowed under statutory law.

Conclusion

United Water undertakes replenishment projects and activities to address the groundwater overdraft within its jurisdiction. The scale of projects and activities depends on the amount of groundwater pumping, the opportunities for reuse of pumped groundwater and land use decisions that impact the amount of potential rainfall and runoff that recharges the interconnected basins within United Water. Stratecon's analysis of the reasonable ratio of municipal & industrial water extraction fees to agricultural extraction fees incorporates key conditions that impact the scale of replenishment activity United Water must undertake to address groundwater overdraft. The information and analysis presented above supports a ratio of at least 3.0.

Thank you for the opportunity to work with United Water. We find the district and its staff first rate and extremely knowledgeable about the hydrology of the area. If you have any questions regarding our work or have any additional information we should consider in reaching our opinion, we will be delighted to accommodate your requests.

Sincerely,



Rodney T. Smith, Ph.D.
President

Figure 1
United Water's Objective and Sources of Revenues and Costs

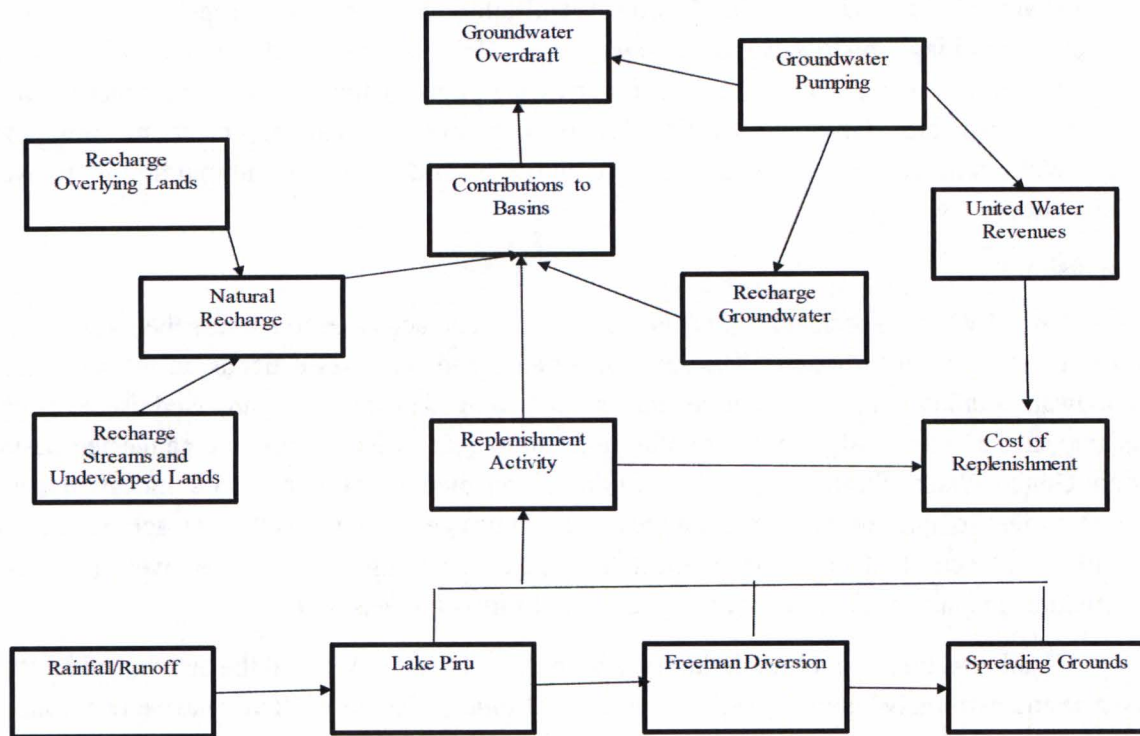
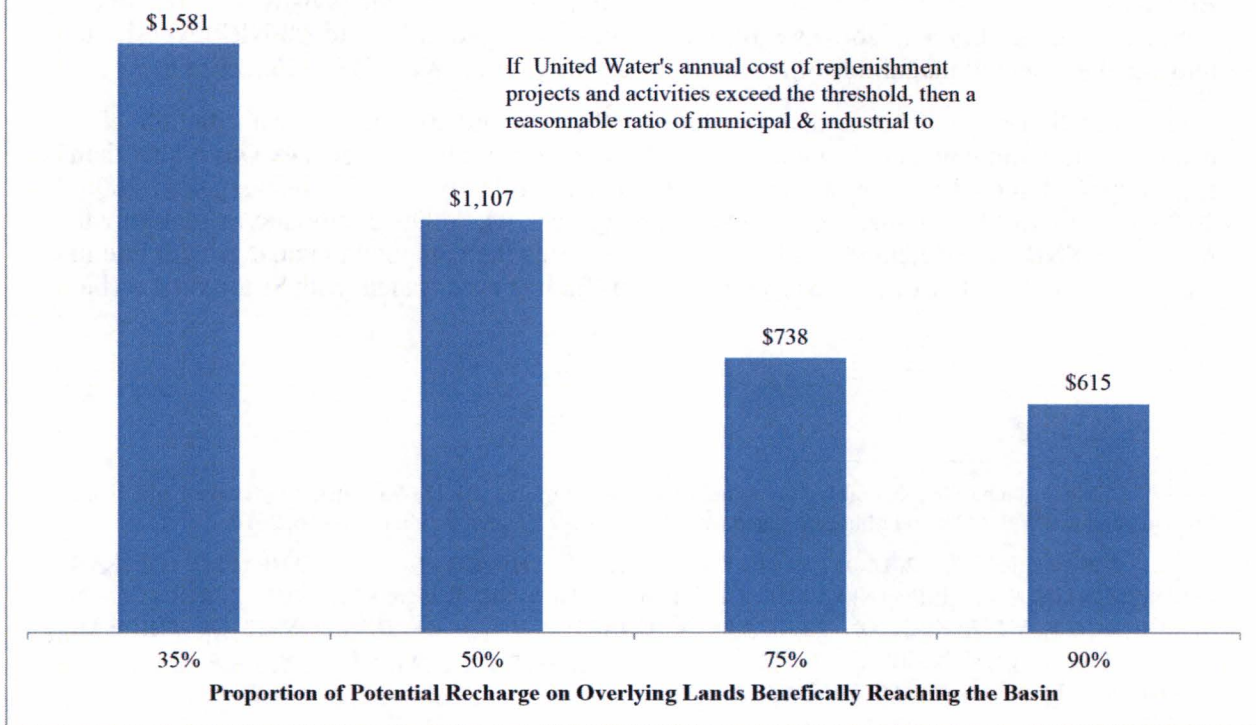


