

US Army Corps of Engineers
San Francisco District
450 Market Street
San Francisco, CA 94102

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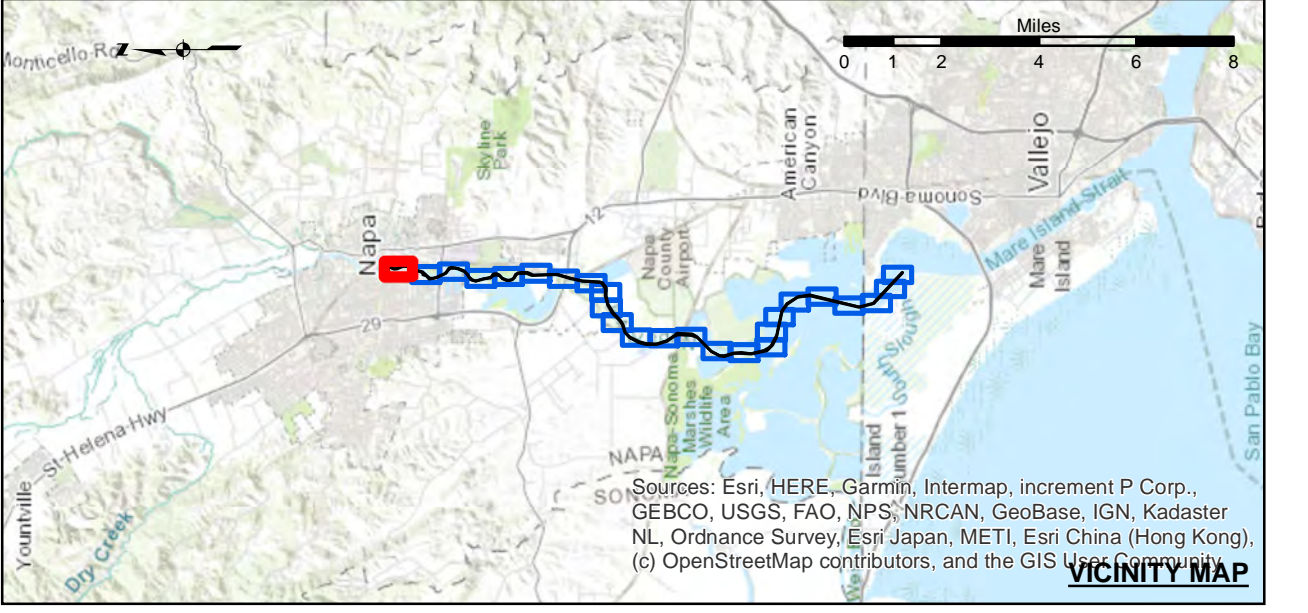
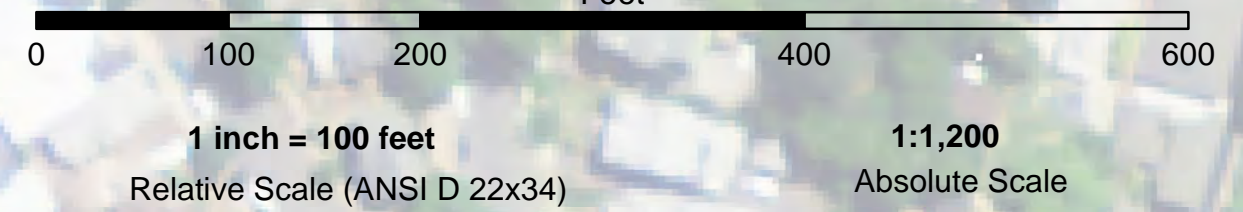
Chart Date: Sep 20, 2023
Designed by: PDI
Plotted by: PDI
Checked by: PDI
Drawn by: PDI

PREPARED UNDER THE DIRECTION OF: LT COLONEL W. SHEBESTA
Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
NAPA COUNTY
NAPA RIVER
UPPER NAPA
CONDITION SURVEY
06-11 SEPTEMBER 2023
Sheet
Reference
Number
1 of 25

