NORTH YUBA WATER DISTRICT

AGENDA

REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE NORTH YUBA WATER DISTRICT

5:30 PM ◆ WEDNESDAY ◆ OCTOBER 30, 2024

NOTICE: THIS MEETING WILL BE PHYSICALLY OPEN TO THE PUBLIC AT THE DISTRICT OFFICE LOCATED AT 8691 LA PORTE RD, BROWNSVILLE, CA 95919. HOWEVER, THE MEETING WILL ALSO TAKE PLACE VIA ZOOM. MEMBERS OF THE PUBLIC MAY ATTEND AND PARTICIPATE IN THE MEETING VIA VIDEOCONFERENCE AT:

NYWD Board Room is inviting you to a scheduled Zoom meeting.
Join Zoom Meeting
https://us02web.zoom.us/j/88969099699?pwd=0EobuHwLt1hc33tgC6YWs7f0u2qju9.1
Meeting ID: 889 6909 9699
Passcode: 797834

One tap mobile
+16699009128,,88969099699#,,,,*797834# US (San Jose)
+16694449171,,88969099699#,,,,*797834# US

Dial by your location
• +1 669 900 9128 US (San Jose)
• +1 669 444 9171 US
•
Meeting ID: 889 6909 9699
Passcode: 797834
Find your local number: https://us02web.zoom.us/u/kbyBdbLlYg

COMMENCEMENT OF MEETING

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, please contact North

Yuba Water District office staff at 530-675-2567 or fax 530-675-0462. Requests must be made as early as possible and at least one-full business day before the start of the meeting.

The Board of Directors will provide at least twice the allotted time to a member of the public who utilizes a translator to ensure that non-English speakers receive the same opportunity to directly address the Board. Please contact District office staff at 530-675-2567 or fax 530-675-0462 at least 24 hours prior to the board meeting so a translator can be provided. Non-English speakers are welcomed to provide their own translator.

A. CALL TO ORDER/ROLL CALL

B. PLEDGE OF ALLEGIANCE

C. OPPORTUNITY FOR PUBLIC COMMENT – Topics Not on the Agenda:

At the beginning of a regular meeting, the public has the opportunities to address the District Board of Directors about matters not on the agenda that are within the jurisdiction of the Board of Directors. Public comment is limited to no more than four (4) minutes per person, twenty (20) minutes total for all speakers.

D. OPPORTUNITY FOR PUBLIC COMMENT – Topics on the Agenda:

The public has the opportunities to address the District Board of Directors about matters on the agenda, including closed session items. Public comment is limited to no more than four (4) minutes per person, twenty (20) minutes total for all speakers.

OPEN SESSION ACTION CALENDAR

E. CONSENT ITEMS

1. Approval of **Minutes for Regular Board Meeting of September 26, 2024**
2. Approval of **Payroll for the Month of September 2024: $ 46,292.97**
3. Approval of **Bills for the Month of September 2024: $ 341,690.14**

F. KATIE BURDICK-

1. Will give an update on the Capital Improvement Plan (CIP)
2. Presentation on needs and process of the district for the Administrative Operational Plan. Board approval of content and process of the 3-year Administrative Operational Plan. (Approx 20 minutes total)

G. Resolution 24-778

The Board will discuss, and may act upon, the General Manager's recommendation to adopt the Butte County 2024 Local Hazard Mitigation Plan Update;

H. MOUNTAIN COUNTIES WATER RESOURSE ASSOCIATION

The Board will discuss, and may act upon, the General Manage's recommendation to join the Mountain Counties Water Resource Association.

I. NOVEMBER-DECEMBER BOARD MEETINGS

The Board will discuss, and possibly act to determine the November and December Regular Board meeting dates.

J. STAFF REPORTS AND RECOMMENDATION

The Board will hear reports by District staff and receive their recommendations for future Board action, including but not necessarily limited to:

Financial Manager's Report/Requests

General Managers' Report/Requests

The General Manager will update the board on District operations, including the status of an Operations Memorandum.

Legal Counsel Report

K. DIRECTORS REPORTS

CLOSED SESSION

L. Conference with Legal Counsel — existing litigation (2 Cases) – pursuant to Government Code section 54956.9, subdivision (d) (1):

1. *South Feather Water & Power Agency v. North Yuba Water District,* Sutter County Superior Court Case No. CVCS2 l -0002073

2. *North Yuba Water District v. South Feather Water and Power District*, Yuba County Superior Court Case No. Case No. CVCS21-0001857

M. Conference with Legal Counsel — Anticipated litigation (2 cases) – pursuant to Government Code section 54956.9, subdivision (d), paragraph (2):
The Board will meet in closed session to discuss two anticipated/potential legal actions.

RETURN TO OPEN SESSION

N. REPORT OF CLOSED SESSION ACTIONS

ADJOURNMENT

REGULAR MEETING MINUTES OF THE BOARD OF DIRECTORS OF THE
NORTH YUBA WATER DISTRICT
Held at the District Office and Zoom
8691 LaPorte Road, Brownsville
Thursday, September 26, 2024

NYWD Boardroom is inviting you to a scheduled Zoom Meeting.
Topic: NYWD Boardroom's Zoom Meeting
Join Zoom Meeting
: https://us02web.zoom.us/j/89025381568?pwd=aptfDVK5BhzKYx69HsMZQEh4puOeMZ.1
Meeting ID: 890 3538 1568
Passcode: 521767
One tap mobile
+ 16694449171,,89035381568#,,,,*521767#US
+ 16699009128,,89035381568#,,,,*521676#US U S (San Jose)
Dial by your location
. +1669 4449171.U5
. +16699009128 US (San Jose)
. Meeting ID: 89035381568
Passcode: 521767
Find your local number: https://us02web.zoom.us/j/89025381568?pwd=aptfDVK5BhzKYx69HsMZQEh4puOeMZ.1.

COMMENCEMENT OF MEETING

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in the meeting, please contact North Yuba Water district office staff at 530-675-2567 or fax 530-675-0462. Requests must be made as early as possible and at least one full day before the start of the meeting. The Board of Directors shall provide at least twice the allotted time to a member of the public who utilizes a translator to ensure that non-English speakers receive the same opportunity to directly address the Board. Please contact District office staff at 530-675-2567 or fax 530-675-0462 at least 24 hours prior to the board meeting so a translator can be provided. Non-English speakers are welcome to provide their own translator. By law, every member of the public has the right to address the Board two times on any matter within the jurisdiction of the Board of directors. However, this right is subject to reasonable time, place, and limits, the Board reserves the right to instruct a speaker to step away from the podium, and to mute the audio and video of any speaker appearing remotely.

A. CALL TO ORDER/ROLL CALL

President Furnee called the meeting to order at 5:32 PM, at the District Office in Brownsville, CA.

NAME	*PRESENT*	*ABSENT*	*VISITORS INCLUDING:*
PRESIDENT	Marieke Furnee		Kawanza Vinje, Donna
VICE PRESIDENT	Ann Plumb		Corson, Charles Sharp,
DIRECTORS:			Mr. Hickman
	Gloria Bozza		
	Steven Ronneberg		
	Mike Mayo		
GENERAL MANGER	Leona Harris		
ATTORNEY	Paul Boylan		

B. PLEDGE OF ALLEGIANCE:

Director Bozza led the Pledge of Allegiance.

C. OPPORTUNITY FOR PUBLIC COMMENT ON NON-AGENDIZED ITEMS:

The public has the opportunity to address the District Board of Directors about matters not on the agenda. Public comment is limited to no more than four (4) minutes per person, twenty (20) minutes total for all speakers. **NOTE: ALL PUBLIC PARTICIPANTS WILL BE MUTED UPON ENTRY INTO THE MEETING AND WILL ONLY BE UNMUTED TO ALLOW THEIR COMMENT. TO PROVIDE PUBLIC COMMENT BY TELECONFERENCE PRESS *9.**

PUBLIC COMMENT: Comments from Members of the public included districts legal counsel promoting false narratives, topics from South Feather board meeting be added to agenda, legal counsel being utilized by staff.

D. OPPRTUNITY FOR PUBLIC COMMENT – Topics on the Agenda

Members of the public may address the Board concerning any item on the agenda. No other comments will be allowed. Any member of the public wishing to make a comment shall identify the agenda item they intend to address, and they will be provide an opportunity to make comments on that item only. Public comment is limited to no more than two (4) minutes per person, twenty (20) minutes total for all speakers. **NOTE: ALL PUBLIC PARTICIPANTS WILL BE MUTED UPON ENTRY INTO THE MEETING AND WILL ONLY BE UNMUTED TO ALLOW THEIR COMMENT. TO PROVIDE PUBLIC COMMENT BY TELECONFERENCE PRESS *9.**

PUBLIC COMMENT: Appreciate General Manger and in favor of pay increase.

OPEN SESSION ACTION CALENDAR

E. CONSENT ITEMS:

1. Approval of Minutes for Regular Board Meeting of August 22, 2024
2. Approval of Payroll for the Month of August 2024: $45,296.67
3. Approval of Bills for the Month of August 2024: $179,057.85

Director Mayo made a motion to approve consent items 1,2 and 3. President Furnee seconded the motion. The motion was approved with a unanimous vote.

F. KATIE BURDICK:

1. Ms. Burdick will give an update on the Capital Improvement Plan (CIP)
2. Ms. Burdick will conduct a presentation on the district's needs and process for the Administrative Operational Plan. (Approx. 20 minutes total.) The Board will discuss, and possibly approve the content and process of the 3-year Administrative Operational Plan.

Katie Burdick was ill so this item will be tabled till the next meeting.

G. STAFF REPORTS AND RECOMMENDATION: The Board will hear reports by Districts staff and receive their recommendations for future Board action on the items described below:

Financial Manager's Reports/Requests:

Review of Cash on Hand and Income Statements for the period ending June 30, 2024

Heidi Noether read the financial report. Cash on Hand and Income Statements for the period ending August 31,.2024. Total cash on hand in all accounts including reserves was $11,643,691.98. Total income for the fiscal year to date (July 01, 2024, – August 31, 2024) was $258,180.99. Total expenses were $333,257.73, leaving a net revenue over expenses were minus -$73,076.74. Expenses out of Reserves/Savings total $332.577.19 for this fiscal year.

General Manager's Report/Requests:

The General Manager will update the board on District operations, including the status of an Operations Memorandum. **General Manager Leona Harris went over the operations memorandum. Irrigation is still running between 5.5 to 5.7. In coordination with South Feather, irrigation will be shut off on 15th of October. Repairs will begin next Monday**

The General Manager will update on painting of 4 Domestic Water Tanks – **All four tanks were complete..**

Special District Risk Management Authority – President's Special Acknowledgement Award for 5 years of Zero paid claims for the Workers' Compensation Program.

Legal Counsel's Report:

Mr. Paul Boylan, District Council reported to the board that in regard to the lawsuit between North Yuba Water District and South Feather, the judge ordered that the party's experts get together and talk it out. Many misunderstandings on both sides were resolved. Mr. Boylan was fairly confident that both lawsuits with South Feather will be settled.

H. DIRECTORS REPORTS:

Director Bozza reported that she will be attending the Food and Water Festival on Saturday. President Furnee reported that she and Leona set up a booth with water saving kits at the Yuba Feather Elementary. They received a thank you letter from the school. They were very well received. She, along with Leona, attended Valley Water District meeting and made a comment on a concern they had. This Saturday, the Foothill Food and Water festival will be held, she invited the board to visit the booth.

CLOSED SESSION

Left for closed session at 5:48 P.M.

I. PUBLIC EMPLOYEE PERFORMANCE EVALUATION: The Board will meet to continue its evaluation of the District General Manager's performance.

J. CONFERENCE WITH LEGAL COUNSEL: - Existing Litigation (2 Cases) pursuant to Government Code section 54956.9, subdivision (d) (1):

1 South Feather Water & Power Agency v. North Yuba Water District, Sutter County Superior Court Case No. CVCS21 0002073

2. North Yuba Water District v South Feather Water and Power District, Yuba County Superior Court District No. CVCS2 I -0001857

K. CONFERENCE WITH LEGAL COUNSEL - Anticipated litigation (2 cases]- pursuant to Government Code section 54956.9, subdivision (d) (2): the Board will meet in closed session to discuss two anticipated/potential legal actions.

RETURN TO OPEN SESSION

The Board returned to open session at 6:18 P.M.

L. REPORT OF CLOSED SESSON ACTIONS:

Met with counsel and gave instructions.

M. GENERAL MANAGER'S SALARY AND FRINGE BENEFITS: The Board will discuss, and possibly act upon, legal counsel's recommendations to increase the District General Manager's salary and improve her fringe benefits.

Mr. Boylan researched comparable salaries with BIVD being closest to responsibilities at $150,000 per year. This district is irrigation only. This amount is an acceptable increase as NYWD is domestic also.

Director Ronnenberg made a motion to increase General Manager Leona Harris' salary to $150,000 per year with the fringe benefit of one day off per month. No days will be accumulated, days not used will be lost. Director Bozza seconded the motion. The motion was approved by a unanimous vote.

ADJOURNMENT

The meeting was adjourned at 6:28 P.M.

North Yuba Water District
Monthly Net Payroll Report

TOTAL MONTHLY NET PAYROLL FOR THE MONTH OF SEPTEMBER, 2024

TOTAL SEPTEMBER, 2024 **$ 46,292.97**

North Yuba Water District
Monthly Check Listing
September 2024

	Type	Date	Num	Name	Amount
1000A · Cash - GC Seperate Accounts					
Paypal					
PayPal Fees	Check	09/30/2024	FEES	PayPal	-113.36
Total Paypal					-113.36
11007 · River Valley Bank Checking					
Clover Credit Card Service Fee	Check	09/01/2024	CLOVER	Clover Credit Card Service	-44.95
Phone Service	Bill Pmt -Check	09/03/2024	27363	CALNET3	-310.44
Alarm Service	Bill Pmt -Check	09/03/2024	27364	Golden Bear Alarms	-96.00
Employee Pension Fund	Bill Pmt -Check	09/03/2024	27365	LIU of NA Nat'l Pension Fund	-3,904.50
Electricity	Bill Pmt -Check	09/03/2024	27366	Pacific Gas & Electric	-7,762.65
Dental Insurance	Bill Pmt -Check	09/03/2024	27367	Premier Access Insurance Co.	-1,018.79
Employee Paid Insurance	Liability Check	09/03/2024	27368	AFLAC	-263.84
Domestic Customer Deposit Refund	Check	09/03/2024	27387	Sosa, Silvia	-88.83
Credit Card Fees	Check	09/03/2024	MERCFEES	Merchant Services	-136.80
Direct Deposit Fees	Liability Check	09/04/2024	DirD	QuickBooks Payroll Service	-52.00
Employee Retirement Fund	Liability Check	09/05/2024	27386	ICMA-457	-1,578.82
State Payroll Taxes	Liability Check	09/05/2024	E-pay	EDD	-1,264.13
Federal Payroll Taxes	Liability Check	09/05/2024	E-pay	United States Treasury	-7,525.78
Health Insurance	Bill Pmt -Check	09/06/2024	27388	ACWA/Jt Powers Ins Authority	-12,893.03
Legal	Bill Pmt -Check	09/06/2024	27389	BoutinJones Inc	-7,510.00
Pest Control	Bill Pmt -Check	09/06/2024	27390	CAL KING PEST CONTROL	-84.00
Vision Insurance	Bill Pmt -Check	09/06/2024	27391	Eye Med	-150.00
Parcel Online Service 10/10/24 to 10/09/25	Bill Pmt -Check	09/06/2024	27392	Parcel Quest	-2,399.00
Median Household Income Study	Bill Pmt -Check	09/06/2024	27393	RCAC	-5,986.00
Cellphone Service	Bill Pmt -Check	09/06/2024	27394	VERIZON WIRELESS	-214.96
5 Gal Hydraulic Oil, 14 ea 60lb Black Top, 2 Crack Fillers, 100 Sand Bags, Marker, 4 Cans Sealer, Armor All, Wipes, Key, Ext Pole, Paint Tray, Koter Frame, Hose Connector, 2 PVC Bushings, Padlock, Wrench, 32 Cable's, 5 Gal Paint, 1 Gal Sprayer, WD 40, Foam, 2 Safety Glasses, 2 Valve Gates, 3 Screws, Galvanized Box, No Tresspassing Sign, 2 Cement, 2 Valves, 7 Nipples, 2 Coupling, 1 Bushing, 4 Adapters,	Bill Pmt -Check	09/06/2024	27395	Ray's General Hardware	-1,279.91

North Yuba Water District
Monthly Check Listing
September 2024

	Type	Date	Num	Name	Amount
FT Ditch Water Measurement - Special Project	Bill Pmt -Check	09/06/2024	27396	Davids Engineering, Inc	-10,247.65
Phone Service	Bill Pmt -Check	09/09/2024	27397	CALNET3	-556.60
Wages for Temporary Employee	Bill Pmt -Check	09/09/2024	27398	Express Employment Professionals	-1,074.06
6 Meters, 12 Clamps	Bill Pmt -Check	09/09/2024	27399	Ferguson Enterprises Inc	-2,442.44
Fuel, Diesel, Diesel Additive	Bill Pmt -Check	09/09/2024	27400	Ramos Oil Company Inc.	-2,659.46
Trash Pick-up	Bill Pmt -Check	09/09/2024	27401	Recology - Yuba Sutter	-243.01
Copier Lease	Bill Pmt -Check	09/09/2024	27402	Wells Fargo Vendor Financial Services, LL	-180.38
Public Outreach	Bill Pmt -Check	09/10/2024	27403	Elevate Public Relations & Marketing, LLC	-2,702.00
Legal	Bill Pmt -Check	09/16/2024	27404	The Water Group	-9,415.00
PCT Tester, 6 Tubes Grease	Bill Pmt -Check	09/16/2024	27405	USA Bluebook	-280.04
Legal	Bill Pmt -Check	09/16/2024	27406	BoutinJones Inc	-26,942.22
Rackerby, Brownsville, WTP, Forbestown Tank Paint Coating	Bill Pmt -Check	09/16/2024	27423	Techno Coatings, Inc.	-175,912.00
Direct Deposit Fees	Liability Check	09/18/2024	DirD	QuickBooks Payroll Service	-52.00
Employee Retirement Fund	Liability Check	09/19/2024	27420	ICMA-457	-1,580.32
Employee Paid Union Dues	Liability Check	09/19/2024	27421	UPEC	-404.00
Legal	Bill Pmt -Check	09/19/2024	27422	Herr Pederson & Berglund LLP	-1,491.72
State Payroll Taxes	Liability Check	09/20/2024	E-pay	EDD	-1,186.53
Federal Payroll Taxes	Liability Check	09/20/2024	E-pay	United States Treasury	-7,154.90
State Payroll Taxes	Liability Check	09/20/2024	E-pay	EDD	-136.25
Federal Payroll Taxes	Liability Check	09/20/2024	E-pay	United States Treasury	-22.10
Rebuild 25 HP Berkeley Booster Pump	Bill Pmt -Check	09/23/2024	27424	CPM	-5,094.24
Oregon Peak Rent (Radio Tower use for Radio's)	Bill Pmt -Check	09/23/2024	27425	EIP Holdings II, LLC	-505.00
Wages for Temporary Employee	Bill Pmt -Check	09/23/2024	27426	Express Employment Professionals	-1,982.88
Reimbursement of Charging Station and Toll Fees	Bill Pmt -Check	09/23/2024	27427	Furnee, Marie	-61.55
Postage Meter Refill	Bill Pmt -Check	09/23/2024	27428	Reserve Account	-500.00

North Yuba Water District
Monthly Check Listing
September 2024

	Type	Date	Num	Name	Amount
Digital Path ($110.95), Adobe ($39.98), Wix Website ($34.00), 1099 Tax Service ($15.00), Bottled Water ($24.56), Meals ($85.09), Hanging Folders, 5 Register Tapes, 2 Boxes Klennex ($117.04), Trash Bags, Paper Towels, Toilet Tissue ($146.29), 4 Ink Cartridges, Hand Wash ($446.00), 3 UHS I Cards ($93.36), Crack Fix ($21.30), Hose Assembly ($283.92), Employee Appreciation Meals ($272.00), Class A&M Drivers License ($59.22), AT&T Siriuxm ($200.00), Zoom ($319.80), Paper Plates, Coffee Creamer, Sugar, Shop Towels ($161.76)	Bill Pmt -Check	09/23/2024	27429	Mechanics Bank	-2,430.27
Domestic Customer Refund of Overpayment	Check	09/26/2024	27430	Anderson, Dennis	-500.00
Water Testing	Bill Pmt -Check	09/26/2024	27431	Cranmer Engineering Inc	-485.00
Water Treatment Plant Chemicals	Bill Pmt -Check	09/26/2024	27432	NTU Technologies Inc.	-2,327.80
Cleaning Service	Bill Pmt -Check	09/26/2024	27433	Shelton's Janitorial	-600.00
Canal Stabilization Project, Halversterm Flume	Bill Pmt -Check	09/26/2024	27434	Gannett Fleming, Inc.	-27,842.93
Total 11007 · River Valley Bank Checking					-341,576.78
Total 1000A · Cash - GC Seperate Accounts					-341,690.14
TOTAL					**-341,690.14**

Finance Report for October 30, 2024 Board Meeting:

As of September 30, 2024 total cash in all accounts including reserves was $13,562,910.70.

