



MAMMOTH COMMUNITY WATER DISTRICT

Post Office Box 597

Mammoth Lakes, California 93546-0597

798th Regular Meeting of the
Mammoth Community Water District
Board of Directors

Thursday, May 18, 2023

Please Note:

Members of the public will have the opportunity to directly address the District Board of Directors concerning any item listed on the Agenda below before or during consideration of that item.

Please Note:

Subject to Board approval of Agenda Item No. A-1 on this agenda, this meeting will be conducted pursuant to the provisions of subdivision (e) of Government Code section 54953. Due to the Governor's March 1, 2023, March 8, 2023, and March 12, 2023, proclamations declaring a weather-related State of Emergency in Mono County and most other counties in California, this meeting will be conducted both in-person in the District's Boardroom at 1315 Meridian Blvd., Mammoth Lakes, CA 93546 and by video/teleconference using the information provided below.

For members of the public interested in viewing and having the ability to comment at the public meeting via Zoom, an internet enabled computer equipped with a microphone and speaker or a mobile device with a data plan is required.

Use of a webcam is optional. You also may call in to the meeting using teleconference without video. Please use the following information to join the Zoom Videoconference Meeting:

<https://zoom.us/j/7609342596> (meeting ID: 760 934 2596) OR

Join via teleconference by dialing 1-669-900-9128, 760-934-2596#

5:30 P.M.

Roll Call

Directors Cage, Domaille, Hylton, Smith, and Thompson

Public Forum

Any member of the public may address the Board relating to any matter within the Board's jurisdiction. This need not be related to any item on the agenda, and presentation should be limited to three (3) minutes. No formal action by the Board will be taken on these items.

5:30 P.M. Public Hearing

Concerning the Filing of Reports on
Secured Delinquent Water and Sewer Charges
as of March 31, 2023

5:30 P.M. Public Hearing
Concerning the Filing of Reports on
Unsecured Delinquent Water and Sewer Charges
as of March 31, 2023

Consent Agenda A

All matters listed are considered to be routine by the Board and may be enacted on by one motion. There will be no separate discussion on these items unless requested by the Board. If discussion is requested, that item will be moved and considered separately after adoption of the consent agenda.

A-1 Consider finding under Gov. Code, section 54953, subd. (e)(1)(B) that as a result of the Governor’s proclaimed state of emergency: (i) meeting in person would present imminent risks to the health or safety of attendees: and (ii) the meeting is authorized to be held by teleconference pursuant to Gov. Code, section 54953, subd. (e)(1)(C)

A-2 Approve the April 2023 Check Disbursements

A-3 Approve the Minutes from the Regular Board Meeting held April 20, 2023

A-4 Approve a Notice of Exemption (NOE) for the 2023 Water and Wastewater System Improvements

A-5 Adopt Resolution No. 05-18-23-14 Confirming Collection and Requesting Inclusion of Secured Delinquent Rates, Charges, and Penalties for Water and Sewer Service on the Mono County Tax Roll for the Forthcoming Fiscal Year in the Same Manner as the District’s General Taxes

A-6 Adopt Resolution No. 05-18-23-15 Confirming Collection and Requesting Inclusion of Unsecured Delinquent Rates, Charges, and Penalties for Water and/or Sewer Service on the Mono County Tax Roll for the Forthcoming Fiscal Year in the Same Manner as the District’s General Taxes

Consent Agenda B — Department Reports

All matters listed are considered to be routine by the Board and may be acted on by one motion. There will be no separate discussion on these items unless requested by the Board. If discussion is requested, that item will be moved and considered separately after adoption of the consent agenda.

B-1 Operations Department Report

B-5 Information Services Report

B-2 Maintenance Department Report

B-6 Personnel Services Report

B-3 Finance Department Report

B-7 Regulatory Support Services Report

B-4 Engineering Department Report

B-8 General Manager’s Report

Current Business

C-1 Discuss and Consider Adopting Resolution No. 05-18-23-11 Revising the Appropriations Limitation for the Fiscal Year 2023-2024

C-2 Discuss and Consider Enacting Ordinance No. 05-18-23-12 Amending Chapter 12, Divisions III and VI of the Mammoth Community Water District Code Regarding the Temporary Use of Hydrant Meters

C-3 Revised Recycled Water Policy and Amend Chapter 11, Division XV of the MCWD Code (Ordinance No. 05-18-23-13)

1. Adopt the Title 22 Engineering Report

2. Discuss and Consider Enacting Ordinance No. 05-18-23-13 Amending Chapter 11, Division XV of the MCWD Code

C-4 Appoint an Ad-Hoc Committee to Facilitate Discussions with Mono County Representatives Regarding Property Tax Allocation to District Related to Annexation of Snowcreek VIII Property

Board Member's Committee Reports

Committee Meetings Held:

LAFCO – April 24, 2023

Technical Services Committee – May 17, 2023

Finance Committee – May 17, 2023

Directors Comments, Requests, and Reports

Attorney's Report

Closed Session

D-1 Conference with Real Property Negotiators

Pursuant to Government Code Sections 54954.5(e) and 54956.8

Property Description: Mono County APNs – 033-148-005-000 and 033-148-006-000

Under Negotiation: Price and Terms of Payment

MCWD Negotiators: Mark Busby and Garrett Higerd

Property Owner Negotiator: Greg Eckert

Adjournment

NOTE: Items listed on the agenda may be reviewed or acted upon by the Board in any order or sequence. The items are listed for identification purposes only.

The meeting will be held in the conference room at the District facility located one mile east of Old Mammoth Road on Meridian Boulevard, just off Highway 203, Mammoth Lakes, California.



MARK BUSBY
General Manager

Date of Issuance: Friday, May 12, 2023

Posted: MCWD Office
MCWD Website: www.mcwd.dst.ca.us
cc: Members, Board of Directors
Town of Mammoth Lakes
KMMT, KIBS, KSRW Radio

In compliance with the Americans with Disabilities Act, if you need a disability related modification or accommodation to participate in this meeting, please call Stephanie Hake at (760) 934-2596 at least one full day before the meeting.

Documents and material relating to an open session agenda item that are provided to the Mammoth Community Water District Board of Directors less than 72 hours prior to a regular meeting will be available for public inspection and copying at the District facility located at 1315 Meridian Boulevard, Mammoth Lakes, California.



MAMMOTH COMMUNITY WATER DISTRICT
Post Office Box 597
Mammoth Lakes, California 93546-0597

NOTICE OF A TECHNICAL SERVICES COMMITTEE MEETING

NOTICE IS HEREBY GIVEN that the Technical Services Committee of the Board of Directors of the Mammoth Community Water District will hold a **TECHNICAL SERVICES COMMITTEE MEETING** to be held **WEDNESDAY, MAY 17, 2023** at **8:00 A.M.**

Please Note:

Members of the public will have the opportunity to directly address the District Board of Directors concerning any item listed on the Agenda below before or during consideration of that item.

Please Note:

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The agenda items are:

1. Consider finding under Gov. Code, section 54953, subd. (e)(1)(B) that as a result of the Governor's proclaimed state of emergency: (i) meeting in person would present imminent risks to the health or safety of attendees: and (ii) the meeting is authorized to be held by teleconference pursuant to Gov. Code, section 54953, subd. (e)(1)(C)
2. Review of the Operations Department Report (B-1)
3. Review of the Maintenance Department Report (B-2)
4. Discuss the Proposed Amendments to the MCWD Code, Chapter 12 Regarding the Temporary Use of Hydrant Meters (C-2)
5. Review of the Engineering Department Report (B-4)

6. Discuss the MCWD Title 22 Engineering Report and Proposed Amendments to the MCWD Code, Chapter 11 Regarding the Use of Recycled Water (C-3)
7. Review of the Information Services Report (B-5)
8. Discussion / Questions Regarding Other Department Reports
 - B-3 Finance Department Report
 - B-6 Personnel Services Report
 - B-7 Regulatory Services Report
 - B-8 General Manager's Report

The meeting will be held in the conference room at the District facility located one mile east of Old Mammoth Road on Meridian Boulevard, just off Highway 203, Mammoth Lakes, California.



MARK BUSBY
General Manager

Date of Issuance: Friday, May 12, 2023

Posted: MCWD Office
MCWD Website: www.mcwd.dst.ca.us
cc: Members, Board of Directors
Town of Mammoth Lakes
KMMT, KIBS, KSRW Radio

If you are an individual with a disability and need assistance or accommodation to participate in this Board meeting at any time, please call Stephanie Hake at (760) 934-2596, ext. 321, or email Ms. Hake at: shake@mcwd.dst.ca.us.

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MAMMOTH COMMUNITY WATER DISTRICT
Post Office Box 597
Mammoth Lakes, California 93546-0597

NOTICE OF A FINANCE COMMITTEE MEETING

NOTICE IS HEREBY GIVEN that the Finance Committee of the Board of Directors of the Mammoth Community Water District will hold a **FINANCE COMMITTEE MEETING** on **WEDNESDAY, MAY 17, 2023** at **1:00 P.M.**

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2. Review and Approve the Board of Director Payment Requests for April 2023
3. Review and Approve the Accounts Payable Payment Vouchers for April 2023
4. Discuss and Review the April 2023 Check Register (A-2)
5. Discuss the Finance Department Report (B-3)
6. Discuss the Revised Appropriations Limitation for Fiscal Year 2023-2024 (C-1)
7. Discussion / Questions Regarding Other Department Reports

B-1 Operations Department Report

- B-2 Maintenance Department Report
- B-4 Engineering Department Report
- B-5 Information Services Report
- B-6 Personnel Services Report
- B-7 Regulatory Services Report
- B-8 General Manager's Report

The meeting will be held in the conference room at the District facility located one mile east of Old Mammoth Road on Meridian Boulevard, just off Highway 203, Mammoth Lakes, California.



MARK BUSBY
General Manager

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Mammoth Community Water District, CA

Board Check Register

By Vendor Name

Payment Dates 4/1/2023 - 4/30/2023

Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
Vendor: 00014 - Accelerated Technology Laboratories, Inc.					
04/12/2023	3667	Virtual Training	10-210-6215		895.00
Vendor 00014 - Accelerated Technology Laboratories, Inc. Total:					895.00
Vendor: 00016 - ACWA / JPIA (HBA)					
04/12/2023	3668	Dental Insurance	10-000-2150		610.67
04/12/2023	3668	Life Insur	10-000-2150		38.84
04/12/2023	3668	Premiums	10-000-2150		8,043.00
04/12/2023	3668	VSP	10-000-2150		122.00
04/12/2023	3668	Dental Insurance	10-000-2150		1,265.92
04/12/2023	3668	Dental Insurance	20-000-2150		1,538.75
04/12/2023	3668	Dental Insurance	30-000-2150		1,528.31
04/12/2023	3668	EAP	10-000-2150		27.28
04/12/2023	3668	EAP	20-000-2150		35.17
04/12/2023	3668	EAP	30-000-2150		34.27
04/12/2023	3668	Life Insurance - Dependent	10-000-2150		3.10
04/12/2023	3668	Life Insurance - Dependent	20-000-2150		2.94
04/12/2023	3668	Life Insurance - Dependent	30-000-2150		2.64
04/12/2023	3668	Life Insurance	10-000-2150		408.00
04/12/2023	3668	Life Insurance	20-000-2150		221.36
04/12/2023	3668	Life Insurance	30-000-2150		198.64
04/12/2023	3668	Life Insurance	10-000-2150		186.10
04/12/2023	3668	Life Insurance	20-000-2150		138.08
04/12/2023	3668	Life Insurance	30-000-2150		138.32
04/12/2023	3668	Life Insurance - Supplemental	20-000-2150		15.00
04/12/2023	3668	Life Insurance - Supplemental	30-000-2150		15.00
04/12/2023	3668	Premiums	10-000-2150		16,668.35
04/12/2023	3668	Premiums	20-000-2150		18,662.01
04/12/2023	3668	Premiums	30-000-2150		19,252.67
04/12/2023	3668	VSP	10-000-2150		292.80
04/12/2023	3668	VSP	20-000-2150		342.85
04/12/2023	3668	VSP	30-000-2150		340.35
04/12/2023	3668	Premium Adjustment	10-000-6020		8,194.62
Vendor 00016 - ACWA / JPIA (HBA) Total:					78,327.04
Vendor: 00017 - ACWA / JPIA					
04/06/2023	3651	Workers Compensation	10-000-2165		281.26
04/06/2023	3651	Workers Compensation	20-000-2165		743.17
04/06/2023	3651	Workers Compensation	30-000-2165		871.55
04/06/2023	3651	Workers Compensation	10-000-2165		281.03
04/06/2023	3651	Workers Compensation	20-000-2165		761.90
04/06/2023	3651	Workers Compensation	30-000-2165		928.86
04/06/2023	3651	Workers Compensation	10-000-2165		257.22
04/06/2023	3651	Workers Compensation	20-000-2165		752.05
04/06/2023	3651	Workers Compensation	30-000-2165		923.84
04/06/2023	3651	Workers Compensation	10-000-2165		254.08
04/06/2023	3651	Workers Compensation	20-000-2165		805.61
04/06/2023	3651	Workers Compensation	30-000-2165		905.96
04/06/2023	3651	Workers Compensation	10-000-2165		261.37
04/06/2023	3651	Workers Compensation	20-000-2165		822.26
04/06/2023	3651	Workers Compensation	30-000-2165		921.22
04/06/2023	3651	Workers Compensation	10-000-2165		307.24
04/06/2023	3651	Workers Compensation	20-000-2165		893.76
04/06/2023	3651	Workers Compensation	30-000-2165		917.82
04/06/2023	3651	Workers Compensation	10-000-2165		317.62
04/06/2023	3651	Workers Compensation	20-000-2165		903.39

Board Check Register

Payment Dates: 4/1/2023 - 4/30/2023

Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
04/06/2023	3651	Workers Compensation	30-000-2165		893.86
04/06/2023	3651	Premium Adjustment	10-000-6022		-2,850.19
				Vendor 00017 - ACWA / JPIA Total:	11,154.88
Vendor: 00025 - AFLAC					
04/30/2023	DFT0000590	AFLAC	20-000-2170		3.65
04/30/2023	DFT0000590	AFLAC	20-000-2170		27.58
04/30/2023	DFT0000590	AFLAC	30-000-2170		27.57
04/30/2023	DFT0000590	AFLAC	30-000-2170		3.65
				Vendor 00025 - AFLAC Total:	62.45
Vendor: 00063 - American Business Machines Co.					
04/12/2023	10416	Copier/Printer Agreement and Quarterly Usage Chrg	10-000-6180		926.19
04/27/2023	10425	Ops Printer/Copier Agreement	10-000-6180		96.31
				Vendor 00063 - American Business Machines Co. Total:	1,022.50
Vendor: 00069 - Amerigas (WWTP/Lab)					
04/19/2023	3680	Propane - WWTP/Lab	30-240-6231		1,818.54
04/19/2023	3680	Propane - WWTP/Lab	30-240-6231		516.19
				Vendor 00069 - Amerigas (WWTP/Lab) Total:	2,334.73
Vendor: 00072 - Amerigas (GWTP 1)					
04/12/2023	3669	Propane GWTP 1	20-220-6231		1,263.76
				Vendor 00072 - Amerigas (GWTP 1) Total:	1,263.76
Vendor: 00068 - Amerigas (Offices)					
04/19/2023	3681	Propane - District Offices	10-000-6231		817.45
				Vendor 00068 - Amerigas (Offices) Total:	817.45
Vendor: 01963 - APS Water Services Corporation					
04/12/2023	10420	UV Lamp	10-210-6180		481.44
				Vendor 01963 - APS Water Services Corporation Total:	481.44
Vendor: 00111 - AT&T Mobility					
04/19/2023	3696	FirstNet	10-130-6105		80.48
				Vendor 00111 - AT&T Mobility Total:	80.48
Vendor: 00123 - Babcock Laboratories, Inc.					
04/12/2023	3670	Lab Services	30-210-6111		276.02
04/27/2023	3705	Lab Services	10-210-6111		56.62
04/27/2023	3705	Lab Services	20-210-6111		56.61
04/27/2023	3705	Lab Services	20-210-6111		75.48
04/27/2023	3705	Lab Services	10-210-6111		301.94
04/27/2023	3705	Lab Services	20-210-6111		94.35
04/27/2023	3705	Lab Services	30-210-6111		395.15
04/27/2023	3705	Lab Services	20-210-6111		113.22
04/27/2023	3705	Lab Services	10-210-6111		75.48
				Vendor 00123 - Babcock Laboratories, Inc. Total:	1,444.87
Vendor: 00131 - Bartkiewicz, Kronick & Shanahan					
04/12/2023	10417	Legal Services	10-100-6140		4,025.00
				Vendor 00131 - Bartkiewicz, Kronick & Shanahan Total:	4,025.00
Vendor: 00139 - Berchtold Equipment Company					
04/27/2023	3706	Parts for 770 Bobcat New Exhaust	10-310-6155		981.71
				Vendor 00139 - Berchtold Equipment Company Total:	981.71
Vendor: 00201 - CA Tax Payment ACH					
04/12/2023	DFT0000592	CA SWT and CASDI	10-000-2210		2,965.89
04/12/2023	DFT0000592	CA SWT and CASDI	10-000-2210		512.37
04/12/2023	DFT0000592	CA SWT and CASDI	20-000-2210		497.43
04/12/2023	DFT0000592	CA SWT and CASDI	20-000-2210		2,014.97
04/12/2023	DFT0000592	CA SWT and CASDI	30-000-2210		2,269.34
04/12/2023	DFT0000592	CA SWT and CASDI	30-000-2210		525.05
04/20/2023	DFT0000594	CA SWT and CASDI	10-000-2210		50.00
04/26/2023	DFT0000606	CA SWT and CASDI	10-000-2210		508.39

Board Check Register

Payment Dates: 4/1/2023 - 4/30/2023

Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
04/26/2023	DFT0000606	CA SWT and CASDI	10-000-2210		2,998.96
04/26/2023	DFT0000606	CA SWT and CASDI	20-000-2210		1,737.28
04/26/2023	DFT0000606	CA SWT and CASDI	20-000-2210		444.39
04/26/2023	DFT0000606	CA SWT and CASDI	30-000-2210		2,019.21
04/26/2023	DFT0000606	CA SWT and CASDI	30-000-2210		473.76
Vendor 00201 - CA Tax Payment ACH Total:					17,017.04
Vendor: 00205 - California Broadband Cooperative					
04/19/2023	3682	Internet Service	10-130-6105		917.95
Vendor 00205 - California Broadband Cooperative Total:					917.95
Vendor: 02179 - California State Disbursement Unit					
04/12/2023	DFT0000585	Ca. Child Support	20-000-2170		46.17
04/12/2023	DFT0000585	Ca. Child Support	30-000-2170		46.13
Vendor 02179 - California State Disbursement Unit Total:					92.30
Vendor: 00281 - Chuck Villar Construction					
04/12/2023	3657	Sludge Hauling	30-240-6100		9,888.81
Vendor 00281 - Chuck Villar Construction Total:					9,888.81
Vendor: 01957 - City of Fallon					
04/27/2023	3707	Sludge Processing	30-240-6102		2,548.44
Vendor 01957 - City of Fallon Total:					2,548.44
Vendor: 00306 - Conriquez Cleaning					
04/06/2023	3652	Janatorial Services	10-000-6150		2,420.00
Vendor 00306 - Conriquez Cleaning Total:					2,420.00
Vendor: 00326 - Creative Image Embroidery					
04/27/2023	3708	Embroidery	10-310-6124		56.03
Vendor 00326 - Creative Image Embroidery Total:					56.03
Vendor: 00328 - Creekside HOA					
04/06/2023	10409	HOA Dues - 12 Months - Unit 2	96-000-6115		3,600.00
Vendor 00328 - Creekside HOA Total:					3,600.00
Vendor: 00439 - Dewey Pest Control					
04/12/2023	3671	Pest Control	10-000-6150		202.00
04/12/2023	3671	Quarterly Pest Control - Mountain Meadows	96-000-6115		129.00
Vendor 00439 - Dewey Pest Control Total:					331.00
Vendor: 00452 - DIY Home Center					
04/06/2023	10411	Lighting Repair Parts	10-330-6150		17.41
04/12/2023	10421	Misc. Supplies	20-220-6180		22.29
04/19/2023	10422	Operating Tools	10-330-6120		24.79
04/27/2023	10424	Magnetic Pickup Tools, Misc. HW	10-310-6180		9.86
04/27/2023	10424	Magnetic Pickup Tools, Misc. HW	10-310-6180		32.95
04/27/2023	10424	Antifreeze, Garden Sprayers	10-310-6120		25.19
04/27/2023	10424	Antifreeze, Garden Sprayers	10-310-6155		15.97
04/27/2023	10426	Rope	10-310-6180		26.17
04/27/2023	10426	Hose, S Clamp	30-240-6180		22.28
Vendor 00452 - DIY Home Center Total:					196.91
Vendor: 02360 - Eric Solomon					
04/06/2023	10412	Mileage Reimbursement	20-220-6220		530.55
Vendor 02360 - Eric Solomon Total:					530.55
Vendor: 00569 - Federal Tax Payment ACH					
04/12/2023	DFT0000591	Federal Deposit	10-000-2200		1,659.04
04/12/2023	DFT0000591	Federal Deposit	10-000-2200		7,721.62
04/12/2023	DFT0000591	Federal Deposit	20-000-2200		1,614.24
04/12/2023	DFT0000591	Federal Deposit	20-000-2200		5,760.12
04/12/2023	DFT0000591	Federal Deposit	30-000-2200		6,141.33
04/12/2023	DFT0000591	Federal Deposit	30-000-2200		1,704.88
04/20/2023	DFT0000593	Federal Deposit	10-000-2200		200.00

Board Check Register

Payment Dates: 4/1/2023 - 4/30/2023

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04/20/2023	DFT0000593	Federal Deposit	10-000-2200		332.82
04/20/2023	DFT0000593	Federal Deposit	10-000-2200		77.86
04/26/2023	DFT0000605	Federal Deposit	10-000-2200		7,882.30
04/26/2023	DFT0000605	Federal Deposit	10-000-2200		1,646.40
04/26/2023	DFT0000605	Federal Deposit	20-000-2200		1,443.72
04/26/2023	DFT0000605	Federal Deposit	20-000-2200		5,131.17
04/26/2023	DFT0000605	Federal Deposit	30-000-2200		5,617.08
04/26/2023	DFT0000605	Federal Deposit	30-000-2200		1,540.08
Vendor 00569 - Federal Tax Payment ACH Total:					48,472.66
Vendor: 01955 - Garrett Higerd					
04/06/2023	10413	Mileage Reimbursement	10-400-6220		319.64
Vendor 01955 - Garrett Higerd Total:					319.64
Vendor: 00662 - Grainger, Inc.					
04/06/2023	3649	Batteries, Gloves, Snow Shovels	10-000-1200		808.90
04/06/2023	3649	Stretch Wrap for Shipping	10-000-6180		146.20
04/27/2023	3709	Inventory, Paper Products	10-000-1200		455.18
04/27/2023	3709	Inventory, Paper Products	10-000-6180		320.17
Vendor 00662 - Grainger, Inc. Total:					1,730.45
Vendor: 00665 - Grating Pacific Inc.					
04/12/2023	3658	Grating for Sludge Building	30-240-6150		5,960.73
Vendor 00665 - Grating Pacific Inc. Total:					5,960.73
Vendor: 00685 - Hach Company					
04/27/2023	3710	Lab Supplies	30-210-6180		70.57
04/27/2023	3710	Lab Supplies	30-210-6180		84.43
04/27/2023	3710	Lab Supplies	30-210-6180		82.05
04/27/2023	3710	Lab Supplies	30-210-6180		78.71
04/27/2023	3710	Lab Supplies	30-210-6180		61.19
04/27/2023	3710	Lab Supplies	30-210-6180		38.25
04/27/2023	3710	Lab Supplies	30-210-6180		150.31
04/27/2023	3710	Lab Supplies	30-210-6180		31.24
04/27/2023	3710	Lab Supplies	30-210-6180		31.95
04/27/2023	3710	Lab Supplies	30-210-6180		33.40
04/27/2023	3710	Lab Supplies	30-210-6180		44.99
04/27/2023	3710	Lab Supplies	30-210-6180		343.72
04/27/2023	3710	Lab Supplies	30-210-6180		390.32
04/27/2023	3710	Lab Supplies	30-210-6180		239.08
04/27/2023	3710	Lab Supplies	30-210-6180		86.74
04/27/2023	3710	Lab Supplies	30-210-6180		104.61
04/27/2023	3710	Lab Supplies	30-210-6180		113.14
04/27/2023	3710	Lab Supplies	30-210-6180		144.28
04/27/2023	3710	Lab Supplies	30-210-6180		149.02
04/27/2023	3710	Lab Supplies	30-210-6180		1,079.72
04/27/2023	3710	Lab Supplies	30-240-6180		77.57
04/27/2023	3710	Lab Supplies	30-210-6180		102.99
Vendor 00685 - Hach Company Total:					3,538.28
Vendor: 00687 - Hardy Diagnostics					
04/27/2023	3701	Lab Supplies	10-210-6180		87.48
Vendor 00687 - Hardy Diagnostics Total:					87.48
Vendor: 02388 - Health Equity, Inc.					
04/12/2023	DFT0000588	HSA	10-000-2151		322.86
04/26/2023	DFT0000602	HSA	10-000-2151		322.86
Vendor 02388 - Health Equity, Inc. Total:					645.72
Vendor: 00705 - High Country Lumber, Inc.					
04/06/2023	3653	Ice Melt	10-000-6180		77.52
04/06/2023	3653	Muriatic Acid	30-240-6180		38.76
04/06/2023	3650	Bolts, Wire, Splicers	30-330-6145		539.45
04/12/2023	3659	Tarp	20-220-6180		16.15
04/12/2023	3672	Deck Sprayer, Muriatic Acid	30-240-6120		39.30

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Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
04/12/2023	3672	Deck Sprayer, Muriatic Acid	30-240-6180		38.75
04/12/2023	3672	Aluminum Gutter	30-240-6145		17.23
04/12/2023	3672	Flood Barrier	30-240-6145		145.43
04/19/2023	3683	Twine	10-330-6180		10.76
04/27/2023	3711	Pump	10-310-6120		277.96
04/27/2023	3711	Brass Hose Y Shutoff	30-240-6180		18.31
Vendor 00705 - High Country Lumber, Inc. Total:					1,219.62
Vendor: 00723 - Idexx Distribution, Inc.					
04/27/2023	3712	Microbiological Supplies	20-210-6180		8,517.26
04/27/2023	3712	Microbiological Supplies	30-210-6180		3,650.26
Vendor 00723 - Idexx Distribution, Inc. Total:					12,167.52
Vendor: 00725 - Infosend, Inc.					
04/27/2023	10427	April UB Statement Processing	10-120-6100		1,911.94
Vendor 00725 - Infosend, Inc. Total:					1,911.94
Vendor: 00726 - Innovyze					
04/06/2023	10410	InfoWater and InfoSewer Software Renewal	10-400-6105		4,820.00
Vendor 00726 - Innovyze Total:					4,820.00
Vendor: 00728 - International Union of Operating Engineers					
04/12/2023	3673	Union Dues	10-000-2170		88.00
04/12/2023	3673	Union Dues	20-000-2170		143.16
04/12/2023	3673	Union Dues	30-000-2170		164.84
Vendor 00728 - International Union of Operating Engineers Total:					396.00
Vendor: 00732 - Inyo Crude, Inc.					
04/19/2023	3684	Diesel	10-000-1210		14,780.05
04/19/2023	3684	Unleaded	10-000-1210		10,794.25
Vendor 00732 - Inyo Crude, Inc. Total:					25,574.30
Vendor: 02417 - Jordan Construction					
04/27/2023	3713	Snow Shoveling	20-230-6150		21,600.00
Vendor 02417 - Jordan Construction Total:					21,600.00
Vendor: 02418 - Kathleen Vance					
04/19/2023	3685	HEDW Rebate	10-100-6237		200.00
Vendor 02418 - Kathleen Vance Total:					200.00
Vendor: 02419 - Kathy Donham					
04/19/2023	3686	HET Rebate (2)	10-100-6237		400.00
Vendor 02419 - Kathy Donham Total:					400.00
Vendor: 01054 - Liebert Cassidy Whitmore					
04/27/2023	3702	Legal Services	10-110-6140		977.50
Vendor 01054 - Liebert Cassidy Whitmore Total:					977.50
Vendor: 00052 - Linde Gas & Equipment, Inc.					
04/12/2023	3660	Welding Supplies	10-000-6180		71.90
04/12/2023	3660	Welding Supplies	10-000-6180		57.52
04/12/2023	3660	Welding Supplies	10-000-6180		57.52
Vendor 00052 - Linde Gas & Equipment, Inc. Total:					186.94
Vendor: 01099 - Mammoth Disposal					
04/12/2023	3661	Trash Service	10-000-6100		1,650.50
04/12/2023	3661	Recycling	10-000-6100		140.00
04/12/2023	3661	Recycling	10-000-6100		130.00
Vendor 01099 - Mammoth Disposal Total:					1,920.50
Vendor: 01100 - Mammoth Hospital					
04/12/2023	3662	DMV Physicals	10-310-6100		103.50
04/12/2023	3662	DMV Physicals	10-330-6100		103.50
Vendor 01100 - Mammoth Hospital Total:					207.00
Vendor: 01125 - Marc Margulies					
04/19/2023	3687	HET Rebate	10-100-6237		199.00
Vendor 01125 - Marc Margulies Total:					199.00

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Vendor: 01240 - Mission Linen Supply					
04/12/2023	3663	Uniform and Linen Service	10-000-6180		1,023.22
04/12/2023	3663	Uniform and Linen Service	10-000-6180		51.60
Vendor 01240 - Mission Linen Supply Total:					1,074.82
Vendor: 01318 - NTU Technologies, Inc.					
04/06/2023	10414	1800 Gallons 929 Polymer	30-240-6179		21,258.77
Vendor 01318 - NTU Technologies, Inc. Total:					21,258.77
Vendor: 00609 - Orion					
04/12/2023	DFT0000583	457B EE Contribution	10-000-2161		4,407.70
04/12/2023	DFT0000583	457B EE Contribution	20-000-2161		3,487.28
04/12/2023	DFT0000583	457B EE Contribution	30-000-2161		4,053.96
04/12/2023	DFT0000584	457b EE Contribution	10-000-2161		1,080.26
04/12/2023	DFT0000584	457b EE Contribution	20-000-2161		2,095.96
04/12/2023	DFT0000584	457b EE Contribution	30-000-2161		2,521.49
04/12/2023	DFT0000589	401A/457 ER	10-000-2160		1,114.68
04/12/2023	DFT0000589	401A/457 ER	10-000-2160		11,386.51
04/12/2023	DFT0000589	401A/457 ER	20-000-2160		11,047.50
04/12/2023	DFT0000589	401A/457 ER	20-000-2160		1,093.98
04/12/2023	DFT0000589	401A/457 ER	30-000-2160		11,674.66
04/12/2023	DFT0000589	401A/457 ER	30-000-2160		1,156.28
04/26/2023	DFT0000598	457B EE Contribution	10-000-2161		4,407.70
04/26/2023	DFT0000598	457B EE Contribution	20-000-2161		2,870.27
04/26/2023	DFT0000598	457B EE Contribution	30-000-2161		3,517.12
04/26/2023	DFT0000599	457b EE Contribution	10-000-2161		1,102.62
04/26/2023	DFT0000599	457b EE Contribution	20-000-2161		1,934.03
04/26/2023	DFT0000599	457b EE Contribution	30-000-2161		2,286.19
04/26/2023	DFT0000603	401A/457 ER	10-000-2160		11,297.80
04/26/2023	DFT0000603	401A/457 ER	10-000-2160		1,129.79
04/26/2023	DFT0000603	401A/457 ER	20-000-2160		965.29
04/26/2023	DFT0000603	401A/457 ER	20-000-2160		9,871.84
04/26/2023	DFT0000603	401A/457 ER	30-000-2160		1,030.78
04/26/2023	DFT0000603	401A/457 ER	30-000-2160		10,531.43
Vendor 00609 - Orion Total:					106,065.12
Vendor: 01380 - Phenova					
04/27/2023	3703	Reference Lab Services	20-210-6110		396.05
04/27/2023	3703	Reference Lab Services	30-210-6110		319.29
Vendor 01380 - Phenova Total:					715.34
Vendor: 01438 - Rich Environmental Services					
04/06/2023	3654	Monthly Tank Inspections	10-000-6100		100.00
Vendor 01438 - Rich Environmental Services Total:					100.00
Vendor: 01484 - Robert Larson					
04/19/2023	10423	Propane - District Card Declined	10-000-6231		66.37
Vendor 01484 - Robert Larson Total:					66.37
Vendor: 01608 - Shred Pro, Inc.					
04/19/2023	3688	Document Shredding	10-000-6100		68.00
Vendor 01608 - Shred Pro, Inc. Total:					68.00
Vendor: 01629 - Silver State International					
04/19/2023	3689	Bobcat Chains	10-310-6155		1,618.88
Vendor 01629 - Silver State International Total:					1,618.88
Vendor: 01639 - Snowcreek Athletic Club					
04/27/2023	3714	Snowcreek Dues	10-000-2170		368.00
04/27/2023	3714	Snowcreek Dues	20-000-2170		102.51
04/27/2023	3714	Snowcreek Dues	30-000-2170		182.49
Vendor 01639 - Snowcreek Athletic Club Total:					653.00

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Vendor: 01645 - Solenis, LLC					
04/12/2023	3674	4 Totes of Solenis Praestol k 275 Flex	30-240-6179		20,924.14
Vendor 01645 - Solenis, LLC Total:					20,924.14
Vendor: 01650 - Southern California Edison - District					
04/12/2023	3664	Electricity	10-000-6230		6,730.76
04/12/2023	3664	Electricity	20-220-6230		21,953.20
04/12/2023	3664	Electricity	20-230-6230		190.85
04/12/2023	3664	Electricity	30-240-6230		8,317.07
Vendor 01650 - Southern California Edison - District Total:					37,191.88
Vendor: 01662 - Standard Insurance Company					
04/26/2023	DFT0000607	Premium Adjustment	10-000-6020		18.06
04/30/2023	DFT0000586	Disability - Long Term	10-000-2150		292.06
04/30/2023	DFT0000586	Disability - Long Term	20-000-2150		283.63
04/30/2023	DFT0000586	Disability - Long Term	30-000-2150		299.18
04/30/2023	DFT0000587	Disability - Short Term	10-000-2150		45.54
04/30/2023	DFT0000587	Disability - Short Term	20-000-2150		44.46
04/30/2023	DFT0000587	Disability - Short Term	30-000-2150		46.42
04/30/2023	DFT0000600	Disability - Long Term	10-000-2150		289.78
04/30/2023	DFT0000600	Disability - Long Term	20-000-2150		253.41
04/30/2023	DFT0000600	Disability - Long Term	30-000-2150		269.93
04/30/2023	DFT0000601	Disability - Short Term	10-000-2150		45.19
04/30/2023	DFT0000601	Disability - Short Term	20-000-2150		39.69
04/30/2023	DFT0000601	Disability - Short Term	30-000-2150		41.91
Vendor 01662 - Standard Insurance Company Total:					1,969.26
Vendor: 02005 - State of California Franchise Tax Board					
04/12/2023	3675	Case No. 550198169	10-000-2170		100.00
04/27/2023	3715	Case No. 550198169	10-000-2170		100.00
Vendor 02005 - State of California Franchise Tax Board Total:					200.00
Vendor: 02420 - Steven Burkholder					
04/19/2023	3690	HET Rebate (2)	10-100-6237		372.56
Vendor 02420 - Steven Burkholder Total:					372.56
Vendor: 01701 - Steve's Auto & Truck Parts					
04/06/2023	3655	Parts for Honda Snowblower	10-330-6145		26.16
04/06/2023	3655	Gear Oil	10-310-6155		24.21
04/12/2023	3676	Synthetic Transmission Fluid	10-330-6155		16.22
04/12/2023	3676	Motor Oil, Oil Filters	10-000-1200		260.49
04/19/2023	3691	Wrench Set	10-330-6120		128.97
04/19/2023	3691	Transmission Fluid	10-330-6155		113.51
04/27/2023	3704	Hose Clamps	10-310-6155		3.10
04/27/2023	3704	Bulbs	10-310-6155		51.69
04/27/2023	3716	Batteries	10-310-6155		403.67
04/27/2023	3716	Oil Filter, Motor Oil	10-310-6155		70.18
04/27/2023	3716	Gauges	10-310-6155		23.74
Vendor 01701 - Steve's Auto & Truck Parts Total:					1,121.94
Vendor: 01731 - SWRCB-DWOCF					
04/12/2023	3677	D2 Cert - Burnett	30-240-6160		60.00
04/20/2023	3700	T3 Exam Fee - Monroe	20-220-6160		100.00
04/20/2023	3699	T2 Exam Fee - Schneider	20-220-6160		65.00
Vendor 01731 - SWRCB-DWOCF Total:					225.00
Vendor: 01763 - Thatcher Company, Inc					
04/06/2023	3656	Chlorine	30-240-6179		36,721.74
04/06/2023	3656	Refund of Container Deposit	30-240-6179		-16,087.50
Vendor 01763 - Thatcher Company, Inc Total:					20,634.24
Vendor: 02421 - Tiziana Mervar					
04/19/2023	3693	HET Rebate (3)	10-100-6237		500.00
Vendor 02421 - Tiziana Mervar Total:					500.00

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Vendor: 01816 - Town of Mammoth Lakes					
04/12/2023	3678	2023 Encroachment Permit	22-000-1301	23W01CM	500.00
04/12/2023	3678	2023 Encroachment Permit	23-000-1301	22WW04CM	300.00
04/12/2023	3678	2023 Encroachment Permit	23-000-1301	21WW06CM	200.00
Vendor 01816 - Town of Mammoth Lakes Total:					1,000.00
Vendor: 01821 - Triad/Holmes Associates					
04/19/2023	3694	HET Rebate (2)	10-100-6237		400.00
Vendor 01821 - Triad/Holmes Associates Total:					400.00
Vendor: 01825 - Tucker Sno-Cat					
04/12/2023	3679	Parts for Tucker Hydraulics	10-330-6155		5,778.42
04/12/2023	3679	Sno-Cat Parts	10-330-6155		657.85
04/27/2023	3717	Freight on Invoice 66260	10-310-6155		634.01
Vendor 01825 - Tucker Sno-Cat Total:					7,070.28
Vendor: 01828 - Tyler Technologies, Inc.					
04/12/2023	3665	Smart Meter Portal Transaction Fees	10-120-6105		2,138.00
04/12/2023	3665	SMS Fees	10-120-6105		4.70
Vendor 01828 - Tyler Technologies, Inc. Total:					2,142.70
Vendor: 01840 - USA Blue Book					
04/12/2023	10418	Hach Total Chlorine Sensor	30-240-6180		2,347.27
04/27/2023	10428	Lab Supplies	30-210-6180		144.83
Vendor 01840 - USA Blue Book Total:					2,492.10
Vendor: 01845 - USFS					
04/27/2023	3718	Special Uses Permits	10-100-6205		683.14
04/27/2023	3718	Special Uses Permits	10-100-6205		73.72
04/27/2023	3718	Special Uses Permits	10-100-6205		1,159.27
04/27/2023	3718	Special Uses Permits	10-100-6205		166.00
04/27/2023	3718	Special Uses Permits	10-100-6205		1,300.00
04/27/2023	3718	Special Uses Permits	10-100-6205		2,800.00
04/27/2023	3718	Special Uses Permits	10-100-6205		1,850.00
04/27/2023	3718	Special Uses Permit	10-100-6205		2,805.00
Vendor 01845 - USFS Total:					10,837.13
Vendor: 01856 - Verizon Wireless - Data Collectors					
04/19/2023	3698	Data Collector Data Plan	10-320-6210		120.48
Vendor 01856 - Verizon Wireless - Data Collectors Total:					120.48
Vendor: 01854 - Verizon Wireless					
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-000-6210		40.06
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-100-6210		97.20
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-130-6210		161.08
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-300-6210		43.09
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-310-6210		64.78
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-320-6210		60.96
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-330-6210		50.51
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	10-400-6210		61.20
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	20-220-6210		39.47
04/19/2023	3697	Cell Phone/iPad Equipment and Data Plans	30-240-6210		43.05
Vendor 01854 - Verizon Wireless Total:					661.40

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Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
Vendor: 01877 - VWR International					
04/12/2023	3666	Lab Supplies	10-210-6180		92.20
Vendor 01877 - VWR International Total:					92.20
Vendor: 01887 - Weco Industries, LLC					
04/06/2023	10415	Pirahna Hose for Easement Cleaner	30-310-6120		812.74
Vendor 01887 - Weco Industries, LLC Total:					812.74
Vendor: 01890 - Wells Fargo VISA					
04/21/2023	DFT0000597	ADOBE	10-100-6105		19.99
04/21/2023	DFT0000597	ADOBE	10-100-6105		19.99
04/21/2023	DFT0000597	ADOBE	10-120-6105		19.99
04/21/2023	DFT0000597	ADOBE	10-120-6105		19.99
04/21/2023	DFT0000597	ADOBE	10-210-6105		12.99
04/21/2023	DFT0000597	ADOBE	30-240-6105		12.99
04/21/2023	DFT0000597	ATSSA	10-110-6200		60.00
04/21/2023	DFT0000597	ATSSA	10-110-6200		60.00
04/21/2023	DFT0000597	ATSSA	10-110-6200		60.00
04/21/2023	DFT0000597	BAKERSGAS	10-310-6120		181.86
04/21/2023	DFT0000597	BASS PRO	20-220-6120		129.29
04/21/2023	DFT0000597	BASS PRO	20-220-6124		312.46
04/21/2023	DFT0000597	BASS PRO	20-220-6124		517.18
04/21/2023	DFT0000597	BLACK VELVET	10-100-6215		7.08
04/21/2023	DFT0000597	BLAZE PIZZA	30-240-6220		13.31
04/21/2023	DFT0000597	BOOT BARN	20-220-6124		380.58
04/21/2023	DFT0000597	BOOT BARN	20-220-6124		-184.84
04/21/2023	DFT0000597	CABELA'S	10-300-6120		107.74
04/21/2023	DFT0000597	CABELA'S	10-300-6120		140.06
04/21/2023	DFT0000597	CAS&D	10-130-6105		606.96
04/21/2023	DFT0000597	CHEVRON	30-240-6220		45.62
04/21/2023	DFT0000597	CHICK-FIL-A	20-220-6220		11.73
04/21/2023	DFT0000597	CHICK-FIL-A	30-240-6220		12.06
04/21/2023	DFT0000597	ADVANCED AIR	10-110-6220		477.04
04/21/2023	DFT0000597	DELL	30-240-6181		75.41
04/21/2023	DFT0000597	DIRECTV	10-000-6123		134.99
04/21/2023	DFT0000597	DRIVING-TESTS	10-310-6215		69.69
04/21/2023	DFT0000597	DRIVING-TESTS	10-320-6215		99.99
04/21/2023	DFT0000597	EL FUEGO	10-400-6220		15.95
04/21/2023	DFT0000597	EREPLACEMENT	10-330-6145		251.88
04/21/2023	DFT0000597	FRAUD REFUND	10-000-1200		-60.77
04/21/2023	DFT0000597	GIGGLE SPRINGS	10-000-6125		20.05
04/21/2023	DFT0000597	GIGGLE SPRINGS	10-000-6125		25.04
04/21/2023	DFT0000597	GOVCONNECTION	10-130-6181		9.05
04/21/2023	DFT0000597	HILTON HOTEL	10-110-6220		232.59
04/21/2023	DFT0000597	HOMEDEPOT.COM	96-000-6115		38.77
04/21/2023	DFT0000597	ALLTIMETRADING	10-100-6180		113.75
04/21/2023	DFT0000597	HQ98.COM	10-330-6145		860.00
04/21/2023	DFT0000597	IN N OUT BURGER	30-240-6220		10.18
04/21/2023	DFT0000597	INDECO-KH	10-330-6145		338.69
04/21/2023	DFT0000597	LACROSSE	10-300-6124		210.00
04/21/2023	DFT0000597	LACROSSE	10-310-6124		595.26
04/21/2023	DFT0000597	LACROSSE	20-220-6124		193.95
04/21/2023	DFT0000597	LACROSSE	20-220-6124		380.00
04/21/2023	DFT0000597	LEDEQUIPPED	10-300-6155		789.85
04/21/2023	DFT0000597	LOONEY BEAN	10-000-6180		31.62
04/21/2023	DFT0000597	LOONEY BEAN	10-100-6215		13.56
04/21/2023	DFT0000597	MAMMOTH BREWING	10-100-6215		27.63
04/21/2023	DFT0000597	MOUNTAINEERING	10-310-6120		75.79
04/21/2023	DFT0000597	NCTD-PRONTO	10-110-6220		6.50
04/21/2023	DFT0000597	OFFICESUPPLY	10-000-6180		118.20
04/21/2023	DFT0000597	ALPINE SMITH	22-340-6155		1,155.79

Board Check Register

Payment Dates: 4/1/2023 - 4/30/2023

Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
04/21/2023	DFT0000597	ORVIS	10-300-6124		255.15
04/21/2023	DFT0000597	OUR WATER WORKS	10-100-6155		137.28
04/21/2023	DFT0000597	PANDA EXPRESS	20-220-6220		13.04
04/21/2023	DFT0000597	PANDA EXPRESS	30-240-6220		14.82
04/21/2023	DFT0000597	PITA PIT	10-110-6220		17.15
04/21/2023	DFT0000597	PORT OF SUBS	10-400-6220		14.19
04/21/2023	DFT0000597	QUALITY ASSURANCE	10-210-6215		50.00
04/21/2023	DFT0000597	SHELL OIL	10-000-6125		10.08
04/21/2023	DFT0000597	SILVERFORK	30-240-6220		30.04
04/21/2023	DFT0000597	SMART AND FINAL	10-000-6180		46.47
04/21/2023	DFT0000597	SP FABER	20-220-6120		256.25
04/21/2023	DFT0000597	AMAZON	10-000-1200		74.16
04/21/2023	DFT0000597	AMAZON	10-000-1200		121.54
04/21/2023	DFT0000597	AMAZON	10-000-6180		75.22
04/21/2023	DFT0000597	AMAZON	10-000-6180		64.53
04/21/2023	DFT0000597	AMAZON	10-000-6180		22.61
04/21/2023	DFT0000597	AMAZON	10-000-6180		80.35
04/21/2023	DFT0000597	AMAZON	10-320-6120		243.48
04/21/2023	DFT0000597	AMAZON	10-330-6150		104.51
04/21/2023	DFT0000597	AMAZON	10-400-6181		52.19
04/21/2023	DFT0000597	AMAZON	10-400-6181		33.55
04/21/2023	DFT0000597	SPEEDWAY	10-300-6155		12.00
04/21/2023	DFT0000597	STAPLES	10-000-6180		241.35
04/21/2023	DFT0000597	STAPLES	10-000-6180		104.58
04/21/2023	DFT0000597	STAPLES	10-000-6180		399.64
04/21/2023	DFT0000597	STARBUCKS	10-400-6220		12.72
04/21/2023	DFT0000597	STARLINK	10-130-6105		110.00
04/21/2023	DFT0000597	SWEET THINGS	10-110-6220		7.99
04/21/2023	DFT0000597	TEQUILA MUSEO	10-400-6220		28.03
04/21/2023	DFT0000597	TIRE RACK	10-000-1200		232.65
04/21/2023	DFT0000597	TOCKIFY	10-130-6105		8.08
04/21/2023	DFT0000597	TOWNEPLACE	30-240-6220		317.04
04/21/2023	DFT0000597	TRAININNG	10-300-6215		149.00
04/21/2023	DFT0000597	APPLE.COM	10-100-6210		0.99
04/21/2023	DFT0000597	TRAVELURO	10-110-6220		1,252.00
04/21/2023	DFT0000597	UBER	10-110-6220		37.96
04/21/2023	DFT0000597	UBER	10-110-6220		7.59
04/21/2023	DFT0000597	UNBEATABLE	10-100-6180		170.95
04/21/2023	DFT0000597	UPLIFT DESK	10-100-6120		1,116.29
04/21/2023	DFT0000597	UPS	10-000-6185		30.00
04/21/2023	DFT0000597	UPS	10-000-6185		30.00
04/21/2023	DFT0000597	UPS	10-000-6185		30.00
04/21/2023	DFT0000597	UPS	10-000-6185		30.00
04/21/2023	DFT0000597	UPS	10-210-6185		76.94
04/21/2023	DFT0000597	UPS	10-210-6185		75.41
04/21/2023	DFT0000597	VONS	10-100-6215		46.85
04/21/2023	DFT0000597	WALMART	10-310-6120		36.63
04/21/2023	DFT0000597	WALMART	10-320-6120		36.64
04/21/2023	DFT0000597	ZOOM.US	10-000-6215		41.00
04/21/2023	DFT0000597	ZOOM.US	10-000-6215		163.90
04/21/2023	DFT0000597	ARC-ZONE	10-310-6120		244.19
04/21/2023	DFT0000597	ARC-ZONE	10-310-6145		169.13
04/21/2023	DFT0000597	ASO	10-310-6200		120.41
04/21/2023	DFT0000597	ASO	10-320-6200		120.41
04/21/2023	DFT0000597	AT&T PREPAID	10-200-6210		35.00
				Vendor 01890 - Wells Fargo VISA Total:	16,089.46

Vendor: 01900 - Western Nevada Supply Company

04/12/2023	10419	Sewer Pipe and Parts	30-320-6145		649.00
04/12/2023	10419	Concrete Sewer Boxes and Lids	20-310-6145		116.00
04/12/2023	10419	Concrete Sewer Boxes and Lids	30-310-6145		364.68

Board Check Register

Payment Dates: 4/1/2023 - 4/30/2023

Payment Date	Payment Number	Description (Payable)	Account Number	Project Account Key	Amount
04/12/2023	10419	Concrete Sewer Boxes and Lids	30-310-6145		290.01
04/12/2023	10419	Straps for Q-Hut Saddles	10-000-6180		7,631.26
04/12/2023	10419	Sewer Pipe, Valve Caps	10-000-1200		440.59
04/12/2023	10419	Refund for Returned Merchandise	10-000-6180		-6,031.55
Vendor 01900 - Western Nevada Supply Company Total:					3,459.99
Vendor: 02147 - William Livesay					
04/19/2023	3695	HEDW Rebate	10-100-6237		200.00
Vendor 02147 - William Livesay Total:					200.00
Grand Total:					533,163.42

Report Summary

Fund Summary

Fund	Payment Amount
10 - Administration	198,321.39
20 - Water Operations	136,751.91
22 - Water Capital Replacement	1,655.79
23 - Wastewater Capital Replacement	500.00
30 - Wastewater Operations	192,166.56
96 - New Enterprise	3,767.77
Grand Total:	533,163.42

Account Summary

Account Number	Account Name	Payment Amount
10-000-1200	Inventory - Warehouse	2,332.74
10-000-1210	Inventory - Fuel Stock	25,574.30
10-000-2150	Ee Insurance Benefits Pay...	28,338.63
10-000-2151	Health Saving Acct. Payab...	645.72
10-000-2160	Pension Contribution Pay...	24,928.78
10-000-2161	Ee Deferred Comp Contri...	10,998.28
10-000-2165	Accrued Workers Comp	1,959.82
10-000-2170	Employee Deductions - O...	656.00
10-000-2200	Payroll Taxes - Federal	19,520.04
10-000-2210	Payroll Taxes - State	7,035.61
10-000-6020	Employee Benefits - Grou...	8,212.68
10-000-6022	Employee Benefits - Work...	-2,850.19
10-000-6100	Outside Services	2,088.50
10-000-6123	Employee Engagement	134.99
10-000-6125	Gasoline	55.17
10-000-6150	M & R - Buildings	2,622.00
10-000-6180	Operating Supplies	5,612.43
10-000-6185	Postage/Freight	120.00
10-000-6210	Telephone	40.06
10-000-6215	Training & Meetings	204.90
10-000-6230	Utilities - Electric	6,730.76
10-000-6231	Utilities - Propane	883.82
10-100-6105	Software Licenses/Agree...	39.98
10-100-6120	Operating Tools/Equipme...	1,116.29
10-100-6140	Legal Services	4,025.00
10-100-6155	M & R - Vehicles	137.28
10-100-6180	Operating Supplies	284.70
10-100-6205	Permits & Licensing	10,837.13
10-100-6210	Telephone	98.19
10-100-6215	Training & Meetings	95.12
10-100-6237	Water Conservation	2,271.56
10-110-6140	Legal Services	977.50
10-110-6200	Safety	180.00
10-110-6220	Travel Expenses	2,038.82
10-120-6100	Outside Services	1,911.94
10-120-6105	Software Licenses/Agree...	2,182.68
10-130-6105	Software Licenses/Agree...	1,723.47
10-130-6181	Computer Systems/Equi...	9.05
10-130-6210	Telephone	161.08
10-200-6210	Telephone	35.00
10-210-6105	Software Licenses/Agree...	12.99
10-210-6111	Outside Lab Services	434.04
10-210-6180	Operating Supplies	661.12
10-210-6185	Postage/Freight	152.35
10-210-6215	Training & Meetings	945.00
10-300-6120	Operating Tools/Equipme...	247.80
10-300-6124	Employee PPE/Uniform	465.15

Account Summary

Account Number	Account Name	Payment Amount
10-300-6155	M & R - Vehicles	801.85
10-300-6210	Telephone	43.09
10-300-6215	Training & Meetings	149.00
10-310-6100	Outside Services	103.50
10-310-6120	Operating Tools/Equipme...	841.62
10-310-6124	Employee PPE/Uniform	651.29
10-310-6145	M & R - Line Repair/Equi...	169.13
10-310-6155	M & R - Vehicles	3,827.16
10-310-6180	Operating Supplies	68.98
10-310-6200	Safety	120.41
10-310-6210	Telephone	64.78
10-310-6215	Training & Meetings	69.69
10-320-6120	Operating Tools/Equipme...	280.12
10-320-6200	Safety	120.41
10-320-6210	Telephone	181.44
10-320-6215	Training & Meetings	99.99
10-330-6100	Outside Services	103.50
10-330-6120	Operating Tools/Equipme...	153.76
10-330-6145	M & R - Line Repair/Equi...	1,476.73
10-330-6150	M & R - Buildings	121.92
10-330-6155	M & R - Vehicles	6,566.00
10-330-6180	Operating Supplies	10.76
10-330-6210	Telephone	50.51
10-400-6105	Software Licenses/Agree...	4,820.00
10-400-6181	Computer Systems/Equi...	85.74
10-400-6210	Telephone	61.20
10-400-6220	Travel Expenses	390.53
20-000-2150	Ee Insurance Benefits Pay...	21,577.35
20-000-2160	Pension Contribution Pay...	22,978.61
20-000-2161	Ee Deferred Comp Contri...	10,387.54
20-000-2165	Accrued Workers Comp	5,682.14
20-000-2170	Employee Deductions - O...	323.07
20-000-2200	Payroll Taxes - Federal	13,949.25
20-000-2210	Payroll Taxes - State	4,694.07
20-210-6110	Professional Services	396.05
20-210-6111	Outside Lab Services	339.66
20-210-6180	Operating Supplies	8,517.26
20-220-6120	Operating Tools/Equipme...	385.54
20-220-6124	Employee PPE/Uniform	1,599.33
20-220-6160	Memberships/Certificatio...	165.00
20-220-6180	Operating Supplies	38.44
20-220-6210	Telephone	39.47
20-220-6220	Travel Expenses	555.32
20-220-6230	Utilities - Electric	21,953.20
20-220-6231	Utilities - Propane	1,263.76
20-230-6150	M & R - Buildings	21,600.00
20-230-6230	Utilities - Electric	190.85
20-310-6145	M & R - Line Repair/Equi...	116.00
22-000-1301	Construction in Progress	500.00
22-340-6155	M & R - Vehicles	1,155.79
23-000-1301	Construction in Progress	500.00
30-000-2150	Ee Insurance Benefits Pay...	22,167.64
30-000-2160	Pension Contribution Pay...	24,393.15
30-000-2161	Ee Deferred Comp Contri...	12,378.76
30-000-2165	Accrued Workers Comp	6,363.11
30-000-2170	Employee Deductions - O...	424.68
30-000-2200	Payroll Taxes - Federal	15,003.37
30-000-2210	Payroll Taxes - State	5,287.36

Account Summary

Account Number	Account Name	Payment Amount
30-210-6110	Professional Services	319.29
30-210-6111	Outside Lab Services	671.17
30-210-6180	Operating Supplies	7,255.80
30-240-6100	Outside Services	9,888.81
30-240-6102	Sludge Disposal	2,548.44
30-240-6105	Software Licenses/Agree...	12.99
30-240-6120	Operating Tools/Equipme...	39.30
30-240-6145	M & R - Line Repair/Equi...	162.66
30-240-6150	M & R - Buildings	5,960.73
30-240-6160	Memberships/Certificatio...	60.00
30-240-6179	Operating Chemicals	62,817.15
30-240-6180	Operating Supplies	2,542.94
30-240-6181	Computer Systems/Equi...	75.41
30-240-6210	Telephone	43.05
30-240-6220	Travel Expenses	443.07
30-240-6230	Utilities - Electric	8,317.07
30-240-6231	Utilities - Propane	2,334.73
30-310-6120	Operating Tools/Equipme...	812.74
30-310-6145	M & R - Line Repair/Equi...	654.69
30-320-6145	M & R - Line Repair/Equi...	649.00
30-330-6145	M & R - Line Repair/Equi...	539.45
96-000-6115	Employee Housing Expen...	3,767.77
	Grand Total:	533,163.42

Project Account Summary

Project Account Key	Payment Amount
None	532,163.42
21WW06CM	200.00
22WW04CM	300.00
23W01CM	500.00
	Grand Total:
	533,163.42

VISA Transactions - March 2023

05-18-2023

<u>Merchant Name</u>	<u>Fund GL Acct</u>	<u>Cardholder</u>	<u>Amount</u>	<u>Description</u>
ADOBE	10-120-6105	M. BRETZ	19.99	Adobe
ADOBE	10-120-6105	M. BRETZ	19.99	Adobe
ADOBE	10-210-6105	R. MEDHURST	12.99	Adobe
ADOBE	30-240-6105	S. SORNOSO	12.99	Monthly Subscription
ADOBE	10-100-6105	S. HAKE	19.99	Document Editing Software
ADOBE	10-100-6105	M. BUSBY	19.99	Acrobat pro subscription
ADOBE Total			105.94	
ADVANCED AIR	10-110-6220	M. REEVES	477.04	LCW Conf Travel Expense
ADVANCED AIR Total			477.04	
ALLTIMETRADING	10-100-6180	C. BUNDESEN	113.75	Give-Aways
ALLTIMETRADING Total			113.75	
ALPINE SMITH	22-340-6155	A. CAMPBELL	1,155.79	gearbox for bobcat
ALPINE SMITH Total			1,155.79	
AMAZON	10-000-6180	M. VENDORS	75.22	Coffee
AMAZON	10-000-6180	M. VENDORS	64.53	Coffee
AMAZON	10-000-6180	M. VENDORS	22.61	Label Maker Tape
AMAZON	10-000-1200	M. VENDORS	74.16	Rolls of Shop Towels
AMAZON	10-330-6150	M. VENDORS	104.51	Vent Motor
AMAZON	10-400-6181	M. VENDORS	33.55	Mouse
AMAZON	10-000-1200	M. VENDORS	121.54	Safety Glasses
AMAZON	10-000-6180	M. VENDORS	80.35	Auto Number Decals
AMAZON	10-400-6181	M. VENDORS	52.19	Keyboard
AMAZON	10-320-6120	R. MOTLEY	243.48	sand bag filler funnels
AMAZON Total			872.14	
APPLE.COM	10-100-6210	M. BUSBY	0.99	Cell phone data stroage
APPLE.COM Total			0.99	
ARC-ZONE	10-310-6145	R. MOTLEY	169.13	welding equipment
ARC-ZONE	10-310-6120	R. MOTLEY	244.19	Welding Equipment
ARC-ZONE Total			413.32	
ASO	10-310-6200	T. ENGLISH	120.41	Winter Goggles
ASO	10-320-6200	T. ENGLISH	120.41	Winter Goggles
ASO Total			240.82	
AT&T PREPAID	10-200-6210	M. VENDORS	35.00	iPad Data Plan - Clay
AT&T PREPAID Total			35.00	
ATSSA	10-110-6200	M. REEVES	60.00	Gonzalez TCT Makeup Exam
ATSSA	10-110-6200	M. REEVES	60.00	English TCT Makeup Exam
ATSSA	10-110-6200	M. REEVES	60.00	Hannon TCT Makeup Exam
ATSSA Total			180.00	
BAKERSGAS	10-310-6120	R. MOTLEY	181.86	welding equipment
BAKERSGAS Total			181.86	
BASS PRO	20-220-6120	E. SOLOMON	129.29	boot dryer
BASS PRO	20-220-6124	C. MONROE	312.46	coldweather gear eric/denise
BASS PRO	20-220-6124	C. MONROE	517.18	coldweather gear eric/denise
BASS PRO Total			958.93	
BLACK VELVET	10-100-6215	S. HAKE	7.08	Meeting with AA Candidate
BLACK VELVET Total			7.08	
BLAZE PIZZA	30-240-6220	K. BURNETT	13.31	Food for training class
BLAZE PIZZA Total			13.31	
BOOT BARN	20-220-6124	D. SCHNEIDER	(184.84)	returned pants
BOOT BARN	20-220-6124	D. SCHNEIDER	380.58	Boots and 3 pairs of pants

BOOT BARN Total			195.74	
CABELA'S	10-300-6120	R. MOTLEY	107.74	on site sleeping equipment
CABELA'S	10-300-6120	R. MOTLEY	140.06	on site sleeping equipment
CABELA'S Total			247.80	
CAS&D	10-130-6105	J. MULBAY	606.96	Plotter Maint Agreement
CAS&D Total			606.96	
CHEVRON	30-240-6220	K. BURNETT	45.62	Fuel for training class trip
CHEVRON Total			45.62	
CHICK-FIL-A	20-220-6220	E. SOLOMON	11.73	Meal for travel
CHICK-FIL-A	30-240-6220	K. BURNETT	12.06	Food for training class
CHICK-FIL-A Total			23.79	
DELL	30-240-6181	T. NELSON	75.41	New Mouse for computer
DELL Total			75.41	
DIRECTV	10-000-6123	M. VENDORS	134.99	DirecTV
DIRECTV Total			134.99	
DRIVING-TESTS	10-310-6215	M. VENDORS	69.69	Class B Driving Test Class - English
DRIVING-TESTS	10-320-6215	M. VENDORS	99.99	Class B Driving Test Class - Lesiak
DRIVING-TESTS Total			169.68	
EL FUEGO	10-400-6220	G. HIGERD	15.95	Meal - AWWA/WEF Conference
EL FUEGO Total			15.95	
EREPLACEMENT	10-330-6145	K. WEILAND	251.88	Honda snowblower parts
EREPLACEMENT Total			251.88	
FRAUD REFUND	10-000-1200	A. CAMPBELL	(60.77)	Fraud refund - cleaner
FRAUD REFUND Total			(60.77)	
GIGGLE SPRINGS	10-000-6125	J. RUIZ	20.05	Fuel for van
GIGGLE SPRINGS	10-000-6125	J. RUIZ	25.04	Fuel for van
GIGGLE SPRINGS Total			45.09	
GOVCONNECTION	10-130-6181	J. MULBAY	9.05	Tax 2/21 Order
GOVCONNECTION Total			9.05	
HILTON HOTEL	10-110-6220	M. REEVES	232.59	LCW Conf Travel Expense
HILTON HOTEL Total			232.59	
HOMEDEPOT.COM	96-000-6115	M. VENDORS	38.77	Replacement Blinds - TL11
HOMEDEPOT.COM Total			38.77	
HQ98.COM	10-330-6145	R. MOTLEY	860.00	parts for two way radios
HQ98.COM Total			860.00	
IN N OUT BURGER	30-240-6220	K. BURNETT	10.18	Food for training class
IN N OUT BURGER Total			10.18	
INDECO-KH	10-330-6145	H. LEWIS	338.69	Block heater for generator
INDECO-KH Total			338.69	
LACROSSE	20-220-6124	E. SOLOMON	193.95	snow boots
LACROSSE	10-300-6124	R. MOTLEY	210.00	winter snow removal safety gear
LACROSSE	20-220-6124	R. MOTLEY	380.00	winter snow removal safety gear
LACROSSE	10-310-6124	R. MOTLEY	595.26	winter snow removal safety gear
LACROSSE Total			1,379.21	
LEDEQUIPPED	10-300-6155	R. MOTLEY	789.85	light bar for #90
LEDEQUIPPED Total			789.85	
LOONEY BEAN	10-000-6180	R. MEDHURST	31.62	Coffee
LOONEY BEAN	10-100-6215	S. HAKE	13.56	Meeting with AA Candidate
LOONEY BEAN Total			45.18	
MAMMOTH BREWING	10-100-6215	M. BUSBY	27.63	Local area business/agency lunch
MAMMOTH BREWING Total			27.63	
MOUNTAINEERING	10-310-6120	K. WEILAND	75.79	Titan Straps

MOUNTAINEERING Total			75.79	
NCTD-PRONTO	10-110-6220	M. REEVES	6.50	LCW Conf Travel Expense
NCTD-PRONTO Total			6.50	
OFFICESUPPLY	10-000-6180	S. HAKE	118.20	Office Supplies
OFFICESUPPLY Total			118.20	
ORVIS	10-300-6124	R. MOTLEY	255.15	work shirts
ORVIS Total			255.15	
OUR WATER WORKS	10-100-6155	M. BUSBY	137.28	Vehicle 84 carwash
OUR WATER WORKS Total			137.28	
PANDA EXPRESS	20-220-6220	E. SOLOMON	13.04	Meal for travel
PANDA EXPRESS	30-240-6220	K. BURNETT	14.82	Food for training class
PANDA EXPRESS Total			27.86	
PITA PIT	10-110-6220	M. REEVES	17.15	Personal Charge - MCWD Reimbursed
PITA PIT Total			17.15	
PORT OF SUBS	10-400-6220	G. HIGERD	14.19	Meal - AWWA/WEF Conference
PORT OF SUBS Total			14.19	
QUALITY ASSURANCE	10-210-6215	S. MINICH	50.00	Ethics and Data Integrity class
QUALITY ASSURANCE Total			50.00	
SHELL OIL	10-000-6125	J. RUIZ	10.08	Fuel for van
SHELL OIL Total			10.08	
SILVERFORK	30-240-6220	K. BURNETT	30.04	Fuel for training class
SILVERFORK Total			30.04	
SMART AND FINAL	10-000-6180	S. HAKE	46.47	Kitchen Supplies
SMART AND FINAL Total			46.47	
SP FABER	20-220-6120	C. MONROE	256.25	snow shoes
SP FABER Total			256.25	
SPEEDWAY	10-300-6155	R. MOTLEY	12.00	carwash for truck
SPEEDWAY Total			12.00	
STAPLES	10-000-6180	S. HAKE	399.64	Office Supplies
STAPLES	10-000-6180	S. HAKE	241.35	Office Supplies
STAPLES	10-000-6180	S. HAKE	104.58	Office Supplies
STAPLES Total			745.57	
STARBUCKS	10-400-6220	G. HIGERD	12.72	Meal - AWWA/WEF Conference
STARBUCKS Total			12.72	
STARLINK	10-130-6105	M. VENDORS	110.00	StarLink
STARLINK Total			110.00	
SWEET THINGS	10-110-6220	M. REEVES	7.99	LCW Conf Travel Expense
SWEET THINGS Total			7.99	
TEQUILA MUSEO	10-400-6220	G. HIGERD	28.03	Meal - AWWA/WEF Conference
TEQUILA MUSEO Total			28.03	
TIRE RACK	10-000-1200	A. CAMPBELL	232.65	Wipers
TIRE RACK Total			232.65	
TOCKIFY	10-130-6105	J. MULBAY	8.08	MCWD Web Calendar
TOCKIFY Total			8.08	
TOWNEPLACE	30-240-6220	K. BURNETT	317.04	Hotel for training class
TOWNEPLACE Total			317.04	
TRAININNG	10-300-6215	R. MOTLEY	149.00	Technical Writing Training
TRAININNG Total			149.00	
TRAVELURO	10-110-6220	M. REEVES	1,252.00	LCW Conf Travel Expense
TRAVELURO Total			1,252.00	
UBER	10-110-6220	M. REEVES	37.96	LCW Travel Expense
UBER	10-110-6220	M. REEVES	7.59	LCW Travel Expense

UBER Total			45.55	
UNBEATABLE	10-100-6180	C. BUNDESEN	170.95	Large sink screens giveaways
UNBEATABLE Total			170.95	
UPLIFT DESK	10-100-6120	M. DRAPER	1,116.29	Uplift Desk
UPLIFT DESK Total			1,116.29	
UPS	10-000-6185	M. VENDORS	30.00	Service Fee
UPS	10-000-6185	M. VENDORS	30.00	Service Fee
UPS	10-000-6185	M. VENDORS	30.00	Service Fee
UPS	10-000-6185	M. VENDORS	30.00	Service Fee
UPS	10-210-6185	M. VENDORS	75.41	Shipping Charge
UPS	10-210-6185	M. VENDORS	76.94	Shipping Charge
UPS Total			272.35	
VONS	10-100-6215	S. HAKE	46.85	Meeting Snacks
VONS Total			46.85	
WALMART	10-310-6120	M. VENDORS	36.63	Boot Dryer
WALMART	10-320-6120	M. VENDORS	36.64	Boot Dryer
WALMART Total			73.27	
ZOOM.US	10-000-6215	S. HAKE	41.00	Cloud Recordings for Meetings
ZOOM.US	10-000-6215	J. MULBAY	163.90	MCWD Zoom Accounts
ZOOM.US Total			204.90	
March Visa Transaction Total			16,089.46	

MINUTES

Thursday, April 20, 2023
Mammoth Community Water District
Regular Board Meeting

The Board of Directors convened in session at the hour of 5:32 p.m. There was a brief recess taken and the meeting was adjourned at 6:28 p.m.

Prepared by:

Stephanie Hake
Executive Assistant

ATTEST:

Mark Busby
Board Secretary

THE REGULAR MEETING of the Board of Directors of the Mammoth Community Water District was held on Thursday, April 20, 2023 at 5:32 p.m.

ROLL CALL

Board Present

Director: Tom Cage
Director: Dennis Domaille
Director: Elizabeth Hylton (*remote attendance AB 361*)
Director: Tom Smith
Director: Gary Thompson (*remote attendance AB 361*)

Board Absent

None

Staff Present

General Manager: Mark Busby
District Engineer: Garrett Higerd
Finance Manager: Jeff Beatty (*remote attendance*)
Operations Superintendent: Clay Murray
Maintenance Superintendent: Rob Motley
Information Services Manager: Justin Mulbay
Human Resources Manager: Chris Weibert
Principal Administrative Analyst: Michael Draper
Executive Assistant: Stephanie Hake
Legal Counsel: Josh Horowitz (*remote attendance*)

Guests Present

None

Some items were taken out of order to facilitate the meeting.

PUBLIC FORUM

President Smith opened the public forum at 5:33 p.m.

No one addressed the Board and President Smith closed the public forum at 5:33 p.m.

CONSENT AGENDA A

A-1 Consider finding under Gov. Code, section 54953, subd. (e)(1)(B) that as a result of the Governor's proclaimed state of emergency: (i) meeting in person would present imminent risks to the health or safety of attendees: and (ii) the meeting is authorized to be held by teleconference pursuant to Gov. Code, section 54953, subd. (e)(1)(C)

A-2 Approve the March 2023 Check Disbursements

A-3 Approve the Minutes from the Regular Board Meeting held March 16, 2023

A-4 Adopt Resolution No. 04-20-23-07 Setting a Public Hearing on the Report of Secured Delinquent Water and Sewer Charges as of March 31, 2023

A-5 Adopt Resolution No. 04-20-23-08 Setting a Public Hearing on the Report of Unsecured Delinquent Water and Sewer Charges as of March 31, 2023

President Smith said that since the board packet had been published, three accounts had been brought current and could be removed from the reports; two accounts on the Secured Report (A-4) and one account on the Unsecured Report (A-5). Therefore, these items were acted on separately.

BOARD ACTION – To approve Consent Agenda A, items A-1, A-2, and A-3

MOVED BY: Director Cage
SECONDED BY: Director Domaille
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

BOARD ACTION – To approve Consent Agenda A, item A-4 with the updated report

MOVED BY: Director Domaille
SECONDED BY: Director Cage
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

BOARD ACTION – To approve Consent Agenda A, item A-5 with the updated report

MOVED BY: Director Cage
SECONDED BY: Director Domaille
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

CONSENT AGENDA B – DEPARTMENT REPORTS

B-1 Operations Department Report

B-2 Maintenance Department Report

B-3 Finance Department Report

B-4 Engineering Department Report

B-5 Information Services Report

B-6 Personnel Services Report

B-7 Regulatory Support Services Report

B-8 General Manager’s Report

Director Domaille made a motion.

BOARD ACTION – To approve Consent Agenda B

MOVED BY: Director Domaille
SECONDED BY: Director Cage
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

CURRENT BUSINESS

C-1 Discuss and Consider Adopting Resolution No. 04-20-23-09 Adopting an Annual Statement of Investment Policy

Jeff Beatty said that the proposed changes to the policy were administrative with a couple of “best practices” added.

Director Cage said the Investment Committee reviewed the proposed changes and there were no questions. He expressed appreciation for the way Jeff Beatty and the Chandler Investment advisors are expertly handling the District’s investment portfolio.

Following a brief discussion Director Cage made a motion.

BOARD ACTION – To adopt Resolution No. 04-20-23-09 Adopting an Annual Statement of Investment Policy

MOVED BY: Director Cage
SECONDED BY: Director Hylton
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

C-2 Discuss and Consider Approving a One-Time Cost of Living Adjustment to Base Pay of Five Percent (5%), Across the Board for All Staff and Equivalent Adjustment to All Salary Ranges

- 1. Adopt the Side Letter of Agreement (SLA) Between Mammoth Community Water District (District) and International Union of Operating Engineers, Local Union No. 12 (L12), Modifying the 2021-2026 Memorandum of Understanding (MOU); and**
- 2. Approve the Same Adjustments for the Non-Represented Staff**

Chris Weibert commented that following direction from the Board, staff contacted the Union of Operating Engineers, Local 12 regarding the proposed one-time cost of living adjustment. The Union approved the proposal and signed the side letter of agreement to the MOU. She also noted that the increase in wages was included in the FY24 Budget.

President Smith thanked staff for the work on bringing this item to the Board. He also expressed appreciation for the several positive comments from staff members. He then called for a motion.

BOARD ACTION – To approve a one-time cost of living adjustment to base pay of five percent (5%), across the board for all staff and equivalent adjustment to all salary ranges

- 1. Adopt the Side Letter of Agreement (SLA) between Mammoth Community Water District (District) and International Union of Operating Engineers, Local Union No. 12 (L12), modifying the 2021-2026 Memorandum of Understanding (MOU); and**
- 2. Approve the same adjustments for the non-represented staff**

MOVED BY: Director Domaille
SECONDED BY: Director Cage
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

C-3 Discuss and Consider Adopting Resolution No. 04-20-23-10 – First Amended FY24 Salary and Authorized Positions Resolution No. 03-16-23-06

- 1. Amend Salary Ranges for Represented Classes; and**
- 2. Amend Salary Ranges for Non-Represented Classes**

There was no discussion and Director Domaille made a motion.

BOARD ACTION – To adopt Resolution No. 04-20-23-10 – First Amended FY24 Salary and Authorized Positions; repealing Resolution No. 03-16-23-06

- 1. Amend salary ranges for represented classes; and**
- 2. Amend salary ranges for non-represented classes**

MOVED BY: Director Domaille
SECONDED BY: Director Hylton
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

C-4 Consider and Possibly Approve an Amendment to General Manager Employment Agreement (to be considered after Closed Session)

Following closed session, President Smith said the General Manager’s employment agreement had been discussed in closed session.

Director Cage made a motion to amend the General Manager’s Employment Agreement consistent with the cost-of-living adjustment of five percent (5%) and effective date approved for all staff earlier in the meeting.

BOARD ACTION – To approve an amendment to General Manager Employment Agreement consistent with the amount and timing of the adjustment approved for all staff

MOVED BY: Director Cage
SECONDED BY: Director Domaille
AYES: Directors Cage, Domaille, Hylton, Smith, and Thompson
NAYS: None

COMMITTEE MEETINGS HELD DURING THE MONTH

Ad-Hoc Committee – Code and Policy – *March 15, 2023*

Tom Smith
Dennis Domaille

Employee Housing Committee – *March 29, 2023*

Tom Smith
Gary Thompson

Technical Services Committee – *April 19, 2023*

Dennis Domaille
Tom Cage (*alternate*)

Investment Committee – *April 19, 2023*

Tom Cage
Elizabeth Hylton (*remote attendance AB 361*)

Finance Committee – April 19, 2023

Tom Cage

Elizabeth Hylton (remote attendance AB 361)

Ad Hoc Code Book Committee:

Director Smith reported that the committee met and reviewed the final draft of the MCWD Employee Policy document. Following the committee's approval of the draft, the document was forwarded to the International Union of Operating Engineers, Local 12 for their review and comment. He noted that once the final version is adopted by the Board, Chapters 4 and 5 of the MCWD Code will be repealed.

~

Employee Housing Committee:

Director Thompson reported that the committee discussed the possibility of purchasing a 1-bedroom condominium to add to the employee housing inventory. The committee directed staff to make an informal offer on a condominium for sale, but the offer was declined by the seller.

~

Technical Services Committee:

Director Domaille reported that highlights from the committee meeting were:

- ✓ Snow removal operations.
- ✓ The collapse of water tank T-8 and the roof on the Equalization Building at the WWTP and the associated impacts to the Capital Project Schedule.
- ✓ Neptune metering system problems.

Mr. Busby commented that staff are considering options for maintaining and/or replacing the metering system due to the ongoing problems with the Neptune system.

~

Investment Committee:

Director Cage said the Investment Committee discussed the current interest rate environment and how staff and the investment advisors are maximizing this with short, medium, and long-term investment strategies.

~

Finance Committee:

Director Cage reported that Finance Department staff are focusing on closing out fiscal year 2023. Due to the beginning of the new fiscal year, there is not much other activity to report on.

DIRECTOR COMMENTS, REQUESTS, AND REPORTS

Director Hylton reported that she completed two virtual training courses through the California Special District Association (CSDA) in the past month; "District Liability Issues" and "Ethics Training" which is required bi-annually per Assembly Bill (AB) 1234.