NAD 83 CENTERLINE ANGLE POINTS

Δ PT	X	Y	Δ PT	X	Y	Δ PT	X	Y
1	6048873.57	2300406.64	47	6048520.47	2285146.44	83	6048206.27	2255227.24
2	6050024.67	2298956.64	48	6048530.77	2284491.14	84	6048204.27	2255227.24
3	6050231.27	2298629.34	49	6048226.77	2283841.84	85	6048202.27	2255227.24
4	6050305.17	2298201.14	50	6048268.97	2283148.54	86	6048181.27	2255227.24
5	6050350.27	2297933.74	51	6048202.67	2282498.24	87	6048162.17	2255227.24
6	6050326.57	2297692.84	52	6048508.67	2281848.54	88	6048507.67	2255227.24
7	6050223.27	2297176.84	53	6048361.67	2281198.84	89	6048216.47	2255227.24
8	6050162.57	2296749.54	54	6048224.67	2280548.54	90	6048033.47	2255227.24
9	6050130.67	2296597.84	55	6047934.67	2279898.54	101	6048039.17	2255227.24
10	6050155.67	2296804.34	56	6047936.67	2279898.54	102	6048008.17	2255227.24
11	6050374.67	2298200.34	57	6048816.67	2280133.34	103	6048056.67	2255227.24
12	6050438.67	2297901.34	58	6048587.67	2279808.34	104	6048535.67	2255227.24
13	6050402.67	2297591.34	59	6048474.67	2279329.34	105	6048592.17	2255227.24
14	6049965.67	2296886.34	60	6048027.67	2278440.34	106	6048363.67	2255227.24
15	6049882.97	2296190.84	61	6048387.67	2277424.34	107	6048261.77	2255227.24
16	6049747.67	2295376.34	62	6049287.67	2276381.34	108	6048271.07	2255227.24
17	6049027.67	2293116.54	63	6048289.67	2275163.34	109	6047765.47	2255227.24
18	6049027.67	2292425.54	64	6047777.67	2274546.34	110	6047425.07	2255227.24
19	6049130.67	2291461.94	65	6047559.67	2273791.34	111	6047470.17	2255227.24
20	6049335.47	2290321.84	66	6047125.67	2272640.34	112	6047184.17	2255227.24
21	6049757.67	2289366.34	67	6046855.67	2271548.54	113	6047209.87	2255227.24
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23	6050217.67	2287725.34	69	6046939.67	2269339.34	115	6046964.67	2255227.24
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38	6049394.67	2274934.84	84	6046592.27	2255200.34	130	6046546.34	2255227.24
39	6049265.67	2274324.84	85	6046565.17	2254300.34	131	6046525.67	2255227.24
40	6048947.67	2273714.84	86	6046507.47	2253400.34	132	6046504.87	2255227.24
41	6048702.67	2273104.84	87	6046455.47	2252500.34	133	6046483.07	2255227.24
42	6048675.67	2272494.84	88	6046486.47	2251600.34	134	6046462.24	2255227.24
43	6048736.67	2271884.84	89	6046478.47	2250700.34	135	6046441.47	2255227.24
44	6048924.67	2271274.84	90	6046465.77	2249800.34	136	6046420.67	2255227.24
45	6049286.67	2270664.84	91	6046450.57	2248900.34	137	6046400.07	2255227.24
46	6049459.67	2270054.84	92	6046463.57	2248000.34	138	6046379.27	2255227.24



- Federal Navigation Channel
 - Shoaling Area
 - Placement Area
 - Anchorage Area
 - Wreck Area
 - Submerged Wreck
 - Angle Point
 - Beacon, General
 - Obstruction Point
 - Navigation Buoy
 - Navigation Buoy
 - Shoalest Sounding*
- Contours**
- 10
 - 9
 - 8
 - 7
 - 6

NOTES:
HORIZONTAL COORDINATE SYSTEM:
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. DISTANCE UNITS IN U.S. SURVEY FEET.

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CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

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SURVEYED BY THE CORPS OF ENGINEERS.

