

Amador Regional Sanitation Authority

“Servicing Amador City, Martell, & Sutter Creek”

AGENDA

FEBRUARY 22, 2023

10:00 A.M. Meeting

33 Church Street, Sutter Creek CA 95685

The Agenda can be found on the City of Sutter Creek’s Website: www.cityofsuttercreek.org

THIS MEETING WILL BE CONDUCTED IN-PERSON AT 33 CHURCH STREET

and available by Zoom:

Join Zoom Meeting

<https://us02web.zoom.us/j/9568520224>

or

Dial by phone:

301-715-8592

Meeting ID: 956 852 0224

Public comment will be accepted by email at info@cityofsuttercreek.org. All emails must be received prior to the start of the meeting.

10:00 a.m.

1. REGULAR MEETING: CALL TO ORDER AND ESTABLISH A QUORUM –

2. PLEDGE OF ALLEGIANCE TO THE FLAG

3. PUBLIC FORUM

Discussion items only, no action to be taken. Any person may address the Board at this time upon any subject within the jurisdiction of the Amador Regional Sanitation Authority; however, any matter that requires action may be referred to staff and/or Committee for a report and recommendation for possible action at a subsequent Board meeting. Please note – there is a five (5) minute limit per topic.

4. INFORMATION/CORRESPONDENCE

This section provides informational updates regarding staff activities and operations where no Board action is required.

A. Engineer’s Report

For information only.

5. CONSENT AGENDA

Items listed on the consent agenda are considered routine and may be enacted in one motion. Any item may be removed for discussion at the request of the Board or the Public.

A. Minutes of November 30, 2022

Recommendation: Approve Minutes of November 30, 2022

B. Approval of Warrants

Recommendation: Approve warrants.

C. System Status Report

Recommendation: For information only.

6. ADMINISTRATIVE AGENDA

A. Capital Improvement Program

Recommendation: Review attached capital improvement documents, hear verbal staff report, and provide staff direction.

B. Henderson Underdrain Status Update

Recommendation: For information.

7. GENERAL MANAGER'S REPORT

8. BOARD MEMBER REPORTS

9. CLOSED SESSION

A. **CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION**

Pursuant to Gov. Code § 54956.9(d)(1):

Amador Regional Sanitation Authority v. City of Ione, et al.

(Case No. 22-CV-12824)

10. REPORT FROM CLOSED SESSION

ADJOURN

Amador Regional Sanitation Authority

*“Servicing Amador City,
Martell, & Sutter Creek”*

MINUTES SPECIAL MEETING OF THE BOARD OF DIRECTORS January 25, 2023

Present:

Robin Peters, Chairman
Richard Forster, Vice Chairman
Susan Bragstad, Board Member
Jim Swift, Board Member
Frank Axe, Board Member

Staff Present:

Amy Gedney
Karen Darrow
Frank Splendorio
Corey Stone
Jodi Steneck
Tyla Daries

1. **REGULAR MEETING: CALL TO ORDER AND ESTABLISH A QUORUM**
Meeting called to order by Chairman Peters at 10:00 A.M.
2. **PLEDGE OF ALLEGIANCE TO THE FLAG**
Chairman Peters led the Pledge of Allegiance.
3. **PUBLIC FORUM**
Lottie Tone of Sutter Creek asked if City Manager Amy Gedney would also be retiring from ARSA.
4. **INFORMATION/CORRESPONDENCE**
A. Engineer’s Report-*For information only.*
So Noted.
5. **CONSENT AGENDA**
Items listed on the consent agenda are considered routine and may be enacted in one motion. Any item may be removed for discussion at the request of the Board or the Public.
 - A. Minutes of November 30, 2022
Recommendation: Approve Minutes of November 30, 2022
M/S Axe/Forster to Approve the Minutes of November 30, 2022, as presented.

AYES:	Axe, Bragstad, Forster, Swift and Peters
NOES:	None
ABSTAIN:	None
ABSENT:	None

MOTION CARRIED
 - B. Approval of Warrants
Recommendation: Approve warrants.

M/S Axe/Swift to Approve the warrants.

AYES: Axe, Bragstad, Forster, Swift and Peters

NOES: None

ABSTAIN: None

ABSENT: None

MOTION CARRIED

C. 2021-22 Budget Update

Recommendation: For information only.

Board member Forster noted that the overtime had increased. General Manager Gedney explained that staff time increased due to the water quality claims by Ione and Ione not taking water.

Chairman Peters asked when a budget amendment would be considered for the Overtime expense. General Manager Gedney noted that it would be reviewed at the mid-year budget.

D. System Status Report

Recommendation: For information only.

ARSA Operator Corey Stone gave an update noting the system handled the recent storms well at 2000 gallons per minute. He expects to need to increase flow to Henderson soon and reported that that State came out last and saw nothing abnormal for the conditions.

6. ADMINISTRATIVE AGENDA

A. Inundation Mapping overview

Recommendation: For information and staff direction.

Tyla Dares from Weber Ghio presented and recommended having the maps added to the website.

7. GENERAL MANAGER'S REPORT

- A. Update regarding City of Sutter Creek wastewater treatment plant activities.

Recommendation: For information only.

General Manager Gedney noted that the City of Sutter Creek has a rate study underway and has rented flow meters to help with some of the issues.

- B. Amy Gedney's resignation as City Manager

Recommendation: For information and staff direction

General Manager Gedney asked how the Board would like to proceed with the general Manager Position since she will be leaving her position as Sutter Creek City Manager.

Chairman Peters asked if General Manager Gedney would be willing to stay on as the ARSA General Manager.

The Board directed staff to facilitate the continuation of the General Manager position and noted General Manager Gedney has done a great job working with Ione and Regional Board.

8. BOARD MEMBER REPORTS- None.

Adjourn to closed session at 10:42 a.m.

9. CLOSED SESSION

A. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION

Pursuant to Gov. Code § 54956.9(d)(1):

Amador Regional Sanitation Authority v. City of Ione, et al.

(Case No. 22-CV-12824)

10 REPORT FROM CLOSED SESSION

No reportable action.

ADJOURN

The meeting was adjourned at 11:08 a.m.

Karen Darrow, Secretary

Robin Peters, Chairman

Date Approved:

Amador Regional Sanitation Authority (ARSA)**Item 5B****Warrant List****February 2023**

Date	Name/Account	Type	Num	Amount
02/22/2023	Best Best & Krieger, LLP	Bill Pmt -Check	1716	
12/31/2023	ARSA vs Ione/CDCR	Bill	955975	3,571.36
TOTAL				3,571.36
02/22/2023	City of Sutter Creek	Bill Pmt -Check	1717	
02/10/2023	Contract with COSC	Bill	2023-02	20,812.75
02/10/2023	Overtime	Bill	2023-02	4,191.89
TOTAL				25,004.64
02/22/2023	Hunt & Sons, Inc.	Bill Pmt -Check	1718	
01/31/2023	Fuel	Bill	968835	287.53
TOTAL				287.53
02/22/2023	Ione ACE Hardware	Bill Pmt -Check	1719	
01/25/2023	Repairs & Maintenance	Bill	A446820	61.11
TOTAL				61.11

Date	Sutter Creek WWTP Flow (mg)	Sutter Creek WWTP (ac ft)	Bowers Irrigation (mg)	Bowers Volume irrigated (ac ft)	Henderson Freeboard	Volume in Henderson (af)	Capacity Remaining in Henderson	Henderson Outflow (mg)	Henderson outflow (ac ft)	Hoskins Irrigation (mg)	Hoskins Volume irrigated (ac ft)	Mule Creek Inflow (mg)	Mule Creek Inflow (ac ft)	Preston Freeboard	Volume in Preston (af)	Capacity Remaining in Preston (ac ft)	Outflow to Ione (mg)	Volume sent to Ione (ac ft)	TOTAL Ac Ft of Effluent in the system	TOTAL Remaining Capacity for Winter (ac ft)	TOTAL USED FOR IRRIGATION (ac ft)
2016																				0.0	
1/31/2016	19.0	58.2	0.0	0.0	12'1"	155.8	294.2	12.4	38.0	0.0	0.0	0.0	0.0	11'4"	94.7	140.3	3.9	12.1	250.47	377.5	12.1
2/29/2016	10.7	32.8	0.0	0.0	10'9"	180.9	269.1	17.8	54.6	0.0	0.0	0.0	0.0	8'7"	128.4	106.6	4.0	12.4	309.27	318.7	12.4
3/31/2016	17.7	54.2	0.0	0.0	8'7"	225.7	224.4	15.1	46.3	0.0	0.0	0.0	0.0	5'7"	171.0	64.0	3.4	10.3	396.64	231.4	10.3
4/30/2016	10.7	32.8	0.0	0.0	8'5"	229.3	220.7	13.7	42.0	0.0	0.0	0.0	0.0	5'7"	171.0	64.0	9.1	27.8	400.29	227.7	27.8
5/31/2016	9.3	28.5	0.0	0.0	9'9"	201.0	249.1	23.0	70.7	0.0	0.0	0.0	0.0	7'7"	141.9	93.1	27.3	83.8	342.85	285.2	83.8
6/30/2016	8.3	25.3	2.9	8.9	14'4"	117.6	332.4	32.2	99.0	2.2	6.6	0.0	0.0	9'8"	114.5	120.5	36.0	110.4	232.06	395.9	125.9
7/31/2016	9.0	27.6	9.0	27.6	20'1"	43.8	406.2	25.4	78.0	5.3	16.4	35.9	110.3	7'6"	143.1	92.0	40.9	125.6	186.84	441.2	169.5
8/31/2016	9.2	28.2	9.2	28.2	22'3"	24.9	425.1	8.7	26.6	3.2	9.9	32.9	101.0	8'3"	132.8	102.2	44.1	135.4	157.68	470.3	173.6
9/30/2016	8.3	25.5	6.3	19.2	25'8"	5.0	445.0	10.8	33.2	2.2	6.6	10.3	31.6	13'2"	75.1	159.9	37.5	115.1	80.06	547.9	140.9
10/31/2016	11.0	33.8	2.5	7.6	23'2"	18.4	431.7	5.9	18.2	0.0	0.0	4.0	12.3	14'4"	63.8	171.2	6.4	19.5	82.18	545.8	27.2
11/30/2016	11.2	34.5	0.0	0.0	20'8"	38.2	411.8	5.3	16.3	0	0.0	0.0	0.0	14'2"	65.4	169.6	0.0	0.0	103.6	524.4	0.0
12/31/2016	16.5	50.5	0.0	0.0	16'8"	83.5	366.5	10.4	32.0	0.0	0.0	0.0	0.0	11'6"	92.8	142.2	0.0	0.0	176.32	451.7	0.0
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	140.8	432.0	29.8	91.5				180.8	554.9	12.9	39.6	83.2	255.2				212.6	652.5		0.0	783.5
2017																				0.0	
1/31/2017	30.9	94.8	0.0	0.0	9'3"	211.4	238.6	10.7	32.8	0.0	0.0	0.0	0.0	6'8"	154.9	80.1	0.0	0.0	366.25	261.8	0.0
2/28/2017	26.5	81.3	0.0	0.0	4'1"	334.2	115.8	10.2	31.4	0.0	0.0	0.0	0.0	4'4"	190.6	44.4	0.0	0.0	524.72	103.3	0.0
3/31/2017	15.5	47.6	0.0	0.0	1'5"	408.4	41.6	14.1	43.3	0.0	0.0	0.0	0.0	1'5"	240.4	-5.4	1.5	4.7	648.74	-20.7	4.7
4/30/2017	16.1	49.5	0.0	0.0	1'6"	405.9	44.1	34.9	107.3	0.0	0.0	0.0	0.0	1'8"	235.9	-0.9	5.9	18.2	641.82	-13.8	18.2
5/31/2017	9.6	29.4	0.0	0.0	3'7"	347.5	102.5	38.0	116.6	2.7	8.4	0.0	0.0	1'2"	244.9	-9.9	27.4	83.9	592.42	35.6	92.4
6/30/2017	8.9	27.3	8.0	24.6	6'7"	271.3	178.7	36.0	110.5	8.8	27.0	0.0	0.0	3'2"	209.8	25.2	36.2	111.2	481.07	146.9	162.7
7/31/2017	8.6	26.4	8.7	26.7	11'	176.1	274.0	35.0	107.4	10.7	32.8	0.0	0.0	6'11"	151.3	83.7	41.8	128.3	327.34	300.7	187.8
8/31/2017	8.8	27.0	8.7	26.7	13'9"	127.0	323.0	20.6	63.1	8.6	26.4	0.0	0.0	7'6"	143.1	92.0	12.1	37.3	270.02	358.0	90.3
9/30/2017	8.7	26.7	8.7	26.7	16'2"	90.3	359.7	18.3	56.2	11.9	36.5	0.0	0.0	6'10	152.5	82.5	0.0	0.0	242.81	385.2	63.2
10/31/2017	8.0	24.6	8.1	24.9	17'4"	74.8	375.2	13.8	42.3	9.4	28.8	0.0	0.0	9'7"	115.5	119.5	17.2	52.6	190.33	437.7	106.3
11/30/2017	11.5	35.3	0.9	2.7	14'10"	121.6	328.4	9.7	29.8	7.4	22.7	0.0	0.0	11'1"	97.5	137.5	27.2	83.5	219.1	408.9	108.9
12/31/2017	9.5	29.2	0.0	0.0	12'9"	143.9	306.1		0.0	6.3	19.3	0.0	0.0	10'6"	104.4	130.7	0.0	0.0	248.26	379.7	19.3
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	162.6	499.0	43.1	132.2				241.3		65.8	202.0	0.0	0.0				169.3	519.6		0.0	853.9

