

Meeting of the Board of Water Commissioners

Wednesday, February 7, 2023 – 12:15 p.m. Medford Police Department Prescott Room 219 S. Ivy Street, Medford, Oregon 97501

This meeting will be held in person, but you may attend virtually; see the instructions on page 2.

AGENDA (REVISED)

11:15 a.m. LUNCH

11:30 a.m. STUDY SESSION – City of Medford (Brian Sjothun, City Manager) and Water Efficiency (Customer Service & Water Efficiency Manager Julie Smitherman and Water Efficiency Coordinator Cody Scoggins and Water Efficiency Technician Aaron Adachi)

• Administer Oath of Office to Reappointed Board Member Jason Anderson

12:15 p.m. BOARD MEETING

- 1. Roll Call
- 2. Pledge of Allegiance
- 3. Elect Board Chair and Vice Chair for 2024
- 4. Presentation of the Years of Service Award to Jason Anderson

5. Comments from the Audience

Comments will be limited to 4 minutes per individual, group, or organization; please state your name and organization (if applicable) when prompted.

- 6. Consent Calendar
 - 6.1 Approval or Correction of the Minutes of the Last Regular Meeting of January 17, 2024
 - 6.2 Quarterly Letter to Mayor and Council

7. Items Removed from Consent Calendar

- 8. Resolution No. 1921, Authorizing the General Manager to Complete the Sale Agreement as Amended for Acquisition of All Right, Title to, and Interest in a 10 Acre Lot Located on Industry Drive Property Also Known as 371W06 Tax Lot 2500
- 9. Resolution No. 1922, Awarding and Authorizing the General Manager to Execute a Contract Amendment in the Amount of \$921,727.00 with Soderstrom Architects, Ltd. for Consulting Engineering & Architectural Services for Task Order 4 Construction Documents, Permit, & Bid Phase Support of the Medford Water Operations Center Project

PHONE: (541) 774-2440 • EMAIL: water@medfordwater.org • WEB: medfordwater.org

Meeting locations are generally accessible to persons with disabilities. To request interpreters for hearing impaired or other accommodations for persons with disabilities, please contact our office at (541) 774-2440 or water@medfordwater.org at least three business days prior to the meeting to ensure availability. For TTY, dial 711 or (800) 735-2900.

- 10. Authorizing Staff to Allow a Service Connection Under Resolution 1058 Section 7 and to Waive Collection of System Development Charges (SDCs) for a Temporary Irrigation Water Service for the City of Central Point Bear Creek Greenway Restoration
- 11. Resolution No. 1923, Awarding and Authorizing the General Manager to Execute a Contract Amendment in the Amount of \$938,581.00 for "Part E Design of Capital Hill Reservoir Replacement" to the Contract with RH2 Engineering, Inc. for the "Distribution System Resilient Backbone" Project
- 12. Resolution No. 1924, Adopting the Medford Water Representation in the Updates to the Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan

13. Leadership Team Reports

Leadership Team staff will be present and may provide information: Engineering Manager Brian Runyen, Finance Manager Beau Belikoff, Water Operations Manager Dan Perkins, Information Technology Manager Kris Stitt, Human Resources Manager Tanya Haakinson, Water Resources & Customer Service Manager Julie Smitherman, and General Manager Brad Taylor.

14. Propositions and Remarks from the Commissioners

15. Adjourn

DATES TO REMEMBER*					
DATE	DAY	TYPE OF MEETING	STUDY SESSION TIME & TOPIC	REGULAR MEETING	LOCATION
Monday, February 19, 2024 – Presidents' Day – Offices closed					
2/21/24	Wed	Board Meeting	Main Website	12:15 p.m.	Prescott Room, Police Dept
03/6/24	Wed	Board Meeting	Capital Budget 2024/25	12:15 p.m.	Prescott Room, Police Dept
03/20/24	Wed	Board Meeting	Capital Budget 2024/25	12:15 p.m.	Prescott Room, Police Dept

*Meeting dates, times, and locations are subject to change.

INSTRUCTIONS FOR ATTENDING THIS MEETING VIRTUALLY



To join by computer, click the following link: <u>https://us02web.zoom.us/webinar/register/WN_WM6UItMjQOScGBzJxdvzoA</u> Meeting passcode: 882587



To join by phone, call: (669) 900-6833 Meeting ID Number: 878 3600 1805 Meeting passcode: 882587



Memorandum

TO:	Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and
	Michael Smith
FROM:	Brad Taylor, General Manager
DATE:	Wednesday, February 7, 2024
SUBJECT:	Item 6.2 – Quarterly Letter to the Mayor and City Council
OBJECTIVE:	Board Approval

Issue

The letter to the Mayor and City Council for the second quarter of Fiscal Year 2023-24 along with the financials, Consumption Report, and Watershed Report.

Discussion

Medford Water is required by Section 19 of the Medford Charter to make full reports of the business transacted by it and of the condition of its funds once every three months to the City Council. If the board members agree to the contents of the letter for the second quarter of FY23-24, the Chair and General Manager will sign, and it will be forwarded to the Mayor and Council members.

Financial Impact

n/a

Requested Board Action

Approve contents of the second quarter letter to the Mayor and City Council.



February 7, 2024

Mayor Randy Sparacino and City Council City of Medford, Oregon 411 West 8th St. Medford, Oregon 97501

Honorable Mayor and Council Members:

Attached are Medford Water's quarterly financial reports for the second quarter of Fiscal Year 2023-24, as well as Consumption and Watershed Reports.

During the second quarter of Fiscal Year 2023-24, Medford Water completed "Going-Live" on Asset Management Software at the Duff Water Treatment Plant and Big Butte Springs, finished water main construction on Academy Way and Foothill Road projects, completed Basis of Design Report for Capital Hill Reservoir Project, coordinated the dissolution of the Charlotte Anne Water District (CAWD) with the City of Phoenix, and finished Schematic Design for Medford Water Operations Center.

If the Mayor or Council members have any questions, feel free to contact our office at any time, or Nick Card, Council Liaison.

Sincerely,

Bob Strosser, Chair Board of Medford Water Commissioners

Brad Taylor, General Manager Medford Water

Attachments

200 S. Ivy Street - Room 177 Medford, Oregon 97501 Phone: (541) 774-2430 medfordwater.org water@medfordwater.org Fax: (541) 774-2555

Medford Water Commission Income Statement 12/31/2023

	Month to Date		Year to Date		
	Current	Prior	Current	Prior	
Water Fund					
Operating Revenues					
Residential Sales Inside Gallonage	\$217,461.95	\$204,019.09	\$3,944,507.27	\$3,680,764.66	
Commercial Sales Inside Gallonage	80,752.59	70,115.69	1,393,764.93	1,356,357.02	
Industrial Sales Inside Gallonage	4,212.23	12,469.74	75,570.09	95,989.90	
Base Charges Inside	578,814.37	530,348.14	3,467,015.56	3,187,029.75	
High Elevation Charges	30,640.92	28,558.15	258,118.74	235,723.21	
Fire Services Inside	31,914.59	29,260.71	191,679.55	175,553.76	
Residential Sales Outside Gallonage	38,109.59	37,740.24	598,457.28	604,361.38	
Commercial Sales Outside Gallonage	13,311.56	19,641.44	287,031.44	329,152.60	
Industrial Sales Outside Gallonage	108,183.24	73,058.68	840,648.60	764,395.24	
Base Charges Outside	125,638.83	114,029.15	754,241.09	684,747.97	
Fire Services Outside	10,035.78	8,358.31	60,210.76	49,897.89	
Sales to Other Utilities	107,692.04	92,965.30	1,472,874.45	1,708,278.34	
Miscellaneous Collections	38,108.71	36,427.34	239,890.55	222,502.73	
Connections/Installations	66,933.52	58,147.29	491,368.51	386,836.31	
Total Operating Revenues	1,451,809.92	1,315,139.27	14,075,378.82	13,481,590.76	
perating Expenses					
ater Operating Expenses					
Source of Supply	144,435.63	74,197.55	896,891.35	645,281.38	
Supply Pumping	16,575.68	16,526.88	422,895.63	395,678.78	
Purification	164,009.78	153,901.43	1,582,536.62	1,446,386.85	
Transmission	13,356.37	41,438.93	94,415.42	127,181.54	
Distribution Pumping	36,508.63	21,321.69	292,189.30	245,425.79	
Distribution	240,488.84	384,618.55	1,724,721.80	2,099,487.52	
Customer Accounts & Collection	181,657.94	188,664.87	1,312,419.09	1,241,094.99	
Administrative & General	193,475.60	22,328.41	529,833.52	315,306.32	
Connections/Installations	58,173.84	56,615.18	442,799.00	397,862.19	
Total Operating Expenses	1,048,682.31	959,613.49	7,298,701.73	6,913,705.36	
perating Income Before Depreciation	403,127.61	355,525.78	6,776,677.09	6,567,885.40	
Depreciation	369,081.95	343,654.91	2,198,149.65	2,047,295.59	
otal Operating Income	34,045.66	11,870.87	4,578,527.44	4,520,589.81	
lon Operating Revenues (Expenses)					
Charges in Lieu of Assessments	0.00	0.00	0.00	0.00	
Investment Revenue	72,908.59	37,019.74	191,178.36	54,141.81	
Grant Revenue	0.00	0.00	12,066.00	(2,294.00	
Forest Product Revenue	0.00	0.00	607,830.00	0.00	
Debt Proceeds	2,287,424.31	1,601,746.94	14,740,829.27	2,781,045.59	
Miscellaneous Revenue	6,442.35	945.60	147,792.76	38,604.59	
FWRD Expense	0.00	0.00	(480,525.87)	0.00	
Total Non Operating Revenues (Expenses)	2,366,775.25	1,639,712.28	15,219,170.52	2,871,497.99	
come Before Contributions	2,400,820.91	1,651,583.15	19,797,697.96	7,392,087.80	
apital Contributions					
System Development Charges	174,944.66	(66,049.70)	697,433.68	369,654.80	
Developer Donations (Capitalized)	242,490.00	(88,049.70) 118,295.00	926,427.73	386,228.00	
Total Income from Contributions	417,434.66	52,245.30	1,623,861.41	755,882.80	
let Income - Water Fund	\$0 010 0FF F7	\$1 702 000 4F	\$01 401 EE0 07	¢0 447 070 00	
et Income - Water Fund	\$2,818,255.57	\$1,703,828.45	\$21,421,559.37	\$8,147,970.60	
ombined Income (All Funds)					
et Income - Water Fund	2,818,255.57	1,703,828.45	21,421,559.37	8,147,970.60	
et Income - Construction Fund	138,632.47	73,694.04	851,945.34	199,999.60	
et Income - Main Replacement Fund	0.00	0.00	0.00	0.00	
let Income - FWTP Fund	0.00	0.00	0.00	0.00	
et Income - FWRD Fund	0.00	0.00	0.00	0.00	
let Income - Vernal Pool Mgmt Fund	0.00	0.00	0.00	0.00	

Medford Water Commission Balance Sheet 12/31/2023

		Water System		
	Water Co	onstruction		
_	Fund	Fund	Total	Last Year
Assets				
Current Assets				
Cash	\$723,128.19	\$0.00	\$723,128.19	\$2,474,725.32
Revolving Fund Cash	22,940.00	0.00	22,940.00	22,688.82
Cafeteria Plan Cash	2,058.09	0.00	2,058.09	46,278.58
Short Term Investments	7,904,046.96	4,519,082.96	12,423,129.92	14,541,008.41
Short Term Investments- Future Main Replacement:	0.00	5,100,933.29	5,100,933.29	4,583,251.35
Short Term Investments- Future Treatment and Trai	0.00	9,395,689.05	9,395,689.05	8,271,897.62
Short Term Investments- Future Water Rights Devel	0.00	4,821,804.91	4,821,804.91	5,045,963.10
Short Term Investments- Vernal Pool Management	0.00	144,900.27	144,900.27	137,836.15
Short Term Restricted Investments	3,913,232.37	0.00	3,913,232.37	5,639,178.79
Notes Receivable	1,725,804.53	0.00	1,725,804.53	1,874,211.85
Accounts Receivable	1,680,118.46	0.00	1,680,118.46	1,406,087.33
Accounts Receivable - Misc.	2,913,472.60	0.00	2,913,472.60	933,990.56
Cafeteria Plan Receivable	38,438.68	0.00	38,438.68	0.00
Inventory	11,490,008.87	0.00	11,490,008.87	1,529,972.99
Work in Progress	910,188.76	0.00	910,188.76	397,678.44
Prepaid Expenses	509,015.45	0.00	509,015.45	206,786.87
Other Current Assets	107,838.99	0.00	107,838.99	107,153.44
Total Current Assets	31,940,291.95	23,982,410.48	55,922,702.43	47,218,709.62
Fixed Assets				
Utility Plant / Service	220,479,195.17	0.00	220,479,195.17	200,522,806.78
Construction in Progress	56,737,970.05	0.00	56,737,970.05	23,861,526.54
Accumulated Depreciation	(73,946,632.71)	0.00	(73,946,632.71)	(58,533,713.04)
Total Fixed Assets	203,270,532.51	0.00	203,270,532.51	165,850,620.28
Total Assets	235,210,824.46	23,982,410.48	259, 193,234.94	213,069,329.90
Liabilities & Fund Equity				
Current Liabilities				
Accounts Payable	5,275,737.22	0.00	5,275,737.22	2,133,174.80
Retainage Payable	960,826.94	0.00	960,826.94	0.00
Customer Deposits	102,063.37	0.00	102,063.37	93,198.72
Miscellaneous Deposits	0.00	0.00	0.00	1,750.00
Construction Deposits	790,950.51	0.00	790,950.51	631,480.00
Miscellaneous Payable	201,815.16	0.00	201,815.16	236,303.20
Water Districts Payable	33,587.04	0.00	33,587.04	34,123.43
Accrued Vacation	663,328.08	0.00	663,328.08	606,775.45
Cafeteria Plan Payable	42,168.09	0.00	42,168.09	8,222.95
Other Current Liabilities	4,883.64	0.00	4,883.64	998.90
Total Current Liabilities	8,075,360.05	0.00	8,075,360.05	3,746,027.45
Fund Equity		20 244 620 04	220 044 270 40	200 075 222 25
Retained Earnings	198,599,731.27 198,599,731.27	30,244,638.91 30,244,638.91	228,844,370.18 228,844,370.18	200,975,332.25 200,975,332.25
Total Fund Equity	100,000,701.27	00,2 77 ,000.71	220,077,070.10	200,070,002.20
Net Income - Fiscal YTD	21,421,559.37	851,945.34	22,273,504.71	8,347,970.20
Fund Transfers In (Out)	7,114,173.77	(7,114,173.77)	0.00	0.00
Total Liabilities & Fund Equity	235,210,824.46	23,982,410.48	259, 193,234.94	213,069,329.90



2023-24 FISCAL YEAR WATER CONSUMPTION & SERVICES Second Quarter

WATER CONSUMPTION - THOUSANDS OF GALLONS

	CONSUMPTION OCT - DEC 2023	CONSUMPTION OCT - DEC 2022	CHANGE IN CONSUMPTION
INSIDE SINGLE-FAMILY RESIDENTIAL	505,900	606,204	-16.55%
INSIDE MULTIPLE-FAMILY RESIDENTIAL	190,488	197,630	-3.61%
INSIDE COMMERCIAL	242,377	275,103	-11.90%
INSIDE INDUSTRIAL	12,833	28,871	-55.55%
OUTSIDE SINGLE-FAMILY RESIDENTIAL	53,447	65,819	-18.80%
OUTSIDE MULTIPLE-FAMILY RESIDENTIAL	21,587	23,044	-6.32%
OUTSIDE COMMERCIAL	30,734	45,565	-32.55%
OUTSIDE INDUSTRIAL	174,403	156,871	11.18%
SALES TO OTHER UTILITIES	388,495	460,999	-15.73%
SALES TO WATER DISTRICTS	33,739	34,447	-2.06%
TOTAL WATER CONSUMPTION	1,654,003	1,894,553	-12.70%



WATER SERVICES TO DECEMBER 31, 2023

INSIDE CITY	SERVICES DEC 2023	SERVICES DEC 2022	CHANGE IN SERVICES
RESIDENTIAL - SINGLE-FAMILY	23,237	22,860	377
RESIDENTIAL - MULTIPLE-FAMILY	2,552	2,508	44
COMMERCIAL	2,779	2,775	4
INDUSTRIAL	50	49	1
FIRE SERVICES	511	503	8
SUBTOTAL - INSIDE CITY	29,129	28,695	434
OUTSIDE CITY			
RESIDENTIAL - SINGLE-FAMILY	3,100	3,052	48
RESIDENTIAL - MULTIPLE FAMILY	90	89	1
COMMERCIAL	243	235	8
INDUSTRIAL	110	103	7
UTILITIES	7	7	0
FIRE SERVICES	86	81	5
SUBTOTAL - OUTSIDE CITY	3,636	3,567	69
OTHER UTILITIES			
CITY OF CENTRAL POINT	6,841	6,815	26
CITY OF JACKSONVILLE	1,560	1,552	8
CITY OF EAGLE POINT	3,605	3,584	21
CITY OF PHOENIX	1,201	1,201	0
T.A.P.	2,189	2,176	13
SUBTOTAL - OTHER UTILITIES	15,396	15,328	68
WATER DISTRICTS			
PHOENIX	179	153	26
ELK CITY	103	104	-1
SUBTOTAL - WATER DISTRICTS	282	257	25
TOTAL WATER SERVICES	48,443	47,847	596

Number of Services in December



DEC 2023

DEC 2022



■ INSIDE CITY

OUTSIDE CITYOTHER UTILITIES

■ WATER DISTRICTS

Big Butte Springs Watershed Precipitation 2023-24 Water Year (Oct-Sep) 8 inches = 65% of normal Medford 70% of normal Precipitation at BBS 2023-2024 Water Year 50 Normal Precipitation Since Oct 1 E 2023/2024 Observed Precipitation Since Oct 1 45 Mount Shasta City CA - ← Current Year ····· 20 Year Avg Klamath Falls OR Medford OR Alturas CA Roseburg OR North B 40 30 Cumulative Rainfall, inches 35 25 30 20 25 15 10 20 15 5 0 10 North Bend OR Klamath Falls OR Mount Shasta City CA Roseburg OR Medford OR Alturas CA 0 OCT NOV DEC JAN FEB MAR APR MAY JUNE JULY AUG SEPT

1







Memorandum

TO:	Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and Michael Smith
FROM:	Brad Taylor, General Manager
DATE:	Wednesday, January 31, 2024
SUBJECT:	Item 8.0 - Resolution 1921, 4677 Industry Drive Property Purchase
OBJECTIVE:	Board Approval

lssue

The Board in Executive Session on July 13, 2022, authorized the General Manager (GM) to enter into a Purchase Agreement with Sellers of a 10-acre property located 4677 Industry Drive, Medford, Oregon. A purchase agreement was entered into September 15, 2022, and subsequently modified on February 24, 2023, and January 16, 2024. The property is anticipated to close in February 2024 and the GM will need Board approval to make payment during closing.