Figure 2
Threshold Annual Cost of Replenishment Projects and Activities by
Proportion of Potential Recharge on Overlying Lands Beneficially Reaching the Basin
(\$/AF)



Attachment 1
City of Ventura's Water Rights Dedication and
Water Resources Net Zero Fee Ordinance

This ordinance requires development to secure the water rights necessary to serve a development project's water needs or pay the Water Resources Net Zero Fee.²⁸ On May 16, 2016, the City Council a resolution setting the fee at \$26,457 per acre foot of new water demand.²⁹ "Effective on July 1 of each year, the fee amount will be adjusted to account for inflationary costs, as a percent increase or decrease using the ENR Construction Index for Los Angeles for the month of May in that year, or the most recent month for which the ENR Construction Index for Los Angeles is available, compared to the index amount in the same respective month of the previous year."³⁰ According to Ventura Water's Frequently Asked Questions, "the net zero fee will be reevaluated at intervals of no greater than every five years or at the same time that water rates are revisited for adjustments, whichever occurs first."³¹

Research on Ventura Water's website was unable to find any documentation of the Net Zero Fee set in 2017 or to be set for 2018. Since annual adjustments are based on the Engineering News Record "Construction Index" until Ventura Water revisits its water rates, Stratecon uses readily available data from the Engineering News Record ("ENR") website to indicate the potential magnitude of annual increases in Ventura Water's Net Zero Fee.

The first major point is that the Net Zero Fee will increase faster than inflation. For example, the compound annual growth rate in ENR's Construction Cost Index was higher than the compound annual growth rate in the Consumer Price Index ("CPI") for the period 2000-2017 for May to May annual comparisons (see Figure 1-A).³² The compound annual growth rate in the ENR Construction Cost Index (3.2%) exceeds the compound annual growth rate in the CPI (2.1%) by 1.1%, or 110 basis points.³³ This finding is consistent with Stratecon's earlier

²⁸ Memorandum to Honorable Mayor and City Council from Mark D. Watson, City Manager, and Shana Epstein, Ventura Water General Manager, dated May 16, 2016 for Council action on June 6, 2016.

²⁹ Resolution No. 2016-027, A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN BUENAVENTURA, CALIFORNIA, ESTABLISHING A WATER RESOURCE NET ZERO FEE IN ACCORDANCE WITH SECTION 22.180.040 OF CHAPTER 22.180 OF DIVISION 22 OF THE SAN BUENAVENTURA MUNICIPAL CODE. <https://www.cityofventura.ca.gov/DocumentCenter/View/6019> Section 5 sets the net zero fee at \$26,467 per acre foot.