ARSA SYSTEM FLOW AND VOLUME
2014 - Present

Date	Sutter Creek WWTP Flow (mg)	Sutter Creek WWTP (ac ft)	Bowers Irrigation (mg)	Bowers Volume irrigated (ac ft)	Henderson Freeboard	Volume in Henderson (af)	Capacity Remaining in Henderson	Henderson Outflow (mg)	Henderson outflow (ac ft)	Hoskins Irrigation (mg)	Hoskins Volume irrigated (ac ft)	Mule Creek Inflow (mg)	Mule Creek Inflow (ac ft)	Preston Freeboard	Volume in Preston (af)	Capacity Remaining in Preston (ac ft)	Outflow to Ione (mg)	Volume sent to Ione (ac ft)	TOTAL Ac Ft of Effluent in the system	TOTAL Remaining Capacity for Winter (ac ft)	TOTAL USED FOR IRRIGATION (ac ft)
2018																				0.0	
1/31/2018	13.6	41.7	0	0.0	9"7"	206.1	243.9	8.4	25.8	0	0	0	0.0	8"8"	128.4	106.6	0.0	0.0	334.5	293.5	0.0
2/28/2018	8.7	26.7	0	0.0	7"10"	240.4	209.6	5.1	15.7	0	0.0	0	0.0	8"3"	133.9	101.1	0.0	0.0	374.3	253.7	0.0
3/31/2018	22.1	67.8	0	0.0	4"1"	332.9	117.1	8.00	24.6	0	0.0	0	0.0	5"11"	164.1	70.9	0.0	0.0	497	131.0	0.0
4/30/2018	14.1	43.3	0	0.0	3"9"	342.6	107.4	23.8	73.0	6.0	18.4	0	0.0	3"3"	200.9	34.1	1.2	3.5	543.5	84.5	21.9
5/31/2018	9.3	28.5	0	0.0	3"10"	340.6	109.4	16.9	51.9	9.9	30.4	0	0.0	8"2"	133.9	101.1	27.7	85.0	474.5	153.5	115.4
6/30/2018	8.4	25.8	5.3	16.3	5"8"	295.1	154.9	21.2	65.1	9.6	29.5	0	0.0	15"1"	59.6	175.4	37.7	115.8	354.7	273.3	161.5
7/31/2018	9.3	28.5	9.2	28.2	10"0"	193.7	256.3	35.4	108.6	9.5	29.2	0	0.0	22"0"	17.0	218.0	42.9	131.5	210.7	417.3	188.9
8/31/2018	9.7	29.8	9.7	29.8	11"7"	163.6	286.4	12	36.8	5.8	17.8	0	0.0	20"9"	22.0	213.0	0.0	0.0	185.6	442.4	47.6
9/30/2018	9	27.6	9	27.6	13"11"	123.9	326.1	16	49.1	10.7	32.8	0	0.0	19"3"	36.2	198.8	0.0	0.0	160.1	467.9	60.5
10/31/2018	8.9	27.3	8.9	27.3	15"2"	106.0	344.0	16.2	49.7	10.0	30.7	0	0.0	11'	45.6	189.4	0.0	0.0	151.6	476.4	58.0
11/30/2018	10.5	32.2	5.8	17.8	15"1"	107.2	342.8	14.9	45.7	5.6	17.2	0	0.0	14"10"	60.9	174.1	0.0	0.0	168.1	459.9	35.0
12/31/2018	11.7	35.9	0	0.0	13"6"	131.2	318.8	15.2	46.6	0	0.0	0	0.0	11"2"	94.9	140.1	0.0	0.0	226.1	401.9	0.0
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	135.3	415.2	47.9	147.0	0			193.1		67.1	205.9	0	0.0	0			109.4	335.9		0.0	688.8
2019																				0.0	
1/31/2019	17.4	53.4	0	0	10"5"	185.4	264.6	36.7	112.6	0	0	0	0.0	8"3"	132.8	102.2	0	0	318.2	309.8	0.0
2/28/2019	23.3	71.5	0	0.0	6"6"	271.9	178.1	4.8	14.7	0	0.0	0	0.0	6"6"	157.3	77.7	0	0.0	429.22	198.8	0.0
3/31/2019	20.2	62.0	0	0.0	3"6"	350.4	99.6	7.6	23.3	0	0.0	0	0.0	4"8"	185.2	49.8	0	0.0	535.64	92.4	0.0
4/30/2019	11.9	36.5	0	0.0	2"9"	271.4	178.6	15.8	48.5	4.2	12.9	0	0.0	3"2"	209.8	25.2	2	6.1	481.19	146.8	19.0
5/31/2019	12.7	39.0	0	0.0	3"6"	350.4	99.6	24.0	73.7	5.8	17.8	0	0.0	4"8"	185.2	49.8	20.9	64.1	535.64	92.4	81.9
6/30/2019	10	30.7	5.2	16.0	5"10"	288.5	161.5	26.5	81.3	12.3	37.7	0	0.0	7"3"	146.6	88.4	29	89.0	435.06	192.9	142.7
7/31/2019	7.6	23.3	9.9	30.4	8"11"	217.9	232.1	22.9	70.3	13.8	42.4	0	0.0	14"7"	61.5	173.5	40.6	124.6	279.44	348.6	197.3
8/31/2019	10	30.7	10	30.7	10"7"	184.2	265.8	13.4	41.1	11.8	36.2	0	0.0	17"2"	40.3	194.7	6.2	19.0	224.52	403.5	85.9
9/30/2019	9.6	29.5	9.4	28.8	12"6"	148.3	301.7	13.7	42.0	10.4	31.9	0	0.0	17"1"	40.9	194.1	0	0.0	189.23	438.8	60.8
10/31/2019	9	27.6	9	27.6	14"3"	119.6	330.4		0.0	12.2	37.4	0	0.0	16"5"	46.0	189.0	0	0.0	165.61	462.4	65.1
11/30/2019	7.2	22.1	5.1	15.7	14"1"	121.6	328.4	9.3	28.5	5.7	17.5	0	0.0	14"11"	58.5	176.5	0	0.0	180.14	447.9	33.1
12/31/2019	12.6	38.7	0	0.0	12"3"	152.2	297.8	0	0.0	0	0.0	0	0.0	13"2"	75.1	159.9	0	0.0	227.3	400.7	0.0
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	151.5	464.9	48.6	149.1	0			174.7		76.2	233.8	0	0.0	0			98.7	302.9		0.0	685.9