Total income for the fiscal year to date (July 1st, 2024 to September 30, 2024) was $2,558,586.98. Total expenses were $450,476.89

Net revenue over expenses were $2,108,110.09

Expenses out of Reserves/Savings total $600,626.71 for this fiscal year.

Accrual Basis

North Yuba Water District
UNAUDITED FINANCIAL REPORT
July 01, 2024 - September 30, 2024

	Jul - Sep 24	YTD Budget	$ Over Budget	% of Budget	Annual Budget
Ordinary Income/Expense					
Income					
4000A · Irrigation	11,982.00	18,598.21	-6,616.21	64.43%	32,325.65
4050A · Domestic	86,660.70	82,906.20	3,754.50	104.53%	264,930.74
4100.10 · Power Revenue SFPP	177,250.00	177,250.00	0.00	100.0%	709,000.00
4100.11 · SFPW Net Revenues 50% Distr.	2,073,694.56	1,600,000.00	473,694.56	129.61%	1,600,000.00
4150.10 · Younglife-Water Sales	0.00	0.00	0.00	0.0%	2,161.00
4200.10 · Yuba City-Water Sales	155,566.44	155,566.44	0.00	100.0%	447,030.00
4215.13 · Other Revenue	0.00	50.01	-50.01	0.0%	200.00
4250.10 · Taxes - General	339.76	371.84	-32.08	91.37%	269,726.51
4250D · Taxes - Domestic	491.13	544.05	-52.92	90.27%	83,591.50
4250I · Taxes - Irrigation	0.00	0.00	0.00	0.0%	122,056.77
4300A · Interest	52,602.39	20,278.05	32,324.34	259.41%	60,000.00
Total Income	2,558,586.98	2,055,564.80	503,022.18	124.47%	3,591,022.17
Gross Profit	2,558,586.98	2,055,564.80	503,022.18	124.47%	3,591,022.17
Expense					
5050.30 · F/T Ditch	22,878.92	27,434.26	-4,555.34	83.4%	131,470.00
5050.95 · Yuba City Water Sale (1/2)	77,783.22	77,783.22	0.00	100.0%	223,515.00
5100.00 · Water Treatment Plant (WTP)	72,417.38	90,912.96	-18,495.58	79.66%	360,813.84
5200.00 · Irrigation Expense	37,700.23	40,799.69	-3,099.46	92.4%	205,006.27
5251 · Domestic Expenses	68,769.00	57,127.83	11,641.17	120.38%	284,144.38
5400 · Board of Dir	2,279.83	7,074.99	-4,795.16	32.22%	35,400.00
5500 · Admin	107,331.72	148,438.85	-41,107.13	72.31%	597,253.18
5500U · Admin-Utilities	8,769.39	11,274.69	-2,505.30	77.78%	36,635.53
5600R · Regulator Driven	2,650.85	21,666.69	-19,015.84	12.24%	179,283.82
5700 · General	44,578.69	45,632.20	-1,053.51	97.69%	189,135.49
5700F · Fuel	4,836.82	5,865.16	-1,028.34	82.47%	31,770.91
5800 · OSHA/Safety	480.84	2,112.01	-1,631.17	22.77%	10,000.00
Total Expense	450,476.89	536,122.55	-85,645.66	84.03%	2,284,428.42
Net Ordinary Income	2,108,110.09	1,519,442.25	588,667.84	138.74%	1,306,593.75
Net Income	**2,108,110.09**	**1,519,442.25**	**588,667.84**	**138.74%**	**1,306,593.75**

North Yuba Water District

2024-25 EXPENSES OUT OF RESERVES/SAVINGS (July 01, 2024 - September 30, 2024)

MEMO	AMOUNT BILLED/PAID UP TO DATE	GRANT FUNDS RECEIVED UP TO DATE	NET AMOUNT BILLED/PAID UP TO DATE	ANNUAL BUDGET
L.U.I. Union Retirement Stabilization Fund			**$0.00**	$26,208.00
Additional Legal	$235,386.80		**$235,386.80**	$720,000.00
Public Relations	$6,326.00		**$6,326.00**	$30,000.00
Grant Pursuits			**$0.00**	$50,000.00
Special Projects/Emergency Repairs				
Median Household Income Study	$5,986.00			
Total Special Projects/Emergency Repairs to date			**$5,986.00**	$200,000.00
Water Treatment Plant Improvements/Repairs			**$0.00**	$350,000.00
FT Ditch				
Halversterm Flume	$14,079.55			
Shortcrete-Gunite-Cribbing - FT Ditch				
Canal Stabilization FT Ditch	$63,138.28			
Water Measurements	$10,247.65			
Total FT Ditch			**$87,465.48**	$500,000.00
Office Maintenance/Shop			**$0.00**	$50,000.00
Radio Read Meters			**$0.00**	$250,000.00
Tanks				
Tanks (Paint)	$175,912.00			
(Grant Income from DWR) for Tanks)				
Total Tanks			**$175,912.00**	$150,000.00
Truck-Pick-up	$89,550.43		**$89,550.43**	$100,000.00
Water Losses			**$0.00**	$100,000.00
Irrigation Ditch				
Shotcrete				
Total Irrigation Ditch			**$0.00**	$500,000.00
	$600,626.71	$0.00	**$600,626.71**	**$3,026,208.00**

North Yuba Water District

Cash In Accounts prior Month Comparison

September 2024 compared to August 2024

	09/30/2024	08/31/2024	
	Amount	Amount	Increase/Decrease
River Valley Bank Checking	$481,342.33	$87,988.82	$393,353.51
Savings Money Market Account (River Valley Bank)	$4,677,126.31	$3,168,917.97	$1,508,208.34
PayPal Account	$3,836.88	$545.40	$3,291.48
Petty & Register Cash	$830.00	$830.00	$0.00
Tri Counties Bank (5 Month CD-matures 07/07/24-4.92%)	$0.00	$0.00	$0.00
Tri Counties Bank (6 Month CD-matures 09/06/24-4.91%)	$0.00	$510,461.66	($510,461.66)
Tri Counties Bank (6 Month CD-matures 07/10/25-4.5%)	$510,300.43	$510,300.43	$0.00
Tri Counties Bank (6 Month CD-matures 03/18/25-4.43%)	$523,070.41	$0.00	$523,070.41
Tri Counties Bank (6 Month CD-matures 12/28/24-4.5%)	$1,000,000.00	$1,000,000.00	$0.00
River Valley Bank (6 Month CD-matures 12/28/24-4.5%)	$1,000,000.00	$1,000,000.00	$0.00
YC Treas Fund #637 (Gen Dist)	$806,963.11	$806,963.11	$0.00
YC Treas Fund #641 (ID #1)	$615,195.85	$615,195.85	$0.00
YC Treas Fund #642 (ID #2)	$138,986.37	$138,986.37	$0.00
YC Treas Fund #639 (Fac Fee Domestic)	$7,755.82	$7,755.82	$0.00
YC Treas Fund #640 (Savings)	$533,315.16	$533,315.16	$0.00
YC Treas Fund #644 (Equip Res)	$3,157.98	$3,157.98	$0.00
YC Treas Fund #646 (ID #6)	$11,993.83	$11,993.83	$0.00
YC Treas Fund #647 (Annex Irr)	$11.76	$11.76	$0.00
YC Treas Fund #648 (Annex Dom)	$92.71	$92.71	$0.00
YC Treas Fund #649 (Off Equip Res)	$5,768.48	$5,768.48	$0.00
YC Treas Fund #650 (Reserve)	$2,257,050.05	$2,257,050.05	$0.00
YC Treas Fund #393 (Trmt Plnt)	$2,882.64	$2,882.64	$0.00
Total Cash on Hand	**$12,579,680.12**	**$10,662,218.04**	**$1,917,462.08**
Reserve Accounts			
Reserve Savings Money Market (River Valley Bank)	$99,915.42	$99,736.91	$178.51
CIP Money Market Account (River Valley Bank)	$539,740.25	$538,775.95	$964.30
Total in Reserve	**$639,655.67**	**$638,512.86**	**$1,142.81**
Total in All Accounts not including FT Tank and YC Water Sale Account	**$13,219,335.79**	**$11,300,730.90**	$1,918,604.89
FT Tank Money Market Account (River Valley Bank)	$113,216.74	$113,014.47	$202.27
YC Water sale Account (River Valley Bank)	$230,358.17	$229,946.61	$411.56
Total in All Accounts	**$13,562,910.70**	**$11,643,691.98**	$1,919,218.72

North Yuba Water District
Statement of Cash Flows
September 2024

	Sep 24
OPERATING ACTIVITIES	
Net Income	2,181,186.83
Adjustments to reconcile Net Income	
to net cash provided by operations:	
A/R:A/R Domestic Water	-1,524.93
A/R:A/R Irrigation	7,219.94
1400.03 · Prepaid Worker's Comp Insurance	2,213.29
2000.00 · Accounts Payable	-2,232.45
Payroll Liabilities	-2.47
2150.30 · PR Tax-State Unemployment Tax	-103.97
2250.10 · Deposits-Customers	512.00
Net cash provided by Operating Activities	2,187,268.24
Expenses/Income from Reserves/Savings	
Median Household Income Study	-5,986.00
Public Relations	-2,702.00
Additional Legal	-45,358.94
Halversterm Flume	-6,163.90
Canal Stabilization FT Ditch	-21,679.03
FT Ditch Water Measurement	-10,247.65
Tanks- Paint	-175,912.00
Net Expenses/Income from Reserves/Savings	-268,049.52
Net cash increase for period	1,919,218.72
Cash at beginning of period	11,643,691.98
Cash at end of period	**13,562,910.70**

NORTH YUBA WATER DISTRICT

Board of Directors Handbook

Table of Contents

Please note – the content for each section could be formatted as a table, simple narrative or a mixture of both – with the goal of making the document as easy to understand as possible while keeping to the intent of providing clear and precise direction.

- ✓ District Organization and Communications Between Board Members and Staff
  - ✓ Organization
  - ✓ Communications between Board Members and Staff

SECTION 3: Board Meetings

a. Scheduling Meetings
- ✓ Regular Meetings
- ✓ Special Meetings
- ✓ Emergency Meetings
- ✓ Public Hearings
- ✓ Closed Sessions
- ✓ Committee Meetings
- ✓ Annual Capital Improvement Plan (CIP) Update

b. Preparation of Agenda and Order of Business
- ✓ Agenda
- ✓ Future Agenda Items
- ✓ Urgency Items

c. Attendance, Conduct, Quorum & Voting, Rules of Order, Brown Act
- ✓ Teleconferencing
- ✓ Quorum/Board Action
- ✓ Brown Act (Open Meetings)

d. Meeting Minutes

SECTION 4: Conferences, Training, Reporting Requirements

- ✓ Conferences
- ✓ Mandatory Ethics and Harassment Training
- ✓ Public Records Act Training
- ✓ Conflict of Interest/ Form 700
- ✓ Conflict of Interest Reporting at Board Meetings

SECTION 5: Compensation/Benefits

- ✓ Board Meeting and Committee Meeting Compensation
- ✓ Travel Authorization and Reimbursement of Travel Expenses

SECTION 6: Other Related Information

- ✓ Human Resources – Updated Personnel Policies
- ✓ Annual Staff Reviews
- ✓ Risk Management and Emergency Operations
- ✓ Electronic Equipment, Software and Data
- ✓ Community Outreach/Social Media
- ✓ Association Memberships

SECTION 7: Appendices

- ✓ Board Member Code of Conduct – Resolution No 23-776
- ✓ Governing Laws & Regulations
- ✓ Communications
- ✓ Board and Committee Meetings - Requirements

Appendix D Adoption Resolution

Note to Reviewers: When this plan has been reviewed and approved pending adoption by FEMA Region IX, the adoption resolutions will be signed by each participating jurisdiction and added to this appendix. Three model resolutions are provided below. For the County and the incorporated communities this adoption resolution also includes intent to comply with AB 2140 requiring adoption by reference or incorporation into the Safety Element of the General Plan.

Three resolutions were created – one for the County and incorporated communities, one for the Special Districts, and one for the Tribe.

RESOLUTION NO. 24-778

A RESOLUTION OF NORTH YUBA WATER DISTRICT BOARD OF DIRECTORS ADOPTING THE BUTTE COUNTY 2024 LOCAL HAZARD MITIGATION PLAN UPDATE

WHEREAS the North Yuba Water District (District) recognizes the threat that natural hazards pose to people and property within the District; and

WHEREAS the North Yuba Water District, in conjunction with Butte County, has prepared a multi-hazard mitigation plan, hereby known as Butte County 2024 Hazard Mitigation Plan Update in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS Butte County 2024 Hazard Mitigation Plan Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the District from the impacts of future hazards and disasters; and

WHEREAS adoption by the North Yuba Water District demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Butte County 2024 Hazard Mitigation Plan Update.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE NORTH YUBA WATER DISTRICT (STATE), THAT:

The North Yuba Water District adopts the Butte County 2024 Hazard Mitigation Plan Update. *While content related to the District may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the District to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.*

BE IT FURTHER RESOLVED, the North Yuba Water District will submit this adoption resolution to the California Office of Emergency Services and FEMA Region IX officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

ADOPTED by a vote of ____ in favor and ____ against, and ____ abstaining, this _____ day of _____, _____.

By: _____ (print name)

ATTEST: By: _____ (print name)

APPROVED AS TO FORM: By: _____ (print name)

NORTH YUBA WATER DISTRICT

Annex M North Yuba Water District

M.1 Introduction

This Annex details the hazard mitigation planning elements specific to the North Yuba Water District (NYWD or District), a previously participating jurisdiction to the 2019 Butte County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the District. This Annex provides additional information specific to NYWD, with a focus on providing additional details on the planning process, risk assessment, and mitigation strategy for this District.

M.2 Planning Process

As described above, NYWD followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Butte County Hazard Mitigation Planning Committee (HMPC), the District formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table M-1. Additional details on Plan participation and District representatives are included in Appendix A.

Table M-1 NYWD – Planning Team

Name	Position/Title	How Participated
Leona Harris	General Manager	Completed worksheets, attended meetings, researched

Coordination with other community planning efforts is paramount to the successful implementation of this LHMP Update. This section provides information on how the District integrated the previously approved 2019 LHMP into existing planning mechanisms and programs. Specifically, the District incorporated into or implemented the 2019 LHMP through other plans and programs shown in Table M-2.

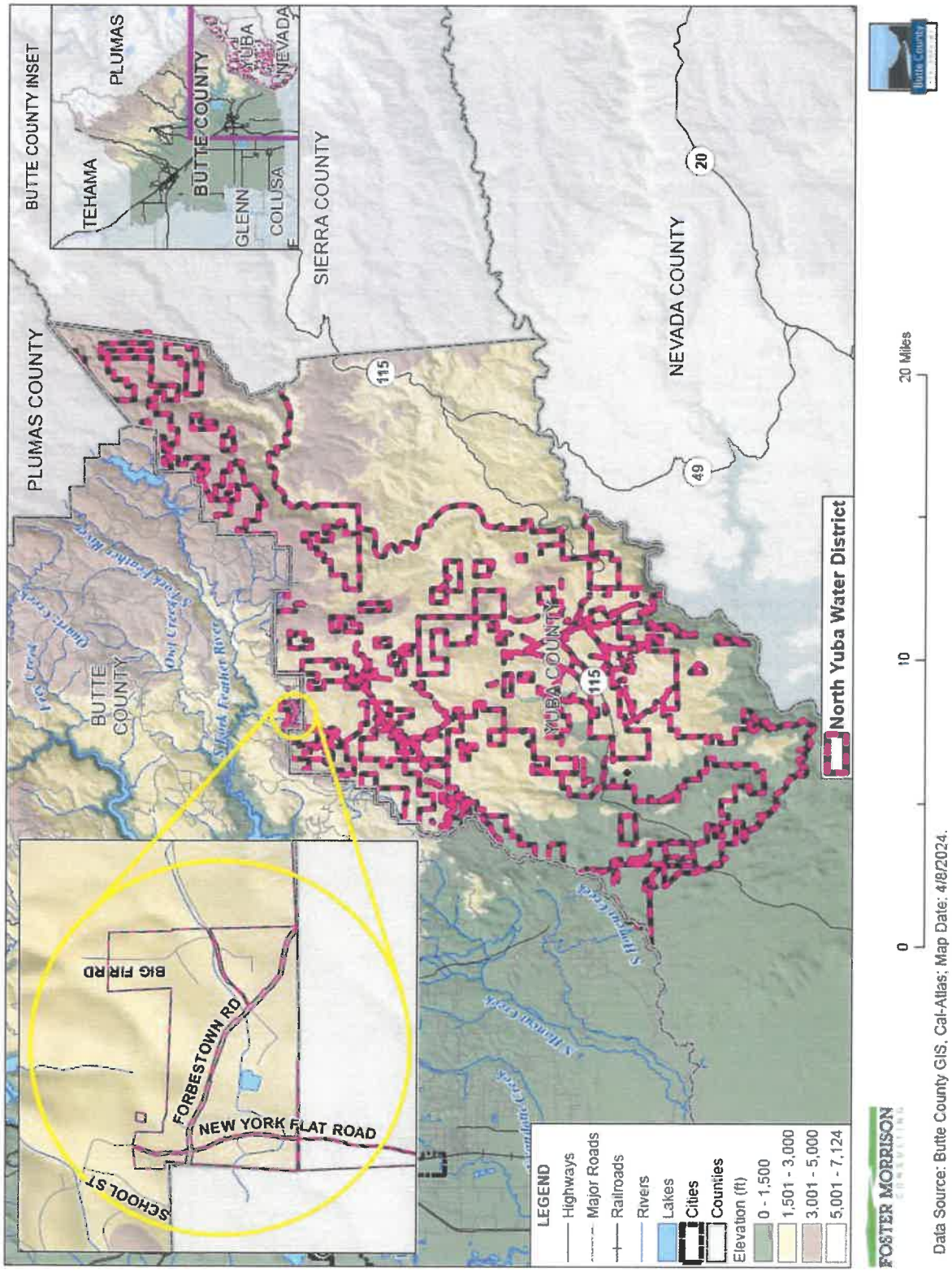
Table M-2 2019 LHMP Incorporation

Planning Mechanism 2019 LHMP Was Incorporated/Implemented In.	Details: How was it incorporated?
None	No planning mechanisms occurred since 2019, however, the District is engaging in multiple planning processes as of 2024 and will incorporate this LHMP into those planning mechanisms.

