Agenda

Rio Linda / Elverta Community Water District Executive Committee

Join Zoom Meeting December 7, 2020 https://us02web.zoom.us/j/82774358614?pwd=dUZmNDBWeXIXZIQzbUF0cXhYdTRFQT09 6:00 P.M.

Meeting ID: 827 7435 8614

Passcode: 312998

Dial by your location 408 638 0968 US

NOTICE: THIS MEETING WILL BE HELD IN ACCORDANCE WITH EXECUTIVE ORDER N-29-20, ISSUED BY CALIFORNIA GOVERNOR GAVIN NEWSOM ON MARCH 17, 2020, THE RALPH M. BROWN ACT (CALIFORNIA GOVERNMENT CODE SECTION 54950, ET SEQ.), AND THE FEDERAL AMERICANS WITH DISABILITIES ACT. THIS MEETING WILL NOT BE PHYSICALLY OPEN TO THE PUBLIC. ALL MEMBERS OF THE PUBLIC MAY PARTICIPATE IN THE MEETING VIA VIDEO CONFERENCE OR BY TELEPHONE

Public documents relating to any open session items listed on this agenda that are distributed to the Committee members less than 72 hours before the meeting are available for public inspection on the counter of the District Office at the address listed above.

The public may address the Committee concerning any item of interest. Persons who wish to comment on either agenda or non-agenda items should address the Executive Committee Chair. The Committee Chair will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability related modification or accommodation to participate in this meeting, then please contact the District office at (916) 991-1000. Requests must be made as early as possible and at least one full business day before the start of the meeting.

Call to Order

Public Comment

This is an opportunity for the public to comment on non-agenda items within the subject matter jurisdiction of the Committee. Comments are limited to 3 minutes.

Items for Discussion:

- 1. Discuss and review the annual process for adjusting RLECWD capacity fees for inflation.
- 2. Review and discuss the expenditures of the District for the month of October 2020.
- 3. Review and discuss the financial reports for the month of October 2020.
- 4. Discuss updating declaration of material to be surplus: two workstation computers and one server computer.
- 5. Discuss the Request for Proposals process for the annual pipe replacement project.
- 6. Discuss the Draft Water Bank Phase 2 MOU received from Regional Water Authority.
- 7. Update from Contract District Engineer.
- 8. Review and discuss relevant correspondence:
 - a. Redistricting Partners regarding at-large elections.
 - b. State Water Resources Control Board regarding Hexavalent Chromium MCL readoption.

Directors' and General Manager Comments:

The process and timing within the Board meeting for election of new Board Officers.

Items Requested for Next Month's Committee Agenda

Adjournment

Next Executive Committee meeting: Monday, January 4, 2021 at 6:00 p.m. Remote (no in-person attendance)

ADA COMPLIANCE STATEMENT

In compliance with the Americans with Disabilities Act, if you need special assistance or materials to participate in this meeting, please contact the District Office at 916-991-1000. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting and agenda materials.



Executive Committee Agenda Item: 1

Date: December 7, 2020

Subject: Annual Capacity Fee Adjustments

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

The Executive committee should review supporting documentation and forward this item onto the December 21st Board agenda with the Committee's recommendation for Board approval.

Current Background and Justification:

Ordinance 2016-01 stipulates an annual adjustment for the RLECWD capacity fees be implemented on January 1st each year. In order to adjust the capacity fees as delineated in the Ordinance, the Board needs to review the construction cost index report provided by the Contract District Engineer at the December Board meeting.

The methodology for the annual inflation adjustment is further stipulated in Ordinance 2016-01. The process requires the District Engineer to review the Engineering News Record (ENR). The stipulated term requires that the December inflation data be used, which is typically published during the second week of December. Once published in the ENR, the District Engineer will finalize his Technical Memorandum recommending the appropriate annual adjustment with an effective date of January 1, 2021.

Conclusion:

Capacity fee adjustment for inflation is integral to the viability of the capacity fee program. Accordingly, the adjustment process is stipulated in Ordinance 2016-01.



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10 December 2019

TECHNICAL MEMORANDUM

To: Tim Shaw, General Manager, Rio Linda/Elverta Community Water District

From: Mike Vasquez, PE, PLS, Principal Engineer (EKI), District Engineer (RL/ECWD)

Subject: 2020 Connection Fee Adjustment

(EKI Project No. B80130.00)

Pursuant to Ordinance No. 2016-01, it is recommended that the Rio Linda/Elverta Community Water District ("District") adjust connection fees by +2.8% in January 2020. The ordinance states: "The fees in this "EXHIBIT 2" shall increase annually based on the change in Engineering News-Record ("ENR") magazine CCI for California each January 1, beginning January 1, 2017."

The adjustment percentage was calculated using ENR's Construction Cost Indexes ("CCI"). Ordinance No. 2016-01 uses "California" for reference data, and the only two California cities listed in the ENR index are San Francisco and Los Angeles.

The average yearly CCI change from January 2019 to December 2019 was +5.4% for San Francisco and +0.2% for Los Angeles. These two yearly change CCI's were taken from ENR's Cost Indexes by Cities for December 2019. The average of the two is +2.8% and is the recommended connection fee adjustment.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.

Principal Engineer (EKI)

District Engineer (RL/ECWD)



Executive Committee Agenda Item: 2

Date: December 7, 2020

Subject: Expenditure Summary

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

It is recommended that the Executive Committee review the expenditures for October 2020, then forward the item to the November 16th Board agenda, consent section, with a recommendation for approval.

Current Background and Justification:

These expenditures were necessary and prudent for operation of the District and consistent with the policies and budget adopted by the Board of Directors. The Expenditure Summary provides the listing of expenditures which have occurred since the last regular meeting of the Board.

Conclusion:

Consistent with the District policies, the Expenditure Summary is to be reviewed by the Executive Committee and approved by the Board of Directors.

Rio Linda Elverta Community Water District Expenditure Report October 2020

Туре	Date	Num	Name	Memo	Amount
Liability Check	10/07/2020	EFT	QuickBooks Payroll Service	For PP Ending 10/03/20 Pay date 10/8/20	17,802.26
Liability Check	10/08/2020	EFT	CalPERS	For PP Ending 10/03/20 Pay date 10/8/20	2,852.32
Liability Check	10/08/2020	EFT	CalPERS	For PP Ending 10/03/20 Pay date 10/8/20	1,106.49
Liability Check	10/08/2020	EFT	Internal Revenue Service	Employment Taxes	6,914.30
Liability Check	10/08/2020	EFT	Employment Development	Employment Taxes	1,340.09
Liability Check	10/08/2020	EFT	Empower	Deferred Compensation Plan: Employer & Employee Share	2,806.03
Bill Pmt -Check	10/08/2020	EFT	Adept Solutions	Computer Maintenance	1,333.00
Bill Pmt -Check	10/08/2020	EFT	Comcast	Phone/Internet	236.06
Bill Pmt -Check	10/08/2020	EFT	PG&E	Utilities	49.22
Bill Pmt -Check	10/08/2020	EFT	Republic Services	Utilities	84.24
Bill Pmt -Check	10/08/2020	EFT	Umpqua Bank CC	Computer, Const Eq Maint, Postage, Printing, Staff Training, Unifo	1,638.33
Transfer	10/08/2020	EFT	RLECWD	Umpqua Bank Monthly Debt Service Transfer	16,500.00
Check	10/08/2020	1434	Sacramento County Clerk/Recorder	Lein Fees	180.00
Bill Pmt -Check	10/08/2020	1435	ABS Direct	Printing	844.75
Bill Pmt -Check	10/08/2020	1436	Association of California Water Agencies	2021 Membership Dues	9,735.00
Bill Pmt -Check	10/08/2020	1437	ACWA/JPIA Powers Insurance Authority	Auto & General Liability Insurance 10/1/20-9/30/21	24,367.57
Bill Pmt -Check	10/08/2020	1438	ACWA/JPIA Powers Insurance Authority	EAP	25.70
Bill Pmt -Check	10/08/2020	1439	Elk Grove Security Systems	Security	84.00
Bill Pmt -Check	10/08/2020	1440	Fechter & Company CPA	Auditor Fees	1,176.00
Bill Pmt -Check	10/08/2020	1441	Intermedia.net	Phone/Internet	93.45
Bill Pmt -Check	10/08/2020	1442	Phelan, Michael	Retiree Insurance Reimbursement	3,150.00
Bill Pmt -Check	10/08/2020	1443	Rio Linda Elverta Recreation & Park	Meeting Fee	50.00
Bill Pmt -Check	10/08/2020	1444	Rio Linda Hardware & Building Supply	Shop Supplies	178.66
Bill Pmt -Check	10/08/2020	1445	Sacramento Local Agency Formation Com	Permit	460.00
Bill Pmt -Check	10/08/2020	1446	Sierra Chemical Company	Chemical Supplies	861.30
Bill Pmt -Check	10/08/2020	1447	SMUD	Utilities	23,258.95
Bill Pmt -Check	10/08/2020	1448	State Water Resources Control Board	License	90.00
Bill Pmt -Check	10/08/2020	1449	Tesco Controls	Field IT	4,511.75
Bill Pmt -Check	10/08/2020	1450	TF Network Solutions	Building R&M-Phone System Maintenance	1,005.00
Bill Pmt -Check	10/08/2020	1451	UniFirst Corporation	Uniforms	233.32
Bill Pmt -Check	10/08/2020	1452	USA Bluebook	Safety, Distribution, Treatment	1,577.68
Bill Pmt -Check	10/08/2020	1453	Vanguard Cleaning Systems	Janitorial	195.00
Bill Pmt -Check	10/08/2020	1454	GM Construction & Developers	Capital Improvement: Service Replacement	9,114.98
Bill Pmt -Check	10/15/2020	EFT	WageWorks	FSA Administration Fee	76.25
Bill Pmt -Check	10/17/2020	EFT	ARCO	Transportation Fuel	594.80
Liability Check	10/21/2020	EFT	QuickBooks Payroll Service	For PP Ending 10/17/20 Pay date 10/22/20	18,032.15
Liability Check	10/22/2020	EFT	CalPERS	For PP Ending 10/17/20 Pay date 10/22/20	2,856.53
Liability Check	10/22/2020	EFT	CalPERS	For PP Ending 10/17/20 Pay date 10/22/20	1,106.49
Liability Check	10/22/2020	EFT	Internal Revenue Service	Employment Taxes	6,941.68
Liability Check	10/22/2020	EFT	Employment Development	Employment Taxes	1,380.99
Check	10/22/2020	EFT	Adept Solutions	Computer Maintenance	308.13
Liability Check	10/22/2020	EFT	Empower	Deferred Compensation Plan: Employer & Employee Share	1,415.37