ARSA SYSTEM FLOW AND VOLUME
2014 - Present

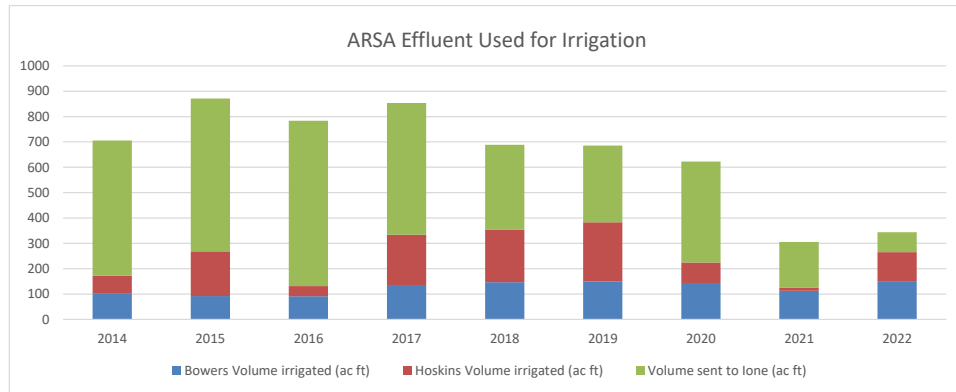
Date	Sutter Creek WWTP Flow (mg)	Sutter Creek WWTP (ac ft)	Bowers Irrigation (mg)	Bowers Volume irrigated (ac ft)	Henderson Freeboard	Volume in Henderson (af)	Capacity Remaining in Henderson	Henderson Outflow (mg)	Henderson outflow (ac ft)	Hoskins Irrigation (mg)	Hoskins Volume irrigated (ac ft)	Mule Creek Inflow (mg)	Mule Creek Inflow (ac ft)	Preston Freeboard	Volume in Preston (af)	Capacity Remaining in Preston (ac ft)	Outflow to Lone (mg)	Volume sent to Lone (ac ft)	TOTAL Ac Ft of Effluent in the system	TOTAL Remaining Capacity for Winter (ac ft)	TOTAL USED FOR IRRIGATION (ac ft)
2020																				0.0	
1/31/2020	10.3	31.6	0	0.0	11'2"	172.9	277.1	8.5	26.1	0	0	0	0.0	122"	85.5	149.5	0	0	258.4	369.6	0.0
2/29/2020	8	24.6	0	0.0	107"	184.2	265.8	3.5	10.7	0	0.0	0	0.0	117"	91.9	143.1	0	0.0	276.08	351.9	0.0
3/31/2020	12.85	39.4	0	0.0	8'11"	214.9	235.1	7.4	22.7	0	0.0	0	0.0	10'1"	109.4	125.6	0	0.0	324.26	303.7	0.0
4/30/2020	12.61	38.7	0	0.0	7'8"	246.1	203.9	6.3	19.3	0	0.0	0	0.0	10'8"	102.4	132.6	8.84	27.1	348.5	279.5	27.1
5/31/2020	8.2	25.2	1.4	4.3	8'6"	227.5	222.5	4.2	12.9	7.5	23.0	0	0.0	13'11"	67.8	167.2	23.9	73.3	295.3	332.7	100.7
6/30/2020	8.3	25.5	8.3	25.5	11'6"	166.5	283.5	6.3	19.3	5.7	17.5	0	0.0	19'6"	25.1	209.9	28.9	88.7	191.6	436.4	131.7
7/31/2020	8.3	25.5	8.3	25.5	14'11"	108.5	341.5	19.2	58.9	3.9	12.0	0	0.0	15'10"	50.7	184.3	0	0.0	159.2	468.8	37.4
8/31/2020	8.3	25.5	8.3	25.5	17'11"	67.6	382.4	13.3	40.8	2.3	7.1	0	0.0	14'0"	67.0	168.0	0	0.0	134.56	493.4	32.5
9/30/2020	8.2	25.2	8.2	25.2	19'2"	53.3	396.7	8.4	25.8	2.3	7.1	14	43.0	13'0"	76.8	158.2	13.9	42.7	130.09	497.9	74.9
10/31/2020	8.8	27.0	8.8	27.0	21'2"	33.7	416.3	11.9	36.5	2.4	7.4	0	0.0	17'9"	36.2	198.8	23.4	71.8	69.86	558.1	106.2
11/30/2020	9.1	27.9	3.5	10.7	22"	26.8	423.2	7.62	23.4	2.3	7.1	0	0.0	18'8"	30.1	204.9	30.7	94.2	56.89	571.1	112.0
12/31/2020	9.9	30.4	0	0.0	21'0"	35.9	414.1	8.8	27.0	0	0.0	0	0.0	16'8"	44.1	190.9	0	0.0	79.97	548.0	0.0
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	112.86	346.3	46.8	143.6	0			105.42		26.4	81.0	14	43.0	0			129.64	397.8		0.0	622.5
2021																				0.0	
1/31/2021	12.6	38.7	0	0	17'6"	72.7	377.3	3.9	12.0	0	0.0	0	0.0	15'3"	55.6	179.4	0	0	128.3	499.7	0.0
2/29/2021	10.9	33.4	0	0	16'1"	91.5	358.5	2.6	8.0	0	0.0	0	0.0	14'9"	60.0	175.0	0	0.0	151.49	476.5	0.0
3/31/2021	11.9	36.5	0	0	13'1"	138.2	311.9	3.5	10.7	0	0.0	0	0.0	14'7"	61.5	173.5	0	0.0	199.65	428.4	0.0
4/30/2021	10.2	31.3	0	0	14'7"	113.7	336.4		0.0	0	0.0	0	0.0	16'11"	42.2	192.8	20.7	63.5	155.85	472.2	63.5
5/31/2021	10.7	32.8	6.6	20.3	19'10"	46.3	403.7	27.2	83.5	0	0.0	0	0.0	21'4"	15.7	219.3	36.2	111.1	61.97	566.0	131.3
6/30/2021	10.4	31.9	7.4	22.7	21'5"	31.6	418.4	8.7	26.7	0	0.0	0	0.0	20'10"	18.0	217.0	1.9	5.8	49.6	578.4	28.5
7/31/2021	10.2	31.3	7.1	21.8	22'1"	26.2	423.8	3.9	12.0	0.2	0.5	0	0.0	21'0"	17.2	217.8	0	0.0	43.39	584.6	22.3
8/31/2021	10.1	31.0	6.9	21.2	22'6"	23.0	427.0	5.6	17.2	2	6.1	0	0.0	21'6"	15.0	220.1	0	0.0	37.96	590.0	27.3
9/30/2021	9.7	29.8	5.2	16.0	23'8"	15.2	434.9	6.9	21.2	1.7	5.2	0	0.0	21'0"	17.2	217.8	0	0.0	32.38	595.6	21.2
10/31/2021	13.8	42.3	3.6	11.0	20'5"	40.6	409.4	5	15.3	0	0.0	0	0.0	19'1"	27.5	207.5	0	0.0	68.06	559.9	11.0
11/30/2021	11.7	35.9	0	0.0	18'11"	56.0	394.0	7.9	24.2	0	0.0	0	0.0	18'1"	33.9	201.1	0	0.0	89.89	538.1	0.0
12/31/2021	21.2	65.1	0	0.0	14'2"	120.2	329.8		0.0	0	0.0	0	0.0	14'8"	60.8	174.2	0	0.0	180.98	447.0	0.0
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)	143	440	37	113				75		4	12	0	0.0	0			59	180		0.0	305.2
2022																				0.0	
1/31/2022	12.9	39.6	0	0	12'9"	142.9	307.1	6.2	19.0	0	0	0	0.0	13'9"	69.4	165.7	0	0	212.25	415.8	0.0
2/29/2022	10.6	32.5	0	0	12'0"	157.3	292.7	5.5	16.9	0	0	0	0.0	12'10"	78.5	156.5	0	0	235.79	392.2	0.0
3/31/2022	11	33.8	0	0	11'8"	163.4	286.6	2.7	8.3	0	0	0	0.0	12'1"	86.4	148.6	1.6	4.9	249.83	378.2	4.9
4/30/2022	12.7	39.0	0	0	11'3"	171.3	278.7	9.1	27.9	0	0	0	0	10'1"	109.4	125.6	0.1	0.2	280.62	347.4	0.2
5/31/2022	12.1	37.1	0	0	12'2"	154.3	295.7	11.7	35.9	0	0	0	0	9'0"	122.9	112.1	1.7	5.2	277.21	350.8	5.2
6/30/2022	11.2	34.4	10.1	31.0	14'3"	118.9	331.1	11.2	34.4	7.2	22.1	0	0	8'11"	124.0	111.0	5	15.3	242.9	385.1	68.4
7/31/2022	11.6	35.6	11.6	35.6	16'3"	89.2	360.8	9.4	28.8	8.1	24.9	0	0	9'3"	119.7	115.3	0	0	208.9	419.1	60.5
8/31/2022	9.8	30.1	9.8	30.1	18'1"	65.6	384.4	8.4	25.8	7.7	23.6	0	0	9'8"	114.5	120.5	0.5	1.5	180.1	447.9	55.2
9/30/2022	8.5	26.1	7.6	23.3	9'8"	48.9	401.1	8.6	26.4	6.5	19.9	0	0	9'9"	113.4	121.6	0.9	2.8	162.3	465.7	46.0
10/31/2022	9.3	28.5	9.3	28.5	22'0"	26.8	423.2	9.8	30.1	8.7	26.7	0	0	11'8"	91.0	144.0	4.5	13.8	117.8	510.2	69.0
11/30/2022	9.9	30.4	0	0.0	19'7"	48.8	401.2	3.3	10.1	0	0.0	0	0	15'2"	56.6	178.4	11.3	34.7	105.4	522.6	34.7
12/31/2022	20.3	62.3	0	0.0	13'10"	125.6	324.4	2.8	8.6	0	0.0	0	0	13'0"	76.8	158.2	0	0	202.41	425.59	0.0
Total Flow (mg) or Total Annual Volume (Ac ft)	139.9	429.3	48.4	148.5				88.7	272.2	38.2	117.2						25.6	78.5			344.3

ARSA SYSTEM FLOW AND VOLUME
2014 - Present

Date	Sutter Creek WWTP Flow (mg)	Sutter Creek WWTP (ac ft)	Bowers Irrigatio n (mg)	Bowers Volume irrigated (ac ft)	Henderson Freeboard	Volume in Henderson (af)	Capacity Remaining in Henderson	Henderson Outflow (mg)	Henderson outflow (ac ft)	Hoskins Irrigation (mg)	Hoskins Volume irrigated (ac ft)	Mule Creek Inflow (mg)	Mule Creek Inflow (ac ft)	Preston Freeboard	Volume in Preston (af)	Capacity Remaining in Preston (ac ft)	Outflow to Ione (mg)	Volume sent to Ione (ac ft)	TOTAL Ac Ft of Effluent in the system	TOTAL Remaining Capacity for Winter (ac ft)	TOTAL USED FOR IRRIGATION (ac ft)
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)																					
2023																					
1/31/2023	28.1	86.2	0	0	7'6"	249.9	200.1			0	0	0	0	9'8"	114.5	120.5	0	0	364.4	120.5	0.0
2/29/2023																					
3/31/2023																					
4/30/2023																					
5/31/2023																					
6/30/2023																					
7/31/2023																					
8/31/2023																					
9/30/2023																					
10/31/2023																					
11/30/2023																					
12/31/2023																					
Total Flow (mg) or Total Annual Volume Irrigated (Ac ft)																					
Annual Ac ft	433.1		137.0				146.9										347.3				631.2