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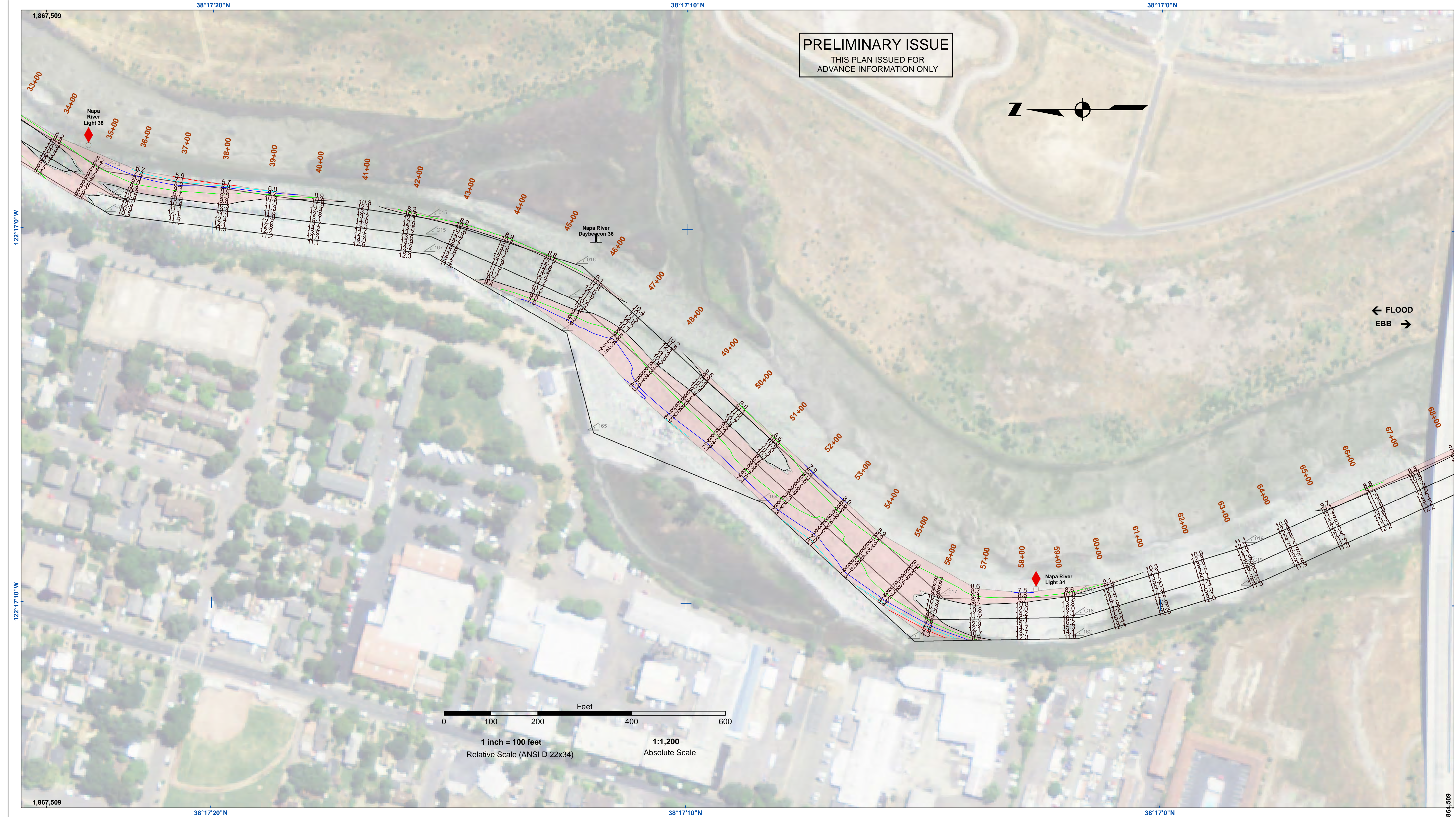
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VERTICAL CONTROLS:
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176+00 TO 224+00 - NAPANR01 - 2.652m MLLW - 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSECT 11 AND NRP4 USING RTK OBSERVATIONS PID PENDING.

225+00 TO 640+00 - NAPANR02 - 3.653m MLLW - 28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

641+00 TO 692+00 - NAPANR03 - 3.553m MLLW - 28.416m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. TRANSFERRED FROM BM 5218 J 1976 VIA RTK ON 4/10/2012 PID PENDING.