Discussion

The sellers have completed a minor land partition, creating a discrete 10-acre parcel. All other conditions of the Purchase agreement have been completed to the satisfaction of the seller and Medford Water.

The seller is required to remove the top one foot of soil across the entire 10-acre parcel by May 15, 2024, in accordance with all Department of Environmental Quality requirements and removal permits as defined in the purchase agreement. A hold back amount of \$112,772.00 will be held in escrow until completion of the soil.

Medford Water has also agreed to compensate the sellers at \$2.33 per square yard of hardscape area of the proposed Medford Water Operations Center (saves our excavation cost for construction). The hardscape area has been determined to be 32,720 square yards. This equates to \$76,237.60 and will be paid back to sellers in addition to the holdback funds once soil removal is complete.

The purchase price of the property was \$10.75 per square foot.

Financial Impact

The item was budgeted in the Fiscal Year (FY) 2022/23 Capital Budget. Due to the delay in closing the expenditure did not occur and, therefore, is an unbudgeted item in FY 2023/24 Capital Budget. Positive Variance will be used to purchase in FY 23/24.

Requested Board Action

Staff recommends approving resolution 1921 to authorize the General Manager to purchase property consistent with the Property Purchase agreement as amended in the amount of \$4,682,700.00 plus closing costs and minus the \$100,000 dollars deposited into escrow at the time of the first Purchase Agreement.

RESOLUTION NO. 1921

A RESOLUTION Authorizing the General Manager to Complete the Sale Agreement as Amended for Acquisition of All Right, Title to, and Interest in a 10 Acre Lot Located on Industry Drive Property Also Known as 371W06 Tax Lot 2500

WHEREAS, the City of Medford, acting by and through its Board of Water Commissioners, is duly authorized and empowered to acquire, by purchase, gift, devise condemnation proceedings or otherwise, such real property as in the judgment of Medford Water (MW) is necessary or proper to exercise its powers; and

WHEREAS, the Board of Water Commissioners are interested in the acquisition of property that serves the best interests of Medford Water and its plans to construct an Operation Center; and

WHEREAS, Medford Water has entered into escrow with the owner for the appropriation of said property, which property totals 10 acres; and

WHEREAS, Medford Water has deposited \$100,000.00 in the escrow account with First American Title for the appropriation of said property; and

WHEREAS, there will be costs incurred to acquire said property; and

WHEREAS, Medford Water will be required to provide \$4,682,700.00 to Robert G. Hunter, Gretchen Ousterhout, William Bagley, C. David Freel, Reginald C. Breeze and Annette C. Breeze, and John Ferris (OWNERS), in exchange for the deed to said property; and

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER COMMISSIONERS OF THE CITY OF MEDFORD, OREGON, AS FOLLOWS:

SECTION 1. That the Board of Water Commissioners hereby determines that acquisition of the above-described property is in the best interests of Medford Water.

SECTION 2. That the General Manager is hereby authorized and directed to execute the sale agreement as amended (Exhibit A) between the City of Medford, by and through its Board of Water Commissioners, and OWNERS, which agreement is on file in Medford Water's office and by reference made a part hereof, is hereby approved.

SECTION 3. That a check in the amount of \$4,682,700.00 <u>plus closing costs</u> shall be deposited by Medford Water with First American Title in an escrow account for the purpose of completing the sale to obtain the deed and title, free and clear, without encumbrances, of a 10-acre portion of 371W06 Tax Lot 2500, shown on Exhibit B as Parcel 2.

PASSED at a regular meeting of the Board of Water Commissioners of the City of Medford, Oregon, and signed by me in authentication thereof this 7th day of February 2024.

ATTEST:

Amber Furu, Asst. Clerk of the Commission

Bob Strosser, Chair

Fra Remain Exhibit A

PURCHASE AND SALE AGREEMENT

,2022 DATE:

Robert G. Hunter, Gretchen Ousterhout, William Bagley, C. David Freel, SELLER: Reginald C. Breeze and Annette C. Breeze, and John Ferris

City of Medford, by and through the Medford Water Commission BUYER: 200 S. Ivy Street #177 Medford, Oregon 97501

Recitals

- Seller desires to sell to Buyer and Buyer desires to purchase from Seller certain real I. property, with all appurtenances located on it, such property being a portion of 4677 Industry Drive, Medford, Jackson County, Oregon (371W06 2500), consisting of approximately 10 acres, and depicted on Exhibit A (the "Property").
- Seller shall obtain a minor land partition to render the Property a discrete, marketable П. parcel. The minor land partition is herein referred to as the "Partition." The legal description of the Property will be provided following the Partition.

Terms and Conditions

Now, therefore, for valuable consideration, the parties agree as follows:

Sale and Purchase. Buyer agrees to purchase the unrestricted Property from 1. Seller and Seller agrees to sell the Property to Buyer for the approximate sum of \$4,682,700.00 ("Purchase Price"). The Purchase Price shall be adjusted at closing, based on the exact final square footage of the unrestricted Property following the Partition. The final Purchase Price shall be determined by multiplying the total square footage of the unrestricted Property by \$10.75. Restricted property will be compensated at \$3.00 per square foot. For purposes of this Agreement "restricted" shall mean portions of the Property encumbered by the storm drain easement contemplated below. The balance of the Property is "unrestricted."

Earnest Money. Within five days of full execution of this Agreement ("Effective 2. Date"), Buyer shall deposit \$100,000.00 ("Earnest Money") in an escrow account at First American Title, 1225 Crater Lake Avenue, Suite 101, Medford, Oregon 97504.

Payment of Purchase Price. The Purchase Price, as finally determined, Α. shall be paid as follows:

1. At closing, the Earnest Money will be credited to the Purchase Price.

2. At closing, Buyer shall pay the purchase price in immediately available funds.

Close of Escrow. The terms "closed," "closing" or "closing date" mean when the 3. deed is recorded, and funds are available to Seller. Each party must pay one-half of the escrow fee and one-half of the closing cost customarily attributed to Buyer and Seller under real estate

transactions in Jackson County, Oregon. Close of escrow to occur within 15 days of final, unappealable Partition approval from the City of Medford and recording of the final partition plat.

Preliminary Title Report. Within 10 days after the Effective Date, Seller will 4. furnish to Buyer a preliminary title report showing the condition of title to the Property, together with copies (or links to online copies if the report is furnished in digital form) of all exceptions listed therein (the "Title Report"). Buyer will have 10 days from receipt of the Title Report to review it and to notify Seller, in writing, of Buyer's disapproval of any special exceptions shown in the Title Report. Those exceptions the Buyer does not object to are referred to below as the "Permitted Exceptions." Zoning ordinances, building and use restrictions, property taxes that are not yet paid for the current tax year, and reservations in federal patents and state deeds are deemed Permitted Exceptions. If Buyer notifies Seller, in writing, of disapproval of any exceptions, Seller will have 10 days after receiving the disapproval notice to either remove the exceptions or provide Buyer with reasonable assurances of the manner in which the exceptions will be removed before the transaction closes (the "Seller Assurance Period"). If Seller does not remove the exceptions or provide Buyer with such assurances, Buyer may terminate this Agreement by written notice to Seller given within 10 days after expiration of the Seller Assurance Period, in which event the earnest money will be promptly refunded to Buyer and this Agreement will be of no further binding effect. Any encumbrances that may be removed by the payment of money at closing are automatically objected to and shall not be deemed Permitted Exceptions and shall be removed by Seller at closing.

5. Conditions to Purchase. Buyer and Seller agree that the following conditions apply to both parties in connection with this transaction:

A. <u>Due Diligence Contingency</u>. Buyer shall have 90 days from the execution date of this Agreement to satisfy itself in regard to the following:

- 1. Buyer shall be satisfied with inspection reports from its engineers, builders, advisors and agents on the condition of the land comprising the Property, including but not limited to environmental concerns, location of the property corners, zoning, wetland and floodplain/floodway issues, soil conditions, street access and property setback standards.
- 2. Buyer shall be satisfied with the availability and adequacy of public utilities from the City of Medford and anticipated costs of any necessary additional utility connections.
- 3. Buyer shall be satisfied with the title to the Property and approve of the exceptions to remain on the title after close of escrow.
- 4. Buyer shall be satisfied with the shape and dimensions of the Property upon submittal and approval of the Partition (not subject to Buyer's 90-day due diligence period).
- 5. Buyer shall give written notice to Seller no later than 5:00 p.m. on the 90th day following the date of this Agreement ("the Due Diligence Period") of Buyer's intent to remove or not to remove the Due Diligence Contingency. In the

event no written notice is given to Seller within the Due Diligence Period to remove the Due Diligence Contingency, the Due Diligence Contingency shall be deemed waived by Buyer.

B. <u>Partition Contingency</u>. As a condition of this Agreement, Seller shall complete the following as a condition of Closing:

- 1. Seller shall obtain, at Seller's sole expense, approval from the City of Medford for the Partition, rendering the Property a discrete legal parcel, substantially as shown on Exhibit A. The Partition will be deemed complete upon the recording of the requisite Final Partition Plat with the Jackson County Surveyor. In the event the Partition is denied by the City of Medford Planning Director ("the Tentative Denial"), the Seller may elect to pursue an appeal of the Tentative Denial at the Seller's sole discretion. For the purposes of this Agreement, the Partition application shall be deemed "Denied" if a Tentative Denial by the Planning Director is not appealed or upon written order of the Planning Commission upon appeal denying the proposed Partition. In the event the Partition is Denied, the Earnest Money Payment shall be promptly refunded to Buyer.
- 2. Seller shall exercise due diligence in filing and processing an application for the Partition with the City of Medford.
- 3. Seller shall record the final partition plat, final subdivision plat, map of survey, or any other documents or instruments necessary to finalize the Partition. The Buyer acknowledges that the City may require a 15-foot Public Utility Easement across the Property adjacent to any roadways to be constructed, or as otherwise required as a condition of the Partition application.

6. Seller's Conditions. As a condition of Closing, Seller shall reserve and record a storm drain easement over the Property to service Seller's remaining approximately 8-acre parcel that will be created as a result of the Partition, and to service the roads to be constructed. The precise location and size of said easement shall be mutually agreed upon by Buyer and Seller in consultation with Seller's engineer Jim Higday of Marquess & Associates. The easement shall allow Buyer to use the easement and Buyer and Seller shall have equal rights to such use, with no party deemed the dominant or servient estate. The easement shall be maintained as provided in ORS 105.175. Access to easement would be restricted to frontage along Industry Drive or the "East-West" Road. The purchase price for land restricted by easement will be \$3.00 per square foot. If width of easement exceeds 15' in width, additional area in an equal amount will be added to the 10 acre parcel. This additional area shall be compensated at the agreed to sale price of unrestricted land.

7. Marketable Title; Deed. On the closing date, unless agreed otherwise herein, Seller will convey marketable title to the Property to Buyer by statutory warranty deed, free and clear of all encumbrances, except for the Permitted Exceptions. 8. Title Insurance. Within 30 days after closing, Seller, at Seller's cost, shall furnish Buyer with a First American Title Company owner's policy of title insurance in the amount of the purchase price, insuring Buyer as the owner of the Property, subject only to the usual printed exceptions and the Permitted Exceptions.

9. Taxes; Prorates. Real property taxes for the current tax year, insurance premiums (if Buyer assumes the existing policy), and other usual items must be prorated as of the closing date.

10. Possession. Buyer will be entitled to possession immediately on closing.

11. Seller's Representations. Seller represents and warrants to Buyer that, to the best of Seller's knowledge, information, and belief:

A. Seller is not a *foreign person* as that term is defined in IRC section 1445(f)(3). On the Closing Date, Seller will execute and deliver to Buyer a certification of non-foreign status on a form required by the IRS.

B. To the best of Seller's knowledge, no enforcement, clean-up, removal or other governmental or judicial action or actions have been instituted or threatened with respect to any hazardous material affecting the Property, except as disclosed to Buyer. Seller has not received, nor is aware of, any notification from any governmental authority seeking or requiring hazardous material testing or other work to be done on the Property, except as disclosed to Buyer. To the best of Seller's knowledge, there are no underground storage tanks located on the Property which are now, or have previously been, used for storage or containment of any hazardous materials, including any petroleum products or by-products, except as disclosed to Buyer.

C. Seller is aware of no current or pending litigation or administrative action that may affect the Property.

All representations and warranties contained in this Agreement will survive closing and the conveyance of the Property to Buyer.

12. "As Is." During the escrow period, Buyer shall satisfy itself regarding the Property and agrees to accept it "as is," with exceptions as noted at closing of escrow.

13. Use Disclosure. This instrument will not allow use of the Property in violation of applicable land use laws and regulations. Before signing or accepting this instrument, the person acquiring fee title to the Property should check with the appropriate city or county planning department to verify approved uses.

14. Remedies. TIME IS OF THE ESSENCE OF THIS AGREEMENT. If the conditions described in Section 5 above are satisfied or waived by Buyer and the transaction does not thereafter close, through no fault of Seller, before the close of business on the closing date, Seller will have the right to retain all earnest money as liquidated damages. If Seller's conditions described in Section 6 above are satisfied or waived by Seller and Seller fails to deliver the deed described in Section 7 above on the closing date or otherwise fails to

consummate this transaction, through no fault of Buyer, all earnest money must be refunded to Buyer.

15. Attorney Fees. If an action is instituted to enforce or interpret any term of this Agreement, the prevailing party will recover from the losing party reasonable attorney fees incurred in the action as set by the trial court and, in the event of appeal, as set by the appellate courts.

16. Notices. All notices and communications in connection with this Agreement must be given in writing and will be transmitted by certified or registered mail, return receipt requested, to the appropriate party at the address first set forth above. Any notice so transmitted will be deemed effective three days after the date it is placed in the United States mail, postage prepaid. Either party may, by written notice, designate a different address for purposes of this Agreement.

17. Time for Performance. When the last day for performance of an act by a party falls on a Saturday, Sunday or legal holiday, the performance of the act shall be considered timely if it is performed on the next day that is not a Saturday, Sunday or legal holiday.

18. Entire Agreement. This Agreement sets forth the entire understanding of the parties with respect to the purchase and sale of the Property. This Agreement supersedes any and all prior negotiations, discussions, agreements and understandings between the parties. This Agreement may not be modified or amended except by a written agreement executed by both parties.

19. Applicable Law. This Agreement will be construed, applied and enforced in accordance with the laws of the State of Oregon.

