CORPS OF ENGINEERS

U.S. ARMY

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.85	66	5955737.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.85	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276872.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.85
39	5959511.42	2273656.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270463.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947206.32	2278958.85
3	5947569.22	2279022.85
4	5947611.52	2279060.85
5	5947810.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277858.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950953.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953480.12	2276800.85
23	5953585.72	2276792.85
24	5954178.82	2276618.85
25	5954274.62	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954631.62	2276539.85
32	5954795.42	2276482.85
33	5955751.32	2275718.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273821.85
42	5958725.42	2273635.85
43	5959500.42	2273605.85
44	5959858.42	2273707.85
45	5960058.62	2273458.85
46	5960542.52	2272735.85
47	5962153.92	2270453.85
48	5962658.72	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

VICINITY MAP

- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

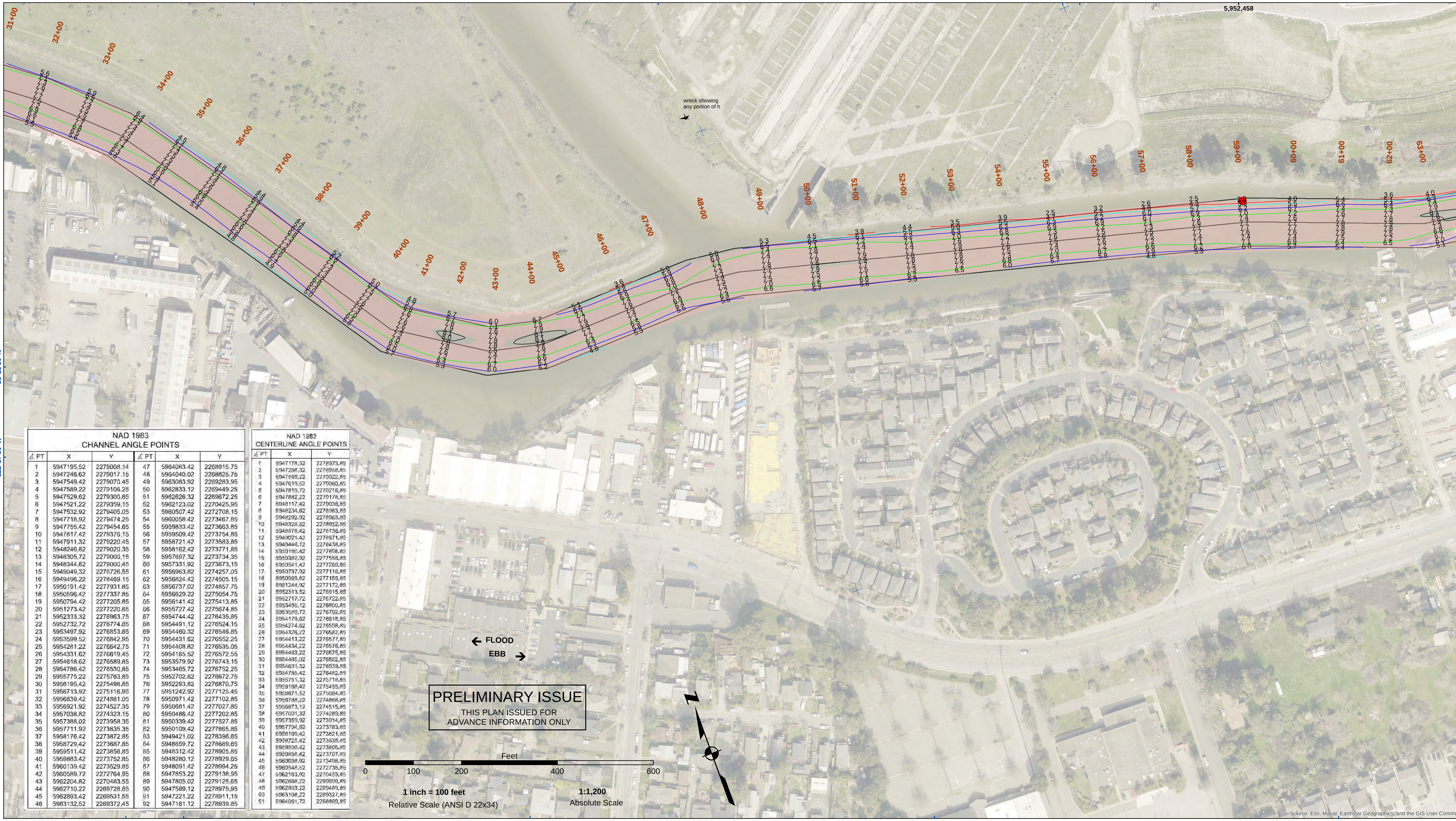
US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF TIMOTHY W. SHEBESTA LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Mar 19, 2024
Submitted: Hydro Survey Team Leader	Plotted By:	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER