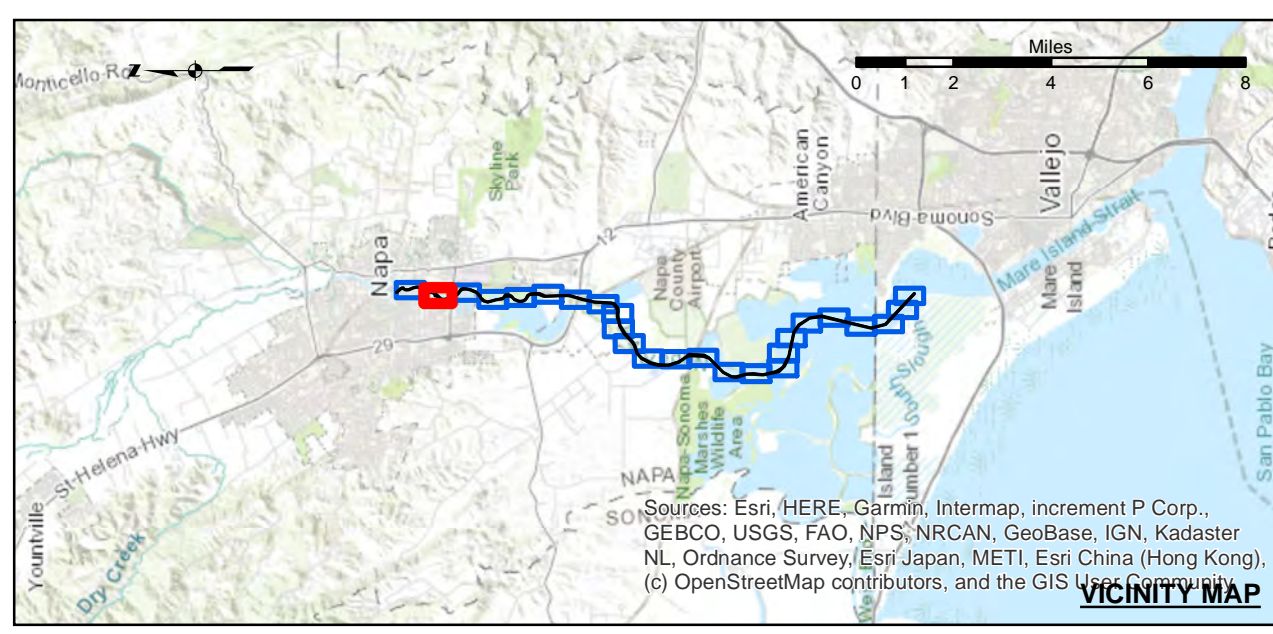


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Chart Date:	Sep 20, 2023
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA
NAPA COUNTY
NAPA RIVER
UPPER NAPA
CONDITION SURVEY
06-11 SEPTEMBER 2023



Federal Navigation Channel	Shoaling Area	Beacon, General	Contours
Placement Area	Navigation Buoy	Obstruction Point	-10
Anchorage Area	Navigation Buoy	Navigation Buoy	-9
Wreck Area	Shoalest Sounding*	Shoalest Sounding*	-8
Submerged Wreck			-7
Angle Point			-6