Statutory Warning. THE PROPERTY DESCRIBED IN THIS INSTRUMENT 20. MAY NOT BE WITHIN A FIRE PROTECTION DISTRICT PROTECTING STRUCTURES. THE PROPERTY IS SUBJECT TO LAND USE LAWS AND REGULATIONS THAT, IN FARM OR FOREST ZONES, MAY NOT AUTHORIZE CONSTRUCTION OR SITING OF A RESIDENCE AND THAT LIMIT LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, IN ALL ZONES. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301, AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010, ORS 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO VERIFY THE EXISTENCE OF FIRE PROTECTION FOR STRUCTURES AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301, AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON

21. Post-Closing Obligations. At Seller's cost, Seller shall construct and dedicate Industry Drive adjacent to the entire eastern boundary of the Property and the unnamed "East-West" road adjacent to the entire northern boundary of the Property ("Future Road Improvements"). Seller's obligations to construct the Future Road Improvements shall be limited to curb-to-curb. Except as provided above, construction and dedication shall be according to City of Medford standards, and Seller shall exercise due diligence to complete, including approval of all required City of Medford inspections, said improvements within one year of closing. The foregoing obligation shall survive closing.

22. No Broker. Seller represents and warrants that no broker was instrumental in bringing about this transaction other than Bernard Young, Rick Harris Group-Ashland, of John L Scott Real Estate. At Closing, Seller agrees to pay the office of Bernard Young a real estate commission equal to Two and One-Half Percent (2.50%) of the Purchase Price out of Closing Escrow. Buyer has not retained the services of a broker for this transaction.

23. Removal of Spoils Material. Prior to Closing, Seller shall remove spoils material from the northern portion of the Property onto the balance of Seller's other property, or any other location outside the Property. Seller shall comply with any and all regulatory authorities with regard to such removal and shall indemnify Buyer in the event of any enforcement action related to the removal.

SELLER:	BUYER:		
	City of Medford, by and through the Medford Water Commission		
Robert G. Hunter			
Dated:, 2022	Brad Taylor, General Manager		
	Dated:, 2022		
Gretchen Ousterhout			
Dated:, 2022			
William Bagley			
Dated:, 2022			
C. David Freel			

Page 6 PURCHASE AND SALE AGREEMENT

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SELLER:	BUYER:
Robert G. Hunter Robert G. Hunter	City of Medford, by and through the Medford Water Commission
9/15/2022 Dated:, 2022	Brad Taylor, General Manager
	Dated:, 2022
Gretchen Ousterhout	
Dated:, 2022	
William Bagley	
Dated:, 2022	
C. David Freel	
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Page 6

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SELLER:	BUYER:
	City of Medford, by and through the Medford Water Commission
Robert G. Hunter	
Dated:, 2022	Brad Taylor, General Manager
Gretchen Ousterhout	Dated:, 2022
Dated:, 2022	
William Bagley	
Dated:, 2022	
C. David Freel	
Page 6 PURCHASE AND S	SALE AGREEMENT

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22. No Broker. Seller represents and warrants that no broker was instrumental in bringing about this transaction other than Bernard Young, Rick Harris Group-Ashland, of John L Scott Real Estate. At Closing, Seller agrees to pay the office of Bernard Young a real estate commission equal to Two and One-Half Percent (2.50%) of the Purchase Price out of Closing Escrow. Buyer has not retained the services of a broker for this transaction.

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SELLER:		BUYER:	
		City of Medford, Medford Water C	by and through the Commission
Robert G. Hunter			
Dated:	, 2022	Brad Taylor, Ger	eral Manager
		Dated:	, 2022
Gretchen Ousterhout			
Dated:	, 2022		
Docusigned by: Might Bober			
William Bagley			
9/15/2022 Dated:	, 2022		

C. David Freel

Page 6 PURCHASE AND SALE AGREEMENT

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22. No Broker. Seller represents and warrants that no broker was instrumental in bringing about this transaction other than Bernard Young, Rick Harris Group-Ashland, of John L Scott Real Estate. At Closing, Seller agrees to pay the office of Bernard Young a real estate commission equal to Two and One-Half Percent (2.50%) of the Purchase Price out of Closing Escrow. Buyer has not retained the services of a broker for this transaction.

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SELLER:	BUYER:
	City of Medford, by and through the Medford Water Commission
Robert G. Hunter	
Dated:, 2022	Brad Taylor, General Manager
	Dated:, 2022
Gretchen Ousterhout	
Dated:, 2022	
William Bagley	
Dated:, 2022	
C. David Freel	
C. David Freel	
Page 6 PURCHASE AN	D SALE AGREEMENT

Dated: _____, 2022

Reginald C. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship Reginald C. Breeze, Joint Tenant with rights of Survivorship

Reginard P.4 Breeze

---- Docusigned by: Annette Bruze

Annette C. Breeze

Dated: ______, 2022

John Ferris

Dated: _____, 2022

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and a programme and and and a straight of the state of the

Dated: _____, 2022

Reginald C. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship

Reginald C. Breeze

Annette C. Breeze

Dated: _____, 2022

----- DocuSigned by:

John E. Ferris 2100300FC8114E9... John Ferris

Dated: _____, 2022

and the second second



AMENDMENT TO PURCHASE AND SALE AGREEMENT

BUYER: City of Medford, by and through the Medford Water Commission 200 S. Ivy Street #177 Medford, OR 97501

SELLER: Robert G. Hunter, Gretchen Ousterhout, William Bagley, C. David Freel, Reginald C. Breeze and Annette Breeze, and John Ferris

WHEREAS, the parties executed a purchase and sale agreement ("Sale Agreement") for the sale of a portion of 4677 Industry Drive, Medford, Jackson County, Oregon, consisting of approximately 10 acres;

WHEREAS, Buyer has conducted various due diligence investigations;

WHEREAS, the parties desire to amend the Sale Agreement as contained herein.

NOW, THEREFORE, the parties agree as follows:

- No later than 60 days after Closing, Seller shall remove the top 1 foot of soil from the entire Property in accordance with all Department of Environmental Quality Requirements, provided that Seller is able to procure a "Solid Waste Letter of Authorization" and any other permits that may be required to remove and transport the material offsite (collectively, "Removal Permits").
- Seller shall proceed with due diligence to secure Removal Permits and shall retain Alpine Environmental Consultants LLC in this regard. The Buyer consents to the release of all reports, information and studies that Alpine Environmental Consultants LLC has developed on Buyer's behalf.
- 3. If Removal Permits have not been obtained by Seller prior to June 15, 2023, Buyer may elect to proceed with Closing and proceed with Buyer's removal of the top 1 foot of soil from the entire Property per Paragraph 8 below.
- 4. The parties shall submit joint escrow instructions, providing for the holdback of funds specified in Paragraph 5 ("Holdback Funds") to secure Seller's removal of the top 1 foot of soil from the entire Property. In the event First American Title is unable or unwilling to retain the Holdback Funds, the parties agree to direct First American Title to wire the Holdback Funds to another third-party escrow with instructions to disburse the funds upon completion of the soil removal, so long as it occurs within 60 days of Closing.
- 5. The amount of Holdback Funds shall be:
 - a. \$1,000,000 if Seller has not secured Removal Permits and proceeded with closing prior to June 15, 2023, or
 - b. \$112,772 (10 acres at \$2.33 per square yard) if Seller has secured Removal Permits and proceeded with closing prior to June 15, 2023.
- 6. Within 30 days of City of Medford approval of Buyer's site plan, Buyer shall reimburse Seller in the amount of \$2.33 per square yard of Buyer's proposed building footprints and drive/parking and other paved areas ("Hardscape Area") as depicted on Buyer's future approved site plan.

AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 1 of 3

- 7. For avoidance of doubt, the soil removal contemplated in paragraph 1 is to be at Seller's sole cost, with the exception of Buyer's future reimbursement in the amount of \$2.33 per square yard of Hardscape Area.
- 8. In the event Seller has not removed the top 1 foot of soil from the entire Property within 60 days of closing, or Buyer has elected to proceed with Closing under Paragraph 3, Buyer may elect that the Holdback Funds be released to Buyer and Buyer shall be entitled to use the Holdback funds to remove the top 1 foot of soil from the entire Property or complete the work if it has already begun. If Buyer's actual cost of such removal exceeds the Holdback Funds, Seller shall be responsible for reimbursing Buyer for such deficiency within 30 days of invoice. If the actual cost of such removal is less than the Holdback Funds, Buyer shall remit the balance to Seller within 30 days. Buyer's obligations under paragraph 6 would still apply.
- 9. Buyer has waived the contingencies under Paragraph 5 (A) (1), (2), and (3) of the Sale Agreement, except to the extent that the shape, dimensions, and access to the from the Property (pursuant to Paragraph 5(A)(4), as amended herein) impact the street access and property setbacks element of Paragraph 5(A)(1) of the Sale Agreement. Paragraph 5(A)(4) of the Sale Agreement is stricken and replaced with the following language: "Buyer shall be satisfied with the shape, dimensions, and access to and from the Property upon submittal and approval of the Partition (Buyer's satisfaction with the foregoing shall not be subject to Buyer's 90-day due diligence period). Buyer is satisfied with the shape and dimensions of the Property as shown in Exhibit A, with the understanding that the East-West Road will extend to the northwest corner of the 10-acre parcel."
- 10. Buyer shall contract with a traffic engineer to perform a Traffic Impact Analysis of driveway access to and from the Property at both Industry Drive and the "East-West" road. Seller will utilize this analysis to obtain support from the City of Medford thru the Partition approval process to allow driveway access to and from the Property to both Industry Drive and the "East-West" road. Buyer will coordinate with Seller's partition consultant, CSA Planning Ltd,, in identifying a traffic engineer and in performance of the analysis. At Closing the Purchase Price will be reduced by the cost of the Traffic Impact Analysis.
- 11. All other provisions of the Sale Agreement not in conflict with this Amendment shall remain in effect.

SELLER:

Robert G. Hunter

Robert G. Hunter

Dated: 02-23-2023 6:28 PM PST , 2023

BUYER:

City of Medford, by and through the Medford Water Commission

BUGL

Brad Taylor, General Manager

Dated: 2/24 ____, 2023

Gretchen Ousterhout

Dated: _____, 2023

AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 2 of 3

- 7. For avoidance of doubt, the soil removal contemplated in paragraph 1 is to be at Seller's sole cost, with the exception of Buyer's future reimbursement in the amount of \$2.33 per square vard of Hardscape Area.
- 8. In the event Seller has not removed the top 1 foot of soil from the entire Property within 60 days of closing, or Buyer has elected to proceed with Closing under Paragraph 3, Buyer may elect that the Holdback Funds be released to Buyer and Buyer shall be entitled to use the Holdback funds to remove the top 1 foot of soil from the entire Property or complete the work if it has already begun. If Buyer's actual cost of such removal exceeds the Holdback Funds, Seller shall be responsible for reimbursing Buyer for such deficiency within 30 days of invoice. If the actual cost of such removal is less than the Holdback Funds, Buyer shall remit the balance to Seller within 30 days. Buyer's obligations under paragraph 6 would still apply.
- Buyer has waived the contingencies under Paragraph 5 (A) (1), (2), and (3) of the Sale 9. Agreement, except to the extent that the shape, dimensions, and access to the from the Property (pursuant to Paragraph 5(A)(4), as amended herein) impact the street access and property setbacks element of Paragraph 5(A)(1) of the Sale Agreement. Paragraph 5(A)(4) of the Sale Agreement is stricken and replaced with the following language: "Buyer shall be satisfied with the shape, dimensions, and access to and from the Property upon submittal and approval of the Partition (Buyer's satisfaction with the foregoing shall not be subject to Buyer's 90-day due diligence period). Buyer is satisfied with the shape and dimensions of the Property as shown in Exhibit A, with the understanding that the East-West Road will extend to the northwest corner of the 10-acre parcel."
- 10. Buyer shall contract with a traffic engineer to perform a Traffic Impact Analysis of driveway access to and from the Property at both Industry Drive and the "East-West" road. Seller will utilize this analysis to obtain support from the City of Medford thru the Partition approval process to allow driveway access to and from the Property to both Industry Drive and the "East-West" road. Buyer will coordinate with Seller's partition consultant, CSA Planning Ltd,, in identifying a traffic engineer and in performance of the analysis. At Closing the Purchase Price will be reduced by the cost of the Traffic Impact Analysis.
- 11. All other provisions of the Sale Agreement not in conflict with this Amendment shall remain in effect.

SELLER:

BUYER:

City of Medford, by and through the **Medford Water Commission**

Robert G. Hunter

Dated:

Gretchen Ousterhout

2023

Dated: 2/23/23, 2023

Brad Taylor, General Manager

Dated: 2023

AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 2 of 3

William Bagley

Dated: _____, 2023

REFA

C. David Freel

Dated: <u>2-23</u>, 2023

Reginald C. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship

Reginald C. Breeze

Annette C. Breeze

Dated: _____, 2023

John Ferris

Dated: _____, 2023

William Bagley

Dated: _____, 2023

C. David Freel

Dated: _____, 2023

Reginald C. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship

Reginald C. Breeze

anettel Annette C. Breeze Dated: 2 2023

John Ferris

Dated: _____, 2023

William Bagley

Dated: _____, 2023

C. David Freel

Dated: _____, 2023

Reginald C. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship

Reginald C. Breeze

Annette C. Breeze

_____, 2023 Dated:

John Ferris Dated: <u>February</u> 23, 2023



Reginald C. Breeze

DigiSign Verified: AB6E5619-9314-4CD6-9C24-20D6233B3D00



SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT

- BUYER: City of Medford, by and through the Medford Water Commission 200 S. Ivy Street #177 Medford, OR 97501
- SELLER: Robert G. Hunter, Gretchen Ousterhout, William Bagley, C. David Freel, Reginald P. Breeze and Annette Breeze, and John Ferris

WHEREAS, on September 15, 2022, the parties executed a purchase and sale agreement ("Sale Agreement") for the sale of a portion of 4677 Industry Drive, Medford, Jackson County, Oregon, consisting of approximately 10 acres;

WHEREAS, on February 24, 2023, the parties executed an amendment to the Sale Agreement ("First Amendment");

WHEREAS, the parties desire to amend the Sale Agreement and the First Amendment as contained herein.

NOW, THEREFORE, the parties agree as follows:

- 1. No later than May 15, 2024, Seller shall remove the top 1 foot of soil from the entire Property in accordance with all Department of Environmental Quality Requirements and Removal Permits as defined in the First Amendment.
- 2. The parties shall submit joint escrow instructions, providing for the holdback of funds specified in Paragraph 3 ("Holdback Funds") to secure Seller's removal of the top 1 foot of soil from the entire Property. In the event First American Title is unable or unwilling to retain the Holdback Funds, the parties agree to direct First American Title to wire the Holdback Funds to another third-party escrow with instructions to disburse the funds upon completion of the soil removal, so long as it occurs by May 15, 2024.
- 3. The amount of Holdback Funds shall be \$112,772.00 (10 acres at \$2.33 per square yard)
- Buyer shall reimburse Seller in the amount of \$2.33 per square yard of Buyer's proposed building footprints and drive/parking and other paved areas ("Hardscape Area") as depicted on Buyer's proposed site plan (attached as Exhibit A), as submitted to the City of Medford on December 22, 2023.
- 5. For avoidance of doubt, the soil removal contemplated in paragraph 1 is to be at Seller's sole cost, with the exception of Buyer's future reimbursement in the amount of \$2.33 per square yard of Hardscape Area.
- 6. In the event Seller has not removed the top 1 foot of soil from the entire Property by May 15, 2024, Buyer may elect that the Holdback Funds be released to Buyer and Buyer shall be entitled to use the Holdback funds to remove the top 1 foot of soil from the entire Property or complete the work if it has already begun. If Buyer's actual cost of such removal exceeds the Holdback Funds, Seller shall be responsible for reimbursing Buyer for such deficiency within 30 days of

SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 1 of 3 invoice. If the actual cost of such removal is less than the Holdback Funds, Buyer shall remit the balance to Seller within 30 days. Buyer's obligations under paragraph 6 would still apply.

- 7. Paragraph 9 of the Sale Agreement is stricken. Buyer is exempt from real property taxes and will not assume any insurance policy of Seller.
- 8. All other provisions of the Sale Agreement and First Amendment not in conflict with this Amendment shall remain in effect.