ATTORNEY REPORT

None

CLOSED SESSION

D-1 Conference with Real Property Negotiators

Pursuant to Government Code Sections 54954.5(e) and 54956.8
Property Description: Mono County APNs – 033-148-005-000 and 033-148-006-000
Under Negotiation: Price and Terms of Payment
MCWD Negotiators: Mark Busby and Garrett Higerd
Property Owner Negotiator: Greg Eckert

D-2 Conference with Labor Negotiator

Pursuant to Government Code section 54957.6
District Employee Relations Officer: Mark Busby
Employee Organization: International Union of Operating Engineers, Local Union No. 12
Unrepresented Employees: Management, Supervisory, and Confidential

D-3 Conference with Labor Negotiator

Pursuant to Government Code sections 54954.5(f) and 54957.6
District Negotiators: Tom Smith and Tom Cage
Direction concerning proposed terms of General Manager Employment Agreement, including Compensation and Benefits

REPORT OUT AND ADJOURNMENT

The Board adjourned out of closed session at 6:26 p.m. at which time Mark Busby and Stephanie Hake were brought back into the meeting and the Board opened the discussion of business item C-4. The report out from closed session item D-3 is contained in the minutes of that item. There was no reportable action on items D-1 and D-2.

Following the discussion of item C-4, Director Domaille made a motion to adjourn the meeting.

BOARD ACTION – To adjourn the regular Board meeting

MOVED BY: Director Domaille
SECONDED BY: Director Cage
AYES: Directors Cage, Creasy, Domaille, Smith, and Thompson
NAYS: None

President Smith adjourned the meeting at 6:28 p.m.

AGENDA ITEM

Subject: Notice of Exemption (NOE) for the 2023 Water and Wastewater System Improvements

Information Provided By: Garrett Higerd, District Engineer

Background

MCWD plans and constructs water and wastewater system improvements every year. The work is either performed by in-house crews or outside contractors depending on staffing availability, equipment requirements, and whether the work requires specialty skill and/or equipment.

Discussion

The 2023 Water and Wastewater System Improvements includes work at five different locations:

- Snowcreek Crest neighborhood
- Woodlands Condominiums
- Valley Vista Drive
- Center Street into Highway 203/Main Street
- The intersection of Dorrance Drive and Manzanita Road to the future extension of Chaparral Road

See the attached Notice of Exemption for details on project location, nature, purpose, beneficiaries, and CEQA exemption status.

Financial Impact

The 2023 Water and Wastewater System Improvements are included in the approved FY 24 Capital Budget. There is no financial impact of filing the Notice of Exemption.

Requested Action

Staff recommends that the Board of Directors approve the Notice of Exemption for the 2023 Water and Wastewater System Improvements Project and direct staff to file the attached Notice of Exemption with the CA Office of Planning and Research and the Mono County Clerk-Recorder's office.



Notice of Exemption

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, Ca 95812-3044

From: Mammoth Community Water District
P.O. Box 597
Mammoth Lakes, CA 93546

Mono County Clerk-Recorder
P.O. Box 237
Bridgeport, CA 93517

Project Title: 2023 Water and Wastewater System Improvements

Project Location:

The project occurs in the Town of Mammoth Lakes in Mono County, at five different locations:

- Snowcreek Crest neighborhood
- Woodlands Condominiums
- Valley Vista Drive
- Center Street into Highway 203/Main Street
- The intersection of Dorrance Drive and Manzanita Road to the future extension of Chaparral Road

Description of Nature, Purpose, and Beneficiaries of Project:

This project will occur at five locations throughout the Town of Mammoth Lakes, with the general purpose of improving water and sewer service by replacing existing infrastructure or connecting existing infrastructure. General project locations are shown in **Exhibit A**, and each project is explained in detail below.

Snowcreek Crest – Aging water laterals serving residences will be replaced with higher quality pipe of similar size. This project will reduce water losses from leaks or bursting pipes and will benefit the community by increasing water supply reliability.

Woodland Condominiums & Valley Vista Drive – The work at Woodland Condominiums and on Valley Vista Drive consists of replacing water meter pits. The existing meter pits are aged and due for replacement to meet current State and District standards. This project will prevent water loss due to aging meter assembly components.

Hwy 203/Center Street – This project will add 130 feet of new sewer mainline parallel to an existing section of sewer line that connects Center Street sewer to the sewer trunkline in Hwy 203 (Main Street). The existing 10-inch sewer main is fed by a 15-inch line and flows into an 18-inch line, creating a bottleneck that could result in sewage backup and spills as more development occurs upstream. The proposed 15-inch parallel line will negligibly increase capacity to match the capacity of the upstream sewer main, alleviating the bottleneck. The existing line will be left in place for overflow and maintenance purposes.

The Parcel Relief Main – This project consists of installing approximately 400 feet of new 15-inch sewer main to connect the existing 15-inch sewer main in Manzanita Road at Dorrance Drive to a new 15-inch sewer main installed in Chaparral Road as part of The Parcel affordable housing project. Significant future development is planned upstream of this sewer, and connecting these sewer mains will prevent future sewer back-ups and spills in the existing, undersized sewer main running down Manzanita Road north of Dorrance Drive. The District is coordinating with the property owners of Assessor Parcel Numbers 033-148-006-000, 033-148-005-000, and 035-290-001-000 to secure easements for installation and maintenance of the sewer main. The District will implement best management practices for erosion control and protection of existing infrastructure, and will restore the disturbed area to previous condition.

Name of Public Agency Approving and Carrying Out the Project:

The Mammoth Community Water District

Exempt Status:

Snowcreek Crest

Section 15302 (c) provides an exemption for the replacement or reconstruction of existing public utility structures and facilities involving negligible or no expansion of capacity. Snowcreek Crest fits this exemption as the existing laterals will be replaced with pipe that is the same size or negligibly larger. The purpose of this project is not to expand capacity but to replace aging infrastructure.

Woodland Condominiums & Valley Vista Drive

Section 15302 (c) provides an exemption for the replacement or reconstruction of existing public utility structures and facilities involving negligible or no expansion of capacity. Woodland Condominiums & Valley Vista Drive meter replacements fit this exemption as the existing meter pits and meters will be removed and replaced with meters of the same size.

Hwy 203/Center Street

Section 15282 (k) provides an exemption for the installation of new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline as set forth in Section 21080.21 of the Public Resources Code, as long as the project does not exceed one mile in length. The Hwy 203/Center Street sewer main installation fits this exemption as it is within a public street and highway, and is less than one mile long.

The Parcel Relief Main

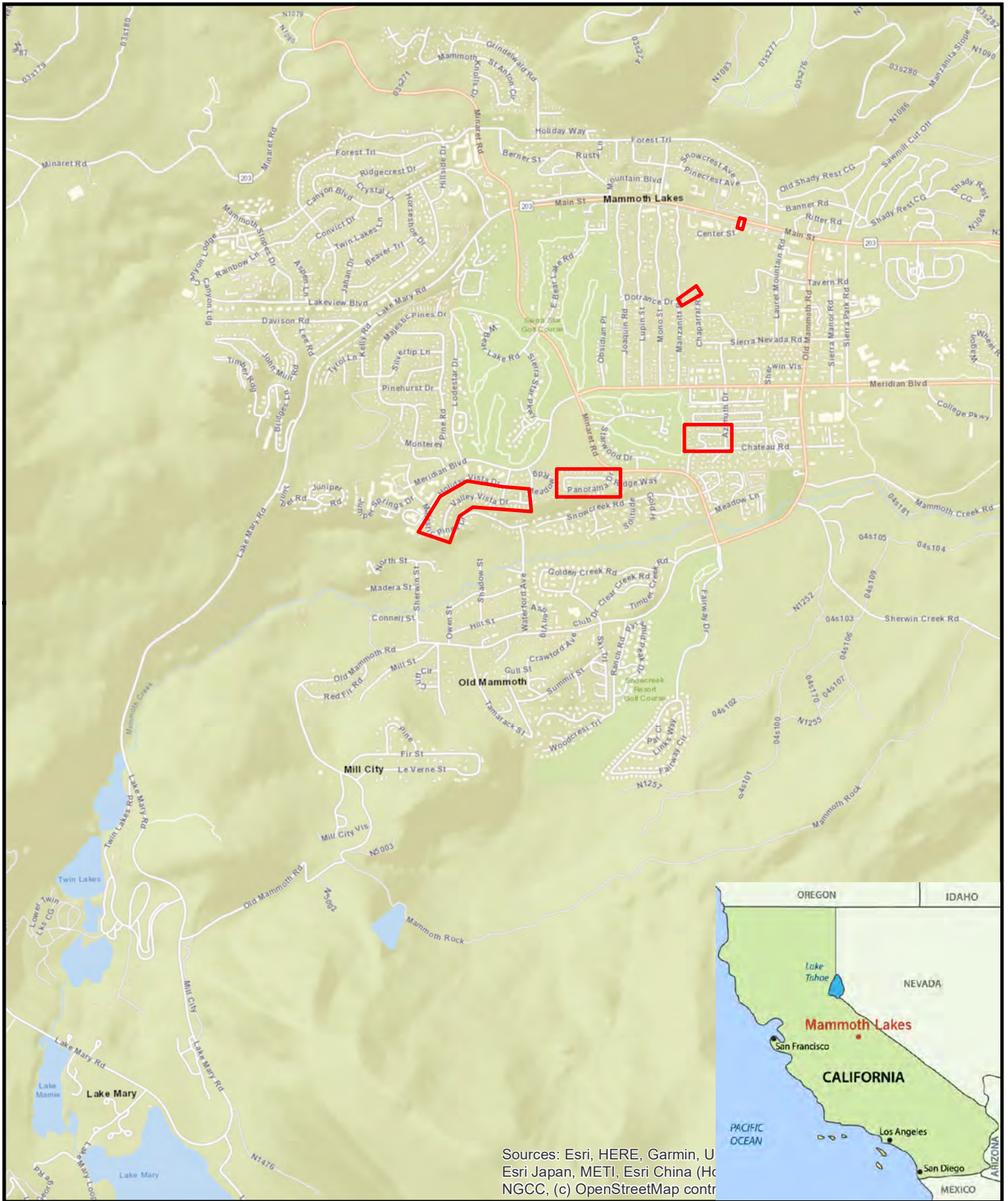
Section 15303 (d) provides an exemption for water main, sewage, electrical, gas, and other utility extensions, including street improvements, of reasonable length to serve such construction. The Parcel Relief Main installation fits this exemption as it is extending an existing stub-out at Manzanita Road and Dorrance Drive to a future sewer main that is being constructed to serve 'The Parcel' affordable housing project. 'The Parcel' project was analyzed in the *Final Program Environmental Impact Report for the Town of Mammoth Lakes 2005 General Plan Update*, specifically in the 2007 General Plan EIR, and in a 2018 *Phase I Environmental Site Assessment* for the Town of Mammoth Lakes. This sewer main will provide capacity to future developments planned upstream of the project and is the preferred alternative. The only viable alternative to this project would be to increase the size of the sewer in Manzanita Road north of Dorrance Drive, which would involve upsizing 1,600 feet of sewer main. This alternative would result in significantly more impact when compared to the proposed project.

Lead Agency Contact Person:
General Manager

Phone (760) 934-2596

Signature _____
Mark Busby, General Manager

Date _____



0 1,100 2,200 4,400 Feet

WATER AND SEWER IMPROVEMENTS 2023

**Notice of Exemption (NOE)
Exhibit A**

RESOLUTION NO. 05-18-23-14

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
MAMMOTH COMMUNITY WATER DISTRICT
AUTHORIZING COLLECTION AND REQUESTING INCLUSION OF SECURED
DELINQUENT RATES, CHARGES, AND PENALTIES FOR
WATER AND SANITARY SEWER SERVICE ON THE MONO COUNTY
TAX ROLL FOR THE FORTHCOMING FISCAL YEAR
IN THE SAME MANNER AS THE DISTRICT'S GENERAL TAXES**

WHEREAS, the Revenue Bond Law of 1941, the Health and Safety Code, and the Water Code of the State of California authorize the Mammoth Community Water District ("District") to establish rates and charges for water and sewer service, to prescribe penalties for the nonpayment of those charges and to have delinquent charges and penalties collected on the County Tax Roll; and,

WHEREAS, the District has prescribed rates and charges for water and sanitary sewer service, has provided for penalties for secured delinquent water and sanitary sewer charges and may collect such delinquent charges on the County Tax Roll; and,

WHEREAS, a written report on the secured delinquent water and sanitary sewer service charges that were delinquent for more than sixty (60) days as of March 31, 2023, was filed with the District Board of Directors as required by law; and,

WHEREAS, the notice of the time and place for the public hearing on the written report was duly published and mailed as provided by law, and the Board of Directors held a public hearing on May 18, 2023, to consider all objections and protests, if any, to the written report on the delinquent charges.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Mammoth Community Water District hereby:

1. Adopts the written report of secured delinquent water and sanitary sewer service rates, charges and penalties attached hereto as Exhibit "A" and incorporated herein, and determines that each charge described in said report for each parcel is proper and correct.
2. Requests the Mono County Board of Supervisors to authorize the County Auditor and Tax Collector to perform the functions provided by Health and Safety Code Sections 5473.4, 5473.6, 5473.7, and 5473.9, Water Code Sections 31701.5, and the Mammoth Community Water District Code, Chapters 11 and 12, respecting the placement of said delinquent charges with the County general taxes, for the compensation at a cost not to exceed the amount set by law.

BE IT FURTHER RESOLVED that staff is hereby directed to transmit a certified copy of the Resolution to the Board of Supervisors, County of Mono.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District at its regular meeting held on May 18, 2023, by the following vote:

AYES:
NAYS:
ABSENT:
ABSTAIN:

MAMMOTH COMMUNITY WATER DISTRICT

Thomas R. Smith, President
Board of Directors

ATTEST:

Mark Busby, Secretary
Board of Directors

MAMMOTH COMMUNITY WATER DISTRICT
EXHIBIT A

SECURED DELINQUENT WATER AND SEWER ACCOUNTS
THROUGH MARCH 31, 2023
FOR PLACEMENT ON MONO COUNTY TAX ROLL

ASSESSMENT NUMBER	NAME	DELINQUENT AMOUNT
022-370-012-000	WEST / HINDMAN TRUST	1,071.22
035-252-128-000	P. ALLEN	670.03
910-001-269-000	B. R. PEREZ	971.81
033-301-096-000	C. SAMUELS	1,237.04
910-001-288-000	J. MORALES	607.11
033-090-006-000	K.STEWART & J. LANCASTER	735.83
033-050-006-000	J. WEISFUSS	832.82
035-043-008-000	B. MURGUIA	573.17
031-053-016-000	J. RAPPAPORT	725.37
031-130-015-000	A. REICHL	545.59
910-001-311-000	G. JAILENE	742.19
022-462-012-000	L. WANDOR	589.17
033-160-017-000	B. KUSUHARA	587.71

RESOLUTION NO. 05-18-23-15

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
MAMMOTH COMMUNITY WATER DISTRICT
AUTHORIZING COLLECTION AND REQUESTING INCLUSION OF UNSECURED
DELINQUENT RATES, CHARGES, AND PENALTIES FOR
WATER AND/OR SANITARY SEWER SERVICE ON THE MONO COUNTY
TAX ROLL FOR THE FORTHCOMING FISCAL YEAR
IN THE SAME MANNER AS THE DISTRICT'S GENERAL TAXES**

WHEREAS, the Revenue Bond Law of 1941, the Health and Safety Code, and the Water Code of the State of California authorize the Mammoth Community Water District ("District") to establish rates and charges for water and/or sewer service, to prescribe penalties for the nonpayment of those charges and to have delinquent charges and penalties collected on the County Tax Roll; and,

WHEREAS, the District has prescribed rates and charges for water and/or sanitary sewer service, has provided for penalties for unsecured delinquent water and sanitary sewer charges and may collect such delinquent charges on the County Tax Roll; and,

WHEREAS, a written report on the unsecured delinquent water and sanitary sewer service charges that were delinquent for more than sixty (60) days as of March 31, 2023, was filed with the District Board of Directors as required by law; and,

WHEREAS, the notice of the time and place for the public hearing on the written report was duly published and mailed as provided by law, and the Board of Directors held a public hearing on May 18, 2023, to consider all objections and protests, if any, to the written report on the delinquent charges.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Mammoth Community Water District hereby:

1. Adopts the written report of unsecured delinquent water and sanitary sewer service rates, charges and penalties attached hereto as Exhibit "A" and incorporated herein, and determines that each charge described in said report for each parcel is proper and correct.
2. Requests the Mono County Board of Supervisors to authorize the County Auditor and Tax Collector to perform the functions provided by Health and Safety Code Sections 5473.4, 5473.6, 5473.7, and 5473.9, Water Code Sections 31701.5, and the Mammoth Community Water District Code, Chapters 11 and 12, respecting the placement of said delinquent charges with the County general taxes, for the compensation at a cost not to exceed the amount set by law.

BE IT FURTHER RESOLVED that staff is hereby directed to transmit a certified copy of the Resolution to the Board of Supervisors, County of Mono.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District at its regular meeting held on May 18, 2023, by the following vote:

AYES:
NAYS:
ABSENT:
ABSTAIN:

MAMMOTH COMMUNITY WATER DISTRICT

Thomas R. Smith, President
Board of Directors

ATTEST:

Mark Busby, Secretary
Board of Directors

MAMMOTH COMMUNITY WATER DISTRICT
EXHIBIT A

UNSECURED DELINQUENT WATER AND SEWER ACCOUNTS
THROUGH MARCH 31, 2023
FOR PLACEMENT ON MONO COUNTY TAX ROLL

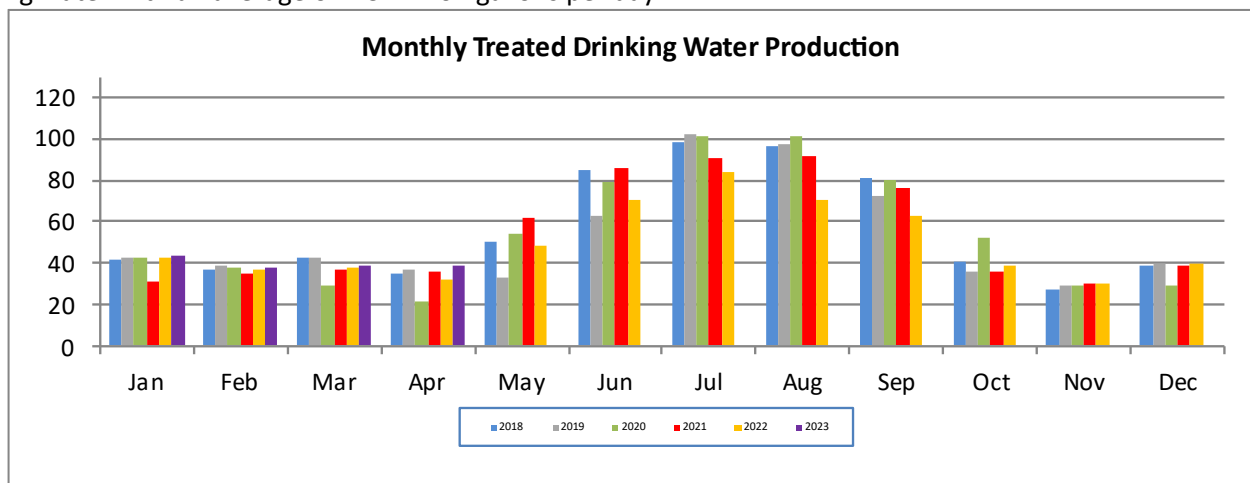
ASSESSMENT NUMBER	NAME	DELINQUENT AMOUNT
860-000-492-000	C. & J. ALMEIDA	3,105.55
860-000-291-000	MAMMOTH PACK OUTFIT	1,399.00

Report Summary			
April Production Data (In Million Gallons)	2013	2022	2023
Treated Surface Water	35.1	11.3	21.8
Treated Groundwater	6.5	20.7	17.1
Untreated Groundwater	2.4	0.0	0.0
Reclaimed Wastewater	0.0	0.0	0.0
Totals	44.1	32.0	38.9
Non-Revenue Water	4.8	3.4	4.1
Treated Wastewater	31.5	38.3	50.5
Photovoltaic Power Produced (kWh)	221,816	194,388	115,481
Photovoltaic Solar Irradiance (kW/m ²)	1,090	1,035	946

Monthly - Water Treatment, Production & Supply Management

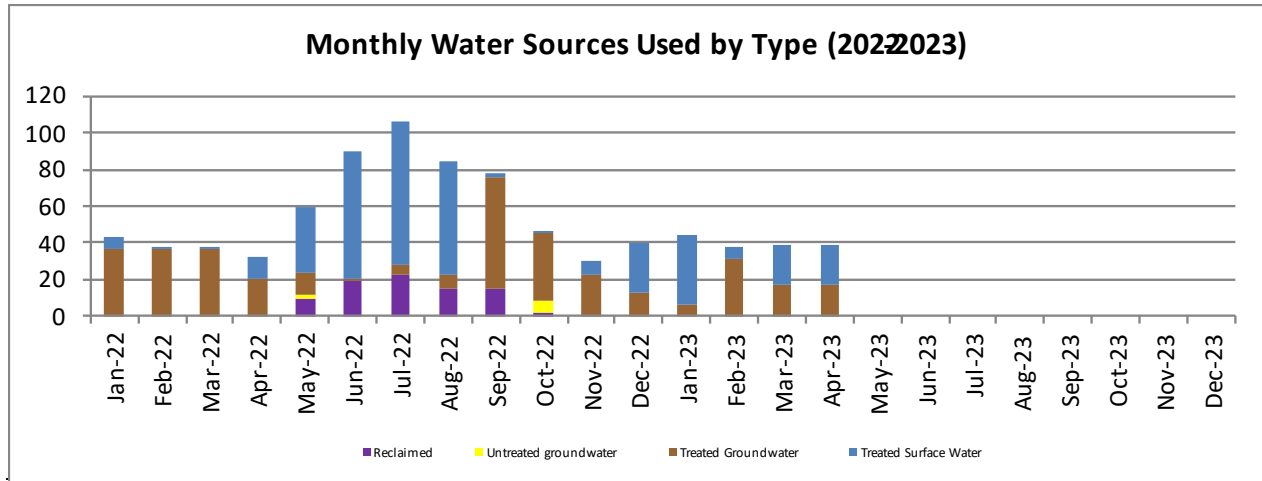
- **Drinking Water Treatment**

Routine samples for clarity, chlorine residual, and bacteriological analysis of the District’s drinking water were conducted during the month. The results of all sampling for the month were in compliance with the standards set by the State Water Resources Control Board Drinking Water Division. A total of 38,924,000 gallons were treated for drinking water with an average of 1.3 million gallons per day.



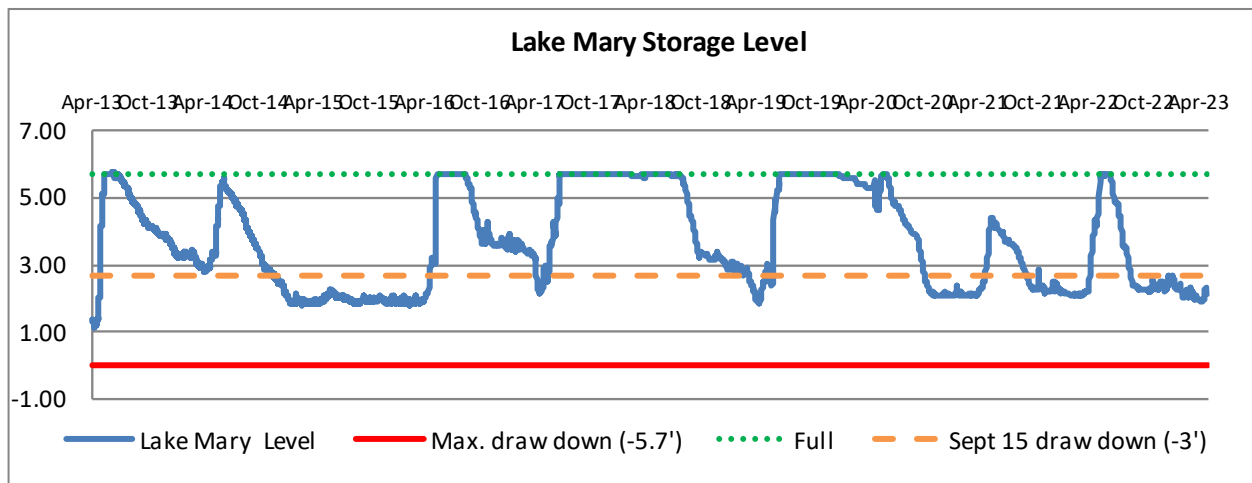
- **Water Supply Production and Management**

Drinking water provided to the community was produced from the District’s surface water (56%) and groundwater (44%) treatment plants.



• **Surface Water**

The minimum daily stream flow requirement for the month of April was 9.8 cfs for Mammoth Creek, as measured at Old Mammoth Road. Flow rates in the creek ranged from 6.9 cfs to 40.4 cfs with an average flow of 15.5 cfs. The average flow for April 2022 was 12.8 cfs. The flow requirement for May increases to 18.7 cfs and current flows are above the requirement. The lake is currently 3.57' from full with a balance of 222 ac-ft. Surface water utilization will continue whenever possible when the stream flows are above the requirement. Filling of Lake Mary is authorized from April 1st through June 30th. The filling of the lake will take place opportunistically as the runoff commences and will likely be completed after the peak flow in Mammoth Creek sometime in mid to late June.



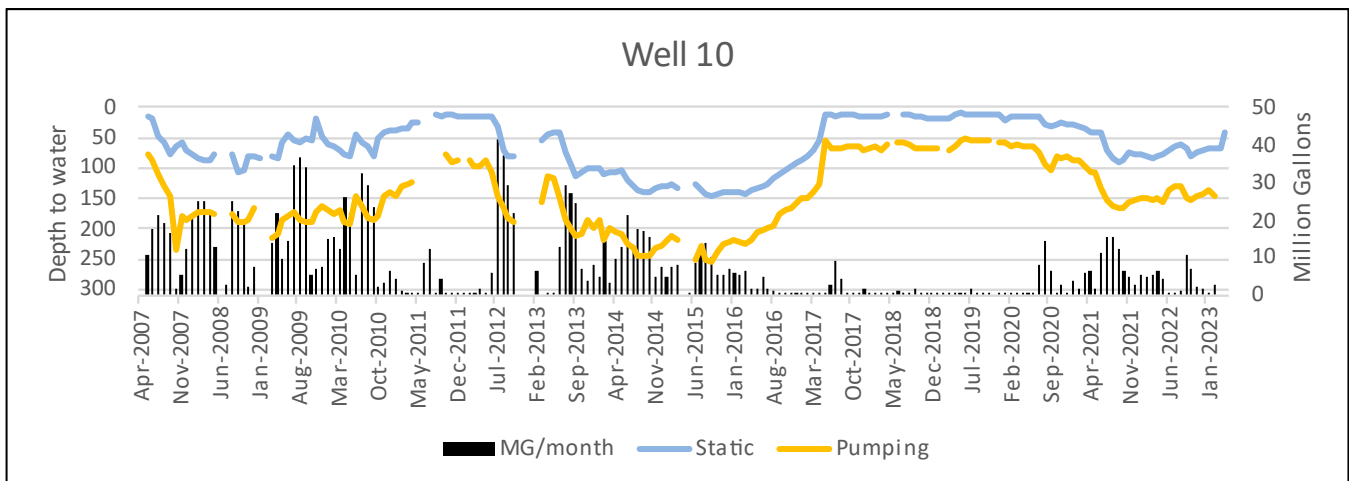
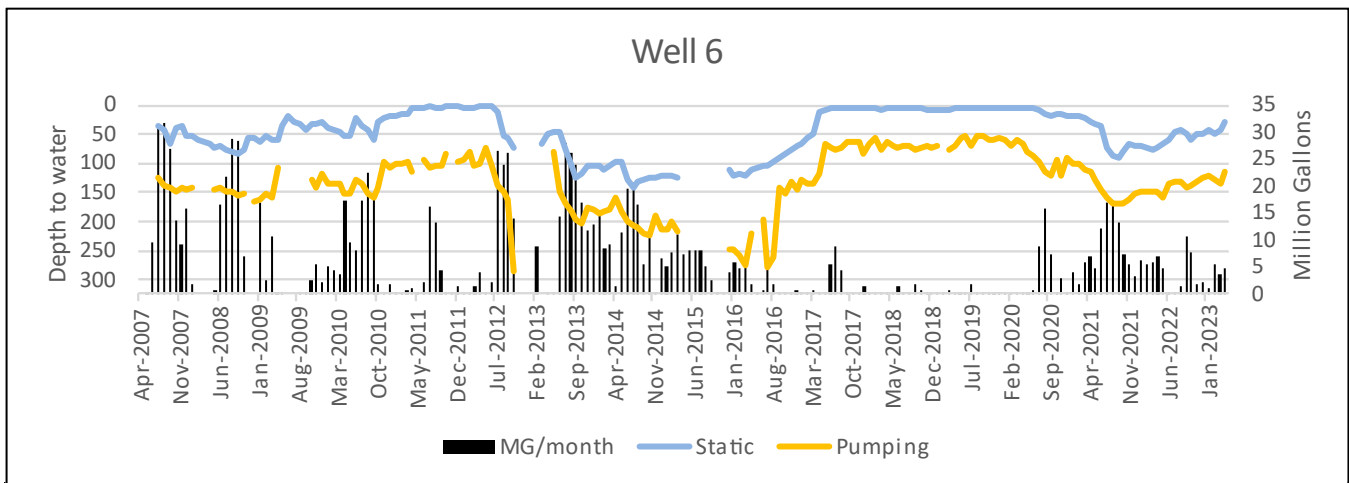
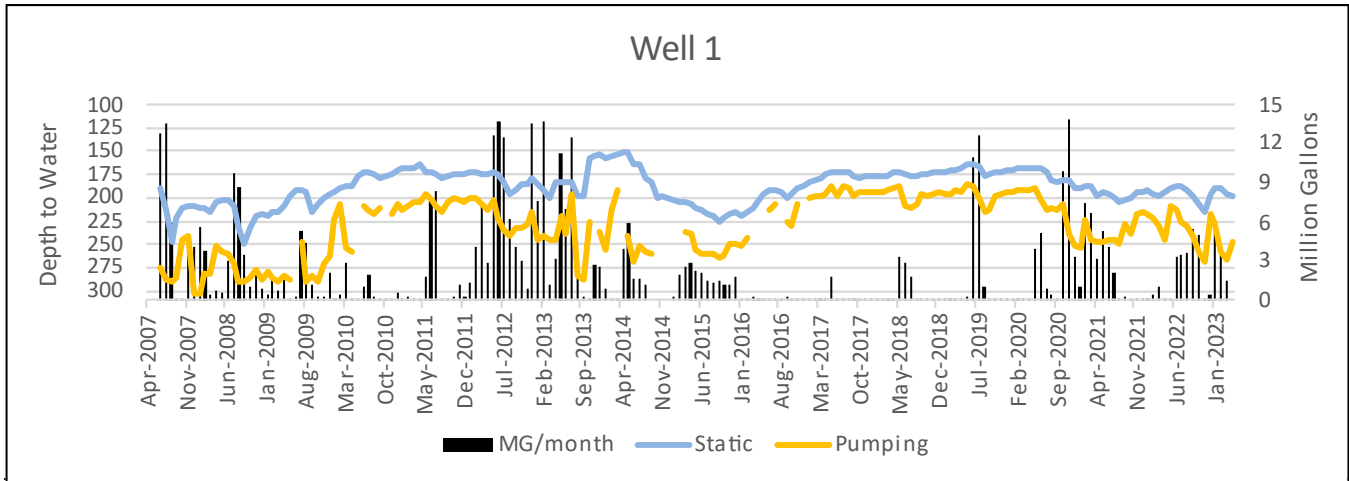
• **Groundwater**

Approximately 17,147,000 gallons or forty-four (44%) of the drinking water produced was from the District’s groundwater sources during the month of April. Groundwater production Wells 1, 6, 15, 17, 18, 20, and 25 are operating as expected and are available for service. Well 10 experienced a motor failure and will be out of service until repairs can be made after the snow is gone.

MAMMOTH COMMUNITY WATER DISTRICT

Operations Department Report

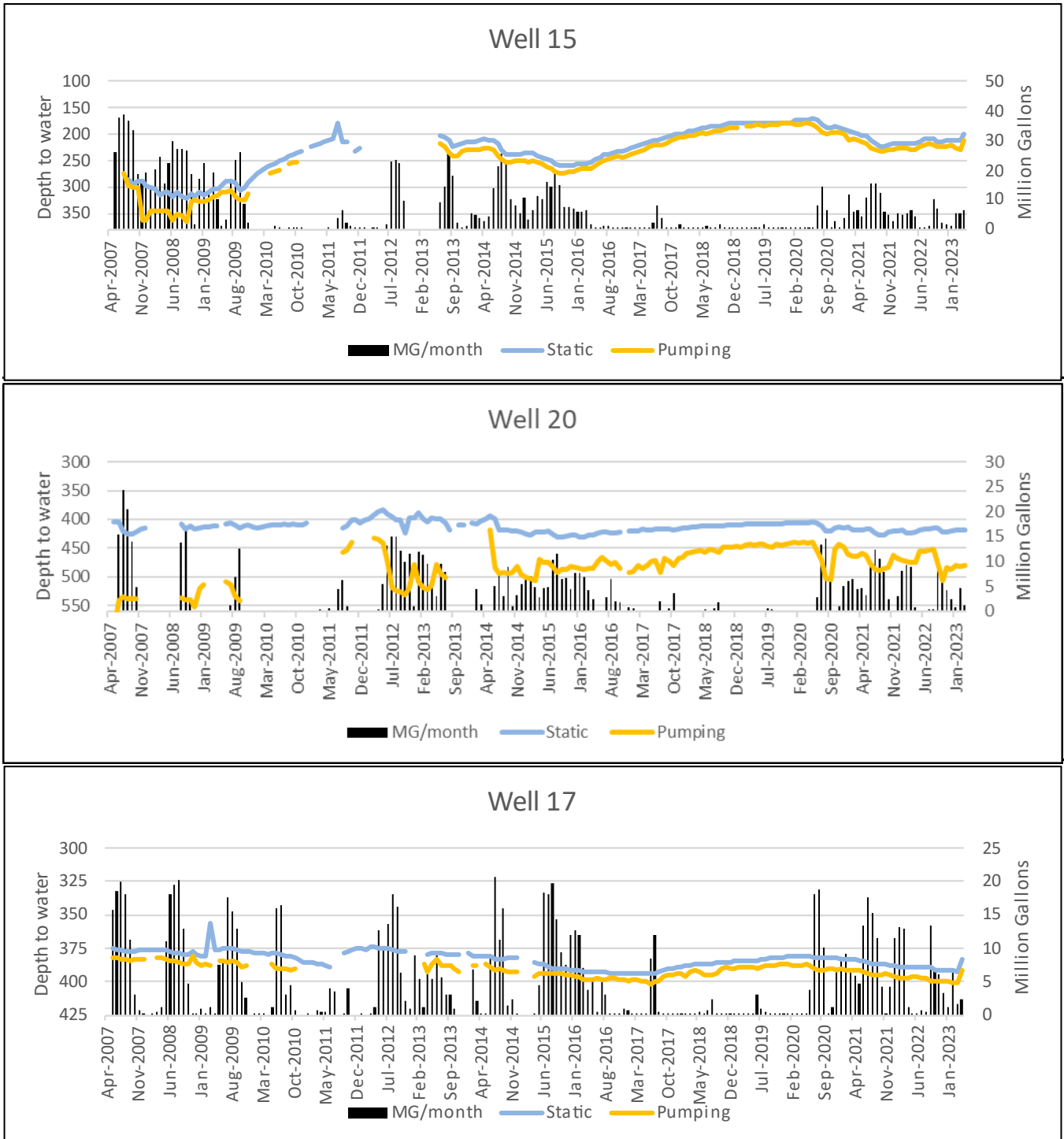
May 2023



MAMMOTH COMMUNITY WATER DISTRICT

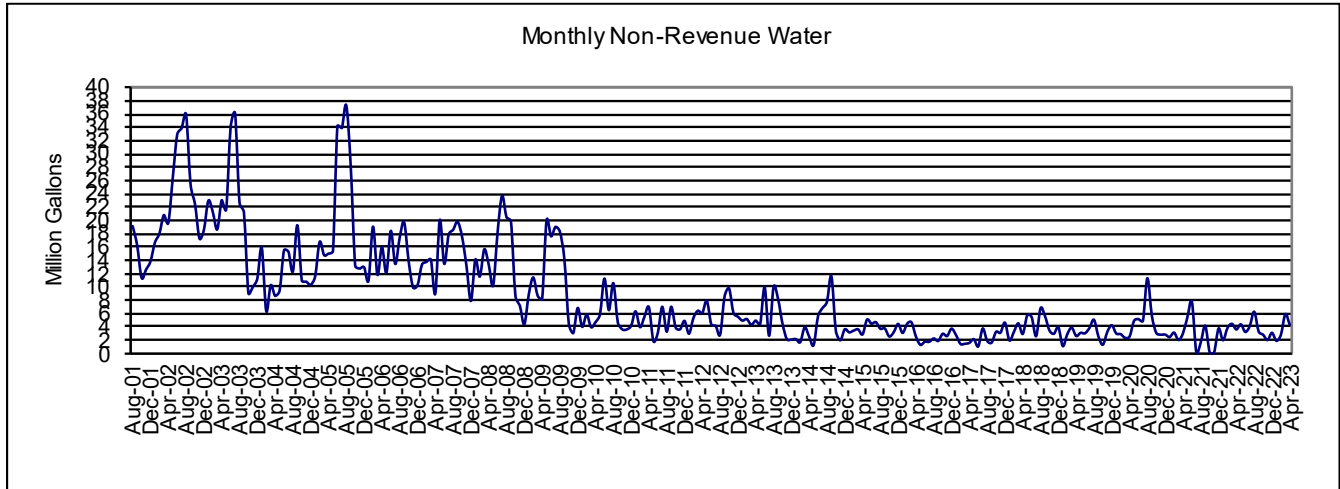
Operations Department Report

May 2023



- Water Audit Information**

The water audit for this billing period shows a total of eleven (11%) or 4.143 million gallons of non-revenue water. The increase is likely attributed to estimated reads. The 10% benchmark is based on the annual total, which is still under the threshold.



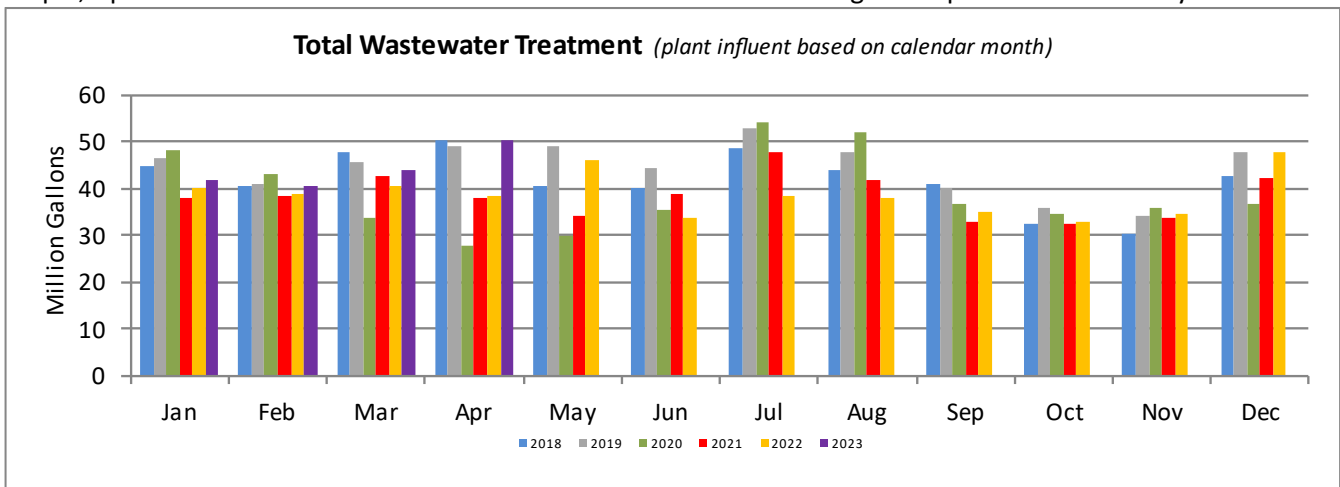
Wastewater – Treatment & Flow

- Wastewater Treatment**

Wastewater treatment samples have met all compliance requirements for the month.

- Wastewater Flows**

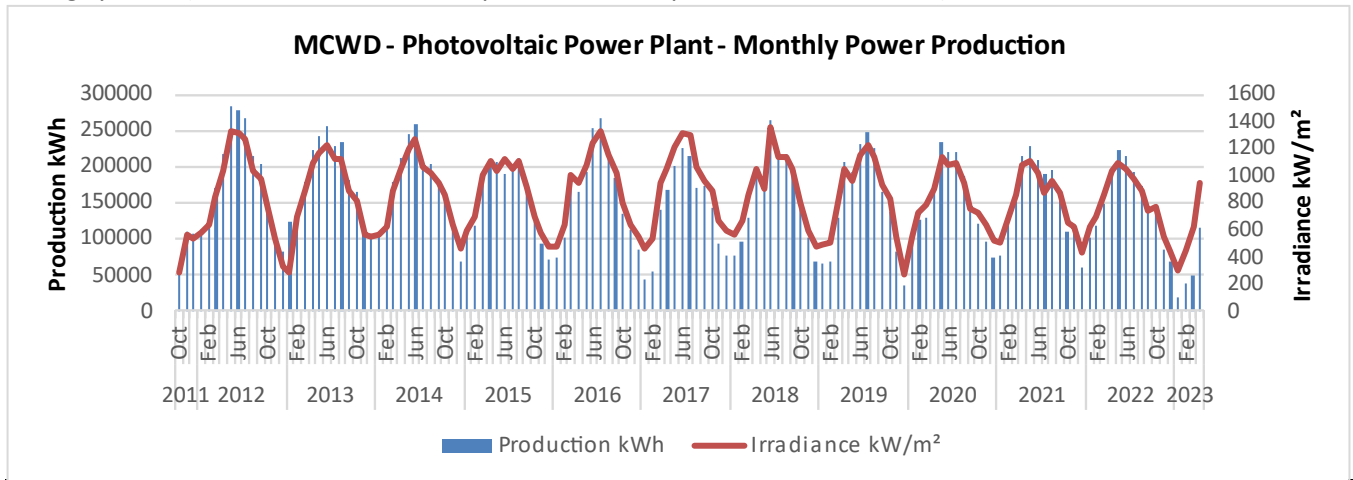
The total volume of wastewater treated during the month of April was 50,517,000 gallons. This results in an average of 1.68 million gallons per day of wastewater flow. Flows will likely outpace drinking water consumption for the next couple months due to melting snow influencing the collection system, this is typical during the runoff season. For example, April of 2017 had wastewater flow of 60.9 MG while the drinking water production was only 34.1 MG.



Photovoltaic Power Plant Operations & Total District Electrical Usage

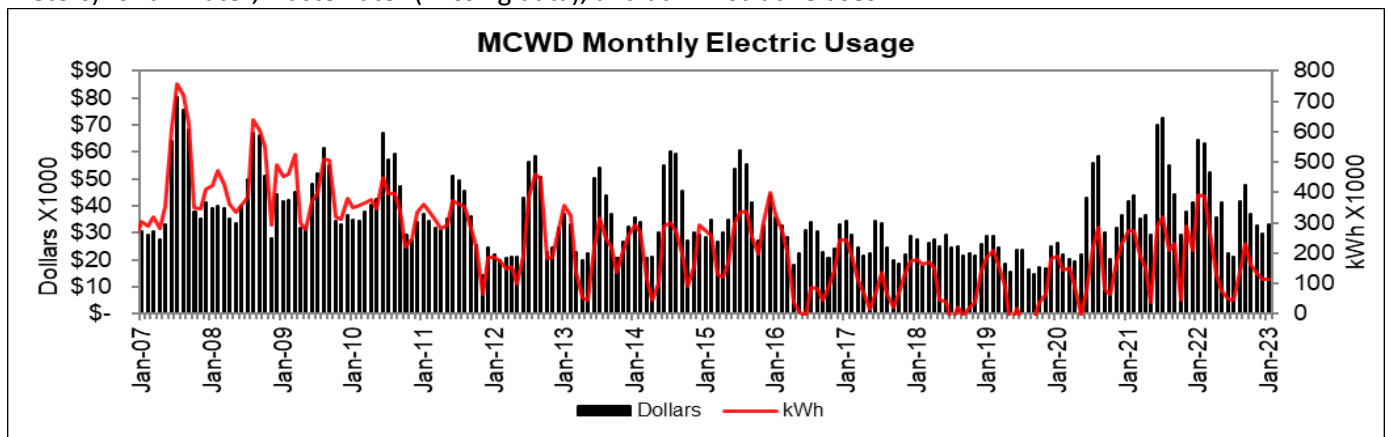
- **Solar plant production**

The total kilowatt hours of energy produced for the month of April was 115,481 kWh. The irradiance and production were 9% and 41% less respectively than April 2022. The loss in production is due to damage to the solar panels and tracking system. (See the Maintenance Superintendent report for further details)



- **Total electrical energy use**

Monthly energy usage chart for the past 15 years through January 2023 except for the WWTP, Well 17, and the LMTP. The WWTP and Well 17 electrical bills are slowly being updated and data is available through May 2022. The LMTP billing data is available through October 2022 and typically lags during the winter months. After thorough review of the WWTP electric bills, it has been determined that SCE has made some gross miscalculations on energy consumption and generation in most of the bills since October 2021. Engineering staff contacted SCE and provided a detailed analysis that is currently under review by the vendor. The monthly total includes all District facilities (34 electric meters) for all water, wastewater (missing data), and administrative uses.



Report Summary

The Maintenance Department's primary focus over the past month has been preventative maintenance and repair. With the retreating snowpack we are gaining access to our facilities and repairing the snow damage.

Solar Power Plant Maintenance

The snow has retreated from the panels and Staff has begun to make repairs. Some of the damaged parts are obsolete and Staff recreated these replacement parts using our in-house fabrication equipment. There is still much work to do with the solar collection system, however progress is being made as damage is discovered.

Wastewater Treatment Plant and Recycled Water Maintenance

The retreating snow left only minor damage to most of the equipment around the wastewater plant. Staff have been making small repairs and performing preventative maintenance to the treatment apparatuses. The roof of the EQ building suffered structural damage and will need to be replaced this summer. None of the equipment housed in this building has been damaged.

Surface Water Treatment Plant and Related Facilities Maintenance

The surface plant has been running on the generator all month due to a downed power pole. The power is forecasted to be turned back on sometime mid-May. Staff have spent many hours hauling fuel up into the Lakes Basin to support the generators. The plant is performing as expected and is expected to be our primary source of water until fall.

Groundwater Treatment Plant and Related Facilities Maintenance

Groundwater plants are running without issue. Staff are continuing to check for damage as the melt continues.

Water Distribution System Operations & Maintenance

Many of the frozen services are thawing and crews are responding to leaks. Staff are de-watering and cleaning facilities in preparation for spring preventative maintenance operations.

Wastewater Collection System Operations & Maintenance

Several of the lift stations in the upper Lakes Basin remain without power and many are still covered in deep snow. Staff are making weekly trips to these sites to check for issues as the snow melts and keep these units fueled up.

Special Projects/Programs

Lake Mary Treatment Plant Upgrades to the PLC and Operator Interface

This project will improve the performance of the PLC and upgrade the interface that operators use to make on-site changes. This work continues to be pushed out due to weather and road conditions.

In-house Construction Projects

The Maintenance and Engineering departments have finalized all the plans for summer construction work. The District is advertising for summer construction crew members currently. The sewer upgrades at Center

Street and on The Parcel are scheduled to be completed by staff late this summer. Several lateral/meter pit upgrade projects are “shovel ready”, however staffing levels of the summer crew will determine the overall project load.

Lift Station Improvements

Staff will be upgrading the electronics at the Bluff’s lift station in the next month or two. This equipment has been received and scheduled for installation in late May, weather and conditions permitting.

Departmental/General

Staff are getting started on their preventive maintenance programs and clean up from the winter.



MAMMOTH COMMUNITY WATER DISTRICT
Maintenance Department Board Report
May 2023

Agenda Item: B-2

05-18-2023



Financial Department Update

The approved budget for FY 2024 has been loaded into the software and all regular reports updated for the new fiscal year. Finance department staff is finalizing end-of-year transactions and preparing for the annual audit. Preliminary calculations for FY 2023 show revenue of \$16,954,400, personnel and operating expenses of \$9,650,000, capital expenses of \$3,757,100, with a contribution to reserves of \$3,547,300.

The employee housing expense line is over the YTD budget because we have paid the HOA dues for the whole fiscal year for each of the condominium units. Many operating budget lines are under budget because of the delay between goods and services provided and payment of invoices.

Snow damage to Tank T-8 this winter has required changes to our summer capital project plans. Please see notes with Table A.1 for additional details. Finance is coordinating with the Maintenance, Engineering, and Personnel/Risk Management departments to manage the liquidity of our reserve funds to meet the changing needs.

Finance staff is researching the requirements of newly released CARB regulations to determine the potential near-term and long-term financial impacts.

A property tax payment is anticipated from Mono County in May. The estimated amount allocated to FY 2024 is reflected on the balance sheet as a Deferred Inflow of Resources of \$1,304,000.

Significant payments in April include:

- \$25,574 to Inyo Crude to replenish the District’s gasoline and diesel tanks
- \$21,600 to Jordan Construction for roof shoveling at the Lake Mary treatment plant.

Payroll Expenses for April 2023:

Gross Payroll	\$331,733	
Net Payroll	234,484	
Employer Paid Taxes	5,010	
Employer Paid 401a	65,810	20% of Gross
Employer Paid 457b Match	6,491	1.97% of Gross
Employee Paid 457b Contributions	33,765	10.3% of Gross
Other Employer Paid Benefits	91,516*	

*Worker’s Comp premiums for the first quarter were paid in April.

Graphs and Tables

Details on capital expenditures are listed in Table A, operation expenses in Table B, utility bill aging in Table C, and cash balance projection in Table D, followed by a summary of the District’s investment portfolio

MAMMOTH COMMUNITY WATER DISTRICT

Agenda Item: B-3

Finance Department Report

05-18-2023

May 2023

including the monthly report of transactions. Summary graphs of revenue and expenses are presented below.



MAMMOTH COMMUNITY WATER DISTRICT

Finance Department Report

May 2023

Financial Reports

Table A Capital Project Management

Capital Funds Project Summary					
Fiscal Year: 2024					
Spending through April 2023					
Project Name	BRE	FY 2024 Budget	FY 2024 YTD Expenditure	Prior Project Expenditure	Total Project Expenditure
Water Distribution System Improvements		390,247	958		958
Wastewater Collections System Improvements		358,578	0		-
Tank T-8 Replacement		1,550,000	0	2,586	2,586
Hwy 203 Sewer Main		222,704	1,659	13,043	1,659
Parcel Relief Main - Center St		256,143	200	412,936	413,136
West Twin LS upgrade (PLC, mechanical)		71,769	0		-
Well 10 Pump & motor		38,668	0		
Well 15 Rehab		69,473	64		
Well 17 Rehab		116,680	64		
Capital Equipment					
Vehicle replacement		45,000			
Bobcat replacement		97,000			
Vactor replacement		600,000			
Ee housing		1,500,000			
Total Capital Projects and Equipment		5,316,262	2,945		

Table A.1 Capital Project Schedule

Description	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget
Water Distribution System Improvements	390,247	934,000	934,000
Wastewater Collections System Improvements	358,578	473,000	484,000
Tank T-8 Replacement	1,550,000		
Hwy 203 Sewer Main	222,704		
Parcel Relief Main - Center St	256,143		
Tank T-2 (or T-7) Rehab			463,000
Tank T-7 (or T-2) Rehab		630,000	
Well Rehab	224,821		
LMTP backwash tank Rehab		148,000	
West Twin LS upgrade (PLC, mechanical)	71,769		
Zone 2B Storage		500,000	
Seismic retrofits	50,000	473,000	

Tank T-8 replacement was moved from the FY 2026 budget to the FY 2024 budget. It is likely that part of the cost of the T-8 replacement will be paid by insurance. Tank T-2 rehab was moved from the FY 2025 budget to the FY 2026 budget. Tank T-7, LMTP backwash tank, and the Zone 2-B storage land acquisition projects were moved from the FY 2024 budget to the FY 2025 budget. All other scheduled projects remained unchanged.

MAMMOTH COMMUNITY WATER DISTRICT
Finance Department Report
May 2023

Agenda Item: B-3

05-18-2023

Table B Revenue and Expenses

Account	YTD Actual	YTD Budget	Annual Budget	YTD Better/Worse	% Diff
Billing - Water Usage	84,981	75,560	1,889,000	9,421	12%
Water Base Rates	158,343	157,770	1,894,000	573	0%
Wastewater Base Rates	224,659	224,577	2,696,000	83	0%
Wastewater Flow Rates	41,590	41,733	501,000	(144)	0%
Engineering Revenue	666	3,332	40,000	(2,666)	-80%
Housing Rents	12,460	11,829	142,000	631	5%
Miscellaneous Revenue	7,608	18,909	227,000	(11,301)	-60%
Permits - Connection Fees	23,450	29,155	350,000	(5,705)	-20%
Taxes and Assessments	-	-	9,428,000	-	
Interest Income	107,215	62,475	750,000	44,740	72%
Subtotal Revenue	660,973	625,340	17,917,000	35,633	6%
Investment Gain (Loss)	(78,519)	-	-	(78,519)	
Total Revenue	582,454	625,340	17,917,000	(42,886)	-7%
Salaries & Wages	246,460	286,376	4,953,844	39,916	14%
Employee Benefits - Group Insu	150,949	162,564	975,382	11,615	7%
Employee Benefits - Pension	53,612	60,512	1,048,874	6,900	11%
Employer Paid Taxes	6,301	18,361	245,988	12,060	66%
Total Personnel Expense	457,322	527,812	7,224,087	70,491	13%
Outside Services	1,980	19,426	233,205	17,446	90%
Property Tax Admin. Fee	-	-	220,000	-	
Sludge Disposal	2,548	3,894	46,750	1,346	35%
Software Licenses/Agreements	11,290	23,107	277,401	11,817	51%
IT Services	-	5,165	62,000	5,165	100%
Banking Fees	5,001	4,038	48,480	(962)	-24%
Professional Services	-	11,154	133,900	11,154	100%
Outside Lab Services	1,445	5,248	63,000	3,803	72%
Equipment Rental	-	833	10,000		
Employee Housing Expenses	39,735	6,120	73,464	(33,616)	-549%
Operating Tools/Equipment	471	3,973	47,700	3,502	88%
Employee Engagement	-	1,675	20,110	1,675	100%
Employee PPE/Uniform	100	1,964	23,575	1,864	95%
Gasoline	2,183	3,389	40,690	1,207	36%
Diesel Fuel	11,005	2,051	24,620	(8,954)	-437%
Insurance	17,059	14,711	176,600	(2,348)	-16%
Legal Services	-	7,081	85,000	7,081	100%
M & R - Line Repair/Equipment	687	23,314	279,878	22,626	97%
M & R - Buildings	21,802	27,426	329,240	5,624	21%
M & R - Vehicles	10,456	9,111	109,372	(1,346)	-15%
Memberships/Certifications	225	3,996	47,977	3,771	94%
Permit Meters	-	1,250	15,000	1,250	100%
Operating Chemicals	20,924	27,207	326,619	6,283	23%
Operating Supplies	17,619	9,736	116,880	(7,883)	-81%
Computer Systems/Equipment	-	4,540	54,500	4,540	100%
Postage/Freight	-	841	10,094	841	100%
Advertising Publications & PR	-	2,332	28,000	2,332	100%
Books & Subscriptions	-	165	1,985	165	100%
Safety	-	3,124	37,508	3,124	100%
Permits & Licensing	10,837	7,924	95,125	(2,913)	-37%
Settlement Cost	-	-	14,000	-	
Telephone	-	3,898	46,790	3,898	100%
Training & Meetings	6,001	7,087	85,081	1,086	15%
Travel Expenses	-	5,773	69,300	5,773	100%
Utilities - Electric	-	28,564	342,900	28,564	100%
Utilities - Propane	4,482	2,640	44,000	(1,842)	-70%
Water Conservation	2,272	15,997	192,040	13,725	86%
Total Operating Expense	188,123	298,753	3,832,783	109,797	37%

MAMMOTH COMMUNITY WATER DISTRICT

Agenda Item: B-3

Finance Department Report

05-18-2023

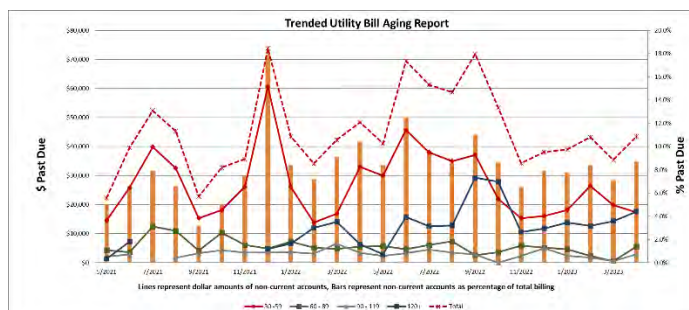
May 2023

Table C Fund Balance

	Operating Funds			Capital R&R Funds		
	10 Admin	20 Water	30 Wastewater	21 Admin	22 Water	23 Wastewater
Cash Total	(240,581)	2,757,830	1,233,771	1,007,832	12,273,316	8,910,329
Current Assets	3,544,627	281,614	220,368	(103)	23,291	11,193
Non-current Assets						
Capital Assets	47,669	12,609	2,564	2,342,538	36,100,725	14,004,708
Total Assets	3,351,715	3,052,053	1,456,703	3,350,267	48,397,333	22,926,230
Current Liabilities	(84,295)	(6,495)	(18,017)	60	(82,659)	(78,613)
Deferred Inflow of Resources	(1,304,000)					
Non-current Liabilities	(442,175)	(97,041)	(130,652)	-	-	-
Assets - Liabilities	2,825,245	2,948,518	1,308,034	3,350,327	48,314,674	22,847,616
Target Fund Balance	75,000	2,213,000	2,010,000	1,000,000	3,320,000	4,065,000
Available Fund Balance	(324,876)	2,751,335	1,215,754	1,007,892	12,190,657	8,831,715
Over/(Under)	(399,876)	538,335	(794,246)	7,892	8,870,657	4,766,715

	Capital Expansion Funds					Total
	31 Admin	32 Water	33 Wastewater	96 Enterprise	98 LADWP	
Cash Total	1,041,433	1,960,063	829,734	556,694	1,063,129	31,393,551
Current Assets	-	(35)	-	18,528	-	4,099,484
Non-current Assets				2,449,502		2,449,502
Capital Assets	(8,068)	8,819,944	5,155,154	2,348,546	-	68,826,389
Total Assets	1,033,366	10,779,972	5,984,889	5,373,270	1,063,129	106,768,927
Current Liabilities	-	(21,056)	-	(19,593)	-	(310,669)
Deferred Inflow of Resources						
Non-current Liabilities						(669,867)
Assets - Liabilities	1,033,366	10,758,916	5,984,889	5,353,677	1,063,129	105,788,390
Target Fund Balance	1,000,000	1,883,000	798,000	1,000,000	2,050,000	19,414,000
Available Fund Balance	1,041,433	1,939,007	829,734	537,101	1,063,129	31,082,882
Over/(Under)	41,433	56,007	31,734	(462,899)	(986,871)	11,668,882

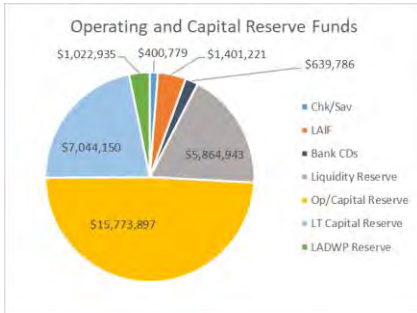
Table D Trended Utility Bill Aging Report



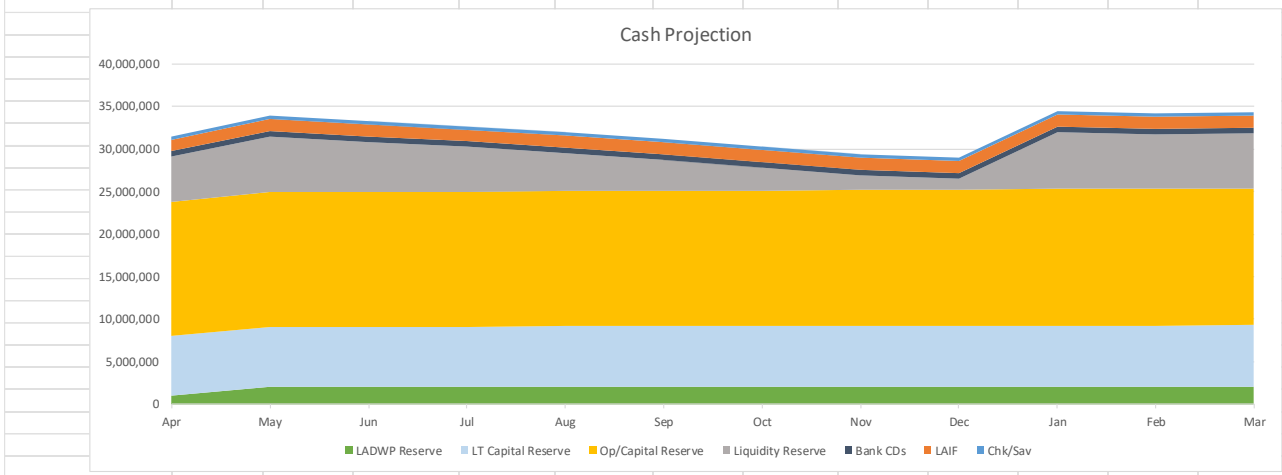
The total amount past due is \$43,428 as of April 30, 2023.

Table E Investment Summary and Cash Balance

The District’s reserve funds have been separated into a multi-layer investment strategy to match the liquidity needs of operations and capital projects while maximizing the opportunity for interest earnings. The chart below illustrates the allocation, from most liquid to least liquid.



	Projection											
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Chk/Sav	400,779	401,065	396,591	393,407	391,327	390,677	391,567	394,251	398,834	404,133	398,494	393,393
LAIF	1,401,221	1,404,023	1,406,831	1,409,645	1,412,464	1,415,289	1,418,120	1,420,956	1,423,798	1,426,646	1,429,499	1,432,358
Bank CDs	639,786	641,066	642,348	643,632	644,920	646,210	647,502	648,797	650,095	651,395	652,697	654,003
Liquidity Reserve	5,225,157	6,553,023	5,854,639	5,248,406	4,478,975	3,655,061	2,703,944	1,700,179	1,287,106	6,701,823	6,378,082	6,442,715
Op/Capital Reserve	15,773,897	15,805,445	15,837,056	15,868,730	15,900,467	15,932,268	15,964,133	15,996,061	16,028,053	16,060,109	16,092,229	16,124,414
LT Capital Reserve	7,044,150	7,058,238	7,072,355	7,086,499	7,100,672	7,114,874	7,129,104	7,143,362	7,157,649	7,171,964	7,186,308	7,200,680
LADWP Reserve	1,022,935	2,024,981	2,029,031	2,033,089	2,037,155	2,041,229	2,045,312	2,049,402	2,053,501	2,057,608	2,061,723	2,065,847
Total	31,507,925	33,887,841	33,238,851	32,683,408	31,965,980	31,195,609	30,299,681	29,353,008	28,999,035	34,473,678	34,199,033	34,313,410



MAMMOTH COMMUNITY WATER DISTRICT

Finance Department Report

May 2023

Agenda Item: B-3

05-18-2023

Mammoth Community Water District
Account #10052

Portfolio Summary

As of April 30, 2023



PORTFOLIO CHARACTERISTICS

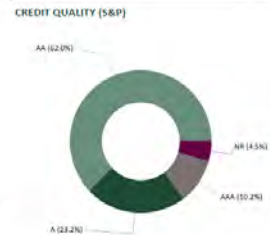
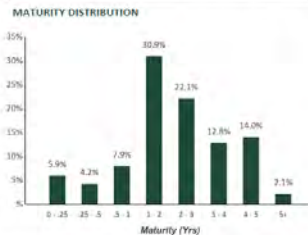
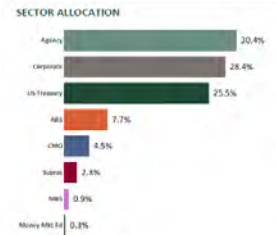
Average Modified Duration	1.88
Average Coupon	2.05%
Average Purchase YTM	1.90%
Average Market YTM	4.52%
Average S&P/Moody Rating	AA/Aa2
Average Final Maturity	2.52 yrs
Average Life	2.10 yrs

ACCOUNT SUMMARY

	Beg. Values as of 3/31/23	End Values as of 4/30/23
Market Value	15,719,704	15,773,897
Accrued Interest	54,338	69,914
Total Market Value	15,774,041	15,843,812
Income Earned	25,431	26,341
Cont/WD		-2,606
Par	16,343,871	16,323,599
Book Value	16,333,401	16,347,431
Cost Value	16,438,295	16,461,077

TOP ISSUERS

Government of United States	25.5%
Federal Farm Credit Bank	10.5%
Federal Home Loan Mortgage Corp	10.5%
Federal National Mortgage Assoc	6.9%
Federal Home Loan Bank	6.5%
Intl Bank Recon and Development	2.3%
Bank of New York	2.2%
Bank of America Corp	2.1%
Total	66.6%



PERFORMANCE REVIEW

TOTAL RATE OF RETURN	Annualized								
	1M	3M	YTD	1YR	2YRS	3YRS	5YRS	10YRS	1/31/2019
Mammoth Community Water District	0.46%	1.13%	2.29%	1.83%	-0.96%	-0.29%	N/A	N/A	1.25%
ICE BofA 0-5 Yr US Treasury Index	0.39%	1.16%	2.05%	1.24%	-1.27%	-0.84%	N/A	N/A	0.98%

MCWD Long Term Reserves
Account #11043

Portfolio Summary

As of April 30, 2023



PORTFOLIO CHARACTERISTICS

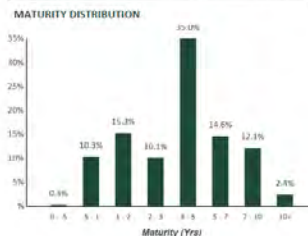
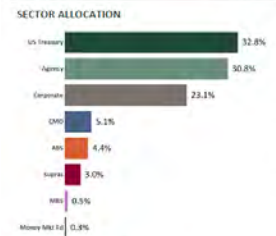
Average Modified Duration	3.49
Average Coupon	2.86%
Average Purchase YTM	3.18%
Average Market YTM	4.23%
Average S&P/Moody Rating	AA/Aa1
Average Final Maturity	4.60 yrs
Average Life	3.89 yrs

ACCOUNT SUMMARY

	Beg. Values as of 3/31/23	End Values as of 4/30/23
Market Value	7,012,503	7,044,150
Accrued Interest	36,826	48,737
Total Market Value	7,049,129	7,092,887
Income Earned	25,358	19,258
Cont/WD		0
Par	7,248,792	7,246,172
Book Value	7,091,999	7,099,196
Cost Value	7,132,738	7,138,566

TOP ISSUERS

Government of United States	32.8%
Federal Home Loan Bank	13.5%
Federal Farm Credit Bank	8.3%
Federal National Mortgage Assoc	7.0%
Northern Trust Corp	3.5%
Caterpillar Inc	3.2%
Federal Home Loan Mortgage Corp	3.1%
Inter-American Dev Bank	3.0%
Total	74.3%



PERFORMANCE REVIEW

TOTAL RATE OF RETURN	Annualized								
	1M	3M	YTD	1YR	2YRS	3YRS	5YRS	10YRS	1/31/2023
MCWD Long Term Reserves	0.62%	1.98%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICE BofA 1-10 Yr US Treasury & Agency Index	0.53%	1.20%	N/A	N/A	N/A	N/A	N/A	N/A	N/A

MAMMOTH COMMUNITY WATER DISTRICT

Finance Department Report

May 2023

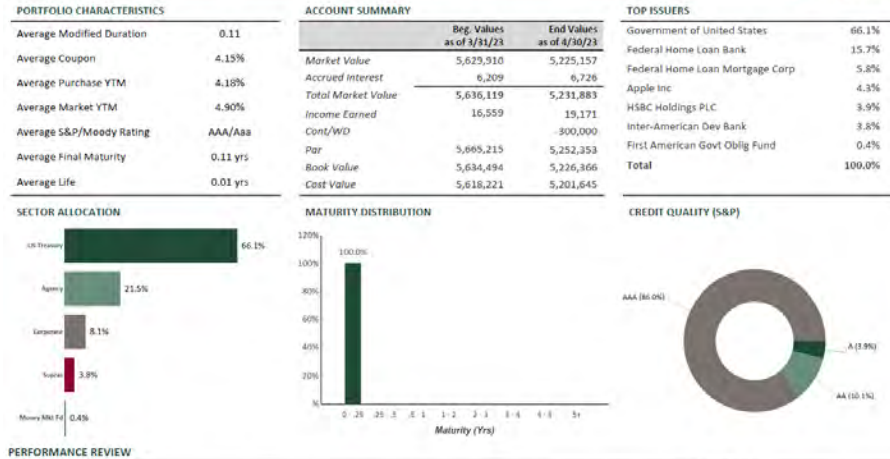
Agenda Item: B-3

05-18-2023

Mammoth Community Water District Liquidity
 Portfol
 Account #10987

Portfolio Summary

As of April 30, 2023



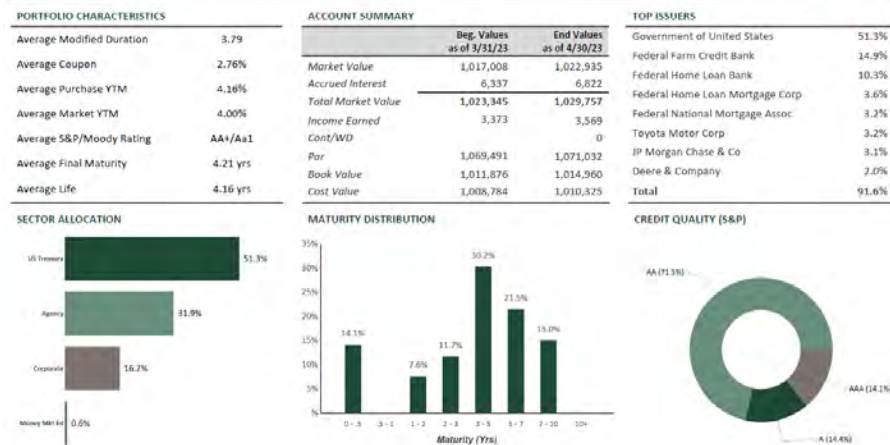
PERFORMANCE REVIEW

TOTAL RATE OF RETURN	Annualized								
	1M	3M	YTD	1YR	2YRS	3YRS	5YRS	10YRS	8/31/2022
Mammoth Community Water District Liquidity Portfol	0.41%	1.14%	1.36%	N/A	N/A	N/A	N/A	N/A	N/A
ICE BofA 3-Month US Treasury Bill Index	0.32%	1.08%	1.39%	N/A	N/A	N/A	N/A	N/A	N/A

MCWD LADWP Sett Fd
 Account #10992

Portfolio Summary

As of April 30, 2023



Mammoth Community Water District
Consolidated

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	04/03/2023	31846V203	405.72	First American Govt Obligation Fund Class Y	1.000	4.32%	405.72	0.00	405.72	0.00
Purchase	04/03/2023	31846V203	4,226.85	First American Govt Obligation Fund Class Y	1.000	4.32%	4,226.85	0.00	4,226.85	0.00
Purchase	04/03/2023	31846V203	103.48	First American Govt Obligation Fund Class Y	1.000	4.32%	103.48	0.00	103.48	0.00
Purchase	04/03/2023	31846V203	569.77	First American Govt Obligation Fund Class Y	1.000	4.32%	569.77	0.00	569.77	0.00
Purchase	04/06/2023	31846V203	75,262.02	First American Govt Obligation Fund Class Y	1.000	4.32%	75,262.02	0.00	75,262.02	0.00
Purchase	04/06/2023	31846V203	1,025,000.00	First American Govt Obligation Fund Class Y	1.000	4.32%	1,025,000.00	0.00	1,025,000.00	0.00
Purchase	04/06/2023	31846V203	650.00	First American Govt Obligation Fund Class Y	1.000	4.32%	650.00	0.00	650.00	0.00
Purchase	04/12/2023	31846V203	580.00	First American Govt Obligation Fund Class Y	1.000	4.32%	580.00	0.00	580.00	0.00
Purchase	04/12/2023	31846V203	707.17	First American Govt Obligation Fund Class Y	1.000	4.32%	707.17	0.00	707.17	0.00
Purchase	04/12/2023	448979AD6	80,000.00	Hyundai Auto Receivables Trust 2023-A A3 4.58% Due 4/15/2027	99.990	4.63%	79,992.19	0.00	79,992.19	0.00
Purchase	04/13/2023	31846V203	300,000.00	First American Govt Obligation Fund Class Y	1.000	4.32%	300,000.00	0.00	300,000.00	0.00
Purchase	04/15/2023	31846V203	3,359.38	First American Govt Obligation Fund Class Y	1.000	4.32%	3,359.38	0.00	3,359.38	0.00
Purchase	04/16/2023	31846V203	140.63	First American Govt Obligation Fund Class Y	1.000	4.32%	140.63	0.00	140.63	0.00
Purchase	04/17/2023	31846V203	9,974.07	First American Govt Obligation Fund Class Y	1.000	4.32%	9,974.07	0.00	9,974.07	0.00
Purchase	04/17/2023	31846V203	266.33	First American Govt Obligation Fund Class Y	1.000	4.32%	266.33	0.00	266.33	0.00
Purchase	04/17/2023	31846V203	955.17	First American Govt Obligation Fund Class Y	1.000	4.32%	955.17	0.00	955.17	0.00

**Mammoth Community Water District
Consolidated**

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	04/17/2023	31846V203	657.46	First American Govt Obligation Fund Class Y	1.000	4.32%	657.46	0.00	657.46	0.00
Purchase	04/17/2023	31846V203	296.08	First American Govt Obligation Fund Class Y	1.000	4.32%	296.08	0.00	296.08	0.00
Purchase	04/17/2023	31846V203	611.49	First American Govt Obligation Fund Class Y	1.000	4.32%	611.49	0.00	611.49	0.00
Purchase	04/17/2023	31846V203	187.50	First American Govt Obligation Fund Class Y	1.000	4.32%	187.50	0.00	187.50	0.00
Purchase	04/17/2023	31846V203	264.22	First American Govt Obligation Fund Class Y	1.000	4.32%	264.22	0.00	264.22	0.00
Purchase	04/17/2023	31846V203	202.69	First American Govt Obligation Fund Class Y	1.000	4.32%	202.69	0.00	202.69	0.00
Purchase	04/17/2023	31846V203	238.30	First American Govt Obligation Fund Class Y	1.000	4.32%	238.30	0.00	238.30	0.00
Purchase	04/17/2023	31846V203	444.76	First American Govt Obligation Fund Class Y	1.000	4.32%	444.76	0.00	444.76	0.00
Purchase	04/17/2023	31846V203	4,377.30	First American Govt Obligation Fund Class Y	1.000	4.32%	4,377.30	0.00	4,377.30	0.00
Purchase	04/17/2023	31846V203	3,073.42	First American Govt Obligation Fund Class Y	1.000	4.32%	3,073.42	0.00	3,073.42	0.00
Purchase	04/18/2023	31846V203	5,120.18	First American Govt Obligation Fund Class Y	1.000	4.32%	5,120.18	0.00	5,120.18	0.00
Purchase	04/18/2023	31846V203	3,984.27	First American Govt Obligation Fund Class Y	1.000	4.32%	3,984.27	0.00	3,984.27	0.00
Purchase	04/20/2023	31846V203	248.00	First American Govt Obligation Fund Class Y	1.000	4.32%	248.00	0.00	248.00	0.00
Purchase	04/20/2023	31846V203	21,499.77	First American Govt Obligation Fund Class Y	1.000	4.32%	21,499.77	0.00	21,499.77	0.00
Purchase	04/20/2023	31846V203	13,101.93	First American Govt Obligation Fund Class Y	1.000	4.32%	13,101.93	0.00	13,101.93	0.00
Purchase	04/21/2023	31846V203	121.00	First American Govt Obligation Fund Class Y	1.000	4.32%	121.00	0.00	121.00	0.00

**Mammoth Community Water District
Consolidated**

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	04/21/2023	31846V203	4,916.51	First American Govt Obligation Fund Class Y	1.000	4.32%	4,916.51	0.00	4,916.51	0.00
Purchase	04/22/2023	31846V203	157.80	First American Govt Obligation Fund Class Y	1.000	4.32%	157.80	0.00	157.80	0.00
Purchase	04/22/2023	31846V203	789.00	First American Govt Obligation Fund Class Y	1.000	4.32%	789.00	0.00	789.00	0.00
Purchase	04/25/2023	31846V203	348.65	First American Govt Obligation Fund Class Y	1.000	4.32%	348.65	0.00	348.65	0.00
Purchase	04/25/2023	31846V203	715.00	First American Govt Obligation Fund Class Y	1.000	4.32%	715.00	0.00	715.00	0.00
Purchase	04/25/2023	31846V203	938.41	First American Govt Obligation Fund Class Y	1.000	4.32%	938.41	0.00	938.41	0.00
Purchase	04/25/2023	31846V203	767.88	First American Govt Obligation Fund Class Y	1.000	4.32%	767.88	0.00	767.88	0.00
Purchase	04/25/2023	31846V203	440.68	First American Govt Obligation Fund Class Y	1.000	4.32%	440.68	0.00	440.68	0.00
Purchase	04/25/2023	31846V203	337.92	First American Govt Obligation Fund Class Y	1.000	4.32%	337.92	0.00	337.92	0.00
Purchase	04/25/2023	31846V203	369.97	First American Govt Obligation Fund Class Y	1.000	4.32%	369.97	0.00	369.97	0.00
Purchase	04/25/2023	31846V203	180.58	First American Govt Obligation Fund Class Y	1.000	4.32%	180.58	0.00	180.58	0.00
Purchase	04/25/2023	31846V203	564.78	First American Govt Obligation Fund Class Y	1.000	4.32%	564.78	0.00	564.78	0.00
Purchase	04/25/2023	31846V203	417.31	First American Govt Obligation Fund Class Y	1.000	4.32%	417.31	0.00	417.31	0.00
Purchase	04/25/2023	31846V203	691.03	First American Govt Obligation Fund Class Y	1.000	4.32%	691.03	0.00	691.03	0.00
Purchase	04/27/2023	912797FP7	1,200,000.00	US Treasury Bill 4.83% Due 6/20/2023	99.276	4.93%	1,191,306.00	0.00	1,191,306.00	0.00
Purchase	04/28/2023	3130AV4X7	135,000.00	FHLB Note 4.375% Due 3/11/2033	102.137	4.11%	137,884.95	1,000.78	138,885.73	0.00