CONDITION SURVEY
12-14 MARCH 2024



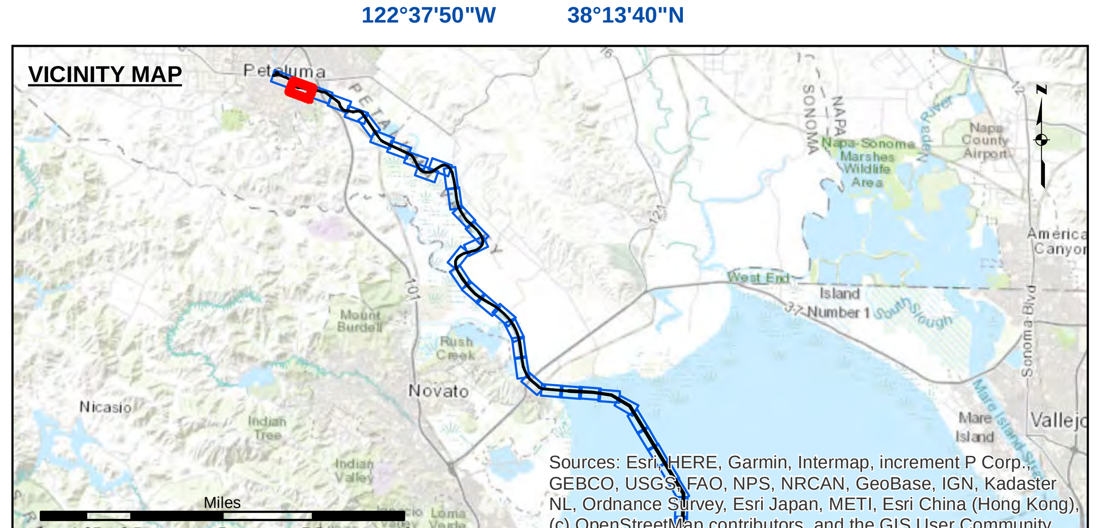
NAD 1983 CHANNEL ANGLE POINTS					
∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083.42	2268915.75
2	5947246,62	2279017.15	48	5964040,02	2268825.75
3	5947549,42	2279070.45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058.42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817.42	2279376,15	56	5959509.42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469.15	62	5956824.42	2274505.15
17	5950191,42	2277931,85	63	5956737,02	2274857.75
18	5950596,42	2277337,85	64	5956629.22	2275054.75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273.42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280.12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947610,52	2279060,85
5	5947810,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278436,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951246,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953569,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954376,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954785,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

VICINITY MAP



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
-8
-7
-6
-5
-4

NOTES:

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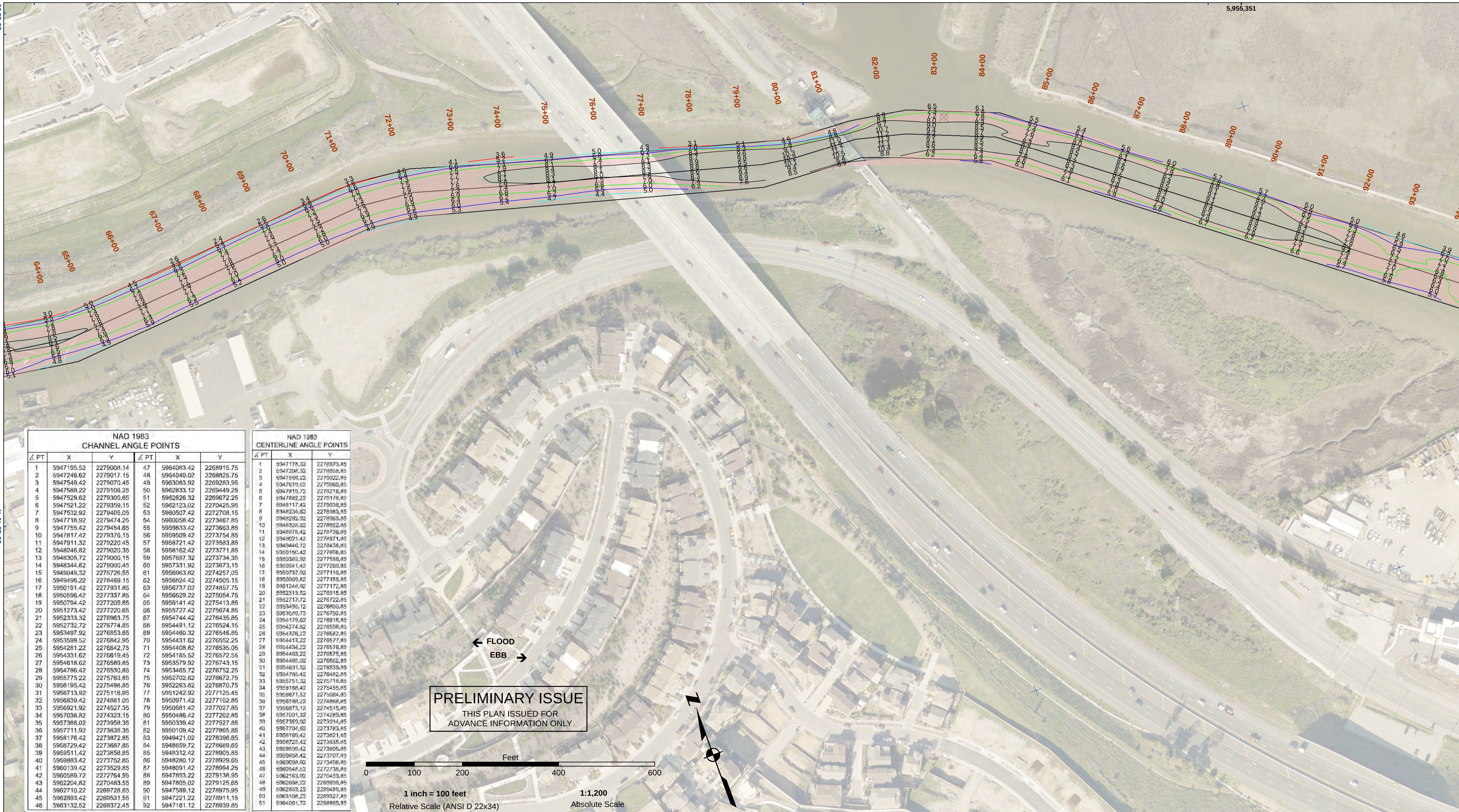
US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number



NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915,75
2	5947246,62	2279017,15	48	5964040,02	2268825,75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469,15	62	5956824,42	2274505,15
17	5950191,42	2277931,85	63	5956737,02	2274857,75
18	5950596,42	2277337,85	64	5956629,22	2275054,75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273,42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