SELLER:

Dated:

Robert G. Hunter

BUYER:

City of Medford, by and through the Medford Water Commission

BUGL

Brad Taylor, General Manager

Dated: December 29 , 2023

Gretchen Ousterhout

2024 Dated: 2023

ndes P.O.A. William Bagley 501

Dated: 2023 2024

C. David Freel

Dated: 2024 2023

Reginald @. Breeze and Annette C. Breeze, Joint Tenants with Rights of Survivorship

Reginald & Breeze

Annette C. Breeze

Dated:

SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 2 of 3

John Ferris Dated: _________, 2023 2024

SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT Page 3 of 3


Exhibit A

CIVIL LEGEND

CIVIL LEGE	
	HATCHES & UNE TYPES:
	NEW CONCRETE PAVING - UN-REINFORCED
	NEW CONCRETE PAVING - REINFORCED
	NEW ASPHALT PAVING - STANDARD DUTY
_	NEW ASPHALT PAVING - HEAVY DUTY
	NEW DECOMPOSED GRANITE PAVING
10-20202020	NEW STORMWATER TREATMENT FACILITY
	NEW LANDSCAPING - UNIRRIGATED
	NEW LANDSCAPING - IRRIGATED
	- NEW DRAMAGE POND
	EXISTING EASEMENT
	- NEW FENCING
	- PROPERTY LINE
	6YMBOL6 (NEW):
6	SANITARY SEWER MANHOLE
Ť	CLEANOUT TO GRADE
0	SANITARY SEWER LIFT STATION
	OIL-WATER SEPARATOR
	GREASE INTERCEPTOR
0	STORM DRAIN MANHOLE
ě	STORM DRAW PUMP STATION
ă	CATCH BASIN
	LANDSCAPE AREA DRAIN
•	ROOF DRAIN CONNECTION POINT
<	POWER TRANSFORMER
#T	TELEPHONE/COMMUNICATIONS RISER
623	DATA VAULT
	WATER METER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
18 W.	WATER VAULT
-	PARKING BUMPER
0	BOLLARD
13	HANDICAP PARKING SYMBOL
	BIGN
	SYMBOLS (EXISTING)
S	SANITARY SEWER MANHOLE
D	STORM DRAIN MANHOLE
Ō	CURB INLET
м	WATER VALVE

CIVIL SITE AND FENCING NOTES:

- SOLE NOTES:
 MOVESTORY ±39 300-SF ADMINISTRATION BUILDING
- 2 NEW ± 28,200-SF VEHICLE STORAGE BUILDING
- 3 NEW ±6 500-SF DECANT BUILDING
- 4 NEW REINFORCED CONCRETE PAVEMENT
- 5 NEW HEAVY DUTY ASPHALT PAVEMENT
- 6 NEW STANDARD DUTY ASPHALT PAVEMENT
- 7. NEW ASPHALT PAVED MATERIAL STORAGE YARD
- 8 NEW STANDARD CONCRETE CURB. TYPICAL
- 9 NEW CONCRETE SIDEWALK
- 10. NEW DECOMPOSED GNAMETE PATHWAY
- 11 NEW STORNWATER TREATMENT AND DETENTION F
- 12. NEW DRISEL AND GASOLINS FUELING STATION
- 13. NEW CONCRETE PAVED GENERATOR AND ELECTRICAL YAR
- 14. NEW CONCRETE PAVED NECHANICAL YARD
- 15. EXISTING FIRE HYDRANT
- 16. NEW FIRE HYDRANT.
- 17. NEW FIRE DEPARTMENT C
- 18. COVERED DIKE PARKING.
- 19. NEW UNIRRIGATED LANDSCAPE AREA
- 20. NEW INDICATED LANDSCAPE AREA
- 21 NEW SITE LIGHTING TYPICAL
- 22 NEW MONUMENT BION
- MENCING NOTES 2 20' WIDE CHAIN LINK DOUBLE SWING VEHICLE GATE
- 3 B' TALL DECORATIVE WROUGHT IRON FENCE
- 4 4 WIDE CHAIN LINK MAN GATE
- 5 12' WIDE CHAIN LINK DOUBLE SWING VEHICLE GATE
- 6 32 WIDE WROUGHT IRON SLIDE GATE AT LOCATION SHOWN
- 7 26 WIDE WROUGHT IRON SLIDE GATE AT LOCATION SHOWN
- 8. 26 WOE WROUGHT INON SWING ARM GATE.

CODE REVIEW SUMMARY

SITE SURFACING ANALYSIS:		
BUILDINGS/ROOFS	= ± 1 70 ACRES	= ±175%
PAVEMENT	# ± 4.35 ACRES	= ± 44 8 %
SIDEWALKS	# 0.32 ACRES	33%
DECOMPOSED GRANITE	+ 10.09 ACRES	0.9 %
LANDSCAPE (IRRIGATED)	+ ± 0.78 ACRES	= ± 8.0 %
LANDSCAPE (UN-IRRIGATED)	1207 ACRES	= ± 21.4 %
DETENTION POND	= 10 38 ACRES	= ± 40%
TOTAL	* 4 9 89 ACRES	* 100 0 %
SITE ACCESS.		

SITE ACCESS: EXISTING DRIVEWAYS



10



1331 NW Lovejoy Sireel, Suile 775 Portland, OR 97209 T 503-228-5617

sdra.com

Medford Water Operations Center Medford Water Commission 4677 Industy Drive Medford, Oregon 97502



Consultant



WAIERS

Stamp



SPAC REVIEW APPLICATION

12/22/23

Soderstrom Project No	ZCS Project No
22085	M-0331-23
Drawn By KAK, MMW	Checked By MKW

Drawing Tile CIVIL SITE AND FENCING PLAN





Exhibit B

REGISTERED	TENTATIVE PARTITION PLAT	DATE: 9 JAN 2023
PROFESSIONAL LAND SURVEYOR	assessor's map #: 371WO6 TL2500	SCALE: 1 inch : 200 feet
0 14/1/	OWNER & APPLICANT: REGGIE BREEZE	DRAWN BY: JEH CHK BY:
OREGON UNIT 1086	100 EAST MAIN ST., SUITE A MEDFORD, OR 97501	ORIGIN:
JULY 17, 1986 JAMES E. HIBBS 2234	L.J. FRIAR & ASSOCIATES P.C.	ROTATION: 0° JOB#: 22139FM
RENEWAL DATE: 6–30–23	P.O. Box 1947, Phoenix, OR 97535 Phone: (541) 772–2782 Email: Ijfriarandassociates@charter.net	Sheet 1 of 1.



Memorandum

TO: Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and Michael Smith

FROM: Brad Taylor, General Manager

DATE: Wednesday, February 7, 2024

SUBJECT: Item 9.0 – Resolution 1922, Authorizing the General Manager to Execute a Contract Amendment with Soderstrom Architects, Ltd. for Consulting Engineering & Architectural Services for Task Order 4 Construction Documents, Permits, & Bid Phase Support of the Medford Water Operations Center project

OBJECTIVE: Board Approval

Issue

Soderstrom Architects, Ltd contract for Task Order 1 (Programming and Basis of Design for Medford Water Operations Center Project), Task 2 (Schematic Design), and Task 3 (Detailed Design) is nearing completion. The team is moving into Task 4 Construction Documents, Permits, & Bid Phase Support. We anticipate additional Task Orders to take the project through completion and building commissioning.

Discussion

In November 2022, Medford Water advertised an RFP seeking proposals to deliver Consulting Engineering & Architectural Services for this project. Soderstrom Architects, Ltd. was selected for a combination of experience, technical expertise, and industry knowledge to deliver this work to the satisfaction of Medford Water. On March 1, 2023, Resolution 1862 was approved for a Scope of Services and fee of \$116,720 for the first phase of work: Task Order 1 Programming and Basis of Design. Task 1 work is complete.

On August 16, 2023, Resolution 1900 was approved for a Scope of Services for Task Order 2 Schematic Design (30% Design) and fee of \$508,327. Task 2 work is complete.

On December 6, 2023, Resolution 1915 was approved for a Scope of Services for Task Order 3 Detailed Design (60% Design) and fee of \$596,154. Task 3 work is nearing completion.

The work completed under this Task Order 4 Construction Documents (100% Design), Building Permits and Bid Phases of the project are scheduled next. A scope and fee for the remaining work under this contract will be negotiated and brought to the Board for approval, which is anticipated in spring of 2024.

Financial Impact

This project will span multiple fiscal years. There is budget allocated for design of the project in fiscal year 23/24 and money forecast for construction is included in the 10 yr. CIP plan in FY24/25 thru FY25/26.

Requested Board Action

Staff recommends approval of Resolution 1922, authorizing the General Manager to execute an Amendment to the Consulting Services contract with Soderstrom Architects, Ltd. in the amount of \$921,727 for Task Order 4 of the Medford Water Operations Center project. This would bring the total authorized amount under the contract to \$2,142,928.



RESOLUTION NO. 1922

A RESOLUTION Awarding and Authorizing the General Manager to Execute a Contract Amendment in the Amount of \$921,727.00 with Soderstrom Architects, Ltd. for Consulting Engineering & Architectural Services for Task Order 4 Construction Documents, Permit, & Bid Phase Support of the Medford Water Operations Center Project

WHEREAS, a contract in the amount of \$116,720.00 was awarded by the Board of Water Commissioners through Resolution No. 1862 on March 1, 2023; and

WHEREAS, a contract amendment in the amount of \$508,327.00 was awarded by the Board of Water Commissioners through Resolution No. 1900 on August 16, 2023; and

WHEREAS, a contract amendment in the amount of \$596,154.00 was awarded by the Board of Water Commissioners through Resolution No. 1915 on December 6, 2023; and

WHEREAS, Soderstrom Architects, Ltd. has submitted a Scope of Work, Schedule, and Budget for Task Order 4 Construction Documents, Permits, & Bid Phase Support of the project and is qualified and agreeable to render the services specified therein; and

WHEREAS, upon completion of this Task Order 4 phase of the project, a scope and fee for remaining work will be negotiated and brought to the Board for approval; and

WHEREAS, the value of the contract Amendment for Task Order 4, is estimated at \$921,727.00, bringing the total contract value to \$2,142,928.00.

WHEREAS, the contract amendment price has been examined and has been found to be agreeable;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER COMMISSIONERS OF THE CITY OF MEDFORD, OREGON, AS FOLLOWS:

SECTION 1. That an amendment to the contract in the amount of \$921,727.00 for Consulting Services for Task Order 4 Construction Documents, Permits, & Bid Phase Support of the Medford Water Operations Center project is hereby awarded to Soderstrom Architects, Ltd.

SECTION 2. That the General Manager is hereby authorized and directed to execute said contract amendment on behalf of the Board of Water Commissioners, which contract is on file in the Office of Medford Water and by reference made a part hereof.

PASSED at a regular meeting of the Board of Water Commissioners and signed by me in authentication thereof this 7th day of February 2024.

ATTEST: _____

Amber Furu, Asst. Clerk of the Commission

Bob Strosser, Chair



Memorandum

то:	Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and Michael Smith
FROM:	Brian Runyen, Engineering Manager
DATE:	Wednesday, February 7, 2023
SUBJECT:	Item 10.0 – Authorizing staff to allow a service connection under Resolution 1058 Section 7 and to waive collection of System Development Charges (SDCs) for a temporary irrigation water service for the City of Central Point Bear Creek Greenway Restoration
OBJECTIVE:	

Issue

The City of Central Point, thru Freshwater Trust, is beginning a riparian restoration of the burned Bear Creek greenway between Interstate 5 and Bear Creek north of the Table Rock Rd overpass. They will need a consistent water supply to achieve establishment of the revegetation. Because no City of Central Point water lines exist in the near vicinity, a request was made to Medford Water to provide a long-term temporary irrigation water service from a Medford Water, water main that traverses the area.

Discussion

Fulfillment of this request would be based on (1) Board concurrence for utilizing existing provisions of Resolution 1058 to provide direct water service to a customer outside of the established Medford Water service boundaries, and (2) Board support of Staff's request to waive SDC fees for this temporary service.

(1) Board Resolution 1058 defines the areas within which Medford Water (and its partner cities and districts) can provide water service. It also identifies and provides guidance on exceptions to this defined service area. This request to provide water service outside of the usual established Medford Water service boundaries is consistent with Section 7 of Resolution 1058, which allows that "the Board, where it would be in the general public interest, may extend water service for property owned and operated by the United States Government, the State of Oregon, Jackson County, school districts, and the cities of Medford, Central Point, Eagle Point, Jacksonville, Phoenix and Talent." Historically this has been accomplished by a Board Motion and approval.

Providing the proposed water service to the City of Central Point outside of Medford Water's direct service area is in the public's best interest for restoring the greenway vegetation that was damaged in previous fires. Central Point does not have a water line in the vicinity that could provide this water service. Medford Water's water infrastructure that happens to cross this tract presents the opportunity for Medford Water to provide this needed water service.

The proposed water service location and area to be irrigated are within the urbanized Urban Growth Boundary (UGB) of the City of Central Point.

(2) The request to waive System Development Charges (SDCs) is supportable because the proposed water service will be temporary (though long term over several years) and will ultimately be abandoned once restoration work is completed and fully established. An SDC waiver of this nature is comparable to other previously approved temporary water services.

The City of Central Point will bear all costs for installation of the water service, monthly costs of water service and usage (at outside City of Medford irrigation water rates), and costs abandonment (removal) of the water service when the project is completed.

The City of Central Point and Freshwater Trust explored options to draw water directly from Bear Creek, but this was deemed infeasible. In addition to the uncertainty of being able to acquire that water right there was a strong concern because a generator and pump would have to be deployed along the creek to draw water from the creek. Freshwater Trust, who is performing the work, has historically encountered problems with generators in a close-to urban environment such as this, as they often attract additional vandalism and theft. They have had more success with the piped irrigation system that has been proposed, without the need for a generator and pump. Medford Water will be able to install the water service and meter box in a manner that minimizes attractiveness and susceptibility to any tampering. Freshwater Trust will also typically perform daily site visits, especially in the first six months of the project, which has been very successful for them in reducing tampering with their plantings and irrigation system.

The need for this water service will span three to four years as the work progresses and landscaping becomes established. These restoration projects typically use around 500K gallons the first season with decreasing amounts needed each year. Each year, irrigation is expected over an approximately five-month period (typically May thru September). The expected service size is a 2" meter to accommodate potential peak periods of use and to minimize friction pressure losses to the irrigation system.

For comparison, the volume of water expected to be used *annually* by this project is comparable to the maximum *daily* allowances for golf courses served by Medford Water under existing Emergency Metered Water Service Agreements (which range from 100,000 to 500,000 gallons *per day*). This connection will not materially limit Medford Water's ability to serve other users with water.

Financial Impact

The City of Central Point will pay all costs for installation of the new water service as well as for the future abandonment of the water service when the restoration project is complete. All costs will be paid in advance (at the time the new service is provided).

The City of Central Point will pay for monthly costs of water service and usage based on the "Irrigation Outside City of Medford" water rates.

Requested Board Action

Staff recommends approval by motion authorizing staff to approve and provide for a temporary irrigation service and meter for the City of Central Point Bear Creek greenway restoration project in Central Point, for a time period extending to December 31, 2027, and to waive collection of Medford Water System Development Charges (SDCs) for this temporary irrigation water service.



Memorandum

то:	Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and
	Michael Smith
FROM:	Brian Runyen, PE, Engineering Manager
DATE:	Wednesday, February 7, 2024
SUBJECT:	Item 11.0 - Resolution 1923, Awarding and Authorizing the General Manager to
	Execute a Contract Amendment in the Amount of \$938,581 for "Part E Design of
	Capital Hill Reservoir Replacement" to the Contract with RH2 Engineering, Inc. for
	the "Distribution System Resilient Backbone" project.
OBJECTIVE:	Board Approval

lssue

Pre-Design work for the Capital Hill Reservoir Replacement has been completed. A scope and fee for Design work thru bidding of the construction contract has been prepared and is recommended to be awarded to RH2 Engineering under the current "Distribution System Resilient Backbone" project as planned. This contract amendment exceeds the General Manager's signing authority; therefore Board approval is needed.

Discussion

The "Distribution System Resilient Backbone" (DSRB) will provide distribution system seismic resilience including replacing the Capital Hill Reservoirs with seismically resilient storage and providing storage in the River Zone. The DSRB projects are part of the Water Infrastructure Finance Innovation Act (WIFIA) Rogue Valley Water Supply Resiliency Project.

The "Distribution System Resilient Backbone" Project consists of five planned phases:

- Part A Planning
- Part B Pre-Design of River Zone Storage
- Part C Design and Construction of River Zone Storage
- Part D Pre-Design of Capital Hill Reservoir Replacement
- Part E Design and Construction of Capital Hill Reservoir Replacement

A contract for "Part A – Planning" was awarded to RH2 Engineering in August of 2021, authorized under Resolution 1783. Part A work identified critical distribution system infrastructure that will provide seismic resilience while also resolving current and future operational issues. Thru this Part A work it was determined that "Part D – Pre-Design of Capital Hill Reservoir Replacement" was the appropriate next phase of the project. Part D was awarded to RH2 Engineering in October 2022, authorized under Resolution 1839, with subsequent amendments authorized under the General Manager's Authority. Part D work, including a Basis of Design Report has now been completed by RH2 Engineering.