Transaction Ledger
 As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	04/28/2023	3133EPGW9	300,000.00	FFCB Note 3.875% Due 4/25/2028	100.687	3.72%	302,061.00	96.88	302,157.88	0.00
Purchase	04/28/2023	31846V203	1,000.00	First American Govt Obligation Fund Class Y	1.000	4.42%	1,000.00	0.00	1,000.00	0.00
Purchase	04/28/2023	9128283W8	320,000.00	US Treasury Note 2.75% Due 2/15/2028	96.297	3.60%	308,150.00	1,750.28	309,900.28	0.00
Purchase	04/30/2023	31846V203	500.00	First American Govt Obligation Fund Class Y	1.000	4.42%	500.00	0.00	500.00	0.00
Purchase	04/30/2023	31846V203	700.00	First American Govt Obligation Fund Class Y	1.000	4.42%	700.00	0.00	700.00	0.00
Purchase	04/30/2023	31846V203	3,000.00	First American Govt Obligation Fund Class Y	1.000	4.42%	3,000.00	0.00	3,000.00	0.00
Subtotal			3,528,464.48				3,512,858.62	2,847.94	3,515,706.56	0.00
Short Sale	04/12/2023	31846V203	-79,992.19	First American Govt Obligation Fund Class Y	1.000		-79,992.19	0.00	-79,992.19	0.00
Subtotal			-79,992.19				-79,992.19	0.00	-79,992.19	0.00
TOTAL ACQUISITIONS			3,448,472.29				3,432,866.43	2,847.94	3,435,714.37	0.00
DISPOSITIONS										
Closing Purchase	04/12/2023	31846V203	-79,992.19	First American Govt Obligation Fund Class Y	1.000		-79,992.19	0.00	-79,992.19	0.00
Subtotal			-79,992.19				-79,992.19	0.00	-79,992.19	0.00
Sale	04/06/2023	3137EAENS	75,000.00	FHLMC Note 2.75% Due 6/19/2023	99.532	5.04%	74,649.00	613.02	75,262.02	-326.88
Sale	04/12/2023	31846V203	79,992.19	First American Govt Obligation Fund Class Y	1.000	4.32%	79,992.19	0.00	79,992.19	0.00
Sale	04/27/2023	31846V203	1,191,306.00	First American Govt Obligation Fund Class Y	1.000	4.42%	1,191,306.00	0.00	1,191,306.00	0.00
Sale	04/28/2023	3130A9YY1	255,000.00	FHLB Note 2.125% Due 12/11/2026	94.218	3.85%	240,255.90	2,062.14	242,318.04	1,530.72

Mammoth Community Water District
Consolidated

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
DISPOSITIONS										
Sale	04/28/2023	31846V203	18,954.28	First American Govt Obligation Fund Class Y	1.000	4.42%	18,954.28	0.00	18,954.28	0.00
Sale	04/28/2023	31846V203	42,813.11	First American Govt Obligation Fund Class Y	1.000	4.42%	42,813.11	0.00	42,813.11	0.00
Sale	04/28/2023	912828Z A7	350,000.00	US Treasury Note 1.5% Due 8/15/2026	93.109	3.74%	325,882.81	1,044.20	326,927.01	4,666.71
Sale	04/28/2023	91282CE F4	125,000.00	US Treasury Note 2.5% Due 3/31/2027	95.754	3.67%	119,692.38	239.07	119,931.45	-150.48
Subtotal			2,138,065.58				2,093,545.67	3,958.43	2,097,504.10	5,720.07
Paydown	04/12/2023	36198FA E2	0.00	GS Mortgage Securities Trust 2013-GC14 A5 4.243% Due 8/10/2046	100.000		0.00	707.17	707.17	0.00
Paydown	04/17/2023	02582J R2	0.00	American Express 2021-1 A 0.9% Due 11/15/2026	100.000		0.00	187.50	187.50	0.00
Paydown	04/17/2023	3128MEM N8	232.40	FHLMC FG G15565 3% Due 10/1/2030	100.000		232.40	31.82	264.22	0.00
Paydown	04/17/2023	31307PE F2	175.04	FHLMC FG J32834 2.5% Due 9/1/2030	100.000		175.04	27.65	202.69	0.00
Paydown	04/17/2023	31307PN B1	199.13	FHLMC FG J33086 3% Due 11/1/2030	100.000		199.13	39.17	238.30	0.00
Paydown	04/17/2023	3132KFB Z4	403.11	FHLMC FG V60956 2.5% Due 9/1/2030	100.000		403.11	41.65	444.76	0.00
Paydown	04/17/2023	44891RA C4	4,364.00	Hyundai Auto Receivables Trust 2020-C A3 0.38% Due 5/15/2025	100.000		4,364.00	13.30	4,377.30	0.00
Paydown	04/17/2023	47800AA C4	0.00	John Deere Owner Trust 2022-B A3 3.74% Due 2/16/2027	100.000		0.00	296.08	296.08	0.00
Paydown	04/17/2023	47800BA C2	0.00	John Deere Owner Trust 2022-C A3 5.09% Due 6/15/2027	100.000		0.00	657.46	657.46	0.00
Paydown	04/17/2023	58768PA C8	0.00	Mercedes-Benz Auto Receivables 2022-1 A3 5.21% Due 8/16/2027	100.000		0.00	955.17	955.17	0.00

Mammoth Community Water District
Consolidated

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
DISPOSITIONS										
Paydown	04/17/2023	61762MBW0	0.00	Morgan Stanley BAML Trust 2013-C10 A4Due 7/15/2046	100.000		0.00	611.49	611.49	0.00
Paydown	04/17/2023	65479JAD5	3,068.48	Nissan Auto Receivables Owner 2019-C A3 1.93% Due 7/15/2024	100.000		3,068.48	4.94	3,073.42	0.00
Paydown	04/17/2023	89231CAD9	0.00	Toyota Auto Receivables Owner 2022-C A3 3.76% Due 4/15/2027	100.000		0.00	266.33	266.33	0.00
Paydown	04/17/2023	89240BAC2	9,950.58	Toyota Auto Receivables Owners 2021-A A3 0.26% Due 5/15/2025	100.000		9,950.58	23.49	9,974.07	0.00
Paydown	04/18/2023	43813KAC6	3,974.88	Honda Auto Receivables Trust 2020-3 A3 0.37% Due 10/18/2024	100.000		3,974.88	9.39	3,984.27	0.00
Paydown	04/18/2023	61762MBW0	5,120.18	Morgan Stanley BAML Trust 2013-C10 A4Due 7/15/2046	100.000		5,120.18	0.00	5,120.18	0.00
Paydown	04/20/2023	36262XAC8	21,434.62	GM Financial Auto Lease Trust 2021-3 A2 0.39% Due 10/21/2024	100.000		21,434.62	65.15	21,499.77	0.00
Paydown	04/20/2023	92290BAA9	13,078.74	Verizon Owner Trust 2020-B A 0.47% Due 2/20/2025	100.000		13,078.74	23.19	13,101.93	0.00
Paydown	04/20/2023	92348KAV5	0.00	Verizon Master Trust 2022-5 A1A 3.72% Due 7/20/2027	100.000		0.00	248.00	248.00	0.00
Paydown	04/21/2023	43813GAC5	4,904.77	Honda Auto Receivables Trust 2021-1 A3 0.27% Due 4/21/2025	100.000		4,904.77	11.74	4,916.51	0.00
Paydown	04/21/2023	43815GAC3	0.00	Honda Auto Receivables Trust 2021-4 A3 0.88% Due 1/21/2026	100.000		0.00	121.00	121.00	0.00
Paydown	04/25/2023	3137B3NX2	0.00	FHLMC K031 A2Due 4/25/2023	100.000		0.00	348.65	348.65	0.00
Paydown	04/25/2023	3137BSRE5	0.00	FHLMC K059 A2 3.12% Due 9/25/2026	100.000		0.00	715.00	715.00	0.00
Paydown	04/25/2023	3137BWWD2	330.60	FHLMC K725 A2 3.002% Due 1/25/2024	100.000		330.60	607.81	938.41	0.00

Mammoth Community Water District
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Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
DISPOSITIONS										
Paydown	04/25/2023	3137FBTA4	272.40	FHLMC K278 A2 3.064% Due 8/25/2024	100.000		272.40	495.48	767.88	0.00
Paydown	04/25/2023	3138ETA55	405.29	FNMA FN AL8127 2% Due 1/1/2031	100.000		405.29	35.39	440.68	0.00
Paydown	04/25/2023	3138WE3R8	301.70	FNMA FN AS5307 3% Due 7/1/2030	100.000		301.70	36.22	337.92	0.00
Paydown	04/25/2023	3138WE5U9	330.49	FNMA FN AS5358 3% Due 7/1/2030	100.000		330.49	39.48	369.97	0.00
Paydown	04/25/2023	3138YDAS8	157.51	FNMA FN AY0016 2.5% Due 1/1/2030	100.000		157.51	23.07	180.58	0.00
Paydown	04/25/2023	3138YR6T0	521.01	FNMA FN AZ0881 2.5% Due 7/1/2030	100.000		521.01	43.77	564.78	0.00
Paydown	04/25/2023	3138YTM78	380.26	FNMA FN AZ2169 2.5% Due 7/1/2030	100.000		380.26	37.05	417.31	0.00
Paydown	04/25/2023	31418BLL8	619.58	FNMA FN MA2130 3.5% Due 12/1/2029	100.000		619.58	71.45	691.03	0.00
Subtotal			70,224.77				70,224.77	6,795.06	77,019.83	0.00
Maturity	04/06/2023	89236TJD8	325,000.00	Toyota Motor Credit Corp Note 0.4% Due 4/6/2023	100.000		325,000.00	0.00	325,000.00	0.00
Maturity	04/06/2023	912796YN3	700,000.00	US Treasury Bill 4.467% Due 4/6/2023	100.000		700,000.00	0.00	700,000.00	0.00
Maturity	04/13/2023	912796YU7	300,000.00	US Treasury Bill 4.591% Due 4/13/2023	100.000		300,000.00	0.00	300,000.00	0.00
Subtotal			1,325,000.00				1,325,000.00	0.00	1,325,000.00	0.00
Security Withdrawal	04/13/2023	31846V203	300,000.00	First American Govt Obligation Fund Class Y	1.000		300,000.00	0.00	300,000.00	0.00
Security Withdrawal	04/17/2023	31846V203	2,370.56	First American Govt Obligation Fund Class Y	1.000		2,370.56	0.00	2,370.56	0.00

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
DISPOSITIONS										
Security Withdrawal	04/26/2023	31846V203	235.72	First American Govt Obligation Fund Class Y	1.000		235.72	0.00	235.72	0.00
Subtotal			302,606.28				302,606.28	0.00	302,606.28	0.00
TOTAL DISPOSITIONS			3,755,904.44				3,711,384.53	10,753.49	3,722,138.02	5,720.07
OTHER TRANSACTIONS										
Interest	04/06/2023	89236TJD8	325,000.00	Toyota Motor Credit Corp Note 0.4% Due 4/6/2023	0.000		650.00	0.00	650.00	0.00
Interest	04/12/2023	3133ENUJ7	40,000.00	FFCB Note 2.9% Due 4/12/2032	0.000		580.00	0.00	580.00	0.00
Interest	04/15/2023	91282CDB4	235,000.00	US Treasury Note 0.625% Due 10/15/2024	0.000		734.38	0.00	734.38	0.00
Interest	04/15/2023	91282CEH0	200,000.00	US Treasury Note 2.625% Due 4/15/2025	0.000		2,625.00	0.00	2,625.00	0.00
Interest	04/16/2023	3137EAEV1	225,000.00	FHLMC Note 0.125% Due 10/16/2023	0.000		140.63	0.00	140.63	0.00
Interest	04/22/2023	46647PCB0	20,000.00	JP Morgan Chase & Co Callable Note Cont 4/22/2026 1.578% Due 4/22/2027	0.000		157.80	0.00	157.80	0.00
Interest	04/22/2023	46647PCB0	100,000.00	JP Morgan Chase & Co Callable Note Cont 4/22/2026 1.578% Due 4/22/2027	0.000		789.00	0.00	789.00	0.00
Interest	04/28/2023	459058JL8	400,000.00	Intl. Bank Recon & Development Note 0.5% Due 10/28/2025	0.000		1,000.00	0.00	1,000.00	0.00
Interest	04/30/2023	91282CAT8	400,000.00	US Treasury Note 0.25% Due 10/31/2025	0.000		500.00	0.00	500.00	0.00
Interest	04/30/2023	91282CFT3	150,000.00	US Treasury Note 4% Due 10/31/2029	0.000		3,000.00	0.00	3,000.00	0.00

Mammoth Community Water District
Consolidated

Account #10988

Transaction Ledger

As of April 30, 2023



Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
OTHER TRANSACTIONS										
Interest	04/30/2023	91282CFT3	35,000.00	US Treasury Note 4% Due 10/31/2029	0.000		700.00	0.00	700.00	0.00
Subtotal			2,130,000.00				10,876.81	0.00	10,876.81	0.00
Dividend	04/03/2023	31846V203	4,490.65	First American Govt Obligation Fund Class Y	0.000		103.48	0.00	103.48	0.00
Dividend	04/03/2023	31846V203	24,726.49	First American Govt Obligation Fund Class Y	0.000		569.77	0.00	569.77	0.00
Dividend	04/03/2023	31846V203	17,606.91	First American Govt Obligation Fund Class Y	0.000		405.72	0.00	405.72	0.00
Dividend	04/03/2023	31846V203	183,433.34	First American Govt Obligation Fund Class Y	0.000		4,226.85	0.00	4,226.85	0.00
Subtotal			230,257.39				5,305.82	0.00	5,305.82	0.00
TOTAL OTHER TRANSACTIONS			2,360,257.39				16,182.63	0.00	16,182.63	0.00

District Projects

- **Tank T-8 (Forest Trail) Replacement Project** – This project has been pushed up because Tank T-8 structurally failed under excessive snow loads. Tank T-8 is on Inyo National Forest land and any work will require coordination with the Forest Service. Staff are starting work on water modeling, engineering, permitting, and cost estimating. This project will be constructed this construction season (FY 2024).
- **Equalization Pump Building Roof Replacement** – This project is new. Unfortunately, the existing roof structurally failed under excessive snow loads. Staff is starting work on engineering and cost estimating. This project will be constructed this construction season (FY 2024).
- **10-Year Capital Improvement Program (CIP) Update** – This long-term project is a high priority for 2023. The following sub-projects support this effort:
 - **Water System Modeling Update** – This project is on pause until staff resources are available. The 2021 water meter data has been processed and prepared for use as input into the water and sewer models. Water tank and pressure reducing valves have been imported into the model. GIS line work clean-up is ongoing prior to importing hydrants and drawing lines in the model. Staff is having ongoing meetings with ESRI staff to work on optimizing processes and the future migration to ArcGIS Pro.
 - **Wastewater Collection System Modeling Update** – This project involves updating the wastewater collection system model for use in evaluating wastewater capacities and capital improvement planning. Slopes have been gathered and invert elevations have been calculated for the 30% model boundary. Sewersheds have been defined to assist calculations of sewer flow into the model at various junctions. Water meter data is being used to approximate flows within the sewersheds to estimate each load input into the sewer system. A sewer flow meter will be used to collect sewer flow measurements at key points within the system to calibrate the sewer model. The goal for delivery of a “30% complete” model is May 2023. This corresponds with a planned upgrade to new ICM sewer modeling software that will be used for further build-out of the model.
 - **Asset Management**
 - **Well Asset Management Program** – Four bids were received for this work. The low bidder was Your H2O Pro and they are being awarded the contract. The cost is within budget. Three well rehabs will be performed during summer of 2023 – Wells 10, 15, and 17. The work includes replacing motors, pumps, column pipe if needed, sounding tubes, and performing video surveys of the wells. Well 10 has been added as a motor replacement only as this motor failed in February of 2023. The new design and settings for Well 15 are expected to allow it to produce an additional 200 gpm more than it has been producing in recent years. This project is part of the long-term Well Asset Management Program. The purpose of the program is to plan well maintenance and replacement to optimize life-cycle costs.
 - **Tank Asset Management Program** – The previously scheduled tank coating rehab work on Tanks T-2 (Juniper) and/or T-7 (Bluffs) the Lake Mary Treatment Plant backwash tank will be postponed to allow staff to focus on the Tank T-8 emergency replacement project. The

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purpose of the program is to plan tank maintenance and replacement to optimize life-cycle costs.

- **Seismic/Snow Load Review and Retrofit Analysis** – This is a new project. It involves hiring a structural engineering consultant to evaluate the ability of essential infrastructure to withstand seismic and snow load structural loads and identifying and prioritizing projects to retrofit or update infrastructure to reduce risk.
- **Well 32 Production Well Start-up** – The remaining electrical work (providing power to site, transformer, and meter pad) is being scheduled with SCE. The final easement from Snowcreek has been signed and will be recorded as soon as the Snowcreek VIII Final Tract map is recorded. When the electrical service is on, staff will finalize the paperwork to add Well 32 as a drinking water source to our permit with the Department of Drinking Water.
- **2023 Construction Crew Projects** – Engineering staff has completed plans and obtained an encroachment permit from the Town for the following 2023-24 CIP water distribution system improvement projects:
 - Snowcreek Crest Laterals (Phase 2)
 - Valley Vista lateral and meter pit upgrades
 - Woodlands Condos meter pit upgrades
- **The Parcel Relief Main** – This project will connect a trunk main in Dorrance Drive to Center Street via new sewer across The Parcel. The properties involved have been surveyed, the plans have been prepared, and materials are being specified and ordered. Easements have been negotiated with the private property owner and the Town and documents are being finalized. The project is planned to be constructed by in-house crews starting in July.
- **Center Street/Highway 203 Sewer Upgrade** – This project involves upsizing a trunk sewer from Center Street out into Highway 203. Staff has re-designed the project to allow the existing asbestos cement pipe to remain in service and minimize the need to divert sewer flows and has updated the traffic control plan and obtained a Caltrans encroachment permit for the work in Highway 203. The project is planned to be constructed by in-house crews after Labor Day.
- **Administration Building HVAC/Energy Efficiency Upgrades** – Nothing new to report. The administration building pre-dates modern building codes requiring energy efficient construction and HVAC systems. Staff proposes that we evaluate the existing building to identify opportunities for improved energy efficiency (insulation, windows, HVAC upgrades, etc.) and develop alternatives with the shortest payback period. A ground-source heat pump system may be a good solution because the District has strong capital reserves and will serve the community long-term.

Department Activities

- **Project Management Training and Procurement Flow Chart** – Engineering is working with the General Manager's office on a one-page guide to clarify and standardize the processes, documents, roles and responsibilities for managing projects at the District. The goal is to increase communication between team members and facilitate efficient delivery of projects whether they are performed in-house or by outside contractors.

- **Waste Discharge Requirements (WDRs)** – Staff met with Lahontan in April to discuss a proposed groundwater/basin plan amendment study scope that was prepared and submitted to Lahontan for review in 2022. There has been significant turnover of Lahontan staff involved in our permit and the meeting focused on the purpose and design of the four new monitoring wells that the District installed around Laurel Pond in 2021. Lahontan staff is asserting that the well screens are generally too deep beneath the water table to provide adequate water quality data for compliance purposes. Following the meeting, staff researched the specifications and correspondence and contacted Mike Blazevic, former hydrogeologist with Wildermuth Environmental. It appears that two of the four wells may require a second well with a shallower screen construction. Staff is working with Lahontan on next steps and still hopes to get concurrence to move forward with the basin plan amendment study to define site-specific water quality beneficial uses for Laurel Pond.
- **Groundwater Sampling, Modeling, and Reporting**
 - **Ormat CD IV Geothermal Monitoring and Response Plan (GMRP)** – The GMRP group issued a Request for Proposals to select a consultant to perform long-term groundwater sampling and analysis. McGinley & Associates of Reno, NV was chosen as the new monitoring entity. The next steps are to finalize contracts with McGinley and Ormat making MCWD a “pass-through” agency to support this effort. Also, a similar RFP process will be completed to select a third-party technical advisor to perform unbiased, high-level analysis of the data. As part of the transition away from USGS sampling, the USGS is transferring ownership of a shallow monitoring well along Sherwin Creek Road (SC-2) to MCWD.
 - **Annual Groundwater Report to California Department of Fish and Wildlife (the Ken Schmidt Report)** – This is an ongoing task resulting from a settlement with CDFW related to well drilling. The paper report format and process is outdated. This year Engineering will work with Operations to reach out to CDFW to modernize our approach and delivery methods.
- **Recycled Water Program –**
 - **Golf Course Irrigation** – Snowcreek has announced that they do not plan to open the golf course for play in 2023. This is likely because they plan to move forward with grading and infrastructure for Phase 1 of Snowcreek VIII which will construct condos on land where the current front office, parking, golf cart parking sit. The existing recycled water irrigation system will need to be modified for the new development. Staff have requested plans for these modifications.
 - **Permitting** – For more information on recycled water permitting, see May’s agenda item C-3. This will repeal and supersede the sewer code sections that govern the recycled water program.
- **Re-evaluate Supply and Potential Uses** – Staff will continue to evaluate whether there is enough supply for the current golf course irrigation at Sierra Star (18 holes) and Snowcreek (9-holes), another 9-hole golf course at Snowcreek VIII, the sports fields at Shady Rest Park, expanded trucked recycled water outside of District boundaries, and enough effluent to Laurel Pond to maintain an 18-acre size.
 - Another interesting development related to recycled water is that Alterra is proposing to construct a tertiary wastewater treatment plant as part of their Mammoth Main Base Redevelopment project. Their preliminary plan is to pump treated wastewater effluent to the lined reservoir at McCoy Station and distribute it for snowmaking, firefighting, and other uses from there. The Soda

Springs Ski Resort near Donner Pass in Nevada County is the only location in California currently permitted to use recycled water for snowmaking. It may be technically feasible for MCWD to provide Alterra recycled water for snowmaking purposes in the future. However, MCWD's recycled water program EIR did not evaluate the use of recycled water for snowmaking and would need to be updated if there is a desire to expand to serve snowmaking uses. Snowmaking demands generally occur in the fall after irrigation season has ended, so essentially the entire supply of recycled water could be used for snowmaking during that time of year. Laurel Pond would still need to be maintained at a minimum size of eighteen acres.

- **Out-of-District (OOD) Service Agreements –**

- **Process, Policy, and Code Provisions –** Nothing new to report. MCWD Code could use updating in this area and staff is working with General Counsel on a potential Code update and new policy/procedure. Ideally, these updates would be made prior to the upcoming request for extension of service to Sierra Meadows Ranch, which the developer is planning for in 2023. The concept is to have a standard agreement for existing OOD customers that will be distributed on, or with, regular utility billing invoices. There will be a separate process for new or extension of OOD service. It will also include policy on how to address emergency/short term service.
- **LAFCO Municipal Services Review (MSR) and Sphere of Influence Recommendation –** LAFCO has prepared a draft updated MSR for MCWD and has submitted it for review. The previous MSR was prepared in 2010 and the update requires a significant amount of new information on MCWD services, budgets, etc. Engineering staff will coordinate with RSD and others on the review. The Sphere of Influence Recommendation may influence future policy decisions related to water and sewer service for the Mammoth Main Redevelopment Project.
- **Mammoth Main Redevelopment –** Staff met with Town planners, engineers, and consultants regarding MCWD's comments on the joint CEQA/NEPA scoping documents that were submitted in December. The project proposal only includes the new package sewer treatment plant alternative. MCWD comments pointed out that an alternative involving conveyance to MCWD is feasible and reasonable and should be analyzed. Town staff is considering whether an alternative involving MCWD should be analyzed. The joint CEQA/NEPA document is expected to take at least two years. Brent Calloway, the new Mono LAFCO Director, is learning about the situation and the likelihood that it will come to LAFCO at some point.
- **Chair 4 Restrooms Sewer –** Nothing new to report. This OOD connection will receive a standard agreement on, or with, their regular utility billing invoices. General Counsel is working on this. Finance is working to clean up billing on this account. Alterra is planning to construct a permanent restaurant concession in the future and this account will be revisited at that time.
- **Sierra Meadows Ranch –** Nothing new to report. General Counsel drafted a letter explaining the existing, and continued, water and sewer service to the Forest Service which should help the new owners obtain an updated 20-year lease for the existing facilities. When the new owners formally submit their plan for expansion a new out-of-district service agreement will be required at that time.
- **Lakes Basin Cabins –** Nothing new to report. These OOD customers will receive a standard agreement on, or with, their regular utility billing invoices. General Counsel is working on this.

- **Well Site Acquisition and Exploration Plan –**

- **The Town of Mammoth Lakes’ “Bell Shaped Parcel”** – Nothing new to report. This alternative came up recently and may be a feasible area for exploration because of its proximity to the raw water line serving Groundwater Treatment Plant 2.
- **Alterra/Dry Creek** – Nothing new to report. The MMSA Main Lodge Redevelopment project is dependent on significant additional water resources from the Dry Creek groundwater basin. However, their scoping documents say that no new wells are required in addition to the two replacement wells that were drilled and pump tested in summer 2022. There will be more analysis in the CEQA/NEPA process.
- **Alterra/Sierra Star Golf Course** – Nothing new to report. Alterra has budgeted to update their Eagle Lodge building plans in 2022 and is tentatively planning for construction in 2023 or 2024. Alterra still needs the land at Well 16 for this project and remains willing to negotiate for additional well sites adjacent to Sierra Star.
- **Snowcreek VIII** – Nothing new to report. Replacement well sites for Wells 6 and 10 and additional well sites will be explored when development plans progress. The previous District Engineer believed the Snowcreek VIII area was not a good location for production wells but the available data is being re-evaluated to understand why.
- **Inyo National Forest Well #11** – Nothing new to report. This well at the base of the Sherwin’s near Hidden Lake was pump tested in 2011 and determined to be a viable site to drill a production well with little influence on other nearby wells. The site has challenges related to it being on Forest Service land. With the passing of time, and staff turnover, we are re-evaluating it as an alternative. The Town is pushing for multi-use trails in the area and there is a potential to coordinate well access.

- **Inyo National Forest Permitting and Coordination –**

- **Laurel Pond Memorandum of Agreement (MOA)** – Nothing new to report. The draft MOA is still undergoing Forest Service review.
- **Master Use Permit Updates** – Staff is working with the INF to add monitoring well SC-2 to our permit and explicitly add access to Well #11.
- **Lake Mary Dam Spillway** – Nothing new to report. INF and Bureau of Reclamation staff met with Operations staff to look at the spillway in July. The Inyo National Forest is working on an updated Grainger-Thye permit which would replace the existing active permit that allows MCWD to operate the Langeman gate on Lake Mary for water storage. The dam is owned by the Forest Service. The Forest Service is working with the Bureau of Reclamation on a potential project to construct a spillway that meets USFS standards as identified in their recent Dam Hazard Analysis.

- **MCWD Code Overhaul** – Nothing new to report. A significant MCWD Code overhaul is underway. Engineering staff will need to engage in the process, especially for Chapter 11 (Sewer Code) and Chapter 12 (Water Code). Engineering Department fees need to be updated for permit applications, reviews, and inspections.

- **USGS-Proposed Communications Tower and Lease** – Nothing new to report. A two-year lease extension was signed for the existing facilities. USGS staff is working to further develop plans and specifications for the new 60' communications tower project.
- **AmeriGas Juniper Tank Lease Amendment** – The existing lease has expired and the General Manager's office has noticed AmeriGas corporate. It is not clear if AmeriGas is still interested in this change. The project also requires approval from the Forest Service for the planned propane main connection in the Chair 15/Eagle ski run.

Permits

- **Snowcreek VII Phases 1, 2, and 3** – Nothing new to report. Staff is working with the developer on Transfer Agreements, bonds, easements, inspections, and Connection Permits for the next round of buildings. Staff is also working with the developer on Construction Permit close out (punch lists, easements, inspections, transferring infrastructure, etc.). Landscape irrigation has been installed without MCWD permits and there are issues with metering and, potentially, improper cross-connections. Staff is working with Snowcreek to resolve the issues.
- **Limelight Hotel and Geothermal Project** –
 - **Hotel Connection Permit** – Plans are approved and the Connection Permit is ready to issue as soon as "for construction" plans are submitted that have been approved by the Town Building Department.
 - **Geothermal Project** – The architect has stated that the geothermal project has been delayed and will be completed in a future phase. Staff is reaching out to Limelight to get an update. Per the signed Letter of Intent with Aspen Ski Company (ASC), a cooperating agreement and GMRP needs to be finalized that will ensure that potential impacts to the drinking water aquifer from this project are identified and mitigated. ASC has agreed to drill a monitoring well on-site which will require a MCWD well drilling permit. The cooperating agreement, GMRP, and well drilling permit will be brought to the Board for consideration at a future meeting.
- **Residence Inn by Marriott on Berner Street** – A building permit application for this new 101-room hotel was submitted to the Town in January.
- **Highmark Hotel (Sierra Center Mall)** – Nothing new to report. The applicant has applied for a demolition/core and shell permit from the Town and a Construction Permit for off-site sewer improvements. Staff worked with the developer's design team to evaluate alternatives for sewer service. The engineering evaluation determined that connecting to newly-constructed sewer in Old Mammoth Road is the best alternative because it avoids a lift station and additional costs. The Old Mammoth trunk line downstream has limited capacity and this project will increase the peak flows by about 5%. However, this is an infill project that has drained to Old Mammoth trunk line since its original construction.
- **Alterra Woolly's Tube Park and Maintenance Garage** – Plans have been submitted for the permanent day lodge and construction is expected to start when the site is clear of snow. Construction is expected to take twelve months. The temporary restrooms that were installed last fall are expected to remain in service through winter 2024. Staff is also working with MMSA to correct the deficiencies identified on our site visit of the maintenance garage. Specifically, the floor drains in the heavy equipment mechanic areas are

currently connected to the sanitary sewer. This is not allowed, and we are working with MMSA to correctly dispose of their industrial waste.

- **Snowcreek VIII** – At full build-out the project will provide up to 790 dwelling units, a 400-room hotel, retail, and an additional 9-hole golf course with a practice facility.
 - **Final Map TM-09-002** – This Tract Map was approved by the Town’s Planning and Economic Development Commission (PEDC) on April 12th and divides the property into parcels for future development in phases.
 - **TTM 22-004 Phase 1** – A Tentative Tract Map for Phase 1 has been submitted to the Town and the developer is pushing to have it scheduled for PEDC approval soon. Phase 1 of this project involves construction of 160 for sale condominium units in 39 3- and 4-plex buildings. The first phase will include the realignment of Fairway Drive from 150’ south of Old Mammoth Road to the Snowcreek V north property line and the construction of the east entrance to Snowcreek VIII. These changes require significant re-routing of existing sewer mains serving Snowcreek V and Snowcreek VI.
 - **Water and Sewer Infrastructure Design, Permitting, and Transfer Agreement** – The developer submitted conceptual plans in the first week of November 2022. The developer’s engineer has requested feedback on high-level design concepts, but plans have not been submitted for review. The developer wants to start construction as soon as the snow melts and will likely want an expedited plan review.
 - **Mono County Property Tax Share Agreement** – The Mono County Board of Supervisors formed an ad-hoc committee to review our proposal. They expect they may be ready to meet with MCWD staff towards the end of May or early June.
 - **Recycled Water Agreement Amendment** – Nothing new to report. The District’s obligation to supply recycled water to the additional 9-hole golf course and common area landscaping at Snowcreek VIII has expired and needs to be reviewed and potentially re-negotiated.
 - **Potential New Well Sites** – Nothing new to report. We are discussing sites to drill replacements for Wells 6 and 10.
- **The Parcel** – This is one of the few projects in Town where interior work has continued this winter. The developer, Pacific is well underway with the construction of Phase 1 (the first 80 units in two buildings plus a child care facility). The project is being constructed using a modular system with modules that are fabricated in an Idaho factory. Phase one is expected to be complete and occupied later in 2023.
- **VTPM 10-001 Plum/Tamarack** – The developer has submitted a complete application to final this Vesting Tentative Parcel Map located at the end of Tamarack Street. The map was first approved in 2012 and was set to expire in 2023 but the clock has been stopped now that a complete application has been submitted. Water and sewer infrastructure will need to be constructed under a construction permit and access easements need to be granted.
- **Sierra Nevada Resort Redevelopment Phase 1 (Cabins)** – Nothing new to report. The project consists of construction of approximately 32 “cabin” hotel rooms on the previous site of Jimmy’s Taverna/Red Dragon Restaurants. Permits have been issued and Engineering staff is working on inspecting the work.

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- **Mammoth Hospital North Wing** – Nothing new to report. The hospital is planning an expansion that will require expanded water and sewer service. Staff is performing significant research of existing conditions to support the design.
- **Access Apartments (MLH)** – Nothing new to report. Mammoth Lakes Housing is renovating two (2) existing commercial buildings into an 11-unit affordable housing complex. The agreement allowing MCWD connection fees to be delayed was signed and the permit has been issued.
- **Mammoth Disposal** – With the closure of Benton Crossing Landfill at the end of 2022, Mammoth Disposal is now using their new long-haul transfer facilities in the Industrial Park. The office portions of the project are not complete, and the transfer facility is operating under a Temporary Certificate of Occupancy with the permission of MCWD, the MLFD, and the Town Building Department. The front office is expected to be completed in the coming months. The Mammoth Disposal Transfer Station was permitted to accept up to 15 tons per day of municipal solid waste (MSW). The expansion to a large-volume transfer station permits up to 500 tons of MSW per day.
- **Town of Mammoth Lakes Community Recreation Center (CRC)** – Nothing new to report. The sprung structure is planned to be erected and operational later in 2023.
- **60 Joaquin Road** – Nothing new to report. The Town of Mammoth Lakes is working on this 4-unit affordable housing project. The plan is to develop it as a Planned Unit Development (PUD) and construct it using the Design-Build procurement method.
- **The Villas Phase 3 (Obsidian)** – The developer has been working on engineering for water and sewer infrastructure for this development this winter. This approved tentative tract map will add more condo units to the north of Obsidian Phase 2 (formerly Tallus). The project would connect a new water main between Dorrance Drive and Callahan Way.
- **Terra Blanca Townhomes** – Nothing new to report. This proposal would redevelop the La Sierra's property into townhomes.
- **Mammoth Creek Inn Remodel** – Nothing new to report. This hotel remodel project has seen lots of changes, red-tags, starts and stops. The TOML Building Department has initiated an enforcement action requiring project completion by spring of 2023. After then, fines will begin to accrue.
- **Mammoth View** – Nothing new to report. This project is coming back after a long silence. The latest proposal includes 19 duplex single family residence buildings (38 units) in the upper portion with vehicular ingress and egress through Viewpoint Road; as well as 14 townhome triplex units across 5 buildings fronting Alpine Circle; and 6,750SF of commercial space on the corner of Main Street and Mountain Boulevard.
- **Yotel Re-do?** – A new 100 room hotel proposal on the old Nevados site was recently submitted to the Town for preliminary review.
- **Permit Processing, Forms and Applications** – The new Tyler EnerGov Permit Software System is live. Staff continues to implement the system and work out bugs.

Executive Summary

ISD has implemented Multi Factor Authentication (MFA) across the MCWD network and continues to refine security awareness training campaigns as part of a comprehensive cybersecurity program for all staff. In addition, staff are also preparing for the final cutover to the new SCADA system after running parallel systems for the past several months. ISD also continues to work with Maintenance staff regarding the GWTP2 and Timber Ridge R450 Collector status and are pleased to report that the Timber Ridge Collector is back online and reporting AMI reads.

Hardware Systems

- *SCADA System Upgrade* – ISD and Operations have completed the server and network hardware implementation portion of the District SCADA System upgrade. MCWD is currently running parallel SCADA systems until all configuration is finalized from the old system to the new system. Staff are currently setting up reporting protocols for data. Once the new system is fully tested and stable, the older SCADA system will be de-commissioned. The system is being engineered and configured for current security recommendations.
- ISD and Maintenance continue working with Neptune Support on the health of the GWTP2 and Timber Ridge R450 Collectors. The Timber Ridge R450 collector was repaired under RMA last month and deployed back in the field at the beginning of May. Staff are pleased to report that the Timber Ridge R450 Collector is receiving and transmitting its expected number of reads again. A new R450 antenna is currently on order and awaiting delivery for the GWTP2 R450 Collector.
- Ongoing hardware support, maintenance, and updates.

Software Systems

- ISD continues to assist Engineering with MCWD Water and Sewer Modeling efforts. Engineering and ISD have met with ESRI representatives regarding further transition from a geometric network to a utility network for both models.
- EnerGov – ISD and Engineering staff are conducting bi-weekly meetings to address a list of permit process enhancement items through EnerGov. During the past month, staff updated all permit fees in EnerGov per recently adopted FY24 Master Fee Schedule and the Incode Cashiering module successfully posted an EnerGov permit credit card payment.
- Continued work with RSD staff and infraMap software for development and tracking of MCWD Backflow Program. The backflow season has begun, and 633 test due emails have been sent out to date. MCWD now has email addresses for 1,915 out of 1,976 assemblies.
- ISD has evaluated and selected a new government focused website host specializing in Brown Act and ADA requirements. ISD will begin working with the implementation team and start migrating assets soon in anticipation of an MCWD website revamp later this summer.
- ISD worked with Finance staff and Manager Plus Technical Support for customization of the Work Order Form and Labor Code calculations within Manager Plus modules for proper totalization of Work Order costs as Finance is setting up Manager Plus as a fleet management software tool. Ongoing work with Support anticipated.
- Ongoing software support, maintenance, and updates.

Administrative

- The MCWD Security and Emergency Response Committee continues to focus on potential digital and physical threats. ISD just rolled out a comprehensive cybersecurity training and awareness program and Multi-Factor Authentication (MFA) for all staff. Additional security camera equipment has been ordered and will be installed as time permits. The committee also anticipates physical repair of fencing after a significant winter season. In addition, the Maintenance staff is currently implementing a comprehensive radio communications project upgrade.
- Finalized annual service agreement with Carmichael Business Technology (CBT) for IT Support Services and VoIP Network Phone Services.
- Engineering building department managers have met to discuss floor plans and long-term space utilization in the Engineering building as it will house new employees this upcoming year. All plans have been determined and staff have begun relocating offices. The Line Maintenance staff have completed their transition from two smaller offices to one larger office. The vacated smaller offices will be prepped for new incoming staff.
- Performed email search for former Engineering employee email documentation related to current MCWD Projects per MCWD Engineering Department keyword, recipient and domain search request.
- Conducted Office 365 maintenance, distribution group and email account administration.
- Created Front Desk Administrative Analyst user account and Office 365 mailbox. PC setup will take place next month prior to the start date in July.
- ISD performed maintenance on two PCs with minor browser viruses and one PC that had a hard-drive failure that required a re-format and setup of the PC.
- ISD performed a file recovery for a mistakenly deleted file on MCWDSVR12 for Lab Staff
- Continued administration of VoIP phones, iPads, laptops.

Network and Cybersecurity

- ISD continues to develop a comprehensive cybersecurity program for all staff and implemented Multi-Factor Authentication (MFA) across the MCWD network during the past month. All MCWD staff are now required to authenticate via an external personal device before they can login to their desktop PCs. The rollout went very smooth with very little user complaints or issues thus far. This new measure adds a significant additional layer of cybersecurity for the MCWD network.
- ISD continues to refine a new security awareness training program for staff to increase cybersecurity knowledge and resources within the agency. All staff participate in regular, relevant monthly training campaigns based on current cybersecurity threats and assigned remedial training based on performance.
- Performed VoIP Phone System Maintenance by applying new passwords to all phones and latest firmware updates.
- Managing remote access client connection software and devices, administering additional machines and users as necessary for remote access.
- Network segregation, access control configuration and security planning related to SCADA upgrade project. Upcoming administrator training for user management on the new SCADA network.
- Performed Remote Workforce Client maintenance for all Finance staff with recently deployed new PCs for offsite attendance at Tyler Incode Conference in San Antonio, Texas.
- All network systems secure, no data loss or intrusions.

GIS

- Updated and added MCWD Subdivisions GIS layer to SDE and created two new Water and Sewer Modeling datasets within SDE. Created copies of MCWD Subdivisions layer and placed under new Water and Sewer modeling datasets for Engineers to create unique polygon features for each respective model.
- ISD resolved SDE geodatabase (GDB) maintenance issues working with ESRI Technical Support. ISD is now able to compress the GDB for increased performance and eliminate user locks for editing field schema within each GIS layer.
- ISD and Engineering continue work with ESRI on a training schedule for ENG/ISD staff for ArcGIS Pro architecture and courses for Utility Network migrations. The first two-day ArcGIS Pro class was completed by an Engineer and ISD employee this past month.
- ISD and Engineering staff created a new Field Maps project to use for sewer manhole elevation data collection to be used in the sewer model.
- ISD worked with Operations staff for an update and export of the latest Coliform and Groundwater Rule Monitoring Map.

MCWD Websites

- Continued maintenance and security for all MCWD web platforms: MCWD Internet, MCWD Intranet, and MCWD GIS Portal.
- Postings or updates to Internet/Facebook sites
 - Mammoth Creek Streamflow Data ending 4-30-23.
 - Posted Construction Crew and Engineering Intern Temporary Job Bulletins to Employment page and Facebook.
 - Replaced MCWD Purchase Order Terms and Conditions PDF.
 - Removed Wells 10, 15 and 17 Rehabilitation Project Request for Bids Addendum materials.
 - Removed Engineering Intern Temporary Job Bulletin.
- Postings or updates to Intranet site
 - Performed general maintenance, updated Department Pages, Staff Schedule, and Phone Contact List.

Administration

- Continuous and ongoing activities associated with day-to-day administration, including but not limited to:
 - Administrative, organizational, and operational policy development, guidelines, implementation, and related day-to-day projects
 - Non-personnel and personnel-based legal matters, e.g., ADA/FEHA, COBRA/CalCOBRA, etc.
- Ongoing activities on updating the District's Personnel Policy Manual (Chapters 4 and 5 MCWD Code); the District forwarded the Personnel Policy Manual and the Employer-Employee Relations Policy to, and met with, Local 12 to satisfy meet and confer obligations
- Participated in the CASA (CA Association of Sanitation Agencies) Agency Salary and Benefits Survey
- Participated in the 2023 AWWA Water Utility Compensation Survey
- Legislative/Client Update 05/2023 (provided by LCW/CSDA):
 - None to report at this time

Workforce Planning

- Ongoing administration of three recruitments for temporary positions in Engineering, Maintenance, and Operations Departments
- Oram & Kaylor Strategic Asset Management conducted on-site individual meetings on 05/16/2023
- The national emergency and public health emergency declarations related to the COVID-19 pandemic ended on 05/11/2023; the District is still monitoring Cal/OSHA's COVID-19 prevention non-emergency regulations which are in effect until 02/03/2025

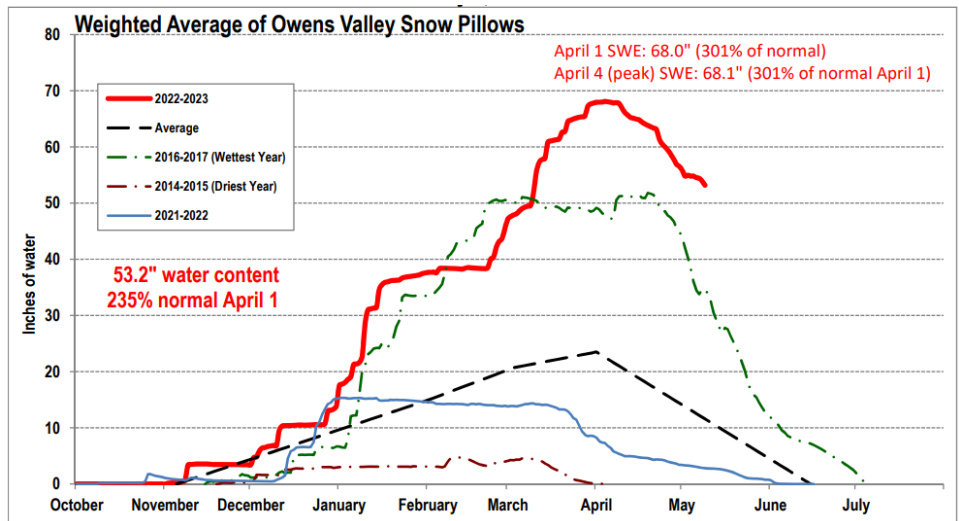
Risk/Safety/Training

- Risk/Safety:
 - Process safety tailgate and wellness activity logs for 05/2023 safety incentive program
 - Monthly restock of Cal/OSHA compliant first aid safety kits at all locations
 - Continuous and ongoing activities associated with the Injury and Illness Prevention Program written programs development and guidelines
 - Continuous and ongoing activities associated with manual to electronic conversion of Cal/OSHA required Hazard Communication Safety Data Sheets (SDS)
 - LMTP & WWTP Annual Operating Procedures review for CalARP/RMP/PSM Compliance Workbook
 - Continuous and ongoing activities associated with two District initiated claims to ACWA JPIA; the District suffered damage to two assets presumably due to the snow load, the EQ Building roof and the collapse of Tank T-8
 - Claims received and/or processed:
 - None received or processed
- Training:
 - Webcasts/onsite/offsite training processed, provided, attended, and/or proctored this month:
 - LCW – Human Resources Academy I Webinar 05/10/2023
 - ACWA JPIA – Creating & Executing Policies & Procedures 05/15/2023
 - ACWA JPIA – Risk Transfer 05/17/2023
 - ACWA JPIA – Hot Java & Hot HR Topics: How to Avoid Unconscious Bias in the Hiring Process 05/18/2023

Conservation

Water Supply Outlook

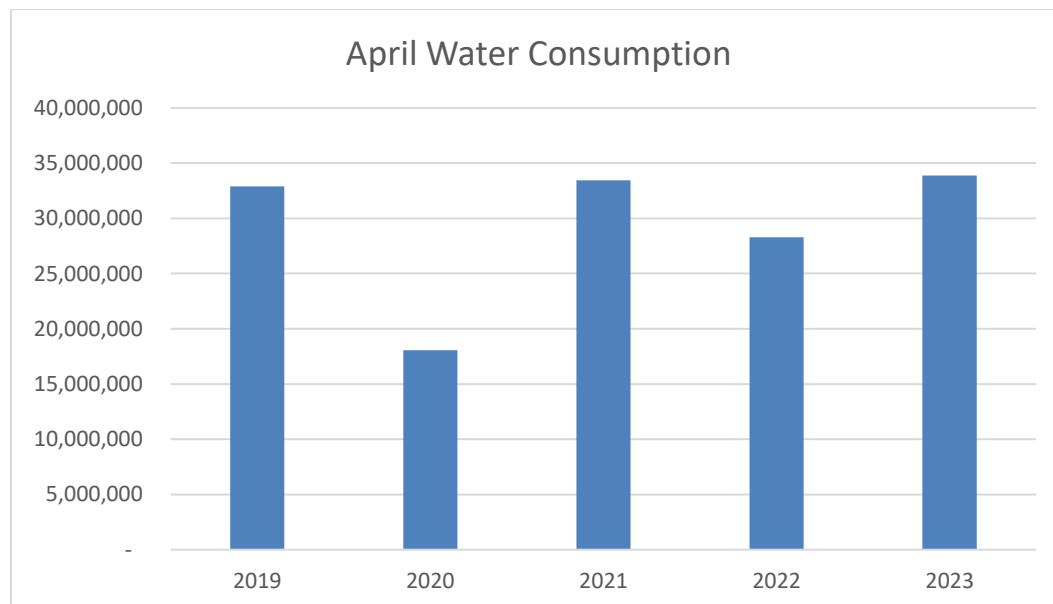
The May 09, 2023, Eastern Sierra Current Precipitation Conditions reported 91.8 inches of water content at Mammoth Pass or 215% of April 1 average. The chart to the right shows the weighted average for all Owens Valley snow pillows.



MCWD Customer Water Consumption

Overall water consumption in April 2023 increased by 5,573,000 (19.7%) when compared to April 2022.

Per the District’s Urban Water Management Plan, targeted water consumption per capita is 145 gallons per day, annually. Utilizing historic monthly water use, staff aligned targeted per capita usage to the corresponding month’s average usage. For example, typically 5 percent of the District’s total water consumption occurs in April, which correlates with 88 gallons per capita, per day. Consumption in April 2023 represents approximately 48 gallons per capita per day, which meets the District’s target usage.



Level 1 Water Conservation

Outreach to customers regarding the Level 1 Water Conservation Measures has included a press release, radio and newspaper advertisements, notification in the April bill, and an email blast utilizing the WaterSmart group messenger. In addition to the advertisement below being placed in The Sheet

newspaper, it is also posted in the District’s front office, the website, and has been made available to staff to distribute to the public as needed.

In Level 1 Water Conservation Measures, all customers must practice Permanent Water Conservation requirements and Level 1 requirements. Violations will be considered a waste and unreasonable use of water and are subject to penalties. This includes, but is not limited to, preventing runoff and ponding, prohibiting washing or hosing-down hard surfaces with water provided by the District (unless the action is required for health or safety), covering pools and spas to reduce evaporation during closed/not used hours, repairing leaks within five days of discovery, requiring an automatic shut-off device on hoses, specified hours of irrigation, and conservation measures at dining and lodging establishments. No more than five percent of existing turf area may be replaced or reseeded, and no new lawn areas may be planted without a District approved Landscape Plan meeting Town of Mammoth Lakes Water Efficient Landscape Ordinance. Schools, parks and golf courses that are not receiving recycled water shall follow their Water Conservation Plan, stating how they will reduce consumption by 10% of their usage in 2013.

LEVEL 1 WATERING SCHEDULE

EVEN/ODD NUMBERED ADDRESS IRRIGATE ON:

MON	TUE	WED	THUR	FRI	SAT	SUN
EVEN # ADDRESS	ODD # ADDRESS	EVEN # ADDRESS	ODD # ADDRESS	X	EVEN # ADDRESS	ODD # ADDRESS

SPRINKLER TIMES: 1AM - 7AM & 5PM - 11PM

NO HAND WATERING 10AM-5PM / NO OUTSIDE WATER ON FRIDAYS
 ~ All hoses must be equipped with an Automatic Shutoff Device ~
 ~ No new turf areas ~

Irrigation Violation Tracking, Variances and Landscape Plans

Irrigation violation tracking has not yet begun, as much of the community’s landscape is still under snow. Violation issuance at the start of irrigation season yields the largest savings by having customers compliant more of the season. Staff has been fielding calls for variance requests; however issuing variances will be limited to projects that will result in long-term water demand reduction and no addition to usage over previous irrigation seasons.

Rebate Program

FY24 Rebate Program began accepting Indoor Rebate Applications April 1. To date, nine applications have

been processed; no applications for the Turf Replacement Rebate Program have been received.

Rebate Program	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
Applications Processed	9	164	245	235	236
High-efficiency Toilets	11	104	267	289	378
Clothes Washers	0	20	38	30	23
Dishwashers	3	29	49	57	13
Estimated Annual Savings (gallons)	50,071	944,387	1,939,670	1,715,822	2,101,514
Rebate Awards	\$2,571.56	\$36,981	\$80,838	\$75,439	\$80,513

Leaks

In April, 10 calls to customers were made for leaks on their property.

Regulatory***Fats, Oil and Grease Control Program***

Staff is working to conduct inspections and prioritizing establishments based on compliance history. This should help to minimize inspections at establishments with a proven track record of compliance and increase inspections at problematic locations, including increased violation follow-up. In addition, pump out schedule requirements may be modified. Mechanical Maintenance staff has been very supportive in completing inspections and providing valuable feedback. To date, six inspections have been completed and there have been no new violations.

Cross Contamination Control (Backflow) Program

The Backflow Program is ramping up with an increase in the number of letters that need to go out each month. InfraMap, the new software, is still being implemented. InfraMap will allow Backflow letters and test reports to be sent by email, cutting down on staff time and postage expenses. In April, 367 emails were sent to customers as a first notice to complete testing and 43 tests have been completed this year. Second notice emails were sent to 27 customers with due dates through April 5, 2023. 79 assemblies are past due, however this amount may be less because testers tend to hold on to reports until they have a larger amount to submit to the District at one time. We now have email addresses for the accounts of 1,823 assemblies out of 1,976 in our system, or 92%.

Public Affairs and Outreach***Public Outreach***

A press release to notify customers of the declared Level 1 Water Conservation Measures and associated conservation requirements was released on March 24. Utilizing WaterSmart Group Messenger, emails and text messages will be sent to customers regarding the Level 1 Water Supply Shortage.

Staff is also drafting correspondence to condominium homeowner associations to inform them about the conservation regulation that continues to prohibit watering of ornamental or non-functional turf on HOA's common area. This communication will offer information about the Turf Replacement Rebate Program and make them aware that this was not a MCWD Board initiative but a continuation of the State's Drought Proclamation.

The below advertisement was published in The Sheet's April 22 publication. The advertisement was a half-

page and focused on residential FOG. Text is in both English and Spanish for the benefit of all community members.



Keep Fats, Oils, and Grease OUT of your sink!
Mantenga grasas, aceites y grasas fuera de su fregadero!

Fats, Oils, and Grease (FOG) cause major problems in the sewer collection system.
Help prevent impacts to your plumbing and issues at the wastewater treatment plant.
The sink drain is not a trash can.

NO GREASE



Las grasas, aceites, y grasas (FOG) causan problemas importantes en el sistema de recolección de alcantarillado.
Ayude a prevenir impactos en sus tuberías y problemas en la planta de tratamiento de aguas residuales.
El drenaje del fregadero no es un bote de basura.

A pipe clogged with fats, gross!



In partnership with our customers, the Mammoth Community Water District supplies reliable water and sewer services to the community. 1315 Meridian Blvd., Mammoth Lakes, CA 93546
(760) 934-2596 www.mcwd.dst.ca.us

Conservation Advertisements

The advertisement on page two, Level 1 Watering Schedule, will be published in The Sheet beginning in June. Additionally, radio ads will be played in the coming months to inform customers of the Level 1 Water Conservation Measures. The District will also publish newspaper ads regarding the Turf Replacement Rebate and Indoor Rebate Programs to further encourage water conservation.

The General Manager's report is designed to summarize important District activities and to highlight developments that may require Board action in the future.

Key items for the past month included modifying the District's capital improvement schedule in response to damage from heavy snow loads, finalized item to facilitate a cost of living increase for all staff, evaluating water conservation policy related to current conditions, work on project to bring MCWD Code/Policy up to date, and workforce planning.

Other ongoing items included working with the local development community, groundwater monitoring related to geothermal pumping, monitoring local agency meetings, and working with state regulators on the District's waste discharge and recycled water permits.

Departmental / General

Staff Resources and Management

- District staff have been engaged in an extensive area wide effort to inspect and maintain facilities with heavy snow loads. Staff are also busy preparing facilities for an extended high runoff season. The District currently has two facilities with structural damage as a result of the heavy snow loads. One building at the WWTP will need a new roof system and one water distribution storage tank will need to be replaced this summer. As a result of these structural issues staff have modified the District's capital improvement schedule. (See B-3 Finance Department Report for capital improvement schedule details)
- Finalized items to facilitate a 5% cost of living increase for all District staff along with an equivalent adjustment to all District wage ranges.
- Clay Murray and Michael Draper represented the District during an interview by Sierra Wave referred to as "The Great Melt". Both Clay and Michael did a good job of providing information on the District's overall operations and specifically how the current high snow/water content affects District operations. The interview can be viewed through the District's website.
- Exploring short-term and long-term workforce planning strategies with management staff. Considerations are based on current and anticipated vacancies, specific workflow needs for supporting District operations, department head input and recommendations, along with agency benchmarking comparisons. The result of this work is the addition of two positions to the FY24 Organizational Chart and budget, one in Engineering and one in Information Services. This increased the number of full-time authorized positions to forty-four.
- Monthly General All-Staff and Senior Management staff meetings
- Monthly Engineering, Operations, and Maintenance (EOM) collaborative meetings, reporting on and tracking progress for current and future capital projects and programs

District Employee Home Purchase Assistance and Rental Programs

- The District currently has six employees participating in the EHPAP shared value option and two employees in the loan option.
- The District currently has eight rental units occupied by MCWD staff. There is also a waiting list with five staff interested in District owned rental units. The Board directed District management to monitor local economic conditions to find potential opportunities to increase the number of rental units available to staff. Management is also exploring options for utilizing District owned property to expand housing opportunities for staff.

Water Conservation and Supply Update

On March 16, 2023 the Board approved a motion to move the District from Water Conservation Level 3 into Water Conservation Level 1. The move was following a recommendation from District staff after evaluating the snowpack and associated water content and how it relates to the District's anticipated surface and groundwater supplies. Based on the assessment staff recommended a reduction from the District's previous Water Conservation Measures Level 3 to Level 1. The District's various levels of water conservation measures are designed to balance water use with ongoing conservation needs for maintaining a consistent water supply for our community during both heavy water years and drought years.

Water and Wastewater

Water Operations is currently utilizing surface water as the community's primary water source.

Total water produced in April 2023 was 38.9 million gallons, which is up from the 32 million gallons produced in April 2022. Water sources included, 56% surface water, 44% groundwater and 0% recycled water. Currently, Lake Mary has a balance of 222 ac/ft, which is 37% of the District's 606 acre feet of surface water storage capacity.

April average daily wastewater flows were 1.68 million gallons for a total of 50.52 million gallons treated for the month. (See B-1 Operations Department report for more details)

Financial Management

The District's FY2023 fiscal year, April through March, ended with revenue above budgeted projections and with expenses below budgeted projections. (See B-3 Finance Department Report for more details)

Letters of Support, Contracts and Agreements

- Signed a one-year services agreement for IT support services with CBT in an amount not to exceed \$49,280

Departmental Activities

- Engineering Department staff continue to support the many active and planned construction projects at the District and throughout the community. (See B-4 Engineering Department Report for more details)
- Regulatory Services Division staff continue to provide regulatory support, conservation efforts monitoring and notifying customers with water leaks, processing rebates, administering Backflow and FOG programs, and PR/advertising. (See B-7 Regulatory Services Division Report for more details)
- Personnel Services Department activities include working with the District's labor counsel on bringing the Personnel Manual up to date with current requirements, workforce planning related to vacant positions, and communications with L12 Union. (See B-6 Personnel Services Report for more details)
- Information Services Department staff continue to support all the District's technology needs. (See B-5 Information Services Report for more details)
- Operations Department staff continue to monitor water and wastewater production for compliance with all regulations. (See B-1 Operations Department Report for more details)
- Maintenance Department staff continue working on in-house construction projects and meeting maintenance goals and requirements. (See B-2 Maintenance Department Report for more details)

Projects/Related

Snowcreek VIII Annexation and Public Agency Property Tax Reallocation

District staff continue to work with Mono County's Local Agency Formation Commission (LAFCO) Executive Director and Mono County staff on property tax allocation/sharing for three parcels which LAFCO annexed into the District's service area in 2018 and 1983. Annexation of the three parcels into the District's service area allows for development on the parcels by providing the required water and wastewater services.

Because the District does not currently receive property tax from the annexed parcels, Mono County receives additional property tax funds compared to the rest of the Mammoth Lakes community, where they receive an average of 33 percent. Mono County will be providing no additional community services to the annexed parcels beyond what they provide to existing Mammoth Lakes residents. It's key to note that back in 2018 all local agencies, including Mono County, agreed that annexation was the most beneficial approach to fund and provide services needed to meet the Snowcreek VIII development plan as approved by the TOML Planning and Economic Development Commission. District staff continue to work with LAFCO and Mono County with a goal of appropriately reallocating property taxes to fund water and wastewater services to the proposed development. At the April 6, 2023 Mono County Board of Supervisors meeting the Board approved a request from acting CAO Mary Booher to form an ad-hoc committee to negotiate a property tax sharing agreement between MCWD and Mono County. Following the meeting Mary Booher communicated that she anticipates this process to take place sometime in May and/or June of 2023. In response to Mono County forming an ad-hoc committee, the MCWD Board requested at the April 18 Board meeting, that staff put an item on the May Board Meeting agenda (business item C-4) to appoint a MCWD ad-hoc committee to work with Mono County representatives.

MCWD Code Book Review and Update

MCWD staff and Board ad-hoc committee continue to work on reviewing and updating the District's Code. This extensive project will bring the District's Code into alignment with current laws and practices.

Lakes Basin Fuels Reduction Project

The District's Regulatory Services staff will continue to provide administrative support on a new plan to complete the remaining portion of this project, which stalled during the COVID-19 pandemic. Moving forward, Mammoth Lakes Fire Safe Council plans to work with the White Bark Institute to complete the project.

Alterra/MMSA Main Lodge Development

Alterra/MMSA has proposed a Main Lodge redevelopment Master Plan and submitted environmental scoping documents for their project to the TOML which listed a new on-site package treatment plant to handle their wastewater needs. The District provided comments on project scoping documents and will continue to stay apprised of any potential changes as the project develops. (See B-4 Engineering Department Report for more details)

MCWD Water Discharge Requirements (WDR)

Lahontan staff reviewed and provided feedback on a proposal by MCWD for completing a study of the Laurel Pond area to better identify the appropriateness of specific use classifications. Specifically, Lahontan staff expressed concerns regarding the new Laurel Pond monitoring wells construction related to sampling depth. The proposed study would likely take up to four years after which time Lahontan will provide comments on updating the District's WDR which has the associated potential for treatment process changes at the WWTP. (See B-4

Engineering Department report for more details)

Limelight Hotel and Proposed Geothermal Development

MCWD continues to work collaboratively with local agencies and the Limelight development team. Both entities signed a Letter of Intent (LOI) ensuring the protection of our community's potable groundwater sources from Limelight's proposed development of geothermal as the heating source for their hotel project. Per the LOI the Limelight group withdrew geothermal as part of their current hotel development plans until an agreement can be reached with MCWD on a groundwater mitigation and response plan (GMRP) to protect the cold-water aquifer while still using geothermal as a renewable energy source.

MCWD continues working with Limelight staff and consultants on the GMRP. The common goal is to establish appropriate mitigation and monitoring measures which both ensures our community's groundwater supply is adequately protected and provides the Limelight Hotel with a green and sustainable heating source.

AGENDA ITEM

Subject: Discuss and Possibly Adopt Resolution No. 05-18-23-11 Revising the Appropriations Limitation for the Fiscal Year 2023-2024

Information Provided By: Jeff Beatty, Finance Manager

Background

Article 13B of the California State Constitution establishes a maximum amount of tax revenue all government entities and special districts may receive and requires that each entity annually adopt that limit. The appropriations limit begins from a base year (1978) and increases or decreases each year based on changes to state per capita personal income and local population.

Discussion

Every March as part of the adoption of the annual budget, the Board adopts an estimated Annual Appropriations Limit because data is not yet available for the final calculation. The State Department of Finance provides the required data in May, and the District is able to finalize the Annual Appropriations Limit calculation. The chart showing the calculation is attached as Exhibit A.

The two components to the calculation of the annual change in the appropriation limit are:

- Per Capita Personal Income for the State of California, which increased by 4.44 %
- Population in the Town of Mammoth Lakes, which increased by 0.08%

The appropriation limit for fiscal year 2023-2024 is \$16,291,815. This is \$704,545 greater than the appropriations limit from last fiscal year.

With the adoption of proposed Resolution no. 05-18-23-11, Resolution no. 03-16-23-05 adopted in March will be repealed.

Fiscal Impact

Because the appropriations limit is greater than our tax revenue, there is no fiscal impact.

Requested Action

Discuss and possibly adopt Resolution No. 05-18-23-11 revising the appropriations limitation for fiscal year 2023-2024.

RESOLUTION NO. 05-18-23-11

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MAMMOTH COMMUNITY WATER DISTRICT REVISING THE APPROPRIATIONS LIMITATION FOR FISCAL YEAR 2023-2024

WHEREAS, pursuant to Sections 7900, et. seq., of the California Government Code and Article 13B of the California Constitution, the Mammoth Community Water District is required to adopt a limit on appropriations for its Fiscal Year 2023-2024; and,

WHEREAS, the State Department of Finance has provided the necessary documentation, including revisions for prior years, to enable the District to calculate and adopt such a limitation, which documentation is on file at the District office.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Mammoth Community Water District that the amount of appropriations which is subject to limitation under the provisions of the Government Code and California Constitution for the Mammoth Community Water District for Fiscal Year 2023-2024 is hereby revised and declared to be \$16,291,815.

BE IT FURTHER RESOLVED by the Board of Directors that Resolution No. 03-16-23-05, adopted on March 16, 2023, is hereby repealed and superseded by this Resolution.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District at a regular meeting held on May 18, 2023, by the following vote:

AYES:

NAYS:

ABSENT:

ABSTAIN:

MAMMOTH COMMUNITY WATER DISTRICT

Thomas R. Smith, President
Board of Directors

ATTEST:

Mark Busby, Secretary
Board of Directors

MAMMOTH COMMUNITY WATER DISTRICT
APPROPRIATIONS LIMITATION

BASE YEAR LIMITATION:

1,674,480

FISCAL YEAR		PER CAPITA INCOME FACTOR	POPULATION FACTOR	COMBINED FACTOR	APPROPRIATIONS LIMITATION
1979	1980	1.1017	1.0519	1.1589	1,940,555
1980	1981	1.1211	1.0712	1.2009	2,330,412
1981	1982	1.0912	1.0536	1.1497	2,679,275
1982	1983	1.0679	0.9878	1.0549	2,826,367
1983	1984	1.0235	1.0235	1.0476	2,960,902
1984	1985	1.0474	0.8400	0.8798	2,605,002
1985	1986	1.0374	0.9893	1.0263	2,673,514
1986	1987	1.0230	1.0047	1.0278	2,747,838
1987	1988	1.0347	0.9973	1.0319	2,835,494
1988	1989	1.0466	1.0424	1.0910	3,093,524
1989	1990	1.0519	1.0289	1.0823	3,348,121
1990	1991	1.0421	1.1057	1.1522	3,857,705
1991	1992	1.0414	1.0479	1.0913	4,209,913
1992	1993	0.9936	1.0151	1.0086	4,246,118
1993	1994	1.0272	1.0480	1.0765	4,570,946
1994	1995	1.0071	1.0411	1.0485	4,792,637
1995	1996	1.0472	1.0218	1.0700	5,128,122
1996	1997	1.0521	0.9987	1.0507	5,388,118
1997	1998	1.0467	0.9937	1.0401	5,604,182
1998	1999	1.0415	1.0116	1.0536	5,904,566
1999	2000	1.0453	1.0066	1.0522	6,212,784
2000	2001	1.0491	1.0171	1.0670	6,629,041
2001	2002	1.0782	1.0410	1.1224	7,440,436
2002	2003	0.9873	1.0256	1.0126	7,534,185
2003	2004	1.0231	1.0062	1.0294	7,755,690
2004	2005	1.0328	0.9955	1.0282	7,974,400
2005	2006	1.0526	1.0230	1.0768	8,586,834
2006	2007	1.0396	1.0151	1.0553	9,061,686
2007	2008	1.0442	1.0087	1.0533	9,544,674
2008	2009	1.0429	1.0008	1.0437	9,961,776
2009	2010	1.0062	0.9881	0.9942	9,903,998
2010	2011	0.9746	1.0005	0.9751	9,657,388
2011	2012	1.0251	1.0094	1.0347	9,992,499
2012	2013	1.0377	1.0015	1.0393	10,385,204
2013	2014	1.0512	1.0045	1.0559	10,965,737
2014	2015	0.9977	0.9879	0.9856	10,807,830
2015	2016	1.0382	1.0042	1.0426	11,268,244
2016	2017	1.0537	1.0022	1.0560	11,899,266
2017	2018	1.0369	1.0023	1.0393	12,366,907
2018	2019	1.0367	1.0013	1.0380	12,836,849
2019	2020	1.0385	0.9926	1.0308	13,232,224
2020	2021	1.0373	0.9964	1.0336	13,676,827
2021	2022	1.0573	0.9967	1.0538	14,412,640
2022	2023	1.0755	1.0056	1.0815	15,587,270
2023	2024	1.0444	1.0008	1.0452	16,291,815

The Appropriations Limitation establishes for the ensuing fiscal year the revenues that the District may receive from taxes, investment of taxes and excess user charges.

AGENDA ITEM

Subject: Discuss and Consider Adopting Ordinance No. 05-18-23-12 Amending Chapter 12, Divisions III and VI of the MCWD Code Regarding the Temporary Use of Hydrant Meters

Information Provided By: Rob Motley III, Maintenance Superintendent

Background

MCWD Water Code currently states that the District will provide temporary water service through a fire hydrant for construction purposes. This requires year-round service and does not grant discretion to District staff for determining where or when this service will be allowed based on water distribution system parameters, location, or freezing conditions.

Discussion

District staff has provided an attached redlined version of proposed amendments to Chapter 12, Divisions III and VI which reflect the following changes:

- Temporary water service through a fire hydrant is limited to the warmer months of the year.
- District staff can approve or deny an application based on the requested location and potential harm to the water distribution system.
- District staff will install and remove the hydrant meter and ancillary equipment.

Financial Impact

There is little to no fiscal impact if the proposed Code amendments are adopted.

Requested Action

Staff request that the Board review and enact Ordinance No. 05-18-23-12.

MCWD CODE, Chapter 12
Temporary Use of Hydrant Water
Divisions III and XII

DIVISION III GENERAL PROVISIONS AND REGULATIONS

Section 3.14 Temporary Service Through a Fire Hydrant

- A. Temporary service shall mean service through a fire hydrant for a particular project during the period of time from the start of construction to project completion in order to facilitate building construction, dust control, and irrigation for erosion control purposes only; (including re-vegetation); Temporary service through a fire hydrant meter will only be allowed annually (weather permitting) from the first normal business day in May until the last normal business day of in October, provided, however, that temporary service provided for erosion control through re-vegetation shall not exceed 12 months of use without Board approval.
- B. Prior to receiving temporary service from the District through a fire hydrant, the owner of the property to which temporary water service will be provided ("customer") shall comply with the following:

1. The fire hydrant to be used must be located on, or in the public right of way directly adjacent to the property for which the water service is to be used.
2. The customer shall make ~~written~~ written application on the forms provide by the District.
3. The customer must designate an operator of the service in writing.
- 1.—

2.4. The customer shall pay to the District in advance a deposit as stated in the Master Fee Schedule.

Upon receipt of the completed application and deposit, the District will review the application and proposed location of service. The District will consider ~~the~~ granting service based on location, possible negative impacts to the distribution system, and fire hydrant age and location. Approval of the application is subject to the ~~state of the~~ District's Water Shortage Contingency Plan, which may require the use of recycled water for temporary uses when a Water Supply Shortage has been declared. Upon acceptance of application, the District will arrange for the hydrant meter and ancillary equipment to be installed by District staff. Mandatory training of the designated operator of the service will be provided at the time of installation by District staff.

If the customer has a history of previous transactions with the District and through those transactions has established a record of prompt payment for services provided, the District may waive this deposit requirement. Upon receipt of the completed application and deposit, if required, the District shall provide the customer, at the customer's expense, with a fire hydrant meter and associated equipment for installation at the nearest fire hydrant, all in accordance with the requirements of Section 3.31 of Division III of this Chapter 12.

- C. Upon initiation of temporary service, actual charges for service shall be determined by the District and calculated as follows:

1. The monthly ~~maximum~~ service charge stated in the Master Fee Schedule shall be imposed for each month of temporary service rendered to the customer in accordance with the size of the meter installed. The monthly ~~minimum~~ service charge shall be prorated on a daily basis for portions of months of service.
 2. ~~A. The District shall charge the customer amount shall be charged~~ for actual water usage as registered by the meter. The rate charged for water usage shall be the quantity commodity rate charge for commercial users stated in the Master Fee Schedule.
 3. The customer will be charged for the District's actual costs for repair or replacement of the meter as a result of damage or modification during the period of temporary service shall be charged per the Master Fee Schedule plus the cost of parts. The District shall deduct these costs from the deposit made by the customer. The District shall have the right to require the customer to replenish the deposit to the full amount after any deduction of funds used to pay for repairs or replacement. If the customer refuses to replenish the deposit amount within 10 days, the District may terminate service and remove the hydrant meter and ancillary equipment.
- D. The District shall bill the customer receiving temporary water service. The customer shall pay such bills in accordance with, and subject to, the provisions of Section 6.15 of Division VI of this Chapter 12. If a customer does not pay a temporary water service bill when due, the District may terminate service and remove the hydrant meter and ancillary equipment or lock off the meter until the bill is paid.
- E. A completed application for temporary service shall constitute a written agreement between the customer and the District whereby the customer agrees to pay for all service rendered pursuant to the application and agrees to comply with all applicable District rules and regulations governing water service. The application for temporary service shall be signed by the owner of the property to which temporary water service is provided.
- ~~F.~~ The temporary water service shall terminate when construction, dust control and irrigation for erosion control have been completed or if the permit issued for the property receiving temporary service terminates or becomes ~~null and~~ void for any reason, in which event the customer shall return the meter and any associated equipment will be removed by the District. If the customer fails to so return the meter and equipment, the District is authorized to retrieve them.
- ~~G.F.~~
- ~~H.G.~~ _____ In addition to other enforcement provisions of this Chapter 12, the District may immediately terminate the supply of water to any person receiving temporary water service in violation of this section. The person shall be liable for all charges as determined in accordance with Section 3.14.C above through the date of termination and all reasonable expenses, including but not limited to, attorney's fees, incurred by the District in its enforcement of this Section 3.14.G.

CHAPTER XII

DIVISION VI FEES AND CHARGES

Section 6.08 ~~Contractor's-Fire Hydrant~~ Water Fee

~~Contractors-Customers~~ desiring connection to a fire hydrant or other system appurtenance for temporary water service shall first apply to the District for permission to connect and shall comply with Section 3.14 of this chapter. The District will supply a water meter and charge ~~the contractor~~customers the fees and charges stated in the Master Fee Schedule.

ORDINANCE NO. 05-18-23-12

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MAMMOTH COMMUNITY WATER DISTRICT AMENDING CHAPTER 12 OF THE DISTRICT CODE

BE IT ORDAINED by the Board of Directors of the Mammoth Community Water District as follows:

SECTION ONE. PURPOSE AND AUTHORITY

This Ordinance amends the provisions of Chapter 12 of the District Code, which govern the terms and conditions of the District's provision of water service, for the purpose of amending references to the temporary use of hydrant meters authorized and imposed by Chapter 12. The authority for this Ordinance is found in California Water Code sections 31024, 31025, and 31105, Government Code section 53069.4, and other applicable law.

SECTION TWO. AMENDMENTS TO DIVISIONS III AND VI OF CHAPTER 12 OF THE MAMMOTH COMMUNITY WATER DISTRICT CODE

A. Section 3.14. of Division III of Chapter 12 of the District Code is hereby amended as follows:

- A. Temporary service shall mean service through a fire hydrant for a particular project during the period of time from the start of construction to project completion in order to facilitate building construction, dust control, and irrigation for erosion control purposes only (including re-vegetation). Temporary service through a fire hydrant meter will only be allowed annually (weather permitting) from the first business day in May until the last business day in October.
- B. Prior to receiving temporary service from the District through a fire hydrant, the owner of the property to which temporary water service will be provided ("customer") shall comply with the following:

1. The fire hydrant to be used must be located on, or in the public right of way directly adjacent to the property for which the service is to be used.
2. The customer shall make a written application on the forms provide by the District.
3. The customer must designate an operator of the service in writing.
4. The customer shall pay to the District in advance a deposit as stated in the Master Fee Schedule.

Upon receipt of the completed application and deposit the District will review the application and proposed location of service. The District will consider granting service based on location, possible negative impacts to the distribution system, and fire hydrant age. Approval of the application is subject to the District's Water Shortage Contingency Plan which may require the use of recycled water for temporary uses when a Water Supply Shortage has been declared. Upon acceptance of application the District will arrange for the hydrant meter and ancillary equipment to be installed by District staff. Mandatory training of the designated operator of the service will be provided at the time of installation by District staff.

- C. Upon initiation of temporary service, actual charges for service shall be determined by the District and calculated as follows:
 1. The monthly service charge stated in the Master Fee Schedule shall be imposed for each month of temporary service rendered to the customer in accordance with the size of the meter installed. The monthly service charge shall be prorated on a daily basis for portions of months of service.
 2. The District shall charge the customer for actual water usage as registered by the meter. The rate charged for water usage shall be the commodity charge for commercial users stated in the Master Fee Schedule.
 3. The customer will be charged for the actual costs for repair or replacement of the meter as a result of damage or modification during the period of temporary service

- . The District shall deduct these costs from the deposit made by the customer. The District shall have the right to require the customer to replenish the deposit to the full amount after any deduction of funds used to pay for repairs or replacement. If the customer refuses to replenish the deposit amount within 10 days, the District may terminate service and remove the hydrant meter and ancillary equipment.
- D. The District shall bill the customer receiving temporary water service. The customer shall pay such bills in accordance with, and subject to, the provisions of Section 6.15 of Division VI of this Chapter 12. If a customer does not pay a temporary water service bill when due, the District may terminate service and remove the hydrant meter and ancillary equipment or lock off the meter until the bill is paid.
- E. A completed application for temporary service shall constitute a written agreement between the customer and the District whereby the customer agrees to pay for all service rendered pursuant to the application and agrees to comply with all applicable District rules and regulations governing water service. The application for temporary service shall be signed by the owner of the property to which temporary water service is provided.
- F. The temporary water service shall terminate when construction, dust control and irrigation for erosion control have been completed or if the permit issued for the property receiving temporary service terminates or becomes void for any reason, in which event the meter and any associated equipment will be removed by the District.
- G. In addition to other enforcement provisions of this Chapter 12, the District may immediately terminate the supply of water to any person receiving temporary water service in violation of this section. The person shall be liable for all charges as determined in accordance with Section 3.14.C above through the date of termination and all reasonable expenses, including but not limited to, attorney's fees, incurred by the District in its enforcement of this Section 3.14.G.

B. Section 6.08 of Division VI of Chapter 12 of the District Code is hereby amended as follows:

Section 6.08 Fire Hydrant Water Fee

Customers desiring connection to a fire hydrant or other system appurtenance for temporary water service shall first apply to the District for permission to connect and shall comply with Section 3.14 of the chapter. The District will supply a water meter and charge customers the fees and charges stated in the Master Fee Schedule.