Rio Linda Elverta Community Water District Expenditure Report October 2020

Туре	Date	Num	Name	Memo	Amount
Liability Check	10/22/2020	EFT	Kaiser Permanente	Health Insurance	2,271.32
Liability Check	10/22/2020	EFT	Principal	Dental & Vision Insurance	1,495.53
Liability Check	10/22/2020	EFT	Western Health Advantage	Health Insurance	9,491.61
Liability Check	10/22/2020	EFT	Verizon	Field Communication, Field IT	452.69
Bill Pmt -Check	10/22/2020	EFT	Voyager Fleet Commander	Transportation Fuel	254.83
Check	10/22/2020	EFT	RLECWD - Capital Improvement	Current Monthly Transfer	45,750.00
Check	10/22/2020	EFT	RLECWD - SURCHARGE ACCOUNT 1	Bi-monthly Transfer	87,641.65
Check	10/22/2020	EFT	RLECWD - SURCHARGE ACCOUNT 2	Bi-monthly Transfer	72,992.83
Liability Check	10/22/2020	1455	Teamsters Local	Union Dues-Employee Paid	777.00
Check	10/22/2020	1456	Customer	Final Bill Refund	89.22
Check	10/22/2020	1457	Customer	Final Bill Refund	85.80
Check	10/22/2020	1458	Customer	Project Inspection Deposit Refund	1,325.00
Check	10/22/2020	1459	Customer	Hydrant Deposit Refund	960.00
Bill Pmt -Check	10/22/2020	1460	Barnett Heating & Air	Pumping Maintenance	2,641.00
Bill Pmt -Check	10/22/2020	1461	BSK Associates	Lab Fees	635.00
Bill Pmt -Check	10/22/2020	1462	Buckmaster Office Solutions	Office Equipment Expense	62.46
Bill Pmt -Check	10/22/2020	1463	California Rural Water Association	Membership Dues	1,367.00
Bill Pmt -Check	10/22/2020	1464	California Special Districts Association	Membership Dues	7,253.00
Bill Pmt -Check	10/22/2020	1465	Central Valley Engineering & Asphalt	Paving Repairs	14,925.00
Bill Pmt -Check	10/22/2020	1466	Churchwell White	Legal Fees	604.20
Bill Pmt -Check	10/22/2020	1467	CoreLogic Solutions	Metro Scan	134.75
Bill Pmt -Check	10/22/2020	1468	DirectHit Pest Control	Building Maintenance	75.00
Bill Pmt -Check	10/22/2020	1469	EKI Environment & Water	Engineering	5,000.00
Bill Pmt -Check	10/22/2020	1470	Energy Systems	Pumping Maintenance	5,574.88
Bill Pmt -Check	10/22/2020	1471	ICONIX Waterworks	Distribution Supplies	1,548.38
Bill Pmt -Check	10/22/2020	1472	RCI Plumbing	Building Maintenance	110.00
Bill Pmt -Check	10/22/2020	1473	Sacramento Suburban Water District	Regional Collaboration Project	444.20
Bill Pmt -Check	10/22/2020	1474	Sierra Chemical Company	Chemical Supplies	1,349.32
Bill Pmt -Check	10/22/2020	1475	Spok, Inc	Field Communication	15.31
Bill Pmt -Check	10/22/2020	1476	USA BlueBook	Safety	46.42
Bill Pmt -Check	10/22/2020	1477	Ferguson Enterprises	Capital Improvement: Small Meter Replacement	4,848.75
Bill Pmt -Check	10/22/2020	1478	Metron-Farnier	Capital Improvement: Small Meter Replacement	1,633.44
Total 10000 · Ba	nk - Operating Ac	count			438,423.43

Rio Linda Elverta Community Water District Expenditure Report October 2020

Type	Date	Num	Payee	Memo	Amount
				CIP Expense Transfer: Refer to operating check numbers:	
Transfer	10/08/2020	EFT	RLECWD	1454	9,114.98
Transfer	10/08/2020	EFT	RLECWD	Transfer to new Future Capital Imp Projects account	1,396,531.75
				CIP Expense Transfer: Refer to operating check numbers:	
Transfer	10/22/2020	EFT	RLECWD	1477 & 1478	6,842.19
10475 · Capital Improvement-Umpqua Bank					



Executive Committee Agenda Item: 3

Date: December 7, 2020

Subject: Financial Reports

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

The Executive Committee should review the Finance Reports of the District for the month of October 2020, then forward the report onto the November 16th Board agenda with the Committee's recommendation for Board approval.

Current Background and Justification:

The financial reports are the District's balance sheet, profit and loss, and capital improvements year to date. This report provides the snapshot of the District's fiscal health for the period covered.

Conclusion:

Consistent with District policies, these financials are to be reviewed by this committee and presented to the Board of Directors to inform them of the District's current financial situation.

Rio Linda Elverta Community Water District Balance Sheet

As of October 31, 2020

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Accounts Receivable 505,120.00 Other Current Assets	d Assets 4,520,790.17
Other Current Assets	6,915,427.51
	505,120.00
12000 · Water Utility Receivable 116,356.19	
	•
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Total Current Assets 7,858,816.18	7,858,816.18
Fixed Assets	
	,
	,
•	
18000 · Construction in Progress 2,498,738.27	Progress 2,498,738.27
	576,673.45
	15,326,350.47
Other Assets	
	,
•	
	227,638.00
TOTAL ASSETS 23,412,804.65	23,412,804.65

Rio Linda Elverta Community Water District Balance Sheet

As of October 31, 2020

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LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	29,096.11
Credit Cards	60.00
Other Current Liabilities	836,591.05
Total Current Liabilities	865,747.16
Long Term Liabilities	
23000 · OPEB Liability	115,693.00
23500 · Lease Buy-Back	656,542.27
25000 · Surcharge 1 Loan	3,833,912.47
25050 · Surcharge 2 Loan	2,790,040.16
26000 · Water Rev Refunding	1,806,855.00
27000 · Community Business Bank	244,415.94
29000 · Net Pension Liability	1,055,771.00
29500 · Deferred Inflows-Pension	20,431.00
29600 · Deferred Inflows-OPEB	82,332.00
Total Long Term Liabilities	10,605,992.84
Total Liabilities	11,471,740.00
Equity	
31500 · Invested in Capital Assets, Net	8,842,880.46
32000 · Restricted for Debt Service	705,225.24
38000 · Unrestricted Equity	2,121,845.12
Net Income	271,113.83
Total Equity	11,941,064.65
TOTAL LIABILITIES & EQUITY	23,412,804.65

Rio Linda Elverta Community Water District Operating Profit & Loss Budget Performance As of October 31, 2020

	Annual Budget	Oct 20	Jul-Oct 20	% of Annual Budget	YTD Annual Budget Balance
Ordinary Income/Expense					
Income					
Total 40000 · Operating Revenue	2,719,575.00	156,792.24	892,649.31	32.82%	1,826,925.69
41000 · Nonoperating Revenue					
41110 · Investment Revenue					
41112 · Interest Revenue	400.00	29.27	75.59	18.90%	324.41
Surcharg Total 41110 · Investment Revenue	400.00	29.27	75.59	18.90%	324.41
41120 · Property Tax	88,500.00	0.00	2,418.40	2.73%	86,081.60
Total 41000 · Nonoperating Revenue	88,900.00	29.27	2,493.99	2.81%	86,406.01
Total Income	2,808,475.00	156,821.51	895,143.30	31.87%	1,913,331.70
Gross Income	2,808,475.00	156,821.51	895,143.30	31.87%	1,913,331.70
Expense					
60000 · Operating Expenses					
60010 · Professional Fees	135,000.00	7,224.40	40,988.06	30.36%	94,011.94
60100 · Personnel Services					
60110 · Salaries & Wages	729,867.00	53,987.69	215,485.66	29.52%	514,381.34
60150 · Employee Benefits & Expense	489,145.00	30,788.78	125,864.05	25.73%	363,280.95
Total 60100 · Personnel Services	1,219,012.00	84,776.47	341,349.71	28.00%	877,662.29
60200 · Administration	205,010.00	17,844.21	84,333.99	41.14%	120,676.01
64000 · Conservation	300.00	0.00	0.00	0.00%	300.00
65000 · Field Operations	436,400.00	58,726.45	150,474.28	34.48%	285,925.72
Total 60000 ⋅ Operating Expenses	1,995,722.00	168,571.53	617,146.04	30.92%	1,378,575.96
69000 · Non-Operating Expenses					
69010 · Debt Service					
69100 ⋅ Revenue Bond					
69105 · Principle	145,736.00	0.00	0.00	0.00%	145,736.00
69110 · Interest	57,490.00	0.00	0.00	0.00%	57,490.00
Total 69100 · Revenue Bond	203,226.00	0.00	0.00	0.00%	203,226.00
69125 · AMI Meter Loan					
69130 · Principle	48,281.00	0.00	24,703.02	51.17%	23,577.98
69135 · Interest	10,233.00	0.00	4,553.94	44.50%	5,679.06
Total 69125 · AMI Meter Loan	58,514.00	0.00	29,256.96	50.00%	29,257.04
Total 69010 · Debt Service	261,740.00	0.00	29,256.96	11.18%	232,483.04
69400 · Other Non-Operating Expense	2,000.00	0.00	0.00	0.00%	2,000.00
Total 69000 · Non-Operating Expenses	263,740.00	0.00	29,256.96	11.09%	234,483.04
Total Expense	2,259,462.00	168,571.53	646,403.00	28.61%	1,613,059.00
Net Ordinary Income	549,013.00	-11,750.02	248,740.30		
t Income	549,013.00	-11,750.02	248,740.30		

Rio Linda Elverta Community Water District CAPITAL BUDGET VS ACTUAL FISCAL YEAR 2020-21 As of October 31, 2020

	AS	Οī	Octo	ber	31,	2020
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	GENERAL		VEHICLE REPLACEMENT		FUTURE CAPITAL IMPROVEMENT PROJECTS	
	Annual Budget	YTD Actual	Annual Budget	YTD Actual	Annual Budget	YTD Actual
FUNDING SOURCES						
Fund Transfers						
Operating Fund Transfers In	549,013.00	183,000.00	-	-	-	-
CIP Fund Intrafund Transfers	(456,670.00)	-	75,000.00	-	381,670.00	-
Beginning Balance Redistribution	(1,396,338.00)	(1,396,338.00)	-	-	1,396,338.00	1,396,338.00
Surcharge 2 Surplus Repayment	107,171.00	-	-	-	-	-
Investment Revenue	-	28.69	-	-	3,500.00	281.75
PROJECTS						
A · WATER SUPPLY	-					
A-1 · Miscellaneous Pump Replacements	40,000.00	-				
Total A · WATER SUPPLY	40,000.00	-	-	-	-	-
B · WATER DISTRIBUTION						
B-1 · Service Replacements	30,000.00	9,114.98	-	-	-	-
B-2 · Small Meter Replacements	120,000.00	40,210.47				
B-3 · Large Meter Replacements	5,000.00	-	-	-	-	-
Total B · WATER DISTRIBUTION	155,000.00	49,325.45	-	-	-	-
TOTAL BUDGETED PROJECT EXPENDITURES	195,000.00	49,325.45	-	-	-	-



Executive Committee Agenda Item: 4

Date: December 7, 2020

Subject: Update of the Assets to be Considered to be Surplus

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

The Executive committee should forward this item onto the December 21st Board agenda with the Committee's recommendation for Board approval.

Current Background and Justification:

At the November 2nd Executive Committee, the Committee forwarded the then known list of assets worthy for consideration. Subsequent to the Committee meeting, but prior to the November 16th Board meeting, additional assets (two workstation computers and one server computer) became worthy for consideration.

These items were not entirely unanticipated. The timing is merely faster than expected due to the IT consultant completing assignments ahead of schedule.

Conclusion:

The process for declaring surplus items and dispositioning such items at fair market value is delineated in District policy. The policy requires the Board to declare the items to be surplus at a properly noticed Board public meeting.



Executive Committee Agenda Item: 5

Date: December 7, 2020

Subject: Discuss the Request for Proposals process for the annual pipeline

replacement project

Contact: Mike Vasquez, PE, PLS, Contract District Engineer

Recommended Committee Action:

Receive a report on the Request for Proposals (RFP) process and schedule for the annual pipeline replacement project. It is requested that the Executive Committee forward an item onto the December 21, 2020 Board of Directors Meeting agenda with the recommendation for Board approval to publicly advertise an RFP to receive construction bids from contractors.