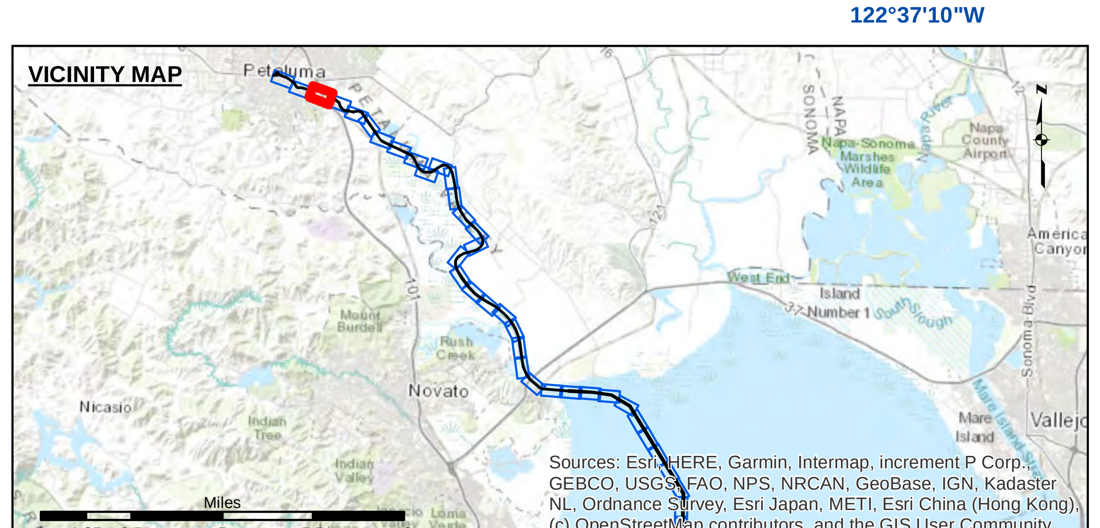
NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947819,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278438,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951246,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954326,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

VICINITY MAP



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

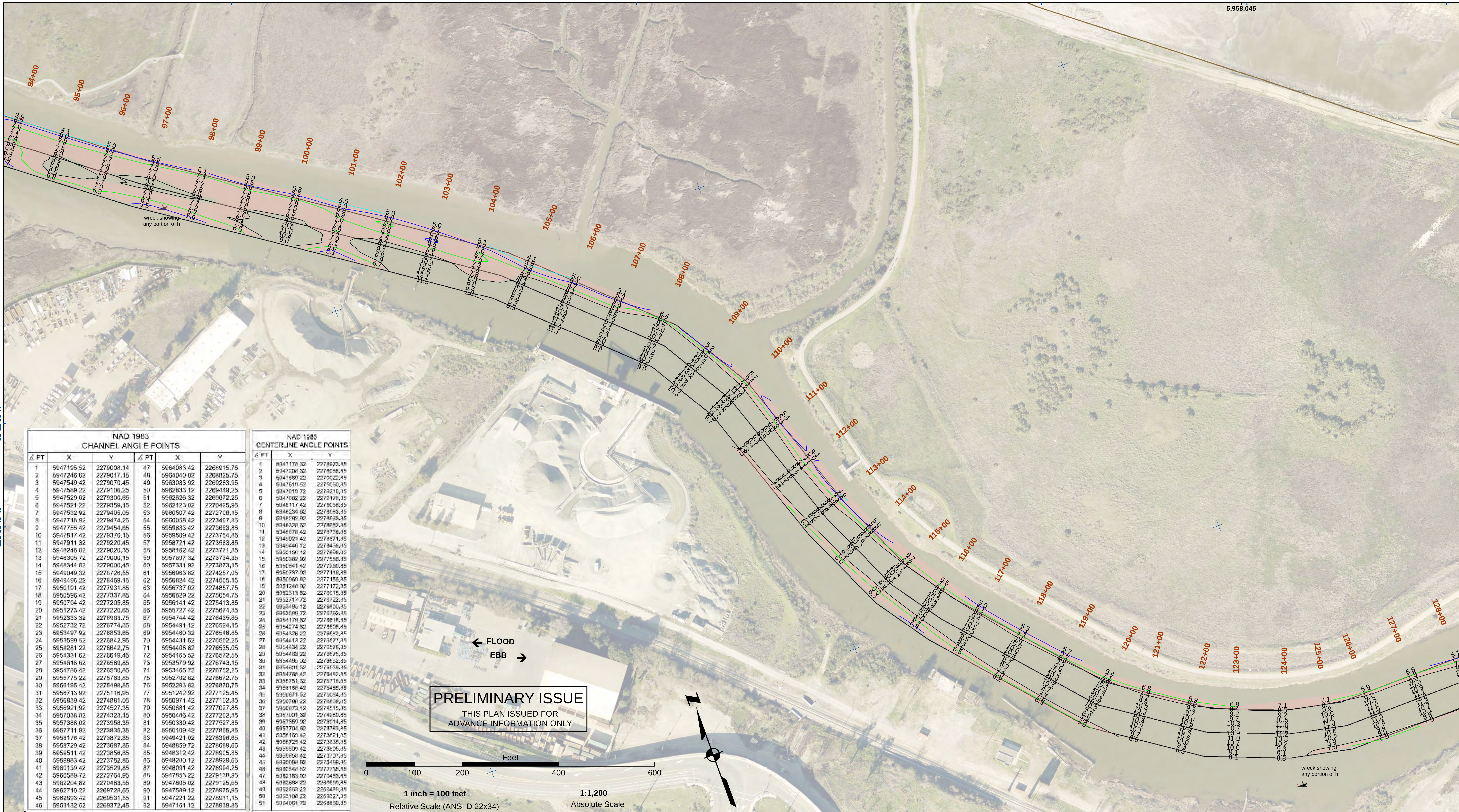
Chart Date: Mar 19, 2024	Surveyed By:
Designed by:	Plotted By:
Drawn by: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