ARSA ANNUAL VOLUME COMPILATION

Date	Sutter Creek WWTP Flow (mg)	Sutter Creek WWTP (ac ft)	Bowers Flow (mg)	Bowers Volume irrigated (ac ft)	Henderson Outflow (mg)	Henders on outflow (ac ft)	Hoskins Flow (mg)	Hoskins Volume irrigated (ac ft)	Mule Creek Inflow (mg)	Mule Creek Inflow (ac ft)	Outflow to Ione (mg)	Volume sent to Ione (ac ft)	TOTAL VOLUME USED FOR IRRIGATION (AC ft)
2014	117.9	361.8	33.9	104.0	138.9	426.3	22.4	68.7	119.1	365.5	173.7	533.1	705.8
2015	108.4	332.6	30.1	92.3	163.4	501.3	57.3	175.8	79.6	244.2	196.6	603.5	871.6
2016	140.8	432.0	29.8	91.5	180.8	554.9	12.9	39.6	83.2	255.2	212.6	652.5	783.5
2017	162.6	499.0	43.1	132.2	241.3	0.0	65.8	202.0	0.0	0.0	169.3	519.6	853.9
2018	135.3	415.2	47.9	147.0	193.1	0.0	67.1	205.9	0.0	0.0	109.4	335.9	688.8
2019	151.5	464.9	48.6	149.1	174.7	0.0	76.2	233.8	0.0	0.0	98.7	302.9	685.9
2020	112.9	346.3	46.8	143.6	105.4	0.0	26.4	81.0	14.0	43.0	129.6	397.8	622.5
2021	143.4	440.1	36.8	112.9	75.2	0.0	3.9	11.8	0.0	0.0	58.8	180.4	305.2
2022	139.9	429.3	48.4	148.5	88.7		38.2	117.2	0.0	0.0	25.6	78.5	344.3



**AMADOR REGIONAL SANITATION AUTHORITY
2023 CAPITAL IMPROVEMENT PLAN**

SUMMARY OF POTENTIAL PROJECTS

LOCATION	ESTIMATED COST	REFERENCE SHEET #
BOWERS RANCH		
SPRAY FIELD IMPROVEMENTS	\$1,970,380	C3A
HENDERSON RESERVOIR		
UNDERDRAIN REPAIR PROJECT	\$748,330	C3B
DREDGE RESERVOIR	\$11,070,000	C3B
REPLACE PIER/CATWALK	\$190,760	C3B
SPRAY FIELD IMPROVEMENTS	\$1,821,900	C3B
HENDERSON RESERVOIR TO PRESTON RESERVOIR		
NEW EFFLUENT LINE IMPROVEMENTS	\$5,744,250	C3,C4,C5
HOSKINS RANCH		
SPRAY FIELD IMPROVEMENTS	\$295,050	C4A
PRESTON FOREBAY		
BYPASS RESERVOIR	\$333,430	C5A
PRESTON RESERVOIR		
DREDGE RESERVOIR	\$3,936,350	C5B
PUMP STATION FOR EXIST. SPRINKLER SYSTEM	\$270,800	C5B
FLOATING SUCTION	\$135,700	C5B
NEW IONE SPRAY FIELDS		
NEW EFFLUENT LINE TO POTENTIAL SPRAY FIELDS	\$3,193,250	C6 & C7
REPLACE EXISTING UTILITY TERRAIN VEHICLE	\$20,000	-----
ADDITIONAL STORAGE RESERVOIR*	\$20,380,000	C8

*POTENTIAL IONE CANAL RESERVOIR AND ASSOCIATED PIPING PER 2017 WASTEWATER MASTER PLAN

TABLE 1
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

BOWERS RANCH - SEE SHT. C3A

SPRAY FIELD IMPROVEMENTS

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	16" DIA. PVC	LF	750	\$150	\$112,500
2	PUMP STATION	LS	1	\$100,000	\$100,000
3	ELECTRICAL EXTENSION/SERVICE	LS	1	\$100,000	\$100,000
4	MISC PIPING	LS	1	\$15,000	\$15,000
5	SPRAY FIELD	ACRE	40	\$20,000	\$800,000
6	MONITORING WELLS	LS	1	\$40,000	\$40,000
7	POND MODIFICATIONS	LS	1	\$75,000	\$75,000

SUBTOTAL:	\$1,242,500
CONSTRUCTION CONTINGENCY (15%):	\$186,380
CONSTRUCTION:	\$1,428,880
ENVIRONMENTAL:	\$100,000
ADMINISTRATION (1%):	\$14,300
LEGAL:	\$30,000
DESIGN ENGINEERING (15%):	\$214,300
PERMITTING:	\$40,000
CONSTRUCTION MANAGEMENT (10%):	\$142,900
TOTAL CAPITAL COST:	\$1,970,380

TABLE 2
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HENDERSON RESERVOIR - SEE SHT. C3B

UNDERDRAIN REPAIR PROJECT

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	MOBILIZATION/DEMOBILIZATION	LS	1	\$65,000	\$65,000
2	FUSING AND HYDRO TESTING - SLIPLINING	LS	1	\$4,000	\$4,000
3	FUSING AND HYDRO TESTING - OPEN CUT	LS	1	\$5,000	\$5,000
4	SITE PREP, BMPS, SITE RESTORATION	LS	1	\$60,000	\$60,000
5	COFFERDAM AND BYPASS	LS	1	\$118,000	\$118,000
6	SLIPLINING PIT	LS	1	\$44,000	\$44,000
7	SLIPLINING INSTALLATION	LS	1	\$42,000	\$42,000
8	OPEN CUT PIPE IN PIT	LS	1	\$38,000	\$38,000
9	LOCATE/BACKFILL ABANDONED OUTLET	LS	1	\$16,000	\$16,000
10	OPEN CUT FROM PIT TO OUTLET BOX	LS	1	\$21,000	\$21,000
11	OUTLET BOX CONNECTIONS	LS	1	\$60,000	\$60,000
12	OPEN CUT FROM OUTLET BOX TO FLUME	LS	1	\$61,000	\$61,000

SUBTOTAL:	\$534,000
CONSTRUCTION CONTINGENCY (20%):	\$106,800
BONDING AND INSURANCE (3.5%)	\$22,430
CONSTRUCTION COST:	\$663,230
ENVIRONMENTAL:	\$5,000
CONSTRUCTION MANAGEMENT (15%):	\$80,100
TOTAL CAPITAL COST:	\$748,330

* CONSTRUCTION ESTIMATE PROVIDED BY STANTEC 1/13/2023

TABLE 3
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HENDERSON RESERVOIR - SEE SHT. C3B

DREDGE RESERVOIR

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	SLUDGE REMOVAL BY OTHERS	CY	75,000	\$64	\$4,800,000
	ITEMS TO BE SUPPLIED BY ARSA:				
2	ELECTRICAL EXTENSION/SERVICE	LS	1	\$100,000	\$100,000
3	CRANE	LS	1	\$50,000	\$50,000
4	TRANSPORTATION/DISPOSAL OF SLUDGE*	LS	1	\$3,750,000	\$3,750,000
5	DIESEL	LS	1	\$140,000	\$140,000
6	MISC.	LS	1	\$10,000	\$10,000

SUBTOTAL:	\$8,850,000
CONSTRUCTION CONTINGENCY (15%):	\$1,327,500
CONSTRUCTION COST:	\$10,177,500
ENVIRONMENTAL:	\$100,000
ADMINISTRATION (1%):	\$101,800
LEGAL:	\$30,000
DESIGN ENGINEERING (3%):	\$305,300
PERMITTING:	\$50,000
TESTING (1%):	\$101,800
CONSTRUCTION MANAGEMENT (2%):	\$203,600
TOTAL CAPITAL COST:	\$11,070,000

* Assumes trucking and disposal to landfill.

TABLE 4
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HENDERSON RESERVOIR - SEE SHT. C3B

REPLACE PIER/CATWALK

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	REPLACE/REPAIR PIER/CATWALK*	LS	1	\$100,000	\$100,000
2	MISC.	LS	1	\$10,000	\$10,000

SUBTOTAL:	\$110,000
CONSTRUCTION CONTINGENCY (15%):	\$16,500
CONSTRUCTION COST:	\$126,500
ADMINISTRATION (5%):	\$6,300
DESIGN ENGINEERING(15%):	\$18,980
PERMITTING:	\$20,000
CONSTRUCTION MANAGEMENT (10%):	\$18,980
TOTAL CAPITAL COST:	\$190,760

* Assumes total replacement.

TABLE 5
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HENDERSON RESERVOIR - SEE SHT. C3B

SPRAY FIELD IMPROVEMENTS

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	SUBMERSIBLE PUMPS/PIPING	LS	1	\$50,000	\$50,000
2	ELECTRICAL EXTENSION/SERVICE	LS	1	\$100,000	\$100,000
3	SPRAY FIELD	ACRE	40	\$20,000	\$800,000
4	MONITORING WELLS	LS	1	\$40,000	\$40,000
5	PIPING	LS	1	\$100,000	\$100,000
6	MISC.	LS	1	\$50,000	\$50,000

SUBTOTAL:	\$1,140,000
CONSTRUCTION CONTINGENCY (15%):	\$171,000
CONSTRUCTION COST:	\$1,311,000
ENVIRONMENTAL:	\$100,000
ADMINISTRATION (1%):	\$13,100
LEGAL:	\$30,000
DESIGN ENGINEERING(15%):	\$196,700
PERMITTING:	\$40,000
CONSTRUCTION MANAGEMENT (10%):	\$131,100
TOTAL CAPITAL COST:	\$1,821,900

TABLE 6
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HENDERSON RESERVOIR TO PRESTON RESERVOIR - SEE SHTS. C4 & C5

NEW EFFLUENT LINE IMPROVEMENTS

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	LOCATE & PROTECT EXISTING UTILITIES	LS	1	\$75,000	\$75,000
2	SWPPP / BMP's	LS	1	\$50,000	\$50,000
3	SHEETING, SHORING & BRACING	LS	1	\$50,000	\$50,000
4	AMADOR CO. PERMIT COMPLIANCE	LS	1	\$25,000	\$25,000
5	CALTRANS PERMIT COMPLIANCE	LS	1	\$15,000	\$15,000
6	18" DIA. PVC - CROSS COUNTRY	LF	8,300	\$125	\$1,037,500
7	18" DIA. PVC - PAVEMENT	LF	16,500	\$150	\$2,475,000