Current Background and Justification:

An RFP is currently being prepared to seek time and materials bids from construction contractors to replace approximately 1,100 feet of 8" pipeline as part of the District's Capital Improvement Projects List adopted by the Board of Directors. The RFP document will be ready for presentation at the December 21, 2020 Board Meeting. The recommended location of pipeline replacement as discussed with the General Manager and Operations Superintendent is on Dry Creek Road from the intersection at U Street and to the south approximately 1,100 feet. The existing pipeline in Dry Creek Road is comprised of thin wall plastic material and will be abandoned in place.

The anticipated schedule for the RFP process is as follows:

•	Request approval from the Board to publicly advertise the RFP:	12/21/2020
•	Publicly advertise the RFP:	12/23/2020
•	Pre-Construction Conference:	1/12/2021
•	Bid Opening:	1/26/2021
•	Request approval from the Board to award a construction contract:	2/22/2021

Conclusion:

I recommend the Executive Committee receive the report from the District Engineer. Then, as appropriate, forward this item onto the December 21, 2020 Board of Directors Meeting agenda with recommendations as necessary.



Executive Committee Agenda Item: 6

Date: December 7, 2020

Subject: Water Bank Phase 2 Draft MOU

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

The Executive committee should forward this item onto the December 21st Board agenda. However, the Committee needs to discuss and contemplate whether it recommends Board approval.

Current Background and Justification:

The Board approved the District's participation in phase 1 of the Water Bank MOU in April 2019. At that time, the District was a member agency in the Regional Water Authority (RWA). A little more than a year later, the District withdrew membership in RWA.

Although establishing and certifying the Water Bank is a worthwhile, defensible endeavor, it is likely less practical to continue formal participation and cost sharing with the other Water Bank participants. As a non-member in RWA, the District's continued participation will entail an additional 20% administrative cost. To illustrate; instead of paying the minimum participation cost of \$10,000, the District would pay an additional 20% or &12,000.

Another option worthy of Board consideration is to informally participate in the Water Bank proliferation. The District could attend meetings and could correspond to support the ultimate objective of establishing the Water Bank. When/if the Water Bank is established, membership in the project will not be established as a prerequisite for Water Banking participation.

Conclusion:

This item should be forwarded to the December 21st Board agenda. However, I recommend the Executive Committee intentionally withhold its recommended Board action.

DRAFT

REGIONAL WATER AUTHORITY PROGRAM AGREEMENT

SACRAMENTO REGIONAL WATER BANK, PHASE 2

This Agreement is made and entered into as of the ____ day of _____, 202_, by and between the Regional Water Authority ("RWA"), a joint exercise of powers authority formed under California Government Code section 6500, and following, and the Members and Contracting Entities of RWA listed in Exhibit 1 to this Agreement, upon their execution of this Agreement (who are collectively referred to in this Agreement as "Participants"), to provide for carrying out a Program or program that is within the authorized purposes of RWA, and sharing in the cost and benefits by the Participants.

RECITALS

- A. RWA is a joint powers authority, formed to serve and represent regional water supply interests and to assist its members in protecting and enhancing the reliability, availability, affordability and quality of water resources.
- B. The joint powers agreement ("RWA JPA") pursuant to which RWA was formed and operates, and as was amended on October 8, 2013, authorizes RWA to enter into a "Program or Program Agreement," which is defined in the RWA JPA as an agreement between RWA and two or more of its Members or Contracting Entities to provide for carrying out a Program or program that is within the authorized purposes of RWA, and sharing in the cost and benefits by the parties to the Program or Program Agreement.
- C. Article 21 of the RWA JPA states: "The Regional Authority's Programs are intended to facilitate and coordinate the development, design, construction, rehabilitation, acquisition or financing of water-related facilities (including sharing in the cost of federal, State or local Programs) on behalf of Members and/or Contracting Entities. The Regional Authority may undertake the development, design, construction, rehabilitation, acquisition or funding of all or any portion of such Programs on behalf of Members and/or Contracting Entities in the manner and to the extent authorized by such Members and/or Contracting Entities as provided in this Agreement, but shall not accomplish these functions, nor acquire or own water-related facilities in its own name."
- D. Article 22 of the RWA JPA states: "Prior to undertaking a Program or program, the Members and/or Contracting Entities who elect to participate in a Program or program shall enter into a Program or Program Agreement. Thereafter, all assets, benefits and obligations attributable to the Program shall be assets, benefits and obligations of those Members and/or Contracting Entities that have entered into the Program or Program Agreement. Any debts, liabilities, obligations or indebtedness incurred by the Regional Authority in regard to a particular Program or program, including startup costs advanced by the Regional Authority, shall be obligations of

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the participating Members and/or Contracting Entities, and shall not be the debts, liabilities, obligations and indebtedness of those Members and/or Contracting Entities who have not executed the Program or Program Agreement."

E. There is nothing in the RWA JPA or RWA policies that would prevent the participation of unaffiliated entities in projects conducted by RWA and its Members and Contracting Entities under a Project or Program Agreement.

F. RWA and the Participants desire to carry out a Program and share in the costs and benefits of the Program, as a Program or Program Agreement as provided for in Articles 21 and 22 of the RWA JPA.

In consideration of the promises, terms, conditions and covenants contained herein, the parties to this Agreement hereby agree as follows:

- 1. Recitals Incorporated. The foregoing recitals are hereby incorporated by reference.
- Defined Terms. Terms defined in the RWA JPA will have the same meaning in this Agreement.
- **3. Description of the Program.** The program ("Program") that RWA and the Participants desire to carry out is the completion of the final phase of activities required to establish the Sacramento Regional Water Bank ("Water Bank"). The Water Bank will be a sustainable groundwater storage and recovery program intended to increase conjunctive use capacity and operations in the region to improve the long-term reliability of water supplies. The Water Bank will include an accounting system of storage and recovery with a monitoring program to ensure long-term groundwater basin sustainability and consistency with the Sustainable Groundwater Management Act. This final phase of work will be focused on final feasibility determinations, including environmental analysis, needed to achieve Federal recognition of the Water Bank. A general scope of work for Phase 2 is attached hereto as Exhibit 2 ("Program Description").
- **4. Program Committee.** The Participants hereby form a Program Committee consisting of one representative (and alternates) designated by each Participant. The Program Committee will meet as necessary from time to time to administer and implement this Agreement on behalf of the Participants. A majority of the total members of the Program Committee will constitute a quorum. To proceed with a vote to take action, a quorum must be present at a meeting, with a majority of the number present required for an affirmative vote. Each member of the Program Committee will have one vote, either by its representative or an alternate. When a vote to take action will occur, notice of at least seven days shall be provided to all Program Committee members to provide reasonable opportunity to participate in the consideration of the action item.
- **5. Sharing in Program Costs and Benefits.** The total estimated cost to complete the Water Bank, Phase 2 Program is estimated at \$1,200,000. The assessments and not-to exceed budgets for each Participant are further described and attached hereto as Exhibit 3 ("Financing

Commented [RS1]: This leaves open the option of Rio Linda/Elverta CWD participating in Phase 2. They participated in Phase 1.

DRAFT

Plan"). Each of the Participants will make one or more payments to RWA for completion of the Program. Participants shall have full access to the work products of the Program.

At the conclusion of the Program, the Program Committee will take action on the dispensation of any remaining funds. If the Program Committee elects to return the surplus funds to the Participants, RWA will pay back such funds to the Participants on a pro rata basis reflecting the amount of the payments made by each of the Participants. In accordance with the provisions of Articles 21 and 22 of the RWA JPA, any debts, liabilities, obligations or indebtedness incurred by RWA in regard to the Program will be the obligations of the Participants, and will not be the debts, liabilities, obligations and indebtedness of those Members and Contracting Entities who have not executed this Agreement.

- **6. Role of RWA.** The RWA will (a) ensure that the interests of Members and Contracting Entities of RWA who do not participate in this Program are not adversely affected in performing this Agreement, (b) provide information to the Participants on the status of implementation of the Program, (c) assist the Program Committee in carrying out its activities under this Agreement, d) secure consultant support services through a competitive selection process as identified in RWA Policy 300.2, where applicable; and e) manage consultant support services in completion of the Program.
- **7. Authorization to Proceed with the Program.** The Program is authorized to proceed upon the commitment of \$500,000 from Program Participants to fund initial Program costs. Upon execution of this Agreement, the Participants agree to fund their portion of the Program costs in an amount and manner as described in Exhibit 3 ("Financing Plan") to this Agreement.
- **8. Term.** This Agreement will remain in effect for so long as any obligations under this Agreement and/or obligations from other sources of funding secured for completing the Program remain outstanding.
- **9. Withdrawal.** A Participant may withdraw from this Agreement without requiring termination of this Agreement, effective upon ninety days' notice to RWA and the other Participants, provided that, the withdrawing Participant will remain responsible for any indebtedness incurred by the Participant under this Agreement prior to the effective date of withdrawal. If any surplus funds remain after the withdrawing Participant has met all of its financial obligations under this Agreement, then such funds will be returned to the withdrawing Participant in proportion to the total contribution made by each Participant.
- 10. Amendments. This Agreement may be amended from time to time with the approval of all of the Participants and RWA.
- 11. Privileges and Immunities. All of the privileges and immunities from liability; exemptions from laws, ordinances and rules; and all pension, relief, disability, worker's compensation and other benefits that apply to the activity of officers, agents or employees of RWA or the Participants when performing their respective functions for those agencies will, to the extent

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permitted by law, apply to them to the same degree and extent while engaged in the performance of any of the functions and other duties under this Agreement. It is further understood and agreed by RWA and the Participants that, notwithstanding anything contained herein, the employees of RWA and of each Participant shall continue to be entirely and exclusively under the direction, supervision and control of the employing party.

- 12. No Third Party Beneficiary. RWA and the Participants understand and agree that this Agreement creates rights and obligations solely between RWA and the Participants and is not intended to benefit any other party. No provision of this Agreement shall in any way inure to the benefit of any third person so as to constitute any such third person as a third-party beneficiary of this Agreement or any of its items of conditions, or otherwise give rise to any cause of action in any person not a party hereto.
- 13. Liabilities. With respect to this Agreement, RWA and the Participants expressly agree that the debts, liabilities and obligations of RWA and of each Participant shall remain the debts, liabilities and obligations of that party alone and shall not be the debts, liabilities and obligations of any other party to this Agreement, except as may be otherwise set forth herein or in an amendment to this Agreement.
- **14. Audits and Accounting.** All funds provided under this Agreement shall be separately accounted for and maintained, with books and records of such funding open to inspection by the Participants. Funding under this Agreement shall be subject to and consistent with the audit and accounting procedures set forth in Articles 27 and 28 of the RWA JPA.
- 15. General Provisions. Any notice to be given under this Agreement shall be made by: (a) depositing in any United States Post Office, postage prepaid, and shall be deemed received at the expiration of 72 hours after its deposit; (b) transmission by facsimile copy; (c) transmission by electronic mail; or (d) personal delivery. This Agreement shall be governed by the laws of the State of California. The contact information for each Participant with respect to this section of the Agreement is set forth in Exhibit 4 ("Notice Information"). This Agreement may be executed by the parties in counterpart, each of which when executed and delivered shall be an original and all of which together will constitute one and the same document.
- **16. Signatories' Authority.** The signatories to this Agreement represent that they have authority to execute this Agreement and to bind the Participant on whose behalf they execute it.