M.3 Community Profile

The community profile for the NYWD is detailed in the following sections. Figure M-1 displays a District map and the location of NYWD within Butte County.

Figure M-1 NYWD



M.3.1. Overview and Background

The North Yuba Water District (formally the Yuba County Water District) was formed June 30, 1952, pursuant to water district law. An application was filed in 1958 by the District for a permit to appropriate 23,000 acre-feet per annum from Fall River, tributary to Middle Fork Feather River, and Rock Creek, tributary to South Fork Feather River. The water was to be diverted to off stream storage for irrigation and domestic use within the District.

The District serves the communities of Challenge, Brownsville, Rackerby, and Forbestown. The communities of Rackerby and Forbestown, lie partially in Butte County. These local communities got their start during the gold rush days, becoming important sources of lumber from the forests surrounding them. I. E. Brown built a lumber mill in 1851, at the site of present-day Brownsville, hence the town was named Brownsville Challenge had a lumber mill shortly thereafter in 1856. These two communities are so close together that they share services and have become a census-designated place (CDP). According to the Census Bureau, census of 2000, the CDP has a total area of 9.7 square miles, with 1,069 people, 491 households, and 322 families residing in the area.

The North Yuba Water District receives its water through the South Feather Water and Power Agency (formally Oroville-Wyandotte Irrigation District). This joint water venture began in 1852 when a small ditch company was organized to construct a ditch from the South Fork of the Feather River to the mining sites at Forbestown, Wyandotte, Honcut, and Bangor. These communities all lie along the shared Yuba-Butte County line. The District shares a power generator with SFWPA and water conduction facilities. As a result of the concern for an adequate water supply and for a revenue source to fund South Feather Water and Power Agency's expanding infrastructure, the District's Board of Directors proposed the construction of the South Fork Project. The South Fork Project, covering 82 square miles in three counties, consisted of 8 dams, 17 tunnels, 21 miles of canals and conduits, 3 hydroelectric power plants and 21 miles of roads. The project was completed in 1963 at a cost of $62 million and was financed through the sale of revenue bonds secured by the projected revenues from power generation.

The current North Yuba Water District still lies on the border of Yuba-Butte counties and provides treated drinking water to about 190 square miles including 25 square miles that is built upon and protected by a fire hydrant system. The District's source of water is the Little Grass Valley Reservoir, in La Porte. Water is released from the reservoir into the South Fork of the Feather River, then diverted by tunnel into Sly Creek Reservoir. From Sly Creek the water passes through a water power generator and is stored in Lost Creek Reservoir. From Lost Creek the water enters another tunnel to Woodleaf where it is released into a 9-mile section of open canal to the Water Treatment Plant in Forbestown. After the treatment process, the water is pumped into a 500,000-gallon storage tank. From the tank the water is gravity fed to the Challenge (100,000 gal.), Brownsville (300,000 gal.) and Rackerby (100,000 gal.) tanks. Water is also pumped into the Forbestown tank (100,000 gal.), then gravity fed to Forbestown.

M.4 Risk Assessment

As defined by FEMA, risk is a combination of hazard, vulnerability, and exposure. "It is the impact that a hazard would have on people, services, facilities, and structures in a community and refers to the likelihood of a hazard event resulting in an adverse condition that causes injury or damage."

The NYWD risk assessment identifies and profiles relevant hazards and assesses the exposure of lives, property, infrastructure, and the environment to these hazards. The process allows for a better understanding of the District's potential risk to hazards and provides a framework for developing and prioritizing mitigation actions to reduce risk from future hazard events.

Building on the Community Profile above, a risk assessment was performed for the District. This includes the following sections:

- M.4.1 Assets Inventory and Growth and Development Trends
- M.4.2 Hazard Identification
- M.4.3 Hazard Profiles and Vulnerability to Specific Hazards

Note: This Butte County Annex covers the entirety of the District jurisdictional planning area including owned lands, facilities, and other District assets located in both Butte and Yuba Counties. Specifically, the following risk assessment and mitigation strategy includes hazard maps and asset analyses and mitigation actions and projects to provide LHMP coverage for jurisdictional areas located in both Butte and Yuba counties.

M.4.1. Assets Inventory and Growth and Development Trends

This section provides an inventory of the NYWD's total assets potentially at risk to hazards and an overview of growth and development trends. This section is broken into two parts:

- **Asset Inventory** – The assets inventory identifies NYWD's total assets, including the people and populations; structures; critical facilities and infrastructure; community lifelines; natural, historic, and cultural resources; and economic assets and community activities of value. This data is not hazard specific, but is representative of total assets within the District, potentially at risk to identified hazards as discussed in Section M.4.3 Hazard Profiles and Vulnerability to Specific Hazards.
- **Growth and Development Trends** – A discussion of growth and development trends in the District, both current and future, is presented.

Assets Inventory

The District's asset inventory is detailed in the following sections:

- People and Populations
- Structures
- Critical Facilities and Infrastructure
- Community Lifelines
- Natural, Historic, and Cultural Resources
- Economic Assets and Community Activities of Value

A discussion of each of these assets follows and serves as the template for the asset discussion for each hazard in Section M.4.3.

People and Populations

The most important asset within any community are the people and populations that reside in the community. This section includes an inventory of past and current populations of the District and also discusses socially vulnerable populations and underserved communities as a subsection of people and populations located within the District and potentially at risk to hazards. Information from the District, US Census Bureau, California Department of Finance, and other sources as detailed below form the basis of this discussion.

The District is considered a Severely Disadvantaged community according to the Median Household Income Study that was recently completed. This would include multiple groups of underserved and vulnerable populations.

Historic Population Trends and Current Population

The most important asset within any community are the people and populations that reside in the District. The District provides services to the communities of Challenge, Brownsville, Rackerby, and Forbestown; approximately 2,700 people.

Structures and Critical Facilities

This section considers the NYWD's assets at risk, with a focus on key District assets such as critical facilities, infrastructure, and other District assets and their values. With respect to District assets, the majority of these assets are considered critical facilities as defined for this Plan. Critical facilities are defined for this Plan as:

> ***Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.***

Table M-3 lists critical facilities and other District assets identified by the District Planning Team as important to protect in the event of a disaster. NYWD's physical assets, valued at over $57 million, consist of the buildings and infrastructure to support the District's operations.

Table M-3 NYWD Critical Facilities, Infrastructure, and Other District Assets

Name of Asset	Facility Type	Replacement Value	Hazard Info
Water Treatment Plant	Micro Membrane System	$6,000,000	Earthquake, Wildfires
Office and Maintenance Yard	Office and equipment storage/repair	$1,500,000	Earthquake, Wildfires
Water Treatment Pond	Treatment Pond	$3,000,000	Earthquake, Wildfires
Forbestown Tank (500,000 gal)	Storage Tank	$4,500,000	Earthquake, Wildfires
Forbestown Tank (100,000 gal)	Storage Tank	$1,500,000	Earthquake, Wildfires

Name of Asset	Facility Type	Replacement Value	Hazard Info
Forbestown Ditch	Water conveyance system	$10,000,000	Heavy Rain, Landslide and Wildfires
Costa Creek	Water conveyance system	$7,000,000	Heavy Rain, Landslide wildfires
Dry Creek	Water conveyance system	$5,000,000	Heavy Rain, Landslide wildfires
Oroleve Creek	Water conveyance system	$4,000,000	Heavy Rain, Landslide wildfires
Dobbins Oregon House Canal	Water conveyance system	$15,000,000	Heavy Rain, Landslide wildfires
Total		**$57,500,000**	

Source: NYWD

Community Lifelines

Assessing the vulnerability of the NYWD to natural hazards and disasters also involves reviewing and inventorying the community lifelines in place that could be affected. It is important to include these items in hazard discussions as the continuous operation of critical government and business functions is essential to human health and safety, property protection, and economic security. The importance of community lifelines is discussed below:

- Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function.
- FEMA has developed a construct for objectives-based response that prioritizes the rapid stabilization of Community Lifelines after a disaster.
- The integrated network of assets, services, and capabilities that provide lifeline services are used day-to-day to support the recurring needs of the community and enable all other aspects of society to function.
- When disrupted, decisive intervention (e.g., rapid re-establishment or employment of contingency response solutions) is required to stabilize the incident.

Community lifelines, as defined by FEMA, include the following:

- **Safety and Security** – Law Enforcement/Security, Fire Service, Search and Rescue, Government Service, Community Safety
- **Food, Hydration, Shelter** – Food, Water, Shelter, Agriculture
- **Health and Medical** – Medical Care, Public Health, Patient Movement, Medical Supply Chain, Fatality Management
- **Energy** – Power Grid, Fuel
- **Communications** – Infrastructure, Responder Communications, Alerts Warnings and Messages, Finance, 911 and Dispatch
- **Transportation** – Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime
- **Hazardous Material** – Facilities, HAZMAT, Pollutants, Contaminants
- **Water Systems** – Potable Water Infrastructure, Wastewater Management

In Butte County, there is an interplay in community lifelines between all jurisdictions in the County. In fact, most of the District's community lifelines overlap the County's. It should also be noted that these

lifelines collectively include many of the critical facilities and infrastructure assets inventoried for this LHMP. Due to this fact, specific information on these community lifelines in the District and how they may be affected by a hazard event or disaster are discussed in each hazard section; however, many of these sections refer back to the detailed lists that are captured in the Section 4.2.1 of the Base Plan.

Natural, Historic, and Cultural Resources

Assessing the vulnerability of the District to natural hazards and disasters also involves inventorying the natural, historic, and cultural assets of the area. This step is important for the following reasons:

- Environmental and natural resources add to a community's identity and quality of life. They also help the local economy through agriculture, tourism and recreation. They support ecosystem services, such as clean air and water.
- Conserving the environment may help people mitigate risk. It can also protect sensitive habitats, develop parks and trails, and build the economy.
- The community may decide that these types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- If these resources are impacted by a disaster, knowing so ahead of time allows for more prudent care in the immediate aftermath, when the potential for additional impacts are higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, such as wetlands and riparian habitat, which help absorb and attenuate floodwaters.

Natural Resources

NYWD has a variety of natural resources of value to the District. These natural resources parallels that of Butte County as a whole. Information can be found in Section 4.2.1 of the Base Plan.

Historic and Cultural Resources

NYWD has a variety of historic and cultural resources of value to the District. These historic and cultural resources parallels that of Butte County as a whole. Information can be found in Section 4.2.1 of the Base Plan.

Economic Assets and Community Activities of Value

Assessing the vulnerability of the NYWD to natural hazards and disasters also involves inventorying the economic assets and community activities of value in the District.

Economic Assets

After a disaster, economic resiliency is one of the major drivers of a speedy recovery. Each community has specific economic drivers. Economic assets for the County were discussed in Section 4.2.1 of the Base Plan and are assumed to be the same or similar for the District.

Community Activities of Value

Inventorying economic assets in the District and their vulnerability to natural hazards and disasters also involves inventorying activities that have value to the community. This includes activities that are important to a community, like long-standing traditions such as a festival or fair. Community Activities of Value for the County were discussed in Section 4.2.1 of the Base Plan and are assumed to be the same or similar for the District.

Growth and Development Trends

As part of the planning process, the District looked at changes in growth and development, both current and future, and examined these changes in the context of hazard-prone areas, and how the changes in growth and development affect loss estimates and vulnerability over time.

Population Trends and Projections

The District noted that there is minimal growth occurring. On average, there are approximately two new services per year and this is expected to continue.

Development since 2019 Plan

The District has noted that there has been no new development since the 2019 Plan.

Future Development Areas

It is important to review future development plans for the District. Future development should be sited in areas that are away from known hazard risks. If this is not possible, mitigation should be done to ensure that future development is protected against future hazards. The District has no control over future development in areas the District provides water in.

M.4.2. Hazard Identification

NYWD identified the hazards that affect the District and summarized their location, extent, likelihood of future occurrence, potential magnitude, and significance specific to the District (see Table M-4).

Table M-4 NYWD—Hazard Identification Assessment

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance	Climate Change Influence
Climate Change	Extensive	Likely	Limited	Low	–
Dam Failure	Limited	Occasional	Critical	Low	Medium
Drought & Water shortage	Extensive	Likely	Limited	High	High
Earthquake	Extensive	Occasional	Catastrophic	High	Low
Floods: 1%/0.5%/0.2% annual chance	Limited	Occasional	Limited	Low	Medium
Floods: Localized Stormwater	Limited	Occasional	Limited	Medium	Medium
Invasive Species: Aquatic	Limited	Occasional	Limited	Low	Low
Invasive Species/Agricultural Hazards	Limited	Occasional	Limited	Low	Low
Landslide, Mudslide, and Debris Flow	Significant	Likely	Critical	Low	Medium
Levee Failure	Limited	Unlikely	Limited	Low	Medium
Pandemic	Limited	Occasional	Limited	Low	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Low	High
Severe Weather: Extreme Cold, Freeze and Winter Storm	Significant	Highly Likely	Critical	Low	Medium
Severe Weather: Heavy Rain and Storms (Hail, Lightning)	Extensive	Highly Likely	Critical	High	Medium
Severe Weather: Wind and Tornado	Limited	Occasional	Limited	Low	Low
Wildfire	Extensive	Highly Likely	Catastrophic	High	High

Geographic Extent

Limited: Less than 10% of planning area

Significant: 10-50% of planning area

Extensive: 50-100% of planning area

Likelihood of Future Occurrences

Highly Likely: Near 100% chance of occurrence in next year, or happens every year.

Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.

Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.

Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Magnitude/Severity

Catastrophic: More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths

Critical: 25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability

Limited: 10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability

Negligible: Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance

Low: Minimal potential impact

Medium: Moderate potential impact

High: Widespread potential impact

Climate Change Influence

Low: Minimal potential impact

Medium: Moderate potential impact

High: Widespread potential impact

M.4.3. Hazard Profiles and Vulnerability to Specific Hazards

This section includes the hazard profiles and vulnerability assessment for hazards ranked of medium or high significance specific to the District (as identified in the Significance column of Table M-4). Chapter 4 of the Base Plan provides more detailed information about these hazards and their impacts on the Butte County Planning Area. Methodologies for evaluating vulnerabilities and calculating loss estimates are the same as those described in Section 4.2 of the Base Plan.

Each hazard is profiled in the following format:

- **Hazard Profile and Problem Description** – A hazard profile is included for each hazard. This includes information on:
  - ✓ **Hazard Overview** - A general discussion of the hazard and related issues.
  - ✓ **Location** and **Extent**—Location is the geographic area within the District that is affected by the hazard. Extent is the expected range of intensity for each hazard. These are discussed in specific detail for mapped hazards, and in more general detail for those hazards that do not have discrete mapped hazard areas.
  - ✓ **Past Occurrences**—Past occurrences are discussed for each hazard. A discussion of disaster declarations is included in each hazard section. NCDC events are also discussed. Other past occurrences data specific to the District follow the disaster declarations for each hazard.
  - ✓ **Climate Change**—This section contains the effects of climate change (as applicable). The possible influence of climate change on the hazard is discussed.

After the hazard profile, a vulnerability assessment is presented. As part of the vulnerability assessment, an estimate of the vulnerability of the District to each identified hazard, in addition to the estimate of risk of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Extremely Low**—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- **Low**—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Extremely High**—Very widespread with catastrophic impact.

After this classification, a general discussion of hazard vulnerabilities occurs. This is done in the following format:

- **Local Concerns**—The includes District provided information on how the District is uniquely affected by or vulnerable to each hazard.

- **Assets at Risk**—A discussion of the assets at risk follows, presented in the same format as in Section M.4.1 above. This includes sections on: People and Populations; Structures; Critical Facilities and Infrastructure, Community Lifelines; Natural, Historic, and Cultural Resources; and Economic Assets and Community Activities of Value. These are discussed in specific terms for mapped hazards, and in more general terms for those hazards that are unmapped.
- **Impacts**—A discussion on hazard impacts follows. Impacts describe how each hazard can affect the District and their assets. The type and severity of impacts reflect both the potential magnitude of the hazard and the vulnerability of the asset. Impacts are also affected by the community's ability to mitigate, prepare for, respond to, and recover from an event.
- **Future Development** —A discussion of how future development will be affected by the hazard is also included. This is addressed specifically for mapped hazards, and in more general terms for those hazards that are unmapped.

Power Interruption/Power Failure: A Common Vulnerability of all Hazards

An impact of almost all hazards evaluated as part of this LHMP Update relates to power shortage and/or power failures. The US power grid crisscrosses the country, bringing electricity to homes, offices, factories, warehouses, farms, traffic lights and even campgrounds. According to statistics gathered by the U.S. Department of Energy, major blackouts are on the upswing. Incredibly, over the past two decades, blackouts impacting at least 50,000 customers have increased 124 percent. The electric power industry does not have a universal agreement for classifying disruptions. Nevertheless, it is important to recognize that different types of outages are possible so that plans may be made to handle them effectively. In addition to blackouts, brownouts can occur. A brownout is an intentional or unintentional drop in voltage in an electrical power supply system. Intentional brownouts are used for load reduction in an emergency. Electric power disruptions can be generally grouped into two categories: intentional and unintentional. More information on types of power disruptions can be found in Section 4.3 of the Base Plan.

Public Safety Power Shutoff (PSPS)

A new intentional disruption type of power shortage/failure event has recently occurred in California. In recent years, several wildfires have started as a result of downed power lines or electrical equipment. This was the case for the Camp Fire in 2018. As a result, California's three largest energy companies (including PG&E), at the direction of the California Public Utilities Commission (CPUC), are coordinating to prepare all Californians for the threat of wildfires and power outages during times of extreme (fire) weather. To help protect customers and communities during extreme fire weather events, electric power may be shut off for public safety in an effort to prevent wildfire. This is called a PSPS. More information on PSPS criteria can be found in Section 4.3 of the Base Plan.

Enhanced Powerline Safety Settings (EPSS)

In addition to PSPSs, to help prevent wildfires, electric utilities have begun to evolve safety efforts. This includes installing safety settings on powerlines in and around high fire-risk areas. These are known as Enhanced Powerline Safety Settings (EPSS), and they help prevent falling tree branches, animals and other hazards from starting a wildfire. By stopping ignitions, it helps prevent wildfires from starting and spreading. According to PG&E, if ignitions occur, the size of fires are much smaller due to EPSS. In 2022,

there was a 99% decrease in acres impacted by ignitions (as measured by fire size from electric distribution equipment (compared to the 2018-2020 average). This decrease occurred despite dry conditions.

Local Concerns

The District's water system is gravity fed. Due to the high fire danger, PSPS events are frequent to the District. A long-term outage or PSPS event would be severely detrimental to the water systems and the populations it serves. Generators have been purchased to aid in mitigating this, however, prolonged events may still cause a large impact to the community if fuel is difficult to access.

Drought & Water Shortage

Likelihood of Future Occurrence–Likely
Vulnerability–High

Hazard Profile and Problem Description

Drought and water shortage is a complex issue involving many factors—it occurs when a normal amount of precipitation and snow is not available to satisfy an area's usual water-consuming activities. Drought is often defined regionally based on its effects. Drought is different than many of the other natural hazards in that it is not a distinct event and usually has a slow onset. Drought can severely impact a region both physically and economically. Drought affects different sectors in different ways and with varying intensities. Adequate water supply is the most significant issue and is critical for agriculture, manufacturing, tourism, recreation, and commercial and domestic use. Drought has also affected tree mortality in the area in the past. As the population in the area continues to grow, so will the demand for water.