SUBTOTAL:	\$3,727,500
CONSTRUCTION CONTINGENCY (30%):	\$1,118,250
CONSTRUCTION:	\$4,845,750
ENVIRONMENTAL CONTINGENCY:	\$100,000
ADMINISTRATION (1%):	\$48,500
LEGAL:	\$30,000
EASEMENT ACQUISITION:	\$90,000
DESIGN ENGINEERING (8%):	\$387,700
CONSTRUCTION MANAGEMENT (5%):	\$242,300
TOTAL CAPITAL COST:	\$5,744,250

TABLE 7
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

HOSKINS RANCH - SEE SHT. C4A

SPRAY FIELD IMPROVEMENTS

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	PUMP STATION	LS	1	\$50,000	\$50,000
2	ELECTRICAL EXTENSION/SERVICE	LS	1	\$80,000	\$80,000
3	FLOW METER	LS	1	\$15,000	\$15,000
4	MONITORING WELLS	LS	1	\$40,000	\$40,000

SUBTOTAL:	\$185,000
CONSTRUCTION CONTINGENCY (15%):	\$27,750
CONSTRUCTION:	\$212,750
ENVIRONMENTAL:	\$2,000
ADMINISTRATION (1%):	\$2,100
LEGAL:	\$15,000
DESIGN ENGINEERING (15%):	\$31,900
PERMITTING:	\$10,000
CONSTRUCTION MANAGEMENT (10%):	\$21,300
TOTAL CAPITAL COST:	\$295,050

TABLE 8
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

PRESTON FOREBAY - SEE SHT. C5A

BYPASS RESERVOIR

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	18" DIA. PVC	LF	850	\$150	\$127,500
2	CONNECTION TO EXISTING PIPING	EA	2	\$15,000	\$30,000
3	VALVES	EA	5	\$3,000	\$15,000
4	MISC.	LS	1	\$25,000	\$25,000

SUBTOTAL:	\$197,500
CONSTRUCTION CONTINGENCY (15%):	\$29,630
CONSTRUCTION:	\$227,130
ENVIRONMENTAL:	\$15,000
ADMINISTRATION (2%):	\$4,500
LEGAL/EASEMENT ACQUISITION:	\$30,000
DESIGN ENGINEERING (15%):	\$34,100
CONSTRUCTION MANAGEMENT (10%):	\$22,700
TOTAL CAPITAL COST:	\$333,430

TABLE 9
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

PRESTON RESERVOIR - SEE SHT. C5B

DREDGE RESERVOIR

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	SLUDGE REMOVAL BY OTHERS	CY	25,000	\$64	\$1,600,000
	ITEMS TO BE SUPPLIED BY ARSA:				
2	ELECTRICAL EXTENSION/SERVICE	LS	1	\$130,000	\$130,000
3	CRANE	LS	1	\$25,000	\$25,000
4	TRANSPORTATION/DISPOSAL OF SLUDGE*	LS	1	\$1,250,000	\$1,250,000
5	DIESEL	LS	1	\$50,000	\$50,000
6	MISC.	LS	1	\$10,000	\$10,000

SUBTOTAL:	\$3,065,000
CONSTRUCTION CONTINGENCY (15%):	\$459,750
CONSTRUCTION:	\$3,524,750
ENVIRONMENTAL:	\$100,000
ADMINISTRATION (1%):	\$35,200
LEGAL:	\$15,000
DESIGN ENGINEERING (3%):	\$105,700
PERMITTING:	\$50,000
TESTING (1%):	\$35,200
CONSTRUCTION MANAGEMENT (2%):	\$70,500
TOTAL CAPITAL COST:	\$3,936,350

* Assumes trucking and disposal to landfill.

TABLE 10
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

PRESTON RESERVOIR - SEE SHT. C5B

PUMP STATION FOR EXISTING SPRINKLER SYSTEM

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	PUMP STATION/SUCTION PIPING	LS	1	\$50,000	\$50,000
2	ELECTRICAL EXTENSION/SERVICE	LS	1	\$130,000	\$130,000

SUBTOTAL:	\$180,000
CONSTRUCTION CONTINGENCY (15%):	\$27,000
CONSTRUCTION:	\$207,000
ENVIRONMENTAL:	\$2,000
ADMINISTRATION (5%):	\$10,400
DESIGN ENGINEERING (10%):	\$20,700
PERMITTING:	\$10,000
CONSTRUCTION MANAGEMENT (10%):	\$20,700
TOTAL CAPITAL COST:	\$270,800

* Assumes total replacement.

TABLE 11
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

PRESTON RESERVOIR - SEE SHT. C5B

FLOATING SUCTION

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	FLOATING SUCTION	LS	1	\$50,000	\$50,000
2	MISC.	LS	1	\$20,000	\$20,000

SUBTOTAL:	\$70,000
CONSTRUCTION CONTINGENCY (15%):	\$10,500
CONSTRUCTION:	\$80,500
ENVIRONMENTAL:	\$2,000
ADMINISTRATION (5%):	\$4,000
LEGAL:	\$15,000
DESIGN ENGINEERING (20%):	\$16,100
PERMITTING:	\$10,000
CONSTRUCTION MANAGEMENT (10%):	\$8,100
TOTAL CAPITAL COST:	\$135,700

TABLE 12
OPINION OF PROBABLE CAPITAL COSTS
AMADOR REGIONAL SANITATION AUTHORITY
2023 CIP

NEW IONE SPRAY FIELDS - SEE SHTS. C6 & C7

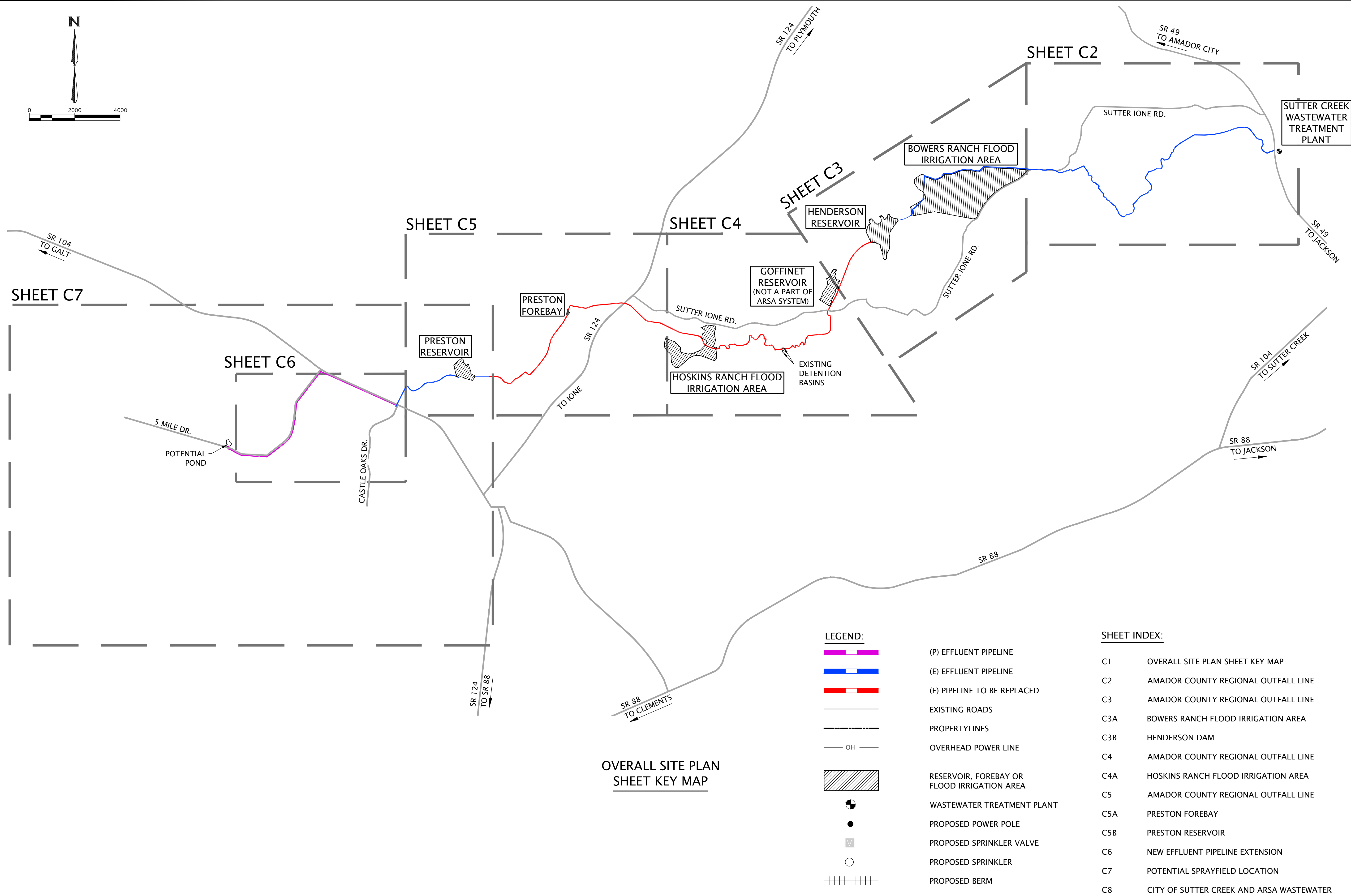
NEW EFFLUENT LINE TO POTENTIAL IONE SPRAY FIELDS

ITEM	DESCRIPTION	UNITS	QUANTITY	\$/UNIT	COST
1	18" DIA PVC	LF	9,900	\$150	\$1,485,000
2	18" DIA. VALVES	EA	20	\$3,500	\$70,000
3	AMADOR COUNTY PERMIT COMPLIANCE	LS	1	\$20,000	\$20,000
4	CALTRANS PERMIT COMPLIANCE	LS	1	\$30,000	\$30,000
5	POND CONSTRUCTION	LS	1	\$150,000	\$150,000
6	MONITORING WELLS	LS	1	\$40,000	\$40,000
7	PUMP STATION*	LS	1	\$50,000	\$50,000
8	ELECTRICAL EXTENSION/SERVICE*	LS	1	\$200,000	\$200,000