- 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

- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024	Surveyed By:
Designed by:	Plotted By:
Drawn by: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279109.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962826.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276590.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275118.85	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273858.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.62	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949448.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277558.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
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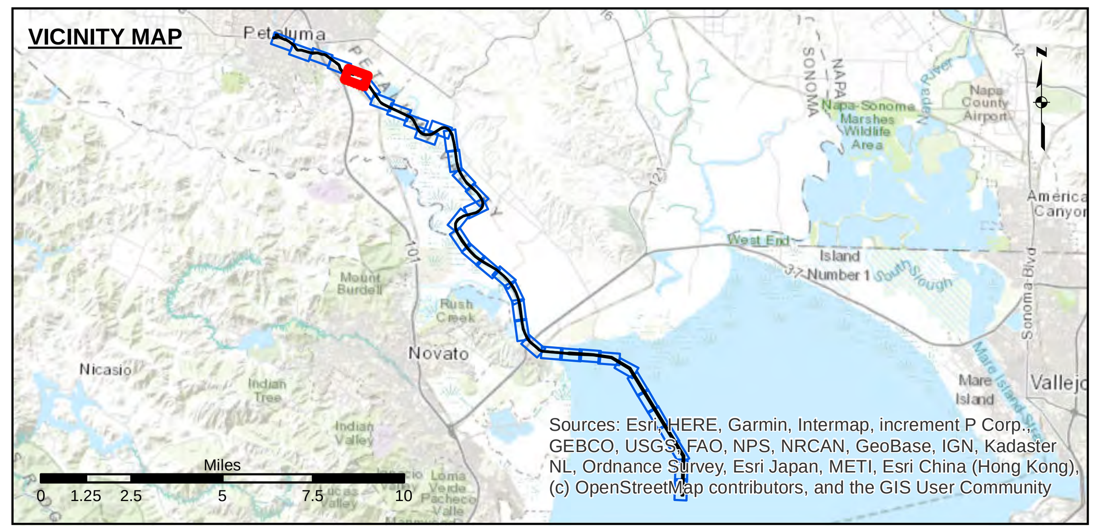
VICINITY MAP



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- 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

- -8
- -7
- -6
- -5
- -4

NOTES:

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

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US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
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Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008.14	47	5964083.42	2268915.75
2	5947246,62	2279017.15	48	5964040,02	2268825.75
3	5947549.42	2279070.45	49	5963083,92	2269283,95
4	5947589,22	2279106.25	50	5962833.12	2269449.25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817.42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220.45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737,02	2274857.75
18	5950596,42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141,42	2275413,85
20	5951273.42	2277220.65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125.45
32	5956839,42	2274881.05	78	5950971,42	2277102,85
33	5956921,92	2274527.35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947819,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279038,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278438,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951248,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954326,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954785,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,72	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

VICINITY MAP

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Legend	
Federal Navigation Channel	Beacon, General
Shoaling Area	Obstruction Point
Placement Area	Navigation Buoy
Anchorage Area	Navigation Buoy
Wreck Area	Shoalest Sounding*
Submerged Wreck	
Angle Point	

Contours
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF:
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader
Recommended:
Chief, Hydro Survey Section
Approved:
Chief, Construction Branch

Surveyed By:
Plotted By:
Checked By: PDT
Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

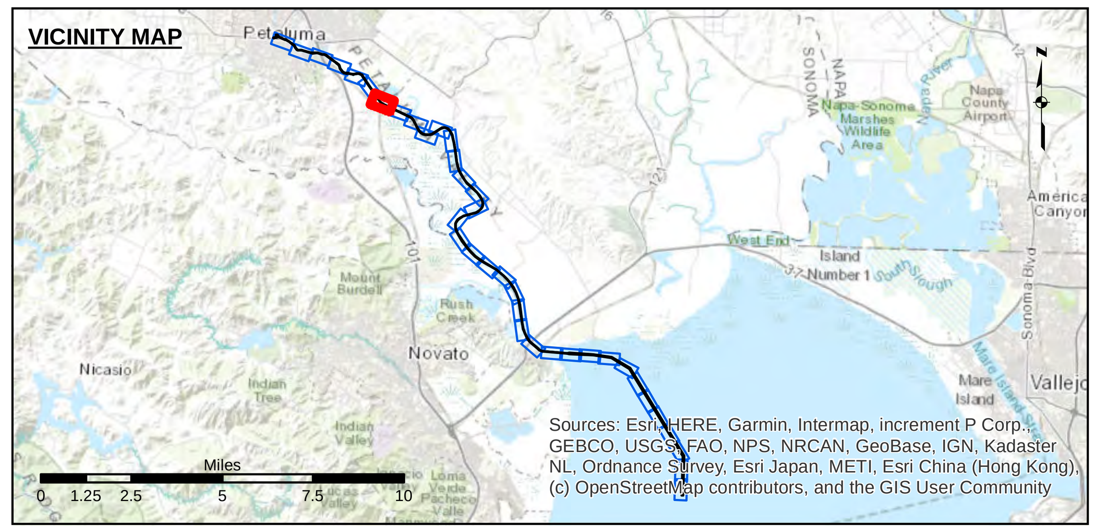
NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

VICINITY MAP



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
-8
-7
-6
-5
-4

NOTES:

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.