Location and Extent

Drought and water shortage are regional phenomenon. The whole of the District and County is at risk. The US Drought Monitor categorizes drought conditions with the following scale:

- None
- D0 – Abnormally dry
- D1 – Moderate Drought
- D2 – Severe Drought
- D3 – Extreme drought
- D4 – Exceptional drought

Drought has a slow speed of onset and a variable duration. Drought can last for a short period of time (which does not usually affect water shortages) or for longer periods (which may challenge water supplies). Should a drought last for a long period of time, water shortage becomes a larger issue. Current drought conditions in the District are shown in Section 4.3.8 of the Base Plan.

Past Occurrences

Disaster Declaration History

There have been one federal and three state disaster declarations from drought. This can be seen in Table M-5.

Table M-5 Butte County – State and Federal Drought Disaster Declarations 1950-2024

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Drought	1	1977	3	1976, 2014, 2015

Source: Cal OES, FEMA

NCDC Events

There have been 78 NCDC drought events in Butte County. These most likely had some impact on the District.

NYWD Events

In both 2014 and 2015, droughts affected the District's irrigation seasons causing both seasons to be canceled. The District is currently doing mitigation to conserve and decrease the water losses in the ditches/canals to avoid similar events in the future.

Climate Change and Drought and Water Shortage

It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with drought and water shortage. More information on future impacts to the District can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

Climate scientists studying California find that drought conditions are likely to become more frequent and persistent over the 21st century due to climate change. The experiences of California during recent years underscore the need to examine more closely the state's water storage, distribution, management, conservation, and use policies. The 2021 CAS stresses the need for public policy development addressing long term climate change impacts on water supplies. The CAS notes that climate change is likely to significantly diminish California's future water supply, stating that: California must change its water management and uses because climate change will likely create greater competition for limited water supplies needed by the environment, agriculture, and cities.

A 2018 report from the Public Policy Institute of California noted that thousands of Californians – mostly in rural, small, disadvantaged communities – already face acute water scarcity, contaminated groundwater, or complete water loss. Climate change would make these effects worse.

Cal Adapt scenarios for modeled future drought scenarios were shown in Section 4.3.8 of the Base Plan.

Vulnerability to Drought and Water Shortage

Based on historical information, the occurrence of drought in California, including the District, is cyclical, driven by weather patterns. Drought has occurred in the past and will occur in the future. Periods of actual drought with adverse impacts can vary in duration, and the period between droughts can be extended. Although an area may be under an extended dry period, determining when it becomes a drought is based on impacts to individual water users. The vulnerability of NYWD to drought may vary and include reduction in water supply, turf losses, impacts to natural resources, and an increase in dry fuels and tree dieback.

Tree Mortality and Drought

One of the specific impacts of drought in the District and Butte County is the increased risk to trees from beetle kill and other insects, pathogens and parasites, and other tree mortality and die back issues. Drought weakens trees and makes them more susceptible to insect infestation and other pathogens. Insects, such as bark beetles and others, frequently attack trees weakened by drought, disease, injuries, or other factors that may stress the tree. These insects and other pathogens can contribute to the decline and eventual death of trees throughout the District.

The tree mortality and dieback problem are a high priority because of the issue of hazardous trees and increased wildfire hazard. In addition to an increase in wildfire fuels, hazardous trees can fall onto structures causing damage and result in a reduction on the tree canopy within the District that provides relief during extreme heat days.

The whole of the District is at some measure of vulnerability to drought and water shortage. An assessment of a community's vulnerability to drought and water shortage begins with an understanding of local exposure to drought. This is included in the Local Concerns section below followed by a discussion of the District's Assets at Risk to this hazard.

Local Concerns

The District has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce vulnerabilities to this hazard.

NYWD's increased vulnerability to drought is due in part to farming on marginally arable lands and the pumping of ground water to the point of depletion. The most significant qualitative impacts associated with drought in the planning area are those related to water intensive activities such as wildfire protection, municipal usage, commerce, tourism, and recreation. Voluntary conservation measures are typically implemented during extended droughts. Drought conditions can also cause water quality deterioration and soil to compact and not absorb water well, potentially making an area more susceptible to flooding. Not only does this increase concerns regarding wildfire, but the dead trees are a risk to District infrastructure. Dead trees falling could potentially damage canals, the treatment plant, and other vital facilities. The District is exploring reforestation efforts to aid in mitigating these concerns.

Assets at Risk

Assets at risk from drought and water shortage include people and populations served; structures and critical facilities; community lifelines; natural, historic, and cultural resources; economic assets; and community activities of value. These are discussed in the following sections.

People and Populations Served

The people and populations of the District are not directly affected by drought; although, their turfed areas, trees, and other water dependent resources can all be affected. In extreme drought conditions, however, residents and other populations within the District may be vulnerability to drought and water shortage issues. Water quality can be impacted causing health problems, especially to vulnerable populations. Drought and water shortage can lead to an increase in wildfires threatening District residents. Water shortages can have an effect on all of the population in the District, but often have a greater effect on the unhoused and other vulnerable populations that may be unable to access clean drinking water during shortages. During periods of drought as the costs of water usage may increase, especially during mandated conservation times, those who are economically disadvantaged may be unable to afford the increased costs of potable water.

Structures and Critical Facilities

Most District structures and critical facilities have a limited vulnerability to drought and water shortage. Should drought conditions be severe enough to cause water shortage reliability issues, some facilities and infrastructure may be affected. Water and wastewater systems may be impacted during times of reduced water supply and need to employ contingencies to remain functional and fully operational. Other water dependent systems may also be adversely affected. Further, the secondary hazard of drought (increased potential for spread of urban fires and wildfire) can pose a significant risk to critical facilities and infrastructure. Drought can also stress trees, causing die off. These trees may fall on critical infrastructure adjacent to them and impact power lines and other utilities.

NYWD assets that are at risk includes the Water Treatment Plant, Office and Maintenance Yard, Water Pond, and Forbestown Ditch.

Community Lifelines

While limited, community lifelines can have a vulnerability to drought and water shortage, but it is unlikely to overwhelm. Many of the District's community lifelines are the same as or similar to Butte County's. This was discussed in greater detail in Section 4.3.8 of the Base Plan.

Natural, Historic, and Cultural Resources

Drought and water shortage can have a significant impact on natural resources. Water levels in reservoirs and lakes may be reduced and a loss of wetlands and coastal marsh areas may occur. Severe drought conditions can contribute to an increase in erosion of soils and lead to poor soil quality. Further, all of the trees in the District are at risk to drought impacts and a reduction in water supply. These trees provide a wealth of social and environmental benefits to District residents and visitors, from shade and beauty to air

quality, carbon reduction and stormwater management. Drought can devastate crops and dry out pastures, dry out forests and critical habitat areas, and reduce food and water available for wildlife and livestock. Additionally, drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. It is unlikely that drought and water shortage would have a significant impact on historic and cultural resources in the District.

Economic Assets and Community Activities of Value

Economic assets and community activities of value for the District are similar or the same as those for the County as a whole. Those assets and activities were discussed in greater detail in Section 4.3.8 of the Base Plan.

Impacts from Drought and Water Shortage

The vulnerability of the District to drought is District wide, but impacts may vary and include reduction in water supply and an increase in dry fuels. The potential for a reduction in water supply during drought conditions generally leads to both mandated and voluntary conservations measures during extended droughts. During these times, the costs of water can also increase. Also of concern, the increased dry fuels and fuel loads associated with drought conditions can result in an increased fire danger. In areas of extremely dry fuels, the intensity and speed of fires can be significant. Water supply and flows for fire suppression can also be an issue during extended droughts. Drought can also lead to turf losses and cause tree die off within the District.

Other qualitative impacts associated with drought in the District are those related to water intensive activities such as municipal usage, commerce, tourism, and recreation use. With more precipitation likely falling as rain instead of snow in the Sierra's, and warmer temperatures causing decreased snowfall to melt faster and earlier, water supply is likely to become more unreliable. In addition, drought and water shortage is predicted to become more common. This means less water available for use over the long run, and additional challenges for water supply reliability, especially during periods of extended drought.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the District may be affected in the future by climate change. It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with drought and water shortage. Changes in population patterns (migration, density, or the makeup of socially vulnerable populations) and changes in land use and development, and the extent to which they affect this hazard, are discussed in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the District include the following:

- Climate change is likely to exacerbate future drought conditions and associated impacts and vulnerability of the District to drought and water shortage.

- While population projections for the area served by the District show additional expected growth, these anticipated future changes in population are expected to be relatively small, which limits additional impacts to the District. The District noted it has no control over population changes, it merely reacts to them by providing additional (or reduced) services.
- It is unknown how changes in land use and development will affect drought and water shortage in the District's service territory. NYWD planning efforts are in effect to reduce this risk and should be updated as necessary to continue to address future drought conditions.

NYWD receives surface water diverted from the South Fork of the Feather River and conveyed to the surrounding communities of Challenge, Brownville, Rackerby, and Forbestown. An increase in long-range planning will be needed to account for any population growth, increased water demands, infrastructure replacement and improvements.

The District is currently working on a canal stabilization and loss mitigation project. Currently, approximately 4 miles of Shotcrete has been completed to curtail water losses. Along with this, the District in the process of having all 34+ miles of ditches/canals analyzed to better understand the best way to decrease losses and increase ability to carry water to the community. A CIP plan is in progress as well, to identify the most needed repairs.

Earthquake

Likelihood of Future Occurrence–Occasional
Vulnerability–High

Hazard Profile and Problem Description

An earthquake is caused by a sudden slip on a fault. Stresses in the earth's outer layer push the sides of the fault together. Stress builds up, and the rocks slip suddenly, releasing energy in waves that travel through the earth's crust and cause the shaking that is felt during an earthquake. Earthquakes can cause structural damage, injury, and loss of life, as well as damage to infrastructure networks, such as water, power, gas, communication, and transportation. Earthquakes may also cause collateral emergencies including dam and levee failures, seiches, hazmat incidents, fires, avalanches, and landslides. The degree of damage depends on many interrelated factors. Among these are: the magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surface deposits or bedrock, degree of consolidation of surface deposits, presence of high groundwater, topography, and the design, type, and quality of building construction.

The District is highly concerned about earthquakes and earthquake liquefaction.

Location and Extent

Surface Fault and Ground Shaking

Since earthquakes are regional events, the whole of the District is at risk to earthquake. The District, Butte County, and surrounding areas have some measure of risk from significant seismic and geologic hazards.

Faults in and around the District were shown in Section 4.3.9 of the Base Plan. A significant seismic event on any of these major faults could cause serious damage in the District.

The amount of energy released during an earthquake is usually expressed as a magnitude and is measured directly from the earthquake as recorded on seismographs. An earthquake's magnitude is expressed in whole numbers and decimals (e.g., 6.8). Seismologists have developed several magnitude scales, as discussed in Section 4.3.9 of the Base Plan.

Another measure of earthquake severity is intensity. Intensity is an expression of the amount of shaking at any given location on the ground surface. Seismic shaking is typically the greatest cause of losses to structures during earthquakes. The District is located in an area where earthquakes of significant magnitude occur, so both magnitude and intensity of earthquakes are expected to remain moderate. Seismic shaking maps for the area in Section 4.3.9 of the Base Plan show Butte County and the District fall within a low to moderate shake risk.

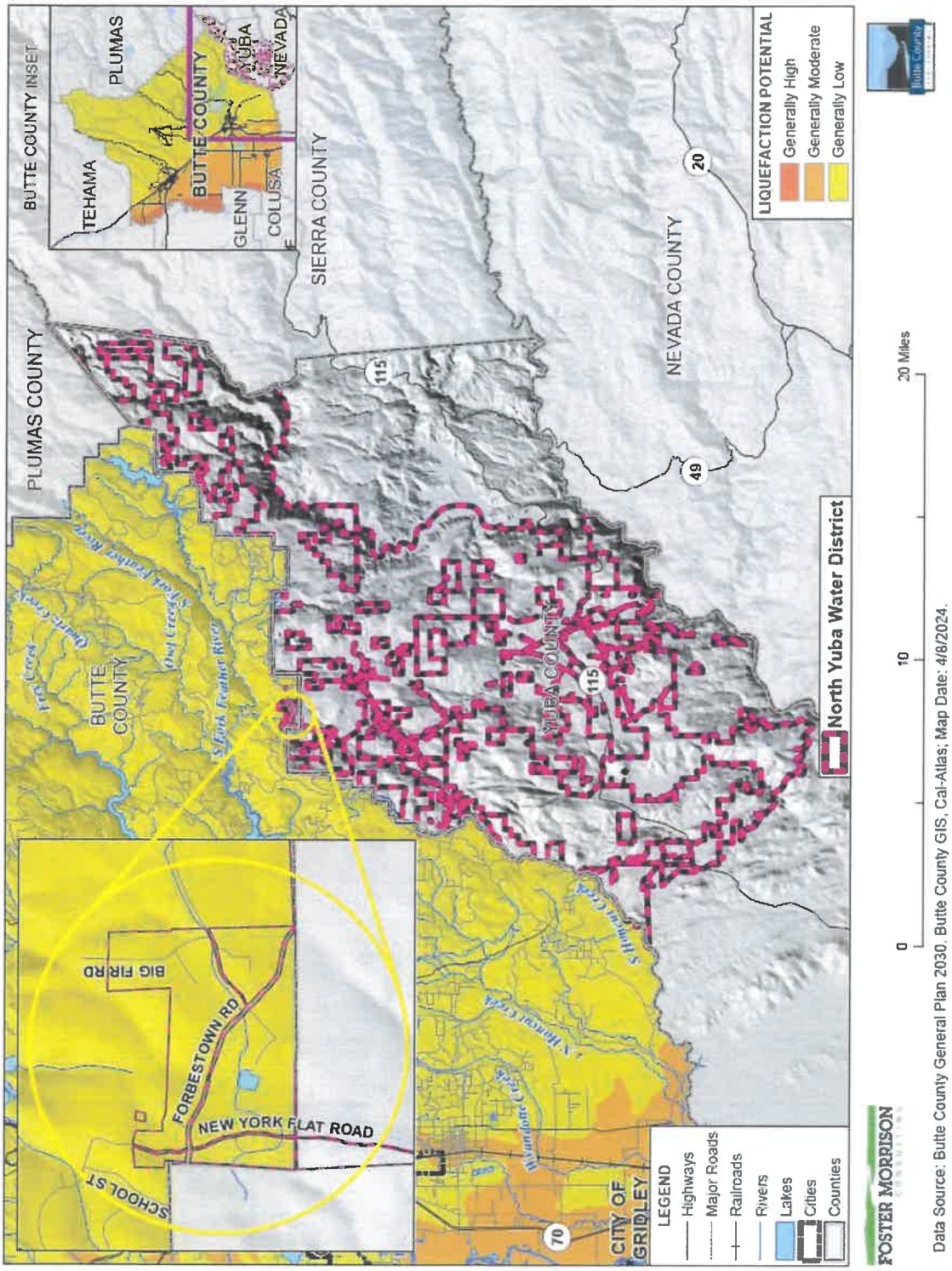
Earthquake-Induced Liquefaction

When ground liquefies in an earthquake, it behaves like a liquid and may sink, spread, or erupt in sand boils. This can cause pipes to break, roads and sidewalks to buckle, and building foundations to be damaged. Liquefaction can only occur under certain circumstances. Soil that is loose, sandy, silty, or saturated with water can result in soil liquefaction if it is shaken intensely for an extended period. More details on soils and liquefaction follows:

- **Loose Soils** – The soil must be loose, such as uncompacted or unconsolidated sand and silt without much clay. This happens most often near creeks or waterways, on dry creek beds, and areas of man-made fill.
- **Soggy Soils** – The sand and silt must be soggy and saturated with water due to a high water table.
- **Ground Shaking** – The ground must be shaken long and hard enough by the earthquake to trigger liquefaction.

Liquefaction accompanies an earthquake, so the speed of onset is short. Duration is similar to the length of the earthquake shake. There are mapped areas of areas susceptible to earthquake-induced liquefaction in the District from the USGS/CGS. These areas are shown on Figure M-2. Liquefaction hazard maps express where the ground is susceptible to liquefaction, and where the ground is likely to be shaken long and intensely in an earthquake.

Figure M-2 NYWD – Earthquake Liquefaction Susceptibility Zones



Past Occurrences

Disaster Declaration History

The District noted that there has been no state and 1 federal disaster declaration from the 1975 Oroville earthquake, as shown in Table M-6.

Table M-6 Butte County Disaster Declarations from Earthquake 1950-2024

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Earthquake	1	1975	0	

Source: Cal OES, FEMA

NCDC Events

The NCDC does not track earthquake events.

NYWD Events

As shown in the Base Plan, only the 1975 federal disaster declarations have occurred in the County due to earthquake. The District noted no other past occurrences of earthquakes or liquefaction that affected the District in any meaningful way.

Climate Change and Earthquake

Climate change is unlikely to increase earthquake frequency or strength.

Vulnerability to Earthquake

The combination of plate tectonics and associated California coastal mountain range building geology generates earthquakes as a result of the periodic release of tectonic stresses Earthquake vulnerability is primarily based on population and the built environment. Urban areas in high seismic hazard zones are the most vulnerable, while uninhabited and more rural areas are less vulnerable. The primary impacts of concern are life safety and property damage. Although several faults are located in and near the District and Butte County Planning Area, seismic hazard mapping indicates that the Planning Area has low to moderate seismic hazard potential. However, there is potential that the District and the Butte County Planning Area will be subject to some moderate to severe seismic shaking in future events. Some degree of structural damage due to stronger seismic shaking should be expected in earthquakes occurring with an epicenter near the District.

Earthquake shaking can cause liquefaction to occur in the District. Areas with loose soil and high water tables are at risk from liquefaction. The District has low risk from liquefaction.

The whole of the District is at some measure of vulnerability to earthquake. An assessment of a community's vulnerability to earthquakes begins with an understanding of local exposure to earthquakes. This is included in the Local Concerns section below. After that section, assets at risk are discussed.

Local Concerns

The District has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce vulnerabilities to this hazard.

The Uniform Building Code (UBC) identifies four seismic zones in the United States. The zones are numbered one through four, with Zone 4 representing the highest level of seismic hazard. The UBC establishes more stringent construction standards for areas within Zones 3 and 4. All of California lies within either Zone 3 or Zone 4. The NYWD is within the Zone 3.

Impacts to the District included damage to facilities conveyance system and distribution lines. Any ground movement along the district's conveyance system, such as Forbestown Ditch, may cause portions of the ditch to fail and disrupt the water service to its communities.

Assets at Risk

Many assets in the District are at risk to ground shaking (including liquefaction). Assets at risk from earthquake include people and populations served; structures and critical facilities; community lifelines; natural, historic, and cultural resources; economic assets; and community activities of value. These are discussed in the following sections.

People and Populations Served

All people and populations are at risk from earthquake shaking and surface fault. Those at heightened risk include:

- The unsheltered
- Infants and children under age five and their caregivers
- Elderly (65 and older)
- Individuals with disabilities
- Individuals dependent on medical equipment
- Individuals with impaired mobility

The greatest risk to people and populations from earthquake is death and injury. More information on people and populations at risk to earthquake shaking events can be seen in the Hazus scenarios developed for this LHMP and described below specific to the NYWD. More information on the Hazus scenarios and how the Butte County Planning Area is affected is included in Section 4.3.9 of the Base Plan. Information on populations at risk to liquefaction is detailed below.

Structures and Critical Facilities

All structures in the District are vulnerable to earthquakes, depending on the severity and location of the shake. Unreinforced masonry (URM) is at a much greater risk to earthquakes. The District noted that there are no District owned URM or soft story buildings.

Earthquake and its related hazards (like liquefaction) are a concern to the District. Earthquakes can damage critical facilities an infrastructure that provide vital services to the District. The critical facilities at risk to earthquake are presented in the Hazus analysis in Section 4.3.9 of the Base Plan.

NYWD assets that are at risk includes Forbestown Ditch, Costa Creek, Dry Creek and Oroleve Creek.