NOTES:
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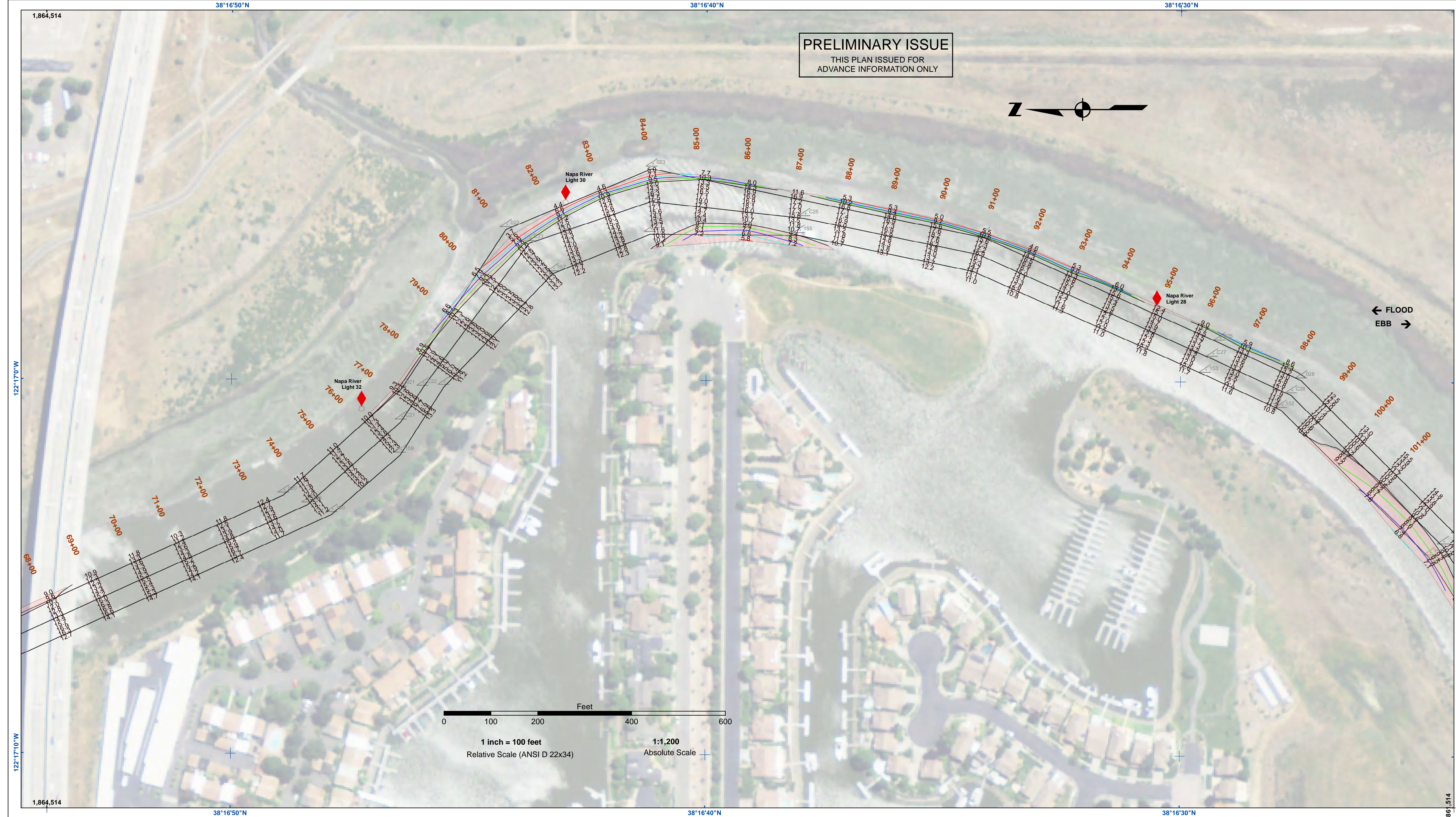
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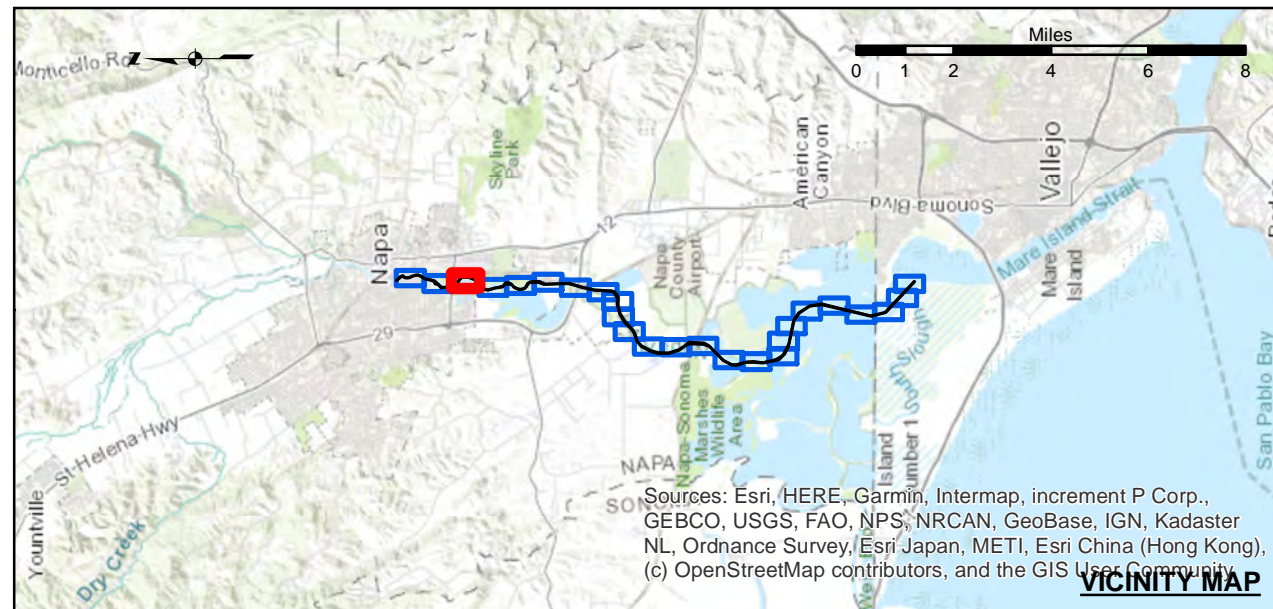
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CALIFORNIA
NAPA COUNTY
NAPA RIVER
UPPER NAPA
CONDITION SURVEY
06-11 SEPTEMBER 2023