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
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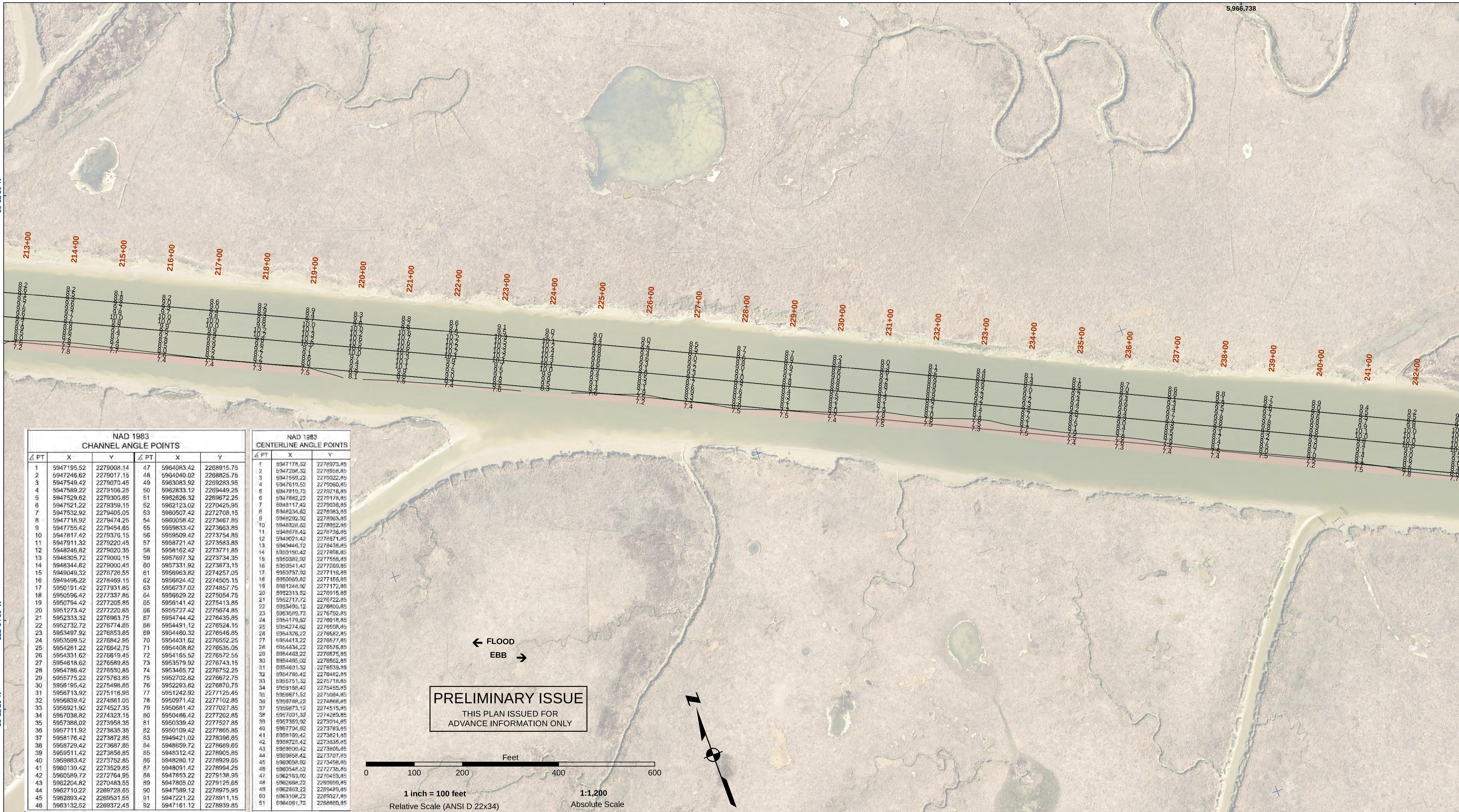
US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983 CHANNEL ANGLE POINTS

PT	X	Y	PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS

PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
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43	5959509.42	2273805.85
44	5959858.42	2273707.85
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46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

PRELIMINARY ISSUE
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1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

VICINITY MAP

Legend		Contours
Federal Navigation Channel	Beacon, General	-8
Shoaling Area	Obstruction Point	-7
Placement Area	Navigation Buoy	-6
Anchorage Area	Navigation Buoy	-5
Wreck Area	Shoalest Sounding*	-4
Submerged Wreck		
Angle Point		

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NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

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US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

Surveyed By:	Chart Date: Mar 19, 2024
Plotted By:	Designed by:
Checked By: PDT	Drawn by: PDT

SONOMA COUNTY — CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

PT	X	Y	PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962826.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5948171.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276550.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947181.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