In consultation with Medford Water staff, RH2 Engineering has developed a scope and fee for "Part E - Design of Capital Hill Reservoir Replacement" for an amount not to exceed \$938,581. The scope includes engineering services and public relations support thru design and bidding of the construction contract. Staff will return with an amendment to Part E for engineering services during construction around the time that the construction project is bid. Waiting until completion of full design will allow for a better-informed scope and budget for the engineering support services necessary during construction.

Financial Impact

The contract amendment of \$938,581 proposed in this Resolution is accounted for in both the current fiscal year (FY23/24) CIP budget and in the first year (FY24/25) of the 10-year CIP to be presented in March.

A summary of estimated consultant costs for Parts D & E - Capital Hill Reservoir Replacement follows:

Part D Pre-Design Part E Design (thru bidding) Part E Design (services during construction)	\$ 938,581	(completed) <i>This Resolution</i> (<i>estimated</i>)
TOTAL Estimated Consultant Costs (Parts D & E - Capital Hill Reservoir Replacement)	\$ 1,973,688	

The current engineer's opinion of probable construction cost for the Capital Hill Reservoir Replacement (based on the Pre-Design work escalated to the time of construction) is approximately \$29M. Total estimated consultant costs (including this design contract amendment and estimated services during construction) are approximately 6.8% of the currently estimated construction cost. Construction is anticipated to take up to 30 months.

Requested Board Action

Staff recommends approval of this Resolution awarding a portion of Part E of the multi-part Distribution System Resilient Backbone contract in the amount of up to \$938,581 to RH2 Engineering and authorizing the General Manager to administer payments for work under this contract.

RESOLUTION NO. 1923

A RESOLUTION Awarding and Authorizing the General Manager to Execute a Contract Amendment in the Amount of \$938,581.00 for "Part E Design of Capital Hill Reservoir Replacement" to the Contract with RH2 Engineering, Inc. for the "Distribution System Resilient Backbone" Project

WHEREAS, Medford Water executed a Contract with RH2 Engineering, Inc. on September 3rd, 2021, authorized under Resolution 1783, for "Part A – Planning" of the "Distribution System Resilient Backbone" project; and

WHEREAS, the project consists of five planned phases as follows:

Part A – Planning

Part B – Pre-Design of Reduced Pressure Zone Storage

Part C – Design and Construction of Reduced Pressure Zone Storage

Part D – Pre-Design of Capital Hill Reservoir Replacement

Part E – Design and Construction of Capital Hill Reservoir Replacement; and

WHEREAS, Part A work identified Part D as the appropriate next component of work for the "Distribution System Resilient Backbone" project; and

WHEREAS, Medford Water executed a Contract with RH2 Engineering, Inc. on October 4th, 2022, authorized under Resolution 1839, for "Part D – Pre-Design of Capital Hill Reservoir Replacement" with subsequent amendments authorized under the General Manager's Authority; and

WHEREAS, RH2 Engineering, Inc. has submitted a Scope of Work and Budget for the design portion of "Part E - Design and Construction of Capital Hill Reservoir Replacement" in the amount of \$938,581.00 and is qualified and agreeable to render the services specified therein; and

WHEREAS, the Scope of Work covered in this amendment is for the design portion of Part E only, the construction portion of Part E and Parts B and C will separately be brought back to the Board for approval and amendment to the contract; and

WHEREAS, the amount of the Contract Amendment for Part E, at a not-to-exceed value of \$938,581.00, exceeds the authority of the General Manager as defined in Section 1.2 of the Commission's Contracting & Purchasing Regulations;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER COMMISSIONERS OF THE CITY OF MEDFORD, OREGON, AS FOLLOWS:

SECTION 1. That a contract amendment in an amount not-to-exceed \$938,581.00 for Engineering Services related to the "Distribution System Resilient Backbone" project is hereby awarded to RH2 Engineering, Inc.

SECTION 2. That the General Manager is hereby authorized and directed to execute said contract amendment with RH2 Engineering, Inc., payments for said contract amendment up to \$938,581.00, and any contract amendments not exceeding the General Manager's purchasing authority, on behalf of the Board of Water Commissioners.

PASSED at a regular meeting of the Board of Water Commissioners and signed by me in authentication thereof this 7th day of February 2024.

ATTEST:

Amber Furu, Asst. Clerk of the Commission



Memorandum

то:	Commissioners Bob Strosser, David Wright, Jason Anderson, John Dailey, and Michael Smith
FROM:	Brian Runyen, PE, Engineering Manager
DATE:	Wednesday, February 7, 2024
SUBJECT:	Item 12.0 - Resolution 1924, Adopting the Medford Water Representation in the Updates to the <i>Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan</i>
OBJECTIVE:	Board Adoption

lssue

Medford Water has participated in updates to the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan*, which has been reviewed and pre-approved by the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials contingent upon official adoption of the participating governments and entities. Board adoption of the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan* and Medford Water representation (the "Medford Water Addendum") within the plan is requested so that final approval can be obtained.

Discussion

The Disaster Mitigation Act of 2000 (DMA2K) and the regulations contained in 44 CFR 201 require that jurisdictions (counties, cities, special districts, etc.) maintain an approved Natural Hazard Mitigation Plan (NHMP) to receive FEMA Hazard Mitigation Assistance funds for mitigation projects. To that end, Jackson County is involved in a broad range of hazard and emergency management planning activities. Local and federal approval of this NHMP ensures that the County and listed jurisdictions will (1) remain eligible for pre- and post-disaster mitigation project grants and (2) promote local mechanisms to accomplish risk reduction strategies.

Jackson County developed a Multi-Jurisdictional Natural Hazard Mitigation Plan (NHMP) through a regional partnership funded by the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP). This updated Natural Hazard Mitigation Plan is a collaboration between Jackson County and the cities of Ashland, Butte Falls, Eagle Point, Gold Hill, Jacksonville, Phoenix, Rogue River, Shady Cove, and Talent, as well as Medford Water, Jackson County Fire District #3 and Jackson County Fire District #5, with further support from the Oregon Partnership for Disaster Resilience (OPDR) at the University of Oregon's Institute for Policy Research and Engagement.

The "Medford Water Addendum to the Jackson County NHMP" is the result of Medford Water's participation in this process and is included for review in this Agenda packet. The full Jackson County NHMP is available online at the following link:

https://cms2.revize.com/revize/jacksoncountyor/Document%20Center/Departments/Emergency% 20Management/Natural%20Hazard%20Mitigation%20Plan/JacksonCo%202023%20NHMP%20V ol%20I%20and%20II_FINAL%20DRAFT.pdf

Local and federal approval of this NHMP ensures that the County and listed jurisdictions will (1) remain eligible for pre- and post-disaster mitigation project grants and (2) promote local mechanisms to accomplish risk reduction strategies.

This plan has been reviewed and pre-approved by the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials contingent upon official adoption of the participating governments and entities. Board adoption of the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan* and Medford Water representation (the "Medford Water Addendum") within the plan is requested so that final approval by OEM and FEMA can be obtained.

Financial Impact

There is no immediate financial impact in adopting the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan*. An approved local mitigation plan, including adoption by the participating entities, is one of the conditions for applying for and/or receiving FEMA mitigation grants from a variety of programs, including the Building Resilient Infrastructure and Communities (BRIC) grant program to which Medford Water has an application accepted and under review.

Requested Board Action

Staff recommends approval of this Resolution adopting the Medford Water representation in the updates to the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan*.

RESOLUTION NO. 1924

A RESOLUTION Adopting the Medford Water Representation in the Updates to the Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan

WHEREAS, Medford Water recognizes the threat that natural hazards pose to people, property and infrastructure within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people, property and infrastructure from future hazard occurrences; and

WHEREAS, an adopted Natural Hazards Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

WHEREAS, Medford Water has fully participated in the FEMA prescribed mitigation planning process to prepare the *Jackson County, Multi-Jurisdictional Natural Hazards Mitigation Plan*, which has established a comprehensive, coordinated planning process to eliminate or minimize these vulnerabilities; and

WHEREAS, Medford Water has identified natural hazard risks and prioritized a number of proposed actions and programs needed to mitigate the vulnerabilities of Medford Water to the impacts of future disasters within the *Jackson County, Multi-Jurisdictional Natural Hazards Mitigation Plan*; and

WHEREAS, these proposed projects and programs have been incorporated into the Jackson County, Multi-Jurisdictional Natural Hazards Mitigation Plan that has been prepared and promulgated for consideration and implementation by the participating cities and special districts of Jackson County; and

WHEREAS, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the *Jackson County, Multi-Jurisdictional Natural Hazards Mitigation Plan* and pre-approved it (dated, January 9, 2024) contingent upon this official adoption of the participating governments and entities;

WHEREAS, the Natural Hazards Mitigation Plan is comprised of three volumes: Volume I -Basic Plan, Volume II – Appendices, and Volume III – Jurisdictional Addenda, collectively referred to herein as the Natural Hazards Mitigation Plan; and

WHEREAS, the Natural Hazards Mitigation Plan is in an on-going cycle of development and revision to improve its effectiveness; and

WHEREAS, Medford Water adopts the Natural Hazards Mitigation Plan and directs the General Manager to develop, approve, and implement the mitigation strategies and any administrative changes to the Natural Hazards Mitigation Plan.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER COMMISSIONERS OF THE CITY OF MEDFORD, OREGON, AS FOLLOWS:

SECTION 1. That the Board of Water Commissioners adopts the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan* as an official plan.

SECTION 2. That Medford Water will submit this Adoption Resolution to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable final approval of the *Jackson County Multi-Jurisdictional Natural Hazards Mitigation Plan*.

PASSED at a regular meeting of the Board of Water Commissioners and signed by me in authentication thereof this 7th day of February 2024.

ATTEST:

Amber Furu, Asst. Clerk of the Commission

Bob Strosser, Chair



U.S. Department of Homeland Security FEMA Region 10 130 228th Street, SW Bothell, WA 98021-8627



January 16, 2024

Stephen Richardson State Hazard Mitigation Officer Oregon Department of Emergency Management P.O. Box 14370 Salem, Oregon 97309

Dear Officer Richardson:

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) Region 10 has determined the Jackson County multi-jurisdictional local hazard mitigation plan meets all applicable FEMA mitigation planning requirements¹ except its adoption by Jackson County or another participating jurisdiction.

Local governments, including special districts, with a plan status of "Approvable Pending Adoption" are not eligible for FEMA mitigation grant programs with a mitigation plan requirement.

The next step in the approval process is to formally adopt the mitigation plan and send a resolution to the state for submission to FEMA. Sample adoption resolutions can be found in Appendix A of the Local Mitigation Planning Policy Guide.

An approved local mitigation plan, including adoption by the local government, is one of the conditions for applying for and/or receiving FEMA mitigation grants from the following programs:

- Hazard Mitigation Grant Program (HMGP)
- HMGP Post-Fire
- Building Resilient Infrastructure and Communities
- Flood Mitigation Assistance
- High Hazard Potential Dams Grant Program (HHPD)

¹ Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and National Dam Safety Program Act, as amended; 44 CFR Part 201, Mitigation Planning; and Local Mitigation Planning Policy Guide (FP-206-21-0002).

Officer Richardson January 16, 2024 Page 2

We look forward to receiving the adoption resolution(s) and discussing options for implementing this mitigation plan. If we can help in any way, please contact the FEMA Hazard Mitgation Planning Team at FEMA-R10-MT Planning@fema.dhs.gov.

Participating jurisdictions that adopt the plan more than one year after APA status has been issued must either:

- Validate that their information in the plan remains current with respect to both the risk assessment (no recent hazard events, no changes in development) and their mitigation strategy (no changes necessary); or
- Make the necessary updates before submitting the adoption resolution to FEMA.

Sincerely,

WENDY L SHAW SHAW Date: 2024.01.16 13:20:22 -08'00'

Wendy Shaw, P.E. Risk Analysis Branch Chief Mitigation Division

Enclosures

EC:v1

Exhibit 2

Medford Water Addendum to the Jackson County NHMP



Photos courtesy of Oregon State Archives

Effective:

February XX, 2024-February XX, 2029

Prepared for Medford Water 420 6th Avenue Medford Water, OR 97525

Prepared by The University of Oregon Institute for Policy Research & Engagement School of Planning, Public Policy, and Management



Institute for Policy Research and Engagement

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Introduction

Purpose

This is the first iteration of the Medford Water addendum to the Jackson County Multi-Jurisdictional Natural Hazard Mitigation Plan (MNHMP, NHMP). This addendum supplements information contained in Volume I (Basic Plan), which serves as the NHMP foundation and Volume II (Appendices), which provide additional information. This addendum meets the following requirements:

- Multi-Jurisdictional Plan Adoption §201.6(c)(5),
- Multi-Jurisdictional Participation §201.6(a)(3),
- Multi-Jurisdictional Mitigation Strategy §201.6(c)(3)(iv) and
- Multi-Jurisdictional **Risk Assessment** §201.6(c)(2)(iii).

Medford Water adopted their addendum to the Jackson County Multi-jurisdictional NHMP on [date], 2024. FEMA Region X approved the Jackson County NHMP on [date], 2024 and Medford Water's addendum on [date], 2024. With approval of this NHMP, Medford Water is now eligible for non-disaster and disaster mitigation project grants through [date-1], 2029.

NHMP Process, Participation and Adoption

This section of the NHMP addendum addresses 44 CFR 201.6(c)(5), *Plan Adoption* and 44 CFR 201.6(a)(3), *Participation*.

In addition to establishing a comprehensive mitigation strategy, the Disaster Mitigation Act of 2000 (DMA2K), and the regulations contained in Title 44 CFR Part 201, require that jurisdictions maintain an approved NHMP to receive federal funds for mitigation projects. Local adoption, and federal approval of this NHMP ensures that Medford Water will gain eligiblility for non-disaster and disaster mitigation project grants.

The Oregon Partnership for Disaster Resilience (OPDR) at the University of Oregon's Institute for Policy Research and Engagement (IPRE) partnered with the Oregon Department of Emergency Management (OEM), Jackson County, and Medford Water to develop this NHMP. This project is funded through the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program. Members of the Medford Water NHMP steering committee also participated in the County NHMP update process (Volume II, Appendix B).

By creating a NHMP, locally adopting it, and having it approved by FEMA, Medford Water will gain eligibility for FEMA Hazard Mitigation Assistance grant program funds.

The Jackson County NHMP and Medford Water addendum are the result of a collaborative effort between residents, public agencies, non-profit organizations, the private sector, and regional organizations. A project steering committee guided the process of developing the NHMP.



Convener and Committee

The Engineering Manager served as the designated convener of the NHMP development and the Engineering Manager (or designee) will take the lead in implementing, maintaining, and updating the addendum to the Jackson County NHMP in collaboration with the designated convener of the Jackson County NHMP (Emergency Manager).

Representatives from the Medford Water steering committee met formally and informally, to discuss development of their addendum (Volume II, Appendix B). The steering committee reviewed and developed Medford Water's addendum, with particular focus on the NHMP's risk assessment (hazards, community vulnerabilities, and capabilities) and mitigation strategy (action items).

The addendum reflects decisions made at the designated meetings and during subsequent work and communication with Jackson County Emergency Management and the OPDR.

The Medford Water Steering Committee was comprised of the following representatives:

- Convener (Implementation and Maintenance), Brian Runyen Engineering Manager
- Rachel Lanigan (Plan Development), Senior Engineer
- Brad Taylor, General Manager
- Aaron Ott, City of Medford, Emergency Manager
- Delaney Huerta, Jackson County, Emergency Management

The Medford Water Leadership Team (steering committee) was closely involved throughout the development of the NHMP and served as the local oversight body for the NHMP's development.

NHMP Implementation and Maintenance

The Board of Water Commissioners will be responsible for adopting the Medford Water addendum to the Jackson County NHMP. This addendum designates a Steering Committee and a convener to oversee the development and implementation of action items. Because Medford Water addendum is part of the County's multi-jurisdictional NHMP, Medford Water will look for opportunities to partner with the County. Medford Water's steering committee will convene after adoption of the Medford Water NHMP addendum on an annual schedule. The County is meeting on a semi-annual basis and will provide opportunities for each participating jurisdiction to report on NHMP implementation and maintenance during their meetings. The convener will be responsible for assembling the steering committee.