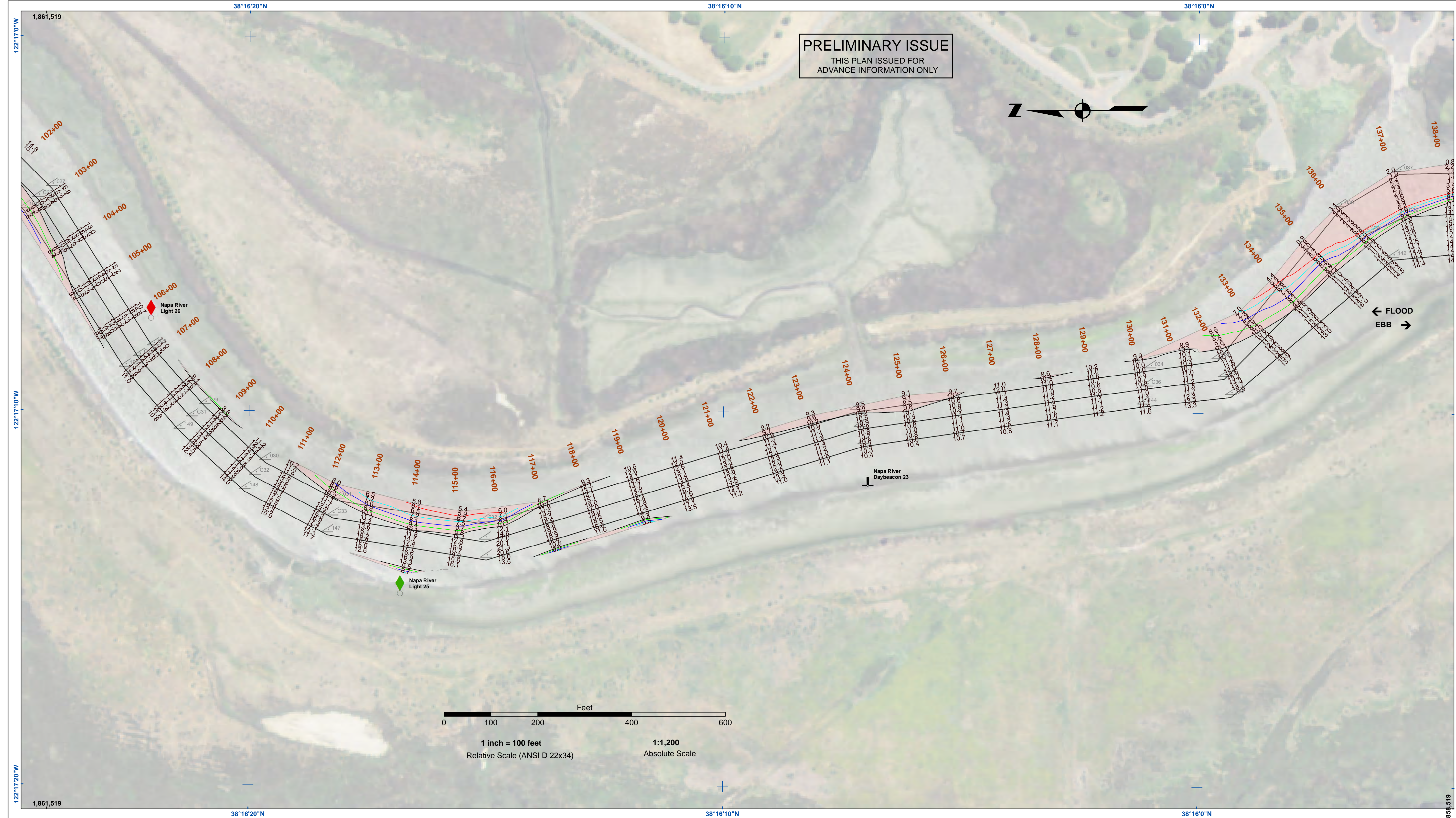


Federal Navigation Channel	Beacon, General	Contours — -10 — -9 — -8 — -7 — -6
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		
Angle Point		

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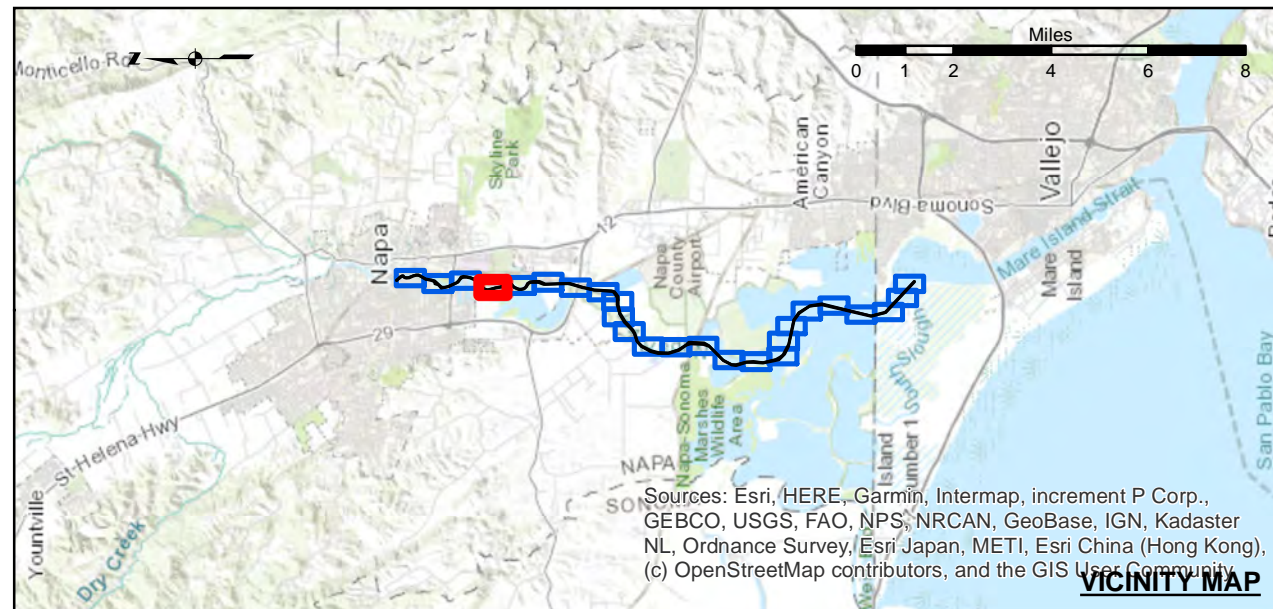
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LT COLONEL W. SHEBESTA	Sep 20, 2023
Submitted by	Designed by
Hydro Survey Team Leader	PDT
Recommended by	Checked by
Chief, Hydro Survey Section	PDT
Approved by	Drawn by
Chief, Construction Branch	PDT