DRAFT

The foregoing Sacramento Regional Water Bank, Phase 2 Program Agreement is hereby agreed to by RWA and the Participants.

Dated:, 202_	
Signature	Signature
Name	Name
Regional Water Authority	Agency

List of Agreement Exhibits

Exhibit 1 – Program Participants Exhibit 2 – Program Description

Exhibit 3 – Financing Plan
Exhibit 4 – Notice Information

EXHIBIT 1

PROGRAM PARTICIPANTS

REGIONAL WATER AUTHORITY

SACRAMENTO REGIONAL WATER BANK, PHASE 2 PROGRAM

Agency (Proposed – Still Pending Confirmation of Agencies)

California American Water

Carmichael Water District

Citrus Heights Water District

City of Folsom

City of Lincoln

City of Roseville

City of Sacramento

El Dorado County Water Agency

El Dorado Irrigation District

Elk Grove Water District

Fair Oaks Water District

Golden State Water Company

Rio Linda/Elverta Community Water District

Placer County

Placer County Water Agency Sacramento County Water Agency

Sacramento Regional County Sanitation District

Sacramento Suburban Water District

San Juan Water District

DRAFT EXHIBIT 2

PROGRAM DESCRIPTION

REGIONAL WATER AUTHORITY

SACRAMENTO REGIONAL WATER BANK, PHASE 2 PROGRAM

The Sacramento Regional Water Bank Program Phase 2 scope of work and budget is described below in four primary tasks.

SCOPE OF WORK

The following tasks describe the overall work activities expected for the Sacramento Regional Water Bank ("Water Bank") Program, Phase 2. More detailed scopes of work and deliverables would be specified upon the issuance of task orders to authorize the work.

Work Category 1: Technical Activities

To reach an operational water bank, the following technical activities were identified:

- Develop CalSim 3 Application Water operations data for the American River basin, the Sacramento River basin, the Delta, and the CVP and SWP delivery areas is needed to support analysis of water supply, and to provide reservoir storages and river flows required for temperature and ecosystem analysis. CalSim 3 was selected to support this analysis. This task is being funded through the U.S. Bureau of Reclamation's Water Management Options Pilot Program, so it is not part of the Phase 2 budget and fees.
- Confirm Operational Assumptions The August 2018 survey elicited initial interest of local agencies in participating in the water bank. No red flags were identified at that time, and survey participants were open to all considerations. This action will reaffirm local agencies' level of participation in water bank operations.
- Temperature Modeling River temperatures are an important driving factor for fish health in the American River basin and the Sacramento River. Any changes in reservoir storage and releases, and river flows associated with a water bank require evaluation.
- Stream Depletion Factor To quantify the water available for transfers, a stream
 depletion factor must be developed. A stream depletion factor is the reduction in
 streamflow during balanced Delta conditions resulting from pumping groundwater to
 make surface water available for transfer.
- Water Accounting Framework This framework will establish a set of policies and
 procedures to encourage and support conjunctive use operations to facilitate the longterm sustainability of the underlying groundwater basin as source of public water supply.
 This will be developed in coordination with local Groundwater Sustainability Agencies to
 ensure consistency with applicable Groundwater Sustainability Plans.

Item 6 - Water Bank Phase 2 Draft Program Agreement 18nov20.docx

 Monitoring/Mitigation Plans – This activity will develop generic components that can be used to support annual transfers and long-term water banking operations.

Work Category 2: Environmental Activities

The following overviews the activities to support state, federal, and local environmental requirements. It includes regional and statewide impact analyses using CalSim 3 and regional models.

- CEQA/NEPA Scoping Scoping will provide an opportunity to develop the project definition and assumptions. Based on the outcomes of this scoping, the degree of environmental review needed will be confirmed.
- CEQA/NEPA Documents This activity includes preparation of environmental documentation and associated impact analyses. It currently assumes that only an Environmental Assessment will be needed for approval of an operational water bank. Costs may be higher if an Environmental Impact Statement/Report is required.

Work Category 3: Institutional Activities

The following activities will establish governance and create contracting templates for water banking operations.

- Governance This activity will determine and establish a formal governance structure for
 water bank operations and management, assuming an RWA-managed program. It will
 establish tools to support preferred governance structure, and roles and responsibilities. It
 will also address policy-related issues such as fees from transfers and environmental
 commitments.
- Legal Support This activity will include development and review of contracts that are needed for operation of the water bank:
 - o Long-term water storage and recovery agreements for a Federal Water Bank.
 - o Buy/Sell agreements for annual groundwater substitution transfers.
 - o Conveyance agreements for annual groundwater substitution transfers.

Work Category 4: Miscellaneous Activities

In addition to the above activities, three more activities were identified which focus on collaboration and engagement needed related to the Water Bank.

• Outreach/Engagement – This will include some additional outreach materials but will focus on local stakeholder engagement and potentially external partners, if needed.

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- Committee Support A water bank committee has been formed that consists of local water purveyors that may participate in the future water bank. This activity will provide support for up to 8 committee meetings a year.
- Reclamation Participation This activity will provide funding for Reclamation staff to provide guidance on the Water Bank criteria and environmental compliance.

Estimated Budget by Work Category

Work Category 1: Technical Activities	\$450,000
Work Category 2: Environmental Activities	\$450,000
Work Category 3: Institutional Activities	\$100,000
Work Category 4: Miscellaneous Activities	\$200,000
Not-to-Exceed Total	\$1,200,000

EXHIBIT 3

FINANCING PLAN

REGIONAL WATER AUTHORITY

SACRAMENTO REGIONAL WATER BANK, PHASE 2 PROGRAM

In developing the proposed fees for each agency, factors such as agency size, past participation in a groundwater substitution transfer, and the likelihood and level of participation in a water bank in the future were considered. A not-to-exceed fee was established to account for the possibility that other sources of funding may become available during the course of the Phase 2 Program. Fees will be collected over two years as shown below, unless an agency requests to pay their not-to-exceed fee at the outset of the program.

Proposed Fee Table

	2021	2022	Total
California American Water	\$ 22,500	\$ 32,500	\$ 55,000
Carmichael Water District	\$ 25,000	\$ 35,000	\$ 60,000
Citrus Heights Water District	\$ 25,000	\$ 35,000	\$ 60,000
City of Folsom	\$ 17,500	\$ 22,500	\$ 40,000
City of Lincoln	\$ 10,000	\$ 15,000	\$ 25,000
City of Roseville	\$ 22,500	\$ 32,500	\$ 55,000
City of Sacramento	\$80,000	\$100,000	\$ 180,000
El Dorado Water Agency	\$ 2,500	\$ 12,500	\$ 15,000
El Dorado Irrigation District	\$ 10,000	\$ 15,000	\$ 25,000
Elk Grove Water District	\$ 10,000	\$ 15,000	\$ 25,000
Fair Oaks Water District	\$ 25,000	\$ 35,000	\$ 60,000
Golden State Water Company	\$ 50,000	\$ 70,000	\$ 120,000
Placer County	\$ 2,500	\$ 7,500	\$ 10,000
Placer County Water Agency	\$ 17,500	\$ 22,500	\$ 40,000
Rio Linda/Elverta Community Water District	TBD	TBD	TBD
Sacramento County Water Agency	\$ 50,000	\$ 70,000	\$ 120,000
Sacramento Regional County Sanitation District	\$ 22,500	\$ 32,500	\$ 55,000
Sacramento Suburban Water District	\$ 60,000	\$ 80,000	\$ 140,000
Sacramento Area Flood Control Agency	\$ 22,500	\$ 32,500	\$ 55,000
San Juan Water District	\$ 25,000	\$ 35,000	\$ 60,000

Commented [RS2]: Fees are estimated pending confirmation of program participants

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EXHIBIT 4 NOTICE INFORMATION

REGIONAL WATER AUTHORITY

SACRAMENTO REGIONAL WATER BANK, PHASE 2 PROGRAM

California American Water Attn: S. Audie Foster 4701 Beloit Drive Sacramento, CA 95838 Phone: (916) 568-4259

Email: audie.foster@amwater.com

Carmichael Water District Attn: Cathy Lee 7837 Fair Oaks Blvd Carmichael, CA 95608 Phone: (916) 483-2452 Fax: (916) 483-5509

Email: cathy@carmichaelwd.org

Citrus Heights Water District

Attn:

6230 Sylvan Road Citrus Heights, CA 95610 Phone: (916) 725-6873 Fax: (916) 725-0345

Email: @chwd.org

City of Folsom

Attn: Marcus Yasutake 50 Natoma Street

Folsom, CA 95630 Phone: (916) 461-6161 Fax: (916) 351-8912

Email: myasutake@folsom.ca.us

City of Lincoln

Attn: Jennifer Hanson

600 6th Street

Lincoln, CA 95648

Phone: (916) 434-2449

Email: Jennifer.Hanson@lincolnca.gov

City of Roseville
Attn: Sean Bigley
2005 Hilltop Circle
Roseville CA 95747

Roseville, CA 95747 Phone: (916) 774-5513

Email: SBigley@roseville.ca.us

City of Sacramento Attn: Brett Ewart

1395 35th Avenue Sacramento, CA 95822

Phone: (916) 808-1725

Email: bewart@cityofsacramento.org

El Dorado County Water Agency

Attn: Ken Payne

4330 Golden Center Drive, Suite C

Placerville, CA 95667 Phone: (530) 621-5403 Fax: (530) 672-6721

Email: ken.payne@edcgov.us

El Dorado Irrigation District Attn: Brian Mueller 2890 Mosquito Road Placerville, CA 95667 Phone: (530) 642-4029 Fax: (530) 642-4329

Email: bmueller@eid.org

Elk Grove Water District Attn: Mark J. Madison 9257 Elk Grove Blvd. Elk Grove, CA. 95624 Phone: (916) 685-3556 Fax: (916) 685-5376

Email: mmadison@egwd.org

Fair Oaks Water District Attn: Tom Gray 10326 Fair Oaks Blvd Fair Oaks, CA 95628 Phone: (916) 967-5723 Fax: (916) 967-0153 Email: tgray@fowd.com

Golden State Water Company Attn: Paul Schubert 3005 Gold Canal Drive Rancho Cordova, CA 95670 Phone: (916) 853-3636 Fax: (916) 852-6608 Email: pschubert@gswater.com

Placer County Attn: Brett Storey 3091 County Center Drive, Ste 140 Auburn, CA 95603

Phone: (530) 745-3011 Fax: (530) 745-3080

Email: bstorey@placer.ca.gov

Placer County Water Agency Attn: Tony Firenzi 144 Ferguson Road Auburn, CA 95603 Phone: (530) 823-4965 Email: tfirenzi@pcwa.net

Rio Linda/Elverta Community Water District Attn: Tim Shaw 730 L Street Rio Linda, CA 95673 Phone: (916) 991-1000 Fax: (916) 991-6616 Email: GM@rlecwd.com

Sacramento Area Flood Control Agency Attn: Gary Bardini 1007 7th Street, 7th Floor Sacramento, CA 95814 Phone: (916) 874-7606 Email: bardinig@saccounty.net

Sacramento County Water Agency Attn: Kerry Schmitz 827 7th Street, Room 301 Sacramento, CA 95814 Phone: (916) 874-4681 Fax: (916) 874-8693 Email: schmitzk@SacCounty.NET

Sacramento Regional County Sanitation District Attn: Jose Ramirez 10060 Goethe Road Sacramento, CA 95827 Phone: (916) 876-6059 Email: ramirezj@sacsewer.com

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Sacramento Suburban Water District

Attn: Dan York 3701 Marconi #100 Sacramento, CA 95821 Phone: (916) 679-3973 Fax: 916-972-7639 Email: dyork@sswd.org

San Juan Water District Attn: Greg Zlotnick P.O. Box 2157 Granite Bay, CA 95746 Phone: (916) 791-6933

Fax: (916) 791-6983 Email: gzlotnick@sjwd.org

Regional Water Authority

Attn: Rob Swartz

5620 Birdcage Street, Suite 180 Citrus Heights, CA 95610 Phone: (916-967-7692 Fax: (916) 967-7322

Email: rswartz@rwah2o.org



Executive Committee Agenda Item: 7

Date: December 7, 2020

Subject: General Status Update from the District Engineer

Contact: Mike Vasquez, PE, PLS, Contract District Engineer

Recommended Committee Action:

Receive a status report on specific focus items currently being addressed by the District Engineer.