SECTION FOUR. INCONSISTENCY

To the extent that the terms and provisions of this Ordinance may be inconsistent or in conflict with the terms or conditions of any prior District ordinances, resolutions, rules, or regulations governing the same subject, the terms of this Ordinance shall prevail with respect to the subject matter thereof and such inconsistent or conflicting provisions of prior ordinances, resolutions, rules, or regulations are hereby repealed as of the effective date of this Ordinance.

SECTION FIVE. INVALIDITY

If any provision of this Ordinance or application thereof to any person or circumstance is held invalid, no other provision of this Ordinance shall be affected thereby.

SECTION SIX. PUBLICATION

The District General Manager or his designee is directed to publish a summary of this Ordinance once, with the names of the members voting for and against the Ordinance, in a newspaper published within the District within 10 days after the adoption of this Ordinance.

SECTION SEVEN. EFFECTIVE DATE

This Ordinance shall take effect upon adoption pursuant to California Water Code sections 31027 and 31105.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District, County of Mono, State of California, this 18th day of May 2023, at a regular meeting of the Board by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

MAMMOTH COMMUNITY WATER DISTRICT

By: _____
Thomas R. Smith
President, Board of Directors

ATTEST:

Mark Busby
Secretary, Board of Directors

SECRETARY'S CERTIFICATE

I hereby certify that the foregoing is a full, true and correct copy of Ordinance No. 05-18-23-12, duly and regularly adopted by the Board of Directors of MAMMOTH COMMUNITY WATER DISTRICT in the Town of Mammoth Lakes, County of Mono, on May 18, 2023.

Secretary, Board of Directors

AGENDA ITEM

Subject: Revised Recycled Water Policy and Amend Chapter 11, Division XV of the MCWD Code (Ordinance No. 05-18-23-13)

1. Adopt the Title 22 Engineering Report
2. Discuss and Consider Enacting Ordinance No. 05-18-23-13 Amending Chapter 11, Division XV of the MCWD Code

Information Provided By: Garrett Higerd, District Engineer

Background

In the late 1990s MCWD initiated a project to produce tertiary treated recycled water for non-potable uses, especially golf course irrigation, for the purpose of lessening the District's long-term demand for groundwater. The project required the preparation of an Environmental Impact Report (EIR) and construction of wastewater treatment plant upgrades, lined storage basins, and distribution systems. Construction work was completed in 2009 and the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035, "Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water," approving the District's proposal to treat and distribute disinfected, tertiary recycled water.

Delivery of recycled water to golf course users is governed by individual agreements with each golf course developer. The agreement with Sierra Star Golf Course was first entered into in 2007 and recycled water deliveries commenced in 2010. The agreement with Snowcreek Golf Course was first entered into in 2010, but recycled water deliveries did not commence until 2016.

The Snowcreek VIII Master Plan requires recycled water to be used to the maximum extent feasible (specifically for irrigating the second nine-hole golf course and common area landscaping). However, MCWD's commitment to provide recycled water to additional uses at Snowcreek VIII sunset in 2020 because Snowcreek did not initiate timely construction of the project. The Snowcreek recycled water agreement needs to be amended prior to permits being issued for new development. The developer is working to get approval of Phase 1 (more condos) from the Town Planning and Economic Development Commission very soon and start construction on grading and infrastructure in 2023, so an updated recycled water agreement could be coming to the Board for consideration soon.

The original EIR estimated that 1.55 MGD of tertiary recycled water would be available during the summer irrigation season, plus enough to maintain Laurel Pond at a minimum size of eighteen-acres for waterfowl nesting habitat. The EIR budgeted 0.94 MGD for Sierra Star Golf Course, 0.47 MGD for Snowcreek Golf Course, and 0.14 MGD for Shady Rest Park. The infrastructure to supply Shady Rest Park has not been constructed, but it remains a good opportunity to conserve groundwater for potable use.

In 2022, the wastewater treatment plant received an average of 1.2 to 1.4 MGD of influent. In the last couple of years (during drought conditions), more recycled water was used for irrigation during the summer than was discharged to Laurel Pond. The size of Laurel Pond is regularly monitored and has not come close to the eighteen-acre minimum.

Trucked recycled water has also increased in popularity for use in construction. 2022 was a record year, with much of it being used for grading at the Woolly's Tube Park site. There is increased demand for trucked recycled water outside of the tertiary recycled water season (the golf course irrigation season), which will be addressed under the new NOA. Also, there is interest in the potential for MCWD trucked recycled water to be available for construction projects outside of the MCWD service area. Any future policy change in this direction will come back to the Board for discussion and go to the Local Agency Formation Commission (LAFCO) for approval.

Discussion

In 2016, during the extended drought, the California State Water Resources Control Board adopted General Order WQ 2016-0068-DDW to facilitate recycled water use, reduce demand on potable water supplies, and help meet the growing water requirements of the state.

In 2020, engineering staff submitted a Notice of Intent (NOI) and an updated Title 22 Engineering Report to initiate the process of obtaining coverage under General Order WQ 2016-0068-DDW because it provides more flexibility for distribution and use of this supply. Due to staff turnover on both sides, the process has proceeded slowly. However, the updated Title 22 Engineering Report has been approved and, at its April meeting, Lahontan rescinded the "Master Permit". A Notice of Applicability (NOA) has been issued under the General Order. Now, the 2009 amendment of the MCWD Sewer Code establishing the District's original recycled water program needs to be repealed and superseded to reflect the new regulatory authority under which the program will be administered. The most significant change in the Code will be to incorporate and rely on the Title 22 Engineering Report, as it may be amended from time to time, as the main governing rules and regulations for the recycled water program.

Financial Impact

There is no financial impact of the proposed changes.

Requested Actions

1. Review, and consider adopting the Title 22 Engineering Report
2. Review, and consider the proposed changes to Division XV of Chapter 11 of the District Code; then enact Ordinance No. 05-18-23-13 approving the changes.



Mammoth Community Water District

*P.O. Box 597
1315 Meridian Boulevard
Mammoth Lakes, CA 93546
Phone: 760-934-2596*

TITLE 22

ENGINEERING REPORT

FOR THE MAMMOTH COMMUNITY


WATER DISTRICT RECYCLED

WATER PROGRAM

February 2022

Professional Certification

This document entitled "TITLE 22 ENGINEERING REPORT FOR THE MAMMOTH COMMUNITY WATER DISTRICT RECYCLED WATER PROGRAM," Dated February 2022, was prepared for the Mammoth Community Water District (MCWD) under the supervision of Garrett Higerd. Garrett Higerd is a registered engineer in the state of California and holds the title of District Engineer at the Mammoth Community Water District. The report is based on design documents and information provided by MCWD and was prepared in accordance with accepted engineering practices.



Garrett Higerd
District Engineer
Mammoth Community Water District
1315 Meridian Blvd
Mammoth Lakes, CA 93546



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SECTION 1 INTRODUCTION

1.1 Purpose

Mammoth Community Water District (MCWD) provides water and sanitation services to a service area located within the boundaries of the Town of Mammoth Lakes, in the southwestern part of Mono County, California (Figure 1.1).

In 2009 the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035 “Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water” and shortly after, the MCWD Board of Directors approved Ordinance No. 10-15-09-11 (Appendix B) establishing the MCWD recycled water program.

Since then, MCWD has been providing recycled water to the Sierra Star Golf Course, Snowcreek Golf Course, and the Trucked Recycled Water Program. The primary objective of MCWD’s recycled water program is to conserve groundwater, one of the key potable water sources in the region, through beneficial reuse of treated wastewater. The recycled supply is used mainly for landscape irrigation, which represents a major demand during the spring and summer seasons.

MCWD desires to continue to provide recycled water under a new General Use Permit of recycled water (ORDER WQ 2016-0068-DDW) and make minor changes to the trucked recycled water program. This Title 22 engineering report updates and revises the original Title 22 engineering report prepared by HDR Engineering Company in 2008 for this purpose. The report is intended to contain sufficient information to assure the regulatory agencies that the degree and reliability of treatment is commensurate with the requirements for the proposed uses and that the distribution and use of the recycled water will not create a health hazard or nuisance.

Disinfected tertiary recycled water is proposed to be used for surface irrigation by metered users (golf courses).

Disinfected secondary 2.2 recycled water (or tertiary recycled water) is proposed to be used via permitted truck users for the following uses:

- Backfill consolidation around non-potable piping,
- Soil compaction,
- Mixing concrete,
- Dust control on roads and streets,
- Cleaning roads, sidewalks and outdoor work areas, and
- Restricted access (Freeway) landscape irrigation (no food crops, parks & playgrounds, school yards, residential landscaping, etc.)

The State of California Water Recycling Criteria, contained in Sections 60301 through 60355, inclusive, of the California Code of Regulations, Title 22 (Title 22), require the submission of an engineering report (Report) to the California Regional Water Quality Control Board (RWQCB) and the State Water Resource Control Board (SWRCB) and Division of Drinking Water (DDW) before a recycled water program is implemented. This report has been prepared for MCWD’s recycled water program, pursuant to Section 60323, by a properly qualified engineer registered in California and experienced in the field of wastewater treatment.

1.2 Report Organization

The report has five sections.

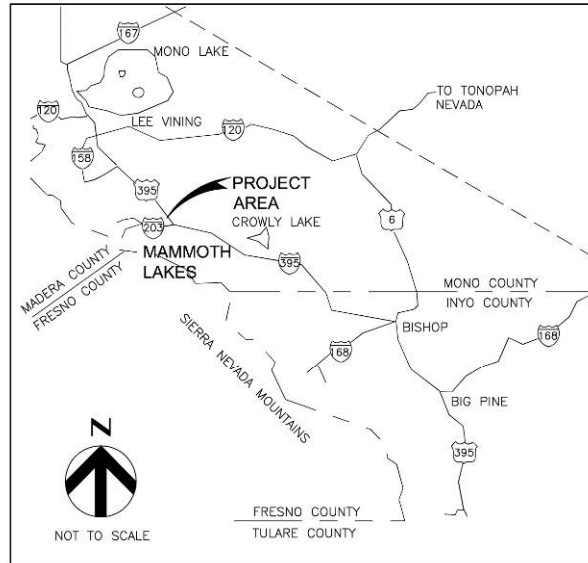
Section 1 provides program background information, responsibilities, and specific regulatory requirements for the program.

Section 2 covers treatment and recycled water production.

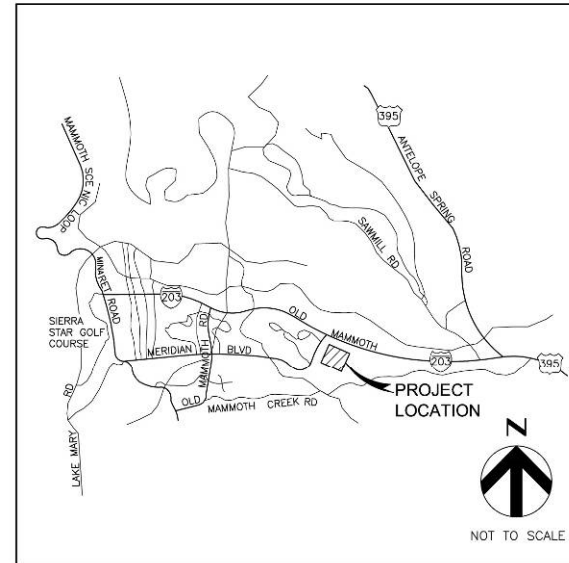
Section 3 covers recycled water transmission and distribution systems.

Section 4 covers the recycled water use permit program.

Section 5 covers use area sites. References to applicable Title 22 sections and articles are made where required.



VICINITY MAP



LOCATION MAP



**MAMMOTH COMMUNITY
WATER DISTRICT**
RECYCLED WATER PROJECT

LOCATION AND VICINITY MAPS

FIGURE

1.1

Figure 1.1 Location and Vicinity Maps

1.3 History and Description of Recycled Water Facilities

In 1991, the Town of Mammoth Lakes approved the construction of the Sierra Star Golf Course project with a condition of using either recycled water or other non-potable water supplies for golf course irrigation. Following the golf course approval, MCWD approved the Mammoth Lakes Wastewater Treatment Plant (MLWWTP) upgrade to a tertiary treatment system, suitable for providing recycled water. In 1996, MCWD initiated an environmental review to examine effects of the plant upgrade, as well as the construction of a transmission system to convey recycled water to Sierra Star Golf Course and two other proposed users, Snowcreek Golf Course and Shady Rest Park. The MCWD Board of Directors certified the Environmental Impact Report (EIR), adopted all mitigation measures, and approved the recycled water project in October 1998. The approval included plant modifications to produce recycled water up to 1.55 million gallons per day (MGD), and construction of a recycled water pumping station, but did not include construction of a transmission system to deliver the recycled water to use areas. A subsequent EIR in 2006 evaluated the environmental effects associated with construction of the recycled water transmission system and use of recycled water for irrigation in the golf course and identified mitigation measures to be adopted for the recycled water project. The MCWD Board of Directors certified this EIR in March 2007 and modifications were constructed at the treatment plant including secondary effluent pumping, coagulant/polymer addition and mixing, filtration, disinfection, recycled water in-plant storage, and a recycled water pumping station. The distribution system was also constructed consisting of two pipelines which serve the Sierra Star and Snowcreek golf courses. Both Sierra Star and Snowcreek golf courses have privately owned recycled water storage impoundments.

In 2009 the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035 “Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water” and shortly after, the MCWD Board of Directors approved Ordinance No. 10-15-09-11 (Appendix B) establishing the MCWD recycled water program. Sierra Star Golf Course was the first metered user to receive tertiary recycled water in 2010 followed by Snowcreek Golf Course in 2015. The trucked recycled water program started in 2015.

The existing MCWD recycled water system currently delivers recycled water to the Sierra Star Golf Course, Snowcreek Golf Course, and the Trucked Recycled Water Program.

Table 1.1 summarizes roles and responsibilities of agencies or entities involved with the MCWD recycled water program.

Table 1. 1 Entity Responsibilities

Agency or Entity	Role	Responsibility
MCWD	Producer/Distributor	Responsible for treatment, distribution, and operation and maintenance of recycled water facilities.
SWRCB Division of Drinking Water (DDW)	Regulator	Responsible for establishment of General Use Permit of Recycled Water, review and approval of engineering report, and issuance of General Use Permit for recycled water.
RWQCB	Regulator	Responsible for review and approval of Notice of Intent.

Agency or Entity	Role	Responsibility
U.S. Forest Service, Inyo National Forest	Regulator	Responsible for special use permit to allow installation of recycled water distribution pipeline on federal lands.
Town of Mammoth Lakes	Regulator	Responsible for inspection of recycled water distribution pipelines located within Town’s right-of-way.
Sierra Star Golf Course and Snowcreek Golf Course	User	Responsible for maintaining public notification signs and working with MCWD to maintain compliance with all rules and regulations.

1.3.1 Producer and Distributor

MCWD will be both the producer and distributor of all recycled water. It is intended that MCWD will hold a General Use Permit issued by the RWQCB, SWRCB, and DDW, which will delegate reuse oversight responsibility to MCWD.

1.3.2 User

The initial user of recycled water has been the Sierra Star Golf Course with use beginning in 2010. The Snowcreek Golf Course began using recycled water in 2015. MCWD began the Trucked Recycled Water Program in 2015. Other potential users in the future include the Town of Mammoth Lakes for parks and roadway landscaping and condominium or public school landscape sites, construction projects, and other industrial users. The user will be responsible for public notification signs and working with MCWD to maintain compliance with all rules and regulations. The user will also be responsible for assigning a Use Area Supervisor.

1.4 Rules and Regulations

Recycled water operation procedures, restrictions, and other requirements for the MCWD recycled water system are described in “Rules and Regulations for Recycled Water Use,” prepared and adopted by MCWD. MCWD also adopted an ordinance establishing a recycled water program and implementing procedures. See appendixes B and C, respectively.

1.5 Regulatory Requirements, Guidelines, and Standards

1.5.1 Regulatory Requirements

The Uniform Statewide Recycling Criteria was established for the protection of public health and are codified in the California Code of Regulations, Title 22, Division 4, Chapter 3 (herein referred to as Uniform Statewide Recycling Criteria). Approved uses of recycled water under the Uniform Statewide Recycling Criteria depend on the level of treatment and potential for public contact. There are four categories of recycled water relevant to this General Order; they are listed here and defined in the indicated regulations section:

- a. Undisinfected secondary recycled water (Cal. Code Regs., tit. 22, § 60301.900.)
- b. Disinfected secondary-23 recycled water (Cal. Code Regs., tit. 22, § 60301.225.)
- c. Disinfected secondary-2.2 recycled water (Cal. Code Regs., tit. 22, § 60301.220.)
- d. Disinfected tertiary recycled water (Cal. Code Regs., tit. 22, § 60301.230.)

When used in compliance with the Recycled Water Policy, the Uniform Statewide Recycling Criteria, and all applicable state and federal water quality laws, the State Water Board finds that

recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to raw and potable water supplies for approved uses. The General Order authorizes beneficial, non-potable recycled water uses consistent with the Uniform Statewide Recycling Criteria and any additional requirements specified in the Notice of Applicability

Two state agencies share responsibility for regulating the application and use of recycled water: the Division of Drinking Water (DDW) of the SWRCB and the RWQCB. Planning and implementing water recycling projects typically entails numerous interactions with these two agencies prior to final project approval. The preparation of this report represents an important step in the process.

The DDW of the SWRCB establishes statewide effluent bacteriological and treatment reliability standards for recycled water uses per Title 22. Under Title 22, the standards are established for each general type of use based on the potential for human contact with recycled water. The highest degree of standards for recycled water is for unrestricted human body contact. This program involves use of disinfected tertiary recycled water for irrigation of landscaped areas and impoundment in the same landscaped areas.

The RWQCB is charged with establishing and enforcing requirements for the application and use of recycled water within the state. Permits are required from the RWQCB for all water recycling operations in California. Regulatory authority and requirements are addressed in Chapter 7: Reclamation (Articles 1-7) of Division 7: Water Quality of the California Water Code. As part of the permit application process, applicants are required to demonstrate that their proposed recycled water operation will not exceed groundwater and surface water quality objectives expressed in the respective Basin Plan and that the operations are in full compliance with Title 22 requirements pertaining to recycled water.

The intent of the regulations is to establish acceptable constituents for recycled water and to prescribe means of ensuring reliability in the production and delivery of the water so that use for specified purposes does not impose undue risks to health. The DDW of the SWRCB has overall responsibility for all health issues. The RWQCB issues the recycled water requirements, which impose all absolute criteria established by the DDW of the SWRCB regulations. Generally, all DDW of the SWRCB recommendations in areas of critical or essential health concerns are also incorporated by the RWQCB. Any other DDW of the SWRCB recommendations are included in the recycled water permit requirements as deemed appropriate by the RWQCB. When measures are excluded, the RWQCB informs the DDW of the SWRCB in writing, clearly identifying the deviations and rationale for the departure.

1.5.2 State and Other Guidelines

“Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water” (Guidelines) were prepared by CDPH in March 2001. The original report was prepared in conformance with CDPH’s 2001 Guidelines and Title 22, Title 17, and the Water Code. This report has been updated in 2021 with guidance from DDW and the SWRCB.

1.5.3 Standards

Recycled water pipelines were designed and constructed to MCWD Standard Plans and the Town of Mammoth Lakes Standard Plans for Public Works.

SECTION 2 TREATMENT AND RECYCLED WATER PRODUCTION

The MCWD wastewater treatment system production of recycled water is described in this section. The treatment system incorporates the design requirements pursuant to Title 22, Articles 7 through 10. Wastewater sources including characteristics and source control programs are included. Design parameters, reliability, flexibility features, and contingency plans for each treatment unit process are discussed. This section also includes overall treatment system operation and maintenance, sampling and analysis, and monitoring and reporting.

2.1 Description of Wastewater Sources

2.1.1 Wastewater Sources

The Town of Mammoth Lakes population is composed of year-round and seasonal residents. Seasonal residents consist of both ski industry residents in winter, and non-winter visitation and activities primarily occurring during the months of July through September. The major wastewater sources for the recycled water treatment system include domestic sources within the community of Mammoth Lakes and several recreational campground areas located on U.S. Forest Service lands outside the MCWD service area. Commercial and industrial wastewater sources contribute a minor fraction, less than ten percent, of the wastewater.

2.1.2 Raw Wastewater Quality

Table 2.1 shows average raw wastewater quality data as received at the MLWWTP.

Table 2.1 Raw Wastewater Quality Data Statistics

Values	Water Quality Constituents ^a							
	Temp °C	pH	BOD mg/L	MBAS mg/L	TKN mg/L	NH4-N mg/L	NO3-N mg/L	TSS mg/L
Minimum	9.1	6.8	92	0.15	18	2.8	0	187
Maximum	20.4	9.5	858	30	120	49	13	395
Median	14.1	7.5	315	5.8	40	22	0	271
Average	14	7.2	307	6.0	42	22	0	279
95 th Percentile	19.8	8.9	464	12	65	36	0.7	360

^a Data from 1991 to 2001 except TSS (from 1999 to 2001)

BOD – Biochemical Oxygen Demand; MBAS – Surfactants; TKN – Total Kjeldhal Nitrogen
 NH4-N – Ammonia Nitrogen; NO3-N – Nitrate Nitrogen; TSS – Total Suspended Solids

2.1.3 Source Control Programs

MCWD has established and implemented a source control program to reduce the impacts of commercial and industrial wastewater sources and wastewater collection system infiltration on the treatment plant performance. These sources include restaurants, automotive repair shops, and construction sites. A summary of the program as applied to some major wastewater source categories within MCWD is provided below.

- a) Restaurants are required to have grease interceptors installed to prevent high concentrations of grease and oil from entering the wastewater collection system. MCWD has developed an enforcement program to monitor and inspect restaurants in an effort to mitigate this source of fats oils and greases.

- b) Construction sites are required to protect sewer manholes and storm drain inlets from receiving debris from erosion and construction activities through the use of filtration fabrics.
- c) To prevent infiltration into its wastewater collection system, MCWD uses video inspection equipment to evaluate underground pipelines. If locations are identified with infiltration, the pipelines are sealed. Portable flow-monitoring equipment is used to monitor flows during low-flow periods to identify problem areas. Sewer manholes and manhole covers are also inspected and sealed when infiltration is identified entering these facilities.

2.2 Recycled Water Treatment System

This section describes the existing wastewater treatment facility and implemented improvements to produce recycled water. Figure 2.1 is a scaled layout drawing showing the existing treatment units and their improvements implemented under the MCWD recycled water project.

The MLWWTP is an activated sludge plant with the following unit processes: independent grit and trash removal systems, primary sedimentation, conventional activated sludge operated for carbonaceous BOD removal, secondary sedimentation, tertiary disk filtration, and chlorine disinfection. Treated effluent meeting the plant's Waste Discharge Requirements (WDR) is disposed of in Laurel Pond, a minor surface water of varying size located approximately 5½ miles southeast of Mammoth Lakes.

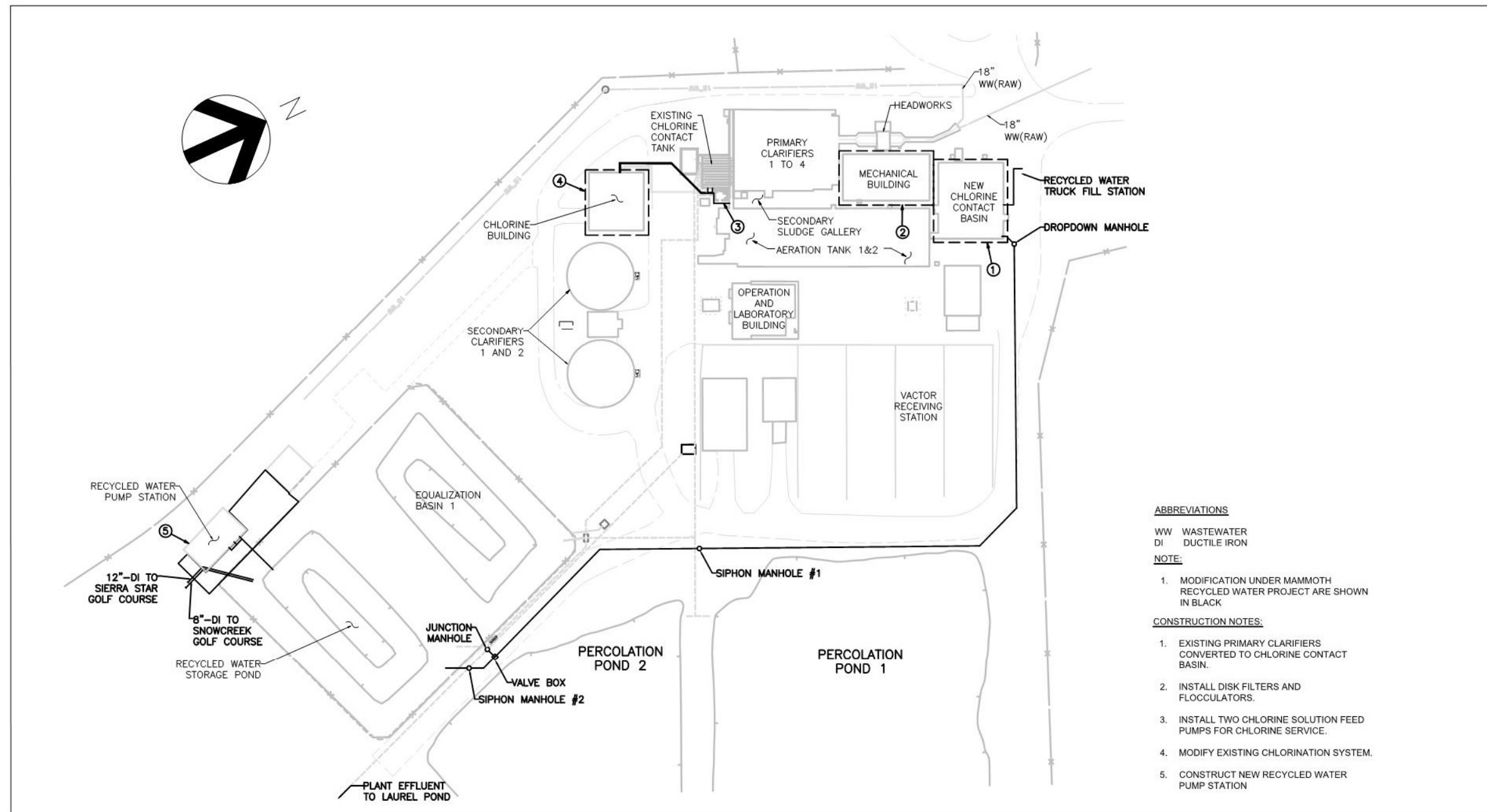
The existing filtration and disinfection systems meet Title 22 requirements for recycled water production and are used to reliably meet customer demand. The process's include secondary effluent pumping to filter, coagulant/flocculant addition and mixing, disk tertiary filter, chlorinators with in-line chlorine gas injection, chlorine contact basin (CCB), yard piping, a recycled water in-plant storage basin, and a recycled water pumping station.

The design capacity of the existing treatment plant is 4.1 MGD maximum 30-day average operating in carbonaceous BOD removal mode. The corresponding maximum-day flow is 5.48 MGD. Current annual-average wastewater flow during the irrigation season is 1.5 MGD. The treatment system modifications for recycled water production are designed for an average-daily flow of 1.5 MGD and a peak-flow rate of 2.9 MGD. Laurel Pond receives all the effluent from the treatment facility that is not used by approved recycled water uses. During the irrigation season recycled water not meeting Title 22 quality requirements, but meeting the WDR will be diverted to Laurel Pond. This includes filter effluent exceeding a turbidity of 2 nephelometric turbidity units (NTU), filter influent exceeding a turbidity of 10 NTU, and disinfected effluent not complying with the recycled water disinfection requirements.

A process flow diagram showing the existing treatment processes with modifications for recycled water production is shown on Figure 2.2. MCWD has the capability of producing secondary disinfected 2.2 recycled water and/or tertiary recycled water by the simple means of adding a coagulant to its secondary influent to achieve turbidities required by Title 22 and sending the filtered effluent through the chlorine contact basin to meet Title 22 CT and MCT requirements via an automated valve that continuously monitors those values. Conventional activated sludge effluent is run through a process of coagulation, flocculation and sedimentation in a secondary clarifier and then passed through a tertiary disk filter to produce filtered wastewater that meets the effluent criteria pursuant to the requirements defined in Title 22, Chapter 3, Article 1, Section 60301.320. A CCB is designed to produce disinfected tertiary recycled water pursuant to the requirements defined in Section 60301.230 of Title 22. Recycled water from the CCB flows to a HDPE-lined on-site storage basin. A recycled water pumping station pumps recycled water to the two initial users, Sierra Star and Snowcreek Golf Courses, using two force mains. Recycled water for approved uses

Section 2.0 Treatment and Recycled Water Production

can be pumped from the CCB to water trucks permitted under the Trucked Recycled Water Program. A chlorine contact tank is also available for trucked recycled water or if needed in the event of a filter failure. This tank can also be used to send effluent to laurel pond if needed.



ABBREVIATIONS

WW WASTEWATER
DI DUCTILE IRON

NOTE:

1. MODIFICATION UNDER MAMMOTH RECYCLED WATER PROJECT ARE SHOWN IN BLACK

CONSTRUCTION NOTES:

1. EXISTING PRIMARY CLARIFIERS CONVERTED TO CHLORINE CONTACT BASIN.
2. INSTALL DISK FILTERS AND FLOCCULATORS.
3. INSTALL TWO CHLORINE SOLUTION FEED PUMPS FOR CHLORINE SERVICE.
4. MODIFY EXISTING CHLORINATION SYSTEM.
5. CONSTRUCT NEW RECYCLED WATER PUMP STATION



M.C.W.D.

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Waste Water Treatment Plant
**TREATMENT SYSTEM
LAYOUT MAP**

(NTS)

FIGURE

2.1

Figure 2. 1 Treatment System Layout Map

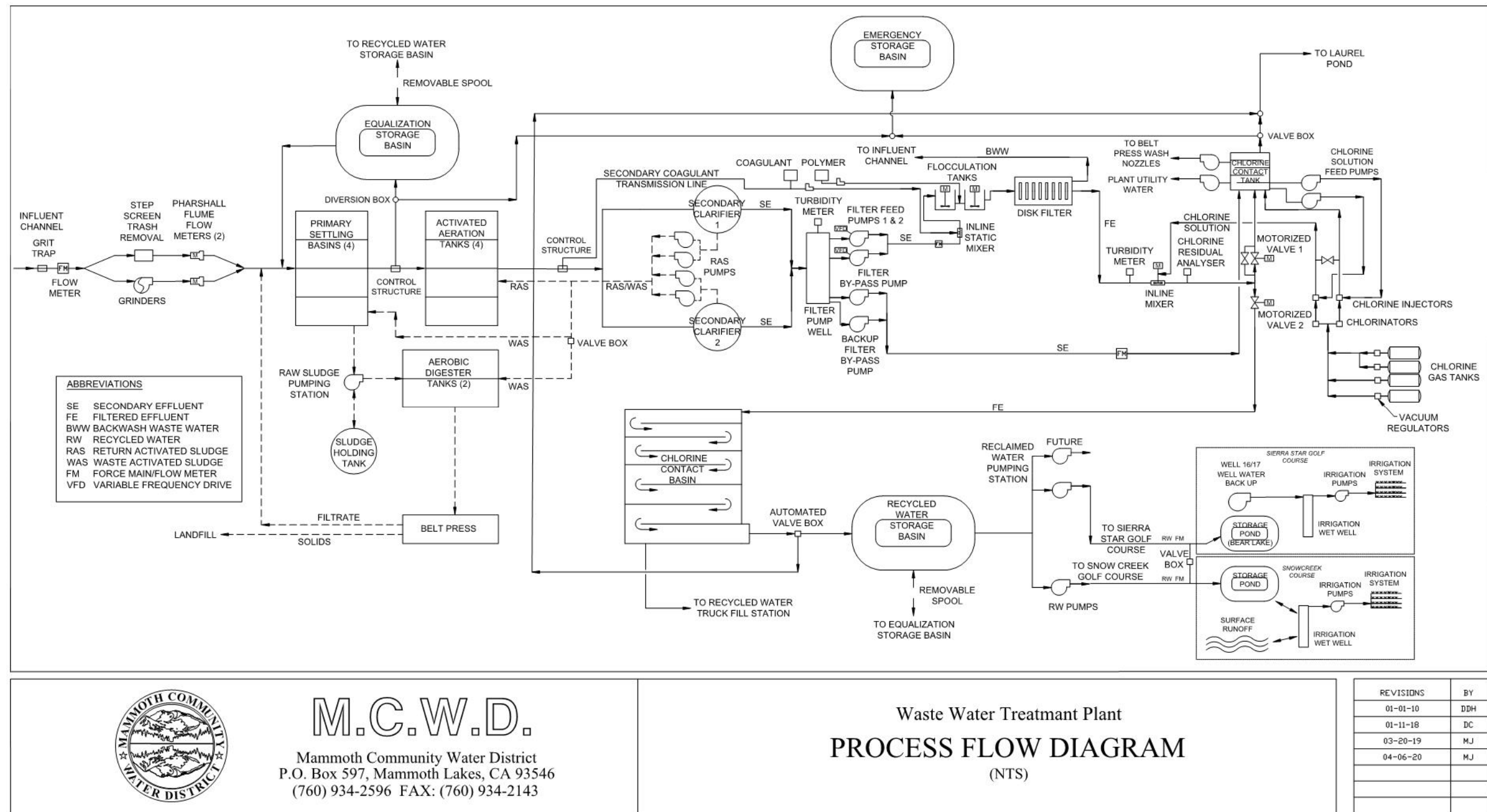


Figure 2. 2 Process Flow Diagram

The following information is listed pursuant to Title 22, Chapter 3, Article 7, and includes design criteria, operation and effluent characteristics for each unit process of the recycled water treatment system. Mandatory design features listed in Article 10 are also addressed. Table 2.2 summarizes plant performance by listing unit process average effluent characteristics, and expected values for unit processes.

Table 2. 2 Unit Process Water Quality Estimates

Process Water	Unit Process Water Quality ^a			
	BOD (mg/L)	TSS (mg/L)	Turbidity (NTU)	Total Coliform (MPN/100 mL)
Raw Wastewater	307	279	-	-
Primary Effluent	280	102		
Secondary Effluent	<10	10	5 ^c	-
Filtered Effluent	<10	8	2 ^b	-
Final Effluent	<10	7	2	<2.2 ^d

- ^a Values estimated for processes at nominal design capacity of 1.5 MGD
- ^b in compliance with Title 22 §60301.320. **Filtered wastewater.**
- ^c In compliance with title 22 §60304. **Use of recycled water for irrigation.**
- ^d In compliance with title 22 §60301.230. **Disinfected tertiary recycled water.**

2.2.1 Preliminary Treatment and Flow Monitoring

Functions – The pretreatment system has four components, a rock/grit trap, one Huber mechanically operated step screen, one Huber WAP SL trash screening washer and one influent channel grinder. The rock/grit trap settles rocks and large grit particles upstream of the influent channel. The Huber mechanically operated step screen removes objects larger than ¼” (6mm) from the headworks influent. The Huber WAP SL trash screening washer washes objects collected by the Huber stepscreen returning all organic solids into the plant influent then separates, dries and compacts the remaining cleaned trash for disposal. The grinder, a Muffin Monster type by JWC Environmental, grinds large solids into solids of less than ½ inch size. The grinder has rotating vertical drum screens on both sides of the cutters. These direct the retained solids into the cutter. Flow monitoring is done in the influent channel and flow data is transmitted to SCADA for plant operation and control. Design data for the preliminary treatment and flow monitoring system is summarized in Table 2.3.

Equipment Type – The rock/grit trap is a widened depression in the influent channel to reduce water velocity and promote heavy particle settling. Rocks, pebbles and large sand particles are stored in the depression and removed with a grit pump and pumped through a grit drying system on a continuous basis. In normal operation all flow runs through channel one and the Huber step screen. In the event the Huber step screen fails or flow reaches more than 26 inches depth in channel one waste water is diverted over a gate into channel two through an in-channel grinder. A level signal starts the stand-by grinder automatically. Step screen and grinder operations are monitored using the SCADA system. Step screen and grinder have blockage and high water level alarms. The grinder is installed such that in case of blockage of both units, influent wastewater can flow over the grinder and enter the primary clarifiers. The open channel flow meter is a Marsh-McBirney Flo-Dar flow meter. The meter uses Doppler radar velocity measurement and ultrasonic level sensing techniques to measure wastewater velocity and depth in the channel. Measured velocity and depth values are then converted into flow rates in the meter.

Operational Characteristics – Continuous operation.

Table 2.3 Preliminary Treatment Design Data

	Unit	Value
Nominal Plant Flow		
Annual-Average Flow	MGD	1.5
Maximum-Month Flow	MGD	4.05
Maximum-Day Flow	MGD	5.48
Huber Step Screen		
Number	ea	1
Capacity, each	MGD	5.5
Screen opening	inch	¼
Chanel Width	ft	3
In-Channel Grinder		
Number	ea	1
Capacity, each	MGD	6.9
Lateral Drum Screen Opening	inch	½
Channel Width	ft	3
Flow Measurement		
Type	Area/velocity radar and ultrasonic	
Number	ea	1

2.2.2 Primary Treatment

Function – To settle ground solids and suspended solids with gravity sedimentation. Removed solids are sent as primary sludge to aerobic digestion. Design data for the primary treatment system is summarized in Table 2.4.

Equipment Type – Rectangular concrete tanks with rake and chain sludge removal mechanism and helical skimmers for scum removal. Helical skimmers are manufactured by Polytech.

Operational Characteristics – Continuous operation; usually one clarifier is out of service during low flow season.

Table 2. 4 Primary Treatment Design Data

	Unit	Value
Primary Clarifiers		
Number		4
Dimension, W x L x side-water depth (SWD)	ft	2 @ 14 x 90 x 10
	ft	2 @ 20 x 90 x 10
Retention time at average-daily flow	hr	7.3
Overflow rate at average-daily flow	gpd/sf	662
TSS Removal Efficiency		
Sludge Pumps		
Number		6
Capacity, each	gpm	90
Scum Pumps		
Number		1
Capacity, each	gpm	90
Clarifier Overflow Rate		
At average-daily flow	gpd/sf	245
At peak-daily flow	gpd/sf	895
At instantaneous peak flow	gpd/sf	2,454

2.2.3 Flow Equalization

Function – To store and equalize primary clarifier effluent to produce a constant quantity and uniform quality influent to the secondary biological process. Design data for the flow equalization system is summarized in Table 2.5.

Equipment Type – One 1.5-MG concrete-lined earthen basin (Equalization Basin 1) and one 1.5-MG HDPE-lined earthen basin (Equalization Basin 2) with return pumps. Diversion to the equalization tank is controlled with a modulating butterfly valve and a magnetic flow meter, allowing a preset flow rate to go to secondary treatment. During periods of low instantaneous flow exceeding a band of 800 gpm below the forward feed set point, equalization basin return pumps start automatically. A level transducer in the EQ basins control low level pump shut down and triggers a high water level alarm. The basins are mixed and maintained aerobic using a propeller mixer and integrated blower system all contained on a floating platform which is anchored in place by guywires.

Operational Characteristics – During irrigation season, one of the two basins (Equalization Basin 2) will be used for recycled water storage and the other (Equalization Basin 1) as an equalization basin for primary effluent. Both are separate but can be connected through plug valves at the inlet of the return pumps. During the irrigation season, as part of the standard operating practice, the pipe spool allowing basin interconnection located inside the existing return pumping station will be removed before using Equalization Basin 2 for recycled water storage. The rest of the year, both basins will be used as equalization basins by reinstalling the spool piece. Equalization Basin 2 will be cleaned at the beginning of the irrigation season, before it is used for recycled water storage.

Table 2. 5 Flow Equalization Design Data

	Unit	Value
Basins		
Number		2
Capacity, each	MG	1.5
Working capacity	MG	1.3
Return Pumps		
Number		4
Capacity	gpm	2 @ 800
	gpm	2 @ 600
Aeration/Mixing Blowers		
Number		2
Power, each	HP	20
Capacity, each	scfm	400
Aeration/Mixing Pumps		
Number (Total in two basins)		4
Power, each	HP	15
Capacity, each	gpm	2,750

2.2.4 Secondary Treatment

Function – To oxidize and stabilize primary effluent dissolved and suspended organic matter through biochemical action in the presence of dissolved oxygen via a completely mixed activated sludge process. Design data for the secondary treatment system is summarized in Table 2.6.

Equipment Type – Concrete aeration tanks constructed on site, fine bubble ceramic disk diffusers with tapered aeration configuration, anaerobic selector zone with submersible EMU type mixer, Two Neuros turbo blowers that operate on automated DO control system.

Additional equipment includes: Circular clarifiers with flocculating center well; return activated sludge (RAS) vertical turbine pumps with speed control; positive displacement waste activated sludge (WAS) pumps with speed control.

Operational Characteristics – Continuous operation, operates currently on carbonaceous BOD removal mode for energy saving.

Table 2. 6 Secondary Treatment Design Data

	Unit	Value
Aeration Tanks		
Number of trains		2
Length	ft	180
Width	ft	24
SWD	ft	13.25
Volume, each tank	1000 cft	57.2

	Unit	Value
Organic loading rate at average flow	Lbs of BOD/1000 cft/day	30
Air requirement (flow rate 5.48 MGD)	scfm	7,600
Blowers		
Number		4 (1 or 2 stand by)
Capacity, each	scfm	3,000
Discharge pressure	psig	6.7
Secondary Clarifier		
Number		2
Diameter	ft	60
SWD	ft	16
Surface loading rate		
At average daily flow	gpd/sft	265
At peak daily flow	gpd/sft	969
Return Activated Sludge Pumps (variable speed)		
Number		4
Capacity, each, maximum speed	MGD	1.5
Waste Mixed Liquor Pumps		
Number		2
Capacity, each	gpm	25
Secondary Scum Pumps		
Number		2
Capacity, each	gpm	240

2.2.5 Tertiary Treatment

Function – This process includes Coagulation, flocculation and sedimentation of secondary influent followed by cloth disk filtration. Secondary effluent is pumped into the filter using vertical turbine pumps. Two bypass pumps in the same wet well allow flow to be diverted from the filters for secondary effluent disinfection in the existing chlorine contact tank (CCT) and discharged to Laurel Pond. Design data for the tertiary treatment system is summarized in Table 2.7.

Equipment Type –

- Feed pumps- Two 15 HP variable speed vertical turbine pumps. A single pump is required for average flows while both pumps are required during peak flows. Both pumps are VFD controlled based on level in the secondary effluent pumping well.
- Filters- Packaged Cloth-Media Disk Filter by U.S. Filter-Kruger Products. The manufactured disk filter is a CDPH approved filtration system to produce filtered wastewater that complies with the criteria as defined in Title 22, Chapter 3, Article 1, and Section 60301.320. Conditions of CDPH acceptance are: 1) hydraulic loading rate not to exceed 6 gpm/ft²; 2) the filter will be complemented with a downstream disinfection process compliant with Section 60301.230 of Title 22; 3) influent turbidity not to exceed 10 NTU more than 5-percent of the time within a 24-hour period; and 4) scheduled inspections of cloth conditions is required.

Operational Characteristics – Continuous operation when recycled water system is in service. All the discs are backwashed simultaneously on a timer without interrupting filter operation. During backwash the discs rotate allowing the top portion above the water to be backwashed with filter effluent pumped through nozzles. Filter feed flow is constantly monitored to maintain a hydraulic loading rate below 6 gpm/ft² of cloth media. When at this flow the filter is not capable of passing the feed flow, an internal weir in the filter vessel allows excess unfiltered flow to bypass. This flow is directed to the existing CCT for disinfection and discharge to Laurel Pond as disinfected secondary effluent. During the winter season, when there is no demand for recycled water, a portion of the secondary effluent will be filtered and then directed to the secondary effluent CCT, CCB along with a portion that may bypass the filters. Combined effluent will be disinfected and sent to Laurel Pond.

Coagulant dosing is automatically flow paced to allow flocculation in secondary clarifier. When secondary effluent reaches or exceeds a turbidity of 10 NTU an interlock shuts down the filter feed pumps. All secondary effluent is then diverted to the existing secondary effluent disinfection and disposal system. When filter effluent has turbidity greater than 2 NTU a diversion valve at the filter discharge automatically diverts filter effluent to the existing secondary effluent disinfection and disposal system.

Table 2. 7 Tertiary Treatment Design Data

	Unit	Value
Filter Feed Pumps		
Number (total)	ea	2
Capacity, each	gpm	1,050
Discharge pressure, TDH	ft	30
Power	HP	15
Chemical Feed		
Coagulant type		Propac 929
Coagulant dose	mg/L	15-30
Filter		
Type		Kruger/Hydrotech Discfilter
Filter Media		Woven polyester
Number		1
Total surface area	ft ²	543
Filter pore size	µm	10
Filter flow		
Average daily flow	MGD	1.5
Peak hourly flow	MGD	2.9
Hydraulic loading		
Loading at peak flow	gpm/ft ²	3.67
Backwash Rate	gpm	94
Filter Influent Quality		

	Unit	Value
Average Turbidity	NTU	≤5
Filter Effluent Quality		
Turbidity	NTU	≤2

2.2.6 Disinfection

Function – Kill pathogenic organisms in the tertiary filter effluent by injecting a chlorine solution and providing sufficient initial mixing and contact time. Design data for the disinfection system is summarized in Table 2.8.

Equipment Type –

- Chlorine contact basin (CCB): Concrete tank with fiberglass reinforced plastics (FRP) baffles and covers. The tank has a total of eight passes. Tank level is maintained constant with effluent flowing over a weir out of the last pass.
- Chlorine Solution Supply: Chlorine gas is used to produce a concentrated solution with the use of venturi injectors. The solution is injected into the filter effluent line using an in-line chemical induction system to promote mixing and dispersion of the chlorine solution. Main components of the chlorination system include: four one-ton chlorine gas cylinders, automatic shut-off valves, vacuum regulators, automatic switch-over valves, chlorine gas detector, flow-paced and residual-trimmed chlorinators, chlorine injectors, chlorine solution feed water supply pumps, in-line chemical induction system, and two total chlorine residual analyzers.

Operational Characteristics – The recycled water CCB is sized to provide more than 90 minutes of modal contact time at the peak instantaneous flow of 2.9 MGD. Chlorine gas is fed to a dilution stream with constant flow, using vacuum chlorinators. Chlorine dose is controlled at the chlorinator with a combination of flow signal (filter effluent flow) and total residual chlorine signal measured at the inlet of the CCB by an amperometric total chlorine residual analyzer. The continuous flow and chlorine residual signal allows the system to dose chlorine based on filter effluent flow. The chlorine dose is trimmed based on the total chlorine residual measured by a second chlorine analyzer installed at the CCB outlet. This ensures maintaining over 450 mg-min/L CT (residual chlorine concentration, C, times modal contact time, T) at all times, which is required to meet Title 22 disinfection requirements. The point of compliance sampling for total and fecal coliform is the outlet of the CCB, at the same location where total residual chlorine is monitored for compliance with the recycled water disinfection requirements. In 2009 a Porter Modal Contact Time Tracer Study was conducted by HDR Engineering Inc. for the MCWD chlorine contact tank (Appendix A). Tracer tests are conducted as required by the California Department of Public Health (DPH) Title 22 regulations to determine that the chlorine contact tank, as constructed, does indeed provide the minimum modal contact time (MCT) of 90 minutes for all anticipated flow rates. Rhodamine dye tracer tests were performed on the CCT at the Mammoth Community Water District reclamation plant. The MCT’s were obtained for several different flow rates and these values were plotted to create curves from which the MCTs at a given flow rate could be obtained by interpolating from the given data points. The testing indicated that all flow rates through the CCT within the expected flow range will experience at least 90 minutes of MCT. The testing also indicated that the CCT exceeded the 0.75 MCT-HRT design ration substantially at approximately 0.92. Please reference Appendix A for Disinfection Contact Time Tracer Study and results. There is additional contact time in the recycled water storage tank, but this is not factored into the CT calculation. The CCB outlet chlorine analyzer will be used to alarm, close the CCB inlet valve, and open the filter effluent diversion valve if the measured CT value falls below the target CT value.

Section 2.0 Treatment and Recycled Water Production

This automatic action will send filter effluent to the secondary effluent CCT for disinfection and ensure that no inadequately disinfected water enters the CCB and RW storage basin. The CCT effluent will be disposed in Laurel Pond. An automated valve (switch track) that switches flow from the RW basin to Laurel Pond is used to maintain constant flow and chlorine residual when the RW basin is full and to supply the recycled water truck fill station. When the RW basin reaches a depth of 15ft., it closes the valve to the RW basin and opens the valve to Laurel pond, when it reaches 14.5 ft. it opens the valve to the RW basin and closes the valve to Laurel Pond.

Table 2. 8 Disinfection Design Data

	Unit	Value
Chlorine Cylinder		
No. of one-ton cylinders (duty)		4
No. of one-ton cylinders (storage)		6
Storage at 10 mg/L based on ADF	days	159
No. of automatic shut-off valves		4
No. of vacuum regulators		4
No. of automatic switch-over valves		1
Chlorinators		
No. of chlorinators for recycled water service		1
No. of chlorinators for secondary effluent service		1
Capacity, each	lbs/day	500
Injectors		
No. of injectors for recycled water service		1
No. of injectors for secondary effluent service		1
Capacity, each	lbs/day	500
No. of chlorine solution pumps for recycled water service		1
No. of chlorine solution pumps for secondary effluent service		1
Capacity of chlorine solution pump, each	gpm	25
Eductors		
No. of eductors for RW service		1
Capacity, lbs/day		500
No. of eductors for existing CCT (1 duty, 1 standby)		2
Capacity, each,	lbs/day	500
Chlorine Contact Tank (for RW service)		
Length	ft	60
Width	ft	56
Avg. SWD	ft	10
Volume	1000 cft	35.28
Number of passes		8
Average pass width	ft	7
Pass length to width ratio		69

	Unit	Value
HRT at peak flow of 2.9 MGD	min	137
MCT/HRT, at peak flow of 2.9 MGD (assumed)		0.92
Modal contact time (MCT) at peak flow of 2.9 MGD	min	110
Chlorine dose	mg/L	10
Minimum CT value	mg-min/L	450
Design Flow		
Average daily flow	MGD	1.5
Peak hour flow	MGD	2.9
Compliance Effluent Quality, Total Coliform Bacteria		
Median in last seven days	MPN/100 mL	< 2.2
Not more than one sample in 30-day period	MPN/100 mL	> 23
Any sample	MPN/100 mL	<240

2.2.7 Power Supply

Power supply for the treatment plant is provided by an electrical service from Southern California Edison, Co. The supply is 480-volt, 3-phase, 60-hertz, with a maximum current rating of 2500 amps. The plant has a 400-kW diesel backup generator. This generator powers all equipment necessary to treat wastewater in the event of a power outage. The SCADA system has an uninterruptible power supply (UPS). This ensures that the plant can continue operating during an outage. The new recycled water pumping station is not backed up by a secondary source of power. The golf courses have on-site recycled water storage and a continuous supply of recycled water is not necessary. Power requirements for all process equipment part of the recycled water filtration and disinfection system is approximately 70 kW. Recycled water pumping and hydraulic surge protection uses approximately 260 kW.

2.2.8 Chemicals

Table 2.9 lists information on all the chemicals that are used in the recycled water treatment processes. This includes name of chemicals, point of applications, the method and degree of mixing, the dosage, and the chemical storage and handling methods.

Table 2.9 Chemicals Used in the Recycled Water Treatment System

Name of Chemical	Point of Application	Method of Mixing	Dose	On site Storage and Spill Containment	Bulk Storage
Propac 929	secondary clarifier inlet	flash mix through diversion channel, slow paddle mixing in flocculation zone	20 mg/L	Double-walled cross linked high density polyethylene (XDPE) 1000 gal. tanks; Raised concrete curb for spill containment inside chemical room.	Bulk supply tanker pumps directly to the two service tanks.
Chlorine	Filter effluent pipe inside the filter room		15 mg/L	1-ton cylinders per Chlorine Institute guidelines.	Minimum six cylinders in store with four on service. Use overhead crane to transfer.

2.3 Reliability/Flexibility Features

The following information is listed pursuant to Title 22, Chapter 3, Article 8, Sections 60333 and 60335, Article 9, and Article 10. Included are listings of monitoring devices, alarms, and reliability and flexibility features for each unit process or operation. Under the heading "Reliability Features" for each unit process or operation, specific references are given to the section(s) in Title 22 that the subject feature is satisfying. Figure 2.3 schematically illustrates key alarm and monitoring devices for the MCWD recycled water system. All monitoring information and alarms described in the following sections are local and communicated to two central telemetry rooms using twisted shielded pair (TSP) and fiber optic cable using Allen Bradley Data Highway Plus (DH+) as the communication protocol.

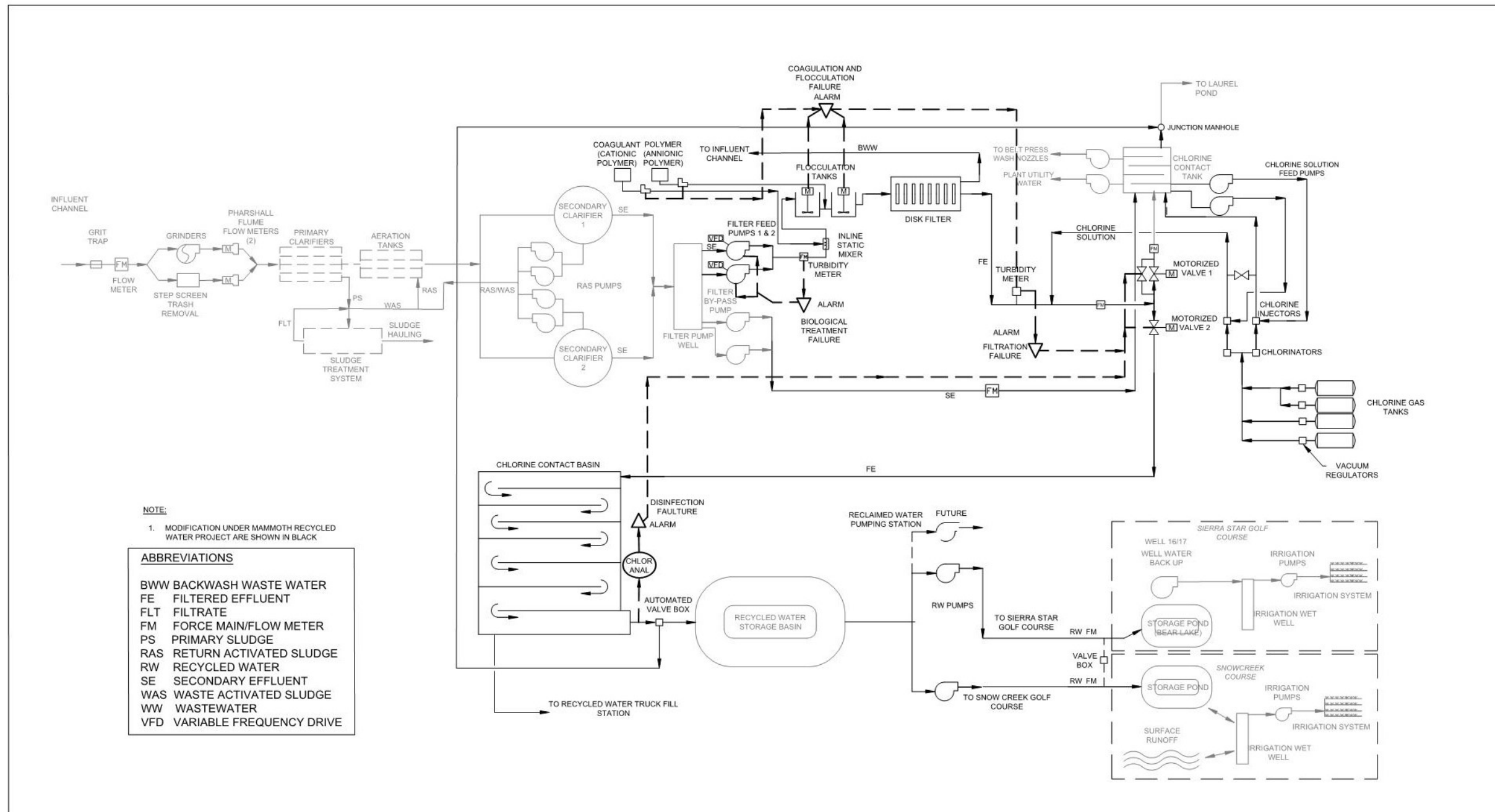
2.3.1 Preliminary Treatment and Flow Monitoring

Monitoring Devices –

- Power and fail status.
- Step screen fault, high level alarm, wash system fault, and high channel level alarm.
- In-channel grinders torque overload, operation, and fail status.
- Non contact area-velocity influent flow meter/transmitter readout and operation. Also provides continuous influent channel level indication. No fail status.

Alarms –

- Loss of power.
- Influent channel high level.
- Grinder failure (non-start or blocked after three reverse rotation and re-start trials).
- Flow meter failure. No status.



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Waste Water Treatment Plant
TREATMENT PROCESS FAILURE SCHEMATIC
(NTS)

FIGURE
2.3

Figure 2. 3 Treatment Process Failure Schematic

Reliability Features – For influent flow meter, if channel is full and meter submerged, a pressure cell can measure depth as a backup to the ultrasonic level sensor. All flow runs through the step screen channel one, channel two influent gate is closed with overflow capacity set to 26 inch depth. When influent level indicates 25.5 in., SCADA system starts the emergency bypass grinder in case of over flow into bypass channel two. SCADA calls out to operator on call when bypass grinder is running. On call operator will respond to call by completely opening bypass gate or reset screen fault. Influent will still flow through screen when faulted and over bypass if needed.

Flexibility Features – the grinder has a motor shaft extensions to allow overflow in case the unit is out of service so that influent flow does not backup in influent sewers. Unground solids will settle or float in the primary clarifier.

2.3.2 Primary Treatment

Monitoring Devices –

- Power and fail status.
- Primary sludge pumps operation and fail status.
- Primary sludge flow meter.
- Helical skimmer drive operation and fail status.
- Scum pump operation and fail status.
- Primary effluent bypass flow meter readout and operation and fail status.
- Primary effluent bypass flow control valve position and status.

Alarms –

- Loss of power.
- Sludge pump failure.
- Skimmer drive failure.
- Scum pump failure.
- Bypass flow meter and valve failure.

Reliability Features – Multiple clarifier units capable of treating the entire flow with one unit out of service. Multiple sludge pumps capable of providing full sludge pumping efficiency with two pumps out of service.

Flexibility Features – Inlet gates can be used to take any number of clarifiers off-line for maintenance. Primary sludge pumps have interconnected suction to allow any pump to pump from any clarifier.

2.3.3 Flow Equalization

Monitoring Devices –

- Power and fail status for EQ Basin area MCC.
- Basin high and low level.
- Basin aeration blower operation and fail status.
- EQ Basin return pumps operation and fail status.

- Return flow meter readout and operation and fail status.

Alarms –

- Loss of power.
- Basin high level.
- Blower failure.
- Return pump failure.
- Return flow transducer failure.

Reliability Features – Multiple return pumps capable of pumping the entire flow with one unit not in operation. Two jet aeration/mixing blower units capable of providing mixing/aeration of the two basins when needed.

Flexibility Features – Primary clarifier effluent up to 4.9 MGD can be sent directly to secondary treatment process when the two activated sludge basins are on line. This allows winter flow peak conditions to be handled with minimal or no equalization when treating carbonaceous BOD only. In maximum-day conditions, the secondary system can operate at average flow and store diurnal peaks in the equalization basins for up to 21 hours before returned to secondary treatment process.

2.3.4 Secondary Treatment

Monitoring Devices –

- Aeration tank:
 - Blower MCC power fail
 - Blower operation and fail status
 - Air flow meters for each aeration basin readout and operation and fail status
 - Position and status for air flow control valves in two main air headers
 - Dissolved oxygen analyzer readout and operation and fail status
 - Blower discharge pressure and temperature
- Secondary clarifier:
 - RAS pump operation and fail status
 - RAS flow meter readout, operation and fail status

 - Rotating skimmer and sludge rake drive operation and fail status
 - WAS pumps flow operation and fail status.

Alarms –

- Aeration tank:
 - Loss of power in blowers
 - Blower failure
 - Blower flow meter failure
 - Dissolved oxygen analyzer failure
 - Low dissolved oxygen

- Secondary clarifier:
 - Air flow control valve failure
 - Basin 1 & 2 air flow high/low/transducer fail
 - Basin 1 & 2 Dissolved oxygen high/low/transducer fail
 - manifold pressure high/low/transducer fail
 - Blower 1 & 2 back up blower start Failure/Fault
 - Backup blower speed high/low/transducer fail
 - Loss of power in clarifier drives
 - RAS pump failure
 - RAS flow meter failure low flow alarm
 - WAS pump failure
 - WAS flow meter failure
 - Secondary scum pump failure
 - Skimmer failure

Reliability Features –

- Aeration tank:
 - Alarm (dissolved oxygen low-level) and multiple biological treatment units capable of producing oxidized wastewater with one aeration tank not in operation (reference Section 60345 [a]). This is the case during the season when recycled water is produced, which corresponds to low flows into the plant (off snow season)
 - Multiple units capable of providing aeration for entire flow with one blower not in operation
- Secondary Clarifier:
 - 2 clarifiers available with one capable of treating average flow (reference Section 60347 [a])
 - Biological process failure resulting in high secondary effluent turbidity automatically shuts off the filter feed pumps and activates filter bypass pump to divert secondary effluent to the effluent CCT and then to Laurel Pond (reference Section 60345 [e])
 - RAS pump failure results in automatically starting standby RAS pump
 - WAS pump failure and automatically start standby WAS pump

Flexibility Features –

- Aeration tank:
 - Can utilize piping manifold and valves to remove a blower for maintenance without affecting the treatment process
 - Can utilize gates and valves to take an aeration tank offline without affecting the treatment process
- Secondary clarifier:
 - Can utilize gates to take a clarifier off line without affecting the treatment process

Can automatically adjust return and waste sludge pumping rate to optimize process control. This is done using a RAS flow meter signal

Can isolate RAS and WAS pumps for maintenance
skimmer drive speed is manually adjusted to optimize sludge and scum collection

2.3.5 Tertiary Treatment

Monitoring Devices –

- Coagulation and Flocculation: Flocculator speed, operation and fail status
Propac 929 storage tanks level
- Filter: Filter feed pump speed and operation and fail (high temperature, high pressure) status
Filter flow
Secondary effluent wet well level
Secondary effluent turbidity analyzer readout, operation and fail status
Filter water level
Backwash pump operation and fail status
Filter disk drive operation and fail status
Filter effluent turbidity analyzer readout, operation and fail status
Filter effluent diversion valve position, operation and fail status

Alarms –

- Coagulation and Flocculation: Propac 929 storage tank high and low level and sensor failure
Chemical metering pump failure
- Filter: Filter feed pumps failure
Filter feed flow over high set point to maintain approved hydraulic loading rate
Secondary effluent wet well high level
Secondary effluent turbidity analyzer readout more than 10 NTU and failure, for assessing failure of biological treatment process (reference Section 60335 [a.2])
Filter high water level
Backwash pump failure
Filter disk drive failure

Filter effluent turbidity analyzer readout more than 2 NTU and failure, for assessing failure of filtration process (reference Section 60335 [a.5])

Reliability Features –

- **Coagulation and Flocculation:** Standby replacement equipment (chemical feed pump shelf spares), adequate chemical storage 2000 gallons and conveyance facilities, adequate reserve chemical supply delivered by bulk tank truck for uninterrupted coagulant and flocculant supply (reference Section 60349 [a])

Alarm (Propac 929 storage tanks low level, chemical metering pump failure, and anionic polymer blending/feed unit failure), long-term tertiary effluent disposal provision (reference Section 60349[b.3])

During complete or partial shutdown of coagulant system, secondary effluent flow can be diverted to the existing CCT and then into the Laurel Pond

- **Filter:** Alarm for high influent turbidity allowing automatic bypass of tertiary treatment system for disinfection and disposal as secondary effluent. Long-term effluent disposal provision (reference Section 60351[c]); also, automatically actuated filter effluent diversion valve for bypass of effluent with turbidity higher than 2 NTU to the existing CCT for disposal into the Laurel Pond (reference Section 60341[a, b, d, e] and Section 60351 [d])

Multiple filter feed pumps capable of pumping average daily flow with one pump out of service. Also, during complete or partial shutdown, bypass pump in secondary effluent wet well will pump secondary effluent to the secondary effluent CCT for disinfection and disposal into the Laurel Pond. (reference Section 60341[b, e])

Alarm (high level) and automatic backwash pump start for filter backwash

Flexibility Features – Manually and automatically adjust chemical feed pump rate to optimize dosage. Automatic adjustment based on signal from filter effluent flow meter for flow-proportioned control (reference Section 60349[a.4]). Backwash cycles can be initiated manually by override or automatically by filter head loss or filter run time. The intended recycled water uses allow the supply to be interrupted temporarily. The golf courses have on-site storage and alternative well water sources. This is the justification for limited back-up on filter feed pumping station.

2.3.6 Disinfection

Monitoring Devices –

- **Disinfection System:** Chlorine cylinder weighing scale
Cylinder automatic shut-off valve status and failure. Battery power status and charging status - local only
Storage and chlorinator room chlorine gas detector probes operation and status; chlorine readouts local only

Gas cylinder empty local status
Vacuum line pressure (local only)
Switch-over module status
Chlorine gas flow rate
Chlorine solution feed pump (submersible) operation and fail status (high temperature, thermal overload, and moisture leak)

CCB inlet flow meter readout and operation and fail status
CCB influent residual chlorine analyzer readout and operation and fail status
CCB inlet control valve position, operation and fail status
CCB bypass valve to secondary effluent disinfection, valve position, operation and fail status
CCB effluent residual chlorine analyzer readout and operation and fail status; for assessing failure of disinfection process (reference Section 60335 [a.3])

Alarms –

- Disinfection System:

Cylinder automatic shut-off valve failure
Low chlorine notifies operator
Chlorinator failure
Chlorine solution feed pump failure
Chlorine solution in-line injector/mixer failure
CCB inlet flow meter failure
CCB effluent residual chlorine analyzer failure
Low CCB effluent chlorine residual and system not meeting the set CT-value (450 mg-min/L minimum) calculated using CCB influent flow
CCB inlet control valve failure
CCB bypass valve to secondary effluent disinfection

Reliability Features –

- Disinfection System:

Chlorine scales, standby chlorine supply (connected cylinder), manifold system to connect chlorine cylinders with automatic switchover module for switching to full chlorine cylinder, automatic chlorine residual measuring and recording, automatic chlorine dosing system based on plant flow and residual chlorine readings (reference Section 60353[a])

Tracer test studies conducted to develop a modal contact time versus flow curve over the entire CCB operating flow range. A look-up table developed from the tracer study is used on the programmable logic controller (PLC) to

calculate modal contact time for any flow and use this contact time value in conjunction with CCB effluent total chlorine residual to calculate CT. The CT set point will be 500 mg-min/L. Falling below the set point will trigger an alarm

Alarm (for CCB effluent chlorine residual analyzers) and standby chlorinator (reference Section 60353[b.1]); also, long-term disposal provision for off-spec recycled into the Laurel Pond after disinfection in the existing CCT. (reference Section 60341[b] and Section 60353 [b. 3])

Flexibility Features –

- Disinfection System: Can attach other stored cylinders to supply system via chlorine gas manifold piping (reference Section 60353[a.2]); also, can weigh connected cylinders via chlorine scales (reference Section 60353[a.3])

Can utilize compound loop chlorine feed system with chlorine fed proportional to flow upstream of the chlorine contact tank and proportional to flow and deviation from residual set-point measured downstream of the chlorine contact tank

If chlorination CT is not met an alarm is triggered, the filter effluent diversion valve located downstream of the chlorine injection point opens and chlorinated flow goes to the secondary effluent CCT and from there to Laurel Pond. A manual gate upstream of the recycled water storage basin allows effluent from the recycled water CCB to be diverted to Laurel Pond without entering the storage basin. This is used when the CCB must be flushed to remove off-spec water. Once the required CT is met again the manual diversion gate is closed

2.3.7 Emergency Power Supply

The emergency power supply includes a generator powered by an internal combustion engine, and an automatic 800 amp transfer switch, and a back-up battery unit at each PLC. The generator provides a 480-volt, 3-phase, 60-hertz supply with a power output of 400 kilowatts. The internal combustion engine delivers 585 brake horsepower and utilizes diesel fuel. Storage is provided for 1050 gallons of fuel, which allows approximately 36 hours of service under specified operation.

The automatic transfer switch is actuated by failure in the normal power supply. During the brief interim period between the loss of normal power and the onset of emergency power, the back-up battery unit (UPS) provides a source of power to the PLC's, affording a smooth transfer. This ensures uninterrupted operation of alarm, monitoring, and data transfer systems.

Emergency power is supplied to all buildings and equipment necessary to treat wastewater. There is a separate generator for the SCADA system. Power failure dials operator on call.

2.3.8 Emergency Disposal to Laurel Pond

As previously discussed, off-spec recycled water can be diverted to Laurel Pond through automated motorized valves after disinfection in the existing secondary effluent CCT. These automated

motorized valves which divert off-spec recycled water to Laurel Pond are SCADA controlled. Effluent can be sent to this CCT before or after filtration under various failure conditions. The specific process flows disposed of in this manner are enumerated in the preceding subsections for unit processes or operations under the heading "Reliability Features."

In an emergency, the following flows may be disposed of in Laurel Pond:

- a) Filter feed flow exceeding a turbidity of 10 NTU (secondary biological treatment effluent)
- b) Filter effluent exceeding a turbidity of 2 NTU
- c) CCB effluent not meeting a CT value of 450 mg-min/L. Flow through the CCB stops and automatic diversion valve sends filtered chlorinated flow to the secondary effluent CCT and from there to Laurel Pond

MCWD has waste discharge requirements (WDRs) issued by the RWQCB to dispose of disinfected secondary effluent in Laurel Pond.

2.3.9 Central Telemetry

The central telemetry room or SCADA is located in the server room which is located in the engineering building. Telemetry for the recycled water system, including the distribution facilities, is housed at this location. Most of the plant monitoring information and all major failure alarms are registered there as referenced in the preceding subsections. Alarm devices include both audible and visual indications.

Those alarms explicitly required by Title 22 (reference Section 60335) and located at the central telemetry room are as follows: loss of power from the normal power supply, failure of the biological treatment process (high-level turbidity in secondary effluent), failure of the coagulation process (loss of chemical feed), failure of the filtration process (high-level turbidity in filtered effluent), and failure of the disinfection process (low-level chlorine residual in final effluent).

All alarms and control devices located in the central telemetry room are powered by a separate power supply. In the event of a power failure, a transfer is made to the dedicated generator for the telemetry room for emergency power supply (see Emergency Power Supply).

Provisions are made so that alarm indications in the central telemetry room are transmitted to a telephone dialing system (reference Section 60335[d]). The operator on standby is then immediately notified of the alarm condition by the system with several back up numbers in que should the first operator not respond, allowing a prompt response (reference Section 60335[c]). All alarm conditions will call out using the dialing system. This provides 24-hour coverage of alarm conditions.

2.4 Contingency Plan

This section covers design provisions for failure response as required under Title 22, Chapter 3, Article 7, Section 60323[c]. Depending on the duration of the remedial response, notification of this condition will be made by MCWD to the regulating agencies in a timely manner. A written agreement may have to be drafted that delineates the features of such notification: circumstances, response time, individuals involved, required response action, and required follow-up action.

The failure of a particular process may include both process performance degradation and equipment failure. The plan does not include a discussion of treatment procedures whereby the nominal performance of unit treatment processes is ensured; remedial procedures whereby process performance can be corrected; or instruction for the disassembly, repair, or maintenance of equipment items. These topics are more appropriately covered in an operation and maintenance

manual developed for the entire treatment system. However, it is recognized that the diverted effluent to the Laurel Pond will meet the WDR requirements.

Figure 2.3 shows all the treatment process failures and their contingency responses through alarms and automatic responses. A common feature of these contingencies is that the design response is automatic and immediate, being triggered by an online analytical system or something equivalent. In all failure cases, the design response involves the cessation of recycled water pumping to the use areas and diversion of all process water to the existing CCT and disposal in the Laurel Pond.

In all failure cases, correction of the alarm condition must be manually made. Such correction of the alarm condition may involve a long-term response that is different than the initial (short-term), automatic response. For example, the short-term response to a process failure would be automatic diversion of process flow to the CCT, while the long-term response could involve the installation and interim use of standby equipment.

2.4.1 Biological Treatment Process

Failure – Secondary effluent turbidity greater than 10 NTU as determined by continuously operating online turbidity analyzer in filter influent line.

Action – Following time delay and automatic reading confirmation, the analyzer alarm signal will automatically stop the filter feed pumps stopping the recycled water production. This will increase the secondary effluent wet well water level and start the bypass pump when the water level reaches the set pump-on position. The bypass pumps are designed for full bypass of the secondary effluent to the existing secondary effluent CCT and disposal in Laurel Pond.

Alarm and call out to standby personnel.

2.4.2 Coagulation Process

Failure – Chemical feed pumping as determined by loss of coagulant due to pump failure, low chemical level in coagulant.

Action – Failure in the chemical feed system would reduce filtration efficiency. Unless responded to in a timely manner, filter effluent turbidity will increase. The filter effluent turbidity analyzer will provide a second alarm when the filter effluent turbidity value increases to the set point of current running day average of 2 NTU. This second alarm will automatically open the filter effluent bypass valve, which will divert filter effluent to the secondary effluent CCT.

2.4.3 Filtration Process

Failure - Filtered effluent turbidity greater than 2 NTU as determined by continuously operating in-line turbidity analyzer.

Action - Following confirming time delay, the analyzer alarm signal will automatically open the filter effluent bypass valve allowing filter effluent after chlorine injection to flow by gravity to the secondary effluent CCT for discharge to Laurel Pond.

2.4.4 Disinfection Process

Failure – CT value lower than the required 450 mg-min/L, as calculated by the PLC, using modal contact time as a function of flow rate and CCB effluent chlorine residual measured with continuously operating in-line analyzer.

Action - Following the confirming time delay, the alarm signal will automatically open, through the PLC, the filter discharge bypass valve allowing filter effluent after chlorine injection to flow by gravity to the secondary effluent CCT for discharge to Laurel Pond.

Calls out to standby personnel. To resolve the chlorine dosage problem, a diversion valve adjacent to the recycled water storage basin will be opened to allow flow from the recycled water CCB to be diverted to Laurel Pond without entering the storage basin. The filter effluent diversion valve will also be open to Laurel Pond and flow will proceed through the recycled water CCB. Once the appropriate CT-value is attained, the manually operated diversion gate will be closed to Laurel Pond and direct CCB effluent to the recycled water storage basin.

2.4.5 Normal Power Supply

Failure – Power outage interrupting normal power supply to plant.

Action - Loss of normal power supply will automatically start the emergency generator and activate an automatic transfer switch. Full load power from the emergency generator will be available for selected equipment after a time delay of about five minutes from the loss of normal power supply. Loss of normal power will also automatically activate a backup battery unit immediately after loss of the normal power supply. The backup battery unit provides a power supply to the selected equipment during the transition from the normal power supply to the emergency power supply. The emergency power will be available to all buildings but will not be able to power recycled water distribution pumps.

The control telemetry room has a separate emergency generator that will be automatically started upon loss of normal power. Switchover from emergency power to normal power supply will be automatic.

Loss of the normal power supply will constitute an alarm in the central telemetry common-alarm system which will result in a call out to the on call operator.

2.5 Operation and Maintenance

2.5.1 Personnel

MCWD's recycled water system is provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times. Qualified personnel meet the requirements established pursuant to Chapter 9 (commencing with Section 13625) of the Water Code.

2.5.2 Operation and Maintenance

MCWD has developed and follows an operation and maintenance (O&M) manual to reliably operate and maintain the recycled water treatment system and meet the recycled water quality requirements at all times. MCWD has developed and uses standard operation and maintenance log sheets to record treatment system operation and maintenance history. A preventive maintenance program has been provided for the recycled water system to ensure that all equipment is kept in a reliable operating condition.

2.5.3 Sampling and Analysis

Samples for total coliform bacteria are collected daily at the CCB effluent discharge point and analyzed by an approved laboratory. The sample is collected at a time of day when wastewater characteristics are most demanding on the treatment facilities and disinfection procedures. Filtered sample downstream of the disk filter is sampled continuously for turbidity measurement by an on-line turbidity analyzer and the data logged by a recorder.

2.5.4 Operating Records and Reports

Operating records of the recycled water system are maintained at the plant site. These records include analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to existing Laurel Pond disposal system; and all corrective or preventive action taken.

Process or equipment failures triggering an alarm are recorded and maintained as a separate record file. The recorded information includes the source of the alarm, a description of the alarm condition, date/time, and who was notified.

2.6 Monitoring and Reporting

The treatment process is monitored through a program that combines continuous on-line monitoring and periodic grab and composite sampling as necessary to optimally run the treatment process and comply with the regulatory requirements.

MCWD files a report including, but not limited to, the following information with the RWQCB in compliance with the Title 22, Section 13522.

- a) Treatment plant effluent monitoring data including average, minimum, and maximum values for all water quality parameters required to be monitored for compliance with the Title 22 requirements.
- b) Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, will be reported immediately by telephone to agencies as per the requirements of the General Permit.
- c) A monthly summary of any operational problems and maintenance activities is submitted to the Regional Board with each monitoring report. This summary lists items to be included in the monitoring report:
 - Modifications or additions made to the recycled water treatment, distribution, and disposal facilities;
 - Major maintenance conducted on the recycled water treatment, distribution, and disposal facilities;
 - Major operational problems that occurred in the recycled water treatment, distribution, and disposal facilities;
 - Calibration of recycled water system measuring devices (flow, turbidity, and residual chlorine meters).

SECTION 3 RECYCLED WATER TRANSMISSION AND DISTRIBUTION SYSTEMS

Section 3 provides information on the MCWD recycled water transmission and distribution systems. The transmission and distribution facilities include recycled water pumping station, transmission pipelines, and storage lakes. Design details, reliability and flexibility features, contingency plans, operation and maintenance, and monitoring and reporting details for the recycled water pumping station and the transmission pipelines are described in this section. Above features for the storage reservoir are discussed in Section 5, Use Area Sites, and are not included in this section.