³⁰ *Ibid.*

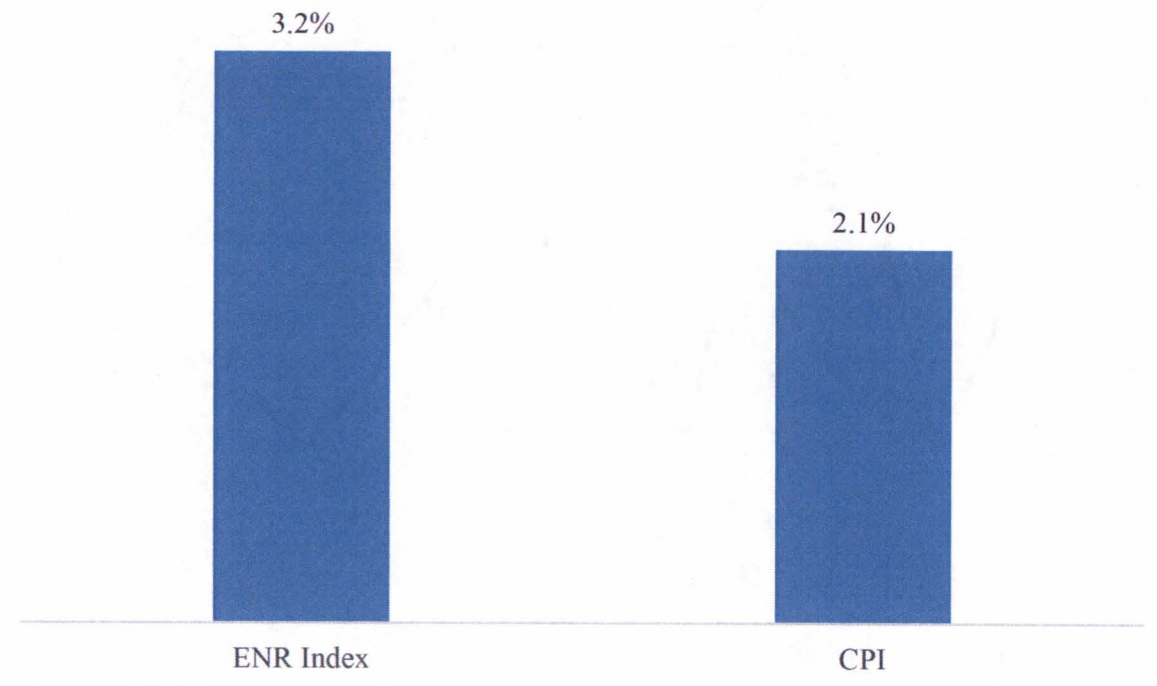
³¹ "Water Rights Dedication and Water Resources Net Zero Policy, Frequently Asked Questions", <https://www.cityofventura.ca.gov/DocumentCenter/View/5640>, Question 10, p. 3.

³² Data for ENR Construction Cost Index from ENR website, https://www.enr.com/economics/historical_indices/construction_cost_index_history. Data on CPI from U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Databases, All Urban Consumers (Current Series), March 2018, Table 24. Historical Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, all items-Continued, Table 24. Historical Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, all items-Continued, <https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-201803.pdf>.

³³ One basis point equals 1/100th of 1%.

analysis concluding that capital/constructions costs in the water industry (as measured by Bureau of Reclamation Cost Indices) grow faster in inflation by 1.1%, or 110 basis points.³⁴

Figure 1-A
Compound Annual Growth Rate since 2000 in
ENR and CPI for May to May Comparisons