Current Background and Justification:

Subjects anticipated for discussion include:

- Well 16 Pump Station Construction
- Electric Avenue Residential Development (7 Lots, between Cypress Street and Elverta Road)
- Fox Hollow Residential Development (28 lots, 6th Street between Q Street and S Street)
- 428 West Delano Street Residential Development (5 lots, between El Rio Avenue and Marindell Street)
- 6515 & 6533 14th Street Residential Development (2 lots, between Elkhorn Boulevard and K Street)
- Archway Avenue Extension (at Paladin Way)

Conclusion:

I recommend the Executive Committee receive the status report from the District Engineer. Then, if necessary and appropriate, forward an item(s) onto the December 21, 2020 Board of Directors Meeting agenda with recommendations as necessary.



Executive Committee Agenda Item: 8 (a and b)

Date: December 7, 2020

Subject: Relevant Correspondence

Staff Contact: Timothy R. Shaw, General Manager

Recommended Committee Action:

The Executive committee should review the relevant recent correspondence documents. Then, if deemed necessary and appropriate, the Committee should forward any or all of the items of correspondence onto the December 21st

Current Background and Justification:

The District has received the following documents since the last Board meeting:

- State Water Resources Control Board Notice of Hexavalent Chromium MCL workshop.
- Redistricting Partners email regarding at-large elections.

Conclusion:

The Committee should discuss each document. The committee should consider forwarding each item onto the December 21st (or subsequent) Board agenda. As deemed appropriate, the Committee should consider making a recommendation on Board action(s).





State Water Resources Control Board

NOTICE OF PUBLIC WORKSHOP AND OPPORTUNITY FOR PUBLIC COMMENT

Hexavalent Chromium Maximum Contaminant Level Estimates of Costs

NOTICE IS HEREBY GIVEN that the State Water Resources Control Board (State Water Board) will hold a public workshop to receive information and solicit public input regarding estimates of costs associated with a range of potential hexavalent chromium maximum contaminant levels (MCL) and treatment technologies.

State Water Board staff will conduct two public workshops at the times and place described below. At the workshops, any person may present comments orally or in writing relevant to the subject described in this notice. The workshop will begin with a staff presentation summarizing the development of estimated costs for each respective MCL, followed by an opportunity for public comment. During the comment period, members of the public will be allowed three minutes to provide oral comments, unless additional time is approved.

Tuesday, December 8, 2020 – 9:30 a.m.
Wednesday, December 9, 2020 – 1:30 p.m.
Video and Teleconference Participation Only
No Physical Meeting Location

As a result of the COVID-19 emergency and the Governor's Executive Orders to protect public health by limiting public gatherings and requiring social distancing, this workshop is scheduled at this time to occur via remote presence. The workshop will be recorded and will be webcast at https://video.calepa.ca.gov/.

For those who only wish to watch the workshop, the customary webcast remains available at https://video.calepa.ca.gov/ and should be used UNLESS you intend to comment.

For those who wish to make oral comments, additional information about participating telephonically or via the remote meeting solution is available here: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Regulations.html

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

While a quorum of the State Water Board may be present, this workshop is for the public to provide comments. The Board will not take formal action. Hexavalent chromium MCL regulations are expected to be proposed in early 2021. Additional information regarding State Water Board meetings, hearings, and workshops is available on the Board's Internet web page at Board Meeting Information https://www.waterboards.ca.gov/board info/calendar/.

Special Accommodation Request

Consistent with California Government Code section 7296.2, special accommodation or language needs may be provided for any of the following:

An interpreter to be available at the workshop; Documents made available in an alternate format or another language; or A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk to the Board at (916) 341-5600 as soon as possible, but no later than 10 business days before the scheduled workshop. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

Un intérprete que esté disponible en la audiencia Documentos disponibles en un formato alterno u otro idioma Una acomodación razonable relacionada con una incapacidad

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 341-5600 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

SUBMISSION OF WRITTEN COMMENTS

Any interested person, or their representative, may submit written comments relevant to the subject described in this notice to the Clerk to the State Water Board. To facilitate timely identification and review of written comments, please use the subject line: "Comment Letter – Hexavalent Chromium MCL Costs".

The formal procedure for adopting regulations under the Administrative Procedure Act has not yet begun, and these workshops are not part of that process. However, input provided on the analysis of the costs may be used to inform the development of the regulation. In order for those comments to be considered during the development of the formal regulations package, written comments, regardless of the method of transmittal, must be received by the Clerk by **12:00 p.m. noon, December 31, 2020**. Additional

opportunities to comment on the proposed drinking water standard will be available once the formal rulemaking process is initiated.

Written comments may be submitted as follows:

- 1. By email to: commentletters@waterboards.ca.gov;
- 2. By fax transmission to: (916) 341-5620;
- 3. By mail to: Clerk to the Board, Ms. Jeanine Townsend, State Water Resources Control Board, P.O. Box 997377, MS 7400, Sacramento, CA 95899-7377; or
- 4. Hand-delivered to: Clerk to the Board, Ms. Jeanine Townsend, State Water Resources Control Board, 1001 I Street, 24th Floor, Sacramento, CA 95814.

The State Water Board requests but does not require that written comments sent by mail or hand-delivered be submitted in triplicate.

The State Water Board requests but does not require that, if reports or articles in excess of 25 pages are submitted in conjunction with the comments, the commenter provide a summary of the report or article and describe the reason for which the report or article is being submitted or is relevant to the proposed regulation.

All comments, including email or fax transmissions, should include the author's name and U.S. Postal Service mailing address in order for the State Water Board to provide copies of any notices for proposed changes to the regulation text on which additional comments may be solicited.

Please note that under the California Public Records Act (Gov. Code, §6250 *et seq.*), your written and oral comments, attachments, and associated contact information (*e.g.*, your address, phone, email, *etc.*) can be released to the public upon request.

BACKGROUND

California Health and Safety Code Section 116365(a) requires the State Water Board to establish an MCL at a level as close to the public health goal (PHG) as is technologically and economically feasible. The PHG is the concentration of a contaminant in drinking water that does not pose a significant risk to health.

Hexavalent chromium has been detected in numerous drinking water sources in California. In 2011, the Office of Environmental Health Hazard Assessments (OEHHA) established a hexavalent chromium PHG of 0.02 parts per billion (ppb) based on cancer risk. In 2014, the California Department of Public Health established an MCL of 10 ppb (0.010 mg/l) for hexavalent chromium. In 2017, the Superior Court of California, Sacramento County, invalidated that MCL and directed the State Water Board to withdraw the current MCL and establish a new MCL.

As part of the development of the MCL, State Water Board staff have developed preliminary estimates of the following that will be presented at the workshop:

- 1. The number of public water system sources that would be impacted at various potential MCL values. This is based on the current hexavalent chromium occurrence data for drinking water sources of public water systems.
- 2. Information on the costs of various treatment technologies to lower the levels of hexavalent chromium in the water delivered to the public.
- 3. Information on the anticipated overall costs for public water systems impacted by various potential MCL values. This includes both the capital and operational costs estimated across various sizes of water systems.

The release of preliminary information on hexavalent chromium occurrence and costs of treatment at potential MCLs in advance of the formal rulemaking process will allow for additional public input prior to the development of the proposed regulation.

DOCUMENT AVAILABILITY

Draft determinations of hexavalent chromium occurrence and estimates of costs are available for review on the Division of Drinking Water's Hexavalent Chromium MCL Internet Web page at

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Regulations.html

Requests for copies of the estimates, or other inquiries concerning development of the hexavalent chromium maximum contaminant level may be directed to:

Melissa Hall, P.E. Senior Water Resource Control Engineer State Water Resources Control Board, Division of Drinking Water 1001 I Street, 17th Floor Sacramento, CA 95814 Telephone: (916) 323-0373

In the event Melissa Hall is not available, please contact:

Electronic mail: melissa.hall@waterboards.ca.gov

Mark Bartson, P.E.
Supervising Sanitary Engineer
State Water Resources Control Board, Division of Drinking Water
1001 I Street, 17th Floor
Sacramento, CA 95814
Telephone: (916) 449-5622

Electronic mail: mark.bartson@waterboards.ca.gov

Please identify the correspondence by using the State Water Board identifier, "Comment Letter – Hexavalent Chromium MCL Costs" in any inquiries or written comments.

November 25, 2020	Clanine Jourson
Date	Jeanine Townsend
	Clerk to the Board

1

Treatment Costs Data

_		MCL =	= 1 ug/L MCL = 2 ug/L		MCL = 5 ug/L		MCL = 10 ug/L		MCL = 25 ug/L		
	Design Flow (gpm)	Total Capital	Annual O&M	Total Capital	Annual O&M	Total Capital	Annual O&M	Total Capital	Annual O&M	Total Capital	Annual O&M
WBA	10	914,900	59,840	914,900	59,040	914,900	58,240	914,900	56,640	914,900	54,240
	100	1,725,000	115,440	1,725,000	108,240	1,725,000	105,040	1,725,000	93,840	1,725,000	86,640
	500	3,566,000	388,000	3,566,000	349,600	3,566,000	329,600	3,566,000	271,200	3,566,000	232,800
	2000	8,203,000	1,223,200	8,203,000	1,092,000	8,203,000	1,026,400	8,203,000	829,600	8,203,000	698,400
	100					2,483,900	177,920	2,483,900	181,920	2,483,900	188,320
RCF	500					4,501,600	334,400	4,501,600	358,400	4,501,600	390,400
	2000					8,877,200	646,800	8,877,200	741,200	8,877,200	868,400
RCF (Granular	100					2,147,900	134,080	2,147,900	134,080	2,147,900	134,880
Media Filters w/o	500					3,623,600	296,240	3,623,600	299,440	3,623,600	304,240
Recycle)	2000					8,049,200	583,120	8,049,200	596,720	8,049,200	614,320
RCF (w/ Vacuum MF)	100	1,936,900	145,520								
	500	3,931,600	349,760								
IVII)	2000	8,062,200	772,560								
RCF (w/ Pressure MF)	100	2,254,900	150,320								
	500	3,496,600	352,320								
,	2000	7,667,200	791,760								
SBA	100	1,045,000	137,000								
	250	1,785,000	161,000								
	500	2,462,000	193,000								
	1000	3,172,000	245,000								
	2000	5,064,000	380,000								
	5000	7,566,000	775,000								
	7500	10,869,000	1,148,000								
	10000	13,087,000	1,489,000								





Presentation of Chromium 6 Final Report

Presented By | Ramon Abueg, PE - City of Glendale
Nicole Blute, PhD, PE - Hazen and Sawyer

Objectives

- Glendale led the way for utilities across the country to understand how to treat chromium and how much it will cost
- The research is providing California Dept. of Public Health and USEPA with this information to form a scientifically sound foundation on which they develop a new regulatory limit