The steering committee will be responsible for:

- Reviewing existing action items to determine suitability of funding;
- Reviewing existing and new risk assessment data to identify issues that may not have been identified at NHMP creation;
- Educating and training new steering committee members on the NHMP and mitigation actions in general;



- Assisting in the development of funding proposals for priority action items;
- Discussing methods for continued public involvement;
- Evaluating effectiveness of the NHMP at achieving its purpose and goals (use Table 4-1, Volume I, Section 4, as one tool to help measure effectiveness); and
- Documenting successes and lessons learned during the year.

The convener will also remain active in the County's implementation and maintenance process (Volume I, Section 4).

The steering committee will be responsible for activities outlined in Volume I, Section 4.

Medford Water will utilize the same action item prioritization process as the County (Volume I, Section 4 and Volume II, Appendix D).

Implementation through Existing Programs

Many of the Natural Hazard Mitigation Plan's recommendations are consistent with the goals and objectives of Medford Water's existing plans and policies. Where possible, Medford Water will implement the NHMP's recommended actions through existing plans and policies. Plans and policies already in existence have support from residents, businesses, and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, allowing them to adapt to changing conditions and needs. Implementing the NHMP's action items through such plans and policies increases their likelihood of being supported and implemented.

Medford Water currently has the following plans and programs that relate to natural hazard mitigation. For a complete list visit Medford Water's <u>website</u>.

- <u>Water Distribution System Facility Plan</u> (2017)
- <u>Big Butte Springs and Robert A. Duff Water Treatment Plant Facility Plan</u> (2016)
- Forest Management Plan: Big Butte Springs Watershed (2020)
- <u>Water Management and Conservation Plan</u> (2016)
- <u>Rogue Valley Water Supply Resiliency Program</u>

During the development of this NHMP plans, including the strategic and facility plans, were reviewed to identify possible natural hazard mitigation strategies (action items).

Capability Assessment

The Capability Assessment identifies and describes the ability of Medford Water Commission to implement the mitigation strategy and associated action items. Capabilities can be evaluated through an examination of broad categories, including existing authorities, policies, programs, funding, and resources.

Existing Authorities

Hazard mitigation can be executed at a local scale through three (3) methods: integrating hazard mitigation actions into other local planning documents (i.e., plan integration), adopting building and/or fire codes that account for best practices in structural hardening and fire resistance, and



codifying land use regulations and zoning designations that prescribe mitigation into development requirements. The extent to which a municipality, commission, or multi-jurisdictional effort leverages these approaches is an indicator of that community's capabilities.

The Engineering Division of Medford Water advises the Board of Water Commissioners on technical matters, advances in the water industry, and government laws and regulations that will influence the operation of the system. This division also monitors water supply and demand, factors used in considering future expansion and maintenance of the water system.

Regulations Governing Water Service

Medford Water operates under the provisions as set forth in the *Regulations Governing Water Service*. These regulations were updated on October 1, 2023. These include policies on billing, water service availability (including curtailments, shortages and outages), prevention of contamination, water use and conservation, etc.

Policies and Programs

This Plan directs Medford Water Commission and Jackson County to explore integration into other planning documents and processes. Medford Water Commission has made significant progress in integrating the NHMP into its portfolio of planning processes and programs over the last five years.

Water Distribution System Facility Plan (2017)

The Water Distribution System Facility Plan covers supply sources and community demands. This document, last amended in 2017, is scheduled to be updated every 5 years.

Capital Improvement Plan (CIP)

The CIP outlines the scheduling and implementation of the capital projects necessary to maintain and improve the water system and is updated every year. Capital improvements related to water facility and distribution projects average \$5 million per year. These improvements include the upgrade of facilities such as the Robert A. Duff Water Treatment Plant (Duff WTP), reservoir and pump station construction, as well as programs for the relaying and relining of water mains, the replacement of older or defective hydrants and the placement of meters. The latest CIP plan was approved by the Medford Water Board of Water Commissioners on June 7, 2023.

Big Butte Springs and Robert A. Duff Water Treatment Plant Facility Plan (2016)

The Big Butte Springs and Duff Water Treatment Facility Plan describes current and projected needs and lists recommended capital improvements for Medford Water Commission's two drinking water supply systems, the Big Butte Springs (BBS) and the Rogue River/Duff Water Treatment Plant (WTP). The plan was prepared in parallel to the 2016 Distribution System Facility Plan and the 2016 Water Management and Conservation Plan.¹

Water Management and Conservation Plan (2017)

The 2017 Water Management and Conservation Plan contains projections for the next 50 years, will be reviewed in five years and updated in 10. This plan identifies conservation and



¹ Big Butte Springs and Robert A. Duff Water Treatment Plant Facility Plan, CH2M, 2016.

curtailment measures for the City of Medford, as well as retail customers within the unincorporated community of White City.

Rogue Valley Water Supply Resiliency Program

A recently granted EPA Water Infrastructure Finance and Innovation Act (WIFIA) loan will fund over \$200 million in projects over the next 10 years, including expanded treatment and storage capacity and building a seismically resilient Water Campus to house administration and operational functions.

Community Wildfire Protection Plan

The Rogue Valley Integrated Community Wildfire Protection Plan (RVIFP) assesses wildfire risk, maps wildland urban interface areas, and includes actions to mitigate wildfire risk. Medford Water is included in the RVIFP. The RVIFP will be incorporated into this Plan as a functioning annex. The NHMP will also be integrated into the Commission's Capital Improvement Plan.

Administration

The Medford Water Board of Water Commissioners has the responsibility of developing and adopting the annual department budget. Integrating hazard mitigation goals and projects into the annual budget is key to implementing the plan. The Board tries to broadly address resilience needs while it determines departmental priorities and looks for multiple-impact projects wherever possible. They also work with staff to apply for federal and state grant funding to pursue larger projects that are outside of general funding capacity.

Personnel

The following Medford Water Commission personnel have assignments related to natural hazard mitigation planning and implementation:

Emergency Management: Administration (General Manager) and Operations Department

Public Information Officer: Customer Service (Communications Coordinator)

Grant writing (for Public Works or emergency management): Engineering Department with support of consultants

Capital improvement planning: Engineering Department & Finance Department

Capital improvement execution: Engineering Department

These personnel integrate hazard mitigation and resilience planning into their greater work programs to the best of their abilities. However, there is limited capacity to expand upon their capabilities or work loads.

Capital Projects

Medford Water Commission has implemented recommendations from the last NHMP into its capital improvement projects over the last 5 years, including:

• Capital Hill Reservoir Replacement Project (in-process)



- Foothill Road Waterlines Relocation (under construction)
- Academy Place Waterline Relocation Project (construction completed 2023)
- Table Rock Road Pipeline Project (under construction)
- SCADA Project (in-process)
- Crater Lake Ave Transmission Main (in planning)
- Duff Water Treatment Plant Expansion (under construction)
- Martin Control Station Backup Power (in-process)

Upcoming:

- 10-yr Capital Improvement Plan (CIP) annual update (in progress)
- Southeast Medford Facilities Plan completion November 2023
- Martin Control Station Evaluation

Capital Resources

Medford Water is responsible for the construction and maintenance of more than 476 miles of water mains, not including the Big Butte Springs lines. The distribution system consists of these water mains and service lines plus valves, fire hydrants, and meters. Pipeline materials consist primarily of ductile iron and cast iron. New pipelines are constructed of ductile iron only.

The Commission also maintains 16 covered reservoirs, two treatment plants (Big Butte Springs and Robert A. Duff Water Treatment Plant on the Rogue River), and 12 pump stations.

Capital resources with additional resilience capacity include:

Communication towers:

- Roxy Ann hub (shared facility)
- Capital Reservoir
- Service Center
- Lausmann Annex
- SCADA antennas at pump stations and reservoirs
- AMI towers at Justice Rd, Southwest Reservoir, Highland Reservoir, and Capital Reservoir

Critical facilities with power generators:

- Duff Water Treatment Plant and Reservoir
- Big Butte Springs facility
- Lone Pine Pump Station
- Archer Pump Station
- Barneburg Pump Station
- Lausmann Annex
- Medford Water Service Center



Findings

Several important findings from this capability assessment informed the design of the Plan's mitigation strategy and aided in prioritizing action items.

Staffing Limitations and Capacity

Medford Water Commission staff are assigned hazard mitigation responsibilities as a part of their larger job responsibilities. Limited capacity reduces the breadth of the programming the Commission can undertake in any year. The Commission relies upon its relationships with the County and cities within its region to expand its operations.

Reliance upon outside funding streams and local match requirements

Medford Water Commission operates on a restricted budget. Grants, loans, and revenue from water rates and system development charges (SDCs) are directed to sustain resilience programs. But there are few opportunities for using local financial resources to implement more extensive hazard mitigation work. They lean heavily upon state and federal grant funds and loans as the primary means for securing mitigation funding.

Leveraging Partnerships with Public and Nonprofit Entities

Regional planning displayed in Community Wildfire Protection Planning process demonstrates the Commission's ability to effectively share information and identified priority needs.

Mitigation Strategy

This section of the NHMP addendum addresses 44 CFR 201.6(c)(3(iv), *Mitigation Strategy*.

Medford Water's mitigation strategy (action items) was developed during the NHMP update planning process. The steering committee assessed Medford Water's risk, identified potential issues, and developed a mitigation strategy (action items). Medford Water developed actions specific to their community after first reviewing a list of recommended actions developed by the County or recommended by OPDR.



Mitigation Successes

Medford Water has several examples of hazard mitigation including the following projects funded through FEMA <u>Hazard Mitigation Assistance</u>.

FEMA Funded Mitigation Successes

• None to date

Other Mitigation Successes

- <u>Capital Hill Reservoir Replacement Project</u> (in-process, \$37 million, Medford Water and Water Infrastructure Finance and Innovation Act (WIFIA))
- <u>Foothill Road Waterlines Relocation</u> (in-process, \$37 million, Medford Water)
- <u>Academy Place Waterline Relocation Project</u> (2023, \$1.2 million, Medford Water)
- <u>Table Rock Road Pipeline Project</u> (ongoing, \$30million, Medford Water & WIFIA
- SCADA Project (in-process, \$19 million, Medford Water)
- Crater Lake Ave Transmission Main (in planning, \$12 million, Medford Water)
- Duff Water Treatment Plant Expansion (under construction, \$64 million, Medford Water & WIFIA)
- Martin Control Station Backup Power (in-process, \$0.9 million, Medford Water)

Action Items

Table MW-1 documents the title of each action along with, the lead organization, partners, timeline, cost, and potential funding resources.

Jackson County NHMP 2024: Medford Water Addendum

Table MW-1 Action Items

Action Item #	Mitigation Actions	Potential Funding Resources	Lead	Partners	Timeline	Cost
Multi-Ha	zard Mitigation Strategies					
1.1	Continue to construct and improve water transmission pipelines, including the Crater Lake Avenue transmission line.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	City of Medford Public Works	ο	н
1.2	Secure funding for and implement projects identified in the 2022 Medford Water Distribution System Resilience Backbone Study.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Partner Cities	ο	М-Н
1.3	Provide back-up power throughout water distribution system.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Partner Cities	S	М
1.4	Continue to expand and build resilience at the Duff Water Treatment Plant.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County	ο	ι
1.5	Secure permits and begin construction on Medford Water's second Rogue River raw water intake facility.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County	S	н
1.8	Coordinate emergency response planning efforts with the City of Medford and Jackson County.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, City of Medford	М	L
1.9	Implement improvements for Medford Water's Supervisory Contral and Data Acquisition (SCADA) system following recommendations from the 2023 SCADA Master Plan.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Partner Cities	S	н

Action Item #	Mitigation Actions	Potential Funding Resources	Lead	Partners	Timeline	Cost
1.10	Continue to coordinate the water rights strategy with wholesale customer Partner Cities.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Partner Cities	0	L
1.11	Work with partnering jurisdictions (e.g., Jackson County and cities in the county) on continued climate action coordination.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	М	L
1.12	Incorporate resilience in maintenance and training strategies for staff.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	S	L
1.13	Update the Medford Water Distribution System Master Plan by 2025, including developing an Oregon State required Seismic Risk Assessment and Mitigation Strategy.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County, Partner Cities	М	Μ
1.14	Review and update the EPA-required Water System Risk and Resilience Assessment by 2026. Implement recommendations from 2020 Plan.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	М	M-H
1.15	Participate in joint training and exercises for emergency training and response.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	0	L
1.16	Plan and prepare valve exercising program.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	0	L
1.17	Continue to develop new policies and construction standards to mitigate the impact of natural hazards.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	0	L

0

Action Item #	Mitigation Actions	Potential Funding Resources	Lead	Partners	Timeline	Cost
1.18	Continue water testing to ensure water quality before, during, and after a natural hazard event.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	DEQ, OHA, DWS	0	L
1.19	Finalize and publish Source Water Protection Plan to inform Medford Water's spill response strategy.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	DEQ, OHA, DWS	S	Μ
1.20	Sustain a public awareness and education campaign about water and natural hazards through online and mail communications, as well as in-person events.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	0	L
Air Quali	ty Mitigation Strategies					
2.0	The steering committee did not profile this hazard. During futu	re updates the stee	ring committee will o	consider adding this h	azard.	
Drought	Mitigation Strategies					
3.1	Complete the Rogue Valley Water Supply Resiliency Program by 2033.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	DEQ, OHA, DWS	L	н
3.2	Complete the Big Butte Springs Enhancement Project in order to improve water supply during droughts.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	DEQ, OHA, DWS	S	М-Н
3.3	Continue to maintain an active Water Curtailment Plan	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	0	L
3.4	Implement annual pipeline renewal and replacement program to reduce leaks and conserve water.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	0	Н

Action Item #	Mitigation Actions	Potential Funding Resources	Lead	Partners	Timeline	Cost			
3.5	Continue to implement action items from Medford Water's Water Management and Conservation Plan including: Performing annual water audits; documenting unmetered water use; replacing all meters to AMI; continuing large meter calibrations; adjusting the rate structure to encourage conservation; maintain leakage to less than 10%; minimize customer side leakage; update conservation materials and improve promotion; improve educational materials; expand outdoor water use conservation efforts; providing technical and financial assistance programs; retrofitting and replacing inefficient fixtures; new construction conservation methods.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	S-L	L-H			
3.6	Build Asset Management Preventative Maintenance Program	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	S	L-H			
Earthqua	ake Mitigation Strategies								
4.0	The steering committee, using available local resources, will stu NHMP, seeking to identify cost effective actions that might be i				enance phase of	this			
Emergin	g Infectious Disease Mitigation Strategies								
5.0	.0 The steering committee did not profile this hazard. During future updates the steering committee will consider adding this hazard.								
Flood Mi	itigation Strategies								
6.1	Participate in floodplain management in coordination with other Rogue River entities.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	S	L			
Landslide	e Mitigation Strategies								
7.0	7.0 The steering committee, using available local resources, will study this hazard further during the implementation and maintenance phase of this NHMP, seeking to identify cost effective actions that might be implemented to reduce community vulnerability.								

0

Action Item #	Mitigation Actions	Potential Funding Resources	Lead	Partners	Timeline	Cost	
Severe W	/eather (Extreme Heat, Windstorm, Winter Storm) Mitigat	ion Strategies					
8.1	Educate customers on pipe maintenance to prevent freezing.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	S	L	
Volcanic	Event Mitigation Strategies						
9.0	9.0 The steering committee, using available local resources, will study this hazard further during the implementation and maintenance phase of this NHMP, seeking to identify cost effective actions that might be implemented to reduce community vulnerability.						
Wildfire I	Vitigation Strategies						
10.1	Continue to implement the Medford Water's 30-year Forest Management Plan.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	Ο	н	
10.2	Map and assess Wildfire Vulnerability in the next Risk and Resilience Assessment update.	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	OEM, FEMA, Jackson County Emergency Management	Ο	L	
10.3	Continue to implement a Fire Hydrant Testing and Replacement Plan	Medford Water Funding Resources, FEMA HMA	Medford Water Administration	Jackson County, Partner Cities	0	L-H	

Source: Medford Water NHMP Steering Committee, 2023

Cost: L – Low (less than \$50,000), M - Medium (\$50,000-\$100,000), H - High (more than \$100,000) Timing: O-Ongoing (continuous), S-Short (1-2 years), M-Medium (3-5 years), L-Long (5 or more years) Priority Actions: Identified with **bold** text and **orange** highlight

Risk Assessment

This section of the NHMP addendum addresses 44 CFR 201.6(b)(2) - Risk Assessment. In addition, this chapter can serve as the factual basis for addressing Oregon Statewide Planning Goal 7 – Areas Subject to Natural Hazards.

Assessing natural hazard risk has three phases:

- **Phase 1:** Identify hazards that can impact the jurisdiction. This includes an evaluation of potential hazard impacts type, location, extent, etc.
- **Phase 2:** Identify important community assets and system vulnerabilities. Example vulnerabilities include people, businesses, homes, roads, historic places and drinking water sources.
- **Phase 3:** Evaluate the extent to which the identified hazards overlap with or have an impact on, the important assets identified by the community.