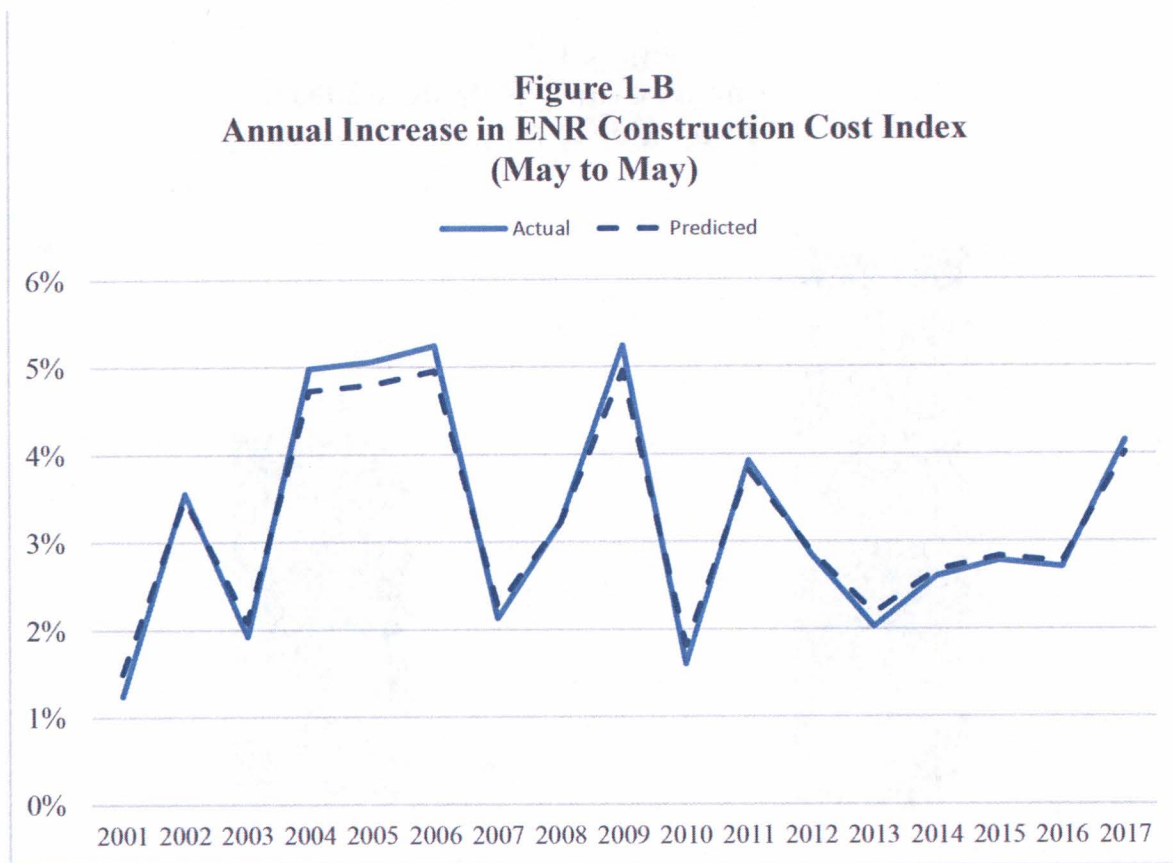
The estimated Net Zero Fee for 2018 reflects the \$26,457/AF fee set in May 2016 plus two annual adjustments: (i) the increase in the ENR Construction Index from May 2016 to May 2017, and (ii) the increase in the ENR Construction Index from May 2017 to May 2018. The first adjustment is 3.7%, the increase in the May 2017 published value (10,692) over the May 2016 published value (10,315). Since there is available data only through March 2018, one needs to estimate the second adjustment based on available information.

Stratecon studied the historical relationship between the annual increases in the ENR Construction Cost Index for the month of May and the month of March (most recently available data). Using the actual annual increase in the index for March closely tracks the actual annual increase in the index for May (see Figure 1-B).³⁵ Given that the annual increase from March

³⁴ See "Project Evaluation I: Don't Underestimate Capital Investment," Rodney T. Smith, *Hydrowonk Blog*, <http://hydrowonk.com/blog/2013/01/02/project-evaluation-i-dont-underestimate-capital-investment/>.

³⁵ The estimated equation is: Annual Increase in May = .0043 + 0.8639*Annual Increase in March. The estimated "coefficient" for the Annual Increase in March is statistically significant (t-statistic 6.25, P-value of 1.55 E-05). The predicted value of the Annual Increase in ENR Construction Cost Index (May to May explains 72% of the actual Annual Increase in ENR Construction Cost Index (May to May).

2017 to March 2018 in the ENR Construction Price Index was 2.7%, the predicted increase in the ENR index from May 2017 to May 2018 is 2.8%.³⁶



Based on the above analysis, Stratecon estimates that Ventura Water's Net Zero Fee as of June 1, 2018 is \$28,204 (see table).

<i>Item</i>	<i>Amount</i>	<i>Comment</i>
May 2016	\$26,457	Specified in ordinance
2017 Increase	3.7%	Actual May to May Increase
2018 Increase	2.8%	Predicted May-May Increase based on March-March increase
June 1 2018 Fee	\$28,204	$\$28,024 = \$26,457 * (1 + 3.7%) * (1 + 2.8\%)$

³⁶ The increase in the March 2018 published index (10,959) over the March 2017 published index (10,667) is 2.7%. Predicted increase in ENR index from May 2017 to May 2018 = .0043 + 0.8639*2.7% = 2.8%