Project Implementation Project Management Team, City of Glendale, California Department of Water and Power Stephen M. Zurn, General Manager Ramon Abueg, Chief Assistant General Manager Donald Froelich, Project Manager Leighton Fong, Project Engineer Project Research Team

Hazen and Sawyer, Environmental Engineers and Scientists Nicole Blute, PhD, PE Xueying Wu, D. Env, PE

> ARCADIS U.S., INC./ Malcolm Pirnie Katie Porter, PE Greg Imamura

> > Michael J. McGuire, PhD., PE

Project Advisory Committee

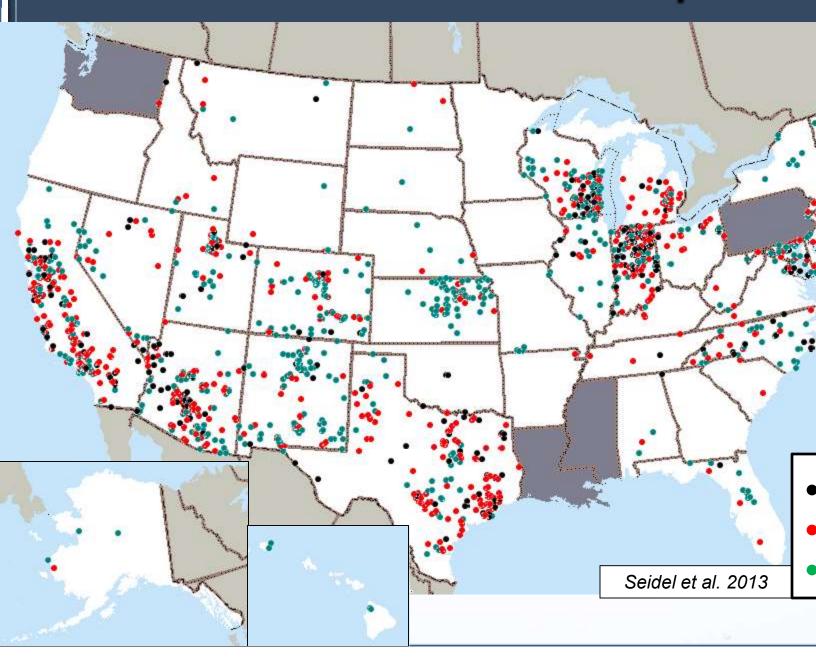
Dr. Bruce Macler, U.S. Environmental Protection Agency Mr. Eugene Leung, California Department of Public Health Dr. Sun Liang, Metropolitan Water District of Southern California Dr. Pankaj Parekh, Los Angeles Department of Water and Power Dr. Rick Sakaji, East Bay Municipal Utility District

Funding Partners

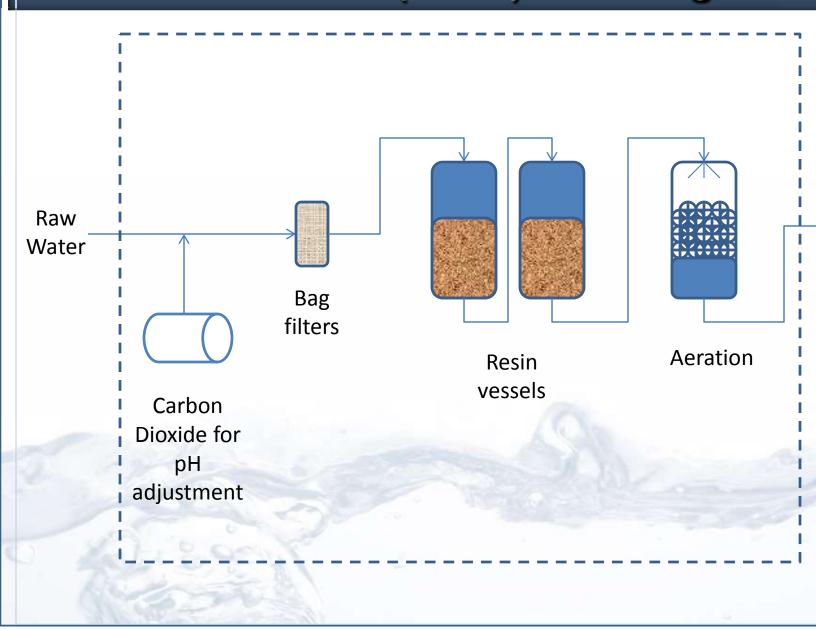
U.S. Environmental Protection Agency California Dept. of Public Health Water Research Foundation Los Angeles Dept. of Water and Power City of Burbank Metropolitan Water District of So.Cal. National Water Resource Institute North American Höganäs

U.S. Bureau of Reclamation California Dept. of Water Resources Association of California Water Agencies City of Glendale City of San Fernando California Water Service Company San Fernando Valley Industry

Chromium Occurrence is Widespread



Weak Base Anion (WBA) Exchange



WBA – Demonstration Testing at Glendale





New Ion Exchange Res

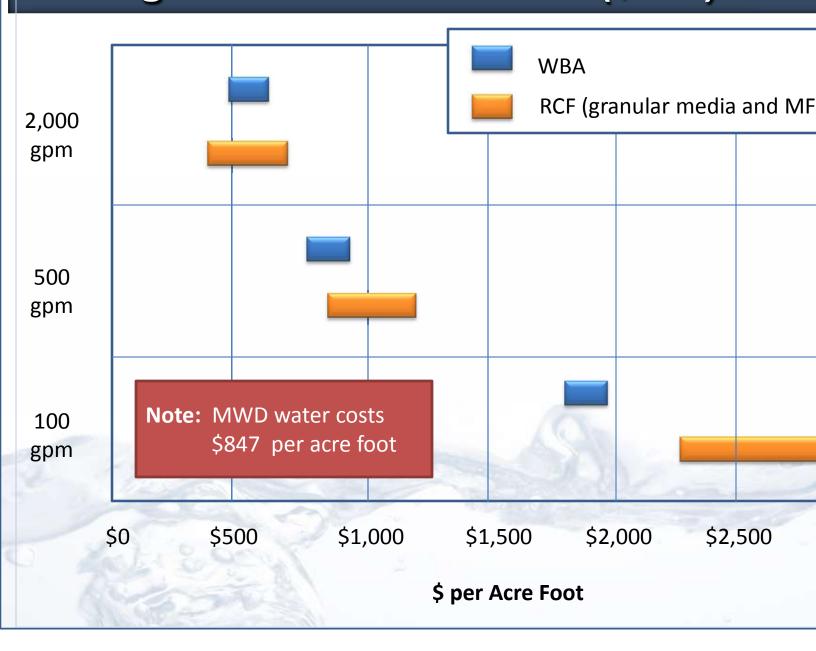
- 425 gallons per minute
- Treatment of Well GS-3 in
- Operation for more than before resin had to be re
- Continues to operate

RCF – Demonstration Testing at Glenda



- 100 gallons per minu
- Partial treatment of 3 3 adjacent to Glenda Water Treatment Pla
- Operations require n labor than WBA trea
- Facility shutdown in 2012 after research
- May be dismantled a removed after confe with the EPA and CD

Range of Estimated Costs (\$/AF)

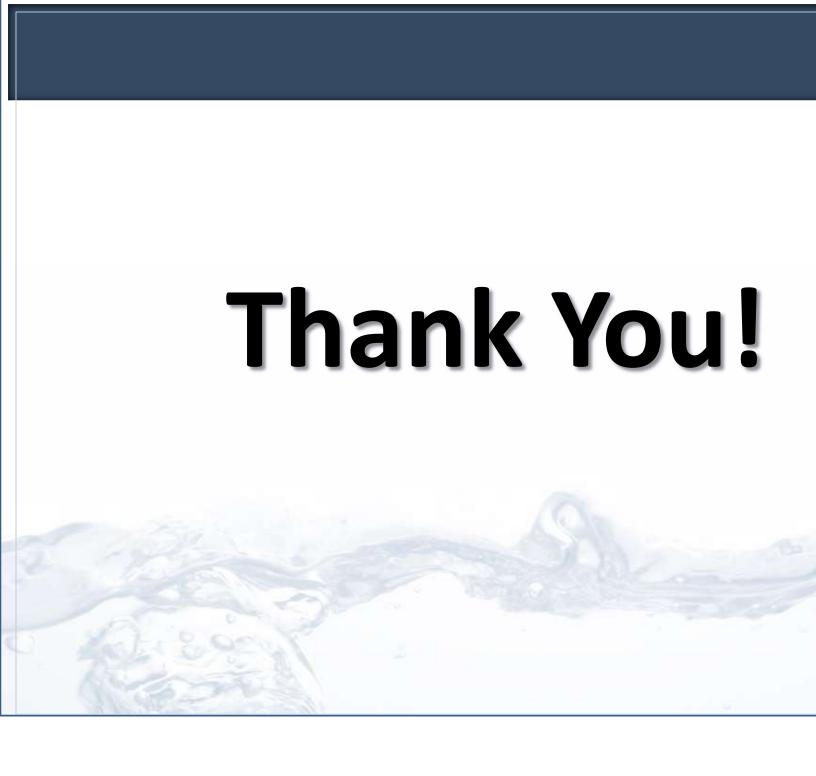


Conclusions

- Glendale is a nationwide leader for removing Cr6 from drinking water and develop cost
- The total research costs to date are approximately \$9 million funded almost en with funds from many other agencies inclu Glendale's management cost
- Final Project Report to CDPH containing detailed technical and cost information for removal
 - Needed as part of establishing a water quality standard for Cr6

Conclusions (continued)

- Some minor work remains follow up research relating to rewill be completed by late 2013 and a supplemental report with issued
- A draft water quality standard (MCL) is expected in July 201
- Cost of treatment will be high how high depends on the M
 - If low, higher costs. If high, lower costs.
- The Cr6 contamination in Glendale is mainly from industrial discharge. Currently, under Superfund, the EPA is identifyin potential responsible parties that caused the pollution.
- Like in the year 2000 case of the Superfund "VOC" removal efforts, City staff was able to get the responsible parties to f all treatment costs. The staff will again push for the industry fund all Cr6 removal efforts.



Hexavalent Chromium Removal Research Project Report

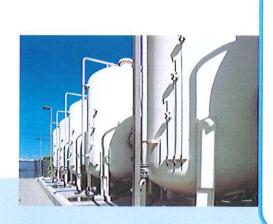
To the California Department of Public Health

Research Managed By City of Glendale, California Department of Water & Power

Report Prepared By
HAZEN AND SAWYER
ARCADIS U.S./Malcolm Pirnie







February 28, 2013

Project Implementation

Project Management Team, City of Glendale, California Department of Water and Power

Stephen M. Zurn, General Manager Ramon Abueg, Chief Assistant General Manager Donald Froelich, Project Manager Leighton Fong, Project Engineer

Project Research Team

Hazen and Sawyer, Environmental Engineers and Scientists Nicole Blute, PhD, PE Xueying Wu, D. Env, PE

> ARCADIS U.S., INC./ Malcolm Pirnie Katie Porter, PE Greg Imamura

> > Michael J. McGuire, PhD., PE

Project Advisory Committee

Dr. Bruce Macler, U.S. Environmental Protection Agency Mr. Eugene Leung, California Department of Public Health Dr. Sun Liang, Metropolitan Water District of Southern California Dr. Pankaj Parekh, Los Angeles Department of Water and Power Dr. Rick Sakaji, East Bay Municipal Utility District

Funding Partners

U.S. Environmental Protection Agency California Dept. of Public Health Water Research Foundation Los Angeles Dept. of Water and Power City of Burbank Metropolitan Water District of So.Cal. National Water Resource Institute North American Höganäs U.S. Bureau of Reclamation California Dept. of Water Resources Association of California Water Agencies City of Glendale City of San Fernando California Water Service Company San Fernando Valley Industry





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Appendices

Note that the Appendices are not attached to this report due their large size but are available upon request.