Community Lifelines

All community lifelines in the District are vulnerable to earthquakes, depending on the severity and location of the shake. A major earthquake event could cause these lifelines to be overwhelmed. Some of these would be able to be restored to service quickly, while others would take more time having a prolonged impact on the people and structures within the District. More information on lifelines at risk can be seen in the Hazus scenarios in Section 4.3.9 of the Base Plan.

Natural, Historic, and Cultural Resources

The 2023 State Hazard Mitigation Plan noted that environmental problems from earthquakes can be numerous. It is possible for earthquakes to reroute streams, which can change the water quality, possibly damaging habitat and feeding areas. Streams fed by groundwater and/or springs may dry up because of changes in underlying geology. Another threat to the environment from earthquakes is the potential release of hazardous materials. Historical and cultural resources are at risk, often due to their age and construction types. The Hazus scenarios in Section 4.3.9 of the Base Plan and included below are relatively silent on the vulnerability to natural, historic, and cultural resources, but impacts to these resources could be long lasting.

Any natural, historic, or cultural resource that is in the earthquake liquefaction zone would be at potential risk. For the natural resources, this is likely to be limited. Historic and cultural resources that are structures or housed in structures could be vulnerable to liquefaction. It is more likely that earthquake would have a much greater effect than the follow-on liquefaction.

Economic Assets and Community Activities of Value

Economic assets and community activities of value for the District are similar or the same as those for the County as a whole. Those assets and activities were discussed in greater detail in the Hazus scenarios in Section 4.3.9 of the Base Plan.

Impacts from Earthquake (and liquefaction)

Earthquakes can strike without warning and cause dramatic changes to the landscape of an area that can have devastating impacts on the built environment. The greatest impact is to life safety of NYWD residents and visitors. Other impacts to the District would include damages to infrastructure such as roads, bridges, and dams; damages and loss of services to utilities and critical infrastructure, including those related to gas, power, water, wastewater and communication systems; damages to structures and other development; and possible loss of life and injuries.

Earthquakes can also cause failure of dams, levees, and reservoirs. Facilities and land downslope from dams or water reservoirs or behind levees might be subject to flooding, if the dams, reservoirs, or levees fail as a result of an earthquake.

Ground settlement during liquefaction can cause damage when the amount of settlement varies significantly across the length of a structure. Liquefaction can occur in susceptible soils below bodies of water and can severely damage bridges, wharves, piers, and other structures at ports and harbors, as well as underwater utility lines.

Impacts to the District included damage to facilities conveyance system and distribution lines. Any ground movement along the district's conveyance system, such as Forbestown Ditch, may cause portions of the ditch to fail and disrupt the water service to its communities. NYWD assets that are at risk includes Forbestown Ditch, Costa Creek, Dry Creek and Oroleve Creek.

Impacts that are not quantified, but can be anticipated in large future events, include:

- Injury and loss of life;
- Commercial and residential structural and property damage;
- Disruption of and damage to public infrastructure, utilities, and services;
- Damage to roads/bridges resulting in loss of mobility;
- Significant economic impact (jobs, sales, tax revenue) to the community; and
- Negative impact on commercial and residential property values

Impacts to identified assets at risk to this hazard and the overall vulnerability of the District may be affected in the future by climate change. Climate change will not increase the chance of future occurrence or future impacts associated with earthquake. Changes in population patterns (migration, density, or the makeup of socially vulnerable populations) and changes in land use and development, and the extent to which they affect this hazard, are discussed in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the District include the following:

- As discussed in the hazard profile section, climate change is not anticipated to affect this hazard over time.
- While population projections for the area served by the District show additional expected growth, these anticipated future changes in population are expected to be relatively small, which limits additional impacts to the District. Vulnerable population groups could face disproportionate effects from an earthquake and should be planned for. The District noted it has no control over population changes, it merely reacts to them by providing additional (or reduced) services.
- Any changes in land use and development will affect the earthquake risk in the District, as additional buildings equate to additional risk. Building codes are in effect to reduce this risk and should be updated as necessary to continue to address future earthquake conditions. With adherence to development standards, future losses to new development should be minimal.

Although new growth and development corridors would fall in the area affected by earthquake, given the small chance of major earthquake and the building codes in effect, development in areas prone to earthquakes will continue to occur. NYWD is in a design process of replacing the existing Forbestown ditch with HDPE pipe that will be installed above ground and anchored by concrete blocks and straps. This type of installation will allow minor sagging and deformation and be repaired prior to any major failure.

The District is currently analyzing the process of replacing the Forbestown Ditch with better material. Shotcrete or some kind of solid pipe will be used to repair the existing ditch. The 100+ year old 129 ft long wooden flume with a buried inverted syphon has been replaced and will aid in mitigating multiple hazards.

Flood: Localized Stormwater Flooding

Likelihood of Future Occurrence–Occasional
Vulnerability–Medium

Hazard Profile and Problem Description

Flooding occurs in areas other than the FEMA mapped 1% and 0.2% annual chance floodplains. Flooding may be from drainages not studied by FEMA, lack of or inadequate drainage infrastructure, or inadequate maintenance. Localized, stormwater flooding occurs throughout the District during the rainy season from November through April. Prolonged heavy rainfall contributes to a large volume of runoff resulting in high peak flows of moderate duration.

Location and Extent

The NYWD is subject to localized flooding throughout the District. This is discussed below. Flood extents are usually measured in areas affected, velocity of flooding, and depths of flooding. Expected flood depths in the District vary by location. Flood durations in the District tend to be short to medium term, or until either the storm drainage system can catch up or flood waters move downstream. Localized flooding in the District tends to have a shorter speed of onset, especially when antecedent rainfall has soaked the ground and reduced its capacity to absorb additional moisture.

Past Occurrences

Disaster Declaration History

There have been no state or federal disaster declarations from localized floods.

NCDC Events

The past occurrences of localized flooding are included in the 1% and 0.2% annual chance flood hazard profile above.

NYWD Events

The District noted the following past occurrence of localized flooding:

The most recent event was during a major storm in 2017 during an extended and intense rainfall period. The storm caused sections of Forbestown Ditch to fail and interrupted service to its communities.

Climate Change and Localized Flood

It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with localized flooding. More information on future impacts to the District can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

Even if average annual rainfall may decrease slightly, the intensity of individual rainfall events is likely to increase during the 21st century, increasing the likelihood of overwhelming stormwater systems built to historical rainfall averages. This makes localized flooding more likely.

Vulnerability to Localized Flood

Flood vulnerability and their impacts vary by location and severity of any given flood event and will likely only affect certain areas of the District during specific times. Based on the risk assessment, it is evident that floods will continue to have potentially significant impacts to certain areas of the District. However, while flooding can cause significant impacts depending on the duration and volume of precipitation and the drainage in any given area, many of the floods in the District are minor, localized flood events that are more of a nuisance than a disaster.

Many areas of the District are at some measure of vulnerability to localized flooding. An assessment of a community's vulnerability to localized flood begins with an understanding of local exposure to localized flooding. This is included in the Local Concerns section below followed by a discussion of the District's Assets at Risk to this hazard.

Local Concerns

The District has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce vulnerabilities to this hazard.

Historically, the District has been affected by flooding of streams and creeks occurring during heavy rain and storm events. Additional development in the District and in the watersheds of these streams affects both the frequency and duration of damaging floods through an increase in stormwater runoff and contributes to localized flooding occurring in areas throughout the District.

Areas in and around the District are subject to localized flooding portion of the Forbestown Ditch and Forbestown Treatment Plant, the main office and yard.

The District is currently analyzing the process of replacing the Forbestown Ditch with better material. Shotcrete or some kind of solid pipe will be used to repair the existing ditch. The 100+ year old 129 ft long wooden flume with a buried inverted syphon has been replaced and will aid in mitigating multiple hazards.

Assets at Risk

Assets at risk from localized flood include people and populations served; structures and critical facilities; community lifelines; natural, historic, and cultural resources; economic assets; and community activities of value. These are discussed in the following sections.

People and Populations Served

People and populations are traditionally not highly vulnerable to localized flooding, but their structures and contents can be at risk. Localized flooding may also cause transportation issues as roads and lanes are impacted or closed and affect the ability for people to travel throughout the District.

Structures and Critical Facilities

Structures and critical facilities in areas with localized flooding can be affected if floodwaters intrude into the structure. Structures in low lying areas, or those with basements can be at greater risk. Buildings with older foundations that are prone to water intrusion are also at greater risk. Once water finds its way into a structure, it tends to continue to do so until the path that brings water into a structure is mitigated.

Localized flooding, while often more of a nuisance, can cause damage to critical facilities and infrastructure during a heavy rain and storm event. Any facility that experiences localized flooding can be impacted. Utilities and other critical infrastructure can all be affected, causing interruptions in service until repairs can be made. For example, water and wastewater systems can be vulnerable to heavy rains and flood events. Rainfall creates a high water table, surging streams and creeks, and saturates soil. Infiltration of stormwater into water and wastewater systems may occur and presents a threat to public health and safety, when the infrastructure is no longer able to meet operational needs and local demands. Other critical facilities such as roads, bridges and other transportation facilities can also experience localized flooding causing road closures and other impacts until storm waters recede. This can result in extended road closures requiring alternate routes.

NYWD assets that are at risk includes Forbestown Water Treatment, Forbestown Ditch, District's office and maintenance yard.

Community Lifelines

Due to the relatively minor nature of localized flooding, community lifelines are unlikely to be overwhelmed. Many of the District's community lifelines are the same as or similar to Butte County's. This was discussed in greater detail in Section 4.3.11 of the Base Plan.

Natural, Historic, and Cultural Resources

Natural resource assets may have some vulnerabilities to localized flood during major storm events, but can benefit from floodwaters, often by design. Many parks and green spaces are designed to take overflow water and release it into the underlying soils and natural areas. Wetlands areas in the District actually help reduce the risk of flooding, as they can absorb excess rainfall that would have to be drained away from impervious surfaces. Flooding can provide many benefits to the natural environment, including recharging

wetlands and groundwater, increasing fish production, creating wildlife habitat, and rejuvenating soil fertility. These smaller localized flooding events often provide more benefits to the environment in comparison to negative impacts associated with large flood events. Historic and cultural resources may be at some measure of vulnerability if they are located in areas subject to repeated localized flooding.

Economic Assets and Community Activities of Value

Economic assets and community activities of value for the District are similar or the same as those for the County as a whole. Those assets and activities were discussed in greater detail in Section 4.3.11 of the Base Plan.

Impacts from Localized Flood

Primary concerns associated with stormwater flooding include impacts to infrastructure that provides a means of ingress and egress throughout the community. Ground saturation can result in instability, collapse, or other damage to trees, structures, roadways and other critical infrastructure. Objects can also be buried or destroyed through sediment deposition. Floodwaters can break utility lines and interrupt services. Standing water can cause damage to crops, roads, and foundations. Other problems connected with flooding and stormwater runoff include erosion, sedimentation, degradation of water quality, losses of environmental resources, and certain health hazards.

Life safety issues from localized flooding would be more limited. The amount and type of damage or flooding that occurs varies from year to year and from storm to storm, depending on the quantity of precipitation and runoff.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the District may be affected in the future by climate change. It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with localized flood. Changes in population patterns (migration, density, or the makeup of socially vulnerable populations) and changes in land use and development, and the extent to which they affect this hazard, are discussed in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the District include the following:

- As discussed in the hazard profile section, climate change is anticipated to exacerbate this hazard over time.
- While population projections for the area served by the District show additional expected growth, these anticipated future changes in population are expected to be relatively small, which limits additional impacts to the District. The District noted it has no control over population changes, it merely reacts to them by providing additional (or reduced) services.
- It is unknown how changes in land use and development will affect localized flooding in the District. Additional development traditionally leads to additional stormwater runoff. Building codes are in effect

to reduce this risk and should be updated as necessary to continue to address future heavy rains and storm conditions. With adherence to development standards, future losses to new development should be minimal.

Future development in the District will add more impervious surfaces causing an increase in stormwater runoff and the continued need to drain these waters. The District will need to be proactive to ensure that increased development has proper siting and drainage for stormwaters. The risk of localized flooding to future development can be minimized by accurate recordkeeping of repetitive localized storm activity. Mitigating the root causes of the localized stormwater flooding will reduce future risks of losses. An increase in long-range planning will be needed to assure that the effect of flooding to NYWD's infrastructure will be very minimal.

Severe Weather: Heavy Rains and Storms

Likelihood of Future Occurrence–Highly Likely
Vulnerability–High

Hazard Profile and Problem Description

Storms in the District occur annually and are generally characterized by heavy rain often accompanied by strong winds and sometimes lightning and hail. Approximately 10 percent of the thunderstorms that occur each year in the United States are classified as severe. A thunderstorm is classified as severe when it contains one or more of the following phenomena: hail that is three-quarters of an inch or greater, winds in excess of 50 knots (57.5 mph), or a tornado. Heavy precipitation in the District falls mainly in the fall, winter, and spring months. Wind often accompanies these storms; hail and lightning are rare in the District.

Location and Extent

Heavy rain events occur on a regional basis. Rains and storms can occur in any location of the District. All portions of the District are at risk to heavy rains and storms. Most of the severe rains occur during the fall, winter, and spring months in the District. There is no scale by which heavy rains and severe storms are measured. The magnitude of storms is measured often in rainfall and damages. The speed of onset of heavy rains can be short, but accurate weather prediction mechanisms often let the public know of upcoming events. Hail and lightning are rare in the District and Butte County. Duration of severe storms in the District can range from minutes to hours to days. Information on precipitation extremes can be found in Section 4.3.4 of the Base Plan.

Past Occurrences

Disaster Declaration History

According to historical hazard data, severe weather, including heavy rains and storms, is an annual occurrence in the District. This is the cause of many of the federal disaster declarations related to flooding. Disaster declarations from flooding are shown on Table M-7.

Table M-7 Butte County Disaster Declarations from Flood (Heavy Rain and Storms) 1950-2024

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Flood (including heavy rains and storms)	25	1954, 1955, 1958, 1963 (twice), 1964 (twice), 1969, 1970, 1982, 1983, 1986, 1995 (twice) 1997, 1998, 2006, 2017 (four), 2019, 2023 (three)	23	1950, 1955, 1958 (twice), 1962, 1964, 1969, 1970, 1982, 1986, 1990, 1995 (twice) 1997, 1998, 2006, 2008, 2017 (twice), 2019, 2023 (three)

Source: Cal OES, FEMA

NCDC Events

The NCDC data recorded 40 hail, heavy rain, and winter weather incidents for Butte County since 1950.

NYWD Events

The two storm events in 2017 affected the Forbestown Ditch. The ditch blew out and interrupted service to the District's customers.

Climate Change and Heavy Rains and Storms

It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with heavy rains and storms. More information on future impacts to the District can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

According to the CAS, while average annual rainfall may increase or decrease slightly, the intensity of individual rainfall events is likely to increase during the 21st century. It is unlikely that hail will become more common in the County. The amount of lightning is not projected to change.

Cal-Adapt noted that, on average, the projections show little change in total annual precipitation in California. Furthermore, among several models, precipitation projections do not show a consistent trend during the next century. Cal-Adapt modeled scenarios are shown in Section 4.3.4 of the Base Plan.

Vulnerability to Heavy Rain and Storms

Heavy rain and severe storms are the most frequent type of severe weather occurrences in the District. These events can cause both significant and localized flooding. Flooding can be worse during times where the ground is already saturated. Wind often accompanies these storms and has caused damage in the past. Hail and lightning are rare in the District, but also can cause damage, with lightning occasionally igniting wildfires.

These heavy rains and storms can cause damages from localized flooding. This was discussed in the Flood: Localized Stormwater Flooding section above.

The whole of the District is at some measure of vulnerability to heavy rain and storms. An assessment of a community's vulnerability to heavy rains and storms begins with an understanding of local exposure to

heavy rain and storms. This is included in the Local Concerns section below followed by a discussion of the District's Assets at Risk to this hazard.

Local Concerns

The District has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce vulnerabilities to this hazard.

The Forbestown Ditch is very vulnerable to heavy rains and flooding. The District's mitigation efforts are being focused on stabilizing and piping the ditch. The primary vulnerability to the District from heavy rains and storms is the resulting flooding that occurs. This was discussed in the Flood: Localized Stormwater Flooding section above.

Assets at Risk

Assets at risk from heavy rain and storms include people and populations served; structures and critical facilities; community lifelines; natural, historic, and cultural resources; economic assets; and community activities of value. These are discussed in the following sections.

People and Populations Served

All populations in the District have some measure of risk to heavy rains and storms. Those populations that work or recreate outside and unhoused individuals are more vulnerable to impacts from heavy storm events. Heavy rains and storms occur every year and do not generally cause significant adverse impacts to individuals; it is the secondary hazard, flooding, that poses the biggest impact to people. Populations at risk to flooding resulting from heavy rains and storm events include those who live in floodplains (discussed in further detail in the Flood: 100/200/500-Year section above) and those who live in and near localized flooding areas (discussed in further detail in the Flood: Localized Stormwater Flooding section above).

Structures and Critical Facilities

Structures and critical facilities in the District have some risk to heavy rains and storms. Structures built to modern building codes are built to withstand heavy rains and storms (including high winds and lightning). During a heavy storm, localized flooding may cause water intrusion into buildings from the outside. Trees can be downed causing impacts to structures. Water intrusion into facilities and infrastructure can impact operations. Older buildings may be at increased risk to heavy rains and storms. Power outages during severe storm events can occur, impacting the use of structures until the power is back online. In certain areas, large storms can cause erosion and localized landslides which can impact affected facilities. Many critical facilities are built to modern design standards that take heavy rains and storms into account when siting and building these structures, and others may need to be retrofitted to better withstand these events.

Community Lifelines

Community lifelines are likely to have some vulnerability to heavy rains and storms, but are unlikely to be overwhelmed. Many of the District's community lifelines are the same as or similar to Butte County's. These were discussed in greater detail in Section 4.3.4 of the Base Plan.

Natural, Historic, and Cultural Resources

Large storm events and associated flooding can affect natural, historic, and cultural resources. Silt and sediment can damage natural areas. Trees can be uprooted and downed by high winds. Extended periods of rainfall can erode natural banks along waterways and degrade soil stability for terrestrial species. While some natural systems can be adversely impacted during these large storms, heavy rain events can also provide benefits. Groundwater and wetland areas can be recharged and water supplies replenished. Historic and cultural resources may also be affected. Generally, the impacts are associated with damage to structures affected by large storm events, but other cultural resources such as those associated with Native Americans and old tribal areas can also be disturbed, damaged, and lost during extreme storm and flood events.

Economic Assets and Community Activities of Value

Economic assets and community activities of value for the District are similar or the same as those for the County as a whole. Those assets and activities were discussed in greater detail in Section 4.3.4 of the Base Plan.

Impacts from Heavy Rain and Storms

Impacts from heavy rains and storms include damage to property, critical facilities and infrastructure, and the natural landscape. This includes: erosion; downed trees; damaged utility structures and infrastructure; power outages; road damage and blockages; and even lightning strikes to critical infrastructure and people. Lightning can also cause wildfires and urban fires to occur. Landslides and erosion occur when the soil on slopes becomes oversaturated and fails. Climate change may cause these impacts to worsen.

Actual damage associated with the primary effects of severe storms and heavy rains has been somewhat limited. It is the secondary hazards caused by these severe weather events, such as floods and erosion that would likely have the greatest impact.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the District may be affected in the future by climate change. It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with heavy rains and storms. Changes in population patterns (migration, density, or the makeup of socially vulnerable populations) and changes in land use and development, and the extent to which they affect this hazard, are discussed in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the District include the following:

- As discussed in the hazard profile section, climate change is anticipated to exacerbate this hazard over time.
- While population projections for the area served by the District show additional expected growth, these anticipated future changes in population are expected to be relatively small, which limits additional impacts to the District. The District noted it has no control over population changes, it merely reacts to them by providing additional (or reduced) services.
- It is unknown how changes in land use and development will affect heavy rains and storms in the District. Changes in land use may also amplify the impacts of heavy rains and storms, as additional impervious surfaces can cause additional runoff and localized flooding throughout the District. Building codes are in effect to reduce this risk and should be updated as necessary to continue to address future heavy rains and storm conditions. With adherence to development standards, future losses to new development should be minimal.