The local level rationale for the identified mitigation strategies (action items) is presented herein and within Volume I, Sections 2 and 3. The risk assessment process is graphically depicted in Figure MW-1. Ultimately, the goal of hazard mitigation is to reduce the area of risk, where hazards overlap vulnerable systems.





Hazard Analysis

The Medford Water steering committee developed their hazard vulnerability assessment (HVA), using the County's HVA (Volume II, Appendix C) as a reference. Changes from the County's HVA were made where appropriate to reflect distinctions in vulnerability and risk from natural hazards unique to Medford Water, which are discussed throughout this addendum.

Table MW-2 shows the HVA matrix for Medford Water listing each hazard listed in order of rank from high to low. For local governments, conducting the hazard analysis is a useful step in planning for hazard mitigation, response, and recovery. The method provides the jurisdiction with a sense of hazard priorities but does not predict the occurrence of a particular hazard.

Three chronic hazards (wildfire, drought, winter storm) and a catastrophic hazard (Cascadia Subduction Zone earthquake) rank as the top hazard threats to Medford Water (Top Tier). Flood, extreme heat event, and crustal earthquake comprise the next highest ranked hazards (Middle Tier), while windstorm, landslide, and volcanic event hazards comprise the lowest ranked hazards (Bottom Tier). *Note: air quality and emerging infectious disease were not profiled in this hazard, see Volume I, Sections 2 and 3 for applicable countywide vulnerability and mitigation strategies for these hazards.*

Hazard	History	Vulnerability	Maximum Threat	Probability	Total Threat Score	Hazard Rank	Hazard Tiers
Wildfire	16	45	100	70	231	#1	
Drought	20	45	100	63	228	#2	Тор
Earthquake - Cascadia	2	50	100	49	201	#3	Tier
Winter Storm	20	20	100	56	196	#4	
Flood	12	30	80	49	171	#5	Middle
Extreme Heat Event	20	5	70	70	165	#6	Tier
Earthquake - Crustal	2	40	100	21	163	#7	ner
Windstorm	12	5	70	49	136	#8	Bottom
Landslide	6	30	40	28	104	#9	Tier
Volcanic Event	2	5	50	7	64	#10	nei

Table MW-2 Hazard Analysis Matrix

Source: Medford Water NHMP Steering Committee, 2023.

Community Characteristics

Medford Water directly services approximately 140,000 people within the Rogue Valley including customers in Medford, unincorporated White City, other unincorporated areas, and the Elk City Water District. Treated water is provided to Ashland, Central Point, Eagle Point, Jacksonville, Phoenix, and Talent on a wholesale basis (Figure MW-3).

Medford Water sources customer water from the Rogue River Watershed (surface water source) and Big Butte Springs Watershed (groundwater source). The Rogue River Watershed spans from just outside of Medford to the Cascades to the northeast near Crater Lake. The Big Butte Springs Watershed (a smaller watershed within the Rogue River Watershed) is in the southeastern portion of the Rogue River Watershed near the base of Mt. McLoughlin and 30 miles east of Medford. Since 1923, Medford Water, has provided water from Big Butte Springs. The springs provide enough water to meet the demands of Medford Water's customers for much of the year, during the remainder of the year water is pumped from the Rogue River. Additionally, Jacksonville, Phoenix, and Talent have water rights to water stored in Lost Creek Reservoir which is treated by Medford Water for use during summer months.

Medford Water's territory experiences a relatively mild climate with four distinct seasons that comes from its position on the west coast of North America and within the Cascade Range mountains. The average daily high temperature in the area is between 45- and 55-degrees Fahrenheit (F) in the winter and between 80- and 95-degrees Fahrenheit (F) in the summer. The Rogue Valley has the lowest precipitation among Oregon's western interior valleys and ranges from about 25 inches in the valley to about 80 inches in the Cascades (Figure MW-2). October through May are the wettest months.



Figure MW-2 Normal Precipitation: Annual (1991-2020)

Source: OPDR, data PRISM Climate Group

For more information on the characteristics of each partner jurisdiction (Jackson County, Ashland, Central Point, Eagle Point, Jacksonville, Phoenix, and Talent) please review Volume II, Appendix C and the applicable city addenda in Volume III.

Community Assets

This section outlines the resources, facilities, and infrastructure that, if damaged, could significantly impact the public safety, economic conditions, and environmental integrity of Medford Water. Medford Water Facilities are shown in Figure MW-3 and Table MW-3. Medford Water includes about 510 miles of pipeline (distribution plus transmission pipelines), 12 pump stations, and 16 distribution reservoirs.²





Source: Oregon Partnership for Disaster Resilience. Oregon Department of Geology and Mineral Industries. Note: To view detail click this <u>link</u> to access Oregon HazVu

² Medford Water. <u>Water Management and Conservation Plan</u>. 2017.

Table MW-3 Medford Water Facilities

Facility Name	Community Lifeline Category	Lifeline Type	Earthquake- Liquefaction Hazard	Flood Hazard	Landslide Hazard	Wildfire Hazard
181 Vilas Water Storage	food, water, and shelter	reservoir	low	minimal	low	moderate
3007 Old Stage Rd Water Storage	food, water, and shelter	reservoir	none	minimal	low	moderate
399 S 5th Street Water Storage	food, water, and shelter	reservoir	low	minimal	low	low
Barneburg Pump Station	food, water, and shelter	pump station	none	minimal	low	low
Barneburg Reservoir	food, water, and shelter	reservoir	none	minimal	moderate	low
Big Butte Springs	food, water, and shelter	water supply	none	minimal	moderate	moderate
Capital Hill 1 Reservoir	food, water, and shelter	reservoir	none	minimal	moderate	low
Capital Hill 2 Reservoir	food, water, and shelter	reservoir	none	minimal	moderate	low
Capital Hill 3 Reservoir	food, water, and shelter	reservoir	none	minimal	moderate	low
Coalmine Control Station	food, water, and shelter	control station	low	minimal	low	low
Conrad Control Station	food, water, and shelter	control station	low	500-Year	low	low
Duff Treatment Plant and Reservoir	food, water, and shelter	water treatment plant	low	minimal	low	low
Lausmann Annex - Medford Water Commission Main Office	food, water, and shelter	office	low	minimal	low	low
Martin Control Station	food, water, and shelter	control station	low	minimal	low	low
Medford Water Service Center	food, water, and shelter	service center	low	minimal	low	low
Rossanley Control Station	food, water, and shelter	control station	low	minimal	low	low

Source: Oregon Department of Geology and Mineral Industries, Medford Water NHMP Steering Committee

Community Lifelines are fundamental services that enable all other aspects of society to function. FEMA developed the <u>Community</u> <u>Lifelines</u> construct for objective-based response to prioritize the rapid stabilization of these facilities after a disaster. Mitigating these facilities will increase the community's resilience.

Note: Medford Water is developing a new campus, expected to be completed in 2026. The next update of this NHMP will include more information on this site. The campus is expected to have minimal to low exposure to the hazards identified above.


Hazard Profiles

The following sections briefly describe relevant information for each profiled hazard. For more information on the vulnerabilities of each partner jurisdiction (Jackson County, Ashland, Central Point, Eagle Point, Jacksonville, Phoenix, and Talent) please review Volume I, Section 2 and the applicable city addenda in Volume III. More information on Jackson County Hazards can be found in Volume 1 Section 2 *Risk Assessment* and in the <u>Risk Assessment for Region 4, Southwest</u> <u>Oregon, Oregon SNHMP (2020)</u>. *Note: air quality and emerging infectious disease were not profiled in this hazard, see Volume I, Sections 2 and 3 for applicable countywide vulnerability and mitigation strategies for these hazards.*

Drought

The steering committee determined that Medford Water's probability for drought is **high** (which is the same as the County's rating) and that their vulnerability to drought is **high** (which is higher than the County's rating).

Volume I, Section 2 describes the characteristics of drought hazards, their history, and how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event. Due to the climate of Jackson County, past and present weather conditions have shown an increasing potential for drought.

Medford Water receives its high-quality water supply from both the Rogue River and Big Butte Springs. Up to 25-35 million gallons per day (mgd) can be obtained from Big Butte Springs, however, the pipeline capacity limits withdrawal to a maximum of 26.4mgd.³ In addition, Medford Water holds one water right for 100 cfs (64.6 mgd) for surface water from the Rogue River.⁴ For more information on the future of Medford Water's water supply visit their <u>website</u> and/or review their <u>Water Management and Conservation Plan</u>.

Future Projections

According to the Oregon Climate Change Research Institute "Future Climate Projections, Jackson County, "⁵ drought, as represented by low summer soil moisture, low spring snowpack, low summer runoff, and low summer precipitation, is projected to become more frequent in Jackson County by the 2050s.

Increasingly frequent droughts will have economic and social impacts upon those who depend upon predictable growing periods (ranches, farms, vineyards, gardeners) as well as upon the price and availability of fresh vegetables. It may also stress local jurisdictions' ability to provide water for irrigation or commercial and household use and for firefighting.

³ Ibid.

⁴ Ibid.

⁵ Oregon Climate Change Research Institute, Future Climate Projections, Jackson County, Oregon. February 2023.

Please review Volume I, Section 2 for additional information on this hazard.

Earthquake (Cascadia)

The steering committee determined that Medford Water's probability for a Cascadia Subduction Zone (CSZ) earthquake is **moderate** (which is the same as the County's rating) and that their vulnerability to a CSZ earthquake is **high** (which is the same as the County's rating).

Figure MW-4 displays perceived shaking hazards from a Cascadia Subduction Zone earthquake event. As shown in the figure below, the areas of greatest concern within Medford Water are near populated areas and the Big Butte Springs water supply (darker areas).



Figure MW-4 Cascadia Subduction Zone Perceieved Shaking

Source: Oregon Partnership for Disaster Resilience. Oregon Department of Geology and Mineral Industries. Note: To view detail click this link to access Oregon HazVu.

Volume I, Section 2 describes the characteristics of earthquake hazards and their history, as well as the location, extent, and probability of a potential event. Generally, an event that affects the County is likely to affect Medford Water as well. The causes and characteristics of an earthquake

event are appropriately described within Volume I, Section 2, as well as the location and extent of potential hazards. Previous occurrences are well documented within Volume I, Section 2 and the community impacts described by the County would generally be the same for Medford Water as well.

Please review Volume 1, Section 2 for additional information on this hazard.

Earthquake (Crustal)

The steering committee determined that Medford Water's probability for a crustal earthquake is **low** (which is the same as the County's rating) and that their vulnerability to crustal earthquake is **high** (which is higher than County's rating).

Figure MW-5 shows the liquefaction risk to the community lifelines that are identified in more detail in Table MW-3. As shown in the figure, the area of greatest concern near Medford Water (liquefaction hazard orange to red areas) are near populated areas.



Figure MW-5 Liquefaction Susceptibility



Source: Oregon Partnership for Disaster Resilience. Oregon Department of Geology and Mineral Industries. Note: To view detail click this <u>link</u> to access Oregon HazVu.

Volume I, Section 2 describes the characteristics of earthquake hazards, history, as well as the location, extent, and probability of a potential event. Generally, an event that affects the County is likely to affect Medford Water as well. The causes and characteristics of an earthquake event are appropriately described within Volume I, Section 2, as well as the location and extent of potential hazards. Previous occurrences are well-documented within Volume I, Section 2 and the community impacts described by the County would generally be the same for Medford Water as well.

Earthquake-induced damages are difficult to predict and depend on the size, type, and location of the earthquake, as well as site-specific building and soil characteristics. Presently, it is not possible to accurately forecast the location or size of earthquakes, but it is possible to predict the behavior of soil at any site. In many major earthquakes, damages have primarily been caused by the behavior of the soil.

Vulnerability Assessment

Due to insufficient data and resources, Medford Water is currently unable to perform a quantitative risk assessment for this hazard, however an exposure assessment was conducted. Identified Community Lifelines that are exposed to this hazard are shown in Table MW-3. Note that even if a facility has exposure, *it does not mean there is a high risk (vulnerability)*. In addition, pipelines (distribution and transmission pipelines), pump stations, and distribution reservoirs are vulnerable to earthquakes.

Future Projections

Future development (residential, commercial, or industrial) within Jackson County will be at risk to earthquake impacts, although this risk can be mitigated by the adoption and enforcement of high development and building standards. Reducing risks to vulnerable populations should be considered during the redevelopment of existing properties.

Please review Volume I, Section 2 for additional information on this hazard.

Flood

The steering committee determined that Medford Water's probability for flood is **moderate** (which is lower than the County's rating) and that their vulnerability to flood is **moderate** (which is the same as the County's rating).

Volume I, Section 2 describes the characteristics of flood hazards, their history, and how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event. Portions of Medford Water have mapped FEMA flood zones (Figure MW-6). Other portions of Medford Water could be subject to flooding from local storm water drainage; however, areas of known flood hazard do not impact development or infrastructure.

The two main water sources for Medford Water are the Rogue River and Big Butte Springs. Additional water is sourced from Lost Creek Reservoir for Jacksonville, Phoenix, and Talent. The Rogue River is the chief source of flooding in the Medford Water area, however, the Rogue River Watershed encompasses many of the flood sources described in the <u>Jackson County Flood</u> <u>Insurance Study</u> (2018). The Rogue River is studied with detailed methods for communities with development that is potentially impacted by its flood waters. The Lost Creek Dam was built in part to regulate flows on the Rogue River. Big Butte Creek, near Big Butte Springs, is studied with approximate methods due to a lack of development in proximity to the creek. Medford Water is above the river and has had minimal recorded flood damage. There is a low potential for flood from this water source. The major flood concern for Medford Water is the condition of the two bridges over the Rogue River that supply transportation access to Medford Water.

Medford Water generally has low to minimal risk from two types of flooding: riverine and urban. Riverine flooding occurs when streams overflow their banks and inundate low-lying areas. This is a natural process that adds sediment and nutrients to fertile floodplain areas. It usually results from prolonged periods of precipitation over a wide geographic area. Most areas are generally flooded by low velocity sheets of water. Urban flooding occurs as land is converted to impervious

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surfaces and hydrologic systems are changed. Precipitation is collected and transmitted to streams at a much faster rate, causing floodwaters that rise rapidly and peak with violent force. During urban flooding, storm drains can back up and cause localized flooding of streets and basements. For more information on flood vulnerability see applicable city addenda in Volume III.



Figure MW-6 FEMA Flood Zones

Source: Oregon Partnership for Disaster Resilience. Oregon Department of Geology and Mineral Industries. Note: To view detail click this link to access Oregon HazVu.

Vulnerability Assessment

Due to insufficient data and resources, Medford Water is currently unable to perform a quantitative risk assessment for this hazard, however an exposure assessment was conducted. Identified community lifelines that are exposed to this hazard are shown in Table MW-3. Note that even if a facility has exposure, *it does not mean there is a high risk (vulnerability).*

Floods can have a devastating impact on almost every aspect of the community, including private property damage, public infrastructure damage, and economic loss from business

interruption. It is important for Medford Water to be aware of flooding impacts and assess its level of risk.

The economic losses due to business closures often total more than the initial property losses that result from flood events. Business owners and their employees are significantly impacted by flood events. Direct damages from flooding are the most common impacts, but indirect damages, such as diminished clientele, can be just as debilitating to a business.

The <u>Jackson County Flood Insurance Study</u> (January 19, 2018) has a brief history of flooding in Jackson County (Volume I, Section 2). The Conrad Control Station is within the 500-year chance flood zone while other Medford Water facilities are at minimal flood risk.

Floodwaters can affect building foundations, seep into basements or cause damage to the interior, exterior, and contents of buildings, dependent upon the velocity and depth of the water and by the presence of floating debris.

Future Projections

According to the Oregon Climate Change Research Institute (<u>OCCRI report</u>) "Future Climate Projections, Jackson County,"⁶ winter flood risk at mid-elevations in Jackson County, where temperatures are near freezing during winter and precipitation is a mix of rain and snow, is projected to increase as winter temperatures increase. The temperature increase will lead to an increase in the percentage of precipitation falling as rain rather than snow. The projected increases in total precipitation, and in rain relative to snow, likely will increase flood magnitudes in the region. Vulnerable populations adjacent to floodways (including the unhoused, manufactured home communities, and campground occupants) will be more at risk as the winter flood risk increases.

National Flood Insurance Program (NFIP)

FEMA updated the Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) in 2018 (effective January 19, 2018). Medford Water is not a community which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. All partner jurisdictions (Jackson County and cities) participate in the National Flood Insurance Program (NFIP). For more information on the NFIP see applicable county (Volume I, Section 2) and city addenda (Volume III).

Please review Volume I, Section 2 for additional information on this hazard.