CALIFORNIA
NAPA COUNTY
NAPA RIVER
UPPER NAPA
CONDITION SURVEY
06-11 SEPTEMBER 2023



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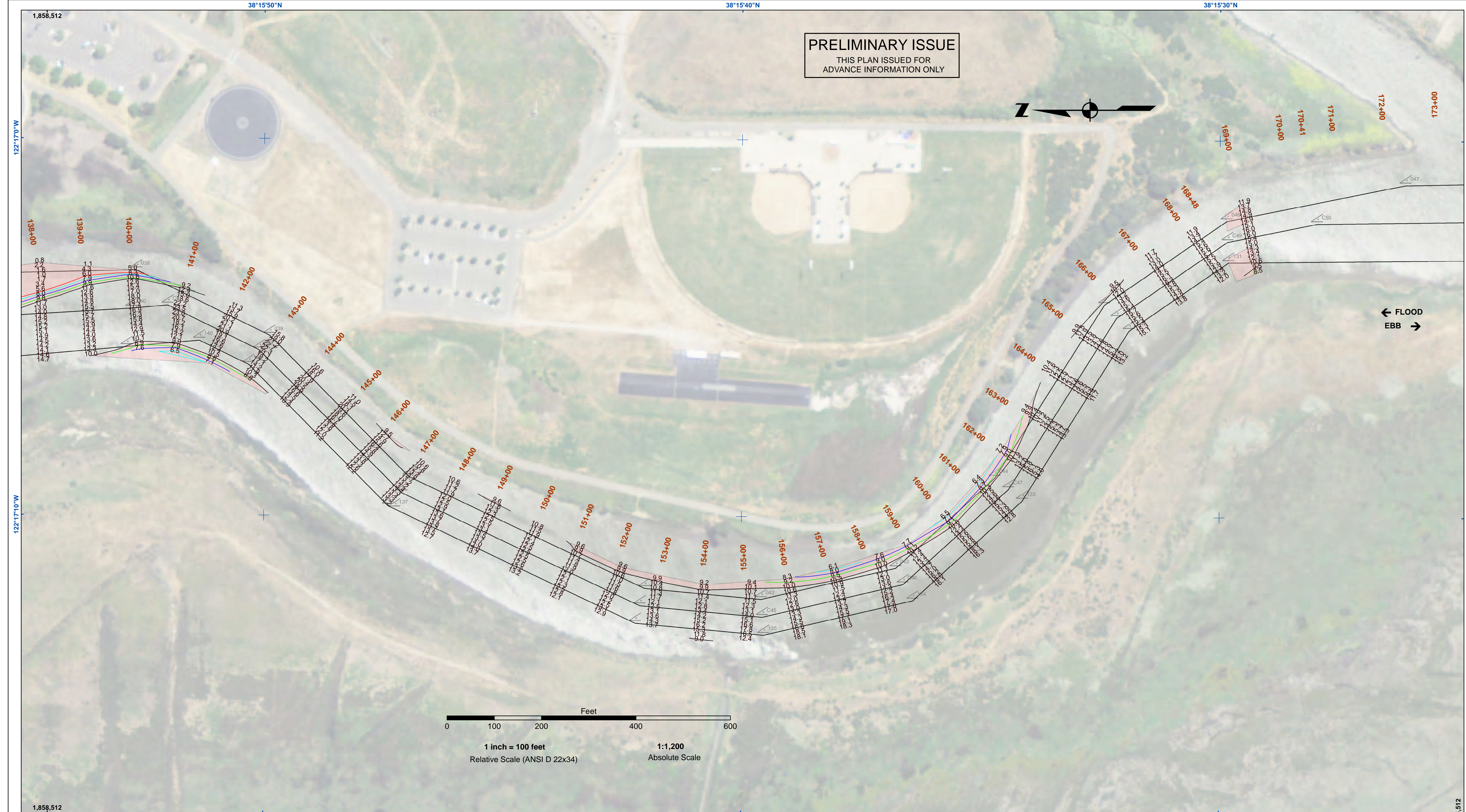
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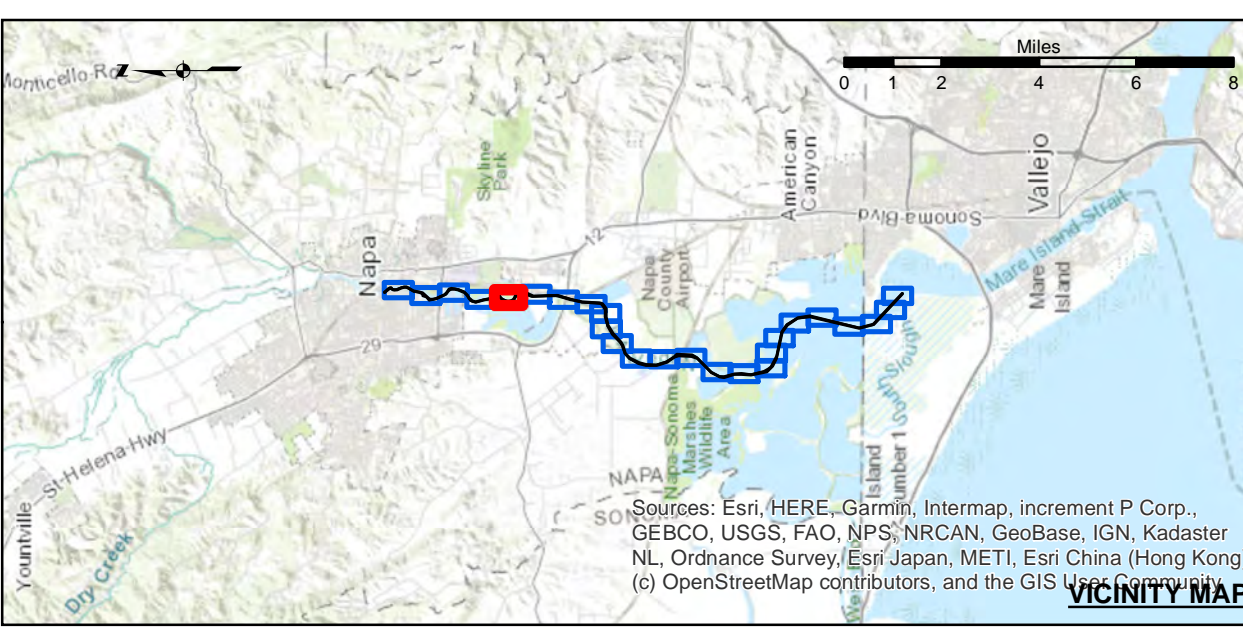


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PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY, BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

DRAWING NOT TO BE USED FOR NAVIGATION, ONLY CHANNEL CONDITION AT DATE OF SURVEY.

THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDING FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT.

SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

THE PROJECT DEPTH IS 15 FEET FROM ENTRANCE AT THE MARE ISLAND CAUSEWAY TO ASYLUM SLOUGH, THENCE 10 FEET TO HEAD OF NAVIGATION.

VERTICAL CONTROLS:
0+00 TO 175+00 - NRFP4 - 30.54ft - USACE - RTK BASE STATION TRANSCECT 11 - 6.593m MLLW - USACE - MLLW LEVELLED FROM 20 AND TIDAL 5 FROM TIDE STATION 941 5623 ON 3/29/2012.

176+00 TO 224+00 - NAPAN01 - 2.652m MLLW - 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSCECT 11 AND NRFP4 USING RTK OBSERVATIONS PID PENDING.

225+00 TO 640+00 - NAPAN02 - 3.653m MLLW - 28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

641+00 TO 692+00 - NAPAN03 - 3.553m MLLW - 28.416m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. TRANSFERRED FROM BM 5218 J 1976 VIA RTK ON 4/10/2012 PID PENDING.

CALIFORNIA
NAPA COUNTY
NAPA RIVER
UPPER NAPA
CONDITION SURVEY
06-11 SEPTEMBER 2023

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