3.1 Description of Transmission and Distribution Systems

The transmission and distribution systems deliver recycled water to the two current irrigation use areas, Sierra Star and Snowcreek Golf Courses. A recycled water pumping station is located at the recycled water treatment system near Equalization Basin 1 (Figure 2.1). Dedicated pumps pump recycled water to each golf course in separate transmission pipelines. Figure 3.1 shows the location of the recycled water pumping station and layout of the transmission pipelines for the two golf courses. Details for the recycled water pumping station and the transmission pipelines layout, profile and location of other features in proximity of the pipelines are available in MCWD design drawings.

3.2 Transmission and Distribution Facilities

3.2.1 Recycled Water Pump Station

Function – To pump recycled water from the recycled water storage basin to the use area site storage lakes. Design data for the recycled water pumping station is summarized in Table 3.1.

Equipment Type – Vertical turbine pumps manufactured by Weirfloway, wet well level control, and pump controller.

Operational Characteristics – Normally continuous operation (when recycled water system in service). Constant-speed pump drives; manual and automatic actuation, with automatic actuation based on water levels at onsite RW storage basin and golf course storage lakes.

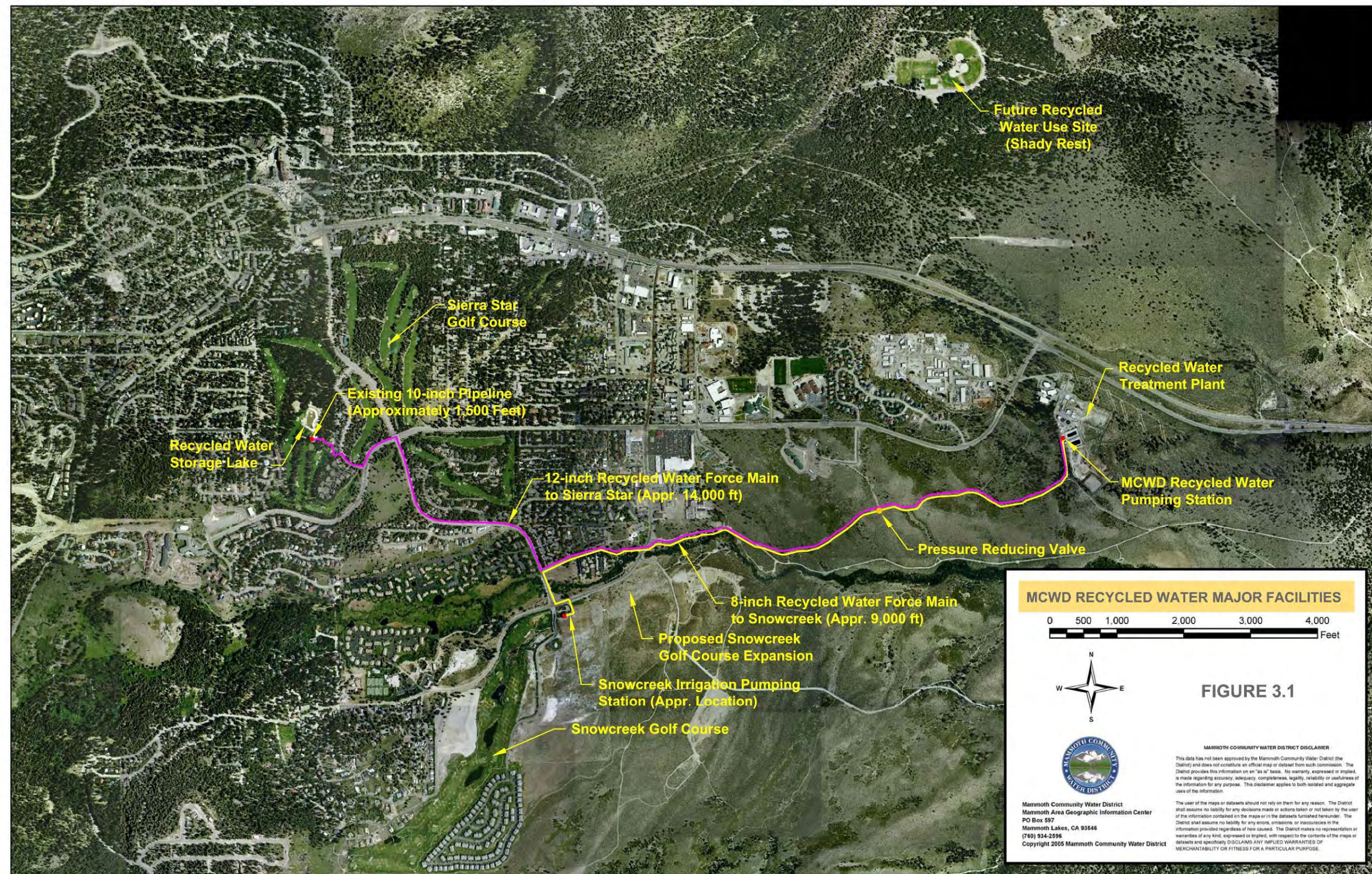


Figure 3. 1 MCWD Recycled Water Major Facilities

Table 3. 1 Recycled Water Pumping Station Design Data

	Unit	Value
RW Storage Basin		
Maximum SWD	ft	14
Minimum SWD	ft	3
Volume	MGal	1.5
Sierra Star RW Pump		
Number (duty)		1
Capacity, each	gpm	1,100
TDH	ft	450
Power	HP	200
Surge tank volume	gal	500
Snowcreek RW Pump		
Number (Duty)		1
Capacity, each	gpm	500
TDH	ft	291
Power	HP	50
Surge tank volume	gal	500

3.2.2 Transmission and Distribution Pipelines

Function – To convey recycled water from the recycled water storage basin to the use area site storage lakes. Design data for the transmission and distribution pipelines is summarized in Table 3.2.

Equipment Type – Ductile iron circular pipeline, valves, and accessories.

Operational Characteristics – Normally completely filled pipeline and continuous operation (when respective recycled water pump is in service).

Table 3. 2 Transmission and Distribution Pipelines Design Data

	Unit	Value
Sierra Star transmission Pipe		
Diameter of pipe	inch	12
Approximate length of pipeline	ft	14,000
Rated pressure	ft head	450
Flow	gpm	1,100
Snowcreek Transmission Pipe		
Diameter of pipe	inch	8
Approximate length of pipeline	ft	9,000
Rated pressure	ft head	291
Flow	gpm	500

3.3 Reliability/Flexible Features

The following information includes listings of monitoring devices, failure alarms, reliability features, and flexibility features for each transmission and distribution system's facilities. There are no specific reliability and flexibility requirements for elements of the recycled water transmission pipelines, so the below features are described only for the recycled water pumping station elements.

3.3.1 Recycled Water Pumping Station

Monitoring Devices - All monitoring information from the following monitoring devices are local and at central telemetry room unless otherwise specifically mentioned for any monitoring device.

Sierra Star Pump:	Loss of power and failure lights Pump status, speed, discharge pressure, and failure (High temperature, high load) Flow meter status and failure
Snowcreek Pump:	Loss of power and failure lights Pump status, speed, discharge pressure, and failure (High temperature, high load) Flow meter status and failure
Storage Basin:	Loss of power Sensor failure Water level Low water level High water level

Alarms – All local and through SCADA system unless otherwise stated for any alarm

Sierra Star Pump:	Loss of power and failure Pump failure High discharge pressure Pump high temperature Flow meter failure
Snowcreek Pump:	Loss of power and failure Pump failure High discharge pressure Pump high temperature Flow meter failure
Storage Basin:	Loss of power Sensor failure Low water level High water level

Reliability Features –

Pump failure and basin high level alarm signal can be used to manually divert the recycled water to Laurel Pond. Basin level set points are used to control automated fill valves. No standby pump is in place. Spare pump is in store. In addition, the storage basins can provide up to 22 hours of recycled water storage.

Flexibility Features –

Fixed speed pumps with only start and stop control. Pump start/stop controlled by end user onsite storage level transducers.

3.3.2 Transmission and Distribution Pipelines

Not applicable

3.4 Contingency Plan

The contingency plan for the treatment facilities, in conjunction with inherent physical features, assures that no untreated or inadequately treated wastewater will be delivered to the recycled water on-site storage lakes or the use areas. Therefore, failure in the distribution facilities is primarily significant because of the possible indirect impact on the operation of the treatment facilities and/or the need for emergency disposal to Laurel Pond. Specific impacts on the operation of the treatment facilities and considerations regarding contingency plan are discussed in the contingency plan for the recycled water treatment facilities. This section only discusses contingency plan for the recycled water pump failure.

Failure – Pumping failure due to loss of power, unit failure, and low water level in the basin as determined by continuous monitoring.

Action – Alarms will automatically stop the secondary pumps.

All the above failure alarm signals will be transmitted to central telemetry common-alarm system. If no personnel are present, common alarm will automatically alert on call personnel through a telephone based call out system to request operator to facility for response.

3.5 Supplemental Water Supply

A supplemental water supply suitable for golf course irrigation is available through MCWD wells, with available capacities ranging from 0.4 MGD to 1.3 MGD. Water from these wells was used for golf course irrigation prior to the availability of recycled water. The groundwater from the wells can be pumped to the on-site storage lakes through an above-ground pipe. An air gap between untreated groundwater and recycled water in the lakes will be maintained. If failure in transmission and distribution system continues to last for more than eight hours, well water supply system can be initiated to deliver groundwater to the storage lakes for use in use areas.

3.6 Operation and Maintenance

The recycled water transmission and distribution facilities will be operated and maintained by MCWD. MCWD will provide sufficient number of qualified personnel to operate the facilities effectively to ensure that no untreated or inadequately treated wastewater will be delivered to the recycled water on-site storage lakes or the use areas. Qualified personnel will meet the requirements established pursuant to Chapter 9 (commencing with Section 13625) of the Water Code.

SECTION 4 DESCRIPTION OF RECYCLED WATER USE PERMIT PROGRAM

MCWD (the Recycled Water Program Administrator) has implemented a Use Permit Program for the existing Master Permit and will continue the existing Use Permit Program under the California State General Permit. This Use Permit Program is designed to ensure the recycled water is safely and legally applied at the recycled water use sites. The program is described in the following sections and includes the authority, program design, monitoring and reporting procedures, and methods used to ensure regulatory compliance with General Water Reuse Order WQ 2016-0068-DDW.

4.1 Authority and Regulations

MCWD adopted a recycled water ordinance on October 15, 2009 (Appendix B). The ordinance specifies how MCWD Recycled Water Program will be implemented. Currently under the Master Recycled water permit, MCWD issues permits to recycled water users to establish recycled water site supervisors, designate use areas, specify application methods, dictate self-monitoring and reporting requirements, and provide notification of applicable regulatory requirements. As needed, MCWD may also secure recycled water use agreements with contracted users. This process will continue under the California General State Permit. The specific requirements for recycled water use, excerpted from the CCR Title 22, the provisions of Order WQ 2016-0068-DDW, and the recycled water ordinance will be attached to the recycled water permit and reviewed with each user during their initial training event.

4.2 Permit System for Metered Recycled Water Users

The Administrator has implemented a permit system to regulate “Metered Recycled Water Users.” Metered Recycled Water Users are those users who are connected to the recycled water distribution pipeline. Currently Sierra Star Golf Course and Snowcreek Golf Course are the only users connected to the recycled water distribution system.

The steps that will be taken to issue and maintain a permit for the metered recycled water users are described in **Table 4.1**. Existing recycled water users will be permitted as soon as the Notice of Applicability (NOA) is received from the Regional Water Board.

Table 4. 1 MCWD Process to Obtain Recycled Water for Direct Users

Process	Applicable Documents or Actions Required	Responsible Entity
Step 1 – Consult with District to determine recycled water availability and project feasibility; Review Rules and Regulations	Discuss with District General Manager and District Engineer; District’s Rules and Regulations	User
Step 2 – Prepare draft plans and specifications	Department of Drinking Water (DDW) requirements in California Code of Regulations (CCR) Titles 17 and 22 District rules and regulations	User
Step 3 – Submit Application for recycled water use	Districts User Application Form	User

Section 4.0 Description of Recycled Water Use Permit Program

Step 4 – Identify Distribution issues, verify allowed uses, estimate quantity of water and delivery schedule	Verification of information provided in the Application Form. Send conditional approval in writing with caveat that project commencement is contingent upon User receiving all regulatory approvals.	District
Step 5 – Complete California Environmental Quality Act (CEQA) Process	Make sure there is proper CEQA documentation for the Site	User
Step 6 – Consult with health agencies (recommended)	Describe project and show draft plans to DDW and LRWQCB	District / User
Step 7 – Finalize and submit plans and specifications	Plans and specifications submitted to DDW; DDW Cross-Connection Plan Approval Application and fee.	User
Step 8 – Provide materials and/or training to User on proper operation of a recycled water system	District’s Recycled Water Users Rules and Regulations to be provided by District; Site Supervisor training to be provided by District (or another equivalent program can be substituted)	District / User
Step 9 –Consult with LRWQCB(recommended)	Describe project and discuss Engineering Report needs	User / District
Step 10 – Final plans and specifications	Obtain approval of final plans and specification from District	User
Step 11 – Prepare / amend Engineering Report	DDW Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water; District’s information on water reclamation plants; User completes the Engineering Report; the District provides information related to treatment facilities; the report must be prepared and stamped by a professional engineer registered in California.	District / User
Step 12 – Submit Engineering Report to District, DDW and LRWQCB	Completed Engineering Report	User
Step 13 – If applicable, submit revised Engineering Report to agencies	Revisions/additional information may be requested by District, DDW and/or the LRWQCB	User
Step 14 – Authorization of project under existing or new LRWQCB permit	Letter or permit	District, LRWQCB; possibly DDW
Step 15 – Notification of Final Regulatory Approvals	District sends copy of DDW or LRWQCB letter or permit to User	District
Step 16 – Draft User Agreement or amendment (if Site is not covered under existing Agreement)	District’s User Agreement	District / User
Step 17 – Approve User Agreement or Amendment	Present User Agreement or amendment to District Board and User for approval	District / User

Section 4.0 Description of Recycled Water Use Permit Program

Step 18 – Pre- and post-construction inspections	Contact District prior to construction to arrange for site inspections, initial cross connection and backflow prevention device testing; District Rules and Regulations	User or Purveyor
Step 19 – Approval of final Construction	By District	User
Step 20 – Begin project implementation		User
Step 21 – Submit revised as-built drawings of recycled water distribution system if necessary	Must be provided to District if any modifications have been made to original drawings	User

All metered users must complete the Application for Recycled Water Service (Appendix C), the information to be provided includes:

- Property information
- Site Owner information
- Design Contact
- Site Supervisor
- Application Checklist
 - Engineering Report
 - Operations and Maintenance Plan
 - Irrigation Management Plan
 - O&M Staff Training verification
 - Site Signage Plan
 - Monitoring and Inspection Plan
 - Emergency Cross-Connection Plan

The Recycled Water Site Supervisor will be the contact person at the user site and the person responsible for day-to-day operation of the recycled water system. The designated individual will have complete knowledge of the storage/irrigation system and will be available at all times to respond to emergencies or calls for assistance from the administrator.

The administrator will verify the information provided in the application through a site visit and discussion with the potential user. Any distribution issues will be resolved by the user and the Administrator and incorporated into the Recycled Water Use Agreement (if needed). Reference materials that contain information on the proper operation and maintenance of the recycled water system will be provided to the user during the permit issuance process. These materials will include, but not necessarily be limited to, MCWD Recycle Water Program Rules and Regulations, CCR Titles 17 & 22, Order WQ 2016-0068-DDW, and the recycled water ordinance.

The Recycled Water Use Permit will be issued to a metered user only after completion of a Cross-Connection Control Investigation and Test to identify and remove any connections between recycled and potable water supplies (see the following section entitled “Cross-Connection Control Program” for more information). The Administrator will review the investigation and test results to ensure that the necessary repairs are made before issuing the permit. “Additional Permit Terms and Conditions” will be attached to the permit to outline the required monitoring sites and frequencies, and any site-specific permit conditions that may be necessary.

4.3 Permit System for Trucked Recycled Water Users

The process for obtaining a permit for trucked recycled water use is presented in **Table 4.2**. Individual owners of tanker trucks and truck operators will be issued a permit, this permit demonstrates they have been trained on proper use and transport of recycled water.

All trucked recycled water users must submit information to the Administrator to receive the Recycled Water Truck Program permit. For more information see the MCWD Trucked Recycled Water Program (Appendix D). The information to be disclosed includes:

- User information
- Approved Type of Use

The contact person will be the truck driver or representative of the trucking company, and will be contacted by the Administrator or the Regional Water Board when questions arise pertaining to recycled water use guidelines and regulatory compliance. The contact person must have knowledge of all truck activities and specific uses of recycled water by each truck. This person must also be available to respond to emergencies or calls for assistance from the administrator.

When a trucker picks up recycled water, the trucker must fill out a form with the following fields:

- Date
- Permit number
- Amount filled
- Contractor who holds Permit
- Address RW is being delivered to

Each truck must have appropriately place recycled water signage (3 signs: one on each side of the truck, one at the rear of the truck). The Administrator will periodically verify adherence to the recycled water use requirements through unannounced site inspections. Improper use of recycled water could result in repeal of the Trucked Recycled Water Use Permit.

Table 4. 2 MCWD Permit Process for Trucked Recycled Water Use

Process of Issuing and Maintaining a Trucked Recycled Water Use Permit	Recycled Water Program Document and/or Actions Required	Responsible Entity
Step 1 – Request a copy of the MCWD Trucked Recycled Water Program Guidelines and Use Permit Application. Apply for the Trucked Recycled Water Use Permit	Trucked Recycled Water Program Guidelines Contact the MCWD Chief Wastewater Operator at 760-934-2596 ext. 235. Provide information to ensure User will comply with MCWD and State Requirements for trucked recycled water use	Truck Owner/ Operator
Step 2 – Issue a Trucked Recycled Water Use Permit (Dec. 31 expiration)	Trucked Recycled Water Use Permit. If all information is verified, issue final numbered permit	MCWD
Step 3 – Permitted Users may access MCWD’s recycled water pump station during regular business hours. (NOTE: Recycled	Trucked Recycled Water Release Log	Truck Owner / Operator

Section 4.0 Description of Recycled Water Use Permit Program

water is not guaranteed to be available. Availability is subject to water quality conditions and production limitations)	Complete a log entry at the pump station every time recycled water is collected. Carry a copy of the permit and User Guidelines.	
Step 4 – Follow regulations for recycled water transport and distribution	Trucked Recycled Water Program Guidelines	Truck Owner / Operator
Step 5 – Conduct site inspections to verify adherence to recycled water use regulations	<p>Site Compliance Inspection Report</p> <p>Confirm application site was properly posted in the release log; Confirm BMP's in effect; Confirm operators are following User Guidelines.</p> <p>Unannounced site visits may be conducted at any time.</p>	MCWD
Step 6 – Renew permit annually	Trucked Recycled Water Program Guidelines	Truck Owner / Operator MCWD

4.4 Cross-Connection Control Program

The program to control cross-connections and maintain backflow prevention devices at user sites is described below. The specific activities and frequencies are identified in **Table 4.3**. The requirements of CCR Title 17 are enforced through site inspections and on-going permit conditions.

Prior to Recycled Water Permit Issuance (and every four years thereafter), a Certified Cross Connection Control Specialist (as described in CCR Title 17, Section 7605) must conduct a site investigation and test the recycled water system to identify any cross-connections (see the Cross-Connection Control Investigation and Test Report, **Appendix E**). During the next investigation, the Specialist will inspect the recycled water equipment and interview the Recycled Water Site Supervisor to determine if any equipment changes have been made since the last inspection. If activities were conducted that could compromise the integrity of the potable water supply system, a cross-connection test may be performed and/or corrective actions prescribed. The results of the investigation and testing are recorded by the specialist on the form and any deficiencies are noted along with the prescribed corrective action. All backflow prevention devices must be tested on an annual basis (see Backflow Prevention Device Test Report, **Appendix E**).

Table 4. 3 MCWD Recycled Water Program Cross-Connection Control

Required Action	Frequency	Documentation
Investigate site to determine cross-connection potential, perform shutdown test of recycled water system to ensure no cross-connections are present.	Prior to issuance of Recycled Water Use Permit	Cross-Connection Control Investigation and Test Report (Appendix E)
Test all backflow prevention devices to determine if functioning properly	Prior to issuance of Recycled Water Use Permit	Backflow Prevention Device Test Report (Appendix E)
Test all backflow prevention devices to determine if functioning properly.	Annually	Backflow Prevention Device Test Report (Appendix E)
Investigate site to determine cross-connection potential. If potential problem identified, shutdown recycled water system to test for cross connections.	Every four years (or more frequently if necessary)	Cross-Connection Control Investigation and Test Report (Appendix E)

4.4.1 User Cross-Connection Control Activities

On an annual basis, the user provides access to all relevant site locations and equipment by a Certified Cross-Connection Control Specialist, Certified Backflow Prevention Device Tester, and MCWD staff. All backflow prevention devices located onsite will be tested annually. The user must address any deficiencies noted by the Specialist or Tester within the deadline specified by MCWD in order to initiate or continue delivery of recycled water.

Prior to Recycled Water Permit issuance and every four years (of more frequently if necessary), the user will hire a Certified Specialist to perform a shutdown test of the recycled water system to identify cross-connections with the potable water system. The User must address any deficiencies noted by the Specialist within the deadline specified by MCWD in order to initiate or continue delivery of recycled water.

4.4.2 Administrator Cross-Connection Control Activities

The Administrator implements the Cross-Connection Control Program by sending annual and every four year testing notices to the users, reviewing test results, and enforcing compliance. The Administrator ensures CCR Title 17 requirements are met at each user site and that backflow prevention devices are installed at all potable water supply wellheads and connections. If deficiencies are noted by a Certified Specialist, the Administrator will establish a delaine for compliance and assist with the inspections to identify when corrections are completed.

The results of user investigations and testing are incorporated into the user’s file and may be included in the Recycled Water Annual Report to the Regional Water Board. A recycled water shutdown test is required prior to permit issuance and every four years if potential problems are identified. Interim testing may be conducted if a user installs new equipment, significantly changes its recycled water operation, or a possible cross-connection is identified at the user site.

4.5 Monitoring Program

To ensure public safety and operation of the Recycled Water Program with legal guidelines, periodic site monitoring is conducted by the users and the Administrator. Monitoring results are reported to the Regional Water Board annually, and if necessary, as events occur that violate permit requirements or the California Health and Safety Code. The activities associated with the Monitoring and Reporting Program and detailed in **Table 4.4** along with required sampling frequencies and methods for compiling and recording results.

Table 4. 4 MCWD Recycled Water Program Monitoring and Reporting Requirements

Monitoring/Reporting Activity	Responsible Entity	Frequency	Data Compilation and Recording
Conduct self-monitoring and submit results to the Administrator	User	Once per month	Complete a Recycled Water User Self-Monitoring Report (Appendix C)
Report possible permit violations to the Administrator by telephone immediately	User	As needed	Record the time and date of the phone call and circumstances of the event
Contact Regional Water Board by telephone within 24 hours of determining non-compliance and copy Regional Water Board on any correspondence between the Administrator and User concerning non-compliance.	Administrator	As needed	Record the time and date of the phone call and circumstances of the event and maintain electronic files that contain the correspondence concerning non-compliance

Section 4.0 Description of Recycled Water Use Permit Program

Conduct periodic inspections of User sites	Administrator	At least annually	Complete a Site Inspection Report (Appendix C)
Monitor recycled water quality and amount of water delivered to Users	Administrator	Continuously	Maintain electronic files that contain water quality and delivery data
Report data collected, inspection results, violations corrected, and program changes to the Regional Water Board	Administrator	Annually (by April 1st)	Prepare and submit an Annual Report for each calendar year

4.5.1 User Self-Monitoring

As part of the terms and conditions of the Recycle Water Use Permit, the users are required to perform observations of site conditions and verify proper operation of the recycled water distribution system. Monitoring locations are specified in the Recycled Water Use Permit for metered users. Both land sites and pond (or impoundment) observation sites may be specified. The users must perform the observations and data collection identified in **Table 4.5** and record the results in the Recycle Water User Self-Monitoring Report (**Appendix C**). A copy of the monitoring report must be submitted to the Administrator within 15 days after the end of the calendar quarter.

Table 4. 5 MCWD Recycled Water Program Use Area Monitoring Requirements

Constituent	Units	Sample Type	Monitoring Frequency
Acreage Applied ¹	Acres	Calculated	Monthly ²
Recycled Water Applied ³	Acre-ft	Measured	Monthly ²
Fertilizer Applied ⁴	lb N/acre	Measured	Monthly ²
Backflow or Cross-Connection Incident	---	By Occurrence	By Occurrence
Soil Saturation/Ponding ⁵	---	Observation	Monthly ²
Nuisance Odors/Vectors ⁵	---	Observation	Monthly ²
Discharge Off-Site ⁵	---	Observation	Monthly ²
Notification Signs ⁶	---	Observation	Monthly ²
Any Other Condition of Note	---	Observation	Monthly ²

¹Acreage applied is the total number of acres to which recycle water is applied during the monitoring period.

²Monthly when recycled water is used. Adverse conditions should be immediately reported to the Administrator.

³If known, report the amount of recycled water applied to each irrigation block or industrial process.

⁴Amount of Commercial fertilizers applied.

⁵Note if any of these conditions occurred during the monitoring period.

⁶Verify notifications signs are in place according to CCR Title 22, section 60310 (g)

Although submittal of User Self-Monitoring Reports are required on a quarterly basis, user awareness must be continuous to note any violations of recycled water use requirements. If a permit violation or adverse condition is noted, the user must contact the administrator immediately by telephone. The user also has a responsibility to discuss any planned operational changes with the Administrator prior to implementation. Depending on the nature of the changes, the Administrator will inform the Regional Water Board and may change the terms and conditions of the Recycled Water Use Permit.

4.5.2 Administrator Monitoring

The Administrator is responsible for recycled water quality leaving the WWTP and the permitted use of recycled water at the users sites. As Distributors, MCWD is responsible for transport of recycled water from the WWTP to the use sites. WWTP operations are continuously scrutinized to ensure production of high quality recycled water. User sites are randomly inspected at least once a year to ensure proper usage of recycled water. Details of the two types of administrator monitoring are presented below.

The Administrator monitors the quality and quantity of recycled water leaving the WWTP under conditions specified in the regional WWTP WDR's/WRR's and any Recycled Water User Agreements in place. Meters installed at each delivery point record the total number of gallons distributed to each user. These metered amounts, recorded on a monthly basis, are used to quantify the monthly delivery to each user. The Administrator also monitors recycled water quality to determine the presence and concentrations of constituents of concern for landscape irrigation. The results are reported to users on an annual basis, so they can utilize this information to determine fertilizer application rates or incorporate soil amendments.

A list of required constituent sampling and frequencies specified by the General Order is presented in **Table 4.6**. Samples are collected after disinfection and prior to recycled water pumping. Samples from this location are representative of the recycled water quality being distributed to users. If the limits specified in CCR Title 22 are exceeded, the Administrator must notify the Regional Water Board within 24 hours and discontinue delivery to users until the violations have been corrected.

The Administrator will perform unannounced, randomly timed inspections of user sites at least once per year. Observations are recorded on the Site Inspection Report (**Appendix**). The observations are used to verify information reported in the User Self-Monitoring Reports and include such items as recycled water use, operation of storage and irrigation systems, placement of warning signs, and evidence of runoff or ponding.

All monitoring results will be disclosed to the Regional Water Board in the Recycle Water Annual Report, or sooner if any violations of permit conditions occur.

Table 4. 6 MCWD Recycled Water Program Administrator Monitoring Requirements¹

Sampling Site	Constituent	Sample Type	Sample Frequency	CCR Title 22 Limits²
Downstream of Disinfection Facilities at the WWTP	Total Coliform Organisms (MPN/100 mL)	Grab	Daily	<u>Tertiary Recycled Water</u> <u>≤ 2.2 MPN/100 mL</u> <u>(median for past 7 days)</u> <u>≤ 23 MPN/100 mL</u> <u>(exceed no more than 1 time in 30 days)</u>
	Turbidity (NTU)	Recorder	Continuous	(2) So that the turbidity of the filtered wastewater does not exceed any of the following: (A) An average of 2 NTU within a 24-hour period; (B) 5 NTU more than 5 percent of the time within a 24-hour period; and (C) 10 NTU at any time.

¹Monitoring required by Order WQ 2016-0068-DDW

²CCR Title 22, Section 60301.230 and section 60301.320

4.6 Reporting Requirements

The Administrator is required to periodically submit reports to the Regional Water Board to summarize operation of the Recycled Water Program, report any violations of the General Order, and actions taken or planned to correct the violations and prevent future violations.

4.6.1 Recycled Water Annual Report

The Administrator must submit a Recycled Water Annual Report to the Regional Water Board that describes operation of and changes to the Recycled Water Program. The Recycled Water Annual Report covers program activities during the previous calendar year and is due each April 1st. The following information will be included in the Annual Report:

- A summary table of all recycled water users and use areas. Maps may be included to identify use areas. Newly Permitted recycled water users and use areas shall be identified.
- Volume of recycled water produced and used (Acre-ft.)

- A summary table of all inspections and enforcement activities initiated by the Administrator. Include a discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order. Copies of any enforcement actions taken by the Administrator shall be provided.
- An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year;
- Tabular and graphical summaries of all monitoring data collected during the year.
- Information on how Irrigation Management Plans are being implemented and whether large applicators have applied both recycled water and nutrients at agronomic rates. Identification of any adjustments or modifications for the upcoming year to ensure appropriate amounts are applied.
- Summary of training events conducted and the number of participants.
- The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

A letter will accompany the annual report that includes the number and severity of any violations found during the reporting period, actions planned/taken to resolve violations, and the penalty of perjury statement.

4.6.2 Significant Violation Report

If the General Order provisions are violated, the administrator must notify the Regional Water Board by Phone within 24 hours. The information to be provided is outlined in the Significant Violation Report (**Appendix C**). When the violations have been corrected or the user has been removed from service, the Regional Water Board will be notified of the final resolution.

4.7 Operation and Maintenance Program

Operations and maintenance (O&M) associated with the Recycled Water Program is the responsibility of the User, the Distributor, and the Administrator. The point of separation for the contracted users is located just downstream of the point of delivery.

4.7.1 User Responsibilities

The User is responsible for operating and maintaining all recycled water equipment located beyond the point of delivery.

4.7.2 Distributor Responsibilities

The Distributor is responsible for operating and maintaining the recycled water distribution equipment between the WWTP and the point of delivery.

4.7.3 Administrator Responsibilities

The Administrator is responsible for operation of the WWTP's. The specific O&M requirements are specified in the MCWD WWTP O&M Manual.

4.8 Compliance Program

The Regional Water Board is guaranteed access, for inspection and monitoring purposes, to premises where recycled water is being produced or used. Records maintained for the Recycled Water Program will be made available to Regional Water Board upon request. Each user is responsible for implementing the MCWD Recycled Water Program Rules and Regulations, CCR Titles 17 and 22, Order WQ-2016-0068-DDW, and the recycled water ordinance.

Compliance activities and notification triggers are shown schematically in **Figure 4.1**. The users perform self-monitoring by routinely observing operation of the recycled water storage facilities and distribution system. If any possible violations of their permit conditions are noted, the users will contact the Administrator immediately. At that time, the Administrator will assess the incident, inspect the site (if necessary), and determine if a violation has occurred. In addition, the California Office of Emergency Services (Cal OES) must be notified by telephone as soon as possible of any release of hazardous materials to surface waters. If the incident is determined to be a violation, the Administrator will notify the Regional Water Board (and Cal OES, as appropriate) of the violation within 24 hours. The Administrator and user will discuss the cause of the violation, and the approach/timing for correction. If a violation has occurred, the Administrator will prescribe action and deadlines. The Regional Water Board will be copied on any correspondence concerning non-compliance between the Administrator and user. The Administrator will conduct a site inspection on the deadline date to determine if compliance has been achieved. If the user fails to implement the prescribed actions, the Administrator has the authority to shut off the recycled water supply to the site. The delivery of recycled water shall not be resumed until all conditions which caused the violations have been corrected.

Administrator-conducted inspections of use sites will be completed at random during times of recycled water use. During the visit, the Administrator will verify site operation according to permit conditions. If permit violations are noted, the actions described above will be implemented. The Administrator will notify the Regional Water Board (and Cal OES, as appropriate), prescribe corrective actions, establish a deadline, and verify implementation. When violations have been corrected or the user has been removed from service, the Regional Water Board will be notified of the final resolution.

4.9 Training of Users and Employees

Training is conducted through initial meetings with user representatives and provision of the regulatory and program documents to users and MCWD Recycle Water Program employees. If necessary, further assistance will be offered through on-site discussions and/or classroom instruction.

4.9.1 User Training

When a Recycled Water Use Permit is issued, a training session is held with each designated Recycled Water Site Supervisor regarding recycled water regulations, safety precautions for personnel handling recycled water, how to complete the program forms, and when to submit the required information. A copy of the MCWD Recycled Water Program Rules and Regulations, Order WQ 2016-0068-DDW, CCR Titles 17 and 22, and the recycled water ordinance is provided to facilitate understanding of the permit program and regulatory requirements. The Recycled Water Site Supervisors are responsible for training all employees that interact with recycled water and developing a precautionary safety plan for employees that repair/replace recycled water equipment. Employee training is verified by the Administrator during user site inspections. Additional training of user employees is provided by the Administrator if particular issues are noted. Trucked recycled water users also attend a training at the MCWD WWTP on fill-up procedures.

4.9.2 Administrator Employee Training

MCWD employees are given an initial training on recycled water program operation, regulatory requirements, and safety precautions. The MCWD Recycled Water Program Rules and Regulations, Order WQ 2016-0068-DDW, CCR Titles 17 and 22, the recycled water ordinance, and O&M Manual sections on recycled water equipment are reviewed by all employees that interact with the recycled water program. Recycled water handling procedures and safety precautions are reviewed with employees that repair/replace recycled water equipment. For new employees, a facility tour is conducted to demonstrate recycled water production, recycled water distribution, and recycled water truck fill-up procedures. A tour of the use sites is also conducted to introduce staff to Recycled Water Site Supervisors, identify site characteristics, and locate storage and distribution equipment. Follow-up training is provided every 2 years or more often if needed.

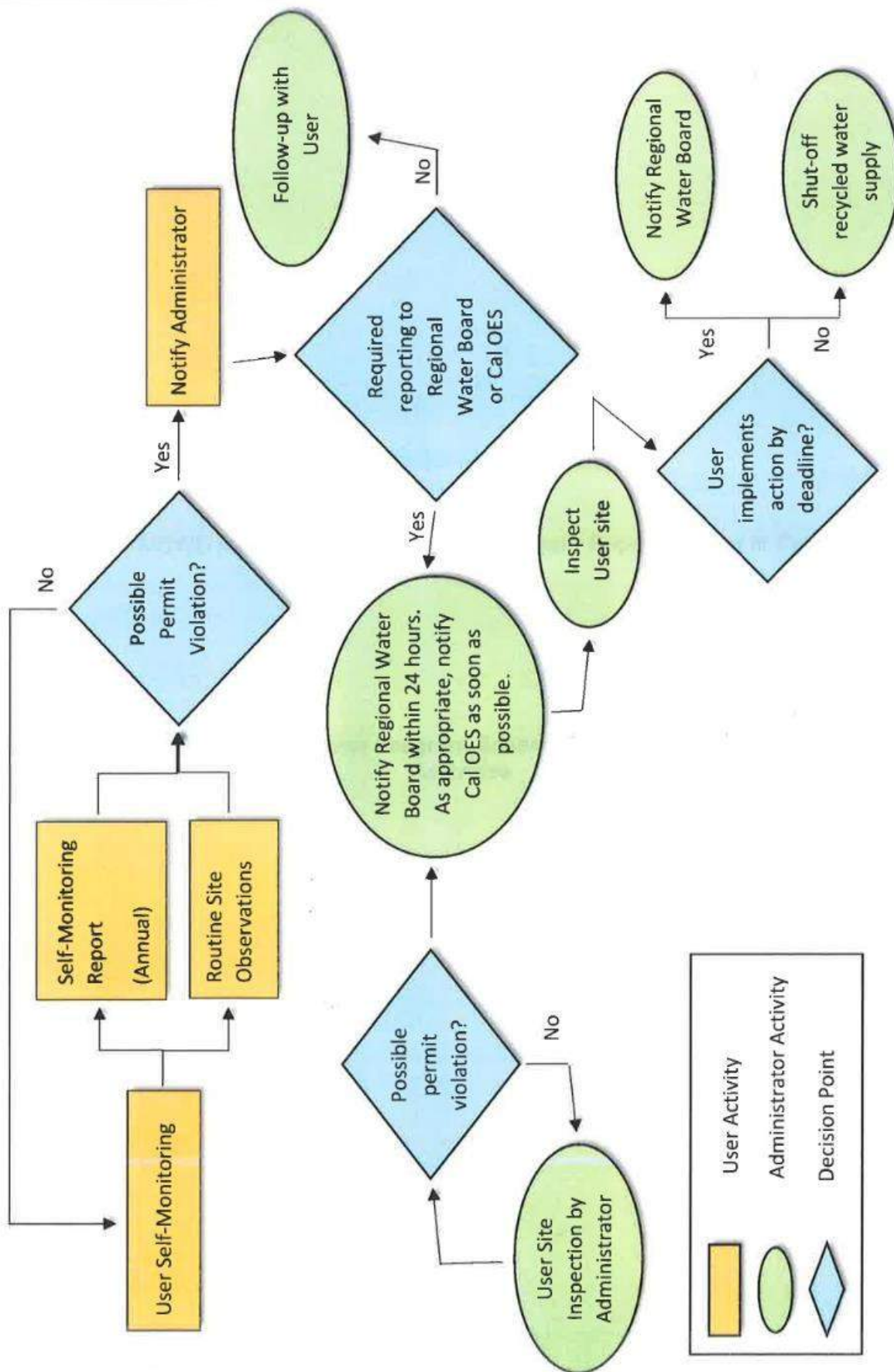


Figure 4.1 MCWD Recycled Water Program Schematic Representation of Compliance Activities

4.10 Emergency Procedures and Notification

Emergencies, such as equipment failures, cross-connection, earthquakes, and power outages, may occur at user sites or at the WWTP. In the event of such emergencies, notification of the Administrator, the Distributor, or the user (as applicable) must take place as soon as possible. An immediate change in operation or termination of flow may be required to minimize risks to human health. Emergency procedures for Distributors, Users, and Administrator are detailed in the following sections. Emergency contact information for the recycled water Distributors is presented in **Table 4.7**. Emergency contact information for the existing Recycled Water Site Supervisors is presented in **Table 4.8**. The list will be updated when distribution systems are completed and new user permits are approved. Emergency contact information for trucked recycled water users will be developed when user permits are approved (**Table 4.9**).

4.10.1 Distributor Emergency Procedures

In case of a recycled water emergency within the distribution system (i.e., pipe break, pump failure), the Administrator must be contacted in order to terminate flow from the WWTP. The MCWD Coordinator is the primary contact person and is knowledgeable about the Recycled Water Program and its facilities. The MCWD Operations Center is available 24 hours a day, 7 days a week for recycled water emergencies.

4.10.2 User Emergency Procedures

In case of a recycled water emergency at a user site, the Administrator and Distributor must be contacted in order to terminate flow to the site. Depending on the nature of the emergency, the user may also be directed to shut down the potable water system. The MCWD Coordinator is the primary contact person and is knowledgeable about the Recycled Water Program and its facilities. The MCWD Operations Center is available 24 hours a day, 7 days a week for recycled water emergencies. Emergency contact phone numbers are included in the Recycled Water Use Permit and on the User Self-Monitoring Report for easy reference.

4.10.3 Administrator Emergency Procedures

If a system failure occurs at the WWTP and properly treated recycled water cannot be guaranteed to the user, the Administrator will shut off the recycled water supply pumps. The water will be stored in on-site basins. The Users will be notified by telephone as soon as possible of the flow termination, the nature of the failure, and an estimation of the required down time. If inadequately treated water was already delivered to the user, the Administrator will recommend precautions to be implemented (limitations of public access, avoidance of contact, prevention of runoff, etc.).

Table 4. 7 Contact information for MCWD Recycled Water Distributor

Recycled Water Distributor	Contact	Contact Information
Mammoth Community Water District	Tyler Nelson Chief Plant Operator	Phone: (760) 934-2596 Fax: (760) 934-2143

Table 4. 8 Contact Information for MCWD Metered Recycled Water Users

Recycled Water Use Site	Contact	Contact Information
Sierra Star Golf Course	Patrick Lewis Golf Course Superintendent	Phone: (760) 934-2060 Email: Plewis@mammoth resorts.com
Snowcreek Golf Course	Cindy Hougland Golf Course Superintendent	Phone: (760) 914-1615 Email: Thehouglands@hotmail.com

Table 4. 9 Contact Information for MCWD Trucked Recycled Water Users

Recycled Water Use Site	Recycled Water Site Supervisor	Contact Information
<i>Contact information for trucked recycled water users will be added at the begining of each Trucked Recycled Water Use season</i>		

SECTION 5 USE AREA SITES

This section describes the proposed and future recycled water use areas for the MCWD recycled water project. Disinfected secondary 2.2 recycled water is produced for all Trucked Recycled Water uses.

The use sites which receive tertiary grade recycled water are Sierra Star Golf Course and Snowcreek Golf Course. In the future, a Snowcreek Golf Course expansion and new transmission project to Shady Rest Park may use the recycled water for irrigation. Pursuant to Article 4 and CDPH Engineering Report guidelines, the following characteristics are discussed for each use area:

- Description of use area sites,
- Use area design,
- Responsibilities and governmental jurisdiction over the use areas,
- Operation and maintenance,
- Compliance with use area requirements,
- Inspection, monitoring and reporting, and
- Employees training.

5.1 Description of Trucked Recycled Water Use Areas

Disinfected secondary 2.2 recycled water is produced for all Trucked Recycled Water uses. If secondary 2.2 is not available, trucked users may receive potable water or tertiary grade recycled water solely for the uses described in the Trucked recycled water program.

5.1.1 Freeway Landscape Irrigation

Disinfected secondary-2.2 recycled water is distributed through the Trucked Recycled Water Program for all Trucked Recycled Water freeway landscape irrigation uses. MCWD intends to supply disinfected secondary 2.2 recycled water through the Trucked Recycled Water Program to customers who require irrigation water for nonedible vegetation where access is controlled so that the irrigated area cannot be used as part of a park, playground or school yard. MCWD will revise the Engineering Report and seek DDW approval if MCWD is planning to supply recycled water for non-trucked freeway landscape irrigation uses.

5.1.2 Cooling

A pilot study was conducted in 2001 at Mammoth Pacific Geothermal Power Plant to utilize recycled water for cooling purposes; however, there are currently no plans to supply recycled water for cooling water uses. MCWD will revise the Engineering Report and seek DDW approval if MCWD is planning to supply recycled water for this use.

5.1.3 Fire Fighting

Mammoth Lakes and the surrounding areas are susceptible to wild fires and recycled water could become an important back-up source of water for non-structural fire-fighting supply. However, this is not currently being proposed. MCWD will revise the Engineering Report and seek DDW approval if MCWD is planning to supply recycled water for this use.

5.1.4 Construction

Disinfected Secondary 2.2 Recycled water for construction purposes may be used only for dust control, soil compaction during grading operations, and consolidation and compaction of backfill in trenches for non-potable water, sanitary sewer, storm drain, gas and electric pipeline trenches. Secondary 2.2 Recycled water shall not be used for water jetting and consolidation or compaction of backfill in trenches for potable water pipelines.

The operation, maintenance and surveillance of all on-site non-potable water systems facilities shall be under the management of the Use Supervisor designated by the user and approved by MCWD. MCWD has the right to enter upon the user's premises during reasonable hours for the purpose of inspecting the non-potable facilities and their operation.

Procedure to Obtain Recycled Water for Construction Use

Use of recycled water for construction purposes requires authorization of the district prior to using recycled water at construction sites. Sufficient time should be allowed to acquire the necessary approval prior to beginning construction.

The recycled water use applicant must complete and submit the user authorization form to the district. The user must identify an on-site supervisor who will be responsible for use of recycled water in conformance with MCWD Rules and Requirements for recycled water use. MCWD will review the authorization form to deny, provide approval or conditional approval for recycled water use.

Advisory Signage and Identification

All sites using recycled water must post clearly visible sign(s) conforming to District approval and installed per the locations(s) indicated by the approved user authorization form. Recycled water identification signage must be a minimum of 4" x 8", however of the reasonable size to be readable to the public.

Identification Signage, Tags, Markings, and Stickers

Any vehicle used to transport recycled water must be clearly marked with labels or signs that contain the words **"RECYCLED WATER – DO NOT DRINK,"** IN BOTH English and Spanish, in 2-inch high letters on a purple background. The signs should include the "Do Not Drink" symbol. One label or sign should be placed on the tank closest to the driver's door, with a second label or sign being placed on the rear surface of the tank at the outlet. All labels and signs must be placed where they can easily be seen by the personnel using the vehicle.

If required, identification tags and stickers must be weatherproof and durable, such as plastic or plastic coated. Recycled water identification tags and stickers must have a purple background with permanent lettering stating **"RECYCLED WATER – DO NOT DRINK"** in English and in Spanish.

If required, potable water identification tags and labels must have a blue background with **"POTABLE WATER"** and **"AGUA PARA TOMAR"** in permanent lettering.

Recycled Water Construction Use Operational Requirements

Equipment

Vehicles used for distributing recycled water for soil compaction and dust control or other uses shall have an adequate tank and plumbing systems to ensure that leaks and ruptures will not occur in the course of normal use. In addition:

- Non-potable water should not be introduced into any domestic water piping system. No unprotected connection should be made between equipment containing non-potable water and any part of domestic water system.
- Hoses, drop tanks, etc. shall be identified as containing recycled water and not suitable for drinking water.
- Control valves shall be provided and configured such that recycled water can be applied in a controlled fashion on the construction site and completely retained during transit.
- Spray heads or nozzles shall be provided and configured such that recycled water is applied to prevent runoff, ponding, or windblown spray conditions.
- Each tank shall be equipped with an approved air-gap separation between the filler tube and the tank to prevent back siphonage.
- Above Ground recycled water appurtenances shall be color-coded purple and labeled or tagged “**RECYCLED WATER – DO NO DRINK**”. Labeling or tagging shall be in English and in Spanish.
- Each tank used to store and/or transport recycled water must be flushed and disinfected prior to storage and/or transport of potable water or recycled water to better quality.
- Equipment operators shall be instructed about the requirements contained herein and the proper use of recycled water.
- Recycled water shall not be introduced into any domestic water piping system.
- Any equipment or facilities such as transport vehicles, tanks, temporary piping or valves, and portable pumps which have been used with recycled water shall be cleaned and disinfected before moving to another job site. This disinfection and cleaning shall ensure the protection of public health in the event of any subsequent district-approved use.

Ponds

Ponds used for storage of construction non-potable water should be fenced and posted to limit public access.

Runoff Conditions

Conditions which directly or indirectly cause a runoff outside of the approved use area are prohibited.

Ponding Conditions

Conditions which directly or indirectly cause ponding outside of or within the approved use area are prohibited.

Overspray Conditions

Conditions which directly or indirectly permit windblown spray or overspray to pass outside of the approved use area are prohibited.

Unapproved Uses

Use of nonpotable water for any purpose other than those explicitly approved in the currently effective user authorization, and without the prior knowledge and approval of the MCWD, is prohibited.

Reuse / Disposal in Unapproved Areas

Reuse / Disposal of nonpotable water for any purpose, including approved uses, in areas other than those explicitly approved in the current user authorization, and without prior knowledge and approval of MCWD, is prohibited.

Cross-Connection

Cross-Connection resulting from the use of nonpotable water service, whether by design, construction practice, or system operations are prohibited.

Hose Bibs

Hose bibs on nonpotable water systems are prohibited, replacement of hose bibs with quick couplers is recommended.

Violations

The District reserves the right to determine whether a violation of these guidelines has resulted from any action or occurrence which is the responsibility of the user. If a violation is not corrected within a reasonable time, the District may discontinue recycled water service to the User.

Unauthorized Discharge

An unauthorized discharge is any amount of recycled water that leaves the designated use site. The Site Supervisor must report to the District any unauthorized discharged of recycled water, at which time the District will specify if a written report is required. In the event of an unauthorized discharge, the Site Supervisor should make every effort to contain the recycled water and prevent it from entering the storm drain system. Contact the District for further directions and disposal instructions.

Contamination of Potable Water

If contamination of the potable water system is suspected or known due to the accident or cross-connection on the user’s premises, the user must immediately stop recycled water use and notify the District. In case of contamination of the District potable water system due to a cross-connection on the User’s premises, the User must immediately notify the District and the County Health Department.

5.1.5 Other Industrial Uses

Future industrial and commercial uses of recycled water may include use in industrial boiler feeds as well as industrial process water that will not come into contact with workers. No industrial use areas are part of the present recycled water project and are not discussed in this report.

5.2 Golf Course Landscape Irrigation Uses

5.2.1 Use Area Description

Figure 5.1 and Figure 5.2 show the location of Sierra Star and Snowcreek Golf Courses, respectively. Sierra Star is located in the northwest area of Mammoth and Snowcreek is located in the Old Mammoth Meadow area (in the south part of Mammoth). Contiguous housing units border the Sierra Star recycled water use area and existing Snowcreek Golf Course. The Snowcreek expansion, which will receive recycled water irrigation, borders vacant lands and roads planned for future development. Table 5.1 presents characteristics such as irrigation acreage, design, grass type, and typical irrigation period of the two golf courses.

The irrigation season for both golf courses is relatively short, typically including the months from May through October. During winter, the facilities are typically covered in snow, and irrigation is suspended. However, the annual irrigation period and resulting water demands can vary from year to year, depending on the amount of snowfall and the length of the golf course operation season. Both Snowcreek and Sierra Star utilize automated irrigation systems that use soil humidity sensors to maximize efficiency and optimize water use. Irrigation typically occurs over about nine hours at night.

Table 5. 1 Golf Course Characteristics and Irrigation

Item	Sierra Star	Snowcreek
Irrigated Area	70 acres	63.3 acres
Storage Lake Area	1.7 acres	0.3 acres
Vicinity Water Supply Wells	Wells No. 16, 17, 20, 25	Wells No. 10 and 6, and one private well
Grass Type	Cold-season. Mainly ryegrass, fescues, and bluegrass	Cold-season. Ryegrass, fescues, and blue grass
Irrigation Period	May through October	May through October

Disinfected tertiary recycled water is used for unrestricted golf course turf irrigation and applied primarily through spray (sprinklers) irrigation with a minor amount through drip emitters. Current irrigation practices will be continued for irrigation using the recycled water.

Four MCWD domestic water supply wells (Wells No. 16, 17, 20, and 25) are located near the Sierra Star Golf Course. The distances of these wells from the perimeter of the golf course turf area range from 200 feet to 850 feet. Table 5.2 summarizes construction details of these wells. Groundwater from all of these wells is pumped to a central water treatment facility located approximately 500 feet from the perimeter of the golf course.

There are two water supply wells (Wells No. 6 and 10) located within the existing 9-hole Snowcreek Golf Course and approximately 4,000 feet from the expanded 18-hole golf course area where recycled water irrigation will be practiced. Construction details of these wells are included in table 5.2. Groundwater from all these wells is pumped to a central water treatment facility located approximately 2,000 ft from the perimeter of the golf course.

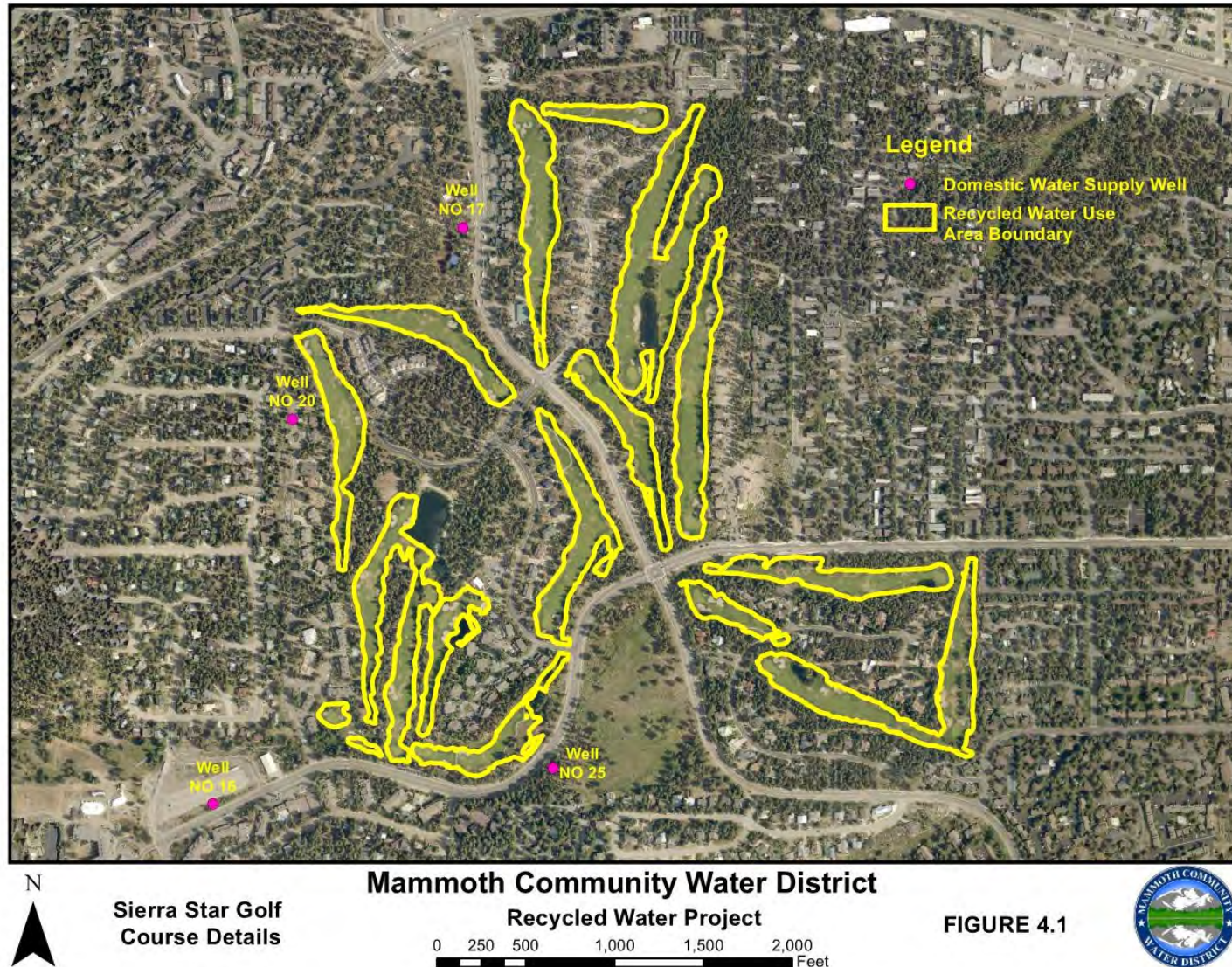


Figure 5. 1 Sierra Star Golf Course Details



Figure 5. 2 Snowcreek Golf Course Details

Table 5. 2 Production Well Construction Data

Well No.	Date Drilled	Drilled Depth (ft)	Cased Depth (ft)	Perforated or Open Interval (ft)	Annular Seal (ft)
6	10/28/1987	670	670	196 - 670	0 - 52
10	11/02/1987	700	700	136 - 700	0 - 52
16	8/1992	710	710	420 - 470 500 - 680	0 - 60
17	7/1992	710	513	400 - 710	0 - 60
20	9/1992	710	420	240 - 420 470 - 710	0 - 60
25	8/01/2002	700	530	340 - 700	0 - 60

5.2.2 Responsibility

All recycled water facilities will be managed by MCWD under the terms of a General Use Permit to be issued to MCWD by the SWRCB, and DDW. MCWD will continue to administer Recycled Water Use Permits to recycled water users including Sierra Star and Snowcreek Golf Courses. Recycled water users will be responsible to comply with all permit requirements including proper maintenance of backflow prevention devices, prevention of public contact with the recycled water through implementation of best management practices, control of irrigation runoff from the use area, designation of a recycled water supervisor to oversee the recycled water project and monitoring and reporting, and close communication with MCWD.

5.2.3 Governmental Jurisdiction

Governmental agencies that will have regulatory jurisdiction over the reuse sites include the, SWRCB, and DDW. Other agencies associated with the project include the U.S. Forest Service, Mono County Health Department, and Town of Mammoth Lakes.

5.2.4 Use Area Design

The existing irrigation distribution system in each golf course includes a recycled water pumping station with booster pumps, main header pipe from the pumping station to the course, laterals inside the course, sprinklers, and valves and accessories. The existing irrigation facilities for Sierra Star Golf Course as well as Snowcreek Golf Course are used for recycled water irrigation. Record plan drawings showing all piping networks within the golf courses including recycled, potable, sewage, and others are available from MCWD. Additional installations including, but not limited to, signage and hose bibs in compliance with the use area requirements of Section 60310 will be installed appropriately and are described in other parts of this section.

As mentioned above, recycled water will be used in all portions of the Snowcreek Golf Course, including the expanded portion. New irrigation facilities will be designed to comply with the recycled water design requirements.

The following design information is listed for recycled water irrigation facilities in Sierra Star Golf Course.

- a) Pumping Station and Pumps

Function - To deliver recycled water from the storage lakes and domestic supply wells to the golf course sprinkler system.

Equipment Type – Pumps on Variable Frequency Drive (VFD). Pumping station design data is listed in Table 5.3.

Operational Characteristics – Normally continuous operation when irrigation is required

Table 5. 3 Sierra Star Golf Course Pumping Station and Pumps Design Data

	Unit	Value
Number of pumps		2
Capacity, each	gpm	1,500
TDH	psi	100
High water level elevation in wet well	ft above sea level	8020.75
Pumping station top finish elevation	ft above sea level	8024.75

b) Lateral Pipe and Sprinkler System

Function – To distribute irrigation water throughout the course and irrigate the turf area using the sprinklers.

Equipment Type – Underground lateral pipes, solenoid valves, and Rain Bird Eagle and Rain Bird T-Bird Sprinklers. Table 5.4 summarizes some important design data for the pipe and sprinkler system.

Operational Characteristics – Normally continuous operation when irrigation is required

Table 5. 4 Sierra Star Golf Course Lateral Pipe and Sprinkler System Design Data

	Unit	Value
Pipe sizes	inch	2 to 8
Sprinkler counts	each	1,000
Quick coupler valves	each	79
Sprinkler pre-set pressure setting	psi	70

The following design information is listed for recycled water irrigation facilities in Snow creek Golf Course.

a) Pumping Station and Pumps

Function - To deliver recycled water from wet well to golf course sprinkler system.

Equipment Type – 72” CMP wet well with 3 vertical turbine type irrigation pumps, see Table 5.5.

Operational Characteristics – During the golf course irrigation season, water is pumped from the lake to the course when irrigation is required. The pumps use variable frequency drives (VFD’s), and pumping is controlled by an automatic computerized irrigation control system. The automatic computerized irrigation programs can be overridden by the operator to irrigate the course manually.

Table 5. 5 Snowcreek Golf Course Pumping Station and Pumps Design Data

	Unit	Value
Number of pumps		3
Capacity, each	gpm	2,000
TDH	feet	115
High water level elevation in wet well	ft above sea level	7871.3
Pumping station top finish elevation	ft above sea level	7875.3

b) Lateral Pipe and Sprinkler System

Function – To distribute irrigation water throughout the course and irrigate the turf area using the sprinklers.

Equipment Type – Underground header pipes run from the irrigation pump station to the course. The distribution system consists of laterals, solenoid valves, sprinklers (TORO NO.634 and 655 rotary sprinkler), and other fittings. Details of the sprinklers, valves and accessories are shown in table 5.6.

The main header irrigation supply lines are located 3 feet below ground surface. The laterals are typically installed at a depth of 1.5 ft.

Operational Characteristics – Automated system that irrigates the course based on soil moisture content measure by moisture sensors. Normally continuous operation when irrigation is required or intermittent if overridden by the operator.

Table 5. 6 Snowcreek Golf Course Lateral Pipe and Sprinkler System Design Data

	Unit	Value
Pipe sizes	inch	2 to 8
Sprinkler counts	each	900
Quick coupler valves	each	79
Sprinkler pre-set pressure setting	Psi	70

c) Reliability/Flexibility Features

Multiple pumps will provide flexibility of operating one pump while other pump is failed for any reason. An alarm system (pump failure) will indicate failure and rising level in wet well will start the other pump automatically. Also, during complete or partial shutdown of the pumps, the high water level sensor can signal the recycled water pumps at the MCWD treatment plant to stop pumping, thus stopping delivery of recycled water to the storage lake.

The automatic computerized irrigation programs incorporate two override features that allow the operator to set watering percentages and apply water to each area for short periods at one-hour intervals until the daily water requirements are met. This flexibility feature will prevent irrigation runoff inside the golf course.

5.2.5 Contingency Plan

Irrigation needs of Sierra Star and Snowcreek can be met by supplying groundwater from the domestic wells should the recycled water production and delivery system fail for any reason.

5.2.6 Compliance with Use Area Requirements

Pursuant to Section 60310, the following information is provided for compliance with the use area requirements applicable to Sierra Star golf course and Snowcreek golf course irrigation area. The facilities design for other use areas including the Snowcreek golf course expansion and trucked water program will adopt the same design requirements.

- a) All edges of irrigated area will be more than 50 feet away from the domestic water supply wells. The closest domestic water supply well in Sierra Star is approximately 200 feet from the perimeter of the golf course use area and the closest domestic water supply well in Snowcreek is greater than 50 ft. from the perimeter of the golf course use area (Figures 5.1 and 5.2).
- b) No irrigation runoff from Sierra Star golf course nor Snowcreek golf course is expected due to the use of an automated computer irrigation system to optimize the irrigation efficiency and minimize the irrigation runoff.
- c) Drinking water fountains will be protected against recycled water spray at all times. Also, no spray or mist will enter any dwellings, designated outdoor eating areas, or food handling facilities.
- d) All use areas where recycled water will be used and accessible to the public will be posted with signs. These signs will be visible to the public, in a size no less than 4 inches high by 8 inches wide, and will include the following wording: "RECYCLED WATER - DO NOT DRINK." A typical sign is shown in Figure 5.3.
- e) There will be no physical connection between any recycled and potable water systems.
- f) The portions of the recycled water piping system that are in areas subject to access by the general public will not include any hose bibs. Suitable quick couplers will be used if needed.

5.2.7 Use Area Containment Measures

To prevent irrigation runoff, each golf course has multiple separate irrigation zones, each with control valves. Depending on weather conditions and specific location, irrigation may be terminated very quickly in order to avoid soil saturation. Frequent, brief irrigation periods allow for more precision and help to minimize the potential for runoff. Close inspection and monitoring of the irrigation system would eliminate recycled water runoff resulting from any kind of irrigation system failure.

5.2.8 Potential Access by Employees or Public

The recycled water use areas will be readily accessed by employees of the golf courses and golfers playing the courses. Also, transient and non-transient residential units located adjacent to the golf course will be occupied and individuals may walk on the courses during non-playing hours.

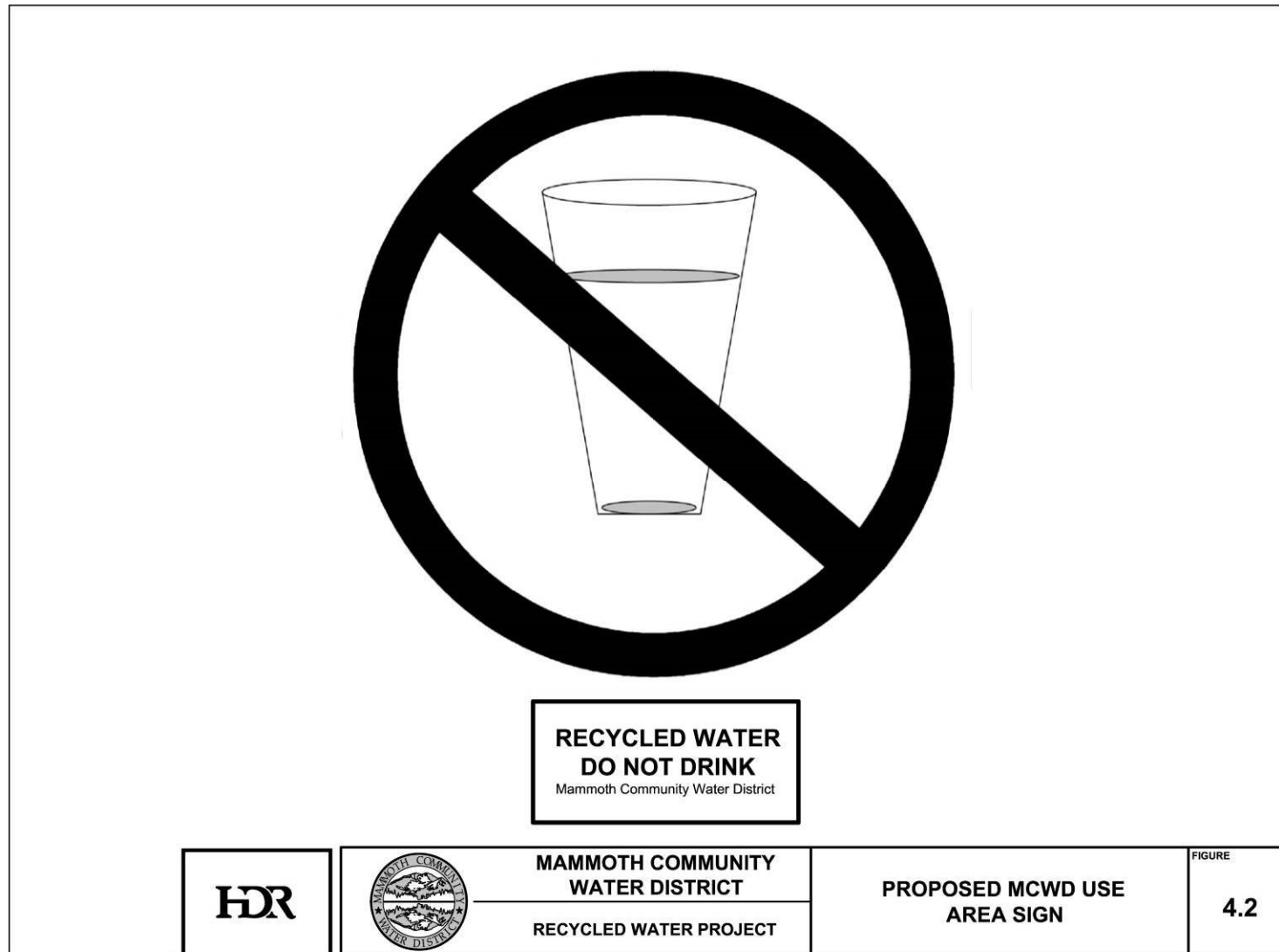


Figure 5. 3 Proposed MCWD Use Area Sign

5.2.9 Cross-Connection Control and Backflow Prevention

MCWD has implemented a cross-connection control program, pursuant to Title 17, at all use areas within MCWD to prevent a non-potable pipeline from mistakenly being connected to a potable system. Following are measures to avoid cross connections or inappropriate uses inside the recycled water use areas.

MCWD ensures that the users provide adequate maintenance and periodic testing of the backflow prevention devices to ensure proper operation. The backflow preventers will be tested by persons who have demonstrated competency in the testing of these devices to MCWD. The backflow preventers will be tested at least annually and more often if necessary. They will also be tested immediately after installation, relocation, or repair. They will not be placed in service until made functional. Any device found to be defective must be repaired or replaced in accordance with Title 17, Chapter 5. MCWD will inform the users when to test backflow devices and will provide a notice that contains the date when the test must be completed. All reports of testing and maintenance will be maintained by MCWD for a minimum of three years.

Prior to Recycled Water Permit Issuance (and every four years thereafter), a Certified Cross Connection Control Specialist (as described in CCR Title 17, Section 7605) must conduct a site investigation and test the recycled water system to identify any cross-connections (see the Cross-Connection Control Investigation and Test Report, **Appendix E**). During the next investigation, the Specialist will inspect the recycled water equipment and interview the Recycled Water Site Supervisor to determine if any equipment changes have been made since the last inspection. If activities were conducted that could compromise the integrity of the potable water supply system, a cross-connection test may be performed and/or corrective actions prescribed. The results of the investigation and testing are recorded by the specialist on the form and any deficiencies are noted along with the prescribed corrective action. All backflow prevention devices must be tested on an annual basis (see Backflow Prevention Device Test Report, **Appendix E**).

Table 5. 7 MCWD Recycled Water Program Cross-Connection Control

Required Action	Frequency	Documentation
Investigate site to determine cross-connection potential, perform shutdown test of recycled water system to ensure no cross-connections are present.	Prior to issuance of Recycled Water Use Permit	Cross-Connection Control Investigation and Test Report (Appendix E)
Test all backflow prevention devices to determine if functioning properly	Prior to issuance of Recycled Water Use Permit	Backflow Prevention Device Test Report (Appendix E)
Test all backflow prevention devices to determine if functioning properly.	Annually	Backflow Prevention Device Test Report (Appendix E)
Investigate site to determine cross-connection potential. If potential problem identified, shutdown recycled water system to test for cross connections.	Every four years (or more frequently if necessary)	Cross-Connection Control Investigation and Test Report (Appendix E)

5.2.10 Cross Connection Control Best Management Practices

Minimum Depth – The top of the recycled water pipe are a minimum of 36 inches below the finished street grade.

Minimum Separation – Recycled water lines parallel to potable water lines are installed at least ten feet horizontally from and one foot lower than potable water lines.

Recycled water lines should cross a minimum of one foot below potable water lines.

Pipe Identification – All buried distribution piping in the recycled water system, including service lines, valves, and other appurtenances, are colored purple (Pantone 512) and embossed or be integrally stamped as “CAUTION: NONPOTABLE WATER – DO NOT DRINK,” or “CAUTION: RECYCLED WATER – DO NOT DRINK,” or be installed with a purple identification tape or a purple polyethylene vinyl wrap, color to be Pantone 512.

Valve Box and Other Surface Identification - Valve boxes include a special triangular, heavy-duty cover. All valve covers on off-site recycled transmission lines are of a non-interchangeable shape with potable water covers. They will have a recognizable inscription cast on the top surface. All above-ground facilities are consistently color-coded (purple, Pantone 512) and marked to differentiate recycled water facilities from potable water or wastewater facilities.

5.3 Impoundments

5.3.1 Use Area Description

Disinfected tertiary recycled water is stored in storage lake(s) located at each of the two golf course sites. Impoundment lakes within Snowcreek Golf Course are planned to be modified/designed when the Snowcreek Golf Course expansion will be completed in the future. The use area description in the following sections are limited to only the existing Sierra Star and Snowcreek golf courses.

Figure 5.1 shows the location of the lake within Sierra Star Golf Course. The lake is a lined impoundment with golf course turf areas bordering all sides of the lake except for a club house on the south side of the lake.

Figure 5.2 shows the location of the RW impoundment pond directly east of the northern most boundary of the golf course. The RW pond is a lined impoundment with golf course turf areas bordering all sides of the pond with the relocated driving range on the south side of the pond.

5.3.2 Responsibility

Golf course management will operate and maintain all impoundments and lake systems located on the golf courses. Responsibilities set forth in Section 5.2.2 will apply for the impoundment use areas. The Use Area Supervisor is responsible for all on-site uses and therefore responsible for both irrigation and impoundment use areas.

5.3.3 Governmental Jurisdiction

The golf course impoundments are located on private land and the agencies having regulatory jurisdiction over the reuse sites include the SWRCB and DDW, Mono County Environmental Health, and the Town of Mammoth Lakes.

5.3.4 Use Area Design

5.3.4.1 Basic Design

Design data for the Sierra Star Golf Course recycled water storage lake is listed in Table 5.8.

Table 5. 8 Sierra Star Golf Course Recycled Water Storage Lake Design Data

	Unit	Value
Lake Area	sf	62,800
Existing Bottom of Lake Elevation	ft	8005
Existing Water Surface Elevation	ft	8019.5
Existing Spillway Level	ft	8020.3
Liner Type		20 MIL PVC membrane

Design data for the Snowcreek Golf Course recycled water storage lake is listed in Table 5.9

Table 5. 9 Snowcreek Golf Course Recycled Water Storage Lake Design Data

	Unit	Value
Lake Area	sf	11,866
Existing Bottom of Lake Elevation	ft	7,862
Existing Water Surface Elevation	ft	7,871.3
Existing Spillway Level	ft	7,872.3
Liner Type		40 MIL HDPE liner

5.3.4.2 Reliability/Flexibility Features

In case of recycled water system failure, well water stored in existing golf course on-site lakes would be used to provide uninterrupted supply for irrigation. MCWD would continue feeding the golf course lakes by pumping well water to maintain water level lost to evaporation. These lakes are landscape features and water level will be maintained for aesthetic value.

If irrigation demand during the irrigation hours exceeds recycled water production, the additional irrigation demand can be met by pumping well water into the storage lake. Also, if MCWD recycled water quality does not meet the water quality requirements, the entire irrigation water supply to the golf courses can be supplemented through pumping of well water.

5.3.5 Contingency Plan

In case of storage lake impoundment system failure for any reason, the lake connection can be disconnected temporarily and well water can be pumped to the golf courses for uninterrupted supply for irrigation.

5.3.6 Compliance with Use Area Requirements

The location of the storage lake for Sierra Star Golf Course and Snow Creek Golf Course is more than 200 feet away from the nearest MCWD domestic water supply well. The same setback distance will be maintained for other recycled water impoundments.

According to Title 22 Section 60305, the total coliform bacteria concentrations in recycled water used for non-restricted recreational impoundments, measured at a point between the disinfection process and the point of entry to the use impoundment, will comply with the criteria specified in Section 60301.230 (b) for disinfected tertiary recycled water. Requirements for signage are as specified in paragraph 5.2.6.d) of this report.

5.3.7 Use Area Containment Measures

Impoundments will be adequately protected against overflow resulting from a 25-year, 24-hour storm event. Berm height around the lake was increased by 0.2 feet to contain 25-year storm event. However, the lake will overflow during incidental overlapping occurrences of a 25-year storm with a 25-year snow melt. Overflow from the Sierra Star lake will be through a spillway located on the east side of the lake and will enter Murphy Gulch, subsequently draining to Mammoth Creek. A study conducted on the impact of lake overflows on Murphy Gulch water quality showed insignificant impact on Murphy Gulch and Mammoth Creek water quality due to the high dilution effect caused by a large drainage area runoff to the Murphy Gulch. Overflow from the Snowcreek lake will be through a spillway located on the east side of the lake and will enter a retention basin and ditch conveyance, subsequently draining to Mammoth Creek. The results of this study also show that the high dilution effect caused by the large drainage area of the Snowcreek retention basin and ditch conveyance will have an insignificant effect on Mammoth Creek water quality.

5.3.8 Potential Access by Employees or Public

The degree of access to these impoundments will be limited to those members of the public playing golf and to golf course maintenance personnel as described in Section 5.2.8.

5.3.9 Cross Connection Control and Backflow Prevention

The recycled water will be delivered to the storage lakes at the two golf courses. At Sierra Star and Snowcreek, the existing pipe connected to the lake will discharge the recycled water into the lake. The existing irrigation pumping station with two pumps will deliver the recycled water to the golf course irrigation system. Groundwater from domestic supply wells would also supply untreated groundwater to the pumping station with at least a one-foot air gap between the pipe end and wet well water surface. The groundwater discharge connection would also have isolation and check valves to prevent recycled water from entering into the groundwater well. Other features as described in paragraph 4.2.9 above would also be provided.

No cross connection risk exists for the transmission line from the MCWD waste water effluent.

5.4 Operations and Maintenance

The Use Area Supervisor is responsible for all operations and maintenance at the use site. The user will provide adequate maintenance and periodic testing of the backflow prevention devices to ensure proper operation as discussed in Section 4.2.9. All reports of testing and maintenance of backflow preventers at the use site are maintained by MCWD for a minimum of three years pursuant to Section 7605(f) of Title 17 Code of Regulations.

5.5 Inspections, Monitoring, and Reporting

5.5.1 Inspections and Monitoring

Cross connection control and site inspections and monitoring is performed by MCWD at the use sites to monitor compliance with state requirements and the General Permit. Inspections may be performed by local health officers to identify any cross-connection hazards and determine appropriate backflow prevention.

5.5.2 Reporting

Pursuant to Section 13523.1(4), MCWD submits a report quarterly in a tabular form with the list of users that were supplied recycled water during the quarter, the amount of recycled water delivered to each user, and the use of the recycled water. A summary of these data will be included in the annual report. MCWD will also submit Quarterly reports to the DDW-San Bernardino office email address at DWPDIST13@waterboards.ca.gov

Pursuant to 60329(d) of Title 22 Code of Regulations, MCWD immediately reports any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, by telephone to the regulatory agency, the CDPH, and the local health officer.

Additionally, the Use Area Supervisor reports any of the following occurrences to the MCWD Use Area Representative immediately.

- Any situation that may endanger the public’s health or the environment.
- Discovery of a cross connection of a recycled water system with a potable water system.
- More than minimum unplanned or uncontrolled discharge of recycled water resulting from water line breaks, malfunctioning control system, or any other circumstances.
- More than minimum discharge of recycled water outside of the approved use area due to on-site line breaks, runoff, direct spray, overspray or windblown spray or discharge outside the regular hours of operation for any reason.

5.6 Personnel and Employee Training

A Use Area Supervisor is designated for Sierra Star Golf Course, Snowcreek Golf Course and other use areas. The Use Area Supervisor must be certified by an MCWD-approved recycled water site supervisor training program. The Use Area Supervisor is responsible for operating and overseeing the use site systems, knowing MCWD-supplied “Rules and Regulations for Recycled Water Use”, and reporting to MCWD any of the occurrences listed in Section 4.5.2. The Use Area Supervisor is also available by telephone 24 hours a day for off-hours emergency contact by the MCWD Use Area Representative.

Appendix A

(Disinfection Contact Time Tracer Study)

Appendix A

Modal Contact Time Tracer Studies in Two Chlorine Contact Tanks

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ABSTRACT

Chlorine contact tank (CCT) design is crucial for proper disinfection of treated wastewater effluent (recycled water). Appropriate dimensions must be utilized in order to ensure that contact times are adequate for complete disinfection. Tracer tests are conducted as required by the California Department of Public Health (DPH) Title 22 regulations to determine that the chlorine contact tank, as constructed, does indeed provide the minimum modal contact time (MCT) of 90 minutes for all anticipated flow rates. Rhodamine dye tracer tests were performed on CCTs at both the Los Alisos Water Reclamation Plant (LAWRP) in Lake Forest, California, and the Mammoth Community Water District (MCWD) reclamation plant in Mammoth Lakes, California. At each facility, the MCTs were obtained for several different flow rates, and these values were plotted to create curves from which the MCTs at a given flow rate for each facility could be obtained by interpolating from the given data points.