Landslide

The steering committee determined that Medford Water's probability for landslide is **moderate** (which is lower than the County's rating) and that their vulnerability to landslide is **moderate** (which is higher than the County's rating).

⁶ Oregon Climate Change Research Institute, Future Climate Projections, Jackson County, Oregon. February 2023.

Volume I, Section 2 describes the characteristics of landslide hazards, history, how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event within the region.

Landslide susceptibility exposure for Medford Water is shown in Figure MW-7. Most of Medford Water demonstrates a low susceptibility to landslide exposure, with corridors of moderate and high susceptibility concentrated around the upper areas of the watershed. The chief concern for landslide is along rural transportation corridors and waterways within the watershed.

Vulnerability Assessment

Due to insufficient data and resources, Medford Water is currently unable to perform a quantitative risk assessment for this hazard, however an exposure assessment was conducted. Identified community lifelines that are exposed to this hazard are shown in Table MW-3. *Note that even if an area has a high percentage of land in a high or very high landslide exposure susceptibility zone, that does not mean there is a high risk (vulnerability), because risk is the intersection of a hazard and assets.*

Future Projections

Landslides are often triggered by rainfall when the soil becomes saturated. As a surrogate measure of landslide risk, the Oregon Climate Change Research Institute (OCCRI report) report presents a threshold based on recent precipitation (cumulative precipitation over the previous 3 days) and antecedent precipitation (cumulative precipitation on the 15 days prior to the previous 3 days). By the 2050s under the higher emissions scenario, the average number of days per year in Jackson County on which the landslide risk threshold is exceeded is projected to remain about the same, with an increase of 0.2 days. However, landslide risk depends on multiple factors, and this metric, which is based on precipitation, does not reflect all aspects of the hazard. Additional triggers, such as earthquakes, wildfires, or development, can increase risks of landslides. Future development along slopes or adjacent to riverbanks will be a greater risk of impact from this hazard.





Figure MW-7 Landslide Susceptibility Exposure

Source: Oregon Partnership for Disaster Resilience. Oregon Department of Geology and Mineral Industries. Note: To view detail click this link to access Oregon HazVu.

Severe Weather

Severe weather can account for a variety of intense and potentially damaging weather events. These events include windstorms and winter storms. The following section describes the unique probability and vulnerability of each identified weather hazard. Other more abrupt or irregular events such as hail are also described in this section.

Extreme Heat Event

The steering committee determined that Medford Water's probability for extreme heat event is **high** (which is the same as the County's Rating) and that their vulnerability to an extreme heat event is **low** (which is lower than the County's Rating).

Jackson County's NHMP Volume I, Section 2, adequately describes the causes and characteristics of extreme heat, as well as the history, location, extent, and probability of a potential event and



how it relates to future climate projections (see <u>OCCRI report</u>). Generally, an event that affects the County is likely to affect Medford Water as well. A severe heat episode or "heat wave" occurs about every two to three years, and typically lasting two to three days but can last as many as five days. A severe heat episode can be defined as consecutive days of temperatures in the high 90s and above 100. Severe heat hazard in Southern Oregon can be described as the average number of days with temperatures greater than or equal to 90-degrees Fahrenheit.⁷

Extreme heat events can and have occurred in Medford Water, and while they typically do not cause loss of life, they are becoming more frequent and have the potential to impact economic activity as well as quality of life and have caused threat to life in some cases.

Future Projections

According to the Oregon Climate Change Research Institute (<u>OCCRI report</u>) "Future Climate Projections, Jackson County, *"*⁸ average temperature is expected to continue increasing during the twenty-first century if global emissions of greenhouse gases continue. The number, duration, and intensity of extreme heat events will increase as temperatures continue to warm. In Jackson County, the number of extremely hot days (days on which the temperature is 90°F or higher) and the temperature on the hottest day of the year are projected to increase by the 2020s and 2050s. The number of days per year with temperatures 90°F or higher is projected to increase by an average of 28 days (range 12–38 days) by the 2050s, relative to the 1971–2000 historical baselines. The temperature on the hottest day of the year is projected to increase by an average of about 7°F (range 3–8°F) by the 2050s. Higher temperatures and longer/more extreme heat events will have negative impacts upon vulnerable populations such as those over 65+, children, those living in older or temporary housing, and field workers.

See the Risk Assessment (Volume I, Section 2) for additional information on this hazard.

Windstorm

The steering committee determined that Medford Water's probability for windstorm is **moderate** (which is lower than the County's rating) and that their vulnerability to windstorm is **low** (which is lower than the County's rating).

Volume I, Section 2 describes the characteristics of windstorm hazards, their history, and how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event within the region. Because windstorms typically occur during winter months, they are sometimes accompanied by ice, freezing rain, flooding, and snow. Other severe weather events that may accompany windstorms, including thunderstorms, hail, and lightning strikes are standard for Medford Water.

Volume I, Section 2 describes the impacts caused by windstorms, including power outages, downed trees, heavy precipitation, building damages, and storm-related debris. Additionally,

⁷ DLCD. Oregon State Natural Hazard Mitigation Plan. 2020.

⁸ Oregon Climate Change Research Institute, Future Climate Projections, Jackson County, Oregon. February 2023.

transportation and economic disruptions result as well. Medford Water regularly experiences high winds. Pacific Power has mitigated the risk of power loss by trimming trees near their above ground infrastructure.

Damage from high winds generally has resulted in downed utility lines and trees but has minimal impact upon Medford Water. Electrical power can be out anywhere from a few hours to several days. Outdoor signs have also suffered damage. If the high winds are accompanied by rain (which they often are), blowing leaves, and debris clog drainage-ways, which in turn causes localized urban flooding.

Future Projections

Limited research suggests little if any change in the frequency and intensity of windstorms in the Northwest as a result of climate change. Those impacted by windstorms at present, including older residential or commercial developments with above-ground utilities, poor insulation or older construction, heavy tree canopies, or poor storm drainage, will continue to be impacted by windstorms in the future.

Please review Volume I, Section 2 for additional information on this hazard.

Winter Storm (Snow/Ice)

The steering committee determined that Medford Water's probability for winter storm is **high** (which is the same as the County's rating) and that their vulnerability to winter storm is **moderate** (which is the same as the County's rating).

Volume I, Section 2 describes the characteristics of winter storm hazards, their history, and how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event within the region. Severe winter storms can consist of rain, freezing rain, ice, snow, cold temperatures, and wind. They originate from troughs of low pressure offshore that ride along the jet stream during fall, winter, and early spring months. Severe winter storms affecting Medford Water typically originate in the Gulf of Alaska or in the central Pacific Ocean. These storms are most common from November through March.

Major winter storms can and have occurred in the Medford Water area and while they typically do not cause significant damage, they are frequent and have the potential to impact economic activity. Road closures due to winter weather are an uncommon occurrence but can interrupt commuter and commercial traffic.

Future Projections

According to the Oregon Climate Change Research Institute (<u>OCCRI report</u>) "Future Climate Projections, Jackson County, "⁹ cold extremes will become less frequent and intense as the climate warms. In Jackson County, the number of cold days (maximum temperature 32°F or lower) per year is projected to decrease by an average of 3 days (range -2– -5 days) by the 2050s, relative to the 1971–2000 historical baselines, under the higher emissions scenario. The

⁹ Oregon Climate Change Research Institute, Future Climate Projections, Jackson County, Oregon. February 2023.

temperature on the coldest night of the year is projected to increase by an average of 6°F (range 3-9°F) by the 2050s. The intensity of extreme precipitation is expected to increase as the atmosphere warms and holds more water vapor. In Jackson County, the number of days per year with at least 0.75 inches of precipitation is not projected to change substantially. However, by the 2050s, the amount of precipitation on the wettest day and wettest consecutive five days per year is projected to increase by an average of 15% (range -3-32%) and 11% (range -3-34%), respectively. If these precipitation events occur in the winter, heavier winter storms with larger impacts upon transportation routes, vulnerable populations, and economic activity can be expected.

Please review Volume I, Section 2 for additional information on this hazard.

Volcanic Event

The steering committee determined that Medford Water's probability for a volcanic event is **low** (which is the same as the County's rating) and that their vulnerability to a volcanic event is **low** (which is the same as the County's rating).

Volume I, Section 2 describes the characteristics of volcanic hazards and their history, as well as the location, extent, and probability of a potential event within the region. Generally, an event that affects the County is likely to affect Medford Water as well. Medford Water is very unlikely to experience anything more than volcanic ash during a volcanic event.

Future Projections

Although the science of volcano predictions is improving, it remains challenging to predict a potential volcanic event. Ash fall, which will be the greatest impact, will impact the entire County. Impacts will be felt hardest by property managers (ranches, farmers, etc.) and by those relying upon clean surface water (for drinking water production and irrigation).

Please review Volume I, Section 2 for additional information on this hazard.

Wildfire

The steering committee determined that Medford Water's probability for wildfire is **high** (which is the same as the County's rating) and that their vulnerability to wildfire is **high** (which is the same as the County's rating).

Volume I, Section 2 describes the characteristics of wildfire hazards, their history, and how they relate to future climate projections (see <u>OCCRI report</u>), as well as the location, extent, and probability of a potential event within the region. The location and extent of a wildfire vary depending on fuel, topography, and weather conditions. Weather and urbanization conditions are primarily at cause for the hazard level. Wildfires near Medford Water in recent times have included Almeda Drive (2020), South Obenchain Fire in 2020, Miles (2018), Sugar Pine (2018), Blanket Creek (2017), Broken Lookout (2017), Spruce Lake (2017), Bybee Creek (2016), Crescent (2015), Middle Fork (2008), Nichols Gap (2006), and Timbered Rock (2002). Figure MW-8 shows burn probability in Medford Water.

Figure MW-8 Burn Probability



Source: Oregon Partnership for Disaster Resilience. USFS Pacific Northwest Region Wildfire Risk Assessment (PNRA) Note: To view detail click this link to access Oregon Explorer's CWPP Planning Tool.

The potential community impacts and vulnerabilities described in Volume I, Section 2 are generally accurate for Medford Water as well. The <u>Rogue Valley Integrated Community Wildfire</u> <u>Protection Plan</u> (RVIFP, updated 2019) assesses wildfire risk, maps wildland urban interface areas, and includes actions to mitigate wildfire risk. Medford Water is included in the RVIFP and will update Medford Water's wildfire risk assessment if the RVIFP presents better data during future updates (an action item is included within Volume I, Section 4 to participate in updates to the integrated fire plan and to continue to maintain and update their RVIFP). The forest service and Medford Water are actively reducing fuels in and around the watershed but anticipate an increase in wildfire risk with maturation of the forest. Medford Water hereby incorporates the RVIFP into this addendum by reference to provide greater detail to sensitivity and exposure to the wildfire hazard.

Property can be damaged or destroyed with one fire as structures, vegetation, and other flammables easily merge to become unpredictable and hard to manage. Other factors that affect

ability to effectively respond to a wildfire include access to the location and to water, response time from the fire station, availability of personnel and equipment, and weather (e.g., heat, low humidity, high winds, and drought).

Vulnerability Assessment

Due to insufficient data and resources, Medford Water is currently unable to perform a quantitative risk assessment for this hazard, however an exposure assessment was conducted. Identified community lifelines that are exposed to this hazard are shown in Table MW-3. Note that even if a facility has exposure, *it does not mean there is a high risk (vulnerability).* The southern portion of the Cascades are generally drier and have relatively frequent lightning caused fires that can be severe. Additionally, fuel loads are relatively high in the Big Butte Springs Watershed due to higher precipitation that create better growing conditions for vegetation that is at risk during the dry summer season. Fire protection for the Big Butte Springs Watershed is provided by the Oregon Department of Forestry while the United States Forest Service provides additional forest management. Medford Water has a Forest Management Plan that is intended to actively manage dense understory vegetation that is present in parts of the watershed and Big Butte Springs property. The primary objective of management is to maintain and/or enhance existing conditions to reduce risk from fires and other stressors. For more information see the <u>Forest Management Plan</u> (2020). Applicable mitigation strategies are identified in Table MW-1.

Future Projections

According to the Oregon Climate Change Research Institute "Future Climate Projections, Jackson County, "¹⁰ wildfire frequency, intensity, and area burned are projected to continue increasing in the Northwest. Wildfire risk, expressed as the average number of days per year on which fire danger is very high, is projected to increase in Jackson County by 13 days (range -6– 29) by the 2050s, relative to the historical baseline (1971–2000), under the higher emissions scenario. Similarly, the average number of days per year on which vapor pressure deficit is extreme is projected to increase by 29 days (range 12–42) by the 2050s. Communities at risk to wildfire include those within the urban wildfire interface or along river or creek corridors, like Bear Creek, where fire can travel quickly. Communities will need to address growing wildfire risks if populations are not restricted from expanding further into higher risk areas.

Please review Volume I, Section 2 for additional information on this hazard.

¹⁰ Oregon Climate Change Research Institute, Future Climate Projections, Jackson County, Oregon. February 2023.

Attachment A: Public Involvement Summary

Members of the steering committee provided content and edits to the NHMP prior to the public review period as reflected in the final document. In addition, a survey was distributed that included responses from residents within Medford Water boundaries (Volume III, Appendix F).

To provide the public information regarding the draft NHMP addendum, and provide an opportunity for comment, an announcement (see below) was provided from **October 4, 2023 through November 14, 2023** on Medford Water's website. There were no public comments provided. Additional opportunities for stakeholders and the public to be involved in the planning process are addressed in Volume II, Appendix B.

A diverse array of agencies and organizations were provided an opportunity to provide input to inform the plan's content through a variety of mechanisms including the opportunity for comment on the draft plan. The agencies and organizations represent local and regional agencies involved in hazard mitigation activities, those that have the authority to regulate development, neighboring communities, representatives of businesses, academia, and other private organizations, and representatives of nonprofit organizations, including community-based organizations, that work directly with and/or provide support to underserved communities and socially vulnerable populations. For more information on the engagement strategy see Volume II, Appendix B.

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Website Posting



Natural Hazard Mitigation Plan Update – Notice and Opportunity for Public Comment

Medford Water is in the process of developing a Natural Hazard Mitigation Plan (NHMP). This work is being performed in cooperation with the University of Oregon's Institute for Policy Research and Engagement - Oregon Partnership for Disaster Resilience and the Oregon Department of Emergency Management utilizing funds obtained from the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program. With adoption of the plan, our organization will gain eligibility to apply for federal funding towards natural hazard mitigation projects. This local planning process includes a wide range of representatives from local governments, emergency management personnel, and outreach to members of the public in the form of an electronic survey.

A natural hazard mitigation plan provides communities with a set of goals, action items, and resources designed to reduce risk from future natural disaster events. Engaging in mitigation activities provides jurisdictions with a number of benefits, including reduced loss of life, property, essential services, critical facilities, and economic hardship; reduced short-term and long-term recovery and reconstruction costs; increased cooperation and communication within the community through the planning process; and increased potential for state and federal funding for recovery and reconstruction projects.

An electronic version of the draft NHMP addendum is available for formal public comment; to view the draft, please see the file below.

PUBLIC COMMENT NOTICE

To provide public comment, please describe the feedback and reference page number, table, or figure of concern:

- 1. Send an email to brian.runyen@medfordwater.org
- 2. Send a fax to 541-774-2555
- 3. Mail or drop-off hard copies: 200 S. Ivy Street Room 177, Medford, OR 97501

If you have any questions regarding the NHMP addendum or the update process in general, please contact: Brian Runyen, Engineering Manager, at (541) 774-2428 or brian.runyen@medfordwater.org, or Michael Howard, Director for the Oregon Partnership for Disaster Resilience at mrhoward@uoregon.edu.



Medford Water Steering Committee

Steering committee members possessed familiarity with the communities within Medford Water and how it is affected by natural hazard events. The steering committee guided the development process through several steps including goal confirmation and prioritization, action item development, and information sharing, to make the NHMP as comprehensive as possible. The steering committee met formally on the following date:

Meeting #1: Medford Water steering committee, May 3, 2023 (via Zoom)

During this meeting, the steering committee was provided information on hazard mitigation planning, the NHMP process, and project timeline. The steering committee:

- Reviewed history of hazard events in Medford Water.
- Reviewed and confirmed the NHMP's mission and goals.
- Discussed the NHMP public outreach strategy.
- Discussed development activity and community lifelines.
- Reviewed and provided feedback on the draft risk assessment including community vulnerabilities and hazard information.
- Developed mitigation strategy (actions).
- Reviewed their implementation and maintenance program.

Meeting Attendees:

- Convener, Rachel Lanigan, Senior Engineer
- Brad Taylor, General Manager
- Aaron Ott, City of Medford, Emergency Manager
- Delaney Huerta, Jackson County, Emergency Management