SUBTOTAL:	\$2,045,000
CONSTRUCTION CONTINGENCY (15%):	\$306,750
CONSTRUCTION:	\$2,351,750
ENVIRONMENTAL:	\$100,000
ADMINISTRATION (1%):	\$23,500
LEGAL/EASEMENT ACQUISITION:	\$30,000
DESIGN ENGINEERING (15%):	\$352,800
PERMITTING:	\$100,000
CONSTRUCTION MANAGEMENT (10%):	\$235,200
TOTAL CAPITAL COST:	\$3,193,250

* REQUIRED DEPENDENT UPON FLOW DEMAND,

NOTE: DOES NOT INCLUDE CONSTRUCTION OF DISPOSAL SYSTEM (SPRAY FIELDS OR FLOOD IRRIGATION) AFTER PUMP STATION AS INDETERMINATE AT THIS TIME



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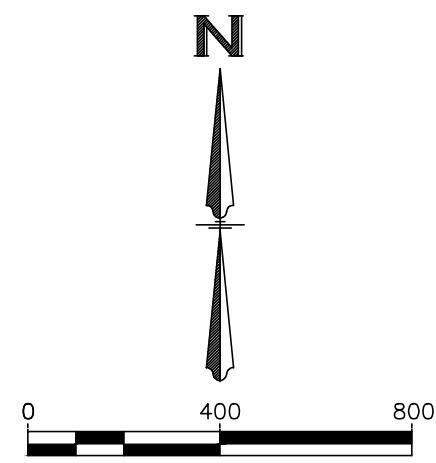
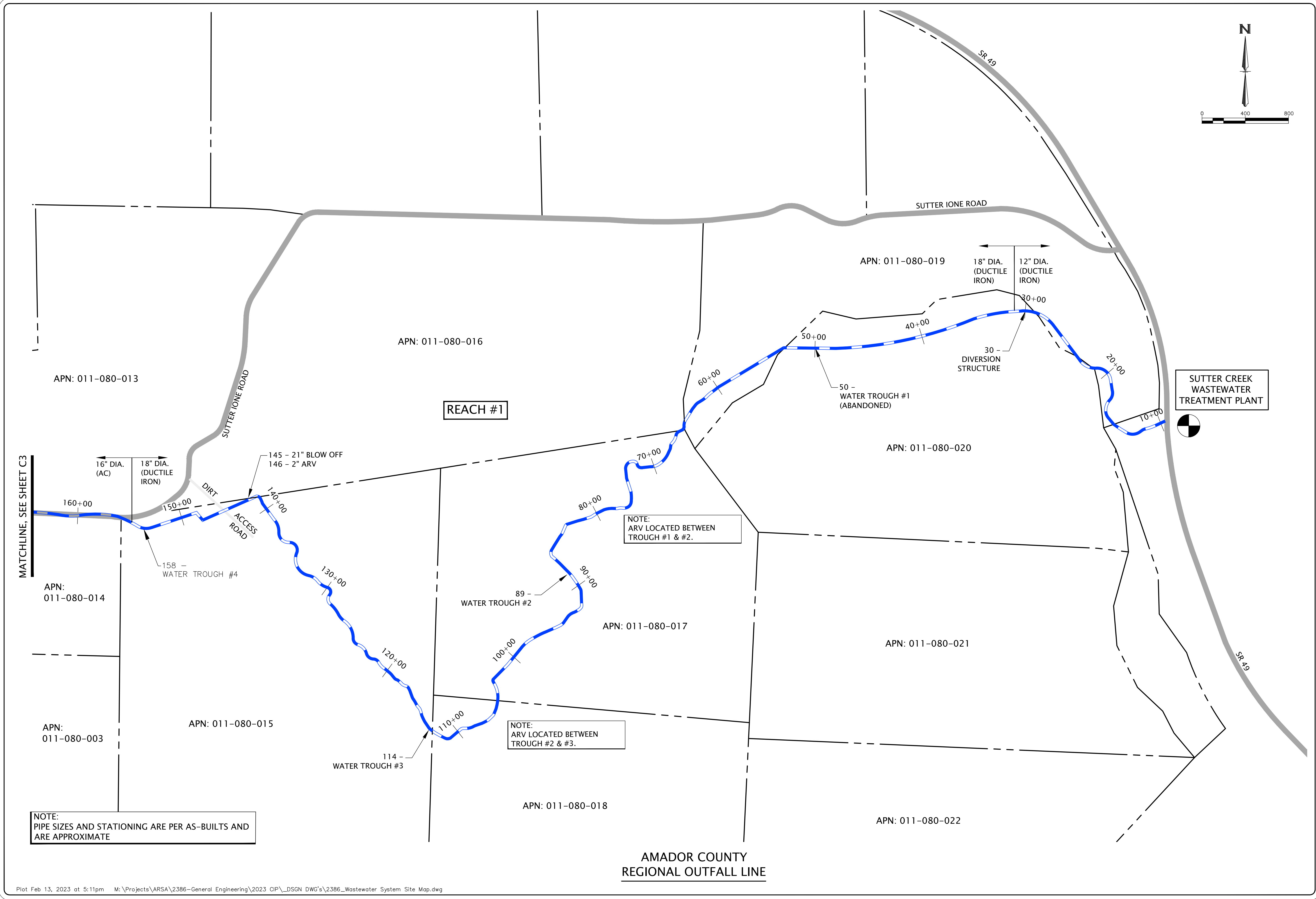
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ASSOCIATES
civil engineering consultant

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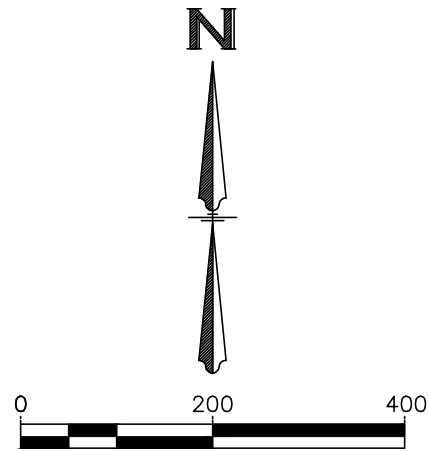
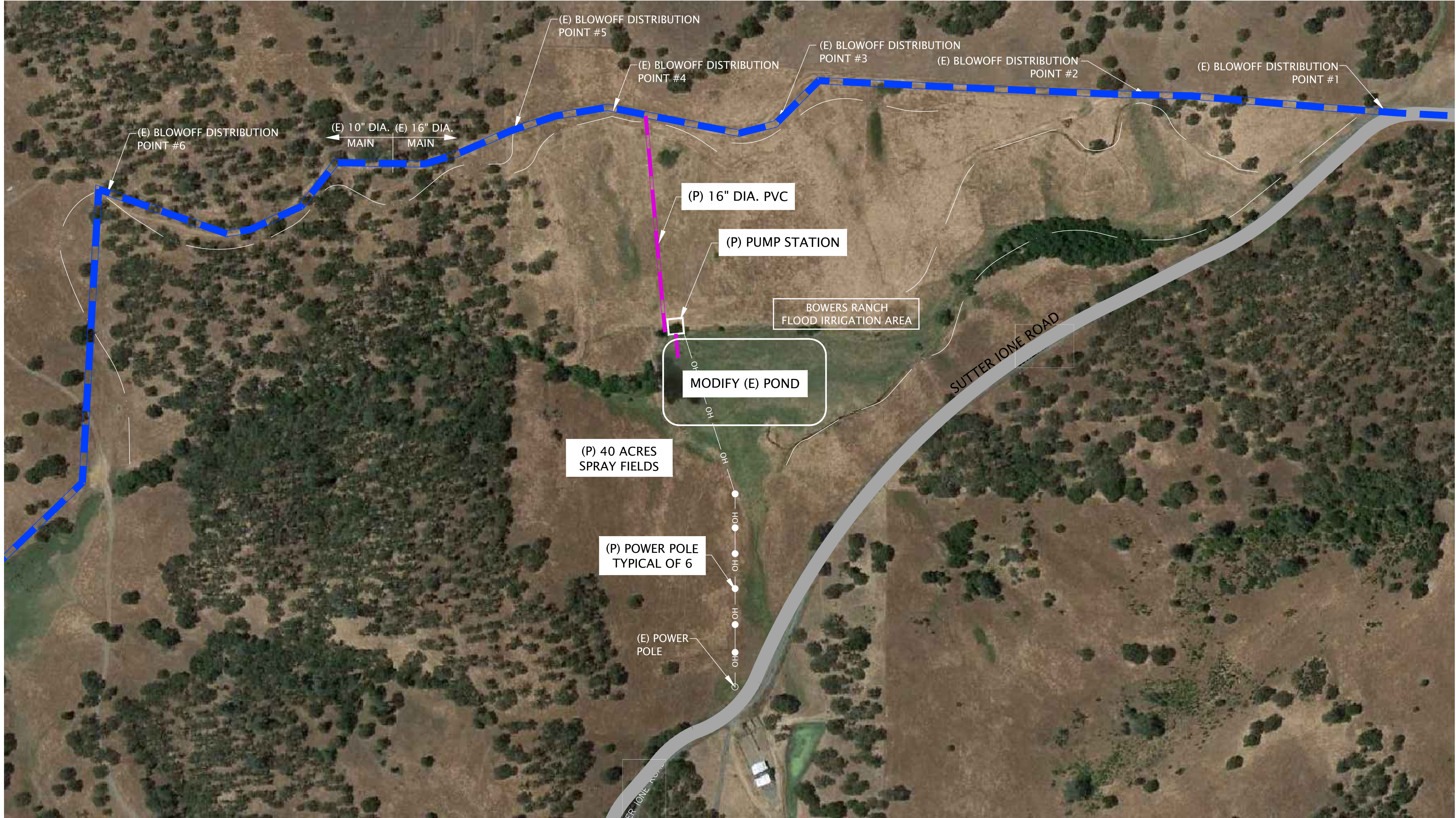
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SHT. 2 of SHT. 13



BOWERS RANCH
FLOOD IRRIGATION AREA

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SHT. 4 of SHT. 13



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REGISTERED PROFESSIONAL ENGINEER