KEYWORDS: modal contact time, chlorine, tracer tests, concentration, contact tank, design, disinfection, flow rates, hydraulic retention time, residual.

INTRODUCTION

Newly constructed or modified chlorine contact tanks used for disinfection and production of recycled water in California are required to have a tracer test conducted prior to distribution of the water. The tracer test is a California Department of Public Health (DPH) Title 22 (the section of the California Code of Regulations that governs recycled water) requirement to determine the ability of the chlorine contact tank (CCT) to provide the minimum modal contact time (MCT) of 90 minutes. Additionally, the product of MCT and total residual chlorine (TRC) must be at least 450 milligram-minutes per liter (mg-min/L). As defined by Title 22, the MCT is the “amount of time elapsed between the time that a tracer, such as a salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.”

Rhodamine dye tracer tests were performed on CCTs at the Los Alisos Water Reclamation Plant (LAWRP) in Lake Forest, California, and the Mammoth Community Water District (MCWD) reclamation plant in Mammoth Lakes, California. The results of these two tests were compared to each other. The concentration of dye was measured as fluorescence using a fluorometer. For each facility, tests were performed over a range of flow rates that covered the expected minimum, average, and peak. The flow rates were plotted against MCT to develop a characteristic curve, which can be used to interpolate MCT at any flow rate the CCT may experience.

Appendix A

Significance

The results of the individual tracer tests are essential to ensure that the CCTs were properly designed and constructed to provide adequate opportunity for chlorine disinfection. The disinfection process at water reclamation facilities is the last line of defense to protect the public from contact with pathogens in recycled water. Sufficient hydraulic retention (HRT) time is provided by adequately sizing the tanks, but the potential for short-circuiting requires that adequate baffling and sufficient length-to-width (L/W) and depth-to-width (H/W) ratios are also provided. Comparison of the tracer tests for the two separate facilities provides insight into how design features can maximize MCT without over-sizing the CCT. CCTs are typically designed to provide at least 120 minutes of HRT with the expectation that the relationship of MCT:HRT will be at least 0.75.

METHODOLOGY

Testing consisted of three main steps: achieving the desired CCT flow rate, injecting the tracer into the system, and measuring the concentration of tracer in the CCT effluent. The test procedure used to determine MCT at both facilities was as follows:

1. The Turner Designs 10AU Field Fluorometer was calibrated for in-line operation as specified by Turner Designs. The calibration included adjustment of the sensitivity knob. Adjustment of the sensitivity knob is not necessary when the equipment has been used to detect similar concentrations in prior usage. Adjustment of the sensitivity determines the expected sampling concentration range. Readings kept within the medium range give more accurate results. Correct adjustment of the sensitivity knob was checked by preparing a solution with a concentration near the expected testing values (10 ppb). The known concentration was then entered into the fluorometer through the calibration screen. The calibration was checked by repeating the process of sampling a prepared solution with a known concentration. A blank solution consisting of distilled water with a concentration of 0 ppb was then tested to check for accurate calibration.
2. Appropriate equipment and software for data collection (provided by Turner Designs), including a computer, fluorometer, and sample pump and tubing, were acquired. Communication was tested between the fluorometer and laptop computer. See Figure 1.
3. A data reading and storage rate of one recording per 10 seconds was selected.
4. A volume of Rhodamine WT was measured using a graduated cylinder. The selected volume was determined with the intent of achieving a peak concentration of approximately 10 parts per billion.
5. Preparations were made to send the CCT effluent to an appropriate location that would not reach the recycled water distribution system.
6. A desired flow rate through the CCTs was achieved by adjusting the influent pumping rate until a constant level in the CCT effluent wetwell was maintained. Totalizer values on the

Appendix A

influent pumps were recorded and actual flow rates were calculated. The influent pumps were adjusted based on the totalizer calculations.

7. Rhodamine WT dye was injected into the CCT influent box (for LAWRP) and the filter effluent channel (for MCWD). See Figure 2.
8. The tracer was injected in a turbulent location to ensure that the tracer was adequately mixed. See Figure 3.
9. Data logging began prior to tracer injection, and the official start of the test began when the tracer was injected into the influent box. The test start time and beginning fluorescence reading were noted.
10. Discrete samples of the CCT effluent were collected at the start of the test, at 0.75 the HRT for the given flow rate, at the apparent concentration peak (MCT), and at 1.25 times the HRT. These samples were collected for verification of test results.
11. The testing procedure was repeated for each scheduled flow rate (26,874 m³/d [7.1 MGD], 18,925 m³/d [5.0 MGD], and 11,355 m³/d [3.0 MGD] for LAWRP and 2,839 m³/d [0.75 MGD], 5,678 m³/d [1.5 MGD], 7,570 m³/d [2.0 MGD], and 10,977 m³/d [2.9 MGD] for MCWD).



Figure 1: Fluorometer and Data Collection Setup

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Figure 2: Injection of Rhodamine WT Dye into CCT Influent Box at LAWRP



Figure 3: Tracer Injection Location (CCT Influent Box) at LAWRP

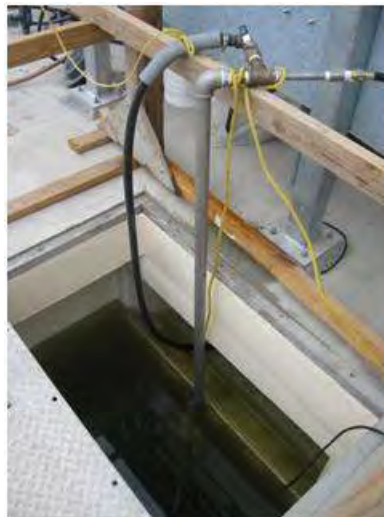


Figure 4: Effluent Sampling Location at LAWRP

Appendix A

RESULTS

The MCT testing at LAWRP provided the following conclusions:

- All test flow rates tested exceeded the 90-minute MCT minimum. Therefore, all expected flow rates through the CCT are acceptable for the production of Title 22 recycled water, given a proper chlorine dosage is supplied to result in the required effluent TRC.
- The highest flow rate of 28,425 m³/d (7.51 MGD) met the 90-minute MCT requirement with a MCT of 99 minutes.
- The relationship between influent flow rate and MCT was determined by graphing flow rate versus MCT for each of the test runs. A plot of all data from each of the test runs results in a linear relationship between MCT and flow rate with an R² value of 0.99, as shown in

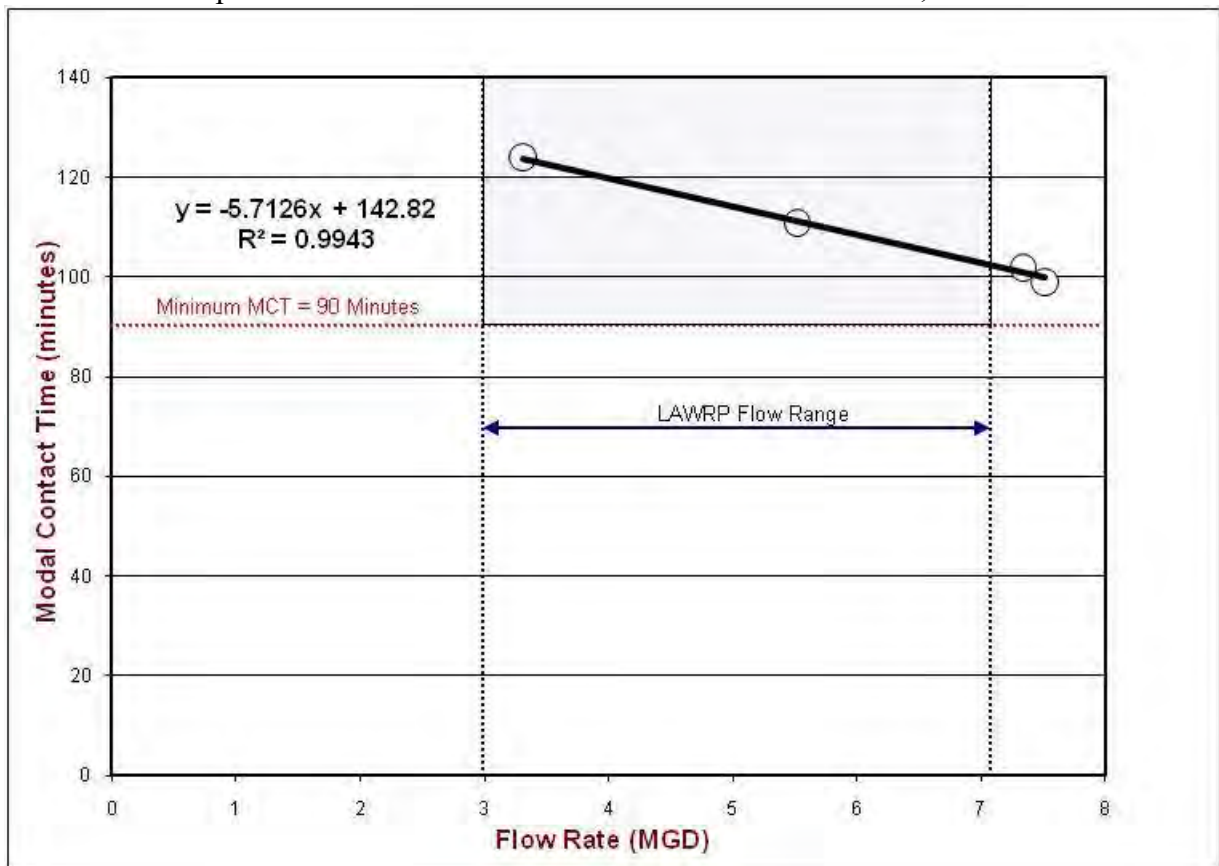


Figure 5.

Appendix A

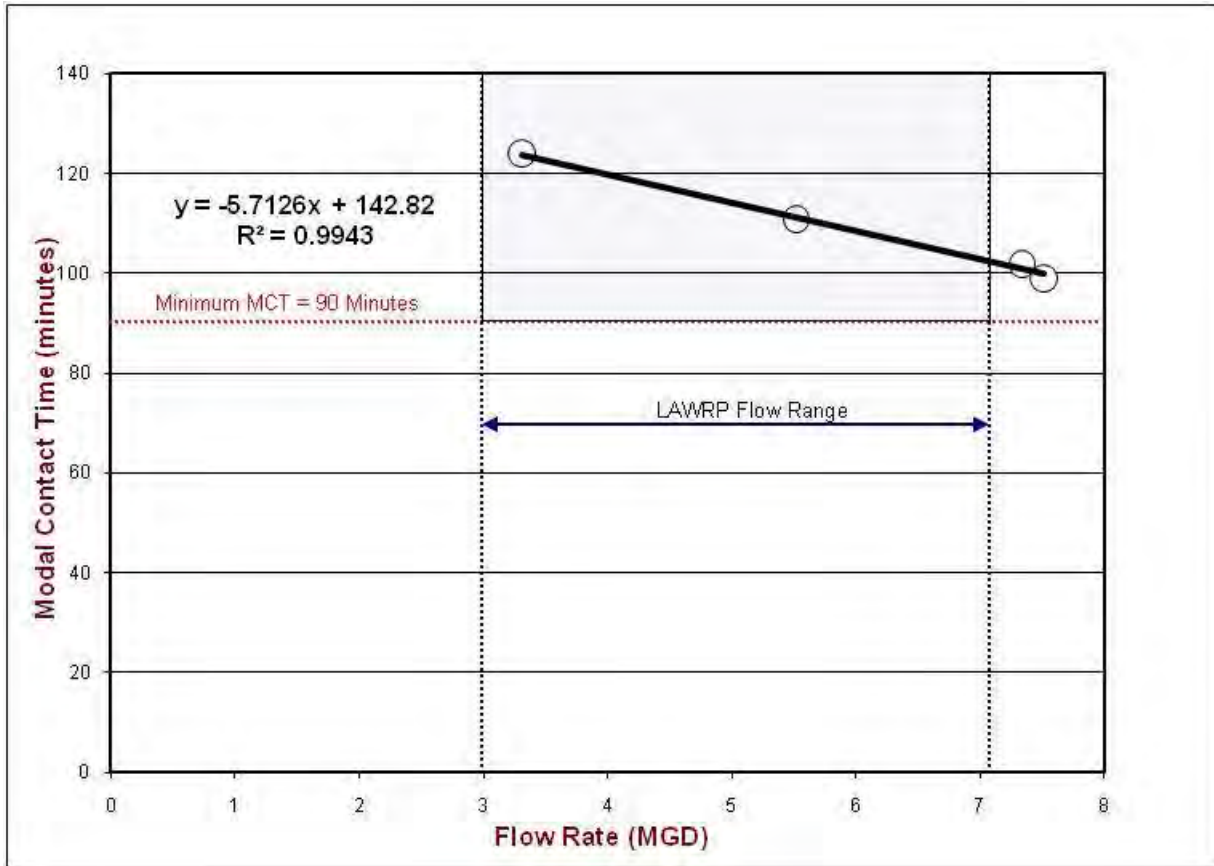


Figure 5: Flow Rate Versus Modal Contact Time at LAW RP

The MCT testing at MCWD provided the following conclusions:

- The testing indicated that all flow rates through the CCT within the expected flow range will experience at least 90 minutes of MCT.
- The MCT can be predicted according to the equation shown on Figure 6. The high R^2 value (0.99) indicates a strong exponential relationship between the independent (flow rate) and dependent (MCT) variables.

Appendix A

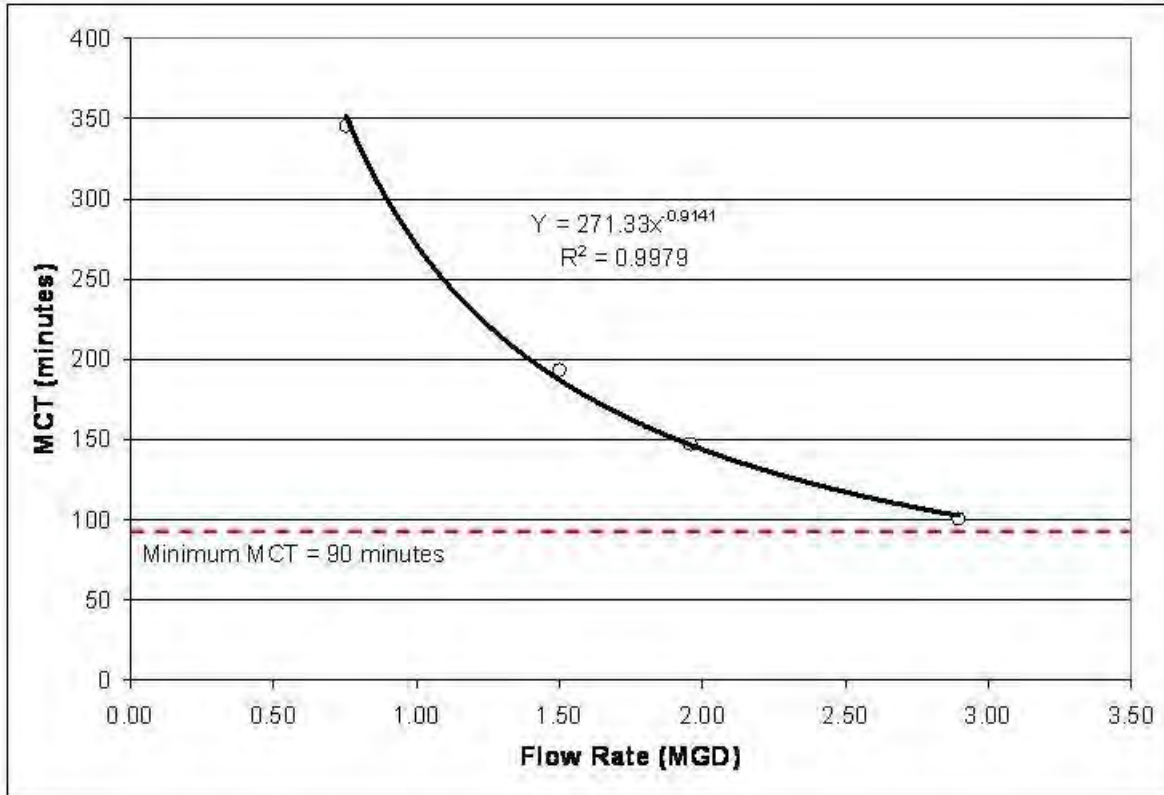
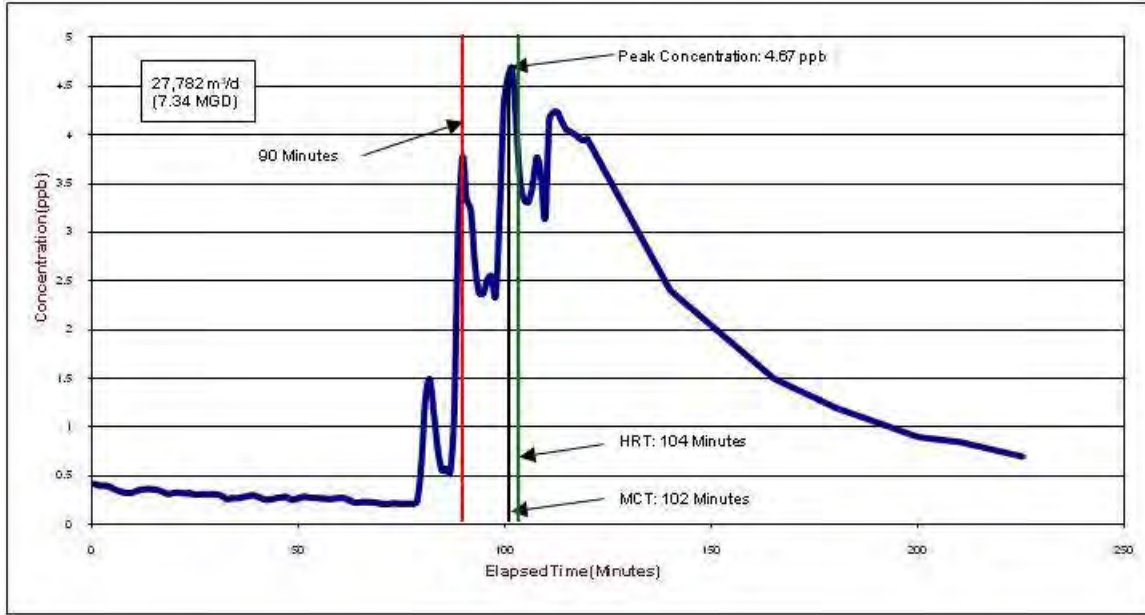
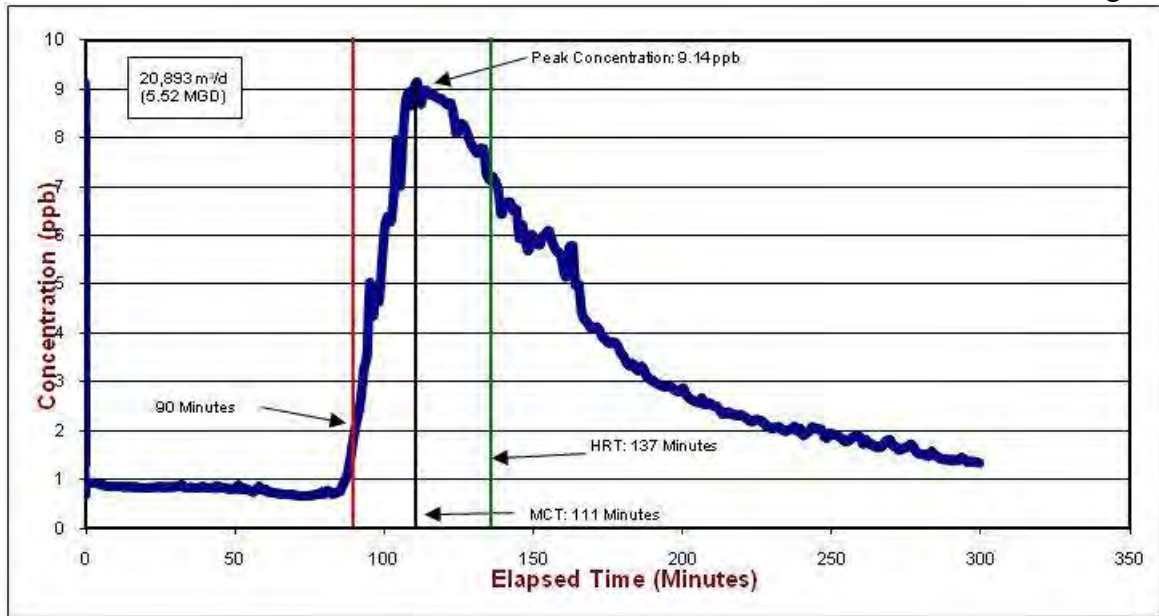


Figure 6: Flow Rate Versus Modal Contact Time at MCWD

Appendix A



Figure



7 and

Figure 8 demonstrate the test results at both peak flow and average flow for the LAWRP CCT. These curves are characteristic of the test results for the MCWD CCT, as well. The red line indicates the 90-minute MCT minimum, the black line indicates the MCT, and the green line indicates the HRT. It can be observed that the HRTs for both scenarios greatly exceeded the 90-minute MCT minimum, and the MCT:HRT was much higher for the peak flow scenario at 0.98:1 compared to the average flow scenario at 0.81:1.

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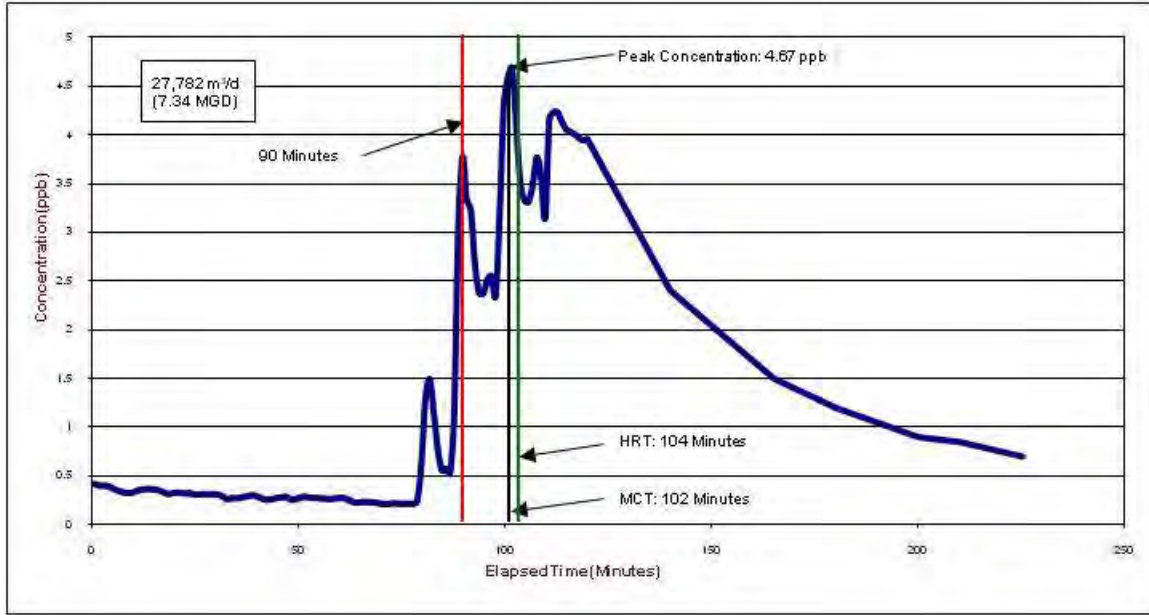


Figure 7: LAWRP Peak Flow Condition Test Results

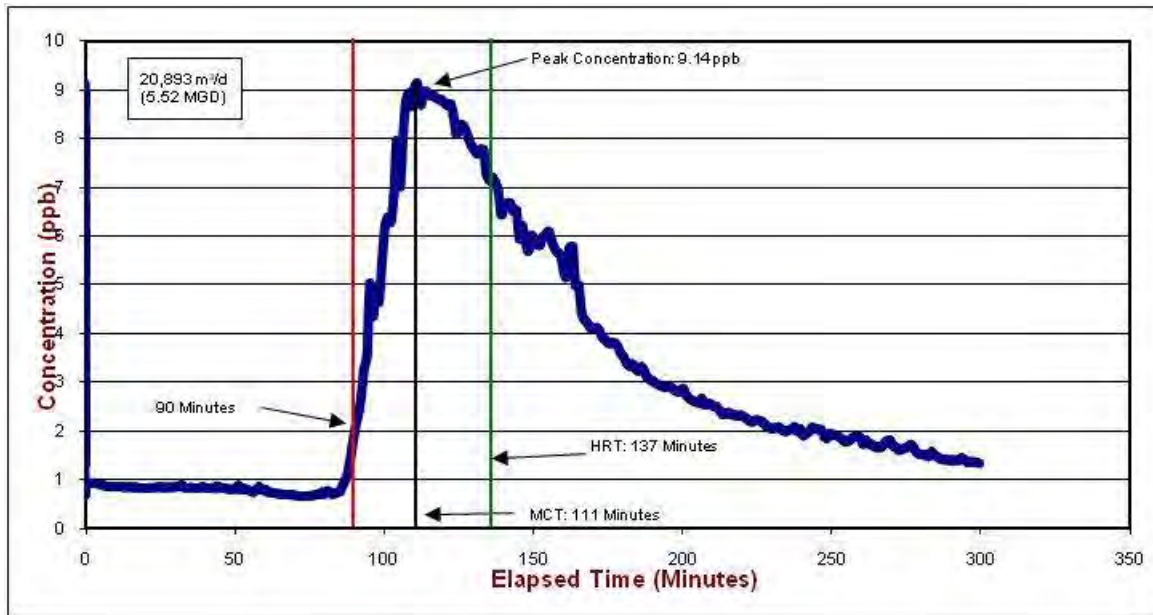


Figure 8: MCWD Peak Flow Condition Test Results

DISCUSSION AND CONCLUSIONS

Comparison of the two tests indicated that the relationship between flow rate and MCT was linear at the LAWRP CCT and exponentially related at MCWD. This relationship is only expected over the operating range of the tanks. Both CCTs exceeded the 0.75 MCT:HRT design ratio substantially; LAWRP's ratio was approximately 0.90, and MCWD's was approximately 0.92.

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Appropriate length-to-width and depth-to-width ratios were established to ensure that adequate dispersion would be accomplished. It must be noted that the LAWRP CCT was a new construction, while the MCWD CCT involved retrofitting existing primary clarifiers. Thus, there were some size constraints posed by the dimensions of the existing primary clarifiers at MCWD.

The LAWRP CCT (Figure 9) was constructed with four passes of 33.53 meter (110 foot) by 1.45 meter (4.75 foot) channels. The LAWRP CCT had rounded corners and a 1.45 meter (4.75 foot) distance from the divider to the wall. The depth for the LAWRP CCT was established at 4.96 meters (16.265 feet). Given these dimensions, the flow length:width ratio was 92.6:1, the L/W ratio of each channel was 23.2:1, and the H/W ratio was 3.42:1.

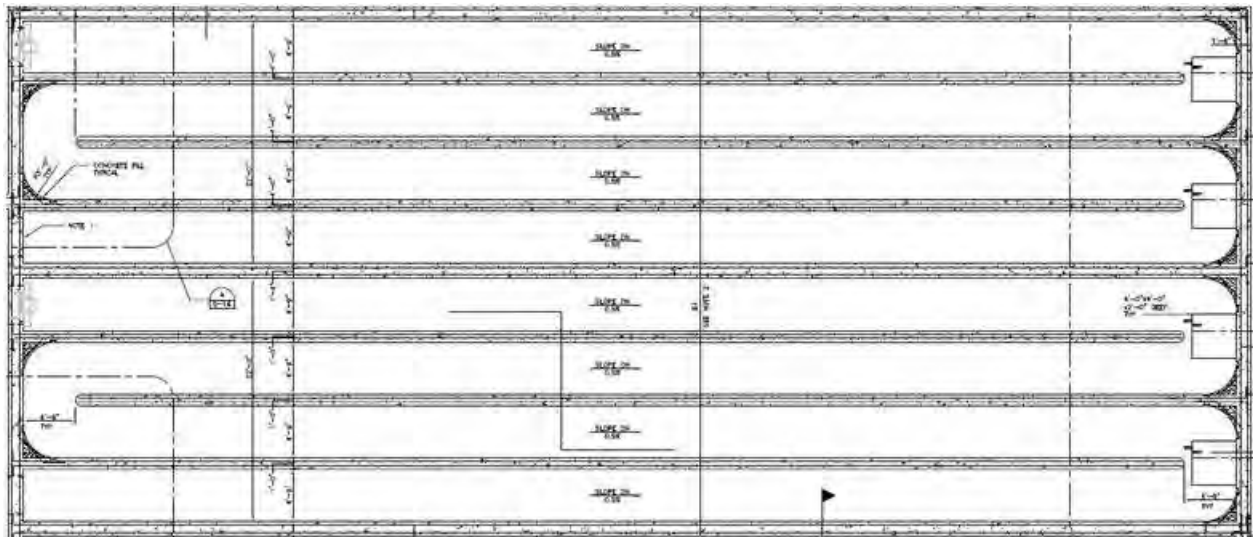


Figure 9: LAWRP CCT

The MCWD CCT (Figure 10), given the fact that it was a retrofit of existing primary clarifiers, was limited in dimension. Therefore, the MCWD CCT had four passes that were 18.29 meters (60 feet) long and 1.78 meters (5.83 feet) wide and four passes that were 18.29 meters (60 feet) long and 2.39 meters (7.83 feet) wide, creating a total of 8 shorter passes with two different widths. This CCT had square corners with a divider to wall distance of two feet. The depth for this CCT was established at 3.12 meters (10.25 feet). The flow length:width ratio for the MCWD CCT was 70.3:1, the L/W ratio was 10.3:1 for each wide channel and 7.7:1 for each narrow channel, and the H/W ratio was 1.31:1 for the wider channels and 1.76:1 for the narrower channels.

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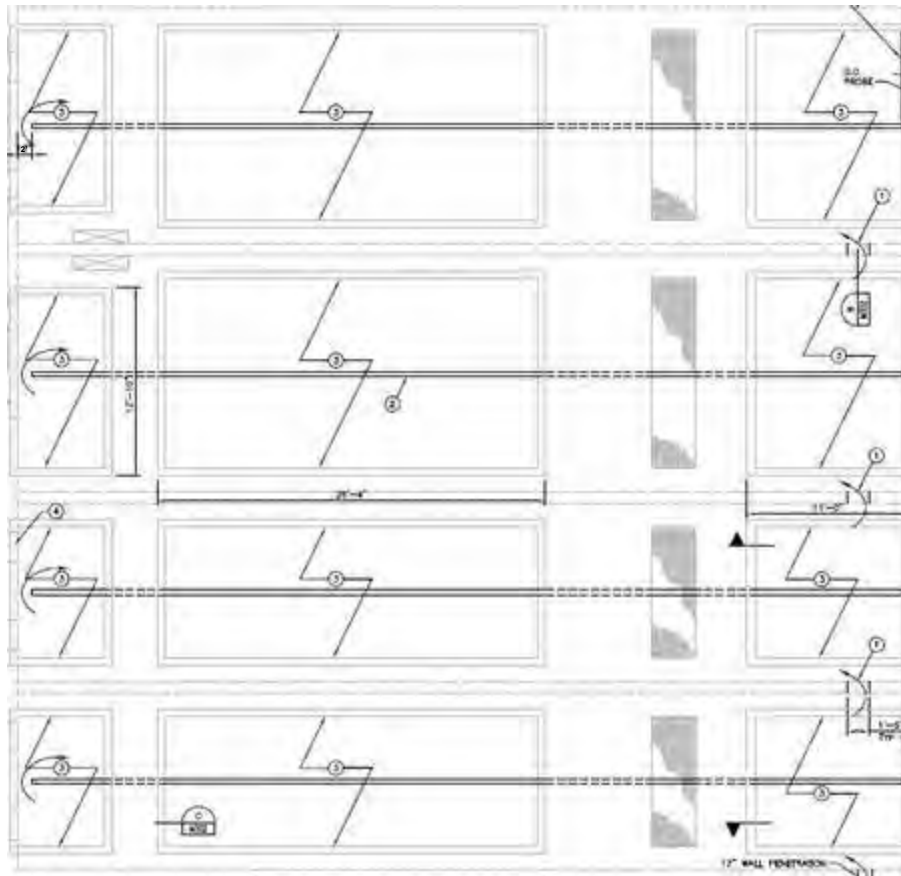


Figure 10: MCWD CCT

According to the *Handbook of Chlorination and Alternative Disinfectants*, the optimal H/W ratios should be 1.0 or less, and the best CCTs are composed of long, narrow channels and/or conduits (White 752). Although the MCWD CCT had shorter and wider channels with square corners, this design had narrower turns, which may have resulted in better dispersion of the tracer dye during the tracer test. In addition, flow through the MCWD CCT began at the narrower channels and after four passes expanded into four passes of the wider channels. On the other hand, the LAWRP CCT was a new construction with rounded corners and long, narrow channels with one consistent width. Due to site constraints and the requirement for two CCTs in parallel, however, the H/W ratio was dramatically affected by the increase in depth necessary to accommodate the flow given these constraints. This resulted in a H/W ratio of 3.42:1, which is significantly more than the recommended ratios of 1.0 or less. Ultimately, it can be hypothesized that all of these various factors played a role in affecting the MCT:HRT ratios for each CCT at the two facilities, however, additional investigation must be performed in order to determine the extent to which each factor affected the MCTs at the various flow rates.

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- Porter, B. T., Brown, A., & Josse, J. (2009). *Mammoth Community Water District: Recycled Water CCT Modal Contact Time Evaluation Tracer Test*. Irvine: HDR Engineering, Inc.
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Appendix B

(2009 Ordinance Establishing the MCWD Recycled Water Program)

Appendix B

ORDINANCE NO. 10-15-09-11

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MAMMOTH COMMUNITY WATER DISTRICT ESTABLISHING THE MAMMOTH COMMUNITY WATER DISTRICT RECYCLED WATER PROGRAM

WHEREAS, the Board of Directors (Board) of the Mammoth Community Water District (District), by Resolution No. 10-15-98-17, certified the Final Environmental Impact Report/ Environmental Assessment for the proposed Reclaimed Water Project, including upgrades to the District's wastewater treatment plant to treat wastewater effluent to meet Title 22 requirements for tertiary treated wastewater; and

WHEREAS, the Board, by Resolution 03-15-07-03, certified the Final Environmental Impact Report for the tertiary-treated water distribution system; and

WHEREAS, the tertiary wastewater treatment plant upgrades are completed and significant portions of the tertiary-treated water distribution systems are in place; and

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region, has adopted Board Order No. R6V-2009-0035, "Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water," approving the District's proposal to supply and distribute an average flow of 2.9 million gallons per day of disinfected, tertiary recycled water as defined in California Code of Regulations (Master Permit); and

WHEREAS, the Master Permit requires the District to establish and enforce requirements for recycled water users and other associated recycled water program features for the use of reclaimed water in the District service area.

BE IT ORDAINED by the Board of Directors of the Mammoth Community Water District as follows:

SECTION ONE:

Division XV of Chapter 11 of the District Code is hereby adopted as follows:

Section 15.01: Recycled Water Program Policy

It is the policy of the District that recycled water determined to be available pursuant to Water Code Section 13550 shall be used for nonpotable uses within the District's designated service area when its use is economically justified; its use is financially and technically feasible; and its use is consistent with legal requirements, preserves the public health, safety and welfare, and protects the environment (Policy).

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Production, distribution and use of recycled water in the District designated service area are regulated by the Master Permit, provisions in Title 22 of the California Code of Regulations and the Water Code regarding recycled water, and this Ordinance, including all attachments and appendices made a part hereof.

Section 15.02: Designated Recycled Water Service Area

The District recycled water service area is identified in Attachment A, “Permit Area Map” (District Designated Service Area), and is hereby adopted.

Section 15.03: Recycled Water Use Rules and Regulations

Procedures, restrictions and other requirements for recycled water use, including the process for a user to obtain recycled water service, and controls to protect public health are set forth in Attachment B, “Requirements for Recycled Water Users” (Requirements), and are hereby adopted. The Requirements identify rules governing the design, construction, operation and maintenance of reclaimed water use facilities, construction specifications, inspections and monitoring of reclaimed water user facilities and sites, and compliance with the Requirements in the use of reclaimed water.

The Requirements’ enforcement procedures and penalties for violations of the Requirements, as such may be amended from time to time, are hereby adopted.

Section 15.04: Operations and Maintenance Plan

The “Operations and Maintenance Plan for Recycled Water Users,” attached as Attachment C, establishes the standard procedures, specifications, and limitations for the safe and orderly development and operation of off-site and on-site recycled water facilities and systems in the District’s Designated Service Area, and is hereby adopted.

The Operation and Maintenance Plan’s enforcement procedures and penalties for violations, as such may be amended from time to time, are hereby adopted.

Section 15.05: Monitoring and Reporting/ Compliance and Inspection Program

The Monitoring and Reporting / Compliance and Inspection Program identifies the District’s plan for conducting routine compliance inspections and the process for responding to violations. The Monitoring and Reporting / Compliance and Inspection Program is attached as Attachment D, and is hereby adopted.

The Monitoring and Reporting / Compliance and Inspection Program’s enforcement procedures and penalties for violations, as such may be amended from time to time, are hereby adopted.

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Section 15.06: General Enforcement And Sanctions

A. General.

The District reserves the right to take any action necessary with respect to the operation of a user's recycled water system to safeguard the public's health. If existing or potential hazards are evidenced at any time during construction or operation of the recycled water system, the District may terminate recycled water service immediately, without notice. These hazards include but are not limited to cross-connections with the potable system, improper tagging, signing or marking, or unapproved/prohibited uses.

B. Public Nuisance.

Discharge of wastes or the use of recycled water in any manner in violation of this Division XV or of any agreement issued hereunder is hereby declared a public nuisance and shall be corrected or abated as directed by the District. Any person creating such a public nuisance is guilty of a misdemeanor.

C. Injunction.

Whenever a discharge of wastes or use of recycled water is in violation of this Division XV or otherwise causes or threatens to cause a condition of nuisance, the District may seek injunctive relief as may be appropriate to enjoin such discharge or use.

D. Agreement Revocation.

In addition to any other statute or rule authorizing termination of recycled water service, the District may revoke an agreement issued hereunder if a violation of any provision of this Division XV is found to exist or if a discharge of wastes or use of recycled water causes or threatens to cause a nuisance.

E. Penalty.

Any owner and/or operator who violates this Division XV shall, for each day of violation, or portion thereof, be subject to a fine not exceeding \$1,000. In addition, recycled water service to the property may be discontinued.

SECTION TWO:

To the extent that the terms and provisions of this Ordinance may be inconsistent or in conflict with the terms or conditions of any prior District ordinances, resolutions, rules or regulations governing the same subject, the terms of this Ordinance shall prevail with respect to the subject matter thereof, and such inconsistent or conflicting provisions of prior ordinances, resolutions, rules or regulations are hereby repealed.

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SECTION THREE:

If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, no other provision of this Ordinance shall be affected thereby.

SECTION FOUR:

This Ordinance shall take effect upon adoption and shall be published once in full in a newspaper of general circulation, printed, published and circulated in the District within ten (10) days after adoption.

SECTION FIVE:

Ordinance No. 09-17-09-10 adopted September 17, 2009, is hereby repealed and superseded by this Ordinance.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District, County of Mono, State of California, this 15th day of October, 2009, at a regular meeting of the Board by the following vote:

AYES: Directors Alper, Cage, Domaille, Henderson and Smith

NOES: None

ABSENT: None

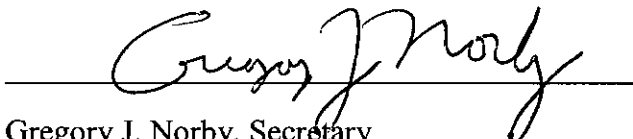
ABSTAIN: None

MAMMOTH COMMUNITY WATER DISTRICT



Thomas R. Smith, President
Board of Directors

ATTEST:

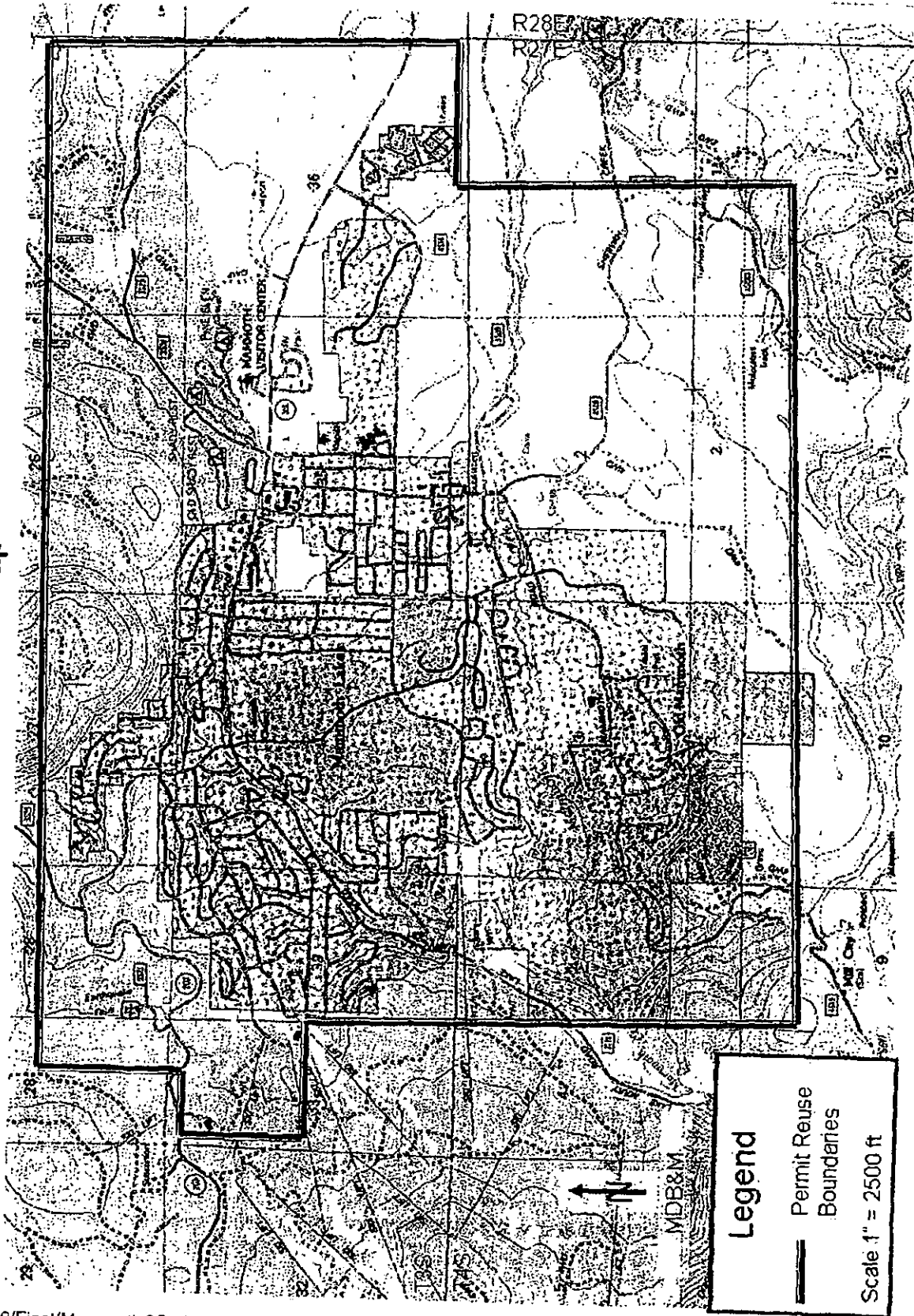


Gregory J. Norby, Secretary
Board of Directors

Appendix B

MCWD RECYCLED WATER SERVICE AREA

Permit Area Map



Appendix B

ATTACHMENT B

Rules and Regulations for Recycled Water Users

I. Introduction

On June 10, 2009, the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035, "Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water" (Master Permit).

California Water Code section 13523.1(b) sets forth the requirements for master permits issued by the Lahontan Regional Water Quality Control Board (LRWQCB), including a condition that permittees establish and enforce rules or regulations for recycled water users governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the uniform statewide reclamation criteria established pursuant to Water Code section 13521.

A. Document Scope and Applicability

This document contains the Mammoth Community Water District Recycling Program Rules and Regulations (Rules and Regulations) governing the design, construction, operation, maintenance and monitoring of recycled water use facilities and the use of recycled water in the Mammoth Community Water District recycled water service area.

The document covers requirements for existing sites and new developments and provides the recycled water user information necessary to meet all applicable regulations.

Unless otherwise stated, these Rules and Regulations shall apply to any and all users to whom the Mammoth Community Water District (District) distributes tertiary recycled water pursuant to the Master Permit.

B. Definitions that Apply to these Rules and Regulations

Authorized Recycled Water Use Site (Site) is a site authorized for use of recycled water; the uses of recycled water and the site location must comply with the Master Permit.

Incidental Runoff is any small amount of recycled water that leaves the Site as a result of over-spray or leakage from sprinklers, over watering, breaks in lines, or overflow of impoundments that contain recycled water during storms.

Master Permit means LRWQCB Order No. R6V-2009-0035 and contains requirements established by the LRWQCB for the District pursuant to Water Code section 13523.1.

Permit means any LRWQCB issued waste discharge requirements (WDRs), water recycling requirements (WRRs), or master permit.

Person is any individual, partnership, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character.

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Recycled water is water produced by the District that is suitable for a beneficial use.

User is any person to whom the District distributes recycled water under the Master Permit. User does not include persons who have been independently issued Permits by the LRWQCB.

User Agreement is a contractual agreement between the User and the District that establishes the conditions for recycled water service and use. (Note: "User Agreement" is the term used to describe any agreement, contract, permit, ordinance, memorandum of understanding or other such document used by the District to set the terms and conditions for the use of recycled water by a User.) The District reserves the right to alter, on a case-by-case basis, the User Agreement.

Waste Discharge Requirements (WDRs) are requirements established for the District by the LRWQCB pursuant to Water Code section 13263.

Water Recycling Criteria are the criteria established by the California Department of Public Health (CDPH) generally dealing with the levels of constituents in recycled water and the means to protect the public health. The criteria are established pursuant to Water Code Section 13521, and are contained in the CCR, Title 22, Division 4, Chapter 3; also referred to as the "Uniform Statewide Reclamation Criteria."

Water Recycling Requirements (WRRs) are requirements established for the District by the LRWQCB pursuant to Water Code section 13523.

II. Requirements for Recycled Water Users

A. User Responsibility

The User is responsible for the operation and maintenance of the recycled water system downstream of the District's point of connection with the User, unless such responsibility is otherwise clearly outlined in the User Agreement.

The District shall not be liable for any water damage or other damage caused by the User due to defective or broken plumbing or faulty service, nor shall the District be liable for damage caused by the User's facilities. This includes changes in the recycled water quality that may occur from sitting in ornamental lakes, storage tanks, pipelines, etc.

B. Water Supply Contingency

If, at any time during construction or operation of the recycled water system, existing or potential hazards are found, the District has the right and the responsibility to immediately suspend, with or without notice, recycled water service in the interest of protecting the public health.

The District may supply water to the affected area either temporarily or permanently from the potable water system with appropriate backflow protection.

C. Procedures to Obtain Permission to Use Recycled Water

The procedures are slightly different depending on whether the service is for a new facility or for an existing facility.

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Every Site must obtain a User Agreement from the District prior to receiving recycled water. User Agreements will be issued only after the Site has met all of the applicable Rules and Regulations. Typically, these requirements concern construction, inspection, cross-connection certification, Site-supervisor training, a schedule of the hours that recycled water will be utilized, and required irrigation management documentation. Following issuance of the User Agreement, a Site may receive recycled water in accordance with the requirements of the User Agreement, the Rules and Regulations, and the Master Permit.

Table 1. Process to Obtain Recycled Water for Direct Users

Process	Applicable Documents or Actions Required	Responsible Entity
Step 1 – Consult with District to determine recycled water availability and project feasibility; Review Rules and Regulations	Discussion with District General Manager and District Engineer; District's Rules and Regulations	User
Step 2 - Prepare draft plans and specifications	California Department of Public Health (CDPH) requirements in California Code of Regulations (CCR) Titles 17 and 22 , District Rules and Regulations	User
Step 3 - Submit Application for recycled water use	District's User Application Form	User
Step 4 - Identify distribution issues, verify allowed uses, estimate quantity of water and delivery schedule	Verification of information provided in the Application Form. Send conditional approval in writing with caveat that project commencement is contingent upon User receiving all regulatory approvals.	District
Step 5 – Complete California Environmental Quality Act (CEQA) Process	Make sure there is proper CEQA documentation for the Site	User
Step 6 – Consult with health agencies (recommended)	Describe project and show draft plans to CDPH and LCRWQCB	District / User
Step 7 – Finalize and submit plans and specifications	Plans and specifications submitted to DPH; DPH Cross-Connection Plan Approval Application and fee.	User
Step 8 - Provide materials and/or training to User on proper operation of a recycled water system	District's Recycled Water Users Rules and Regulations to be provided by District; Site Supervisor training to be provided by District (or an other equivalent program can be	District / User

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	substituted)	
<i>Step 9 – Consult with LRWQCB (recommended)</i>	Describe project and discuss Engineering Report needs	User / District
<i>Step 10 – Final plans and specifications</i>	Obtain approval of final plans and specifications from District	User
<i>Step 11 – Prepare / amend Engineering Report</i>	CDPH <i>Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water</i> ² ; District's information on water reclamation plants; User completes the Engineering Report; the District provides information related to treatment facilities; the report must be prepared and stamped by a professional engineer registered in California.	District /User
<i>Step 12 – Submit Engineering Report to District, CDPH and LRWQCB</i>	Completed Engineering Report	User
<i>Step 13 – If applicable, submit revised Engineering Report to agencies</i>	Revisions/additional information may be requested by District, CDPH and/or the LRWQCB	User
<i>Step 14 – Authorization of project under existing or new LRWQCB permit</i>	Letter or permit	District, LRWQCB; possibly CDPH
<i>Step 15 – Notification of Final Regulatory Approvals</i>	District sends copy of CDPH or LRWQCB letter or permit to User	District
<i>Step 16 - Draft User Agreement or amendment (if Site is not covered under existing Agreement)</i>	District's User Agreement	District / Direct User
<i>Step 17 – Approve User Agreement or Amendment</i>	Present User Agreement or amendment to District Board and User for approval	District / Direct User
<i>Step 18 – Pre- and post-construction inspections</i>	Contact District prior to construction to arrange for site inspections, initial cross-connection and backflow prevention device testing; District Rules and Regulations	User or Purveyor

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Step 19 – Approval of final construction	By District	User or Purveyor
Step 20 – Begin project implementation	User	
Step 21 – Submit revised as-built drawings of recycled water distribution system if necessary	Must be provided to District if any modifications have been made to original drawings	User

D. General Requirements

Use of recycled water must comply with all applicable state laws, regulations, the Master Permit, and any amendments thereto, District Ordinances, and these Rules and Regulations.

If the on-site recycled water system is found to be in violation of the Rules and Regulations, the District will direct the User to mitigate for these violations. A site inspection will be scheduled after a reasonable period to ensure compliance. Failure to comply may result in termination of recycled water service.

E. General Prohibitions

Use of recycled water for any purposes other than those explicitly approved in the User Agreement is strictly prohibited.

The User shall insure that the storage, distribution or use of recycled water shall not create a nuisance as defined in Water Code section 13050(m).

The User shall not discharge recycled water from treatment facilities, irrigation holding tanks, storage ponds, or other containment, other than for permitted reuse, except in accordance with the MasterPermit, contingency plans authorized by the LRWQCB or for an approved discharge to a municipal sewage treatment system.

F. Process to Obtain Permission to Use Recycled Water

Except as provided by District Ordinances, any User who wishes to receive recycled water produced by the Districts must enter into a User Agreement with the District. The User Agreement shall include the District's terms and conditions for the use of recycled water.

Any User who intends to utilize recycled water produced by the District for an authorized use at a Site must file a User Application Form (Application) with the District and receive approval in writing from the District before the use of recycled water can begin for that use and Site.

The Application filed by the User shall include:

1. A detailed description of the proposed Site with:
 - (a) A map showing the specific boundaries of the proposed Site;

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- (b) The person or persons responsible for operation and maintenance of the Site (O&M Staff), including the person designated as the Site Supervisor and contact information;
- (c) Evidence that the O&M Staff and Site Supervisor have received appropriate training from the District or an equivalent training program or the date by which training will occur prior to delivery of recycled water such that the Site is operated and maintained in compliance with applicable laws and regulations, the District's Master Permit, and these Rules and Regulations; and
- (d) The specific use to be made of the recycled water at each Site.

Design plans and a description of best management practices that show that the quality of waters of the State will be protected.

2. Plans and specifications describing:

- (a) Proposed piping systems to be used;
- (b) Pipe locations for both recycled and potable systems;
- (c) Type and location of the outlets and plumbing fixtures that will be accessible to the public; and
- (d) The methods and devices to be used to prevent backflow of recycled water into the potable water system.

3. A recycled water system operations manual or the date by which a recycled water system operations manual will be submitted prior to the delivery of recycled water.

4. Emergency cross-connection response plan in accordance with the District's Operation and Maintenance Manual or the date by which the emergency cross-connection response plan will be submitted prior to delivery of recycled water.

Any User who wishes to receive recycled water produced by the District must follow the process presented in Table 1 that shows the various agencies involved in the process, documents that must be completed, how documents are routed, etc.

III. Design, Installation, and Inspection

A. Purpose

The purpose of this section is to provide designers of on-site irrigation systems with rules and guidelines for the design, installation and inspection of recycled water irrigation systems.

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B. What you can expect to find in this section

- Requirements for design, installation and inspection of new recycled water irrigation systems.
- Requirements for design, installation and inspection of existing irrigation systems that are converting from a potable to a recycled water supply

C. Design Requirements at the Service Connection

1. Exceptions for Existing Irrigation Systems

With the exception of pipe identification and pipe separation, facilities where the existing buried piping system is converted from potable to recycled water must meet the same requirements as new facilities. However, any new buried piping added to existing piping at a retrofitted site must meet the identification and separation requirements for new systems. In addition, any existing piping uncovered for any reason during construction must be marked according to pipe identification requirements to the extent feasible.

2. Required wye strainer and pressure regulator

Unless otherwise directed by these Rules and Regulations, all recycled water services must be equipped with a wye-strainer (20-mesh or finer screen) installed as close as practicable to the meter box, and a pressure regulating valve installed immediately downstream of the strainer. Both of these devices must be installed in an underground box or boxes. Prior to determining available pressure, designers should take into account the pressure losses incurred by these facilities.

3. Point of Connection Location

Designers must contact the District to verify the water meter location, the size of the lateral, and meter available to serve their facility.

4. Separation Requirements

All recycled water service laterals and meters must be at least ten feet (horizontal separation) from the nearest potable water facility, including pipelines, meters and hydrants.

Designers should check to see that laterals and meters that serve their Site meet these requirements. In the event that a horizontal separation less than ten feet has been provided, designers should bring this to the attention of the District before proceeding with on-site system design.

5. Backflow Prevention: Protection Of The Public Recycled System

Since recycled water is not used for drinking purposes, *backflow protection is not normally necessary on recycled water irrigation systems*. However, a backflow protection on the User's recycled water system will be required if it is determined that there is a backflow hazard on-site which threatens the integrity of the distribution system. Examples of Sites that may be required to install backflow protection devices are:

- irrigation Sites where direct chemical fertilizer injections systems are installed on the irrigation system,
- irrigation Sites where recycled water impoundment may cause a backflow hazard

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In such cases, backflow prevention devices might be required at the recycled water service connection or at specific, on-site locations as appropriate to the situation. Backflow prevention assemblies must be shown on plans and a type approved by CDPH. It will be the responsibility of the User to provide test reports for on-site backflow prevention devices, whereas backflow devices at the service connection fall under the District test program.

Devices must be properly maintained, inspected quarterly and tested at least annually. Backflow prevention devices, when required on recycled water systems, must be conspicuously labeled. Test equipment must be dedicated for use with recycled water. Backflow testing equipment used for recycled water must not be reused on potable water systems.

D. Design Requirements for On-site Facilities

1. No Cross-Connections

No cross-connections are allowed between the recycled water system and any other water system.

2. Pipe Separation

a. Horizontal separation

A minimum horizontal separation of ten feet between parallel, buried recycled and potable water pipelines should be maintained. If a ten-foot horizontal separation is not practical, a separation of at least four feet may be allowed subject to special construction conditions. Designers should consult with the District for specific design requirements. In no case is horizontal separation of less than four feet or construction in the same trench as potable facilities allowed.

Horizontal Separation	
Pipe Separation	Construction Requirements
Less than 4'	Not allowed
4' - 10'	Must meet one of these requirements: <ul style="list-style-type: none">• Solvent welded PVC pipe on recycled water system• Restrained PVC pipe for recycled or potable• Restrained joint ductile iron pipe on recycled water system• Soldered copper pipe on recycled water system• Sleeve potable pipe• Sleeve recycled pipe
10' or Greater	No special construction requirement

b. Vertical Separation at Crossings

Where a buried constant pressure recycled water pipeline crosses a buried potable water pipeline, it must be located a minimum of 12 inches below the potable water pipeline. Constant pressure recycled water pipelines are allowed over potable water pipelines with a minimum of 12 inches vertical separation if a full standard pipe length is centered over the

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crossing, or the recycled water pipeline is installed in a pipe sleeve which extends a minimum of 10 feet on either side of the potable water piping. NOTE: Intermittently pressurized irrigation laterals may be located a minimum of 12 inches above potable water pipelines without sleeving.

Vertical Separation	
Pipe Separation	Construction Requirements
Less than 1' below potable	Not allowed
1' or greater below potable	No special construction required
Less than 1' above potable	Not allowed
1' or greater above potable	Depth of cover requirement has to be satisfied. A full standard pipe length must be centered over the crossing, or the recycled pipeline must be installed in a pipe sleeve which extends a minimum of 10 feet on either side of the potable water piping.

3. Pipe Class

Type of Recycled Water Piping	Size	Class
Constant pressure PVC	1.5" diameter and smaller 2.0" diameter and larger	Schedule 40 or greater Class 315 of greater
Intermittent pressure PVC lateral piping		Class 200 or greater
Copper piping		Type "K" or greater

4. Depth of cover and thrust blocking

All on-site recycled water piping must be buried to a minimum depth from finished grade to top of pipe (minimum cover) according to the following schedule:

Type of Recycled Water Piping	Minimum Cover
Intermittent Pressure (all sizes)	12 inches
Constant Pressure, 2.5 inch diameter and smaller	18 inches
Constant Pressure, 3-inch diameter and larger	24 inches

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All recycled water piping other than PVC piping with solvent welded joints must be protected against movement with thrust blocks or restrained joints or other approved methods conforming to the UPC Section 609.1.4.

5. Prevent Overspray, Runoff and Ponding

Irrigation systems must be designed and operated to minimize overspray, runoff and ponding. Designers must specify appropriate irrigation devices to prevent overspray in narrow areas. In the event that, during the coverage test, noticeable overspray, runoff and/or ponding is observed, facilities will be adjusted or removed and relocated as needed. This requirement does not apply to landscape impoundments such as fountains, ponds or lakes.

6. Protection of Drinking Fountains and Outdoor Eating Areas

Drinking fountains, outdoor eating areas and other similar facilities (e.g. snack bars) located within the approved use area must be protected from overspray or contact with recycled water. Protection may be accomplished by relocating the irrigation system or relocating or modifying the protected facilities.

7. Protection of Aquifers

Irrigation systems must be designed to prevent irrigation of recycled water within 50 feet of any domestic water supply well. In addition, recycled water impoundments must be located at least 100 feet (horizontal separation) from any domestic water supply well.

8. Protection of Public Potable Water Systems – Backflow Prevention

Although not normally a part of on-site recycled water irrigation systems, it must be noted that backflow prevention devices are a required and important part of potable water service connections to sites where recycled water is used. At premises where both recycled water and potable water are present in separate piping systems with no interconnection, a reduced pressure (RP) principal backflow prevention device must be located as close as practical to the downstream side of every potable water meter.

All RP devices must be inspected quarterly and tested at least annually. The User is responsible for the coordinating the testing. An AWWA-certified backflow prevention device tester must do the device testing. Test reports must be provided to the District. The User and District must maintain records for a minimum of three (3) years.

9. Hose Bibs

Hose bibs are not allowed on recycled water systems.

E. Design Approval

Before any new recycled water system is constructed or any existing recycled water system is modified, on-site recycled water system plans prepared by the User must be approved by the District. Approval will be contingent upon evidence that all applicable design requirements for a recycled water system are satisfied and that the system as designed can be operated in

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accordance with the Rules and Regulations. While the District reviews plans, the User is responsible for meeting all applicable requirements.

F. Information Required On Plans

The following is a brief list of the information required on the plans for every on-site recycled water system. Note that compliance with every item on this list does not guarantee that the plans will be approved since regulations and policies may change and some Sites may require additional provisions.

- Indicate all **sources of water** on the plans.
- Show the location and size of all **water meters** on the piping plans.
- Show location and type of all **backflow prevention devices** for potable water systems (generally, backflow prevention devices are not used on recycled water systems).
- Show location and type of all **strainers, pressure regulating valves, and master valves**.
- Show location of all **water pipelines** (including potable and well lines) crossing the Site. If space does not permit this information to be placed on the irrigation plans, then a separate site or utility plan can be used to show this information. Exception for an existing irrigation system converting to recycled water: Although it may not be possible to show the location of all water pipelines at this Site, all locations where future recycled water piping must be separated from the potable water piping must be clearly indicated on the plans.
- Supply the following **information box** for each recycled water system with its own meter; place this information on the same sheet as the meter/point of connection it pertains to. Fill out the ten items as applicable, but do not delete any of them.

GENERAL SITE INFORMATION for RECYCLED WATER USE

1. LANDSCAPED RECYCLED WATER IRRIGATION USE AREA: *(square footage)*.
2. PUBLIC ACCESS TO SITE GROUNDS IS *(indicate: UNRESTRICTED or RESTRICTED)*.
3. OWNER: *(legal property owner's name)*.
4. PROPERTY MANAGER CONTACT: *(name, title, and telephone number)*.
5. TENANT (S): *[name(s) & phone number(s); if not applicable, state NOT APPLICABLE]*.
6. ON-SITE WELL LOCATIONS: *(for example, ONE; if none, state NONE)*.
7. WELLS ON ADJACENT SITES LOCATED WITHIN 50 FT. OF RECYCLED WATER APPROVED USE AREA OR WITHIN 100 FT. OF ANY RECYCLED WATER IMPOUNDMENT: *(for example, ONE; if none, state NONE)*.
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE)*.
9. OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE)*.
10. WATER FEATURES ON SITE: *(examples below; if none, state NONE)*.

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<u>Number:</u>	<u>Type:</u>	<u>Water Source:</u>
One	<i>fountain</i>	<i>recycled</i>
One	<i>pond</i>	<i>potable</i>

- Clearly identify all adjacent **streets**, and locations of all major improvements on the Site.
- Show the location of all drinking fountains, outdoor eating areas, and **other public facilities supplied with recycled or potable water service**. Public facilities include, but are not limited to, restrooms, snack bars, swimming pools, wading pools, decorative fountains and showers. Show the pipelines feeding all of these facilities.
- Show the location of any wells, lakes, ponds, reservoirs, or other **water impoundments** located on the Site or within 100 feet of the site, and indicate the type of water source.
- Indicate that the **separation between potable and recycled water lines** meets minimum requirements. (*See Design Requirements in Section III.C.*) Show sleeving where recycled water pipelines cross over potable water pipelines.
- When **potable water piping is not present** on the Site, state in a note that the cross-connection test required by the Rules and Regulations is waived for Sites where potable water piping is not present.
- **Show all details necessary** to properly construct the system, including the details conforming to the requirements of the District. The purpose of the details is to show the materials and methods necessary to clearly identify all water systems on the Site.
- Include an **irrigation equipment legend** specifying all materials of construction for the system, including:
 - A pipe schedule listing pipe sizes, materials of construction, and type of water conveyed by the piping.
 - A listing of valve types, including quick coupling valves.
 - All pertinent information for each type of sprinkler head and/or emitter.
 - Indication of purple-colored pipe with recycled water stenciling and quick coupling valves with purple covers where recycled water is used.
-
- All Sites using recycled water must post **clearly visible signs** conforming to the Master Permit. Show proposed sign locations on irrigation plans.
 - For many Sites, typical locations for signs are at the property line near crosswalks, at driveway entrances, and at outdoor eating areas.
 - For streetscapes (parkways, frontage or backup landscaping), place signs at street corners and entranceways as appropriate to notify passersby. In any case, signs must be placed no further than 1,000 feet apart.
 - For medians, a sign should be placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.

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- For decorative fountains, ponds, and other water features, a sign should be placed at the feature.
- Add a **signature line** for the the District to all irrigation plan sheets, detail sheets, and specification sheets that pertain to the recycled water irrigation system.

G. Installation and Construction Inspection

1. Pipe Identification

a. Installation criteria

All new piping, whether for a new or retrofitted system, must be installed according to the approved plans and marked per these Rules and Regulations to clearly distinguish between recycled water and potable water systems.

b. Identification of Buried Recycled Water Lines

The use of purple colored pipe with continuous wording "RECYCLED WATER – DO NOT DRINK" printed on opposite sides of the pipe is the preferred method for identification of new buried recycled water piping (constant-pressure mainlines/intermittent-pressure laterals). Pipe must be laid with wording facing upwards.

An acceptable alternative: all new buried recycled water lines (constant-pressure mainlines/intermittent-pressure laterals) must be identified by continuous lettering on three inch (3") minimum width, purple marking tape with one inch black or white contrasting lettering bearing the continuous wording "RECYCLED WATER – DO NOT DRINK." This tape must run continuously on top of all piping (mainlines and laterals) and must be attached to piping with plastic tape banded around the marking tape and the pipe every five feet on center. Marking tape must extend to all valve boxes and/or vaults and exposed piping.

c. Identification of Existing Buried Recycled Water Lines

Existing buried piping which will be converted to recycled water use need not be marked unless the piping becomes exposed, such as during installation of new pipeline or maintenance of existing pipe. The exposed section must be marked as indicated above for new piping.

d. Identification of Above Grade Recycled Water Lines

All above grade recycled water pipelines, whether new or existing, must be labeled with the words " RECYCLED WATER - DO NOT DRINK" and color coded purple to differentiate recycled water pipelines from potable water pipelines. If purple identification tape is used to label the pipe and/or color code the pipe, the tape must be adhesive, permanent, and resistant to environmental conditions. Purple bands may also be painted around the circumference of the pipe at ten-foot intervals for color-coding. Purple PVC pipe is not an acceptable alternative for color-coding because the purple color will fade when exposed to sunlight.

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e. Identification of Recycled Water Lines Inside Structures

Exposed (not buried) constant pressure recycled water irrigation pipelines, such as copper or galvanized pipelines, that might be used in a structure such as a parking garage to route recycled water, must be identified per UPC Appendix J, with the exception that the labeling on the piping must read "CAUTION: RECYCLED WATER – DO NOT DRINK." Intermittent-pressure lines inside a structure must be identified by affixing decals to this piping at ten-foot intervals and wherever the piping changes directions. These decals must be purple in color and must be imprinted in nominal one-inch-high, black, uppercase letters, with the words "RECYCLED WATER – DO NOT DRINK," and must be adhesive, permanent, and resistant to environmental conditions.

2. Valve Boxes

All remote control valves, isolation valves, pressure reducing valves, and strainers for on-site recycled water systems must be installed below grade in a valve box. Green, black, or purple valve boxes and lids are acceptable.

Valve boxes must have an advisory label or "nameplate" permanently molded into or affixed onto the lid with rivets, bolts, etc. Labels must be constructed of a purple weatherproof material with the wording "RECYCLED WATER - DO NOT DRINK - NO TOMAR" permanently stamped or molded into the label.

3. Quick Coupling Valves

New quick coupling valves must be made specifically for recycled water use. New quick coupling valves must be 3/4-inch or one-inch nominal size and of brass construction with a maximum working pressure of 150 psi. The covers on all new quick coupling valves must be permanently attached and made of purple rubber or vinyl with the words "RECYCLED WATER" imprinted on the locking cover. To prevent unauthorized use, the valve must only be operated by a special coupler key for opening and closing the valve. New quick coupling valves must be installed approximately 12 inches from walks, curbs, header boards or paved areas. Quick coupling valves used in the recycled water system must be installed in a valve box, where applicable, and a recycled water identification tag must be permanently attached to the quick coupling valve or the inside of the box so that it is clearly visible when the box lid is removed.

Any wands, sprinkler heads, fittings, or other attachments used in conjunction with the quick coupling valves must be labeled with the words, "RECYCLED WATER - DO NOT DRINK." Attachments used in a recycled water system must not be used in a potable water system.

The installation of quick coupling valves on a potable water system in the vicinity of a recycled water irrigation system must be of a different type to prevent accidental cross-connection or contamination by accidentally interconnecting or interchanging attachments. Keys and attachments must not be interchangeable. Retrofitted potable water system quick coupling valves must be modified to meet standards for new recycled water quick coupling valves.

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4. Other Valves and Devices

a. Isolation Valves

New and existing isolation valves must be installed in a marked valve box with a recycled water identification tag on the valve operator or, if the valve operator is too deep to reach, at the top of the valve box extension.

b. Remote Control Valves

New and existing remote control valves must be installed in a marked valve box with a recycled water identification tag on the valve.

c. Pressure Regulating Valves and Strainers

New and existing pressure regulating valves and strainers must be installed in a marked valve box with a recycled water identification tag on the valve/strainer.

d. Water Meters, Pumps, Pump Control Valves, Air/Vacuum Relief Valves

All of these recycled water devices must be tagged with a recycled water identification tag.

e. Recycled Water Backflow Prevention Devices

If applicable, these devices must be tagged with a recycled water identification tag.

f. Potable Water System Devices

At recycled water use sites where potable water is used, all potable water meters and above grade water devices, such as backflow prevention devices and hose bibs, must be tagged or labeled with potable water identification tags, or labels.

5. Identification Tags and Stickers

Identification tags and stickers must be weatherproof and durable, such as plastic or plastic coated. Recycled water identification tags and stickers must have a purple background with permanent black lettering stating "RECYCLED WATER - DO NOT DRINK" and "AVISO, AGUA IMPURA - NO TOMAR". Potable water identification tags and labels must have a blue background with "POTABLE WATER" and "AGUA PARA TOMAR" in permanent black lettering.

6. Irrigation Controllers

New recycled water system controllers must be automatic with multiple start/stop times for any 24 hour period and installed according to the approved plans and local codes. All recycled water system controllers must be identified by affixing a sticker or "nameplate" to the outside of the controller cabinet, the inside of the controller cabinet, or the outside or inside of the controller cabinet enclosure. Stickers or nameplates must be weatherproof, and must contain wording in English and Spanish indicating that the controller is for a recycled water system.

7. Irrigation and Water Feature Advisory Signs

All Sites using recycled water must post clearly visible signs conforming to the Rules and Regulations and installed per the locations indicated on the approved plans.

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a. Irrigation Systems at Fenced Facilities

Advisory signs indicating the use of recycled water must be installed at all entrances to the User's facility. The District may require additional signing on a case by case basis.

b. Irrigation Systems at Facilities Not Surrounded by Fences

Advisory signs must be placed where they can be easily seen. To the extent necessary to advise passerbys, signs must be posted at the property line near crosswalks, at driveway entrances, at outdoor eating areas, or as otherwise determined by the District. For streetscapes (parkways, frontage or backup landscaping), place signs at street corners as appropriate to notify passerby. Signs must be placed no further than 1,000 feet apart. For medians, a sign is usually placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.

The signs must include the words "IRRIGATED WITH RECYCLED WATER - DO NOT DRINK – NO BEBER." The lettering on the signs must be a minimum of 1/2-inch in height and must be black or white on a purple colored background and include the District logo. Where required for aesthetic or corporate identity purposes, alternate color-coding schemes may be adopted subject to the approval of the District. Consult the District for final approval of signs using alternate color-coding.

c. Decorative Fountains, Ponds, and Other Water Features

Minimum requirements for water feature signs:

- Minimum wording: "This _____ [*insert type of water feature here, such as Fountain, Pond, etc.*] Uses Recycled Water – Do Not Drink – No Beber."
- Minimum size: no less than 4 inches high by 8 inches wide.
- Must be permanently, legibly printed and posted in conspicuous places.
- Colors for lettering and background follow the same guidelines as for irrigation signs.

The District must be consulted for final approval of all signs, as well as the number of signs required per water feature and the placement of those signs.

H. Vehicle Requirements

Vehicles used for distributing recycled water for soil compaction and dust control or other uses shall have an adequate tank and plumbing systems to ensure that leaks and ruptures will not occur in the course of normal use.

Control valves shall be provided and configured such that recycled water can be applied in a controlled fashion on the Site and completely retained during transit.

Spray heads or nozzles shall be provided and configured such that recycled water is applied to prevent runoff, ponding, or windblown spray conditions.

Each tank shall be equipped with an approved air-gap separation between the filler tube and the tank to prevent back-siphonage.

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Each tank used to store and/or transport recycled water must be flushed and disinfected prior to storage and/or transport of potable water or recycled water of better quality.

The vehicles shall be clearly labeled to indicate that recycled water is contained in the vehicle.

I. Required Temporary Connection to Potable Water Service

In order to prevent cross-connections, an irrigation system is usually not allowed to receive recycled water until its Site has passed a required cross-connection test. This means that this irrigation system must be supplied with water from a jumper (temporary connection) to an on-site potable water system up to and during the cross-connection test. After passing this test, the jumper must be removed and the system connected to the recycled water meter. Jumpers, providing water from the public recycled water system into the on-site recycled water system, are prohibited at all times. Irrigation systems not needing a temporary potable water source are usually systems where there is no potable water at the site, such as some streetscapes and medians.

J. Inspection

1. Construction Inspection

The LRWQCB requires that the District conduct on-site inspections during the construction phase to ensure that materials, installation and procedures are in accordance with the approved plans, specifications, and all applicable regulations. Accordingly, the User must notify the District of the schedule for all phases of planning, construction and start up so that inspections can be scheduled. The constant-pressure mainline piping portion of all systems must conform to the requirements of the UPC Sections 103.5.1 through 103.5.4.2.

2. Cross-Connection Test

The User must conduct a cross-connection test (and the User's Site must pass this test) before connecting the User's recycled water irrigation system to the District's recycled water system at any Site where both recycled and potable water are present in separate piping systems. This test is to ensure the absolute separation of the recycled and potable water systems. The User must notify the District at least 48 hours prior to the test so that members of the District may be present. The cross-connection test must be done under the supervision of the District's representatives and performed by an AWWA-certified cross-connection control specialist hired by the User. The Site Supervisor must be present at the test. The test must be done with potable water charging the irrigation system (*see Required Temporary Connection to Potable Water Service in Section III.I.*) A written report documenting the test results must be submitted by the certified cross-connection control specialist to the Site Supervisor and the District following test completion. Cross-connection test procedures are contained in **Appendix E**.

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3. Final Inspection and Approval to Receive Recycled Water

Before the recycled water irrigation system is connected to recycled water, the District (or its designated representatives) will perform a final inspection to ensure all requirements have been met. This inspection may be coordinated with the cross-connection test. The District's inspector will check to see that the proper equipment was used and that all required tags, labels, and signs are in place.

The District must grant final approval before recycled water can be supplied to the Site. Final approval will be granted when construction has been completed in accordance with approved plans and specifications, all cross-connection tests have been performed, a final on-site inspection has been conducted, and all requirements have been met satisfactorily. After the User Agreement is approved by the District, and all applicable fees have been paid, the District will authorize the installation of the recycled water meter. The CDPH will be forwarded a copy of all test and inspection reports as well as notification that recycled water service has started. During the lifetime of the recycled water system, the District will periodically inspect the recycled water system to ensure compliance with all applicable rules and regulations.

4. Coverage Test

The User is responsible for minimizing overspray, runoff, and ponding from their recycled water irrigation systems – new or converted to recycled water. To ensure that any overspray, runoff, or ponding is in accordance with the Rules and Regulations, the District will conduct an inspection of the on-site system. After the on-site system begins receiving recycled water, the User or User's representative must contact the District to schedule a coverage test walk through of the system. The User or User's representative must be in attendance and have persons in attendance capable of making system adjustments. If modifications to the system (other than minor adjustments) are required, the User will be notified in writing of the changes required. Any required modifications to the system must be made in a timely manner. All modifications to the system are the responsibility of the User, and the User must pay all costs associated with such modifications.

5. Record Drawings

The User – or User's contractor – must prepare record drawings to show the recycled water irrigation system as constructed. These drawings must include all changes in the work constituting departures from the original contract drawings including those involving both constant-pressure and intermittent-pressure lines and appurtenances. All conceptual or major design changes must be approved by the District before implementing the changes in the construction contract. The recycled water irrigation system record drawings must be submitted to the District within ninety (90) days of the Site receiving recycled water.

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Operation and Maintenance Plan for Recycled Water Users

This Operations and Maintenance Plan for Recycled Water Users (Manual) identifies general requirements for the operation and maintenance of a recycled water system within the Mammoth Community Water District Recycled Water Service Area. The words capitalized herein shall have the same meaning as in the Rules and Regulations for Recycled Water Users.

I. User General Responsibilities

By accepting recycled water service, the User agrees to comply with the Rules and Regulations for recycled water use. It is the User's responsibility to provide surveillance and supervision of its on-site recycled water system in a way that assures compliance at all times with the Rules and Regulations and the Master Permit.

II. Recycled Water Use Area Site Supervisor

A. Site Supervisor Designation

The User must designate a representative to be the Site Supervisor of the Site. The Site Supervisor represents the owner, tenant, or property manager as a liaison to the District. The Site Supervisor must have the authority to carry out any requirements of the Rules and Regulations and/or the District. It is recommended that the Site Supervisor be an employee who is permanently stationed at the Site. At a minimum, the Site Supervisor must make frequent visits to the Site.

B. Site Supervisor Training

The designated Site Supervisor must attend a Site Supervisor Certification Workshop, or District approved equivalent, no later than 15 days prior to receiving recycled water service. Failure to attend the Site Supervisor Certification Workshop may result in the termination of recycled water service.