Appendix A. Overall Research Program Funding Sources and the Status of the Research Activities.

Appendix B. Phase I Bench Testing Report

 Brandhuber et al., 2004. Treatment Options for Low-Level Hexavalent Chromium Removal Tested at Bench Scale. American Water Works Association Research Foundation. Denver, CO.

Appendix C. Phase II Bench Testing Report

- McGuire Environmental Consultants, 2005. The Treatment of Hexavalent Chromium (Cr(VI)) in the City of Glendale Groundwater Supply Phase II: Demonstration of Pilot-Scale Treatment Technologies. Submitted to the City of Glendale.
- McGuire Environmental Consultants, 2006. Phase II Pilot Testing Task 8: Refined Cost Estimates for Hexavalent Chromium Removal Technologies. Submitted to the City of Glendale. October.

Appendix D. Peer-Reviewed Publications from Phase II Pilot Testing

- McGuire, M.J., Blute, N.K., Seidel, C., Qin, G., and Fong, L., 2006. Pilot-Scale Studies of Hexavalent Chromium Removal from Drinking Water. J.AWWA, 98(2), p.134-143.
- Qin, G., McGuire, M.J., Blute, N.K., Seidel, C., and Fong, L., 2005. Hexavalent Chromium Removal by Reduction with Ferrous Sulfate, Coagulation, and Filtration: A Pilot-Scale Study. *Environ. Sci. Technol.*, 39, p. 6321-6327.

Appendix E. Phase III Bridge Study

- EPA Science and Technology Grant Report (June 2008)
- McGuire, M.J., Blute, N.K., Qin, G., Kavounas, P., Froelich, D., and Fong, L., 2007. Hexavalent Chromium Removal from Drinking Water Using Weak- and Strong-Base Anion Exchange and Reduction/Coagulation/Filtration. American Water Works Association Research Foundation, Denver, CO.
- Expert Panel Summary (October 2006)
- Lehigh University Report on WBA Testing: Reference SenGupta, A.K. and Sarkar, S., 2007.
 Trace Cr(VI) Removal by Weak Base Duolite A7 and SIR-700 from Groundwater in Glendale, CA: Underlying Mechanism. Submitted to the City of Glendale.
- RCF Pilot Testing Report (May 2008)



Appendix F. Phase III USBR Grant Proposal

 City of Glendale, California. 2011. Advanced Water Treatment Study for Hexavalent Chromium in Drinking Water. Submitted to the United States Bureau of Reclamation WaterSMART 2011 Program, May.

Appendix G. Phase III ACWA Residuals Study Report

Blute, N.K., Wu, Y., Visosky, T., and DeWolfe, J., 2012. Hexavalent Chromium Treatment
Residuals Management. Final report submitted to Association of California Water Agencies and the
City of Glendale, March.

Appendix H. Phase IIIA Microfiltration Study

- City of Glendale, California, 2010. Research Effort to Investigate the Feasibility of Microfiltration in the RCF Process for Hexavalent Chromium Removal. Submitted to the Water Research Foundation Tailored Collaboration Program, December (revised and resubmitted in February 2011).
- Blute, N.K., Wu, Y., and Mishra, D., 2012. Research Effort to Investigate the Feasibility of Microfiltration in the RCF Process for Cr(VI) Removal – Pilot Test Plan. Submitted to the Water Research Foundation and City of Glendale, February.
- Blute, N.K., Wu, X., Cron, C., Porter, K., Fong, L., Froelich, D., Abueg, R., and Kavounas, P. 2012.
 Microfiltration in the RCF Process for Hexavalent Chromium Removal from Drinking Water.
 Submitted to the Water Research Foundation and City of Glendale, December.

Appendix I. Phase IIIB Additional Resin and Adsorptive Media Pilot Testing Proposal

- California Water Service Company in partnership with the City of Glendale, California. 2011.
 Assessment of Single-Pass Ion Exchange Resin and Adsorptive Media for Hexavalent Chromium Removal from Drinking Water. Submitted to the Water Research Foundation Tailored Collaboration Program, October.
- Blute, N.K., Wu, Y. 2012. Phase IIIB Pilot Testing Plan. Submitted to the Water Research Foundation and City of Glendale, Updated XX.

Appendix J. Phase III Demonstration Study - Experimental Plans

- Malcolm Pirnie, Inc. 2007. Experimental Design and Operations Plan for Hexavalent Chromium Removal Using Weak-Base Anion Exchange Resin: A Demonstration-Scale Study. Submitted to the USEPA, October (Draft).
- Malcolm Pirnie, Inc. 2008. Experimental Design for Hexavalent Chromium Removal Using Reduction with Ferrous Sulfate, Coagulation, and Filtration (RCF) Process: A Demonstration-Scale Study. Submitted to the USEPA, June.



Appendix K. Phase III Demonstration Study –Quality Assurance Project Plans

- Malcolm Pirnie, Inc. 2008. The Treatment of Hexavalent Chromium (Cr(VI)) in the City of Glendale, California Ground Water Supply: Phase III Demonstration-Scale WBA Resin Treatment Technology Evaluation – Quality Assurance Project Plan. Submitted to the USEPA, March (revised version).
- Malcolm Pirnie, Inc. 2008. The Treatment of Hexavalent Chromium (Cr(VI)) in the City of Glendale, California Ground Water Supply: Phase III Demonstration-Scale Reduction with Ferrous Sulfate, Coagulation, Filtration (RCF) Treatment Technology Evaluation – Quality Assurance Project Plan. Submitted to the USEPA, June.

Appendix L. Phase III Demonstration Study – Technical Memorandum

 Russell, C., Blute, N., and McGuire, M.J. 2007. Evaluation of CO₂ use for pH adjustment prior to WBA treatment. Technical memorandum submitted to the City of Glendale, September.

Appendix M. Phase III Demonstration Study – CDPH Water Supply Permit Amendments

- O'Keefe, J. System 1910043- Water Supply Permit Amendment 1910043-PA-001. December 21, 2009.
- O'Keefe, J. System No. 1910043- Authorization to Operate RCF Demonstration Explicitly for Chrome 6 Removal. December 16, 2009.

Appendix N. Phase III Demonstration Study - Design Drawings

- AECOM. 100% Design. May 2009. Submitted to the City of Glendale.
- AECOM. 100% Design. May 2009. Submitted to the City of Glendale.

Appendix O. Phase III Demonstration Study – Construction Specifications for WBA and RCF

 AECOM. Specifications for Construction of WBA and RCF Facilities. May 2009. Submitted to the City of Glendale.

Appendix P. Phase III Demonstration Study - Construction Task Hazard Assessments

AECOM, 2009. Submitted to the City of Glendale.

Appendix Q. Phase III Demonstration Study – Contingency Plans

- AECOM. Contingency Plan. October 2009. Submitted to the City of Glendale.
- AECOM. Contingency Plan. October 2009. Submitted to the City of Glendale.



Appendix R. Phase III Demonstration Study - Health and Safety Plan

 AECOM. Health and Safety Plan for Operations and Maintenance Activities. October 2009. Submitted to the City of Glendale.

Appendix S. Phase III Demonstration Study – Startup Plan and Operations and Maintenance (O&M) Manuals

- AECOM. Startup Plan. October 2009. Submitted to the City of Glendale.
- AECOM. O&M Plan. October 2009. Submitted to the City of Glendale.
- AECOM. Startup Plan. October 2009. Submitted to the City of Glendale.
- AECOM. O&M Plan. October 2009. Submitted to the City of Glendale.

Appendix T. Phase III Demonstration Study - Cost Estimate Details

Appendix U. Phase III Demonstration Study - Additional Cost Analyses of Options

Appendix V. Outreach Efforts

- List of Conference Presentations
- List of Community Presentations
- Newspaper Articles
- Others



1. Executive Summary

1.1 Initiation of the Research Program

The City of Glendale has been managing a major research effort to identify technologies for removing hexavalent chromium, Cr(VI), from drinking water supplies for almost a decade. Release of the movie *Erin Brockovich* in 2000 raised public concern with any Cr(VI) in drinking water, including in the City of Glendale and neighboring utilities. At the time, little information was available on the ability of Cr(VI) treatment technologies to reach single parts-per-billion (ppb, or microgram per liter) levels when the California Maximum Contaminant Level (MCL) for total chromium was 50 ppb and the federal total chromium MCL was 100 ppb. The research program began in order to test and identify treatment technologies for achieving low ppb effluent chromium concentrations in drinking water supplies.

Before the research effort began, the California Office of Health Hazard Assessment (OEHHA) established a Public Health Goal (PHG) of 2.5 ppb for total chromium in 1999, based on a calculation of a health protective level for hexavalent chromium of 0.2 ppb (using an assumption that "total chromium would be made up of no more than 7.2% chromium VI", which was later refuted). This original PHG was rescinded in November 2001 with the intention that a Cr(VI) specific PHG would be set. In July 2011, OEHHA set a final PHG for Cr(VI) of 0.020 ppb. The State of California is now required to set an MCL for Cr(VI), taking into consideration the PHG as well as technical feasibility of treatment levels and costs.

The primary goal of this Project Report and supporting appendices is to provide the CDPH with technical feasibility and cost data on removing Cr(VI) from drinking water. This is an integral part of setting an MCL for Cr(VI) in drinking water. Additionally, this report will meet the City's grant reporting requirements to the U. S. Environmental Protection Agency, the U.S. Bureau of Reclamation, the California Department of Water Resources, and other contributing organizations. The USEPA recently included Cr(VI) in the Unregulated Contaminant Monitoring Rule 3 (UCMR3), which indicates that Cr(VI) will be under consideration for regulation at the federal level.

The research program is divided into several phases – Phase I Bench Testing, Phase II Pilot Testing, and the Phase III Bridge and Demonstration Studies.



1.2 Phase I Bench Testing

A bench-scale study (Phase I) led by the Los Angeles Department of Water and Power (LADWP) and co-funded by the Cities of Glendale, Burbank, and San Fernando, the American Water Works Research Foundation (now called the Water Research Foundation), and the National Water Research Institute was conducted at the University of Colorado at Boulder to screen a large array of potential treatment technologies, including ion exchange and adsorptive media, membranes, and reduction/precipitation. Phase I bench-scale testing suggested that technologies capable of removing Cr(VI) to less than 5 ppb would include the following classes of technologies: strong-base anion exchange resin in column and reactor applications, adsorptive media, membrane treatment by nanofiltration and reverse osmosis, and reduction of Cr(VI) followed by precipitation of Cr(III).

1.3 Phase II Pilot Testing

Pilot testing of seven treatment technologies (Phase II) led by the City of Glendale California followed the bench scale study to assess treatability under flow-through conditions. The research team investigated three types of anion exchange (column vs. fluidized, weak base, and strong base), zeolite media, iron-impregnated granular activated carbon (GAC), and two types of reduction/filtration (one included a coagulation step while the other did not). Three technologies emerged as leading technologies for achieving single ppb treated water concentrations: weak-base anion exchange (WBA), strong-base anion exchange (SBA), and reduction/coagulation/filtration (RCF). The advantages and disadvantages of each technology were studied in more detail in the subsequent phase.