Building codes in the District ensure that new development is built to current building standards, which should reduce the risk to future development in the District from heavy rains and storms. New critical facilities such as communications towers and others should be built to withstand hail damage, lightning, and thunderstorm winds. With adherence to development standards, future losses to new development should be minimal. Changes in population could increase the number of people impacted by heavy rains and storms. Changes in land use may also amplify the impacts of heavy rains and storms, as additional impervious surfaces can cause additional runoff and localized flooding throughout the District.

Wildfire

Likelihood of Future Occurrence–Highly Likely
Vulnerability–High

Hazard Profile and Problem Description

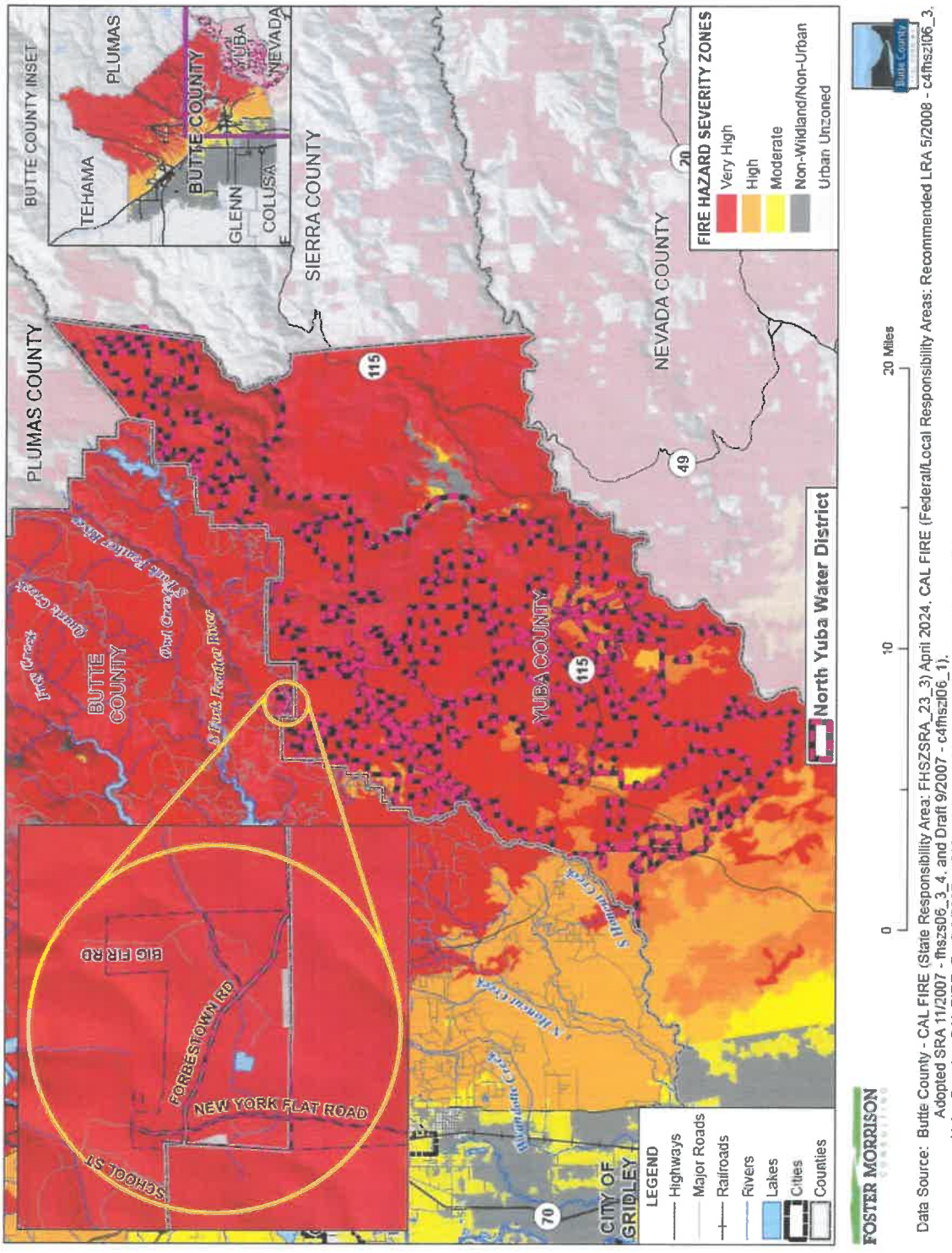
Wildland fire and the risk of a conflagration is an ongoing concern for the NYWD. Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire control practices have affected the natural cycle of fire regimes. Wildland fires affect grass, forest, and brushlands, as well as structures. Where there is human access to wildland areas the risk of fire increases due to a greater chance for human carelessness and historical fire management practices. Historically, the fire season extends from early spring through late fall of each year during the hotter, dryer months; however, in recent years, the risk of wildfire has become a year around concern. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, accumulation of vegetation, and high winds. These weather conditions can result in red flag (e.g., fire weather) days, and can result in PSPS/EPSS events in the District. While wildfire risk has predominantly been associated with more remote forested areas and wildland urban interface (WUI) areas, significant wildfires can also occur in more populated, urban areas. There is also the concern of wildfires

occurring in these more remote, forested areas that under certain weather conditions, can extend into areas not generally considered at a high risk to wildfire. Smoke and air quality also becomes an issue, both from fires occurring inside and outside of the Butte County Planning Area and the District.

Location and Extent

Wildfire can affect all areas of the District. CAL FIRE has estimated that the risk varies across the District and has created maps showing risk variance. Following the methodology described in Section 4.3.17 of the Base Plan, wildfire maps for the NYWD were created. Figure M-3 shows the CAL FIRE Fire Hazard Severity Zone (FHSZ) in the District. As shown on the maps, FHSZs within the District range Moderate to High.

Figure M-3 NYWD – CAL FIRE Fire Hazard Severity Zones



Wildfires tend to be measured in structure damages, injuries, and loss of life as well as on acres burned. Fires can have a quick speed of onset, especially during periods of drought or during hot dry summer months. Fires can burn for a short period of time or may have durations lasting for a week or more.

Past Occurrences

Disaster Declaration History

There has been 15 federal and 9 state disaster declaration due to fire, as shown in Table M-8.

Table M-8 Butte County – State and Federal Wildfire Disaster Declarations 1950-2024

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Wildfire	15	1999, 2004, 2008 (four), 2017 (four), 2018 (three), 2020 (twice)	9	1961, 1987, 1999, 2017 (three), 2018, 2020 (twice)

Source: Cal OES, FEMA

NCDC Events

The NCDC has tracked 33 wildfire events in the County dating back to 1993.

NYWD Events

There are no known past occurrences in areas near NYWD's facilities that were damaged by wildfires.

The District itself has not been damaged by wildfires, but in 2020 the North complex had the whole district evacuated due to the nearness of the event. The District supplied water for firefighting from various fire hydrants, and out of the Forbestown ditch.

Climate Change and Wildfire

It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with wildfire. More information on future impacts to the District can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

Warmer temperatures can exacerbate drought conditions. Drought often kills plants and trees, which serve as fuel for wildfires. Warmer temperatures could increase the number of wildfires and pest outbreaks, such as the western pine beetle. Cal-Adapt's wildfire tool predicts the potential increase in the amount of burned areas for the year 2090-2099, as compared to recent (2010) conditions. This is shown in Section 4.3.17 of the Base Plan. Based on this model, Cal-Adapt predicts that wildfire risk in Butte County will increase moderately at the end of the century. However, wildfire models can vary depending on the parameters used. Cal-Adapt does not take landscape and fuel sources into account in their model. In all likelihood, in the Butte County Planning Area, precipitation patterns, high levels of heat, topography, and fuel load will determine the frequency and intensity of future wildfire.

Vulnerability to Wildfire

Risk and vulnerability to the District from wildfire is of concern. Wildfires that occur in the District occur from a variety of both natural and manmade causes. The District can be affected both by fires that start on or near District lands as well as those that start elsewhere and move into the District. In addition to burning large areas of land, air quality can be affected in the District by fires occurring inside the District as well as those from many miles away. As growth continues and populations increase in the District, the potential for wildfires will also increase.

The whole of the District is at some measure of vulnerability to wildfire. An assessment of a community's vulnerability to wildfire begins with an understanding of local exposure to wildfire. This is included in the Local Concerns section below. After that section, assets at risk are discussed.

Local Concerns

The District has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce vulnerabilities to this hazard.

Wildfires can cause short-term and long-term disruption to the County and District, as evidenced by the Camp Fire in Paradise and the resultant increase in the population in nearby Oroville. Fires can have devastating effects on watersheds through loss of vegetation and soil erosion, which may impact the County by changing runoff patterns, increasing sedimentation, reducing natural and reservoir water storage capacity, and degrading water quality. Fires may result in casualties and can destroy buildings and infrastructure.

Although the physical damages and casualties arising from wildland-urban interface fires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. In some cases, the economic impact of this loss of services may be comparable to the economic impact of physical damages or, in some cases, even greater. Economic impacts of loss of transportation and utility services may include traffic delays/detours from road and bridge closures and loss of electric power, potable water, and wastewater services. Fires can also cause major damage to power plants and power lines needed to distribute electricity to operate facilities. Again, complicating the issue, PG&E shutdowns can occur during red flag days, which affects the District.

Mitigation efforts have started and is focused on repairing or replacing aging infrastructure. The District has replaced an old wooden flume with a buried inverted siphon. Along with this, the old Redwood 100,000 gallon water storage tank was replaced with a bolted steel tank. More efforts like this will be pursued in the future.

Wildfire Smoke and Air Quality

Smoke from wildfires is made up of gas and particulate matter, which can be easily observed in the air. Air quality standards have been established to protect human health with the pollutant referred to as PM2.5 which consists of particles 2.5 microns or less in diameter. These smaller sizes of particles are responsible for adverse health effects because of their ability to reach the lower regions of the respiratory tract.

Wildfire smoke can have negative effects to those who live in or near a fire burn area. Smoke and air pollution from wildfires can be a severe health hazard. Significant wildfires occurring in both the County and nearby northern California communities since the 2019 LHMP Update have created significant air pollution affecting area residents. This was the case during the 2020 North Complex Fire, as well as others that affected the nearby areas.

Assets at Risk

Assets at risk from wildfire include people and populations served; structures and critical facilities; community lifelines; natural, historic, and cultural resources; economic assets; and community activities of value. These are discussed in the following sections.

People and Populations Served

All populations are at some vulnerability to wildfire. Certain vulnerable populations are at greater risk to the effects of wildfire as well as smoke and air quality issues that wildfires bring. Vulnerable populations include:

- Unhoused
- Infants and children under age five and their caregivers
- Elderly (65 and older)
- Individuals with disabilities
- Individuals' dependent on medical equipment
- Individuals who exercise or recreate outdoors
- Individuals who work outdoors
- Individuals with impaired mobility

Structures and Critical Facilities

All structures in the District have some risk to wildfire. Wildfire presents a threat to critical facilities and infrastructure. The following were identified by the District as being at risk to wildfire.

NYWD assets that are at risk includes the Water Treatment Plant, District's office and maintenance yard, Water Pond, storage tank, and Forbestown Ditch. These facilities are in areas that are susceptible to wildfire.

Community Lifelines

Wildfire presents a threat to life and property, including to community lifelines in the District. Depending on the severity of the wildfire, there is a chance for community lifelines to be overwhelmed. Many of the District's community lifelines are the same as or similar to Butte County's. These were discussed in greater detail in Section 4.3.17 of the Base Plan.

Natural, Historic, and Cultural Resources

Natural, historic, and cultural resources located within areas at risk to wildfire would be vulnerable. Should a wildfire occur in the District, the impacts to natural, historic and cultural resources could be extensive and include air pollution, contamination from water runoff containing toxic products, and other environmental discharges or releases from burned materials affecting soils, habitat areas, wildlife, and aquatic resources. Historic and cultural resources can be affected and are often more vulnerable due to their older age, construction type, and lack of fire prevention infrastructure such as sprinklers.

Economic Assets and Community Activities of Value

Economic assets and community activities of value for the District are similar or the same as those for the County as a whole. Those assets and activities were discussed in greater detail in Section 4.3.17 of the Base Plan.

Impacts from Wildfire

Potential impacts from wildfire include loss of life and injuries; damage to structures (commercial, industrial, and residential) and other improvements, natural and cultural resources, croplands, and timber; and loss of recreational opportunities. Wildfires can cause short-term and long-term disruption to the District. Fires can have devastating effects on watersheds through loss of vegetation and soil erosion, which may impact the District by changing runoff patterns, increasing sedimentation, reducing natural and reservoir water storage capacity, and degrading water quality. Fires can also affect air quality in the District; smoke and air pollution from wildfires can be a severe health hazard. Smoke impacts may come from wildfires outside the District, as well as from within.

Although the physical damages and casualties arising from wildland-urban interface fires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. Economic impacts of loss of transportation and utility services may include traffic delays/detours from road and bridge closures and loss of electric power, potable water, and wastewater services. Schools and businesses can be forced to close for extended periods of time. Recently, the threat of wildfire, combined with the potential for high winds, heat, and low humidity, has caused PG&E to initiate a PSPS/EPSS which can also significantly impact a community through loss of services, business closures, and other impacts associated with loss of power for an extended period. In addition, catastrophic wildfire can create favorable conditions for other hazards such as flooding, landslides, and erosion during the rainy season.

The impacts of a fire are felt long after the fire is extinguished. In addition to the loss of property in fires, the loss in vegetation and changes in surface soils alters the environment. When supporting vegetation is burned, hillsides become destabilized and prone to erosion. The burnt surface soils are harder and absorb less water. When winter rains come, this leads to increased runoff, erosion, and landslides in hilly areas.

Impacts that are not quantified, but can be anticipated in large future events, include:

- Injury and loss of life;
- Commercial and residential structural and property damage;

- Disruption of and damage to public infrastructure, utilities, and services;
- Damage to roads/bridges resulting in loss of mobility;
- Significant economic impact (jobs, sales, tax revenue) to the community; and
- Negative impact on commercial and residential property values

Impacts to identified assets at risk to this hazard and the overall vulnerability of the District may be affected in the future by climate change. It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with wildfire. Changes in population patterns (migration, density, or the makeup of socially vulnerable populations) and changes in land use and development, and the extent to which they affect this hazard, are discussed in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the District include the following:

- As discussed in the hazard profile section, climate change is anticipated to exacerbate this hazard over time.
- While population projections for the area served by the District show additional expected growth, these anticipated future changes in population are expected to be relatively small, which limits additional impacts to the District. The District noted it has no control over population changes, it merely reacts to them by providing additional (or reduced) services.
- It is unknown how changes in land use and development will affect wildfire in the District's service territory. Building that occurs in the moderate or higher FHSZ may increase risk to additional lands. Building codes are in effect to reduce this risk and should be updated as necessary to continue to address future wildfire conditions.

Additional growth and development within moderate or higher fire hazard severity zones in the District would place additional values at risk to wildfire. District building codes are in effect and should continue to be updated as appropriate to reduce this risk. An increase long-range planning will be needed to assure that the effect of wildfire to NYWD's infrastructure will be very minimal.

M.5 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

M.5.1. Regulatory Mitigation Capabilities

Table M-9 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the NYWD.

Table M-9 NYWD's Regulatory Mitigation Capabilities

Plans	In Place Y/N	Does the plan address hazards? Can the plan be used to carry out mitigation actions? When was it last updated??
Capital Improvements Plan	N	In Progress
Climate Change Adaptation Plan		
Community Wildfire Protection Plan	N	
Comprehensive/Master Plan	N	
Continuity of Operations Plan	N	
Economic Development Plan	N	
Land Use Plan		
Local Emergency Operations Plan	Y	
Stormwater Management Plan	N	
Transportation Plan	N	
Other (describe)		
Land Use Planning and Ordinances	**Y/N**	**Is the ordinance an effective way to reduce hazard impacts? Is the ordinance adequately administered and enforced?**
Acquisition of land for open space and public recreation use	N	
Building code	N	
Flood insurance rate maps	N	
Floodplain ordinance	N	
Natural hazard-specific ordinance (stormwater, steep slope, wildfire)	N	
Subdivision ordinance	N	
Zoning ordinance	N	
Other		
How can these capabilities be expanded and improved to reduce risk?		
Long term planning by the regulatory agencies can include programs specific to NYWD and surrounding areas.		

Source: NYWD

M.5.2. Administrative/Technical Mitigation Capabilities

Table M-10 identifies the District department(s) responsible for activities related to mitigation and loss prevention in NYWD.

Table M-10 NYWD's Administrative and Technical Mitigation Capabilities

Administration	In Place Y/N	Describe capability Is coordination effective?

Staff		Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	N	
Civil Engineer, including dam and levee safety	Y	
Community Planner	N	
Emergency Manager	Y	District Manager
Floodplain Administrator	N	
GIS Coordinator	N	
Planning Commission	N	
Other		
Technical	**Y/N**	**Has capability been used to assess/mitigate risk in the past?**
Grant writing	Y	
Hazard data and information	N	
GIS analysis		
Mutual aid agreements	N	
Other		
How can these capabilities be expanded and improved to reduce risk?		
Expanding the staff with clear roles and goals for the District will allow everyone to effectively work toward achieving those goals.		

Source: NYWD

M.5.3. Fiscal Mitigation Capabilities

Table M-11 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

Table M-11 NYWD's Fiscal Mitigation Capabilities

Funding Resource	In Place Y/N	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding	N	
Community Development Block Grant	N	
Federal funding programs (non-FEMA)	N	
Fees for water, sewer, gas, or electric services	Y	
Impact fees for new development	N	
State funding programs	Y	

Funding Resource	In Place Y/N	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Stormwater utility fee	N	
Other (Yuba Water Agency)	Y	
How can these capabilities be expanded and improved to reduce risk?		
Identify other funding resources to assist in improving and updating existing NYWD facilities.		

Source: NYWD

M.5.4. Mitigation Education, Outreach, and Partnerships

Table M-12 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information.

Table M-12 NYWD's Mitigation Education, Outreach, and Partnerships

Program/Organization	In Place Y/N	How widespread are each of these in your community?
Community newsletters	Y	
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs, public events)		
Local news		
Organizations that interact with underserved and vulnerable communities		
Social media	Y	
Other		
How can these capabilities be expanded and improved to reduce risk?		
Continuous educational and outreach programs specific to environmental protection, emergency preparedness should be included in NYWD's long term planning.		

Source: NYWD

M.5.5. Other Mitigation Efforts

The District has many other completed or ongoing mitigation projects/efforts that include the following:

Drought & Water shortage
Water conservation-loss. The District has lined two 100,000 gal. water storage tanks to reduce water loss. The original redwood storage tank was replaced with a bolted steel tank.

Hazards addressed by mitigation actions below: Floods: Localized Stormwater; Landslide, Mudslide, and Debris Flow; Severe Weather: Extreme Cold, Freeze and Winter Storm; Severe Weather: Heavy Rain and Storms (Hail, Lightning); Wildfire

- Hell 4 Stout Flume replacement, replaced the 100+ yr old wooden flume with a buried inverted syphon.
- Forbestown Ditch Stabilization and Mitigation project.

M.6 Mitigation Strategy

M.6.1. Mitigation Goals and Objectives

The NYWD adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

M.6.2. NFIP Strategy

While the District is not an eligible NFIP community and does not participate in the NFIP, some of the mitigation actions and projects below may contain measures to promote effective floodplain management throughout the Butte County Planning Area. Even though it does not participate in the NFIP, the District will support the NFIP actions of the County (and the cities) to the fullest extent possible.