C. Changing the Site Supervisor

The User must notify the District immediately of any change in personnel for the Site Supervisor position. Upon a change in personnel, the new Site Supervisor must attend a Site Supervisor Certification Workshop, or District approved equivalent, no later than 15 days prior to the position change. Failure to attend the Site Supervisor Certification Workshop may result in the termination of recycled water service.

D. Requirements of Site Supervisor Position

- Received training and be able to demonstrate knowledge of the application and maintenance of a recycled water system.
- Be available to the District at all times and have the authority to carry out any requirements of the District.
- Be responsible for the installation, operation and maintenance of the recycled and potable water systems, and for the prevention of potential hazards or potential violations regarding recycled water use.
- Ensure that notification signs at the Site are properly installed and maintained, and that all recycled and potable water facilities are properly labeled, tagged or otherwise identified.

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- Be knowledgeable of the provisions contained in Titles 17 and 22 of the California Code of Regulations relating to the safe use of recycled water and maintain accurate records.
- Be aware of, and familiar with, this Manual.
- Ensure that all employees of the Site involved with the use of recycled water are instructed in the safe and responsible use and handling of the recycled water.
- Immediately inform the District of any failures, violations and emergencies that occur involving the recycled or potable water systems.
- Ensure that there are no cross-connections made between the potable and recycled water systems. Be familiar with the basic concepts of backflow and cross-connection prevention, system testing, and related emergency procedures, and participate in all cross-connection tests.
- Conduct an annual self-inspection of the Site and provide a written report to the District.

III. Personnel Training

It is the responsibility of the User to train all operations personnel so they are familiar with the use of recycled water. Supervisory personnel and the Site Supervisor shall ensure that employees are not using recycled water carelessly or improperly. Any training program should include, but not be limited to, the following:

- Operations personnel must be aware that recycled water, although highly treated, is non-potable. Recycled water may never be used for human consumption.
- Operations personnel must understand that working with recycled water is safe if common sense is used and appropriate regulations are followed.
- Operations personnel must understand that conditions such as ponding, runoff and windblown spray into unapproved areas are not allowed.
- Operations personnel must understand that there is never to be a direct connection between the recycled water system and the potable water system.
- Operations personnel must become familiar with the Rules and Regulations.
- Good personal hygiene must be followed (for example, washing hands after working with recycled water).

Training programs should also instruct personnel in proper procedures for reporting unauthorized discharges, identifying and correcting cross connections, and modifying the system in the event of an earthquake or other disaster.

IV. General System Operations

A. System Responsibilities

The District is responsible for the operation and maintenance of the recycled water system upstream of and including the recycled water meter.

The User is responsible for maintaining and operating the on-site recycled water system downstream of the recycled water meter. This includes the following:

- Obtain all permits required for the operation and maintenance of the on-site recycled water system.
- Apply recycled water in accordance with the Rules and Regulations.
- Maintain the on-site recycled water system, including signs, markings, and tags in accordance with the Rules and Regulations.

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- Ensure all materials used during the repair and maintenance of the system are approved or recommended for recycled water use.
- Obtain prior authorization from the District before making any modifications to the approved recycled water system.
- Report all violations and emergencies to the appropriate local authority.
- Submit annual self-inspection report to the District.

B. Site Operating Conditions

The User must comply with the following conditions.

1. Runoff Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical runoff outside the approved use area.

2. Ponding Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical ponding within or outside of the approved use area. This does not apply to approved recycled water impoundments.

3. Windblown Spray Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical windblown spray from leaving the approved use area. The recycled water system must be operated to prevent overspray or windblown spray into unapproved areas.

4. Unapproved Uses

Use of recycled water for any purposes other than those explicitly described in the Master Permit is strictly prohibited.

5. Use in Unapproved Areas

The delivery and use of recycled water for any reason, including approved uses, in areas other than those explicitly approved in the User Agreement and without the prior approval of the District, is strictly prohibited.

6. Cross-Connections

Cross-connections, as defined by the California Code of Regulations, resulting from the use of recycled water or from the physical presence of a recycled water service, whether by design, construction practice, or system operation, are strictly prohibited.

If any cross-connection is discovered, the User shall immediately turn off the system, notify the District and implement an emergency cross-connection response plan.

7. Hose Bibbs

Hose bibbs or other appurtenances that might allow public access to the recycled water system for unapproved use or for cross-connection to the potable water system are strictly prohibited in all areas accessible to the general public. In these areas, only quick-couplers are allowed and must be of a different type than those that may be used on the Site's potable water system. Hose bibbs may be used on the recycled water system in areas that do not allow any public access but must be conspicuously labeled "RECYCLED WATER -- DO NOT DRINK" in both English and Spanish (or any other language determined by the District to be in common use in the area), along with a "Do Not Drink" symbol. Workers in these areas must be instructed not to drink from these hose bibbs.

8. Drinking Fountains and Eating Areas

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Drinking fountains located within the approved use area must be protected from contact with recycled water by direct application through irrigation or other approved use. Lack of protection, whether by design, construction practice or system operation, is strictly prohibited.

9. Periods of Operation

Operation of the User's on-site recycled water system must adhere to the following requirements.

- Irrigation may only occur during periods of least use of the approved area by the general public. This is usually between the hours of 10 p.m. and 6 a.m.; however, areas where public access is generally prohibited or minimized, such as construction dust control, commercial nurseries and freeway landscaping, may be irrigated at such times specifically approved by the District.
- Consideration should be given to allow a reasonable dry-out time before the area is to be used by the public.
- Automatic control systems are to be used and programmed to prevent ponding and runoff of recycled water.
- The recycled water system must not be allowed to operate for periods longer than needed to satisfy the landscape water requirements. Recycled water must never be applied at a rate that is greater than the infiltration rate of the soil. Exceptions to this requirement for purposes such as leaching of soil must be specified in the User Agreement.
- Even though tertiary-treated recycled water is approved for full-body contact by the State Department of Public Health, irrigation of public areas during other times may be performed if the irrigation system is operated manually and is supervised to avoid inadvertently exposing any members of the general public. This provision must be strictly followed.
- Inadvertent public contact with recycled water irrigation spray must always be avoided.

V. General System Maintenance

A. Preventive Maintenance

The User must implement a preventive maintenance program that will ensure that the recycled water system always remains in compliance. A preventive maintenance program should include but not be limited to the following:

A maintenance program for backflow prevention assemblies that includes at least annual testing by a tester certified by the American Backflow Prevention Association (ABPA) or AWWA must be carried out. Records of annual tests, repairs and overhauls must be kept by the User with copies forwarded to the District and others as required by law.

The Site Supervisor is required to perform preventive maintenance to ensure that the recycled water system always remains in compliance with the Rules and Regulations. As part of a preventive maintenance program, the Site Supervisor should:

- Perform regular inspections of the entire recycled water system including sprinkler heads, drip irrigation system emitters, spray patterns, piping and valves, pumps, storage facilities, lakes, controllers etc. Immediately repair all broken sprinkler heads, faulty

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spray patterns, leaking pipes or valves, or any other noted condition that violates the recycled water use requirements.

- Check all recycled water identification signs, tags, stickers, and above grade pipe markings for their proper placement and legibility. Replace damaged, unreadable, or missing signs, tags, stickers, and pipe markings.
- Check spray patterns to eliminate ponding, runoff and wind blown spray conditions. If evidence of ponding or runoff is noted, affected areas should be indicated on a sketch and sprinkler heads should be adjusted to prevent further ponding or runoff. Evidence of mosquitoes breeding within ponding should be noted and immediately eliminated.
- Establish and maintain an accurate record keeping system of all inspections, modifications and repair work.

B. Equipment Cleaning

Any device, hose, pipe, meter, valve, tank, pump, truck, etc. which has been used with recycled water may not be used to convey potable water nor attached to the potable water system unless it is cleaned, disinfected and approved by the District per District requirements.

C. Irrigation System Modifications

The User must not make any modifications to its on-site recycled water system (or potable system, if it is in close proximity to the recycled system) without the prior approval of the District.

This includes modifications to the approved plans or to an operational system. Detailed plans of any modifications should be submitted to the District and the modifications inspected and approved by the District before their being placed in operation.

However, routine maintenance of the irrigation system, such as pipeline repairs, sprinkler replacement and other similar activities that don't result in a substantial change in either the recycled or potable water systems, or any agreed to operating plans, do not need prior approval by the District.

Emergency modifications or repairs that must be made by the User to its system in order to prevent contamination, damage or a public health hazard shall be covered under emergency procedures.

Additionally, converting any piping used for recycled water back to potable water, such as switching from a recycled water system to a backup potable water system, requires prior approval of the District.

VI. Emergency Procedures

A. Emergency

In case of earthquake, flood, fire, major freeze, nearby construction, or other incident, which could cause damage to the recycled or potable water systems, the Site Supervisor must inspect the domestic and recycled water systems for damage as soon as it is safe to do so. If either system appears damaged, both the domestic and recycled water systems should be shut off at their points of connection. The Site Supervisor must immediately contact the District for further instruction.

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B. Contamination of Potable Water

If contamination of the potable water system is suspected or known, due to a cross-connection on the User's premises, the User must immediately notify the District. The User shall invoke immediately the *Emergency Cross-Connection Response Plan* described below. In case of contamination of the potable water system due to a cross-connection on the User's premises, the District and the County Health Department must be immediately notified by the User. The User shall immediately invoke the Emergency Cross-Connection Response Plan.

C. Emergency Modifications

Emergency modifications or repairs can be made by the User to the recycled water system without the prior approval of the District to prevent contamination, damage or a public health hazard. As soon as possible after the modification (but within three days), the User must notify the District of the emergency modifications and file a written report.

D. Emergency Cross Connection Procedures

In the event that a cross-connection is suspected or occurs, the following emergency cross connection response plan must be implemented immediately:

1. The User must notify the District by telephone immediately. This notification must be followed by a written notice within 24 hours that includes an explanation of the nature of the cross-connection, date and time discovered, and the contact information of the person reporting the cross-connection.
2. The District will notify the Mono County Public Health - Environmental Health Division and State Department of Public Health (DPH) of the reported cross connection.
3. The User must immediately shut down the recycled water supply to the facility.
4. The User must keep the potable system pressurized and post "Do Not Drink" signs at all potable water fixtures and outlets.
5. The User must provide bottled water for employees until the potable water system is deemed safe to drink.
6. The User must follow the procedures outlined by the State DPH and the District.

After final approval has been obtained from the State DPH, the District will bring the recycled water system back into service and inform the User to remove the "Do Not Drink" signs from all potable water fixtures and outlets.

VII. Irrigation Management Plan

The User shall prepare and submit to the District an Irrigation Management Plan which shall include measures to ensure the use of recycled water occurs at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to

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Recycled Use Ares. The Irrigation Management Plan shall be for each Site served and shall account for the following:

- i. Soil Characteristics;
- ii. Recycled water characteristics (nutrients, including nitrogen and phosphorous content, specific ion toxicity, including chloride, boron, sodium, bicarbonate; and other parameter);
- iii. Requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements);
- iv. Climatic conditions; (e.g., precipitation, evapotranspiration rate, wind);
- v. Other supplemental nutrient additions (e.g., chemical fertilizers) used in the operation of the Use Area; and,
- vi. Management of impoundments used to store or collect recycled water.

Evaporation / Transpiration

The Irrigation Management Plan also shall include sub-irrigation management plans that insure the use of recycled water occurs at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass).

VIII. Site inspections

A. Periodic Site Inspections

Periodic site inspections by the District of the User's recycled water irrigation system are mandated in Water Code Section 13523.1(b)(5). Such inspections include, at a minimum, the visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, lakes, storage facilities, signs, labeling, tags, etc. The Site Supervisor's maintenance records also will be inspected. The District will conduct periodic inspections of the User's system and report all violations to the appropriate regulatory agency according to applicable procedures established by law.

The District reserves the right to make unannounced inspections of the Site's facilities, although at reasonable times.

Upon completion of the inspection, a Site inspection report form shall be signed and dated by both the Site Supervisor and the District. The original form should be kept by the District entity with copies going to the Site Supervisor and any required regulatory agency.

Should a cross-connection be discovered during the inspection, the Emergency Cross-Connection Response Plan shall be immediately implemented by the Site Supervisor.

B. Annual Self Inspection Report

The User shall conduct an inspection at least once per year while the recycled water system is in use. The results of this inspection must be documented and submitted in a written report. The District will mail the report form to the Site Supervisor once a year. The Site Supervisor must submit the results of the observations, along with a description of any corrective actions taken. Upon completion, the Site Supervisor must keep a copy of the report for the User's records and must return the original. The questions on the annual inspection report are as follows:

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1. Is there evidence of recycled water runoff from the Site? Show affected area on a sketch and estimate volume.
2. Is there an odor of wastewater origin at the irrigation Site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors.
3. Is there evidence of recycled water ponding, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?
4. Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the public that irrigation water is recycled water, which is not suitable for drinking?
5. Is there evidence of leaks or breaks in the irrigation system piping, or tubing?
6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers?
7. Has your designated Site Supervisor changed in the past year?
8. What corrective actions are being taken to correct any problems noted above?

IX. Unauthorized Discharge

An unauthorized discharge is any amount of recycled water that leaves the Site. The Site Supervisor must report to the District any unauthorized discharge of recycled water, at which time the District will specify if a written report is required. In the event of an unauthorized discharge, the Site Supervisor should make every effort to contain the recycled water and prevent it from entering the storm drain. Contact the District for further directions and disposal instructions.

It is the responsibility of the User to report to the District all system failures that result in an unauthorized discharge of more than 50,000 gallons of tertiary treated recycled water. An immediate oral report followed by a written report is required.

X. Operating Problems

A. Notification

In the event of a break in the system, low pressure, low flow or poor water quality, the User should notify the District.

It is the responsibility of the Site Supervisor to immediately notify the District of any failure or cross-connection in his/her recycled or potable water system, whether or not he/she believes a violation has occurred. It also is the responsibility of the Site Supervisor to immediately notify the District of any violation he/she believes might imminently occur because of any action the User's personnel might take during the operation of the recycled or potable water systems.

If there are any doubts whether a violation has occurred, it is the responsibility of the Site Supervisor to report each occurrence to the District so a decision can be made. It is then the District's responsibility to notify the LRWQCB and local governing agencies of any violations.

B. Violations

Violations of the User Agreement and Rules and Regulations may include but not be limited to non-compliance with any of the following prohibitions: runoff conditions, ponding conditions, windblown spray conditions, leaks or spills resulting from broken or damaged pipelines or appurtenances, unapproved uses, disposal in unapproved areas, cross-connections, unprotected

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drinking fountains and unauthorized or prohibited use of hose bibbs, whether willful or by accident. Any willful or accidental act of noncompliance with any existing federal, state or local ordinance, code, law or statute regulating the use of recycled water constitutes a violation.

C. Corrective Action

If the District's investigation reveals that a violation has occurred on the Site, the District must immediately notify the User of the violation and what corrective actions must be taken. It is the responsibility of the User to immediately initiate corrective action to eliminate the violation. If the District believes the violation constitutes a hazard to the public health, the District must immediately stop recycled water service to the User. It will be at the discretion of the District to decide if a violation has been adequately corrected. The District may impose a startup fee upon resumption of service to a User whose service has been terminated, depending on the provisions of the User Agreement.

D. Causes for Termination of Service

The District reserves the right to revoke a User's Agreement if any or all of the service conditions are not satisfied at all times. Service to a User may be terminated any time if:

- The District's distribution system is not capable of supplying recycled water.
- The quality of the recycled water does not comply with the requirements of the Master Permit or the LRWQCB.
- The User's operation does not conform to all applicable regulations, permit requirements and/or the terms of the User's agreement.
- There is nonpayment of service fees and charges by the User.

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Monitoring and Reporting/Compliance and Inspection Program

This Monitoring and Reporting/Compliance and Inspection Program (Program) is prepared to satisfy the requirements of the Master Permit. The capitalized terms herein shall have the same meaning as set forth in the Rules and Regulations for Recycled Water Users.

I. MONITORING

A. Flow Monitoring

The District shall record the total volume, in million gallons, and the average flow rate, in million gallons per day (mgd), of recycled water provided by the District to each User. This information must be recorded and reported for each calendar month.

B. Agronomic Application Rate Monitoring for Fertilizers and Recycled Water

1. For each calendar month, the District shall record and provide a tabular comparison of the:
 - a. volume of water required for plant growth in each irrigated area;
 - b. volume of recycled water (and supplemental water) applied to each irrigated area; and
 - c. number of acres for each irrigated area.
2. For each calendar month, the District shall record, and provide a tabular comparison of, the:
 - a. amount of nitrogen (N) needed for plant growth in each landscape and agricultural area;
 - b. total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
 - c. number of acres for each area.

C. Recycled Water Quality Monitoring

Samples of the recycled water following tertiary treatment and leaving the District Wastewater Treatment Plant for reuse by Users must be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type	Minimum Frequency		
Turbidity ¹	NTU	Recorder	Continuous		
Total chlorine residual	mg/L	Recorder	Continuous		
Modal contact time ²	minutes	Calculated	Daily		
CT value ³	mq-minutes/L	Calculated	Daily		
Total Coliform	MPN/100mL	Grab	Daily		
Kieldahl Nitrogen	mq/L	Composite	Weekly		
Ammonia Nitrogen	mq/L	Composite	Weekly		
Nitrate Nitrogen	mq/L	Composite	Weekly		
Total Dissolved Solids	mg/L	Composite	Monthly		
Sulfate	mq/L	Composite	Monthly		
Chloride	mg/L	Composite	Monthly		
Total Trihalomethane	u/L	Grab	Quarterly		
n-nitrosodimethylamine	u/L	Grab	Quarterly		
Priority Pollutants, excluding asbestos	as specified	Grab	Semi Annually		

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(Appendix A to 40CFR part 423)					
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¹For each 24-hour period, record and report the following: average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.

²The modal contact time at the highest and lowest flows must be recorded and reported for each 24-hour period where there is production of disinfected tertiary recycled water. The "modal contact time" is the amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber. For the purpose of this determination, modal contact time shall be derived from a predetermined plot correlating modal contact times to varying flow conditions. (CCR, title 22, sec 60301.600)

³the lowest CT value must be calculated for each 24-hour period. $CT \text{ (mg-minutes per liter)} = \text{chlorine residual (mg/L)} \times \text{modal contact time (minutes)}$. To calculate the lowest value, first record the following data for the 24-hour period:

- a. Modal contact time under highest flow and corresponding total chlorine residual at that time.
- b. Lowest total chlorine residual and corresponding modal contact time.
- c. Highest total chlorine residual and corresponding modal contact time.
- d. Modal contact time under lowest flow and corresponding total chlorine residual at that time. Next, calculate CT values for each of the four conditions, above. The lowest of the four calculated CT values is the lowest CT for the period.

D. Drinking Water Supply Monitoring

For each semi-annual period (January -June; July -December), a report must be submitted to the LRWQCB providing the results of California Department of Public Health-specified drinking water supply monitoring for municipal supply wells located within a half-mile of any authorized recycled water use site having received recycled water within the previous six months. Groundwater elevations at the time of sampling must also be provided for each well. The reports must be included with the quarterly monitoring reports providing results from the second and fourth quarterly monitoring periods, as specified by Requirement No. II.B of this Monitoring and Reporting Program.

E. Quarterly Recycled Water Use Monitoring

The District must record the following information each quarter (quarters defined in requirement No. 11.8, below) in accordance with Water Code section 13523.1 (b)(4):

1. The total number of Sites that received recycled water during the quarter.
2. A list of all recycled water use Sites. For each Site, the list must include:
 - a. Site name
 - b. Site location
 - c. Name of underlying hydrologic area
 - d. User name
 - e. Type of use
 - f. Site area (acres)
 - g. Date of District recycled water use approval
3. A map of suitable scale showing the boundary of the District's recycled water service area defined in Finding No.9 of the Master Permit and showing the approved recycled water use Site locations.

F. Inspections and Enforcement Monitoring

1. The District must provide in its annual report (see Requirement No. II.C, below) an inspection schedule for all recycled water use facilities. The inspection schedule shall document the date of each facility's prior inspection and its respective compliance status. Any facility with a reported incidence of

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noncompliance in its most recent inspection report must be re-inspected no later than one year from its prior inspection. Any facility that was in compliance during its most recent inspection must be scheduled for a re-inspection no later than three years from its prior inspection.

2. The District must record and report on a quarterly basis all recycled water use Sites inspected pursuant to Requirement No. I.B.4 of the Master Permit during each respective quarter (See Requirement No. II.B., below). The list of Sites inspected must include the following information for each recycled water use Site:

- a. Date of inspection, name of recycled water use Site, user name, and type of use.
- b. A description of all noted violations (including compliance with Requirement Nos. I.C.1 through I.C.14 of the Master Permit).
- c. The date compliance was achieved and the respective corrective action taken, if applicable.
- d. A description of enforcement action taken (if any), including any schedule for achieving compliance.
- e. Date of prior compliance inspection.

3. The District must inspect every month all signage that informs the public that recycled water is currently being used for irrigation purposes at each irrigation recycled water use facility. Maintenance of this signage is required. The results of this inspection must be reported by the District in its quarterly report (see Requirement No. II.B, below).

4. The District must inspect every month all Best Management Practices (BMPs) in place to prevent contamination of potable water supplies (including groundwater). The results of this inspection and measures taken to maintain and repair these BMPs must be reported by the District in its quarterly report (see Requirement No. II.B, below).

5. The District must inspect the recycled water distribution system annually for cross connections with the potable water supply.

6. The District must annually pressure test the recycled water distribution system for leaks or drops in pressure.

G. Operation and Maintenance Monitoring

The District must record and maintain records of all actions and analytical results necessary to demonstrate compliance with California Department of Public Health conditions identified in the Master Permit Requirement No. II.B., and to document any operational problems and maintenance activities with the recycled water treatment facilities, distribution system, and User Sites. The District must submit a brief summary of its findings to the LRWQCB with each quarterly monitoring report. This summary must discuss the elements listed below.

1. All modifications or additions to the recycled water treatment facilities, distribution systems, and User Sites.

2. Test results of all backflow prevention devices at each recycled water use Site.

3. The results of cross connection inspections at each authorized recycled water use Site.

4. Test results of the District's recycled water distribution system pressure testing.

5. Any non-routine maintenance conducted on the recycled water treatment facilities, distribution system, and user systems.

6. Any major problems occurring to the recycled water treatment facilities, distribution system, and User systems.

7. Calibration results of any recycled water flow measuring devices.

II. REPORTING

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A. General Provisions

1. The District must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program (Attachment I).

2. Pursuant to General Provision No. 1d. of the General Provisions for Monitoring and Reporting, the District must submit to the LRWQCB by **September 8, 2009** a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP must include a detailed description of procedures and techniques for:

- a. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
- b. Sample preservation and shipment;
- c. Analytical procedures;
- d. Chain of custody control; and
- e. Quality assurance/quality control (QA/QC).

B. Quarterly Reports

Beginning on **September 1, 2009**, quarterly monitoring reports including the preceding information must be submitted to LRWQCB by the first day of the third month following each quarterly monitoring period. (Water Code, Section 13523.1, subd. (b)(4).)

Quarterly monitoring periods are defined as follows:

First Quarter January 1 -March 31

Second Quarter April 1 -June 30

Third Quarter July 1 -September 30

Fourth Quarter October 1 -December 31

C. Annual Report

Beginning on April 1, 2010 and continuing thereafter, the District must submit an annual report to the LRWQCB with the information listed:

1. Documentation of the District's compliance with the Master Permit, including progress made towards developing the salt/nutrient management plan that is required by the Master Permit, Requirement No. III.A;
2. The compliance record and the corrective actions taken or planned, which are necessary to bring the District into full compliance with the Master Permit; and
3. The District's time schedule for completing corrective actions needed to achieve compliance.

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Attachment: A General Provisions for Monitoring and Reporting Program

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS

FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
- d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years.

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This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WOID Number. .

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.

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Annual Self Inspection Report

The RWQCB requires that recycled water customers conduct an inspection at least once per year while the recycled water system is in use. The results of this inspection must be documented and submitted in a written report. The Water Retailer will mail the report form to the Site Supervisor once a year. The Site Supervisor must submit the results of the observations, along with a description of any corrective actions taken (*see Appendix F - Sample Forms*). Upon completion, the Site Supervisor must keep a copy of the report for their records and must return the original. The questions on the annual inspection report are as follows:

1. Is there evidence of recycled water runoff from the site? Show affected area on a sketch and estimate volume.
2. Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors.
3. Is there evidence of recycled water ponding, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?
4. Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the public that irrigation water is recycled water, which is not suitable for drinking?
5. Is there evidence of leaks or breaks in the irrigation system piping, or tubing?
6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers?
7. Has your designated Site Supervisor changed in the past year?
8. What corrective actions are being taken to correct any problems noted above?

Appendix C

(Recycled Water Program Rules and Regulations)

Appendix C



Mammoth Community Water District

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RECYCLED WATER PROGRAM RULES AND REGULATIONS

May 2021

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- A: Recycled Water Use Area
- B: Emergency Response Plan
- C: Recycled Water Service Authorization Form
- D: Information Required on Plans
- E: Schedule of Program Inspections
- F: Cross Connection: Test Documents and Procedures
- G: Site Compliance Inspection Report
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- I: Distribution System Start Up Procedure
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Introduction

In 2009 the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035 “Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water” and shortly after, the MCWD Board of Directors approved Ordinance No. 10-15-09-11 establishing the MCWD recycled water program.

Since then, MCWD has been providing recycled water to the Sierra Star Golf Course, Snowcreek Golf Course, the Trucked Recycled Water Program, and supply for Laurel Pond, a Restricted Recreational Impoundment. The primary objective of MCWD’s recycled water program is to conserve groundwater, one of the key potable water sources in the region, through beneficial reuse of treated wastewater. The recycled supply is used mainly for landscape irrigation, which represents a major demand during the spring and summer seasons.

MCWD desires to continue to provide recycled water under a new General Use Permit of recycled water (ORDER WQ 2016-0068-DDW) and make minor changes to the trucked recycled water program. These Recycled Water Program Rules and Regulations have been updated for this purpose.

Document Scope and Applicability

This document contains Mammoth Community Water District Recycling Program Rules and Regulations (Rules and Regulations) governing the design, construction, operation, maintenance and monitoring of recycled water use facilities and the use of recycled water in the Mammoth Community Water District recycled water service area. The Mammoth Community Water District Recycled Water Service Area is presented as Attachment A.

The document covers requirements for existing sites and new developments and should give the recycled water user information necessary to meet all applicable regulations.

Unless otherwise stated, these Requirements shall apply to any and all Users to whom the Mammoth Community Water District (District or MCWD) distributes tertiary recycled water pursuant to the General Permit.

Definitions that Apply to these Requirements

Air Gap Separation – A physical break between a water line and a receiving tank or reservoir which is at least double the diameter of the pipeline vertically above the rim of the tank or reservoir, and in no case less than one-inch.

Applicant – An Owner or authorized representative of a potential reuse site who applies for recycled water service under terms of the appropriate regulations. An approved Applicant becomes a User.

Application Rate – The rate at which recycled water is applied to an irrigation or construction area expressed in inches per hour (in / hr).

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Approved Backflow Prevention Assembly – A device installed to protect the potable water supply from contamination by nonpotable water and is approved by the State of California.

Approved Use – An application of recycled water in a manner, and for a purpose, designed in a user agreement issued by the District and in compliance with all applicable District requirements.

Approved Use Area – A site with well-defined boundaries, designated in a user agreement or user permit issued by the District to receive recycled water for an approved use and acknowledged by all applicable Regulatory Agencies.

Authorized Recycled Water Use Site (Site) – is a site authorized for use of recycled water; the uses of recycled water and the site location must comply with the General Permit.

Automatic System – An electronic, electrical or mechanical system, which includes automatic controllers, valves, and associated equipment required for the programming of effective water application rates when using recycled water.

Construction Use – An approved use of recycled water to support approved construction activities, such as soil compaction and dust control during grading.

Cross-Connection – Any physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved as safe, wholesome and potable for human consumption.

Cross-Connection Specialist – A person certified by California-Nevada Section of AWWA or approved equivalent who coordinates and monitors a cross-connection inspection and control program to prevent contamination of the potable system used to supply water for drinking purpose by any source containing unapproved water or a substance that is not or cannot be approved as safe and potable.

Direct User – is any person to whom the District directly distributes recycled water under Permits issued by the District.

District – The Mammoth Community Water District, California

General Permit – General Use Permit of recycled water (ORDER WQ 2016-0068-DDW)

Graywater – Untreated domestic wastewater from bathtubs, showers, bathroom wash basins, clothes washing machines, and laundry tubs, but excluding toilets, kitchen sinks, dishwashers, photo development sinks and laundry water from soiled diapers. This is not the same as treated recycled water.

Incidental Runoff – is any small amount of recycled water that leaves the Site as a result of over-spray or leakage from sprinklers, over watering, breaks in lines, or overflow of impoundments that contain recycled water during storms.

Infiltration Rate – The rate at which the soil will accept water as applied during irrigation, expressed in inches per hour.

Inspector – Any person authorized by the District or the local health agencies to perform inspections on or off the Users site before construction, during construction, after construction and during operation.

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Irrigation Period – The time, from start of water flow to end, which a specific area receives recycled water by direct irrigation application, no matter how often the specific area is irrigated - that is length of the duty cycle.

Irrigation Use – An approved use of recycled water for landscape irrigation as defined for recycled water under Title 22, Chapter 3 of the California Code of Regulations.

Landscape Impoundment – An open body of recycled water on a use site that is utilized for aesthetic enjoyment or which otherwise serves a function not intended to include public contact.

Local City or County Health Department – This agency is the local health protection agency for the municipality in question.

Nonpotable Water – The water that has not been treated for human consumption in conformance with the latest edition of the United States Environmental Protection Agency’s Drinking Water Standards, the California Safe Drinking Water Act, or any other applicable standards. This also refers to irrigation or industrial process water derived from a potable water system through an approved backflow prevention device that may be subject to contamination (e.g., through back-siphonage).

Off-site – Designates or relates to recycled water facilities that are owned and operated by the District up to the point of User connection and including the water meter.

On-site – Designates or relates to facilities owned and operated by a User.

Operations Personnel – Any employee of a User, whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation or maintenance of equipment on any portion of on-site facilities using recycled water.

Owner – Any holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year, for property for which recycled water service has been requested or established.

Permit – means any LWRQCB issued Waste Discharge Requirements (WDRs), Water Recycling Requirements (WRRs), or general permit.

Person – is any individual, partnership, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character.

Point of Connection – This is the point where the User’s system ties to the District’s system, usually at the water meter.

Ponding – Unintentional retention of recycled water on the surface of the ground or other natural or manmade surface for a period following the cessation of an approved recycled water use activity such that a hazard or potential hazard to the public health results.

Potable Water – That water that is pure and wholesome, does not endanger the lives or health of human beings, and conforms to the latest edition of the California Safe Drinking Water Act, or other applicable standards.

Public – Any person or persons at large who may come in contact with facilities and/or areas where recycled water is approved for use.

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Rate and Fee Schedule – The schedule of all rates, charges, fees and assessments to be made concerning the use of recycled water served by the District as approved or as amended by the District.

Record Drawings – Approved drawings that correctly show the completed onsite facilities and / or offsite facilities as constructed or modified. These drawings shall show all potable water, recycled water and sewer lines, and other utility lines.

Recreational Impoundment – An open body of recycled water located on a use site that may be used for unrestricted body contact (e.g., swimming, wading) or restricted non-body contact (e.g., boating, fishing) recreation.

Recycled Water – Nonpotable water that is highly treated to the California Code of Regulations, Title 22, Chapter 3 and used for approved purposes other than drinking water, e.g. suitable for beneficial use.

Regulatory Agencies – Those public agencies legally constituted to protect the public health and water quality, such as the State Department of Public Health, the California Regional Water Quality Control Board and the local city or county Health Department.

Runoff – When recycled water is intentionally or unintentionally allowed to drain outside the approved recycled water irrigation area.

Service – The furnishing of recycled water to a User through a metered connection to the on-site facilities.

Site Supervisor – A qualified person designated by the User to provide liaison with the District. This person should be available to the District at all times, should have the knowledge and authority to carry out any requirements of the District, and should be responsible for the installation, operation and maintenance of the reclaimed and potable water systems and also prevention of potential hazards.

User – is any person, persons or organization (including, but not limited to, any private company or corporation, public utility, municipality or other public body or institution) to whom the District distributes recycled water under the General Permit. User does not include persons who have been independently issued Permits by the LRWQCB.

User Agreement – is a contractual agreement between the User and the District that establishes the conditions for recycled water service and use. (Note: “User Agreement” is the term used to describe any agreement, contract, permit, ordinance, memorandum of understanding or other such document used by the District to set the terms and conditions for the use of recycled water by a User.) The District reserves the right to alter, on a case-by-case basis, the User Agreement.

User Permit – A permit issued by the District to a recycled water service Applicant after the satisfactory completion of the service application procedures. The User Permit forms a service agreement between the User and the District that legally binds the User to all conditions stated in the Agreement and all applicable Regulatory Agency requirements.

Unauthorized Discharge – Any release or spill of recycled water that violates the rules and regulations of the District or any applicable Federal, State or local statutes, regulations, ordinances, contracts or other requirements.

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Violation – Noncompliance with any condition or conditions of the User Agreement or User Permit, water recycling requirements issued the Regional Water Quality Control Board and/or Title 22, Chapter 3 of the California Code of Regulations by any person, action or occurrence, whether willfully or by accident.

Waste Discharge Requirements (WDRs) – are requirements established for the District by the LRWQCB pursuant to Water Code section 13263.

Water Recycling Criteria – are the criteria established by the CDPH generally dealing with the levels of constituents in recycled water and the means to protect public health. The criteria are established pursuant to Water Code Section 13521, and are contained in the CCR, Title 22, Division 4, Chapter 3; also referred to as the "Uniform Statewide Reclamation Criteria."

Water Recycling Requirements (WRRs) – are requirements established for the District by the LRWQCB pursuant to Water Code section 13523.

Windblown Spray – Dispersed, airborne particles of recycled water that can be transmitted through the air to locations other than those approved for the direct use of recycled water.

Section I - General Requirements for Metered Recycled Water Users

Use of recycled water must comply with all applicable state laws, regulations, the General Permit, and any amendments thereto, District Ordinances, and these Rules and Regulations.

If an on-site recycled water system is found to be in violation of these Rules and Regulations, or any other applicable standard or regulation, the District will direct the User to mitigate for these violations. A site inspection will be scheduled after a reasonable mitigation period to ensure compliance. Failure to comply will result in termination of recycled water service.

A copy of the *Rules and Regulations for Recycled Water Use*, the Cross-Connection Emergency Response Plan, design plans for the recycled water system and potable water system, the Recycled Water System Operations Manual, and the Recycled Water System Irrigation Manual for the recycled water system shall be maintained at the recycled water use area. These documents must be available to operating personnel at all times.

Liability

The User is responsible for the operation and maintenance of the recycled water system downstream of the District's point of connection with the User—typically the recycled water meter--unless such responsibility is clearly outlined in the User Agreement or User Permit.

The District shall not be liable for any water damage or other damage caused by the User due to defective or broken plumbing or faulty service, nor shall the District be liable for damage caused by the User's facilities. This includes changes in the recycled water quality that may occur from sitting in ornamental lakes, storage tanks, pipelines, etc.

The District is responsible for operation and maintenance of the recycled water system upstream of the point of connection to the recycled water User, including the recycled water meter.

Water Supply Contingency

If, at any time during construction or operation of the recycled water system, existing or potential hazards are found, the District has the right and the responsibility to immediately suspend, with or without notice, recycled water service in the interest of protecting the public health.

The District may supply water to the affected area either temporarily or permanently from the potable water system, or other raw groundwater system, with appropriate backflow protection.

General Prohibitions

Use of recycled water for any purposes other than those explicitly approved in the effective User Agreement / User Authorization is strictly prohibited.

The User shall insure that the treatment, storage, distribution or use of recycled water shall not create a nuisance as defined in Water Code Section 13050(m).

The User shall not discharge recycled water from treatment facilities, irrigation holding tanks, storage ponds, or other containments, other than for permitted reuse, except in accordance

with the General Permit, other LRWQCB issued Permits, contingency plans authorized by the LRWQCB or for an approved discharge to a municipal sewage treatment system.

Procedures to Obtain Permission to Use Recycled Water

Every site must obtain final recycled water User Authorization from the District prior to receiving recycled water. The procedures are slightly different depending on whether the service is for a new facility or for an existing facility.

User Authorization is issued after the site has met all of the applicable rules and regulations. Typically, these requirements include approval of all required documentation, including an engineering report as appropriate, a recycled water use application form, an operation and maintenance plan, an irrigation management plan, an emergency response plan, and any other documents required by the District or the LRWQCB, site-supervisor training, construction, inspections and cross-connection certification.

Applications for Construction Use shall include a recycled water use application form, a user site map and a schedule of the hours that recycled water will be utilized. For further information on Recycled Water Construction Use please refer to Section VI.

Following issuance of the User Authorization, a Site may receive recycled water in accordance with the requirements of the Use Agreement, the Rules and Regulations and the General Permit.

Table 1 on page 8 presents the general process to obtain recycled water produced by the District, the various agencies involved in the process, documents that must be completed, how documents are routed, etc.

Documents Required for Recycled Water Use Application Package

Except as provided by Ordinance, any User who wishes to receive recycled water produced by the District must file the following documents with the District for District approval:

Engineering Report

1. Copy of Engineering Report prepared by a California Registered Engineer per the California Department of Public Health (CDPH) "Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water."

Plans and Specifications

Plans and specifications may be included as part of the engineering report and must contain the information below as a minimum. Please refer to Section III, Design, Installation and Inspection as well as CDPH requirements for additional information which may be required on plans.

1. Proposed piping systems to be used;
2. Pipe locations for both recycled and potable systems;
3. Type and location of the outlets and plumbing fixtures that will be accessible to the public;
4. The methods and devices to be used to prevent backflow of recycled water into the public water system; and,
5. A description and drawing of best management practices (BMPs) showing that the public health and the quality of waters of the State will be protected. The drawing

will include at a minimum, location of all backflow devices, locations and descriptions of all public information signage, marking and tagging, locations/descriptions of surface water flow / overspray prevention practices.

Recycled Water System Operations and Maintenance Plan

At a minimum, the Operations and Management Plan shall describe the following:

1. Site Supervisor
 - a. Method to designate / replace / assign temporary / etc
2. Methods to provide personnel training;
 - a. Training schedule & scope
 - b. Permanent / temporary employees
3. Procedures to update existing facilities as they are repaired / replaced;
 - a. Specifications for Pipe, Valves, Appurtenances
 - b. Specifications for Tags, Markers, Signage;
 - c. Installation may be per MCWD Rules and Regulations
4. Methods for detection of leaks (for example broken sprinkler heads) and correction within 72 hours or prior to a release of 1,000 gallons, whichever occurs first;
5. Description of how appropriate irrigation amounts and rates will be applied including, but not limited to installing smart controllers;
6. Proper design and aim of sprinkler heads;
7. Methods to prevent incidental runoff;
8. Procedure to prevent recycled water application during precipitation events;
9. Procedure to provide adequate protection of all facilities used to transport and store recycled water against overflow, structural damage, or a significant reduction in efficiency resulting from a 25-year, 24-hour storm or flood;
10. Inspection Forms and Schedule of Inspections(Site Inspection Report); and,
11. Reporting Forms and Schedule of Reporting (Cross Connection Test Report)

Appendix C

Table 1. Process to Obtain Recycled Water

Process	Applicable Documents or Actions Required	Responsible Entity
<i>Step 1</i> – Consult with District to determine recycled water availability and project feasibility; Review Rules and Regulations for Recycled Water Use	Discussion with District General Manager and District Engineer; District’s Rules and Regulations for Recycled Water Use	User
<i>Step 2</i> - Identify distribution issues, verify allowed uses, estimate quantity of water and delivery schedule	Continue preliminary discussion with General Manager, District Engineer, Present detailed calculations.	User / District
<i>Step 3</i> - Prepare draft plans and specifications	California Department of Public Health (CDPH) requirements in California Code of Regulations (CCR) Title 17 and 22, MCWD Rules and Regulations for Recycled Water Use	User
<i>Step 4</i> – Consult with health agencies (<i>recommended</i>)	Describe project and show draft plans to CDPH and LRWQCB	District / User
<i>Step 5</i> – Complete California Environmental Quality Act (CEQA) Process	Make sure there is proper CEQA documentation for the site	User / District
<i>Step 6</i> - Draft User Agreement or amendment (if site is not covered under existing agreement)	District’s User Agreement. Send conditional approval in writing with caveat that project commencement is contingent upon User receiving all regulatory approvals and District Authorization Permit.	District / User
<i>Step 7</i> – Consult with Lahontan Regional Water Quality Control Board (LRWQCB) (<i>recommended</i>)	Describe project and discuss Engineering Report needs	User / District
<i>Step 8</i> – Prepare / amend Engineering Report (<i>if required</i>)	CDPH <i>Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water</i> ; District’s information on water reclamation plans; Direct User completes the Engineering Report; the District provides information related to treatment facilities; the report must be prepared and stamped by a Professional Engineer registered in California.	District / Direct User

Appendix C

Table 1. Process to Obtain Recycled Water (cont.)

Process	Applicable Documents or Actions Required	Responsible Entity
<i>Step 9</i> – Finalize and submit plans and specifications	Plans and specifications submitted to MCWD and DPH; DPH Cross- Connection Plan Approval Application and fee	User
<i>Step 10</i> - Approve User Agreement or Amendment	Present Agreement or Amendment to MCWD District Board and governing body of User for approval	District / User
<i>Step 11</i> – Final plans and specifications	Obtain approval of final plans and specifications from District	User
<i>Step 12</i> – Submit Engineering Report to District, CDPH and LRWQCB	Completed Engineering Report	User
<i>Step 13</i> – If applicable, submit revised Engineering Report to agencies	Revisions/additional information may be requested by District, CDPH and/or the LRWQCB	User
<i>Step 14</i> – Authorization of project under existing or new LRWQCB permit	Letter or permit from LRWQCB and DPH	District, LRWQCB; possibly CDPH
<i>Step 15</i> – Notification of Final Regulatory Approvals	District sends copy of CDPH or LRWQCB letter or permit to User	District
<i>Step 16</i> - Submit Application for recycled water use authorization	District’s User Authorization Form	User
<i>Step 17</i> - Provide materials and/or training to User on proper operation of a recycled water system	District’s Recycled Water Users Rules and Regulations to be provided by District; Site Supervisor training to be provided by District (or another equivalent program can be substituted upon District approval)	District / User
<i>Step 18</i> – Pre- and post-construction inspections	Contact District prior to construction to arrange for site inspections, initial cross-connection and backflow prevention device testing; District Rules and Regulations	User / District
<i>Step 19</i> – Approval of final construction ; Issue User Authorization	District inspects and approves construction and all required documents	User / District
<i>Step 20</i> – Begin project implementation	User / District	User /District
<i>Step 21</i> – Submit revised as-built drawings of recycled water distribution system if necessary	Must be provided to District if any modifications have been made to original drawings	User

Recycled Water Use Irrigation Management Plan

The Irrigation Management Plan shall include measures to ensure the use of recycled water occurs at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to Recycled Use Areas. The Irrigation Management Plan shall be for each Recycled Water Use Area served and shall account for the following:

1. A general description of Site characteristics including:
 - a. Soil Characteristics;
 - b. Recycled water characteristics (nutrients, including nitrogen and phosphorous content, specific ion toxicity; including chloride, boron, sodium, bicarbonate; and other parameters);
 - c. Requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements);
 - d. Climatic conditions (e.g., precipitation, evaporation / transpiration rate; wind);
 - e. Other supplemental nutrient additions (e.g., chemical fertilizers) used in the operation of the Use Area; and,
 - f. Management of impoundments used to store or collect recycled water.
2. A description of control measures for applying irrigation within agronomic rates to reduce the potential for runoff and increased nutrients into the groundwater;
 - a. To demonstrate whether irrigation is at agronomic rates, the User must provide information to the District including a tabular comparison of the volume of water required for plant growth in the landscape area to the volume of recycled water (and supplemental water) applied to the area.
3. A description of how recycled water used to irrigate landscape areas will not be applied at a rate or amount that exceeds the irrigation and nutrient needs of the vegetation. The District must communicate to recycled water users the nutrient levels in the recycled water at least monthly so that the recycled water users can appropriately evaluate nutrient needs prior to application of fertilizers.
 - a. To demonstrate whether fertilizer application is at agronomic rates, the User must provide information to the District including a tabular comparison of the amount of fertilizer needed for plant growth in the landscape area to amount applied to the area. The Site Supervisor must only apply nitrogen fertilizer if levels of nitrogen in the recycled water are not sufficient for plant growth. If levels are not sufficient, the Site Supervisor must calculate how much fertilizer needs to be applied by subtracting the level in recycled water from the level needed for plant growth.
4. Schedule of irrigation operation;
 - a. Method to prevent irrigation during / before precipitation events; and,
 - b. Method to prevent recycled water delivery during / before storm events
5. Description of computerized irrigation control system; and,
6. Reporting Forms and Schedule of Reporting (Monthly Water Usage / Nutrients Report)

User Site Best Management Practices

The User must submit design plans and a description of best management practices (BMPs) showing that public health and quality of waters of the State will be protected.

1. The plans and description must provide information to ensure the Site using recycled water is designed and operated using appropriate BMPs to comply with the following:
 - a. Application of recycled water at agronomic rates so irrigation does not promote downward migration of pollutants, which could adversely impact the quality of groundwater (refer to sections above);
 - b. Adequate erosion control so that soil is not released into stormwater runoff and surface waters; and,
 - c. Fertilizer application does not adversely impact waters of the State (refer to sections above).
2. Measures to prevent recycled water spray, mist, or surface flow from either leaving the Site or reaching:
 - a. Any surface waters located on or adjacent to the Site
 - b. Areas where the public has access (e.g., dwellings, designated outdoor eating areas, or food handling facilities.); or
 - c. Drinking fountains.
 - d. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site.
 - e. Use of buffer zones;
3. Measures to prevent public contact with recycled water:
 - a. Irrigation with recycled water during periods of minimal human use of the irrigated area and timing of irrigation to allow an adequate dry-out time before the irrigated area will be used by the public; Use of timed irrigation typically during the hours of 10 pm to 6 am only.
 - b. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site.
 - c. An approved Signage Plan showing types and locations of public notification signage and tagging.

Emergency Cross-Connection Response Plan

Please refer to the Example MCWD Emergency Response Plan presented as Attachment B. This plan should be modified as it applies to each user and approved by the District. A copy of the Emergency Response Plan should be posted at appropriate locations within the facility and should be available to all User employees.

Recycled Water User Authorization Form (Application)

Except as provided by Ordinance or User Agreement, any User who wishes to receive recycled water produced by the District must submit a User Authorization application form with the District and receive final approval from the District before the use of recycled water can begin for that use and Site. District approval may include the District's terms and conditions for the use of recycled water.

Appendix C

The Recycled Water Use Authorization Form shall contain information demonstrating the User will comply with the Uniform Statewide Reclamation Criteria and the District's Requirements for Recycled Water Users. The authorization form must include:

1. A detailed description of the proposed recycled water use Site, including:
 - a. A map showing the specific boundaries of the proposed Site and the specific use to be made of the recycled water at each Site.
2. The person or persons responsible for operation and maintenance of the Site (O&M Staff), including the person designated as the Site Supervisor as defined in Section III of this document;
3. Evidence that the O&M Staff and Site Supervisor have received sufficient training to comply with Section III of these Rules and Regulations; or the date by which training will occur prior to delivery of recycled water; and
4. As Built plan set of Site irrigation / potable water system

A Recycled Water Use Authorization Form is presented as Attachment C.

Section II - Design, Installation, and Construction Inspection of Recycled Water Systems

Design Requirements at the Service Connection

Exceptions for Existing Irrigation Systems

With the exception of pipe identification and pipe separation, facilities where the existing buried piping system is converted from potable to recycled water must meet the same requirements as new facilities. However, any new buried piping added to existing piping at a retrofitted site must meet the identification and separation requirements for new systems. In addition, any existing piping uncovered for any reason during construction must be marked according to pipe identification requirements to the extent feasible.

Required Wye Strainer and Pressure Regulator

Unless otherwise directed by the District, all recycled water services must be equipped with a wye-strainer (20-mesh or finer screen) installed as close as practicable to the meter box, and a pressure regulating valve installed immediately downstream of the strainer. Both of these devices must be installed in an underground box or boxes. Prior to determining available pressure, designers should take into account the pressure losses incurred by these facilities.

Point of Connection Location

Designers must contact the District to verify the water meter location, the size of the lateral, and meter available to serve their facility.

Swivel Ell Connections

In the event that recycled water is not available, or a planned temporary use of potable water supply is required, a Swivel Ell connection may be used. The Swivel Ell connection prevents the interconnection of potable water and recycled water supplies.

CDPH Policy Memo 2003-03, dated May 7, 2003, describes the requirements for swivel ell connections. The design, maintenance, and operation of swivel ell connections shall be in compliance with the Policy Memo 95-004. A copy of the swivel ell connection shall be submitted to the CDPH for review and approval. The District and CDPH must approve the swivel elbow before use. Otherwise, the potable water supply line shall be protected by an air-gap configuration to physically separate the potable and recycled plumbing lines.

Connections using the swivel ell must be witnessed by a District Cross-Connection Control Specialist. Swivel ell connections are illustrated in Standard Detail RW-123, *Swivel Ell for Recycled and Potable Water Supply*. In an emergency, the swivel ell is switched from the normal recycled water connection to the potable connection. This procedure is reversed once the recycled water supply is restored. In addition, the potable water supply must be protected by an approved reduced-pressure-principle backflow prevention device upstream of the swivel ell.

Separation Requirements

All recycled water service laterals and meters must be at least ten feet (horizontal separation) from the nearest potable water facility, including pipelines, meters and hydrants.

Designers should check to see that laterals and meters that serve their site meet these requirements. In the event that a horizontal separation less than ten feet has been provided, designers should bring this to the attention of the developer or the District before proceeding with on-site system design.

Conditions of Pressure and Service

Pressure and service shall be provided on an “as available” basis, at the User’s point of connection. The District shall state the available pressure of the system at the point of connection location. All Users shall hold the District harmless from any and all damages and liabilities caused in whole or in part by pressure conditions, water quality variations, or interruptions in service. It shall be the Customer’s responsibility to install booster pumps or pressure regulating valves to adjust pressure, if necessary.

Service pressure requirements shall be determined by the District. The User shall design the onsite system to accommodate available pressure.

When a reasonable service pressure would not be available to onsite facilities, the User shall be responsible for correcting the situation. If available service pressure is too high, the Customer shall utilize pressure regulators downstream of the meter to obtain the correct pressure. If available pressure is too low, the Customer shall provide booster pumps to increase the pressure.

Whenever possible, the District will operate the recycled water system at a lower pressure than the potable water system.

Backflow Prevention: Protection of the Public Recycled System

Since recycled water is not used for drinking purposes, backflow protection is not normally necessary on recycled water irrigation systems. However, the Program must ensure that customers do not compromise the quality of the recycled water in the distribution system. Therefore, the District will require backflow protection on the customer's recycled water system if it is determined that there is a backflow hazard on-site which threatens the integrity of the recycled water distribution system. Examples of sites that may be required to install backflow protection devices are:

- irrigation sites where direct chemical fertilizer injections systems are installed on the irrigation system,
- irrigation sites where recycled water impoundment may cause a backflow hazard

In such cases, backflow prevention devices might be required at the recycled water service connection or at specific, on-site locations as appropriate to the situation. Backflow prevention assemblies must be shown on plans and must be of a type approved by state DPH. It will be the responsibility of the customer to provide test reports for on-site backflow prevention devices, whereas backflow devices at the service connection fall under the District test program.

Devices must be properly maintained, inspected quarterly and tested at least annually. Backflow prevention devices, when required on recycled water systems, must be conspicuously labeled. Test equipment must be dedicated for use with recycled water. Backflow testing equipment used for recycled water must not be reused on potable water systems.

Design Requirements for On-site Facilities

No Cross-Connections

No cross-connections are allowed between the recycled water system and any other water system.

Horizontal Pipe Separation

A minimum horizontal separation of ten feet between parallel, buried recycled and potable water pipelines should be maintained. If a ten-foot horizontal separation is not practical, a separation of at least four feet may be allowed subject to special construction conditions. If, for short pipe alignment sections, a four-foot separation is not possible, the approval for special construction requirements must be obtained from the District. In no case is construction in the same trench as potable facilities allowed.

Table 2: Horizontal Pipe Separation

Horizontal Separation	
Pipe Separation	Construction Requirements
Less than 4'	Not allowed or per special design approval from the District
4' - 10'	Must meet one of these requirements: <ul style="list-style-type: none"> • Solvent welded PVC pipe on recycled water system • Restrained PVC pipe for recycled or potable • Restrained joint ductile iron pipe on recycled water system • Soldered copper pipe on recycled water system • Sleeve potable pipe • Sleeve recycled pipe
10' or Greater	No special construction requirement

Vertical Separation at Crossings

Where a buried constant pressure recycled water pipeline crosses a buried potable water pipeline, it should be located a minimum of 12 inches below the potable water pipeline unless otherwise approved by the District. Constant pressure recycled water pipelines are allowed

Table 3: Vertical Pipe Separation

Vertical Separation	
Pipe Separation	Construction Requirements
Less than 1' below potable	Not allowed or per special design approval from the District
1' or greater below potable	No special construction required
Less than 1' above potable	Not allowed or per special design approval from the District
1' or greater above potable	Depth of cover requirement has to be satisfied. A full standard pipe length must be centered over the crossing, or the recycled pipeline must be installed in a pipe sleeve which extends a minimum of 10 feet on either side of the potable water piping.

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over potable water pipelines with a minimum of 12 inches vertical separation if a full standard pipe length is centered over the crossing, or the recycled water pipeline is installed in a pipe sleeve which extends a minimum of 10 feet on either side of the potable water piping. If a 12 inch vertical separation is not practical, a lesser separation may be allowed subject to special construction conditions approved by the District. Designers should consult the District for specific design requirements.

Irrigation Laterals

On irrigation systems where intermittently pressurized recycled water lines (laterals) serve sprinkler heads, the potable water line(s) may be placed under the recycled water laterals. No special construction requirements are necessary provided that one-foot vertical separation is maintained.

On sites using pressurized irrigation laterals with valve-in-head sprinklers, the potable water line(s) may be placed under the recycled water laterals if additional protection is provided for the potable line. Common practices include sleeving or automatic flow control/shut off devices installed and functioning properly on each lateral that crosses a potable line.

No additional special construction requirements are necessary provided that at least one foot vertical separation is maintained.

Pipe Class

Table 4: Type of Recycled Water Piping

Type of Recycled Water Piping	Size	Class
Constant pressure PVC	1.5" diameter and smaller 2.0" diameter and larger	Schedule 40 or greater Class 315 of greater
Intermittent pressure PVC lateral piping		Class 200 or greater
Copper piping		Type "K" or greater

Depth of Cover and Thrust Blocking

All on-site recycled water piping must be buried to a minimum depth from finished grade to top of pipe (minimum cover) according to the following schedule:

Table 5: Depth of Cover Recycled Water Piping

Type of Recycled Water Piping	Minimum Cover
Intermittent Pressure (all sizes)	12 inches
Constant Pressure, 2.5 inch diameter and smaller	18 inches
Constant Pressure, 3-inch diameter and larger	24 inches

All recycled water piping other than PVC piping with solvent welded joints must be protected against movement with thrust blocks or restrained joints or other approved methods conforming to the UPC Section 609.1.4.

Hose Bibs

Hose Bibs are not allowed on recycled water systems regardless of style, construction or identification.

Quick Coupling Valves

The use of quick couplers is at the District's sole discretion and requires a separate plan review by the District. Only quick couplers with approved color and identification will be allowed.

Prevent Overspray, Runoff and Ponding

Irrigation systems must be designed and operated to minimize overspray, runoff and ponding. Designers must specify appropriate irrigation devices to prevent overspray in narrow areas. In the event that, during the coverage test, noticeable overspray, runoff and/or ponding is observed, facilities will be adjusted or removed and relocated as needed. This requirement does not apply to landscape impoundments such as fountains, ponds or lakes.

Protection of Drinking Fountains and Outdoor Eating Areas

Drinking fountains, outdoor eating areas and other similar facilities (e.g. snack bars) located within the approved use area must be protected from overspray or contact with recycled water. Protection may be accomplished by relocating the irrigation system or relocating or modifying the protected facilities.

Protection of Aquifers

Unless otherwise approved by the CDPH, irrigation systems must be designed to prevent irrigation of recycled water within 50 feet of any domestic water supply well. In addition, unless otherwise approved by the CDPH, recycled water impoundments must be located at least 100 feet (horizontal separation) from any domestic water supply well.

Backflow Prevention -- Protection of Public Potable Water Systems

Although not normally a part of on-site recycled water irrigation systems, it must be noted that backflow prevention devices are a required and important part of potable water service connections to sites where recycled water is used. At premises where both recycled water and potable water are present in separate piping systems with no interconnection, a reduced pressure (RP) principal backflow prevention device must be located as close as practical to the downstream side of every potable water meter.

All RP devices must be inspected quarterly and tested at least annually. The user is responsible for the coordinating the testing. An AWWA-certified backflow prevention device tester must do the device testing. Test reports must be provided to the District. The recycled water user and the District must maintain records for a minimum of three (3) years.

Design Approval

Before any new recycled water system is constructed or any existing recycled water system is modified, on-site recycled water system plans prepared by the User must be approved by the District and the State DPH. Approval will be contingent upon evidence that all applicable design requirements for a recycled water system are satisfied and that the system as designed can be operated in accordance with the District Rules and Regulations. While the District and the State DPH review plans, the recycled water User is responsible for meeting all requirements, even those requirements not shown on the approved plans.

Information Required On Plans

The following is a brief list of the information required on the plans for every on-site recycled water system. Note that compliance with every item on this list does not guarantee that the plans will be approved since regulations and policies may change and some sites may require additional provisions. A checklist format of this list is provided as Attachment X.

- Indicate all **sources of water** on the plans.
- Show the location and size of all **water meters** on the piping plans.
- Show location and type of all **backflow prevention devices** for potable water systems (generally, backflow prevention devices are not used on recycled water systems).
- Show location and type and sizes of all **strainers, pressure regulating valves, master valves and other valves, including quick coupling valves.**
- Type and location of the outlets and plumbing fixtures that will be accessible to the public;
- Show location of all **water pipelines** (including non-potable, potable and raw water well lines) crossing the site. If space does not permit this information to be placed on the irrigation plans, then a separate site or utility plan can be used to show this information. Exception for an existing irrigation system converting to recycled water: Although it may not be possible to show the location of all water pipelines at this type of site, all locations where future recycled water piping must be separated from the potable water piping must be clearly indicated on the plans.
- Supply the following **information box** for each recycled water system with its own meter; place this information on the same sheet as the meter/point of connection it pertains to. Fill out the ten items as applicable, but do not delete any of them.

Table 6: General Site Information Box

GENERAL SITE INFORMATION for RECYCLED WATER USE		
1. LANDSCAPED RECYCLED WATER IRRIGATION USE AREA: <i>(square footage)</i> .		
2. PUBLIC ACCESS TO SITE GROUNDS IS <i>(indicate: UNRESTRICTED or RESTRICTED)</i> .		
3. OWNER: <i>(legal property owner's name)</i> .		
4. PROPERTY MANAGER CONTACT: <i>(name, title, and telephone number)</i> .		
5. TENANT (S): <i>[name(s) & phone number(s); if not applicable, state NOT APPLICABLE]</i> .		
6. ON-SITE WELL LOCATIONS: <i>(for example, ONE; if none, state NONE)</i> .		
7. WELLS ON ADJACENT SITES LOCATED WITHIN 50 FT. OF RECYCLED WATER APPROVED USE AREA <u>OR</u> WITHIN 100 FT. OF ANY RECYCLED WATER IMPOUNDMENT: <i>(for example, ONE; if none, state NONE)</i> .		
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: <i>(for example, ONE; if none, state NONE)</i> .		
9. OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: <i>(for example, ONE; if none, state NONE)</i> .		
10. WATER FEATURES ON SITE: <i>(examples below; if none, state NONE)</i> .		
<u>Number:</u>	<u>Type:</u>	<u>Water Source:</u>
<i>One</i>	<i>fountain</i>	<i>recycled</i>
<i>One</i>	<i>pond</i>	<i>potable</i>

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- Clearly identify all adjacent **streets**, and locations of all major improvements on the site.
- Show the location of all drinking fountains, outdoor eating areas, and **other public facilities supplied with recycled or potable water** service. Public facilities include, but are not limited to, restrooms, snack bars, swimming pools, wading pools, decorative fountains and showers. Show the pipelines feeding all of these facilities.
- Show the location of any wells, lakes, ponds, reservoirs, or other **water impoundments** located on the site or within 100 feet of the site, and indicate the type of water source.
- Indicate that the **separation between potable and recycled water lines** meets minimum requirements. Show any necessary sleeving or special design considerations where recycled water pipelines cross over potable water pipelines.
- When **potable water piping is not present** on the site, state in a note that the cross-connection test required by the District is waived for sites where potable water piping is not present.
- **Show all details necessary** to properly construct the system, including any details conforming to the requirements of the District. The purpose of the details is to show the materials and methods necessary to clearly identify all water systems on the site.
- Include an **irrigation equipment legend** specifying all materials of construction for the system, including:
 - A pipe schedule listing pipe sizes, materials of construction, and type of water conveyed by the piping.
 - A listing of valve types, including quick coupling valves.
 - All pertinent information for each type of sprinkler head and/or emitter including:
 - Sprinkler radius (feet).
 - Operating pressure (psi).
 - Flow (gpm or gph).
 - Sprinkler pattern.
 - Manufacturer and model number
 - Indication of purple-colored pipe with recycled water stenciling and quick coupling valves with purple covers where recycled water is used.
 - Drip irrigation information and all other pertinent equipment.
 - Estimates of application rate, acres to be irrigated, and information on pressure requirement, hourly delivery rate, and the wetting pattern of sprinklers.
- Include any **Standard Notes** specified by the District.
- All sites using recycled water must post **clearly visible signs** conforming to Title 22 requirements. Show proposed sign locations on irrigation or signage plans.
 - For many sites, typical locations for signs are at the property line near crosswalks, at driveway entrances, and at outdoor eating areas.
 - For streetscapes (parkways, frontage or backup landscaping), place signs at street corners and entranceways as appropriate to notify passersby. In any case, signs must be placed no further than 1,000 feet apart.

- For medians, a sign should be placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.
- For decorative fountains, ponds, and other water features, **see the *Decorative Fountains, Ponds and Other Water Features*** section on page 22 for more information.
- Add **signature lines** for the Department of Health Services and the District to all irrigation plan sheets, detail sheets, and specification sheets that pertain to the recycled water irrigation system.

Use Site Specifications

The User must submit the following documents for approval:

1. Recycled Water System Operations Manual or the date by which a Recycled Water System Operations Manual will be submitted prior to the delivery of recycled water.
2. Emergency Cross-Connection Response Plan in accordance with the guidelines established by CDPH or the date by which the Emergency Cross-Connection Response Plan will be submitted prior to delivery of recycled water.
3. Irrigation Efficiency Plan
4. Best Management Plan

Installation and Identification

All new piping and appurtenances, whether for a new or retrofitted system, must be installed according to the approved plans and marked per these requirements to clearly distinguish between recycled water and potable water systems.

Identification Tags, Markings, Stickers

Identification tags and stickers must be weatherproof and durable, such as plastic or plastic coated. Recycled water identification tags and stickers must have a purple background with permanent black lettering stating "RECYCLED WATER - DO NOT DRINK" and "AVISO, AGUA IMPURA - NO TOMAR". Potable water identification tags and labels must have a blue background with "POTABLE WATER" and "AGUA PARA TOMAR" in permanent black lettering.

Identification of Buried Recycled Water Lines

The use of purple colored pipe with continuous wording "RECYCLED WATER – DO NOT DRINK" printed on opposite sides of the pipe is the preferred method for identification of new buried recycled water piping (constant-pressure mainlines/intermittent-pressure laterals). Pipe must be laid with wording facing upwards.

An acceptable alternative: all new buried recycled water lines (constant-pressure mainlines/intermittent-pressure laterals) must be identified by continuous lettering on three inch (3") minimum width, purple marking tape with one inch black or white contrasting lettering bearing the continuous wording "RECYCLED WATER – DO NOT DRINK." This tape must run continuously on top of all piping (mainlines and laterals) and must be attached to piping with plastic tape banded around the marking tape and the pipe every five feet on center. Marking tape must extend to all valve boxes and/or vaults and exposed piping.

Identification of Existing Buried Recycled Water Lines

Existing buried piping which will be converted to recycled water use need not be marked unless the piping becomes exposed, such as during installation of new pipeline or maintenance of existing pipe. The exposed section must be marked as indicated above for new piping.

Identification of Above Grade Recycled Water Lines

All above grade recycled water pipelines, whether new or existing, must be labeled with the words "RECYCLED WATER - DO NOT DRINK" and color coded purple to differentiate recycled water pipelines from potable water pipelines. If purple identification tape is used to label the pipe and/or color code the pipe, the tape must be adhesive, permanent, and resistant to environmental conditions. Purple bands may also be painted around the circumference of the pipe at ten-foot intervals for color-coding. Purple PVC pipe is not an acceptable alternative for color-coding because the purple color will fade when exposed to sunlight.

Identification of Recycled Water Lines Inside Structures

Exposed (not buried) constant pressure recycled water irrigation pipelines, such as copper or galvanized pipelines, that might be used in a structure such as a parking garage to route recycled water, must be identified per UPC Appendix J, with the exception that the labeling on the piping must read "CAUTION: RECYCLED WATER – DO NOT DRINK." Intermittent-pressure lines inside a structure must be identified by affixing decals to this piping at ten-foot intervals and wherever the piping changes directions. These decals must be purple in color and must be imprinted in nominal one-inch-high, black, uppercase letters, with the words "RECYCLED WATER – DO NOT DRINK," and must be adhesive, permanent, and resistant to environmental conditions.

Identification of Water Valves

All remote control valves, isolation valves, pressure reducing valves, and strainers for on-site recycled water systems must be installed below grade in a valve box. Green, black, or purple valve boxes and lids are acceptable.

Valve boxes must have an advisory label or "nameplate" permanently molded into or affixed onto the lid with rivets, bolts, etc. Labels must be constructed of a purple weatherproof material with the wording "RECYCLED WATER - DO NOT DRINK - NO TOMAR" permanently stamped or molded into the label.

New and existing isolation valves must be installed in a marked valve box with a recycled water identification tag on the valve operator or, if the valve operator is too deep to reach, at the top of the valve box extension.



Figure 1: Marked Cover and Tag



Figure 2: Example Cover Mark

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New and existing remote control valves must be installed in a marked valve box with a recycled water identification tag on the valve.

New and existing pressure regulating valves and strainers must be installed in a marked valve box with a recycled water identification tag on the valve/strainer.



Figure 3: Typical Tag Example

All valve covers on offsite recycled water transmission mains shall not be interchangeable with potable water covers and shall contain a recognizable inscription cast on the top surface.

Identification of Quick Coupling Valves

New quick coupling valves must be made specifically for recycled water use. New quick coupling valves must be 3/4-inch or one-inch nominal size and of brass construction with a maximum working pressure of 150 psi. The covers on all new quick coupling valves must be permanently attached and made of purple rubber or vinyl with the words "RECYCLED WATER" imprinted on the locking cover. To prevent unauthorized use, the valve must only be operated by a special coupler key for opening and closing the valve. New quick coupling valves must be installed approximately 12 inches from walks, curbs, header boards or paved areas. Quick coupling valves used in the recycled water system must be installed in a valve box, where applicable, and a recycled water identification tag must be permanently attached to the quick coupling valve or the inside of the box so that it is clearly visible when the box lid is removed.

Any wands, sprinkler heads, fittings, or other attachments used in conjunction with the quick coupling valves must be labeled with the words, "RECYCLED WATER - DO NOT DRINK." Attachments used in a recycled water system must not be used in a potable water system.

The installation of quick coupling valves on a potable water system in the vicinity of a recycled water irrigation system must be of a different type to prevent accidental cross-connection or contamination by accidentally interconnecting or interchanging attachments. Keys and attachments must not be interchangeable.

system quick coupling valves must be modified to meet standards for new recycled water quick coupling valves.

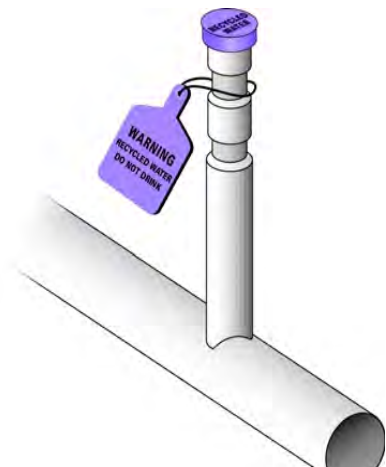


Figure 4: Quick Coupler Marking

Identification of Water Meters, Pumps, Pump Control Valves, Air/Vacuum Relief Valves

All of these recycled water devices must be tagged with a recycled water identification tag.

Identification of Recycled Water Backflow Prevention Devices

If applicable, these devices must be tagged with a recycled water identification tag.

Identification of Sprinkler Heads

Recycled water sprinkler heads shall be marked with a purple ring or other approved method.



Figure 5: Sprinkler Head Ring

Irrigation Controllers

All recycled water system controllers must be identified by affixing a sticker or “nameplate” to the outside of the controller cabinet, the inside of the controller cabinet, or the outside or inside of the controller cabinet enclosure. Stickers or nameplates must be weatherproof, and must contain wording in English and Spanish indicating that the controller is for a recycled water system. New recycled water system controllers must be automatic with multiple start/stop times for any 24 hour period and installed according to the approved plans and local codes.

Identification of Potable Water System Devices

At recycled water use sites where potable water is used, all potable water meters and above grade water devices, such as backflow prevention devices and hose Bibs, must be tagged or labeled with potable water identification tags, or labels.

Advisory Signage

All sites using recycled water must post clearly visible signs conforming to District approval and installed per the locations indicated on the approved plans. Recycled water identification signage must be a minimum of 4” x 8”, however of a reasonable size to be readable to the public.

Irrigation Systems at Fenced Facilities

Advisory signs indicating the use of recycled water must be installed at all entrances to the customer's facility. The District may require additional signing on a case by case basis.

Irrigation Systems at Facilities Not Surrounded by Fences

Advisory signs must be placed where they can be easily seen. To the extent necessary to advise passerby, signs must be posted at the property line near crosswalks, at driveway entrances, at outdoor eating areas, or as otherwise determined by the District. For streetscapes (parkways, frontage or backup landscaping), place signs at street corners as appropriate to notify passerby. Signs must be placed no further than 1,000 feet apart. For medians, a sign is usually placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.

The signs must include the words "IRRIGATED WITH RECYCLED WATER - DO NOT DRINK – NO BEBER." The lettering on the signs must be a minimum of 1/2-inch in height and must be black or white on a purple colored background. Where required for aesthetic or corporate identity purposes, alternate color-coding schemes may be adopted subject to the approval of the District. Consult the District for final approval of signs using alternate color-coding.

Decorative Fountains, Ponds, and Other Water Features

Minimum requirements for water feature signs:

- Minimum wording: “This ____ [*insert type of water feature here, such as Fountain, Pond, etc.*] Uses Recycled Water – Do Not Drink – No Beber.”
- Minimum size: no less than 4 inches high by 8 inches wide.
- Must be permanently, legibly printed and posted in conspicuous places.
- Colors for lettering and background follow the same guidelines as for irrigation signs.

The District must be consulted for final approval of all signs, as well as the number of signs required per water feature and the placement of those signs.

Construction Inspection

The RWQCB requires that the District or a designated representative conduct on-site inspections during the construction phase to ensure that materials, installation and procedures are in accordance with the approved plans, specifications, and all applicable regulations. Accordingly, the recycled water User must notify the District of the schedule for all phases of planning, construction and start up so that inspections can be scheduled. The constant-pressure mainline piping portion of all systems must conform to the requirements of the UPC Sections 103.5.1 through 103.5.4.2.

Required Temporary Connection to Potable Water Service

In order to prevent cross-connections, an irrigation system is usually not allowed to receive recycled water until its site has passed a required cross-connection test. This means that an irrigation system might be supplied with water from a jumper (temporary connection) to an on-site potable water system, or non-treated groundwater system, up to and during the cross-connection test. After passing this test, the jumper must be removed and the system connected to the recycled water meter. Jumpers, providing water from the public recycled water system into the on-site recycled water system, are prohibited at all times. Irrigation systems not needing a temporary potable water source are usually systems where there is no potable water at the site, such as some streetscapes and medians.

Cross-Connection Test

The User must conduct a cross-connection test (and the User's site must pass this test) before connecting the User's recycled water irrigation system to the District's recycled water system at any use-site where both recycled and potable water are present in separate piping systems. This test is to ensure the absolute separation of the recycled and potable water systems. The User must notify the District at least 48 hours prior to the test so that members of the District may be present. The cross-connection test must be done under the supervision of the District's representatives and performed by an AWWA-certified cross-connection control specialist hired by the User. The Site Supervisor must be present at the test. The test must be done with potable water, or non-treated ground water, charging the irrigation system. A written report documenting the test results must be submitted by the certified cross-connection control specialist to the Site Supervisor and the agency responsible for inspection following test completion. Cross-connection test procedures are contained in Appendix E.

Coverage Test

The User is responsible for minimizing overspray, runoff, and ponding from their recycled water irrigation systems – new or converted to recycled water. To ensure that any overspray, runoff, or ponding is in accordance with District rules and regulations, the District will conduct an inspection of the on-site system. After the on-site system begins receiving recycled water, the User or User's representative must contact the District to schedule a coverage test walk through of the system. The User or User's representative must be in attendance and have persons in attendance capable of making system adjustments. If modifications to the system (other than minor adjustments) are required, the User will be notified in writing of the changes

required. Any required modifications to the system must be made in a timely manner. All modifications to the system are the responsibility of the user, and the user must pay all costs associated with such modifications.

Record Drawings

The recycled water User – or the User’s contractor – must prepare record drawings to show the recycled water irrigation system as constructed. These drawings must include all changes in the work constituting departures from the original contract drawings including those involving both constant-pressure and intermittent-pressure lines and appurtenances. All conceptual or major design changes must be approved by the District before implementing the changes in the construction contract. The recycled water irrigation system record drawings must be submitted to the District within ninety (90) days of the site receiving recycled water.

Final Inspection and Authorization to Receive Recycled Water

Before the recycled water irrigation system is connected to recycled water, the District (or its designated representatives) will perform a final inspection to ensure all requirements have been met. This inspection may be coordinated with the cross-connection test. The District's inspector will check to see that the proper equipment was used, all documentation is in order and that all required tags, labels, and signs are in place.

The District must grant final authorization before recycled water can be supplied to the site. Final authorization will be granted when construction has been completed in accordance with approved plans and specifications, all cross-connection tests have been performed, a final on-site inspection has been conducted, and all requirements--including documentation submittals-- have been met satisfactorily. After the Recycled Water Use Authorization is finalized by the District, the Water Service Agreement is approved by the District (if applicable), and all applicable fees have been paid, the District will begin recycled water service.

The State DPH will be forwarded a copy of all test and inspection reports as well as notification that recycled water service has started. During the lifetime of the recycled water system, the District will periodically inspect the recycled water system to ensure compliance with all applicable Rules and Regulations.

Section III - Operation & Maintenance

General Customer Responsibilities

By accepting recycled water service, the customer agrees to comply with and enforce the District Rules and Regulations for recycled water use. It is the User's responsibility to provide surveillance and supervision of its on-site recycled water system in a way that assures compliance at all times with current regulations and the recycled water permit requirements.

Site Supervisor Designation

The User must designate a representative to be the Site Supervisor of the recycled water use site. The Site Supervisor represents the owner, tenant, or property manager as a liaison to the District. The Site Supervisor must have the authority to carry out any requirements of the District.

Site Supervisor Training

The designated Site Supervisor must attend a Site Supervisor Certification Workshop, or District approved equivalent, no later than 15 days prior to receiving recycled water service. Failure to attend the Site Supervisor Certification Workshop may result in the termination of recycled water service.

Changing the Site Supervisor

The User must notify the District immediately of any change in personnel for the Site Supervisor position. Upon a change in personnel, the new Site Supervisor must attend a Site Supervisor Certification Workshop, or District approved equivalent, no later than 15 days prior to the position change. Failure to attend the Site Supervisor Certification Workshop may result in the termination of recycled water service.

Requirements of Site Supervisor Position

- Received training and be able to demonstrate knowledge of the application and maintenance of a recycled water system.
- Be available to the District at all times and have the authority to carry out any requirements of the District.
- Be responsible for the installation, operation and maintenance of the recycled and potable water systems, and for the prevention of potential hazards or potential violations regarding recycled water use.
- Ensure that notification signs at the use site are properly installed and maintained, and that all recycled and potable water facilities are properly labeled, tagged or otherwise identified.
- Be knowledgeable of the provisions contained in Titles 17 and 22 of the California Code of Regulations relating to the safe use of recycled water and maintain accurate records.
- Be aware of, and familiar with, these Rules and Requirements.
- Ensure that all employees of the use site involved with the use of recycled water are instructed in the safe and responsible use and handling of the recycled water.
- Immediately inform the District of any failures, violations and emergencies that occur involving the recycled or potable water systems.

- Ensure that there are no cross-connections made between the potable and recycled water systems. Be familiar with the basic concepts of backflow and cross-connection prevention, system testing, and related emergency procedures, and participate in all cross-connection tests.
- Conduct an annual self-inspection of the use site and provide a written report to the District; and.
- Submit all required Operating Documents.

Personnel Training

It is the responsibility of the User to train all operations personnel so they are familiar with the use of recycled water. Supervisory personnel and the Site Supervisor shall ensure that employees are not using recycled water carelessly or improperly. Any training program should include, but not be limited to, the following:

- Operations personnel must be aware that recycled water, although highly treated, is non-potable. Recycled water may never be used for human consumption.
- Operations personnel must understand that working with recycled water is safe if common sense is used and appropriate regulations are followed.
- Operations personnel must understand that conditions such as ponding, runoff and windblown spray into unapproved areas are not allowed.
- Operations personnel must understand that there is never to be a direct connection between the recycled water system and the potable water system.
- Operations personnel should be familiar with these Rules and Regulations.
- Good personal hygiene must be followed (for example, washing hands after working with recycled water).

Training programs should also instruct personnel in proper procedures for reporting unauthorized discharges, identifying and correcting cross connections, and modifying the system in the event of an earthquake or other disaster.

General System Operations

System Responsibilities

The District is responsible for the operation and maintenance of the recycled water system upstream of the point of connection, including the recycled water meter. Attachment H and Attachment I provide a checklist for distribution system start up and shut down procedures.