1.4 Phase III Bridge and Demonstration Studies

A Phase III Bridge study led by the City of Glendale California was established to investigate the mechanism underlying the high capacity of the WBA resin and to evaluate necessary RCF design components. An Expert Panel consisting of the Project Advisory Committee and Academicians (described in Sections 2.3 and 2.5) was convened at the end of the Phase II to evaluate the pilot testing results, yielding a recommendation for demonstration-scale testing of WBA and RCF treatment technologies in Phase III. In spring of 2010, Glendale constructed two test facilities consisting of 425 gallons per minute (gpm) of treatment for WBA and 100 gpm for RCF. The RCF was shut down in July 2012 and the WBA continues to operate.



The RCF process is similar to conventional water treatment, with coagulation and filtration processes. Ferrous sulfate (rather than ferric iron) is used to reduce Cr(VI) to Cr(III), in the process producing iron floc onto which or with which the Cr(III) adsorbs or coprecipitates. Depending on the influent chromium concentration and iron dose, an aeration step may be used to fully oxidize all of the ferrous iron added to the process. If the pH of the water to treat is higher than approximately 7.7, pH adjustment (decrease) may also be required to achieve low chromium levels. Demonstration scale testing has shown that the RCF process with granular media filtration can reliably achieve Cr(VI) concentrations below 1 ppb and total Cr concentrations below 5 ppb. Due to the multiple treatment process steps, RCF is more labor intensive than the other leading technologies but can adjust easily to changes in influent concentration.

Phase IIIA was added to the research program to test microfiltration (MF) in place of granular media filtration in the RCF process. Establishment of the California Public Health Goal (PHG) at 0.020 ppb and the stated intention of California to set a Cr(VI)-specific MCL raised the question of whether RCF could achieve treatment targets of sub-ppb levels for total Cr. The Expert Panel recommended that Glendale test MF to achieve better particle removal, and hence chromium, removal in the RCF process. In Phase IIIA, MF was found to consistently achieve Cr(VI) and total Cr concentrations in treated water effluent below 1 ppb. In addition, Phase IIIA results showed that chlorine may be used to augment ferrous oxidation by aeration to minimize membrane fouling, without increasing Cr(VI) concentrations to greater than 1 ppb if close controls are maintained on chlorine doses. This finding has the potential to decrease the footprint and capital cost of the RCF technology as described in this study, but would need further testing to identify more optimized design criteria.

The WBA treatment technology is an anion exchange process consisting of a polymeric resin material with a strong affinity for Cr(VI). Water to be treated is adjusted to pH 6.0 for removal of Cr(VI) by the resin, then the pH-adjusted water flows through the resin beds (often in a lead/lag configuration for maximum bed life). Readjustment of pH in the effluent will be necessary for many utilities requiring corrosion control in the distribution system (i.e., those that do not have post-treatment aeration like Glendale). The WBA resin used in the research program had a very high capacity for Cr(VI), lasting more than one year before changeouts. Not a true ion exchange mechanism like SBA, the resin converts Cr(VI) to Cr(III) and retains Cr(III) on the resin. Levels below 1 ppb Cr(VI) are achievable by this technology, although breakthrough will be much shorter than the one year changeout interval using a 5 ppb limit. Total Cr effluent concentrations exceed 1 ppb within a short timeframe. Testing also revealed that the tested WBA resin can leach formaldehyde at startup, requiring pretreatment,



and that the resin accumulates uranium. Both issues are discussed more extensively in this report.

SBA resin can also remove Cr(VI) from water but requires significant quantities of salt for frequent regeneration and brine disposal. SBA resin typically has a much lower capacity – approximately 2 percent of the throughput compared with WBA resin capacity for Cr(VI), as observed in pilot testing. The mechanism of SBA removal of Cr(VI) is by ion exchange, whereas WBA resin involves reduction of Cr(VI) to Cr(III). Treatment of the brine regenerant waste for SBA resin, which is likely a hazardous waste in California, may also be necessary to precipitate out Cr(VI). However, SBA can be an attractive alternative if other anion compounds such as nitrate, arsenic, and/or perchlorate require co-contaminant treatment. Treatment to 1 ppb is possible for Cr(VI) and total Cr with SBA resin.

A detailed cost evaluation of treatment options was prepared as part of the Phase III Demonstration study, including generation of cost curves for different flow rates, influent concentrations, and potential MCL treatment goals. All costs in this report assume a 100% utilization rate, which means that unit costs will be higher if processes are not used throughout the year. No blending options were included in the cost analysis but could bring down costs of treatment for systems not treating an impaired source. For example, sources not classified as "extremely impaired" could utilize sidestream treatment of partial flow. No safety factors are included in the cost estimates to ensure compliance with a potential MCL (e.g., many utilities target 80% of the MCL).

To gain a sense of the overall costs a utility may face in implementing chromium treatment, Table 1-1 summarizes the total capital and 20 year net present value (NPV) O&M costs for WBA as a function of potential MCLs. Cost estimates for the WBA treatment systems reflect treatment to potential MCLs ranging from 1 to 25 ppb, with a lower treatment goal resulting in more frequent resin changeouts and higher cost. Figure 1-1 portrays the costs as a function of potential MCL for a 500 gpm system. Capital and O&M cost details are included in Section 5 of this report.



Table 1-1. Summary of WBA Capital and O&M Costs

Sustam	Potential Cr(VI) MCL, ppb*					
System Size (gpm)	1	2	5	10	25	
10	\$8,519,000	\$4,019,000	\$3,419,000	\$3,419,000	\$3,419,000	
100	\$36,036,000	\$8,736,000	\$4,836,000	\$4,536,000	\$4,536,000	
500	\$181,594,000	\$33,594,000	\$11,594,000	\$10,594,000	\$9,594,000	
2,000	\$605,300,000	\$104,300,000	\$31,300,000	\$27,300,000	\$24,300,000	

^{*} Resin use was assumed to be driven by total chromium treatment targets rather than Cr(VI), since Cr(VI) can reoxidize to Cr(VI) in the distribution system (Appendix B). This difference is only important at potential MCLs of 1 and 2 ppb.

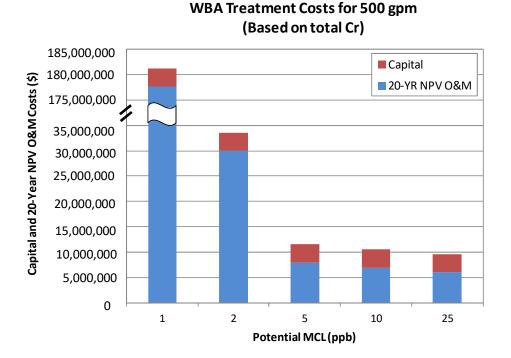


Figure 1-1. Capital and NPV Costs for Chromium Treatment for Several Potential MCLs

Tim Shaw

From: Paul Mitchell <paul@redistrictingpartners.com>

Sent: Tuesday, December 1, 2020 9:42 AM

To: Tim Shaw

Subject: Looking ahead to 2021 CVRA and Districting

Dear Tim Shaw,

Despite all the challenges facing the Rio Linda/Elverta Community Water District and all local governments this year, one more lies ahead. In 2021. Any agencies still in At Large election systems will face increasing pressure to convert to districts under the CVRA with the release of the new census figures. At the same time, all cities and counties, school boards, community colleges and other special districts with districted election systems will have to undergo a redistricting in order to rebalance population based on the new census.

In a normal decennial cycle, managing a redistricting or conversion to districted elections can be a challenge. However there are several factors that are adding to the burden for local governments in the coming year:

- 1) For cities with districts, a new California law known as the Fair Maps Act requires additional outreach, public transparency, and opportunities for engagement than ever before. Cities and Counties must adhere to, or exceed, a set of requirements for the number of meetings, publication of draft maps, and presentation of information online. For those without districts, the conversion process is just as extensive, and often requires even more input from community members.
- 2) Statewide and local redistricting must use specific datasets from the Census that identify population and ethnic/racial information which must be considered when drawing new district lines. Additionally, a new state law requires a reallocation of incarcerated populations for the purposes of redistricting. Population from any institutions in Rio Linda/Elverta Community Water District will be moved back to their residence before being arrested, and population incarcerated in other counties could be moved back if they were living in County before being incarcerated.
- 3) The public and the media are demanding opportunities to engage in redistricting. A recent poll by Open California found that 98% of voters believe local governments should have open and transparent redistricting. Voters strongly support requirements that agencies make maps public, have additional public hearings, and do not draw lines to advantage incumbents, candidates or political parties all elements of the California Fair Maps Act.
- 4) The COVID restrictions on large in-person gatherings will complicate this work. Even if we reach a point in the spring or summer where much of this health crisis has abated, it is likely that some online opportunities for public engagement will need to be provided for individuals or groups that are unable or unwilling to participate in an in-person public setting.
- 5) The timeline for redistricting or conversion to districts under the CVRA is being compressed due to a likely delay in the release of Census data and a requirement that agencies with a June Primary complete the process by January 7, 2022 and those with only a November General election complete the process by June 10th of that year.
- 6) The number of agencies that are in districts and therefore need to conduct a redistricting has ballooned in recent years. Additionally, many agencies used to have odd-year elections, and therefore they could conduct their redistricting a year later but they are now forced to do redistricting on the same timeline as the state and all other agencies.

Fortunately, we are prepared to assist Rio Linda/Elverta Community Water District in this process.

Redistricting Partners has worked with dozens of agencies over the past decade, assisting with California Voting Rights Act analysis and conversion to districts, and traditional redistricting. Our 2011 clients included the Los Angeles Unified School District, over 20 Community College Districts, and multiple school boards, water districts, and other special districts. We have performed redistricting for the Cities of Santa Ana, Napa and Davis. For 2021 we are already contracted with the cities of Carpinteria, Berkeley and Napa and have been selected by the City of Long Beach to conduct their first independent commission redistricting process.

Redistricting Partners is also trusted by state associations and foundations. We have performed contracts for the Irvine Foundation and several community-based organizations. We have a systemwide contract with the Foundation for California Community Colleges, and work with both the California School Boards Association and California Special Districts Association. Our work is nonpartisan – my work for the past decade for Political Data Inc. has allowed me to work with county registrars, pollsters and researchers, and candidates and political parties on both sides of the aisle.

We have a bipartisan staff and strong non-partisan credentials including experts in redistricting and community engagement, with decades of work with local governments and nonprofit community groups alike.

In the past decade we have never had one of our redistricting projects challenged in court, and we have strong references from a variety of agencies, law firms and public interest groups. You can learn more about our team and their experience here: http://redistrictingpartners.com/about/

We also have experience doing this work within the confines of our current COVID restrictions on large in-person meetings. We completed the CVRA districting process in the city of Napa entirely online, including public engagement and changes to maps which were conducted entirely through web-based conference meetings.

To make things easier, we have published a standard scope of work that can be found on our website at http://redistrictingpartners.com/services/. This outlines the services we provide for clients who are required to convert under the CVRA and those that are redistricting under the new Fair Maps Act process, including the hearings, data, mapping, and every step through the final processing of new district boundaries with county registrars.

These services are also available to any cities, counties, school districts, community colleges or other agencies, so if there are other colleagues in these agencies that would like to receive information on redistricting or CVRA conversion, please feel free to pass our information along to them.

Please contact us at info@redistrictingpartners.com or call us at 800-996-1019 with any questions or to setup a time to do a videoconference or call to discuss your needs in this upcoming redistricting cycle.

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Thanks,