M.6.3. Mitigation Actions

The planning team for the NYWD identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. The following hazards were considered a priority for purposes of mitigation action planning:

- Drought & Water shortage
- Earthquake
- Floods: Localized Stormwater
- Severe Weather: Heavy Rain and Storms (Hail, Lightning)
- Wildfire

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards regardless of hazard priority. Collectively, this multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan. It should further be noted, that although a jurisdiction may not have specific projects identified for each priority hazard for the five year coverage of this planning process, each jurisdiction has focused on identifying those projects which are realistic and reasonable for them to implement and would like to preserve their hazard priorities should future projects be identified where the implementing jurisdiction has the future capacity to implement.

Mitigation Actions

Action 1. Flume to Siphon Conversions

Hazards Addressed: Drought & Water shortage, Earthquake, Severe Weather Heavy Rains and Storms, Localized Flood, Wildfire

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: The District still has older wooden flume structures that have exceeded their life expectancy. These are at risk from earthquake and wildfire. They are also at risk from landslides from heavy rains and storms and localized flooding.

Project Description: This project will continue to replace wooden flumes with buried steel inverted siphons.

Other Alternatives: No Action

Existing Planning Mechanism(s) through which Action will be implemented:

Responsible Office/Partners: NYWD

Benefits (Losses Avoided): By NYWD converting the flume to a buried siphon, the District no longer has the fear of it burning up in a wildfire or collapsing under the weight of heavy snow. With the siphon being buried the risks from any major storm event have been mitigated. The replacement has also seen significant water savings which help during droughts and water shortages.

Potential Funding: Yuba Water Agency grant

Timeline: First one completed 2024. More to follow as funding is available.

Project Priority (H, M, L): High

Action 2. Canal Stabilization Water Loss Mitigation Project

Hazards Addressed: Drought & Water shortage, Earthquake, Severe Weather Heavy Rains and Storms, Wildfire

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: The Forbestown Ditch had a high-water loss ratio, originally dug in the 1950's. With the high percentage of water loss the District cannot always supply water to its customers during drought years, which causes water shortages. The Ditch is also susceptible to blowouts/failure during heavy rain, storm events. Much of the canal is positioned on hillsides and can be quite unstable. During the 2017 severe weather event a large portion of the ditch blew out sending water down the ravine, that had to be repaired to provide water to our treatment plant. The shotcrete will also help to stabilize the canal during an earthquake.

Project Description: This project will apply Shotcrete to the highest water loss areas as evaluated by the leak evaluation, Shotcrete is also being applied where the ditch/canal needs stabilization to avoid blowouts.

Other Alternatives: No Action

Existing Planning Mechanism(s) through which Action will be implemented: None currently.

Responsible Office/Partners: NYWD

Benefits (Losses Avoided): The NYWD has lined approximately 2 miles of the 10 mile ditch with Shotcrete to reduce losses and strengthen the ditch. This effort has greatly reduced losses which leaves us more water to deliver to our customers during droughts and shortages. Additionally, canal stabilization will prevent large failures and loss of water supplies during earthquake and severe weather type events.

Potential Funding: NYWD funds and Yuba Water Agency grant

Timeline: 2022 through 2026

Project Priority (H, M, L): Medium

Action 3. Ditch to Pipe Replacement Project

Hazards Addressed: Drought & Water Supply and Landslide

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: The goal of this project is to improve the existing Forbestown conveyance system and increase its efficiency by reducing raw water losses and minimizing the opportunity for contaminants to enter the conveyed water. The project will also mitigate system issues caused by soil creep. A portion of the ditch is extremely vulnerable to slope instability and overtopping during severe storm events. Through the years, several failures and areas of distress have occurred along the Forbestown ditch that have caused water conveyance to be disrupted or stopped completely.

Project Description: Forbestown Ditch is located in Butte and Yuba Counties and begins near the community of Woodleaf. The project includes replacing the existing ditch with 42-inch HDPE ADS N-12 to improve the existing conveyance system and increase its efficiency by reducing raw water loss and minimize water contamination. The ditch extends approximately 10 miles that begins at Woodleaf Penstock South Fork gauging station 14 (SF 14) and ends at Forbestown Water Treatment Plant.

Other Alternatives: Other alternatives considered for the project includes soil stabilization to stop slope creep and shallow slope failures

Existing Planning Mechanisms through which Action will be Implemented: None

Responsible Office: Northstar Inc.

Cost Estimate: 10,000,000

Benefits (avoided Losses): Reduced risk to conveyance system and the customers who rely on it for water.

Potential Funding: NYWD funds and Yuba Water Agency grant

Timeline: Within 5 years as funding is available

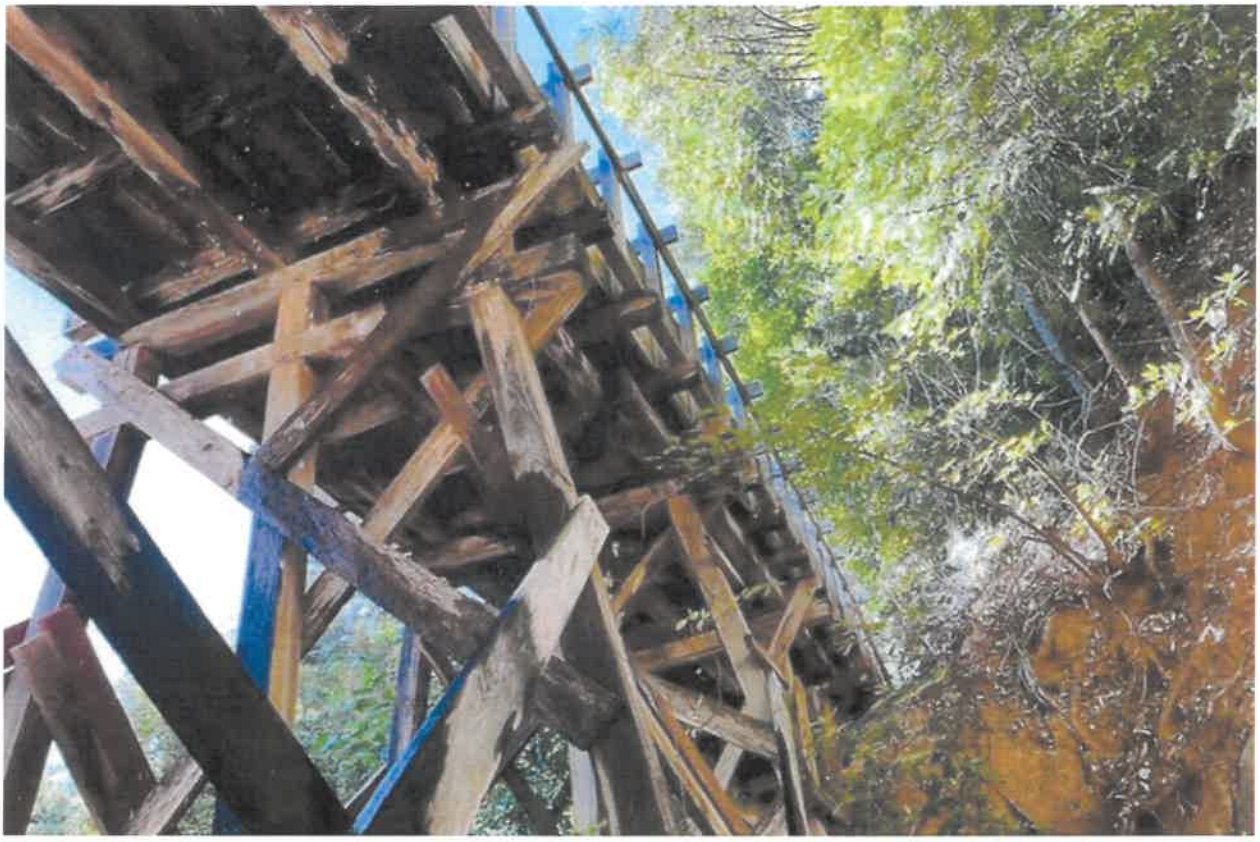
Project Priority (H, M, L): Medium

North Yuba Water District Flume Replacement

The Hell 4 Stout Flume was a 100+ year old wooden structure that was way past its life expectancy. During the 2017 weather events the hillside slid down and compromised the piers and structures that held it up.

During heavy snows the crew would have to snowshoe through the snow to make sure it was still standing. During the North Complex Fire, the District was very concerned as it was made of wood and could not withstand fire or earthquake. This flume is a part of the Forbestown Ditch that is our only source for the NYWD Domestic Water Treatment Plant. This project replaced the old 123 ft long and 40 ft high wooden flume with a buried steel inverted siphon. Future impacts should be prevented or greatly reduced with this new structure.

Figure 2-2 Hell 4 Stout Flume Before



Source: North Yuba Water District

Figure 2-3 Hell 4 Stout Siphon After

Source: North Yuba Water District

Mountain Counties
WATER RESOURCES ASSOCIATION

www.mountaincountieswater.com

August 19, 2024

Marieke Furnee
North Yuba Water District
Director, Division 4
PO Box 299
Brownsville, CA 95919

Subject: Membership with Mountain Counties Water Resources Association

Dear Marieke Furnee,

Thank you for your interest in the Mountain Counties Water Resources Association (MCWRA). Our 50-member strong Association was formed to promote the statewide importance of Sierra Nevada water resources through advocacy and collaboration. Our vision is to be the premiere advocate to influence water policy and protection of the Sierra Nevada watershed, and we invite you to join us in this endeavor.

MCWRA is recognized throughout California for its diligence in elevating the state's water relevancy to include the Sierra Nevada region's vulnerable watersheds in the discussion. Building relationships, alliances, and partnerships in other regions of the state are a central part of our education and advocacy on behalf of the region. This focused effort places the Association in a better position to provide leadership and coordination, which leverages our interests on important matters for the membership.

There are significant water issues facing our region, and MCWRA's advocacy team has worked to secure a seat at the as crucial conversations occur in Sacramento. Our Board of Directors maintains that it is crucial for the Association to be a sustainable, visible, and actively engaged organization focused on critical regional and statewide water issues.

MCWRA continues to expand its influence and enhance our value-add for our members and region. Our vision isn't realized without the support of our members, and we invite you to join us as we work to become the premiere advocate to influence water policy and protection of the Sierra Nevada watershed.

Thank you in advance for your consideration. If you have any questions about the Association or membership, please don't hesitate to call me at (916) 412-0571.

Sincerely,

Justin Caporusso, Executive Director
Mountain Counties Water Resources Association

Mountain Counties
WATER RESOURCES ASSOCIATION

Membership Application - Executive

DATE OF APPLICATION: _____ DUES AMOUNT $ _____

NAME: _____

ORGANIZATION: _____

WATER PURVEYOR (*Number of Connections, including wholesale*): _____

NON-WATER PURVEYOR (*Number of employees*): _____

ADDRESS: _____

CITY: _____

STATE: _____ ZIP: _____

PHONE: _____

EMAIL ADDRESS: _____

NOTE: Please email an electronic copy of your LOGO. Please also provide the names and emails of those in your organization who would like to be added to our email news posts. Email information to: mcwra.office@gmail.com

Executive Membership (annual dues) Varies by Organization

- Water Purveyors – (≥ 15,000 connections, including wholesale account connections) ... $22,516
- Water Purveyors – (≥ 6,500 but < 15,000 connections, including wholesale account connections) (category includes non-purveyor with broad water jurisdiction; i.e. public district, public agency) ... $11,964
- Water Purveyors – (≥ 1,250 but < 6,500 connections, including wholesale account connections).. $5,545
- Water Purveyors – (< 1,250 connections, including wholesale account connections) ... $1,412
- Public Non-Purveyor – County..... $1,748
  - Counties less than 20,000 in population $1,277
  - Counties less than 10,000 in population $ 739

Any county, public district, or other public agency located in the State of California in the counties of origin or adjacent to the central region of the Sierra Nevada who is involved in water development, acquisition, treatment, or storage may become an Executive Member of Mountain Counties upon written application, approval by the Board, and payment of the required membership dues. Acceptance to Executive Membership shall authorize full participation in activities of Mountain Counties. The General Manager, Executive Officer, or appointed representative shall represent its organization in the Executive Membership of Mountain Counties and shall be the voting representative from its public entity.

Signature of Applicant: _____

Please remit application with payment to:

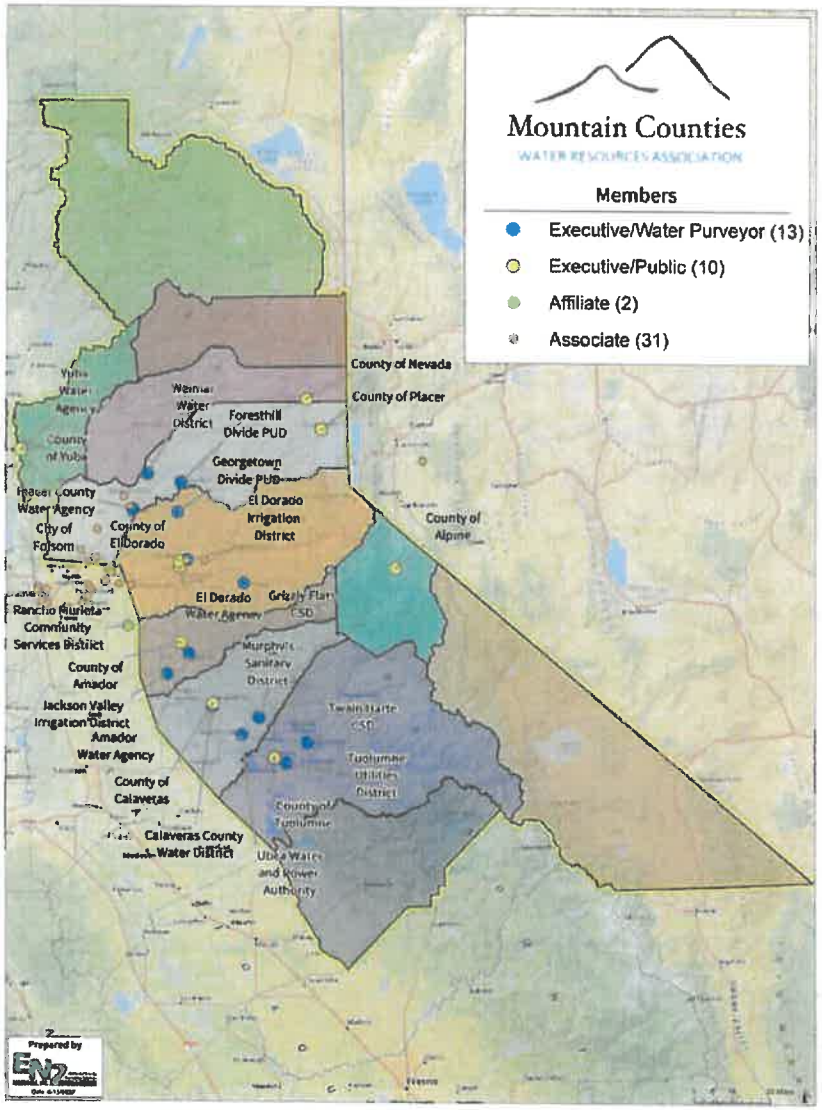
Mountain Counties Water Resources Association
PO Box 2479
Placerville, CA 95667

North Yuba Water District

Mountain Counties
WATER RESOURCES ASSOCIATION

MOUNTAIN COUNTIES WATER RESOURCES ASSOCIATION

Promoting the Statewide Importance of Sierra Nevada Water Resources
August 22, 2024

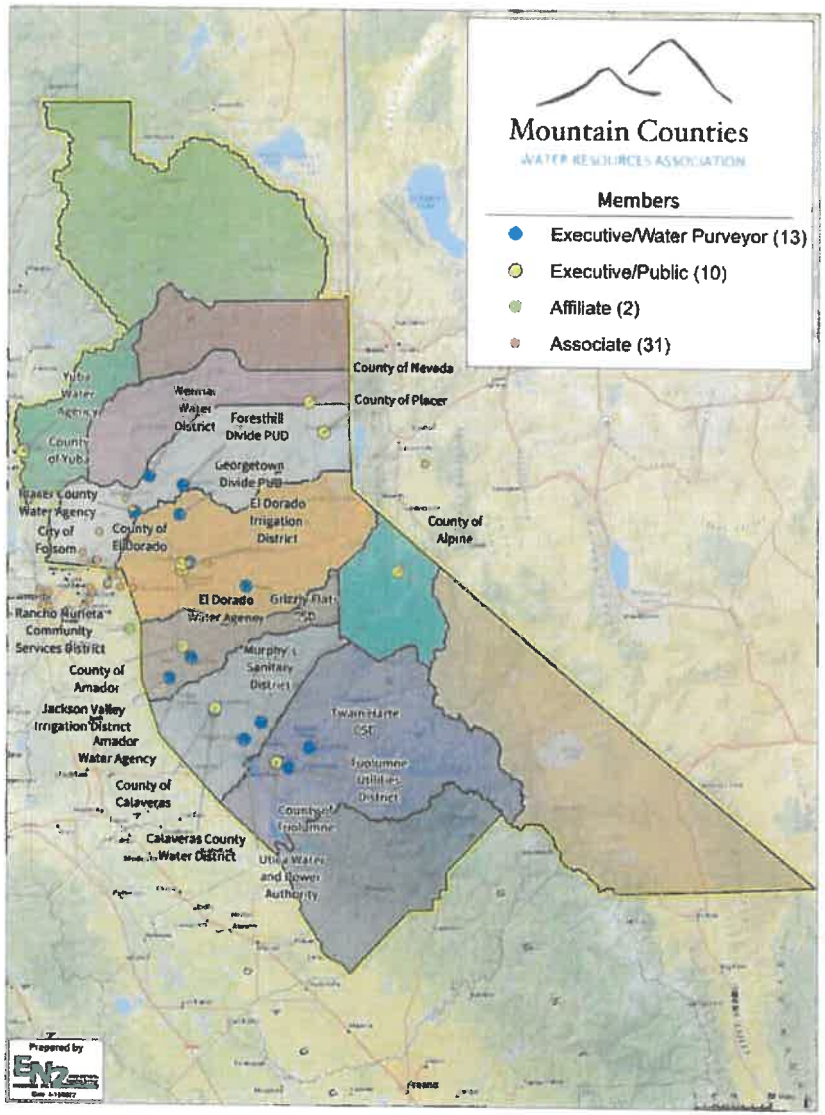


Executive Members

- **Amador Water Agency**
- **Calaveras County Water District**
- **County of Alpine**
- **County of Amador**
- **County of Calaveras**
- County of El Dorado
- County of Nevada
- County of Placer
- County of Tuolumne
- County of Yuba
- El Dorado County Water Agency
- El Dorado Irrigation District
- Foresthill Public Utility District
- Georgetown Divide Public Utility District
- Grizzly Flats Community Services District
- **Jackson Valley Irrigation District**
- Murphys Sanitary District
- Placer County Water Agency
- Tuolumne Utilities District
- Twain Harte Community Services District
- Yuba Water Agency
- Union Public Utility District
- Utica Water and Power Authority