The Customer is responsible for maintaining and operating the on-site recycled water system downstream of the recycled water point of connection. This includes the following:

- Obtain all Permits required for the operation and maintenance of the on-site recycled water system.
- Apply recycled water in accordance with the Rules and Regulations.
- Maintain the on-site recycled water system, including signs, markings, and tags in accordance with all District Rules and Regulations.
- Ensure all materials used during the repair and maintenance of the system are approved or recommended for recycled water use.

- Obtain prior authorization from the District before making any modifications to the approved recycled water system.
- Report all violations and emergencies to the appropriate local authority.
- Submit Annual Self-Inspection Report and other required documents.

Site Operating Conditions

The User must comply with the following conditions:

Runoff Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical runoff outside the approved use area.

Ponding Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical ponding within or outside of the approved use area. This does not apply to approved recycled water impoundments.

Windblown Spray Conditions

The irrigation systems must be designed, constructed and operated to minimize to the fullest extent practical windblown spray from leaving the approved use area. The recycled water system must be operated to prevent overspray or windblown spray into unapproved areas.

Unapproved Uses

Use of recycled water for any purposes other than those explicitly described in the District's water recycling permit is strictly prohibited.

Use in Unapproved Areas

The delivery and use of recycled water for any reason, including approved uses, in areas other than those explicitly approved in the current effective user permit and without the prior approval of the District, is strictly prohibited.

Cross-Connections

Cross-connections, as defined by the California Code of Regulations, resulting from the use of recycled water or from the physical presence of a recycled water service, whether by design, construction practice, or system operation, are strictly prohibited.

If any cross-connection is discovered, the User shall immediately turn off the system, notify the District and Implement the Emergency Cross-Connection Response Plan, Attachment B.

Hose Bibs

Hose bibs or other appurtenances that might allow public access to the recycled water system for unapproved use or for cross-connection to the potable water system are strictly prohibited in all areas accessible to the general public. In these areas, only quick-couplers are allowed and must be of a different type than those that may be used on the use site's potable water system.

Hose bibs may be used on the recycled water system in areas that do not allow any public access but must be conspicuously labeled "RECYCLED WATER -- DO NOT DRINK" in both English and Spanish (or any other language determined by the Water Recycling Agency to be in common use in the area), along with the "Do Not Drink" symbol. Workers in these areas must be instructed not to drink from these hose bibbs.

Drinking Fountains and Eating Areas

Drinking fountains located within the approved use area must be protected from contact with recycled water by direct application through irrigation or other approved use. Lack of protection, whether by design, construction practice or system operation, is strictly prohibited.

Periods of Operation

Operation of the User's on-site recycled water system must adhere to the following requirements.

- Irrigation may only occur during periods of least use of the approved area by the general public. This is usually between the hours of 10 p.m. and 6 a.m.; however, areas where public access is generally prohibited or minimized, such as construction dust control, commercial nurseries and freeway landscaping, may be irrigated at such times specifically approved by the District.
- Even though tertiary-treated recycled water is approved for full-body contact by the State Department of Public Health, irrigation of public areas—for example, landscaping “hot-spots” --during times other than 10 pm to 6 am may be performed if the irrigation system is operated manually and is supervised to avoid inadvertently exposing any members of the general public. This provision must be strictly followed.
- Consideration should be given to allow a reasonable dry-out time before the area is to be used by the public.
- Automatic control systems are to be used and programmed to prevent ponding and runoff of recycled water.
- The recycled water system must not be allowed to operate for periods longer than needed to satisfy the landscape water requirements. Recycled water must never be applied at a rate that is greater than the infiltration rate of the soil. Exceptions to this requirement for purposes such as leaching of soil must be specified in the User Agreement.
- Inadvertent public contact with recycled water irrigation spray must always be avoided.

General System Maintenance

Preventive Maintenance

The User must implement a preventive maintenance program that will ensure that the recycled water system always remains in compliance with the Rules and Regulations of the District. As part of a preventive maintenance program, the Site Supervisor should:

- Perform regular inspections of the entire recycled water system including sprinkler heads, drip irrigation system emitters, spray patterns, piping and valves, pumps, storage facilities, lakes, controllers etc. Immediately repair all broken sprinkler heads, faulty spray patterns, leaking pipes or valves, or any other noted condition that violates the recycled water use requirements.
- Check all recycled water identification signs, tags, stickers, and above grade pipe markings for their proper placement and legibility. Replace damaged, unreadable, or missing signs, tags, stickers, and pipe markings.
- Check spray patterns to eliminate ponding, runoff and windblown spray conditions. If evidence of ponding or runoff is noted, affected areas should be indicated on a sketch and sprinkler heads should be adjusted to prevent further ponding or runoff. County Health

regulations require that evidence of mosquitoes breeding within ponding should be noted and immediately eliminated.

- Establish and maintain an accurate record keeping system of all inspections, modifications and repair work.
- Provide for at least annual testing of backflow prevention assemblies by a tester certified by the American Backflow Prevention Association (ABPA) or AWWA. Records of annual tests, repairs and overhauls must be kept by the user with copies forwarded to the District and the County Health Department.

User Site Best Management Practices

The User must submit design plans and a description of Best Management Practices (BMPs) that show that public health and quality of waters of the State will be protected.

1. The plans and description must provide information to ensure the Site using recycled water is designed and operated using appropriate BMPs to comply with the following:
 - a. Application of recycled water at agronomic rates so irrigation does not promote downward migration of pollutants, which could adversely impact the quality of groundwater;
 - b. Fertilizer application is at agronomic rates does not adversely impact waters of the State; and,
 - c. Adequate erosion control so that soil is not released into stormwater runoff and surface waters.

To demonstrate whether irrigation is at agronomic rates, the User must provide information to the District including a tabular comparison of the volume of water required for plant growth in the landscape area to the volume of recycled water (and supplemental water) applied to the area.

To demonstrate whether fertilizer application is at agronomic rates, the User must provide information to the District including a tabular comparison of the amount of fertilizer needed for plant growth in the landscape area to the amount applied to the area. The Site Supervisor must only apply nitrogen fertilizer if levels of nitrogen in the recycled water are not sufficient for plant growth. If levels are not sufficient, the Site Supervisor must calculate how much fertilizer needs to be applied by subtracting the level in recycled water from the level needed for plant growth.

2. Sites using recycled water must be designed and operated using BMPs with the objectives of preventing recycled water spray, mist, or surface flow (except for runoff that is "incidental in nature), from either leaving the Site or reaching:
 - a. Any surface waters located on or adjacent to the Site;
 - b. Areas where the public has access (e.g., dwellings, designated outdoor eating areas, or food handling facilities.); or
 - c. Drinking fountains.
3. Sites must also be designed and operated using BMPs with the objectives of preventing public contact with recycled Water. BMPs used to obtain these objectives must include:

- a. Irrigation with recycled water during periods of minimal human use of the irrigated area and timing of irrigation to allow an adequate dry-out time before the irrigated area will be used by the public
 - b. A BMP Design Plan must be submitted and approved showing locations of public notification signage and tagging.
4. BMPs used to achieve the objectives described above must include:
- a. Use of buffer zones;
 - b. Use of devices that protect drinking water fountains against contact with recycled water spray, mist, or surface flow; and,
 - c. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site.

Irrigation System Modifications

The User must not make any modifications to its on-site recycled water system (or potable system, if it is in close proximity to the recycled system) without the prior approval of the District.

This includes modifications to the approved plans or to an operational system. Detailed plans of any modifications should be submitted to the District and the modifications inspected and approved by the District before their being placed in operation.

However, routine maintenance of the irrigation system, such as pipeline repairs, sprinkler replacement and other similar activities that don't result in a substantial change in either the recycled or potable water systems, or any agreed to operating plans, do not need prior approval by the District.

Converting any piping used for recycled water back to potable water, such as switching from a recycled water system to a backup potable water system, requires prior approval of the District.

Emergency modifications or repairs that must be made by the User to its system in order to prevent contamination, damage or a public health hazard are covered under Operating Problems, below.

Equipment Cleaning

Any device, hose, pipe, meter, valve, tank, pump, truck, etc. which has been used with recycled water may not be used to convey potable water nor attached to the potable water system unless it is cleaned, disinfected and approved by the District per District requirements.

Operating Problems

Emergency Procedures

In case of earthquake, flood, fire, major freeze, nearby construction, or other incident, which could cause damage to the recycled or potable water systems, the Site Supervisor must inspect the domestic and recycled water systems for damage as soon as it is safe to do so. If either system appears damaged, both the domestic and recycled water systems should be shut off at their points of connection. The Site Supervisor must immediately contact the District for further instruction.

Emergency Modifications

Emergency modifications or repairs can be made by the User to the recycled water system without the prior approval of the District to prevent contamination, damage or a public health hazard. As soon as possible after the modification (but within three days), the customer must notify the District of the emergency modifications and file a written report.

Emergency Cross Connection Response Plan

In the event that a backflow incident or cross-connection is suspected or occurs, the following procedures must be implemented immediately:

1. Immediately shut down the reclaimed water supply to the facility at the meter.
2. Immediately notify the District by phone. This notification is to be followed by written notice within 24 hours. The written notice should include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).
3. Keep the potable water system pressurized and post “DO NOT DRINK—NO TOMAR” signs at all potable water fixtures and outlets.
4. The District will notify the Mono County Public Health - Environmental Health Division and State Department of Public Health (DPH) of the reported cross connection.
5. Provide bottled water for employees until the potable water system is deemed safe to drink.
6. Collect water samples from the potable water system and perform a 24-hour bacteriological analysis (as instructed by the District). Water samples should be collected from the closest possible point to the cross-connection.
7. Identify the cause and location(s) of backflow and eliminate the cross-connection(s).
8. Conduct a cross-connection test in coordination with the District and the appropriate health department to verify that all cross-connection(s) have been eliminated.
9. Obtain approval from the District and the appropriate health department before returning the reclaimed water system to service.
10. If the bacteriological analysis conducted in Step 6 is positive, flush the potable water system and disinfect by maintaining a chlorine residual of at least 50 mg/L for 24 hours. Otherwise, proceed to Step 13.
11. Flush the potable water system after the 24 hour disinfection period of Step 10 and perform standard low chlorine test and bacteriological analysis.
12. If the results from Step 11 are acceptable, proceed to Step 13. Otherwise, repeat Step 10 and 11.
13. Obtain final approval from the District and the state and/or local city or county health department before removing signs.

This Emergency Response Plan is Attachment B.

Notification

General Notification Requirements

The Site Supervisor must provide *immediate verbal notification* followed by written notification within 10 business days to the District, Lahontan Water Board, State Department of Health Services and Mono County Public Health Department if any of the following events occur:

- a complaint (or other source of information) concerning recycled water use that may involve illness;
- a system failure that results in an unauthorized discharge of more than 50,000 gallons of tertiary treated recycled water (or 1,000 gallons for any lesser quality recycled water);
- contamination of the potable water system due to a cross-connection;
- a break in the system, low pressure, low flow or poor water quality;
- any failure or cross-connection in his/her recycled or potable water system, whether or not the site supervisor believes a violation has occurred; or
- any violation he/she believes might imminently occur because of any action the User's personnel might take during the operation of the recycled or potable water systems.

If there are any doubts whether a violation has occurred, it is the responsibility of the Site Supervisor to report each occurrence to the District so a decision can be made. It is then the District's responsibility to notify appropriate local governing agencies of any violations.

Contamination of Potable Water

If contamination of the potable water system is suspected or known due to a cross-connection on the user's premises, the user must immediately notify the District. The user is to invoke immediately the **Emergency Cross-Connection Response Plan** described above. In case of contamination of the District potable water system due to a cross-connection on the User's premises, the User must immediately notify the District and the County Health Department.

Unauthorized Discharge

An unauthorized discharge is any amount of recycled water that leaves the designated use site. The Site Supervisor must report to the District any unauthorized discharge of recycled water, at which time the District will specify if a written report is required. In the event of an unauthorized discharge, the Site Supervisor should make every effort to contain the recycled water and prevent it from entering the storm drain. Contact the District for further directions and disposal instructions.

Violations

The District reserves the right to decide if a violation of the conditions under which the User Authorization was issued has occurred. Violations may include non-compliance of any of the following prohibitions: runoff conditions, ponding conditions, windblown spray conditions, leaks or spills resulting from broken or damaged pipelines or appurtenances, unapproved uses, disposal in unapproved areas, cross-connections, unprotected drinking fountains and unauthorized or prohibited use of hose bibbs, whether willful or by accident. Any willful or accidental act of noncompliance with any existing Federal, state or local ordinance, code, law or statute regulating the use of recycled water constitutes a violation.

Corrective Action

If the District's investigation reveals that a violation has occurred on the reuse site, the District must immediately notify the User of the violation and what corrective actions must be taken. It is the responsibility of the User to immediately initiate corrective action to eliminate the violation. If the District believes the violation constitutes a hazard to the public health, the District must immediately stop recycled water service to the User. It will be at the discretion of the District to decide if a violation has been adequately corrected. The District may impose a startup fee upon resumption of service to a User whose service has been terminated, depending on the provisions of the User Agreement.

Enforcement

The District shall enforce all existing regulations concerning the use of recycled water and/or recycled water systems. Regulations concerning the use of any recycled water or recycled water system shall be applied with equal force and effect to any person, persons, or firm, public or private. There will be no deviations from these regulations except upon written authorization of the District, acting within applicable regulations. An appeal procedure may be provided for in the User Agreement or in the District's rules and regulations, and the action of the District will be final.

Causes for Termination of Service

The District reserves the right to revoke a User's Authorization if any or all of the service conditions are not satisfied at all times. Service to a User may be terminated any time if:

- The District's distribution system is not capable of supplying recycled water.
- The quality of the recycled water does not comply with the requirements of the Regulatory Agencies.
- The User's operation does not conform to all applicable regulations, permit requirements and/or the terms of the User's agreement.
- There is nonpayment of service fees and charges by the User.

Section IV -- Compliance Inspection and Enforcement Program

Periodic Site Inspections

Periodic site inspections of the User's recycled water irrigation system are mandated in the Water Code (Section 13523.1(b)(5)). Such inspections include, at a minimum, the visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, lakes, storage facilities, signs, labeling, tags, etc. The Site Supervisor's maintenance records should also be inspected.

The District will provide the Site Supervisor with reports of periodic inspections of the User's system and report all violations to the appropriate Regulatory Agency according to applicable procedures established by law, code, permit or practice.

Periodic inspections are the responsibility of District (the entity holding the general water recycling permit issued by the Regional Board). The District may perform this inspection, or it may be delegated to a third party. The District will also determine the frequency of these inspections, based on local conditions. The District also reserves the right to make unannounced inspections of the use site's facilities, although at reasonable times.

Upon completion of the inspection, a Site Compliance Inspection Report should be signed and dated by both the Site Supervisor and the entity performing the inspection. A Site Compliance Report is presented as Attachment F. The original form should be kept by the inspecting entity with copies going to the Site Supervisor, the District and any required regulatory agency.

Should a cross-connection be discovered during the inspection, the Emergency Cross-Connection Response Plan should be immediately invoked by the Site Supervisor.

Annual Self Inspection Report

The RWQCB requires that the recycled water User conduct an inspection at least once per year while the recycled water system is in use. The results of this inspection must be documented and submitted in a written report. A Site Inspection Report is presented as Attachment G. The Site Supervisor must submit the results of the inspection, along with a description of any corrective actions taken or scheduled. Upon completion, the Site Supervisor must keep a copy of the report for their records and must return the original. Questions on the annual inspection report include the following:

1. Is there evidence of recycled water runoff from the site? Show affected area on a sketch and estimate volume.
2. Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors.
3. Is there evidence of recycled water ponding, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?
4. Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the public that irrigation water is recycled water, which is not suitable for drinking?
5. Is there evidence of leaks or breaks in the irrigation system piping, or tubing?

6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers?
7. Has your designated Site Supervisor changed in the past year?
8. What corrective actions are being taken to correct any problems noted above?

Compliance and Enforcement Report

A. The General Permit requires the District to establish and implement a *Compliance Inspection and Enforcement Program*. The *Compliance Inspection and Enforcement Program* must include but not be limited to a description of the District's:

1. Plan for conducting routine compliance inspections of the Authorized Recycled Water Use Sites, including the name(s) of any parties that will assist the District in conducting the inspections.
2. Process for responding to violations, including ordering corrective action and initiating enforcement action.

B. At a minimum, the Compliance Inspection and Enforcement Program must be consistent with Water Code section 13523.1.

At a minimum, the District's *Compliance Inspection and Enforcement Program* must include the following requirements:

1. Inspections include review of the Site Supervisor's maintenance records and visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, surface waters, storage facilities, signs, labeling, tags, etc.;
2. A Site compliance inspection report must be prepared for each inspection. The inspection report must be signed and dated by both the Site Supervisor and the inspector. At a minimum, copies of the reports must be maintained on file by the Site Supervisor, District, and inspecting entity if different from the District;
3. The inspector must immediately notify the Site Supervisor of violation(s) identified during inspections and what corrective actions must be taken;
4. Describe enforcement actions that will be employed for Users that fail to immediately initiate corrective action to eliminate violation(s). Such enforcement actions may include, but not be limited to:
 - Immediately stopping recycled water service to a use Site where a violation has been identified and the violation is believed to constitute a hazard to the public health or threat to water quality.
 - Termination of service to a User who uses, transports, or stores such water in violation of the District's *Requirements for Recycled Water Users*.

The Compliance and Enforcement Reports are bound as Attachment F to these Rules and Regulations.

Section V -- Monitoring and Reporting Program

This document is prepared to satisfy the requirements of the General Permit, General Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Treated Water, Monitoring and Reporting Program.

Monitoring

Drinking Water Supply Monitoring

For each semi-annual period (January -June; July -December), the District shall submit a report to the Lahontan Water Board providing the results of California Department of Public Health-specified drinking water supply monitoring for municipal supply wells located within a half-mile of any authorized recycled water use site having received recycled water within the previous six months. Groundwater elevations at the time of sampling shall be provided for each well. The reports shall be included with the quarterly monitoring reports providing results from the second and fourth quarterly monitoring periods, as specified in Quarterly Reports, below.

Recycled Water Flow Monitoring

Mammoth Community Water District (District) shall record the total volume, in million gallons, and the average flow rate, in million gallons per day (mgd), of recycled water provided by the District to each Authorized Water Use site. This information shall be recorded and reported for each calendar month.

Agronomic Application Rate Monitoring

1. For each calendar month, the District shall record and provide a tabular comparison of the:
 - a. volume of water required for plant growth in each irrigated area;
 - b. volume of recycled water (and supplemental water) applied to each irrigated area; and
 - c. number of acres for each irrigated area.
2. For each calendar month, the District shall record, and provide a tabular comparison of the:
 - a. amount of nitrogen (N) needed for plant growth in each landscape and agricultural area;
 - b. total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
 - c. number of acres for each area.

Recycled Water Quality Monitoring

Samples of the recycled water following tertiary treatment and leaving the Treatment Plant for reuse by permitted users shall be collected and analyzed to determine the magnitude of the constituents and parameters listed in Table 7.

Table 7: Monitoring Constituents and Parameters

Parameter	Units	Type	Minimum Frequency
Turbidity ¹	NTU	Recorder	Continuous
Total chlorine residual	mg/L	Recorder	Continuous
Modal contact time ²	minutes	Calculated	Daily
CT value ³	mq-minutes/L	Calculated	Daily
Total Coliform	MPN/100mL	Grab	Daily
Kieldhahl Nitrogen	mq/L	Composite	Weekly
Ammonia Nitrogen	mq/L	Composite	Weekly
Nitrate Nitrogen	mq/L	Composite	Weekly
Total Dissolved Solids	mg/L	Composite	Monthly
Sulfate	mq/L	Composite	Monthly
Chloride	mg/L	Composite	Monthly
Total Trihalomethane	u/L	Grab	Quarterly
n-nitrosodimethylamine	u/L	Grab	Quarterly
Priority Pollutants, excluding asbestos (Appendix A to 40CFR part 423)	As Specified	Grab	Semi Annually

¹ For each 24-hour period, record and report the following: average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.

² The modal contact time at the highest and lowest flows must be recorded and reported for each 24-hour period **where** there is production of disinfected tertiary recycled water. The "modal contact time" is the amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber. For the purpose of this determination, modal contact time shall be derived from a predetermined plot correlating modal contact times to varying flow conditions. (CCR, title 22, sec 60301.600)

³ The lowest CT value must be calculated for each 24-hour period. CT (mg-minutes per liter) = chlorine residual (mg/L) x modal contact time (minutes). To calculate the lowest value, first record the following data for the 24-hour period:

- a. Modal contact time under highest flow and corresponding total chlorine residual at that time.
- b. Lowest total chlorine residual and corresponding modal contact time.
- c. Highest total chlorine residual and corresponding modal contact time.
- d. Modal contact time under lowest flow and corresponding total chlorine residual at that time. Next, calculate CT values for each of the four conditions, above. The lowest of the four calculated CT values is the lowest CT for the period.

Quarterly Recycled Water Use Monitoring

The District shall record the following information each quarter in accordance with Water Code Section 13523.1 (b) (4):

1. The total number of sites that received recycled water during the quarter.
2. A list of all recycled water use sites. For each site, the list must include:
 - a. site name
 - b. site location
 - c. name of underlying hydrologic area
 - d. user name
 - e. type of use
 - f. site area (acres)
 - g. date of District recycled water use approval
3. A map of suitable scale showing the boundary of the Permit Area and showing the approved recycled water use site locations.

Inspections and Enforcement Monitoring

1. The District shall provide in its annual report (see Reporting, below) an inspection schedule for all recycled water use facilities. The inspection schedule shall document the date of each facility's prior inspection and its respective compliance status. Any facility with a reported incidence of noncompliance in its most recent inspection report shall be re-inspected no later than one year from its prior inspection. Any facility that was in compliance during its most recent inspection shall be scheduled for a re-inspection no later than three years from its prior inspection.
2. The District shall record and report on a quarterly basis all recycled water use sites inspected during each respective quarter. The list of sites inspected must include the following information for each recycled water use site:
 - a. Date of inspection, name of recycled water use site, user name, and type of use.
 - b. A description of all noted violations.
 - c. The date compliance was achieved and the respective corrective action taken, if applicable.
 - d. A description of enforcement action taken (if any), including any schedule for achieving compliance.
 - e. Date of prior compliance inspection.
3. The District shall inspect every month all signage that informs the public that recycled water is currently being used for irrigation purposes at each irrigation recycled water use facility. Maintenance of this signage is required. The results of this inspection must be reported by the District in its quarterly report.
4. The District shall inspect every month all Best Management Practices (BMPs) in place to prevent contamination of potable water supplies (including groundwater). The results of this inspection and measures taken to maintain and repair these BMPs must be reported by the District in its quarterly report.

5. The District shall inspect the recycled water distribution system annually for cross connections with the potable water supply.
6. The District shall annually pressure test the recycled water distribution system for leaks or drops in pressure.

Operation and Maintenance Monitoring

The District shall record and maintain records of all actions and analytical results necessary to demonstrate compliance with California Department of Public Health conditions identified in the General Permit, and to document any operational problems and maintenance activities with the recycled water treatment facilities, distribution system, and user sites. The District shall submit a brief summary of its findings to the Lahontan Water Board with each quarterly monitoring report. This summary shall discuss the elements listed below.

1. All modifications or additions to the recycled water treatment facilities, distribution systems, and user sites.
2. Test results of all backflow prevention devices at each recycled water use site.
3. The results of cross connection inspections at each authorized recycled water use site.
4. Test results of the District's recycled water distribution system pressure testing.
5. Any non-routine maintenance conducted on the recycled water treatment facilities, distribution system, and user systems.
6. Any major problems occurring to the recycled water treatment facilities, distribution system, and user systems.
7. Calibration results of any recycled water flow measuring devices.

Reporting

General Provisions

1. The District shall comply with the General Permit Monitoring and Reporting Program.
2. The District has submitted to the Water Board a Sampling and Analysis Plan (SAP). The SAP includes a detailed description of procedures and techniques for:
 - a. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
 - b. Sample preservation and shipment;
 - c. Analytical procedures;
 - d. Chain of custody control; and
 - e. Quality assurance/quality control (QAIQC).

Quarterly Reports

Quarterly monitoring reports including the preceding information shall be submitted to Water Board by the first day of the third month following each quarterly monitoring period. (Water Code, Section 13523.1, subd. (b)(4).)

Quarterly monitoring periods are defined as follows:

First Quarter January 1 -March 31

Second Quarter April 1 -June 30

Third Quarter July 1 -September 30

Fourth Quarter October 1 -December 31

Annual Report

The District shall submit an annual report to the Lahontan Water Board with the information listed:

1. Documentation of the District's compliance with the General Permit;
2. The compliance record and the corrective actions taken or planned, which are necessary to bring the District into full compliance with the General Water Recycling Requirements; and
3. The District's time schedule for completing corrective actions needed to achieve compliance.

General Provisions for Monitoring and Reporting

Sampling and Analysis

1. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - a. Standard Methods for the Examination of Water and Wastewater
 - b. Methods for Chemical Analysis of Water and Wastes, EPA
2. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
3. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
4. The District shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
5. The District shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the operational log book described below.
6. A sample is defined as an individual sample collected in fewer than 15 minutes.
7. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of

sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

Operational Requirements

Sample Results

Pursuant to California Water Code Section 13267(b), the District shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years.

This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the Waste Water Treatment Plant facility. All monitoring and reporting data shall be recorded in a permanent log book.

Reporting

1. For every item where the requirements are not met, the District shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
2. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
3. The District shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
4. Monitoring reports shall be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.
5. Monitoring reports shall also include the following:
 - a. Name and telephone number of individual who can answer questions about the report.
 - b. The Monitoring and Reporting Program Number.
 - c. WDID Number

Noncompliance

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.

Appendix C

Section VI – Trucked Recycled Water Use

Disinfected secondary 2.2 recycled water (or tertiary recycled water) may be used via permitted truck users for the following uses:

- Backfill consolidation around non-potable piping,
- Soil compaction,
- Mixing concrete,
- Dust control on roads and streets,
- Cleaning roads, sidewalks and outdoor work areas, and
- Restricted access (Freeway) landscape irrigation (no food crops, parks & playgrounds, school yards, residential landscaping, etc.)





The trucked recycled water program rules and requirements are covered by a separate document entitled “MCWD Trucked Recycled Water Program Requirements”.

Appendix C

Attachment A

Town of Mammoth Lakes

Explanation

-  MCWD Boundary
-  Urban Growth Boundary
-  National Forest Lands
-  National Forest Lands Outside the Municipal Boundary

PARCELS

1. Be Shape Parcel
2. Mammoth Creek Park
3. Water District
4. Foundation Parcel

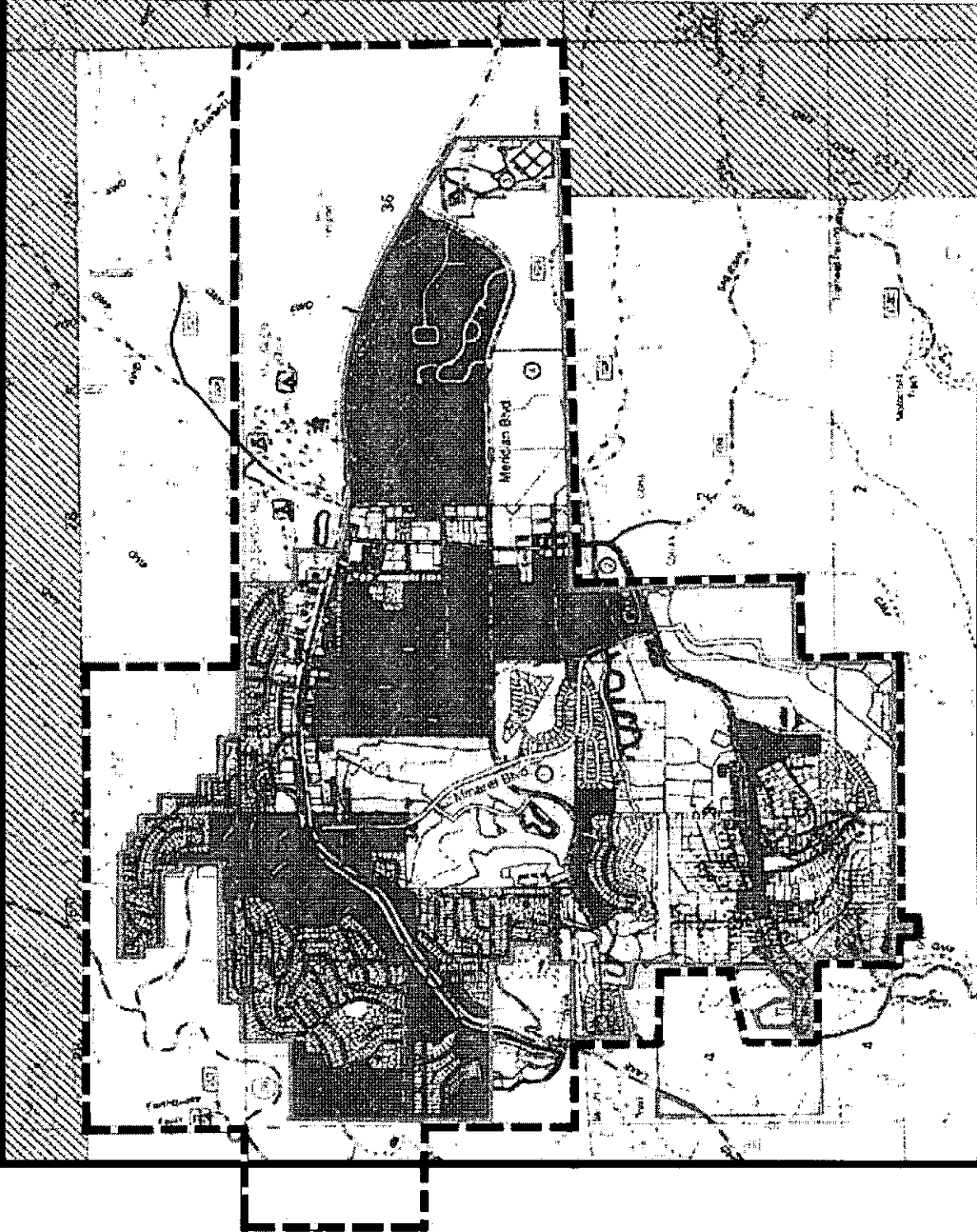


EXHIBIT 2-2

MCWD Service Area

MCWD PROPOSED RECYCLED WATER PROJECT





MCWD Recycled Water Distribution System Cross Connection Emergency Response Plan Mammoth Community Water District Recycled Water Program

In the event that a backflow incident or cross-connection is suspected or occurs, the following procedures must be implemented immediately:

1. Immediately shut down the reclaimed water supply to the facility.
2. Immediately notify the District by phone. This notification is to be followed by written notice within 24 hours. The written notice should include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).

Mammoth Community Water District 760-934-2596
P.O. Box 597
Mammoth Lakes, CA 93546
3. Keep the potable water system pressurized and post “DO NOT DRINK—NO TOMAR” signs at all potable water fixtures and outlets.
4. The District will notify the Mono County Public Health - Environmental Health Division and State Department of Public Health (DPH) of the reported cross connection.
5. Provide bottled water for employees until the potable water system is deemed safe to drink.
6. Collect water samples from the potable water system and perform a 24-hour bacteriological analysis (as instructed by the District). Water samples should be collected from the closest possible point to the cross-connection.
7. Identify the cause and location(s) of backflow and eliminate the cross-connection(s).
8. Conduct a cross-connection test in coordination with the District and the appropriate health department to verify that all cross-connection(s) have been eliminated.
9. Obtain approval from the District and the appropriate health department before returning the reclaimed water system to service.
10. If the bacteriological analysis conducted in Step 6 is positive, flush the potable water system and disinfect by maintaining a chlorine residual of at least 50 mg/L for 24 hours. Otherwise, proceed to Step 13.
11. Flush the potable water system after the 24 hour disinfection period of Step 10 and perform standard low chlorine test and bacteriological analysis.
12. If the results from Step 11 are acceptable, proceed to Step 13. Otherwise, repeat Step 10 and 11.
13. Obtain final approval from the District and the state and/or local city or county health department before removing signs.



Appendix C

Attachment C

MCWD-RWP SERVICE NUMBER _____

Application For Recycled Water Service

Mammoth Community Water District Recycled Water Program

USE CLASSIFICATION

IRRIGATION

CONSTRUCTION

Property Information

SITE NAME _____

SITE ADDRESS _____ CITY _____ ZIP _____

SITE FACILITIES MANAGER _____

Site Owner

NAME _____ CITY _____ ZIP _____

CONTACT NAME _____ TITLE _____

ADDRESS _____ CITY _____ ZIP _____

PHONE _____ FAX _____ EMAIL _____

Design Contact

DESIGNER _____

CONTACT NAME _____ TITLE _____

PHONE _____ FAX _____ EMAIL _____

Site Supervisor

NAME _____

ORGANIZATION _____ ADDRESS _____

CITY _____ ZIP _____

PHONE _____ CELL PHONE _____ FAX _____ EMAIL _____

Application Checklist

DOCUMENTS:	SUBMITTED	APPROVED		YES	NO
ENGINEERING REPORT	<input type="checkbox"/>	<input type="checkbox"/>	RETROFIT	<input type="checkbox"/>	<input type="checkbox"/>
OPERATIONS AND MAINTENANCE PLAN	<input type="checkbox"/>	<input type="checkbox"/>	NEW DEVELOPMENT	<input type="checkbox"/>	<input type="checkbox"/>
IRRIGATION MANAGEMENT PLAN	<input type="checkbox"/>	<input type="checkbox"/>	OUTDOOR EATING AREAS / PICNIC TABLES	<input type="checkbox"/>	<input type="checkbox"/>
O&M STAFF TRAINING VERIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	DRINKING FOUNTAINS	<input type="checkbox"/>	<input type="checkbox"/>
SITE SIGNAGE PLAN	<input type="checkbox"/>	<input type="checkbox"/>	COVERAGE TEST APPROVED	<input type="checkbox"/>	<input type="checkbox"/>
MONITORING & INSPECTION PLAN	<input type="checkbox"/>	<input type="checkbox"/>	BACKFLOW TEST APPROVED	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY CROSS-CONNECTION PLAN	<input type="checkbox"/>	<input type="checkbox"/>	FINAL SITE INSPECTION APPROVED	<input type="checkbox"/>	<input type="checkbox"/>
DATE SITE SUPERVISOR TRAINING COMPLETED _____			NO. OF WELLS WITHIN 100 FEET OF SITE _____		

COMMENTS: _____

By submitting this Application for Recycled Water Use, the applicant agrees to comply with Uniform Statewide Reclamation Criteria and the District's Requirements for Recycled Water Use.

SITE SUPERVISOR SIGNATURE _____

DATE _____

PERMIT SERVICE NUMBER ISSUED BY _____

DATE _____



Appendix C

Attachment G

MCWD-RWP SERVICE NUMBER _____

Site Compliance Inspection Report

Mammoth Community Water District Recycled Water Program

INSPECTION TYPE: INITIAL ANNUAL PERIODIC

State Water Resources Control Board Order WQ 2016-0068-DDW requires the Mammoth Community Water District to conduct routine compliance inspections of all Authorized Recycled Water User Sites. The Inspector must immediately notify the Site Inspector of violation(s) identified during inspections and what corrective actions must be taken. Copies of the reports must be maintained on file by the Site Supervisor and the District. If you have questions regarding this mandatory report, please contact the District at (760) 934-2596.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Are Site Supervisor's maintenance records available and adequate? Are required documents, including Program Rules and Regulations, Irrigation Management Plan, Operations and Maintenance Plan, Cross-Connection Test Reports and Emergency Cross-Connection Response Plan on-site and available to O & M personnel?
<input type="checkbox"/>	<input type="checkbox"/>	Does the Site Supervisor maintain evidence that all O&M staff have received sufficient training in accordance to Section III of the Program Rules and Regulations?
<input type="checkbox"/>	<input type="checkbox"/>	Are advisory signs, labeling and tags in good condition and posted consistent with Department of Public Health (DPH) approved plans to inform public that water is recycled?
<input type="checkbox"/>	<input type="checkbox"/>	Are Best Management Practices in effect at all back-flow prevention devices, pump rooms, exposed piping, valves, hose bibs, pressure reducing stations, points of connections, sprinklers, controllers, surface waters, storage facilities, outdoor eating areas, drinking fountains, etc.
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of ponding of recycled water, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of recycled water runoff from the site? If yes, please estimate the volume, and sketch affected area on the back of this sheet.
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of recycled water over spray to areas accessible to the public?
<input type="checkbox"/>	<input type="checkbox"/>	Is there an odor of wastewater origin within the irrigation site? If yes, describe apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odor.
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of leaks or breaks in the irrigation system pipelines, valves or tubing?
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of plugged, broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers on the site?
<input type="checkbox"/>	<input type="checkbox"/>	In the past year or since the last site inspection report, have there been any modifications of the piping for the recycled water system? If so, describe modifications below.
<input type="checkbox"/>	<input type="checkbox"/>	Has the designated site Supervisor changed? If so, provide name and training verification of new Site Supervisor below.

What corrective actions are being taken to correct any problems or violations noted above?

Users that fail to initiate corrective action to eliminate violation(s) in a timely manner may be subject to termination of recycled water service. If a violation is believed to constitute a hazard to the public health or threat to water quality, recycled water service may be terminated immediately.

SITE SUPERVISOR SIGNATURE

DATE

DISTRICT INSPECTOR SIGNATURE

DATE



Appendix C

Attachment H

MCWD-RWP SERVICE NUMBER _____

Site Inspection Report

Mammoth Community Water District Recycled Water Program

INSPECTION TYPE: INITIAL ANNUAL

Mammoth Community Water District Recycled Water Program requires a certified Site Supervisor to complete and submit a Site Inspection Report annually. Site Supervisors are trained and certified by MCWD. If you have questions regarding training or this mandatory report, please contact the District at (760) 934-2596. Please complete and return this report each year prior to recycled water delivery.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Are there advisory signs and tags in good condition and posted consistent with Department of Public Health (DPH) approved plans to inform public that water is recycled? If not describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of recycled water runoff from the site? If yes, please estimate the volume, and sketch affected area on the back of this sheet. Also, describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there an odor of wastewater origin within the irrigation site? If yes, describe apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odor. Describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of ponding of recycled water, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water? If yes, describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of leaks or breaks in the irrigation system pipelines, valves or tubing? If yes, describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of plugged, broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers on the site? Describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of overspray into areas accessible to the public? If yes, describe actions taken to correct:
<input type="checkbox"/>	<input type="checkbox"/>	In the past year or since the last annual site inspection report, have there been any modifications of the piping for the recycled water system? Describe modifications:

I certify that the information in this report, to the best of my knowledge, is correct and true.

SITE SUPERVISOR SIGNATURE			DATE OF INSPECTION		
MAILING ADDRESS		CITY STATE		ZIP	
OFFICE PHONE		CELL PHONE		EMAIL	
CURRENT OWNER:			CURRENT FACILITIES / PROPERTY MANAGER:		
CONTACT NAME		TITLE	CONTACT NAME		TITLE
COMPANY NAME			COMPANY NAME		
MAILING ADDRESS			MAILING ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP
OFFICE PHONE	CELL PHONE	EMAIL	OFFICE PHONE	CELL PHONE	EMAIL

Mail or fax forms to Mammoth Community Water District, PO Box 597 Mammoth Lakes, CA 93546; Fax 760-934-2143



Appendix C

Reporting Schedule

Attachment K

Mammoth Community Water District Recycled Water Program
P.O. Box 597, 1315 Meridian Boulevard, Mammoth Lakes, CA
Board Order No. R6V-2009-0035; WDID No. 6B260903003

Monitoring and Reporting Program No. R6V-2009-0035 requires the Mammoth Community Water District to submit quarterly, semi-annual and annual reports to the Lahontan Water Board. Quarterly reports shall be submitted on the first day of the third month following each quarterly monitoring period and shall include semi-annual and annual reports as follows:

First Quarter	January 1-March 31	Submittal Due:	June 1
Second Quarter	April 1 – June 30		September 1 (include semi-annual report)
Third Quarter	July 1 – September 30		December 1
Fourth Quarter	October 1 – December 31		March 1 (include semi-annual and annual reports)

Quarterly Reports shall include:

- Daily Report Data:
 - Turbidity NTU
 - Total Chlorine Residual mg/L
 - Modal Contact Time minutes
 - CT value mg-minutes/L
 - Total Coliform MPN/100m
- Weekly Report Data:
 - Kjeldahl Nitrogen mg/L
 - Ammonia Nitrogen mg/L
 - Nitrate Nitrogen mg/L
- Monthly Report Data:
 - Total Dissolved Solids mg/L
 - Sulfate mg/L
 - Chloride mg/L
 - Flow Monitoring
 - Agronomic Rate Water Volume
 - Nitrogen Demand / Supply
- Quarterly Report Data:
 - Total Trihalomethane ug/L
 - n-nitrosodimethylamine ug/L

REPORT SUBMITTAL

QUARTERLY
 SEMI-ANNUAL
 ANNUAL

REPORTING MONTHS: _____

SUBMITTAL DUE DATE: _____

SUBMITTED BY: _____

 (PRINT NAME)

SUBMITTAL DATE: _____

- Recycled Water Use Monitoring including:
 - Total number of sites that received recycled water during the quarter
 - List of recycled water use sites, including:
 - Site name
 - Location
 - Name of underlying hydrologic area
 - User name
 - Type of use
 - Site area
 - Date of recycled water use approval
 - Map showing permit area and recycled water use locations
- Recycled Water Use Site Inspection Record including:
 - Date of Inspection
 - Name of Recycled Water Use Site, User Name, Type of Use
 - Description of all noted violations
 - Date of Compliance
 - Description of enforcement action taken, schedule of achieving compliance
 - Date of prior compliance inspection
- Monthly Signage inspection Reports (for each user)
- Monthly Best Management Reports (for each user)
- Operation and Maintenance Report including:
 - All modifications, additions to the recycled water treatment facilities, distribution systems, and user sites
 - Test results of all backflow prevention devices at each recycled water use site
 - Results of cross connection inspections at each authorized recycled water use site
 - Test results of District's recycled water distribution system pressure testing
 - Non-routine maintenance conducted on the recycled water treatment facilities, distribution system and user systems
 - Major problems occurring to the recycled water treatment facilities, distribution system and user systems
 - Calibration results of any recycled water flow measuring devices

REPORT COMMENTS:

- Semi-Annual Report Data
 - Priority Pollutants (excluding asbestos)
 - For municipal supply wells within half-mile of recycled water user site:
 - CDPH water supply monitoring results
 - Groundwater elevations
- Annual Report Data
 - Documentation of District's compliance with Board Order
 - Compliance record and corrective actions schedule to bring District in full compliance with Master Permit
 - District's time schedule for completing corrective action
 - Inspection Schedule for all recycled water use facilities

Appendix D

(Trucked Recycled Water Program Requirements)

Appendix D

MCWD Trucked Recycled Water Program Requirements

Mammoth Community Water District (MCWD) produces and distributes Title 22 disinfected secondary 2.2 treated recycled water under the authority of the State Water Quality Resources Control Board Order WQ 2016-0068-DDW (General Use Permit).



The General Use Permit authorizes trucked recycled water use for Users who agree to comply with state requirements for recycled water use and who have obtained a Trucked Recycled Water Use Permit from MCWD.

Owners and operators of tanker trucks and truck trailers are eligible to apply for a Trucked Recycled Water Use Permit. A truck owner or truck operator with a valid Trucked Recycled Water Use Permit is a recycled water "User."

The process for obtaining a permit for trucked recycled water use is outlined in Table 1 on Page 4 of these Requirements. A Trucked Recycled Water Use Permit does not entitle a User to a specific quantity of recycled water. Supply of trucked recycled water from the Wastewater Treatment Plant (WWTP) is subject to availability as determined by MCWD.

General Program Requirements

1. **MCWD's recycled water may be used only within MCWD's recycled water service area.** A map of MCWD's recycled water service area is shown on Page 5 of these Guidelines.
2. Recycled water may be transported only by tank trucks or truck trailers in compliance with requirements of California Code of Regulations Title 17 and 22.
3. Individual owners of tanker trucks and truck trailers must obtain a "Trucked Recycled Water Use Permit" to be authorized as a recycled water User. A User with a valid permit may access the recycled water truck fill station at 1315 Meridian Boulevard during regular business hours.
4. Each truck driver is required to carry a copy of a valid "Trucked Recycled Water Use Permit" and make the permit available for inspection upon request.
5. Trucked Recycled Water Use Permit applications may be obtained from the MCWD Operations Superintendent by calling 760-934-2596 ext. 230. Trucked Recycled Water Use Permits expire on December 31 of each year and must be renewed annually.
6. Information required on the Trucked Recycled Water Use Permit application includes:
 - Name of trucking company or operator;
 - Application method (tank hose or spray);
 - Type of use (soil compaction, dust suppression, landscape irrigation); and,
 - Identification of an emergency contact person (Recycled Water Supervisor*).

**The emergency contact person is the designated Recycled Water Supervisor for the User. This person will be contacted by MCWD when questions arise pertaining to adherence to the recycled water use regulations. The Recycled Water Supervisor must have knowledge of all truck activities and the specific uses of recycled water by each truck. This person must also be available to respond to emergencies or calls for assistance from MCWD.*

7. Trucked Recycled Water Users must transport and distribute recycled water according to the conditions specified by the MCWD Trucked Recycled Water Use Permit and Program Guidelines.
8. The Trucked Recycled Water User is responsible for compliance with all requirements and restrictions specified by the California Department of Public Health, California Code of Regulations Titles 17 and 22. Truck storage tanks for the storage and transport of recycled water must comply with all federal, state of California and local requirements for the storage and transport of water that is to be reused.

Appendix D

MCWD Trucked Recycled Water Program Requirements

9. All trucks that transport recycled water must have a minimum of three (3) purple signs no less than 18 inches wide and 12 inches tall. These signs must be attached to each side of the truck tank as well as to the back. The signs must say “Reclaimed Water – Do Not Drink” in both English and Spanish. Each sign must display an international symbol for “Do Not Drink.”

10. Tank trucks and truck trailers must be equipped with:

- A 2.5” fire type connection with hose;
- A state-compliant air gap on the fill pipe;
- Water-tight valves and fittings;
- Appropriate signage; and,
- Trucked Recycled Water Use Permit.



11. For each pick up of recycled water at the WWTP, Users are required to enter information into the Trucked Recycled Water Release Log. Logged information includes the truck license number, how much water was collected, the address of the site where recycled water will be applied and the quantity applied at each site.

12. Improper use of recycled water, as well as erroneous entries in the Recycled Water Release Log, could result in repeal of the Trucked Recycled Water Use Permit.

13. MCWD will verify the information provided in the log through random phone calls to the Recycled Water Supervisor or by unannounced site inspections.

14. In the event of an emergency concerning the truck fill station pipes or valves, (spillage, leaks, etc.), the truck driver needs to call MCWD’s front desk at 760-934-2596. Emergency calls after regular business hours will be forwarded to on-call personnel.

15. Prior to recycled water delivery to a site, the User must confirm that any site with a potable water service connection has an approved backflow device with a valid test report on file.

16. The User must notify workers and/or the public when recycled water is used at a site and tell them that they are not to drink recycled water or use it for food preparation.

17. Trucked Recycled Water Users are required to install, maintain, and keep in place while using recycled water adequate purple signage to inform the public of on-site recycled water use. Typical locations for signage would be at site entrances. Signs must be no less than 4 inches wide by 8 inches tall and include the following wording: “Recycled Water – Do Not Drink” in English and in Spanish. Each sign must display an international symbol for “Do Not Drink.” Signs must be placed no further than 1,000 feet apart.



18. Trucked Recycled Water Users shall permit MCWD or its authorized agents to access and inspect recycled water use sites, including facilities, equipment, practices and operations regulated by the Trucked Recycled Water Program.

19. Periodic inspections of the distribution sites will be performed by MCWD personnel to verify compliance with User requirements. A sample site inspection form is provided on Page 6 of these Guidelines.

20. MCWD reserves the right to discontinue supplying recycled water to owners and operators who violate the conditions of the Trucked Recycled Water Use Permit.

Appendix D

Trucked Recycled Water Use Requirements

1. Recycled water shall not be used as a domestic or animal water supply.
2. Recycled water must not be introduced into any permanent piping system and no connection shall be made between the truck tank and any part of a potable water system.
3. Prior to recycled water delivery to a site, the User must confirm that any site with a potable water service connection has an approved backflow device with a valid test report on file.
4. Precautions should be taken to avoid food coming in contact with recycled water while the use site is still wet. Recycled water Users should apply hand sanitizer or wash their hands with soap and potable water after working with recycled water and especially before eating or smoking.
5. The treatment, storage, distribution, or reuse of recycled water shall not create a nuisance as defined in Section 13050 of the California Water Code.
6. Recycled water shall not be applied where it could contact or enter passing vehicles, buildings, areas where food is handled or eaten, or storm drains.
7. No recycled water shall be applied to irrigation areas during periods when soils are saturated.
8. Recycled water shall not be allowed to escape from the designated use area(s) as surface flow that would either pond and/or enter waters of the state. Misuse of the recycled water that results in an unauthorized discharge to Mammoth Creek could result in loss of recycled water privileges and/or fines by the State Water Resources Control Board.
9. Recycled water shall not be allowed to escape from the designated use area(s) as an airborne spray that would visibly wet vegetation or any other surface. Spray or runoff shall not enter a dwelling or food handling facility, and shall not contact any drinking water fountain, unless specifically protected with a shielding device. The spray or runoff shall not enter any place where the public may be present during irrigation.
10. Recycled water shall not be applied in groundwater recharge and wellhead protection areas (so designated by local agencies). No distribution of recycled water shall take place within 50 feet of any domestic water supply well. No impoundment of recycled water shall occur within 100 feet of a domestic water supply well.
11. The use of recycled water shall not cause rising groundwater discharging to surface waters to impair surface water quality objectives or beneficial uses.
12. The incidental discharge of recycled water to waters of the State shall not unreasonably affect present and anticipated beneficial uses of water, and not result in water quality less than that prescribed in water quality control plans or policies.
13. No recycled water shall be discharged from treatment facilities, irrigation holding tanks, storage ponds, or other containment, other than for permitted reuse in accordance with State Water Resources Control Board Order WQ 2016-0068-DDW.
14. All above ground equipment, including pumps, piping, storage reservoirs, and valves, which may at any time contain recycled water shall be adequately and clearly identified with appropriate warning signs. Purple irrigation pipe shall be used for all recycled pipe installations. The User shall make all necessary provisions to inform the public that the liquid being distributed is recycled water and is unfit for human consumption. Signs must be of a size no less than 4 inches high by 8 inches wide that include the following wording: "RECYCLED WATER – DO NOT DRINK" and display an international symbol.
15. All recycled water storage ponds shall be adequately protected from erosion, washout, and flooding from a 24-hour rainfall event having a predicted frequency of once in 20 years.

Appendix D

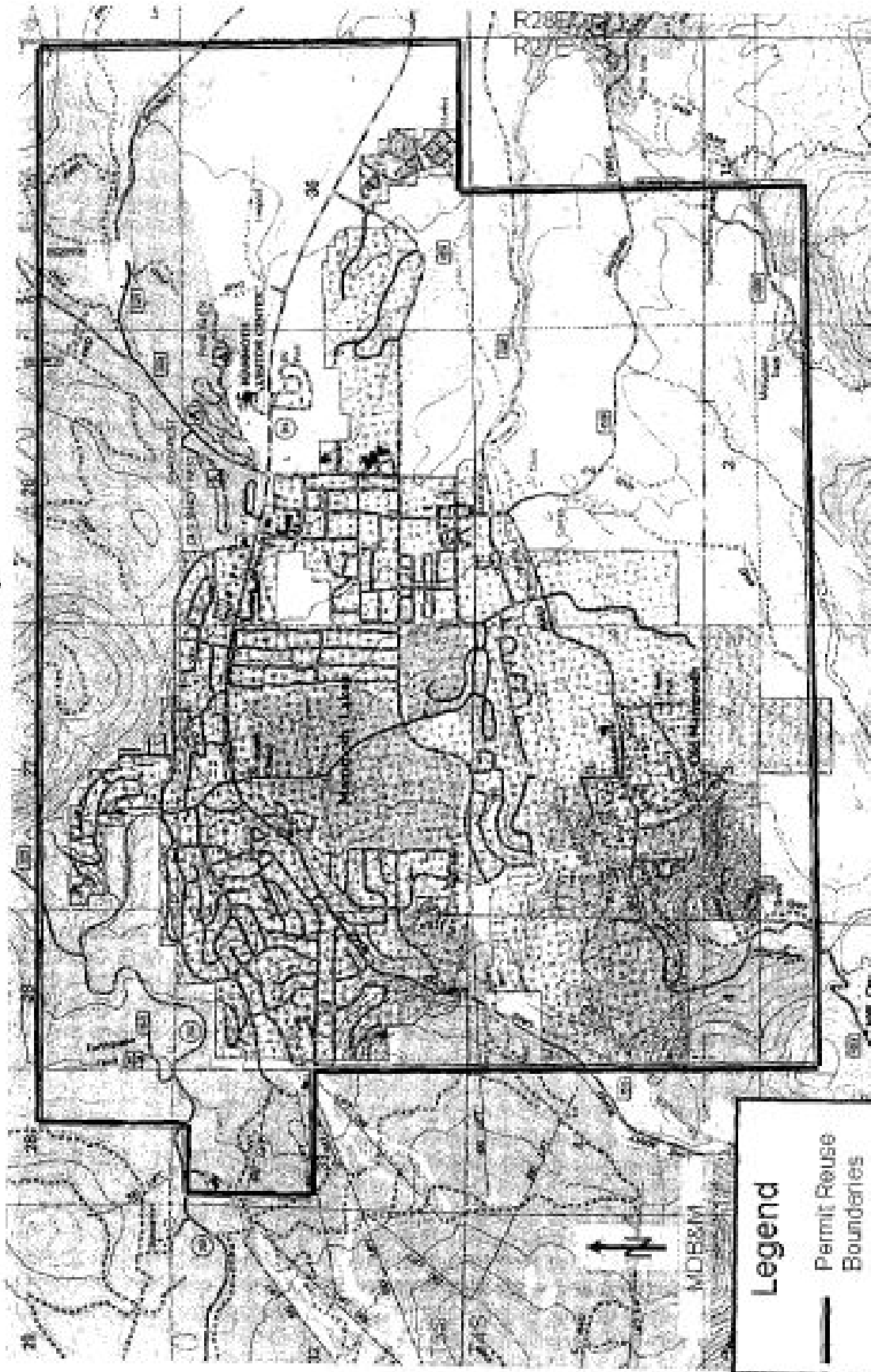
Table 1. Permit Process for Trucked Recycled Water Use

Process of Issuing and Maintaining a Trucked Recycled Water Use Permit	Recycled Water Program Document and/or Actions Required	Responsible Entity
<p><i>Step 1</i> – Request a copy of the MCWD Trucked Recycled Water Program Requirements and Use Permit Application. Apply for a Trucked Recycled Water Use Permit</p>	<p>Trucked Recycled Water Program Requirements <i>Contact the MCWD Operations Superintendent at 760-934-2596 ext. 230. Provide information to ensure User will comply with MCWD and State Requirements for trucked recycled water use</i></p>	<p>Truck Owner/Operator</p>
<p><i>Step 2</i> – Issue a Trucked Recycled Water Use Permit (Dec. 31 expiration)</p>	<p>Trucked Recycled Water Use Permit <i>If all information is verified, issue final numbered permit</i></p>	<p>MCWD</p>
<p><i>Step 3</i> – Permitted Users may access MCWD’s recycled water pump station during regular business hours. (NOTE: Recycled water is not guaranteed to be available. Availability is subject to water quality conditions and production limitations)</p>	<p>Trucked Recycled Water Release Log <i>Complete a log entry at the pump station every time recycled water is collected. Carry a copy of the permit and User Guidelines</i></p>	<p>Truck Owner/Operator</p>
<p><i>Step 4</i> – Follow regulations for recycled water transport and distribution</p>	<p>Trucked Recycled Water Program Requirements</p>	<p>Truck Owner/Operator</p>
<p><i>Step 5</i> – Conduct site inspections to verify adherence to recycled water use regulations</p>	<p>Site Compliance Inspection Report <i>Confirm application site was properly posted in the release log; Confirm BMPs in effect; Confirm operators are following User Requirements. Unannounced site visits may be conducted at any time</i></p>	<p>MCWD</p>
<p><i>Step 6</i> – Renew permit annually</p>	<p>Trucked Recycled Water Program Requirements</p>	<p>Truck Owner/Operator MCWD</p>



Appendix D

Permit Area Map



Appendix D

Trucked Recycled Water Program Site Compliance Inspection Report



California State Water Resources Control Board Order WQ 2016-0068-DDW requires the Mammoth Community Water District to conduct routine compliance inspections of all Authorized Recycled Water User Sites. The MCWD Inspector must immediately notify the Recycled Water User of violation(s) identified during inspections and what corrective actions must be taken. If you have questions regarding this mandatory report, please contact the District at (760) 934-2596 ext. 230.

INSPECTION TYPE: INITIAL PERIODIC TRWP USE PERMIT NO.: _____

	YES	NO	
A	<input type="checkbox"/>	<input type="checkbox"/>	Are advisory signs, labeling and tags in good condition and posted consistent with TRWP Requirements to inform the public that recycled water is in use?
B	<input type="checkbox"/>	<input type="checkbox"/>	Have Use site staff received sufficient training in accordance to the TRWP Requirements?
C	<input type="checkbox"/>	<input type="checkbox"/>	If the Use area has a potable water service connection, is there an approved backflow device with a valid test report on file?
D	<input type="checkbox"/>	<input type="checkbox"/>	Are Best Management Practices in effect at all back-flow prevention devices, exposed piping, valves, hose bibs, points of connections, sprinklers, controllers, surface waters, storage facilities, outdoor eating areas, drinking fountains, etc. ?
E	<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of leaks or breaks in any Use area pipelines, irrigation system pipelines, valves or tubing?
F	<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of ponding of recycled water, and/or evidence of mosquitoes breeding within the Use area due to ponded water?
G	<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of recycled water runoff from the Use area? If yes, please estimate the volume, and sketch affected area on the back of this sheet.
H	<input type="checkbox"/>	<input type="checkbox"/>	Is there evidence of recycled water overspray to areas accessible to the public?
I	<input type="checkbox"/>	<input type="checkbox"/>	Is there an odor of wastewater origin within the Use area? If yes, describe apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odor.
J	<input type="checkbox"/>	<input type="checkbox"/>	Has the designated Responsible Person changed? If so, provide name and training verification of new Responsible Person below.

What corrective actions are being taken to correct any problems or violations noted above?

Users who fail to initiate corrective action to eliminate violation(s) in a timely manner may be subject to termination of recycled water service. If a violation is believed to constitute a hazard to the public health or threat to water quality, recycled water service may be terminated immediately.

AUTHORIZED USER SIGNATURE

DATE

TRWP INSPECTOR SIGNATURE

DATE

Appendix D

MCWD Trucked Recycled Water Program Trucked Recycled Water Use Permit



This permit must be available for inspection at all times. The User must keep a copy with the tanker truck and be prepared to present it to MCWD personnel for water pick-ups. The User must adhere to State Water Resources Control Board Order WQ 2016-0068-DDW, CCR Titles 17 and 22, and the MCWD Trucked Recycled Water Program Requirements to ensure proper use of the recycled water.

For Recycled Water Use in the MCWD Recycled Water Service Area Only

(For MCWD Use)

Permit Number: _____ Effective Date of Permit: _____ Expiration Date: _____

1. User Information

Name of User: _____
(Owner or Operator of the Truck(s) that Transport Recycled Water)

Address _____ City/State/Zip Code _____

Contact Person: _____ Phone No.: _____

Recycled Water Supervisor: _____

Phone Number (1) : _____ Phone Number (2) : _____

2. Approved Type of Use (Check all that apply)

Application Method: Tank Release Valve or Hose Tank Spray

- Use of Recycled Water:
- Backfill Consolidation around Non-Potable Piping
 - Construction Site Soil Compaction
 - Mixing Concrete
 - Construction Site Dust Control
 - Cleaning Roads, Sidewalks and Outdoor Work Areas
 - Restricted Access (Freeway) Landscape Irrigation
 - Other: _____

Trucked Recycled Water is not approved for use in:

- Backfill Consolidation around Potable Piping
- Storm Drain Flushing
- Irrigation of Food Crops, Parks and Playgrounds, School Yards, Residential Landscaping, etc.

All uses must be within the MCWD Recycled Water Service Area.

Appendix D

3. No Entitlement to Recycled Water / Supply Subject to Availability

This Permit does not entitle User to a specific quantity of recycled water. Supply of recycled water to User is subject to availability as determined by MCWD and to any federal, state or local requirements which limit supply or availability. To the extent recycled water is available, supply shall be on a first-come, first-served basis. Entities with Recycled Water Agreements with MCWD shall have priority over User in supply of recycled water.

4. Permit Validity Period/Termination

This Permit shall be valid from the date of issuance until the expiration date noted on Page 1 unless it is terminated as provided below. This Permit may be terminated by the District if the District determines the User has violated any of the District's Trucked Recycled Water Guidelines, or the Regional Water Quality Control Board, or Department of Public Health Requirements, or any of the other requirements of this Permit. Termination shall be effective immediately upon notification by District by phone, fax, email or mail.

5. Permit Non-Transferable

This Permit is issued only to User as specified in Section 1 of this Permit above; it may not be transferred to any other entity or person.

6. Recycled Water Use Requirements

The District's Trucked Recycled Water Program Requirements ("Requirements"), which contain requirements and restrictions for storage, transportation and use of recycled water, are attached to this Permit and incorporated herein by this reference. User agrees to abide by all of the requirements and restrictions contained in the Requirements and the California Regional Water Quality Control Board/Department of Public Health recycled water requirements.

It is the responsibility of the User to distribute recycled water in a way that assures compliance at all times with current regulations. User has identified the person above as the Recycled Water Supervisor who is responsible for implementing worker/public protection requirements specified in the Guidelines and the California Regional Water Quality Control Board/Department of Public Health recycled water requirements at each site (e.g., that humans are not to drink recycled water or use it for preparing food, etc.).

In the event there is a recycled water spill, questions on compliance and requirements, or User notices a use not in accordance with requirements stated herein, User shall contact the Mammoth Community Water District immediately at 760-934-2596 ext. 230.

Appendix D

Certification and Indemnification

I certify that I am the authorized agent for the User cited in this application and that I have the authority to bind the User to the requirements of this Permit and Program. I hereby certify under penalty of perjury that the information provided in this permit application and in any attachment is true and correct to the best of my knowledge. I also certify that I have read the applicable recycled water rules and regulations of the State Water Resources Control Board and the California Department of Public Health and the District Trucked Recycled Water Program Guidelines and agree to abide by them.

User agrees to defend, indemnify, and hold harmless MCWD and its Directors, officers, agents and employees from and against any and all loss, liability, expense, claims, suits, and damages including attorneys' fees, litigation costs and expenses, and expert witness fees and costs arising out of or resulting from User's, and affiliates, employees', subconsultants', or other agents' negligent acts, errors or omissions, or willful misconduct, in the operation and/or performance under this Recycled Water Use Permit.

Name of User: _____

Signature: _____

Title: _____ Date: _____

.....

MCWD Recycled Water Program Representative: _____

Signature: _____

Title: _____ Date: _____

This permit is subject to all prohibitions, specifications, and provisions of State Water Resources Control Board Order WQ 2016-0068-DDW.

Appendix E

(Cross Connection Control Program)



Appendix E

MCWD Recycled Water Distribution System Cross Connection Emergency Response Plan

Mammoth Community Water District Recycled Water Program

In the event that a backflow incident or cross-connection is suspected or occurs, the following procedures must be implemented immediately:

1. Immediately shut down the reclaimed water supply to the facility.
2. Immediately notify the District by phone. This notification is to be followed by written notice within 24 hours. The written notice should include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).

Mammoth Community Water District 760-934-2596
P.O. Box 597
Mammoth Lakes, CA 93546
3. Keep the potable water system pressurized and post “DO NOT DRINK—NO TOMAR” signs at all potable water fixtures and outlets.
4. The District will notify the Mono County Public Health - Environmental Health Division and State Department of Public Health (DPH) of the reported cross connection.
5. Provide bottled water for employees until the potable water system is deemed safe to drink.
6. Collect water samples from the potable water system and perform a 24-hour bacteriological analysis (as instructed by the District). Water samples should be collected from the closest possible point to the cross-connection.
7. Identify the cause and location(s) of backflow and eliminate the cross-connection(s).
8. Conduct a cross-connection test in coordination with the District and the appropriate health department to verify that all cross-connection(s) have been eliminated.
9. Obtain approval from the District and the appropriate health department before returning the reclaimed water system to service.
10. If the bacteriological analysis conducted in Step 6 is positive, flush the potable water system and disinfect by maintaining a chlorine residual of at least 50 mg/L for 24 hours. Otherwise, proceed to Step 13.
11. Flush the potable water system after the 24 hour disinfection period of Step 10 and perform standard low chlorine test and bacteriological analysis.
12. If the results from Step 11 are acceptable, proceed to Step 13. Otherwise, repeat Step 10 and 11.
13. Obtain final approval from the District and the state and/or local city or county health department before removing signs.

Appendix E

MCWD-RWP SERVICE NUMBER _____



Cross-Connection Test Notification

Mammoth Community Water District Recycled Water Program
P.O. Box 597
Mammoth Lakes, CA 93546
Phone: 760-934-2596 FAX: 760-934-2143

48-Hour Minimum Notice

Owner's Representative:

Name: _____
Company Name: _____
Phone: _____
Fax: _____
Cell Phone: _____
Date: _____

Items to be completed By Owner Representative

Site name: _____

Site Address: _____

Proposed Test Date and Time: _____

Notices sent to:

MCWD-RWP Owner: _____
John Pedersen FAX 760-934-2143 NAME / PHONE

SITE SUPERVISOR _____
NAME / PHONE

CROSS CONNECTION SPECIALIST: _____
NAME / PHONE

AFFECTED WATER USERS

Items to be completed by Cross-Connection Specialist:

Company Name: _____

Company Address: _____

Specialist Name: _____

Specialist Certification No. : _____

Phone: _____ Cell Phone: _____ Fax: _____

- Specialist's information faxed to Owner's Representative
 Specialist's Information faxed to John Pedersen, MCWD-RWP



Cross-Connection Test Checklist

Mammoth Community Water District Recycled Water Program

Site Name: _____

Site Address: _____

Date(s) Test Conducted: _____

Attendees at Test:

NAME	COMPANY	PHONE NUMBER
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Pre-Test Monitoring:

- 24- hour prior notice to potable water users of service shut down
- Approved Backflow Prevention Device at Irrigation System Point of Connection

Irrigation System pressurized with stations running at normal schedule: YES NO

Station Schedule: _____ (As an Attachment)

Any Noted Unauthorized Connections or Uses of Irrigation Water System: YES NO

Potable Water System:

Type of Pressure Monitoring Equipment	Location of Pressure Monitoring Equipment	Normal Operating Pressure
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Recycled Water System:

Type of Pressure Monitoring Equipment	Location of Pressure Monitoring Equipment	Normal Operating Pressure
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



Cross-Connection Test Checklist

Mammoth Community Water District Recycled Water Program

Pre-Test Monitoring (con't):

Spikes or Dips in Potable Water System Pressure Record: YES NO

Spikes or Dips in Recycled Water System Pressure Record: YES NO

If yes, explain before proceeding: _____

Pressure Test--Recycled Water System:

- Potable Water Systems left at Normal Operating Pressure
- Minimum 1-hour pre-test shutdown of Recycled Water System at Irrigation Pump Valve (typ. @ Meter)
- Depressurize Recycled Water System to 30 psi at Point of Test Location
- Recycled Water System Pressure held at 30 until first irrigation station activated
- All Irrigation stations activated for minimum 2 minutes per station
- Adjacent site irrigation systems activated during recycled water system shutdown

Spikes or Dips in Recycled Water System Pressure Record: YES NO

Flows in Recycled Water System Noted: YES NO

If yes, explain before proceeding: _____

Pressure Test--Potable Water System:

- Recycled Water System returned to and left at Normal Operating Pressure
- Close all points of potable water use
- Shutdown Potable Water Systems at all RPP Devices using shutoff Valve #1 (Record by Attachment)
- Depressurize Potable Water System to 30 psi at Points of Connection
- Run each recycled water irrigation station at least once during potable water shutdown

Spikes or Dips in Potable Water System Pressure Record: YES NO

Flows in Potable Water System Noted: YES NO

If yes, explain before proceeding: _____

RPP valve field test required to ensure proper operation:

- Serial No. 2545671 Maintenance Building Service
- Serial No. GH323 Domestic Supply to Club House
- Serial No. 683258 Comfort Station
- Serial No. 327GH Potable Irrigation to Club House



Cross-Connection Test Checklist

Mammoth Community Water District Recycled Water Program

Site Name: _____

Site Address: _____

Date(s) Test Conducted: _____

I, _____, AWWA Cross-Connection Specialist # _____ after carefully reviewing the systems and conducting the test as per MCWD-RWP Rules and Regulations, find no indication of a cross-connection between the Recycled Water system and the Potable system at the above indicated location:

Items to be completed by Cross-Connection Specialist:

COMPANY NAME: _____

COMPANY ADDRESS: _____

SIGNED: _____

DATE

TIME

PHONE: _____ CELL PHONE: _____ FAX: _____

ORDINANCE NO. 05-18-23-13

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MAMMOTH COMMUNITY WATER DISTRICT AMENDING THE DISTRICT RECYCLED WATER PROGRAM

This Ordinance is enacted with reference to the following recitals of fact:

WHEREAS, the Board of Directors (Board) of the Mammoth Community Water District (District), by Resolution No. 10-15-98-17, certified the Final Environmental Impact Report/ Environmental Assessment for the proposed Reclaimed Water Project, including upgrades to the District's wastewater treatment plant to treat wastewater effluent to meet Title 22 requirements for tertiary treated wastewater;

WHEREAS, the Board, by Resolution 03-15-07-03, certified the Final Environmental Impact Report for the tertiary-treated water distribution system;

WHEREAS, the tertiary wastewater treatment plant upgrades are completed and the tertiary-treated water distribution systems are in place;

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region, adopted Board Order No. R6V-2009-0035, "Master Water Recycling Requirements and Waste Discharge Requirements Mammoth Community Water District Disinfected Tertiary Recycled Water," approving the District's proposal to supply and distribute an average flow of 2.9 million gallons per day of disinfected, tertiary recycled water as defined in California Code of Regulations (Master Permit);

WHEREAS, the Master Permit required the District to establish and enforce requirements for recycled water users and other associated recycled water program features for the use of reclaimed water in the District service area;

WHEREAS, the Board, by Ordinance No. 09-17-09-10, adopted Division XV of Chapter 11 of the District Code establishing the Recycled Water Program Policy and initiated recycled water deliveries to the Sierra Star Golf Course, Snowcreek Golf Course, and the trucked recycled water program;

WHEREAS, to become an “Administrator” and “Producer” of recycled water and permit additional uses of recycled water that are not allowed under R6V-2009-0035, MCWD staff updated the District’s Title 22 Engineering Report and submitted a Recycled Water Program Technical Report and Notice of Intent (NOI) to become regulated under State Water Board General Order WQ 2016-0068-DDW;

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (Lahontan RWQCB), approved the updated Title 22 Engineering Report and NOI, rescinded Board Order No. R6V-2009-0035, and issued a Notice of Applicability (NOA) under State Water Board General Order WQ 2016-0068-DDW; and

WHEREAS, the requirements in the District Sewer Code for recycled water users and other associated recycled water program features for the use of reclaimed water must be updated to be consistent with the Lahontan RWQCB’s approval of the Title 22 Engineering Report and authorization for the District to operate its Recycled Water Program under General Order WQ 2016-0068-DDW.

NOW, BE IT ORDAINED by the Board of Directors of the Mammoth Community Water District as follows:

SECTION ONE. PURPOSE AND AUTHORITY

This Ordinance amends Chapter 11 of the District Code, which governs the terms and conditions of the District’s provision of sewer service, for the purpose of amending Chapter XV

governing the District Recycled Water Program. The authority for this Ordinance is found in California Water Code sections 30523, 31100, 31101, and 31105, Government Code section 53069.4, and other applicable law.

SECTION TWO. AMENDMENTS TO DIVISION XV OF CHAPTER 11 OF THE MAMMOTH COMMUNITY WATER DISTRICT CODE

Division XV of Chapter 11 of the District Code is hereby rescinded and replaced in full as follows:

Section 15.01: Recycled Water Program Policy

It is the policy of the District that recycled water determined to be available pursuant to Water Code Section 13550 shall be used for non-potable uses within the District’s designated service area when its use is economically justified; its use is financially and technically feasible; and its use is consistent with legal requirements, preserves the public health, safety, and welfare, and protects the environment.

Production, distribution and use of recycled water in the District designated service area are regulated by State Water Board Order WQ 2016-0068-DDW, provisions in Title 22 of the California Code of Regulations and the Water Code regarding recycled water, and the Title 22 Engineering Report for the Mammoth Community Water District Recycled Water Program including all attachments and appendices, which is attached to and made a part of this Division XV (the “Title 22 Engineering Report”).

Section 15.02: Designated Recycled Water Service Area

The District recycled water service area is identified as the “MCWD Recycled Water Service Area” designated as Attachment A to the Recycled Water Program Rules and Regulations which are incorporated into the Title 22 Engineering Report as Appendix C. .

Section 15.03: Recycled Water Use Rules and Regulations

Procedures, restrictions, and other requirements for recycled water use, including the process for a user to obtain recycled water service, and controls to protect public health are set forth in the Recycled Water Program Rules and Regulations, which are contained in Attachment B to Appendix C of the Title 22 Engineering Report and titled “Requirements for Recycled Water Users” (Requirements). The Requirements provide the rules governing the design, construction, operation and maintenance of reclaimed water use facilities, construction specifications, inspections and monitoring of reclaimed water user facilities and sites, procedures for the use of reclaimed water, and enforcement procedures and penalties for violations of the Requirements. All recycled water users are required to comply with the Requirements as a condition of receiving recycled water service and any violation of the Requirements shall be enforced as provided therein.

Section 15.04: Operations and Maintenance Plan

The “Operations and Maintenance Plan for Recycled Water Users,” Section III of the Recycled Water Program Rules and Regulations establish the District’s standard procedures, specifications, limitations for the safe and orderly development and operation of off-site and on-site recycled water facilities and systems in the District’s Designated Service Area, and enforcement procedures and penalties for violations. All recycled water users are required to comply with all applicable provisions of the Operations and Maintenance Plan as a condition of receiving recycled water service and any violations shall be enforced against as provided in the Plan.

Section 15.05: Monitoring and Reporting/Compliance and Inspection Program

The Monitoring and Reporting / Compliance and Inspection Program, Section V of the Recycled Water Program Rules and Regulations, provides the District’s plan for conducting routine compliance inspections and the process for responding to and enforcing against violations. All

recycled water users are subject to District monitoring of their recycled water systems and use and any violations shall be enforced against as provided in the Program.

Section 15.06: General Enforcement and Sanctions

A. General

The District reserves the right to take any action necessary with respect to the operation of a user's recycled water system to safeguard the public's health. If existing or potential hazards are evidenced at any time during construction or operation of the recycled water system, the District may terminate recycled water service immediately, without notice. These hazards include but are not limited to cross-connections with the potable system, improper tagging, signing or marking, or unapproved/prohibited uses.

B. Public Nuisance.

Discharge of wastes or the use of recycled water in any manner in violation of this Division XV or of any agreement issued hereunder is hereby declared a public nuisance and shall be corrected or abated as directed by the District. Any person creating such a public nuisance is guilty of a misdemeanor.

C. Injunction.

Whenever a discharge of wastes or use of recycled water is in violation of this Division XV or otherwise causes or threatens to cause a condition of nuisance, the District may seek injunctive relief as may be appropriate to enjoin such discharge or use.

D. Agreement Revocation.

In addition to any other statute or rule authorizing termination of recycled water service, the District may revoke an agreement issued hereunder if a violation of any provision of this Division XV is found to exist or if a discharge of wastes or use of recycled water causes or threatens to cause a nuisance.

E. Penalty.

Any owner and/or operator who violates this Division XV shall, for each day of violation, or portion thereof, be subject to a fine not exceeding \$1,000. In addition, recycled water service to the property may be discontinued.

Section 15.07: Incorporation of Title 22 Engineering Report

The complete Title 22 Engineering Report attached to and made a part of this Chapter XV may be amended from time to time by staff as necessary to comply with changes in the law and applicable regulations or as required by the State Water Board or Lahontan RWQCB. The existing version of the Title 22 Engineering Report or any of its attachments and appendices may be discarded and replaced at any time by an amended version of the Report or any component part, including an attachment or appendix, without the need to amend this Ordinance.

SECTION THREE. REPEALER

To the extent that the terms and provisions of this Ordinance may be inconsistent or in conflict with the terms or conditions of any prior District ordinances, resolutions, rules or regulations governing the same subject, the terms of this Ordinance shall prevail with respect to the subject matter thereof, and such inconsistent or conflicting provisions of prior ordinances, resolutions, rules or regulations are hereby repealed.

SECTION FOUR. INVALIDITY

If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, no other provision of this Ordinance shall be affected thereby.

SECTION FIVE. EFFECTIVE DATE AND PUBLICATION

This Ordinance shall take effect upon adoption. The District General Manager or his designee is directed to publish a summary of this Ordinance once, with the names of the

members voting for and against the Ordinance, in a newspaper published within the District within 10 days after the adoption of this Ordinance.

PASSED AND ADOPTED by the Board of Directors of the Mammoth Community Water District, County of Mono, State of California, this 18th day of May 2023, at a regular meeting of the Board by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

MAMMOTH COMMUNITY WATER DISTRICT

By: _____

Thomas R. Smith
President, Board of Directors

ATTEST:

Mark Busby
Secretary, Board of Directors

SECRETARY'S CERTIFICATE

I hereby certify that the foregoing is a full, true, and correct copy of Ordinance No. 05-18-23-13, duly and regularly adopted by the Board of Directors of MAMMOTH COMMUNITY WATER DISTRICT in the Town of Mammoth Lakes, County of Mono, on May 18, 2023.

Secretary, Board of Directors

AGENDA ITEM

Subject: Appoint an Ad Hoc Committee to Facilitate Discussions with Mono County Representatives Regarding Property Tax Allocation to District Related to Annexation of Snowcreek VIII Property

There are no materials to support this agenda item