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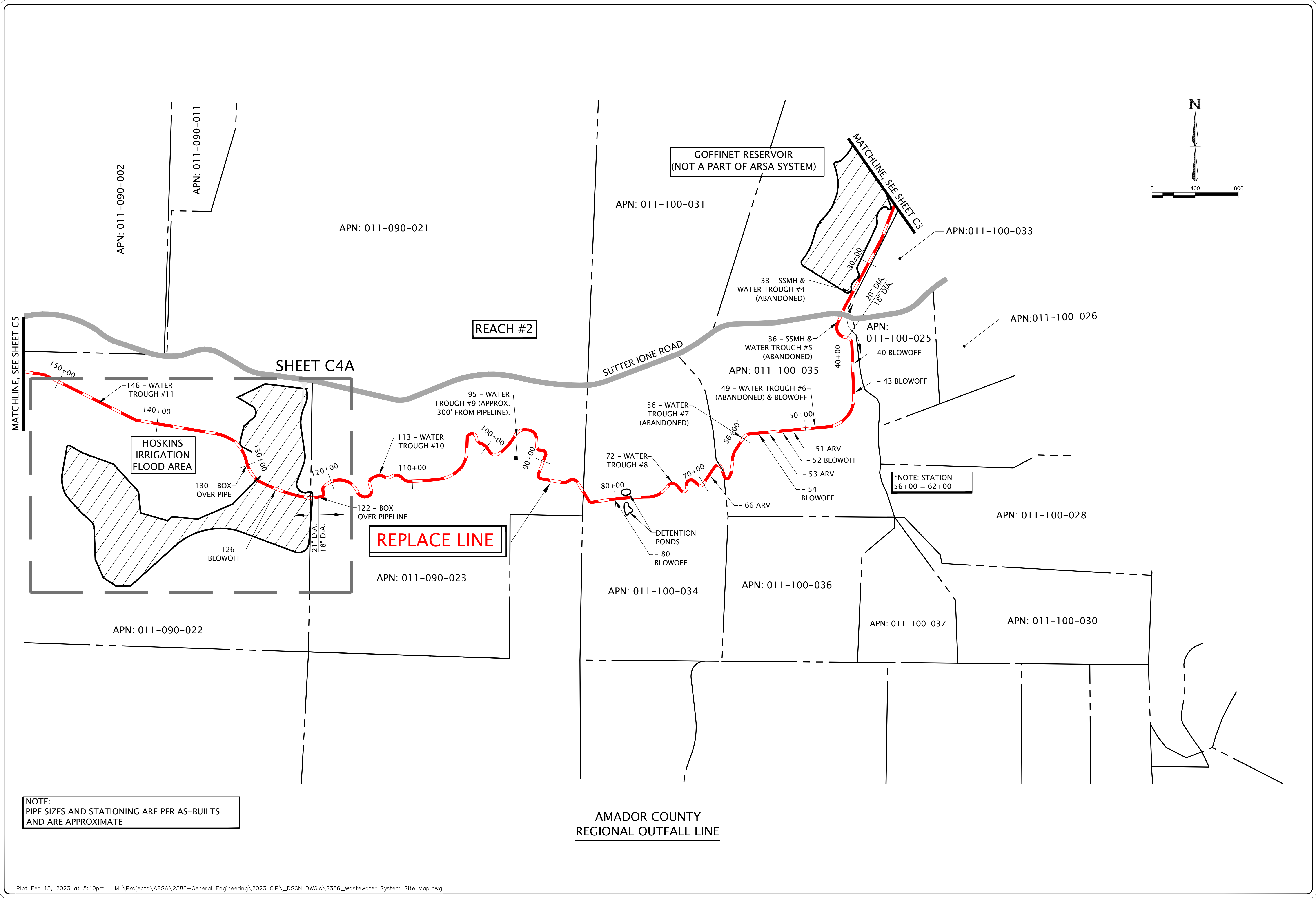
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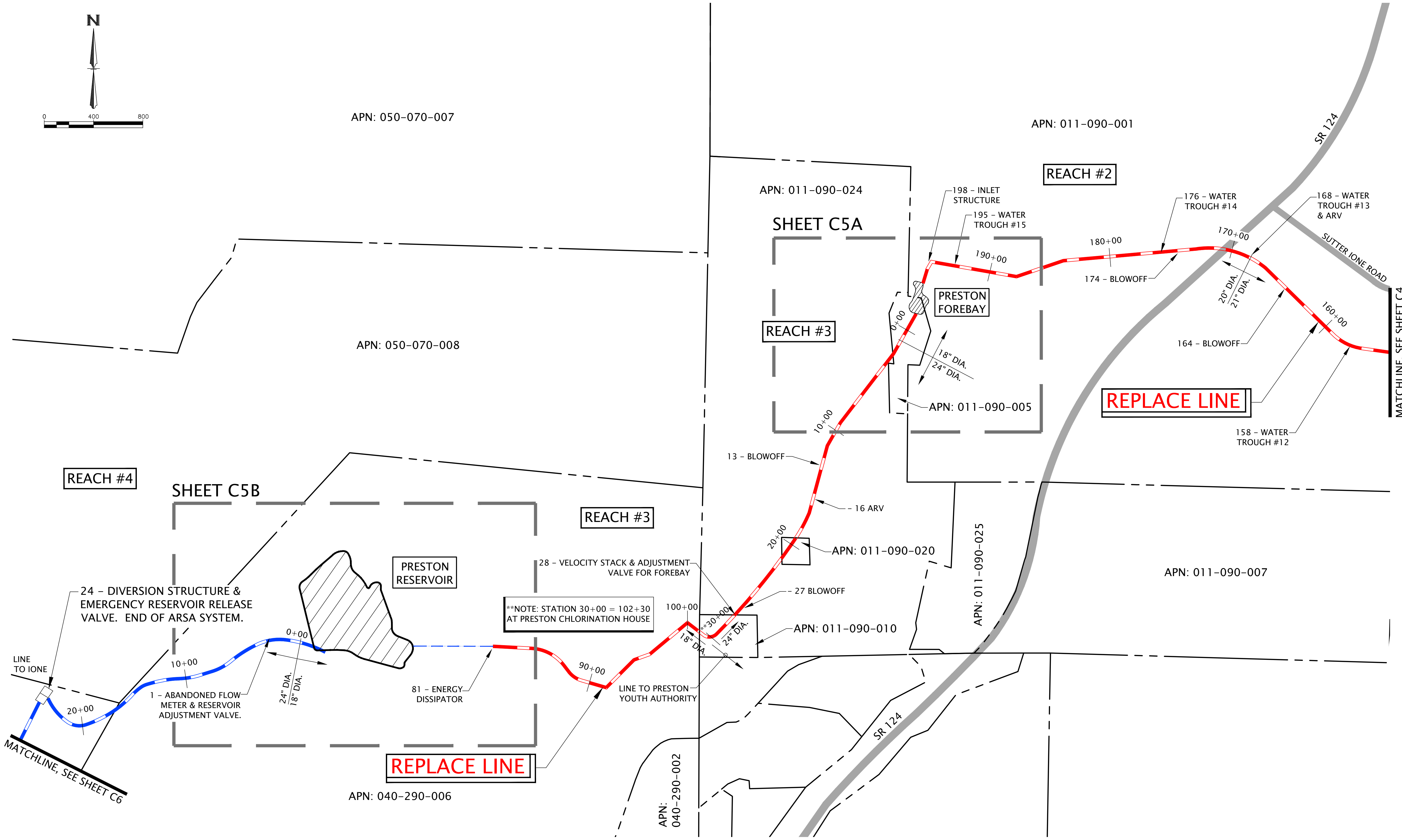
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SHT. 6 of SHT. 13



NOTE:
PIPE SIZES AND STATIONING ARE PER AS-BUILTS
AND ARE APPROXIMATE

AMADOR COUNTY
REGIONAL OUTFALL LINE

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No. 76594

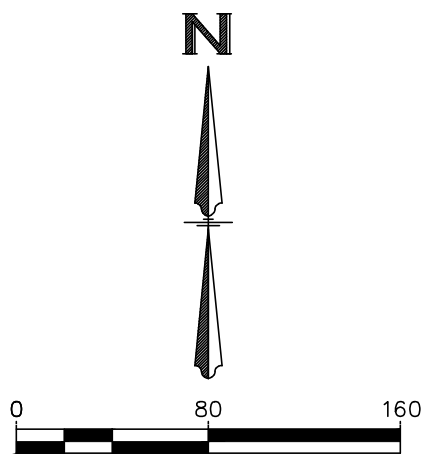
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SHT. 8 of SHT. 13



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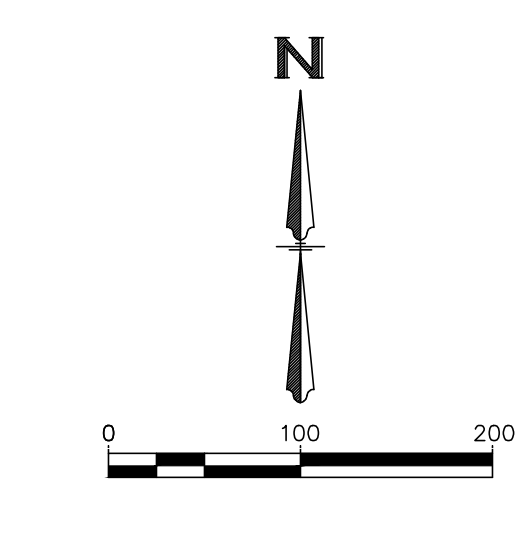
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SHT. 9 of SHT. 13