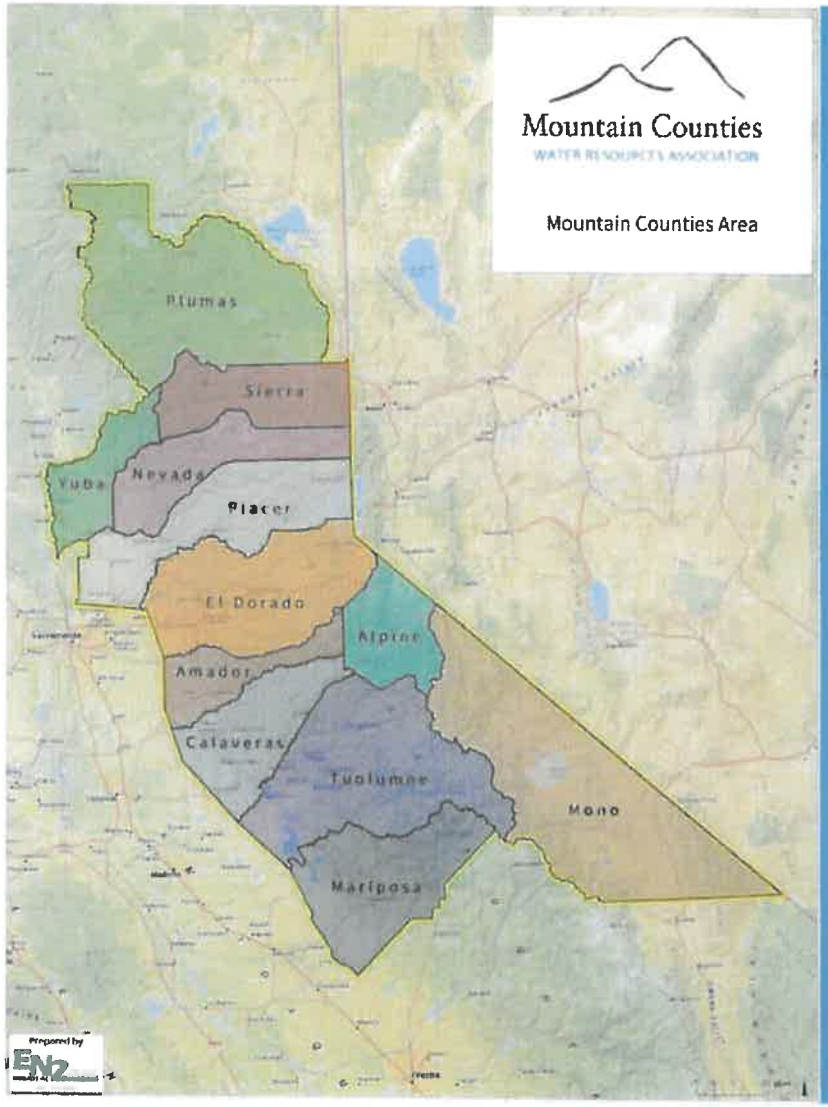
Affiliate Members

- City of Folsom
- Rancho Murieta Community Services District
- Santa Clara Valley Water District (Valley Water)



Associate Members

- AECOM
- Association of California Water Agencies (ACWA)
- ACWA JPIA
- Bennett Engineering Services
- Black & Veatch
- Blackburn Consulting
- Brown and Caldwell
- Carollo Engineers
- Coleman Engineering
- Condor Earth Technologies, Inc.
- Domenichelli and Associates, Inc.
- Dudek
- ECORP Consulting, Inc.
- EN2 Resources, Inc.
- Environmental Science Associates (ESA)
- Fieldman, Rolapp & Associates, Inc.
- Gannett Fleming,
- HDR Engineering, Inc.
- HELIX Environmental Planning, Inc.
- Hilltop Securities, Inc.
- JJ&A (Jacobson James & Associates
- McMillen Jacobs Associates
- Mesa Water District
- Northwest Hydraulic Consultants
- Peterson . Brustad . Inc.
- Provost & Pritchard Consulting Group
- Recology
- Sierra West Consultants, Inc.
- Urban Water Institute (UWI)
- WEST Consultants, Inc.
- West Yost Associates
- Western Hydrologics



Mountain Counties Region

Alpine
Amador
Calaveras
El Dorado
Mariposa
Mono
Nevada
Placer
Plumas
Sierra
Tuolumne
Yuba

Board of Directors

Mountain Counties
WATER RESOURCES ASSOCIATION

Scott Ratterman – President
2015-
Director, Calaveras County Water District

Lori Anzini- Treasurer
2022-
Director, El Dorado Irrigation District

Lori Parlin – Director
2022-
Supervisor, County of El Dorado

Board of Directors

Mountain Counties
WATER RESOURCES ASSOCIATION

Barbara Balen – Vice President
2017-
Director, Tuolumne Utilities District

Sue Hoek - Director
2023-
Supervisor, County of Nevada

Jim Holmes – Secretary
2015-
Supervisor, County of Placer

Board of Directors

Mountain Counties
WATER RESOURCES ASSOCIATION

Mike Lee - Director
2017-
Director, Placer County Water Agency

Don Blaser- Director
2023-
Director, Yuba Water Agency

Susan Peters - Director
2023-
Director, Amador Water Agency

Executive Director

Mountain Counties
WATER RESOURCES ASSOCIATION

JUSTIN CAPORUSSO

- More than two decades of public affairs and issue advocacy experience
- Background in rural California
- Experience in natural resource issues
  - Chair, California Forest Watershed Alliance (CAFWA)
- Collaborative Approach to Advocacy and Issue Management

Statewide Benefits of Healthy Headwaters

California's headwaters account for the majority of the state's overall water supply, yet the region cannot solely fund proper forest management. Through education and advocacy, MCWRA will continue to promote policies and funding of programs and projects that protect Sierra Nevada's forested watersheds, and support the following:

- **IMPROVED WATER QUALITY AND QUANTITY**
- **ENHANCED HABITATS, ECOSYSTEMS, RECREATION, AND WATERSHEDS**
- **LOWER RISKS TO RURAL COMMUNITIES, PUBLIC SAFETY, AND INFRASTRUCTURE**
- **REDUCED IMPACTS OF WILDFIRE AND CLIMATE CHANGE**
- **CREATION OF RESILIENT FORESTS AND COMMUNITIES**
- **INCREASED CARBON SEQUESTRATION**

Mission

Promote the statewide importance of Sierra Nevada water resources through advocacy and collaboration.

Vision

To be the premiere advocate to influence water policy and protection of the Sierra Nevada watershed.

Values

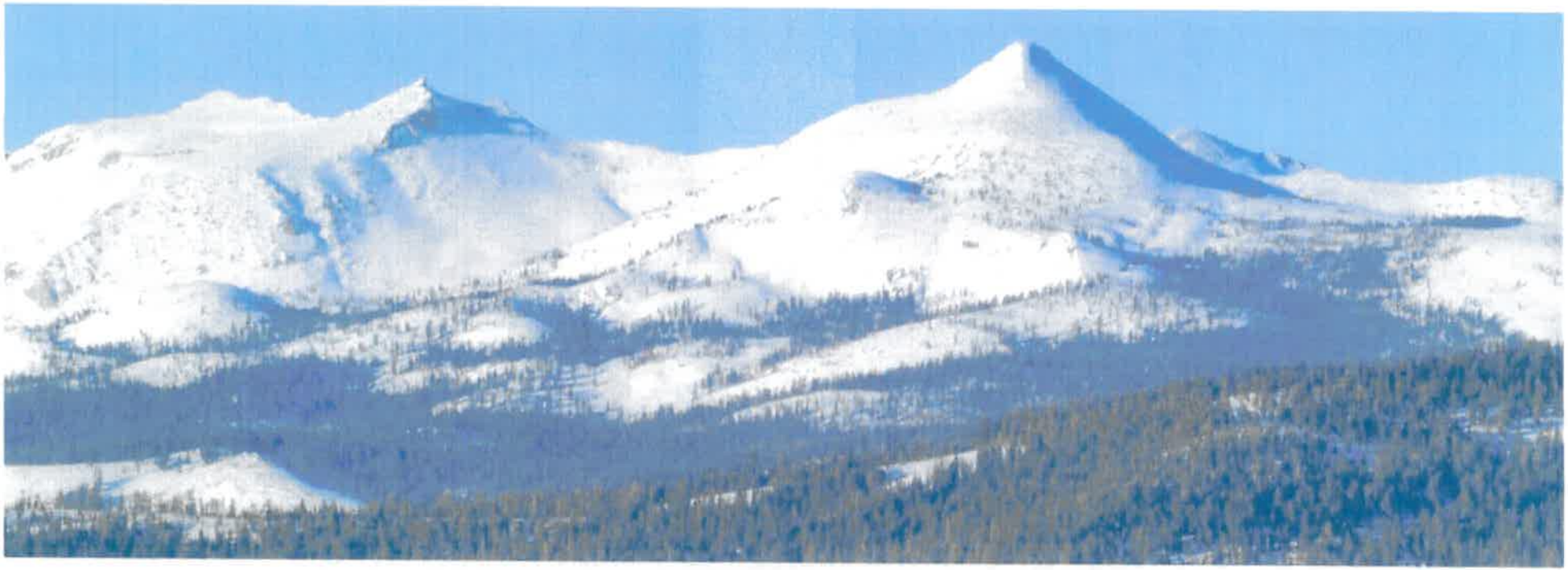
- Leadership
- Advocacy
- Collaboration
- Education

Strategic Priorities

- California's Watershed
- Water Rights
- Water Supply
- Forest Management
- Statewide Collaboration

Key Priorities

- PROTECTION OF WATER RIGHTS AND PRESERVATION OF REGIONAL WATER SUPPLIES
- INCREASED INVESTMENT IN CALIFORNIA'S HEADWATERS
- SCIENCE-BASED FOREST MANAGEMENT PLANS AND ACTIONS
- INCREASED STATEWIDE COLLABORATION REGARDING WATER RESOURCES
- ADDITIONAL WATER STORAGE CAPACITY
- EDUCATING TARGET AUDIENCES ON STATEWIDE NEED OF PROTECTING CALIFORNIA'S HEADWATERS



WATER POLICY PRINCIPLES

MCWRA Supports...

Mountain Counties
WATER RESOURCES ASSOCIATION

1.

Protection of members' existing water rights, water-rights priority, area-of-origin rights, and local agencies' ability to use water resources for their present and future economic, social, and environmental well-being.

2.

Proactive, science-based forest management practices, and robust State and federal investment in the watershed and headwaters of the Sierra Nevada.

3.

Policies that acknowledge MCWRA members' unique position to develop and implement significant regional and statewide solutions.

MCWRA Supports...

Mountain Counties
WATER RESOURCES ASSOCIATION

4. New Water Storage

5. Water-use Efficiency

6. California Water Plan and Water Resilience Portfolio.

7. Regional and statewide climate resilience initiatives and renewable energy expansion.

8. Integrated approach to water management that addresses costs and benefits, and uses the best available science to prioritize and balance water supply and demand for people, agriculture, and the environment.

MCWRA Supports...

Mountain Counties
WATER RESOURCES ASSOCIATION

9.

Rewarding water suppliers who demonstrate:

- Reduce reliance on water supplies conveyed through the Delta
- Investment in local and regional water supplies
- Improved regional self-reliance for water supplies
- Investment in water use efficiency and reuse
- Investment in advanced water technologies

TOURS & EDUCATION

Advocacy

In an effort to streamline our advocacy efforts, and maintain a high-level of legislative engagement on behalf of our members, the MCWRA Legislative Committee prioritized 2023 legislative proposals into the following three categories:

1. Engage 2. Watch 3. Monitor

Principles and Strategic Priorities fall into a Priority 1 status. These proposals will require various levels of MCWRA legislative engagement. Legislative proposals that indirectly align or are adjacent to our Water Policy Principles and/or Strategic Priorities fall into a Priority 2 status. Priority 3 includes all other water related or forest management related legislative proposals worth monitoring.

OBJECTIVE	ACTION ITEM	TIME FRAME
Support Increased Investment in healthy watersheds	Promote statewide and local policies that protect current investments	Ongoing
	Encourage local agency partners to advocate by creating a unified approach	Ongoing
Promote policies, projects and funding to protect the Sierra Nevada's watershed	Develop an advocacy platform to be used by MCWRA members to share with partner agencies	2024/Annual
Increase awareness of the importance of the Sierra Nevada watershed	Develop an education initiative spearheaded by partner agencies[8]	2024/Annual

Water Rights

OBJECTIVE	ACTION ITEM	TIME FRAME
Develop and execute a Water Rights educational campaign	Work with partners and stakeholders to draft content and collateral materials defining Water Rights, and highlighting the need for preservation and protection	2023
	Host materials on digital platform	
	Host an annual Water Rights webinar for MCWRA members	Annual
Preserve and protect priority principle Water Rights	Work with Legislative Committee and Legislative Advocacy team to track and engage in Water Rights legislative and regulatory activities	Ongoing
Defend area of origin Water Rights		

Forest Management

OBJECTIVE	ACTION ITEM	TIME FRAME
Encourage science-based plans and actions	Convene appropriate parties for an initial panel discussion for MCWRA members on current science-based approaches used and possible future alternatives	2023/Ongoing
	Develop forest management principles for MCWRA as part of an annual advocacy platform/document	Annual
Collaborate with partner organizations and associations on forest management advocacy	Identify and convene partner organizations and associations for an annual forest management workshop/study session	Annual/Ongoing
	Align MCWRA with existing coalitions focused on forest management advocacy	

Statewide Collaboration

OBJECTIVE	ACTION ITEM	TIME FRAME
Water Resources Advocacy	Develop a comprehensive Sierra Nevada region advocacy plan	Annual
Enhance relationships with organizations and key individuals in Southern California and the Bay Area	Sustain relationship with California-United Water	Annual/Ongoing
	Co-host annual California-United Water educational events and opportunities	
	Maintain leadership role and participation in Urban Water Institute	

Water Supply

OBJECTIVE	ACTION ITEM	TIME FRAME
Achieve additional water storage capacity for California	Provide initial report on current water storage projects to MCWRA Board of Directors	2023/Annual
	Work with individual water storage projects to host introductory project briefings and annual updates	
Achieve additional water supply capacity for California	Advocate for current water storage projects while developing a long-term strategy for advocacy of future water storage projects	
Collaborate with strategically identified partners	Utilize Southern California and other strategic partnerships to enhance and amplify organized advocacy for water storage and water supply projects	Ongoing

NORTH YUBA WATER DISTRICT

Memorandum

Date: October 24th, 2024

To: Leona Harris

From: Operations

Subject: Monthly work production/ Schedule of Maintenance review

The following is an overview of the work performed this month by operations staff.

Transmission:

1. Forbestown ditch is now in its winter cycle delivering water to the treatment plant every 7 to 10 days. South Feathers irrigation ended on October 16th. At this time 800 feet of shotcrete has been completed at the white rock area of the forbestown ditch. (pictures Attached). This section has been historically a high loss area. It has been the districts highest priority for shotcrete but weather has prevented it from being completed until this point.

Distribution:

1. Domestic meter reads for Brownsville and Rackerby were completed on time.
2. There was 1 service line leak for the last month. Job # 763.
3. There were 0 main line leaks for the last month.
4. All blow offs were inspected, no problems were found.
5. All air releases were inspected, no problems were found.
6. All dead-end main were flushed.
7. The EPA lead and copper service line inventory was completed and submitted on October 3rd.

Water Treatment Plant:

1. With the new upgrades mentioned in previous reports, the treatment plant is functioning normal at this time with no issues. The aerators in the reservoir at the treatment plant are in use and operating normally.

Backflow:

1. All backflows are current, there were 0 backflow tests required within the last 4 weeks.

Regulators:

1. All CDPH (Cal. Dept. of Public Health) and NPDES (Nat. Pollution Discharge Elimination System) tests and samples were taken and performed on time. These include 3 bacteriological distribution samples for the CDPH, which came back as non-detect.

DOH Canal:

1. The 2024 irrigation season ended on October 16th. A full season was achieved with no cutbacks. District staff is currently prepping the DOH canal ahead of Dees Hennessey as they are in the process of completing approximately 9 thousand feet of shotcrete before rainy weather.

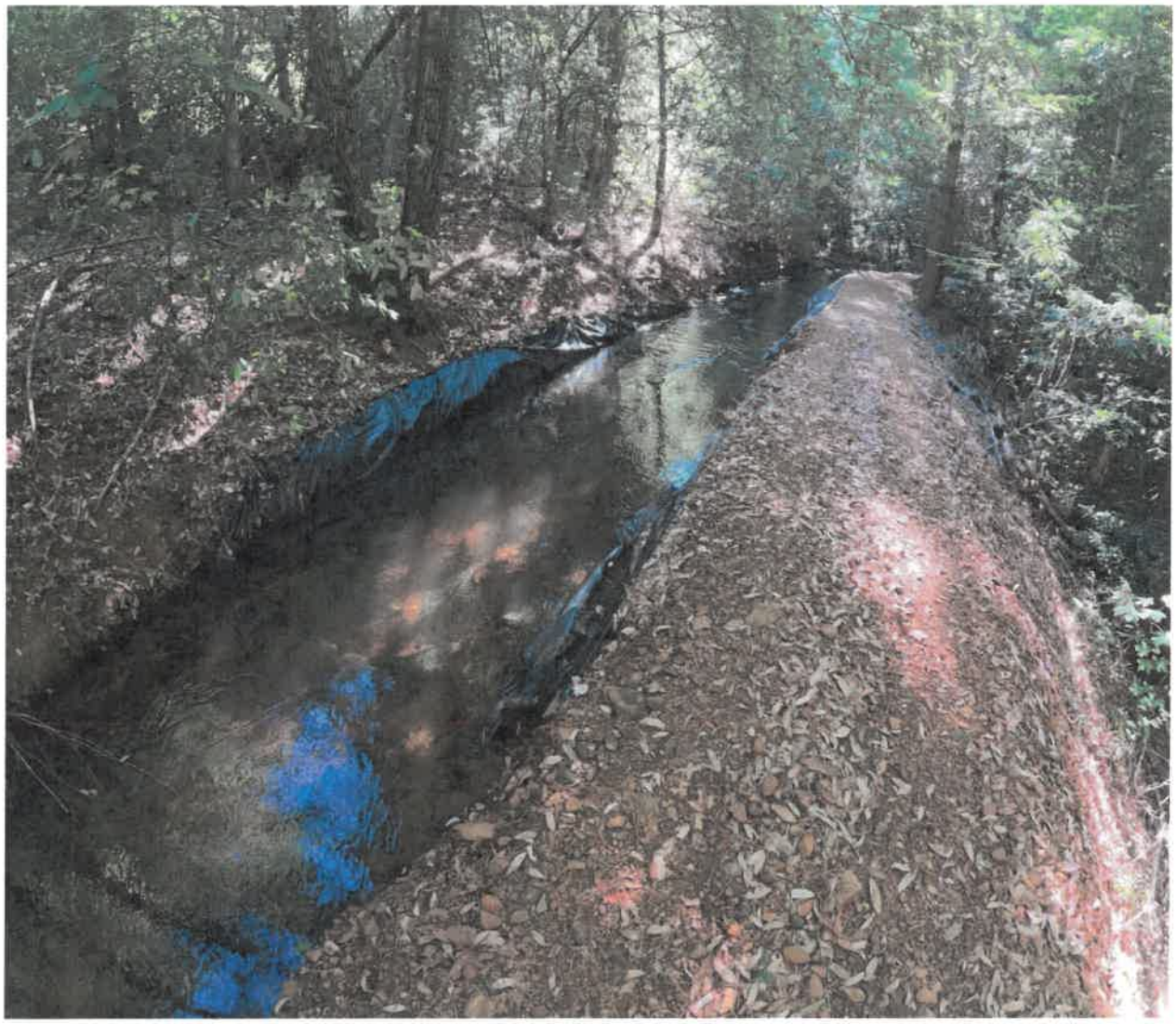
Schedule of Maintenance:

1. The SOM (schedule of maintenance) for the treatment plant, regulators (local, state and federal) and UFC were completed for the previous month. All regulatory (local, state and federal) reports for the current month were completed or are in process.

Safety Meetings:

1. Safety meetings are held weekly, all field employees are required to attend. The following is a list of completed safety meetings in the last 4 weeks.
2. #1 Safe lifting.
3. #2 Equipment safety.
4. #3 Night work safety.
5. #4 Ladder Safety.

Before



During

After

Before

After