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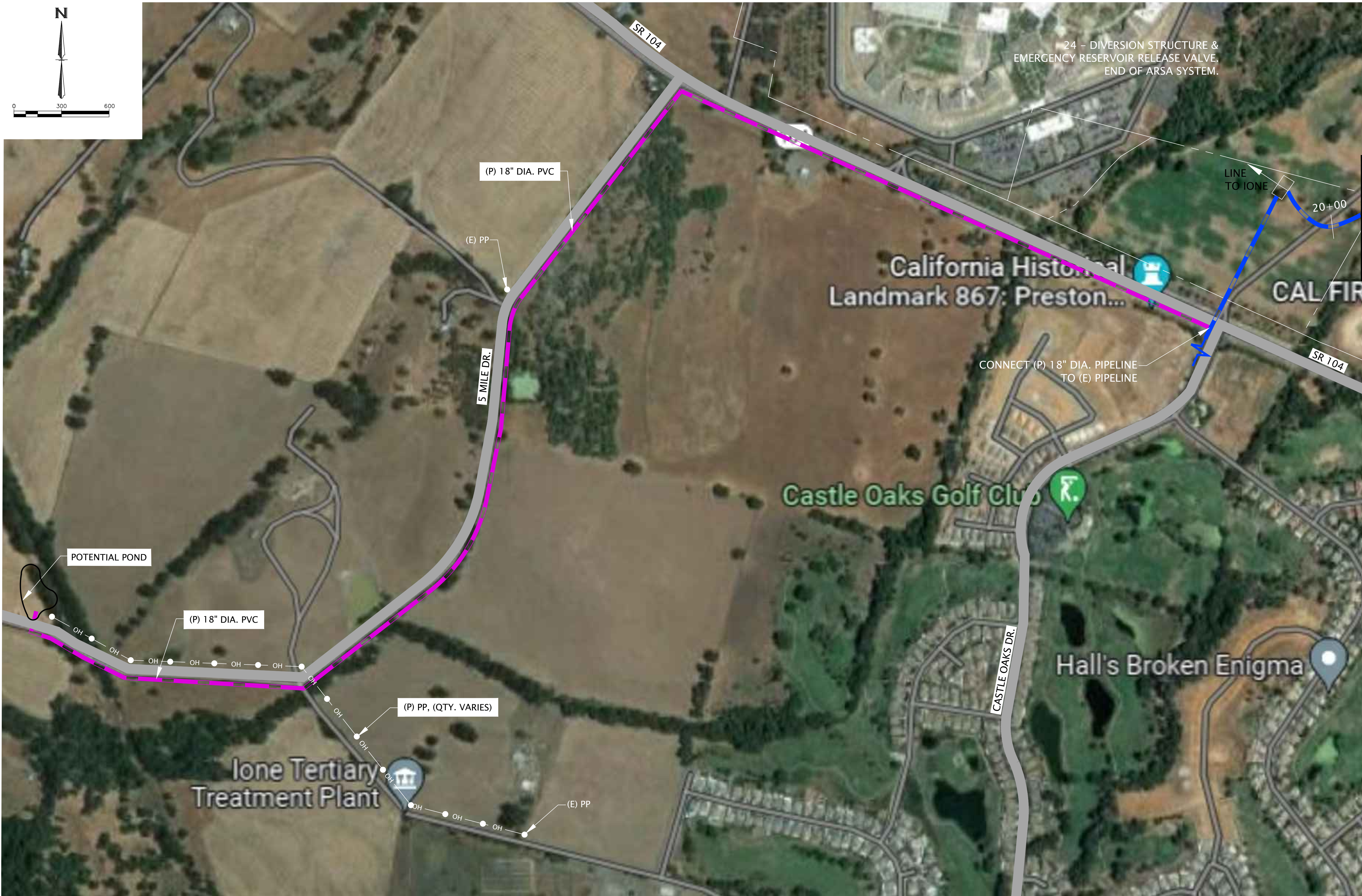
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SHT. 10 of SHT. 13



NEW EFFLUENT
PIPELINE EXTENSION

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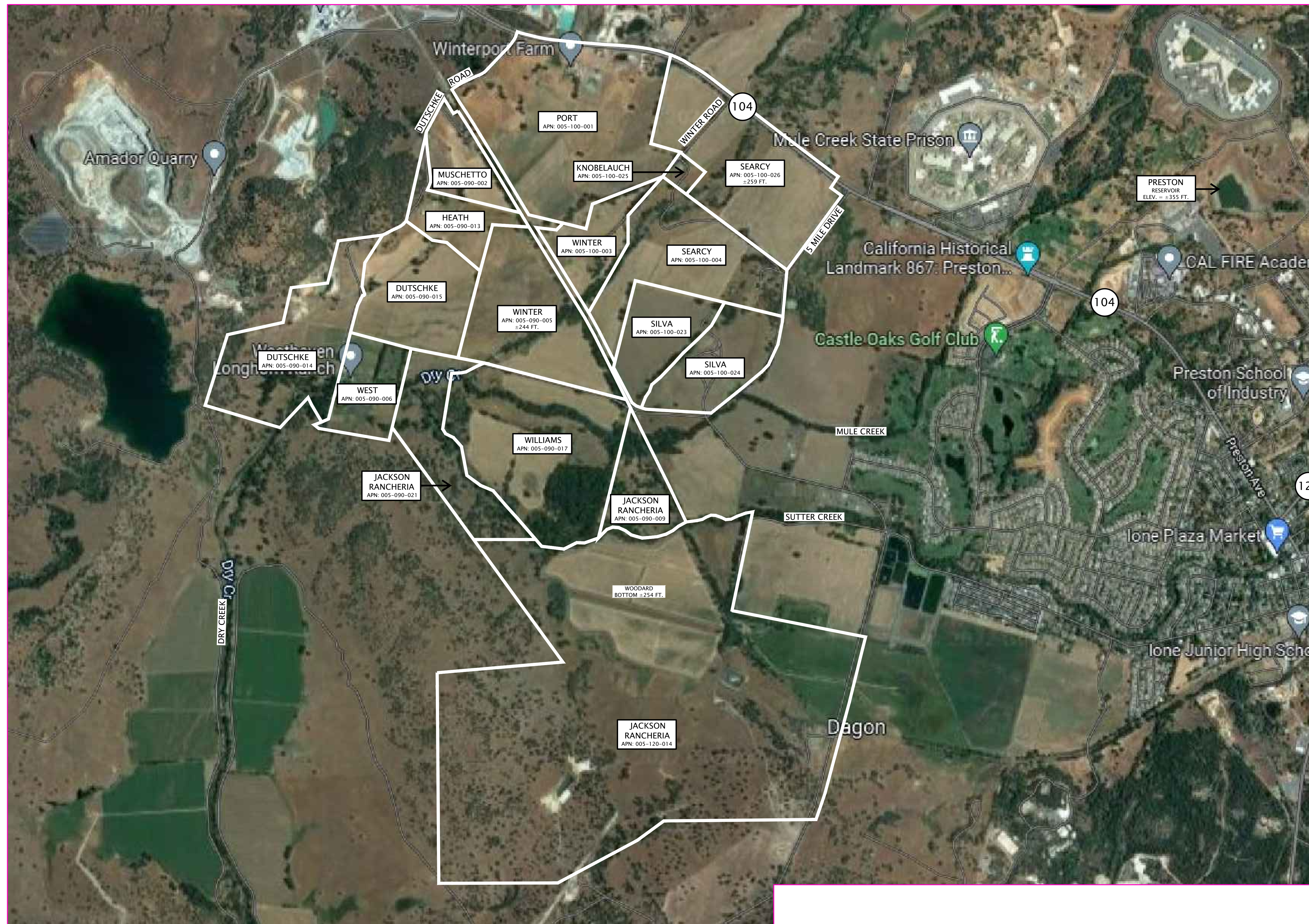
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SHT. 11 of SHT. 13



POTENTIAL SPRAYFIELD LOCATION

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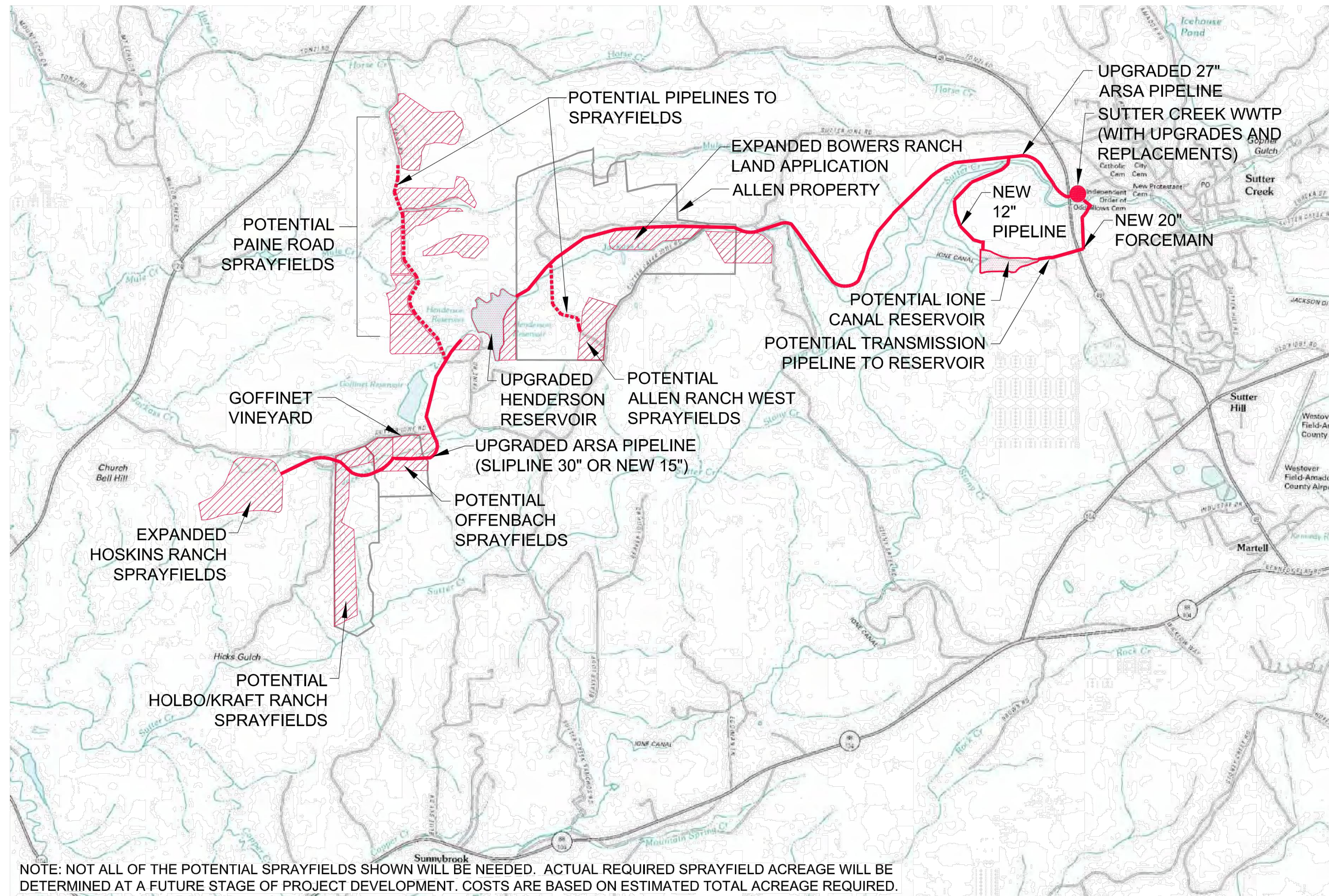


FIGURE 3
CITY OF SUTTER CREEK AND ARSA
WASTEWATER MASTER PLAN UPDATE
ALTERNATIVE 1: ARSA SPRAYFIELDS