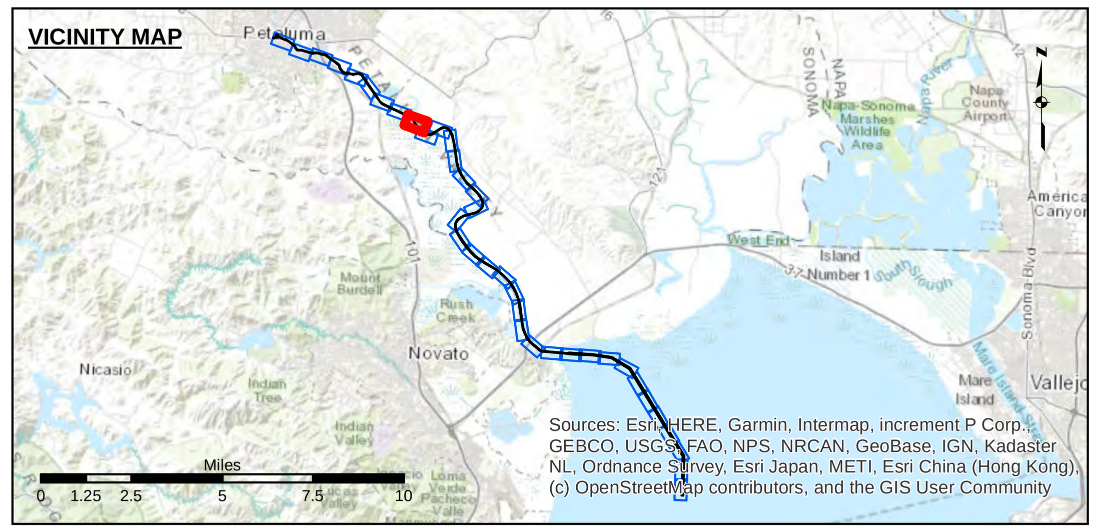
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600

1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

VICINITY MAP



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

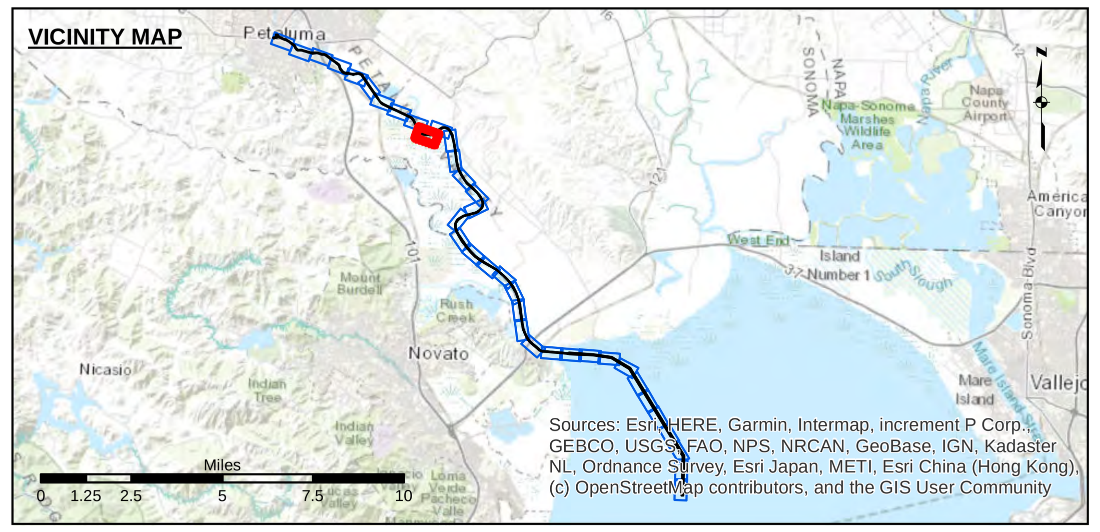
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983 CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246,62	2279017.15	48	5964040.02	2268825.75
3	5947549,42	2279070.45	49	5963083,92	2269283,95
4	5947589,22	2279106.25	50	5962833.12	2269449.25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058.42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817.42	2279376,15	56	5959509.42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737,02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333,32	2276963.75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524.15
23	5953497,92	2276853,65	69	5954460.32	2276546.85
24	5953599,52	2276842,95	70	5954431,62	2276552.25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572.55
27	5954618,62	2276589,85	73	5953579,92	2276743.15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242.92	2277125.45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883.42	2273752,85	86	5948280.12	2278929,65
41	5960139.42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947819,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278436,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951248,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954376,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85



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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

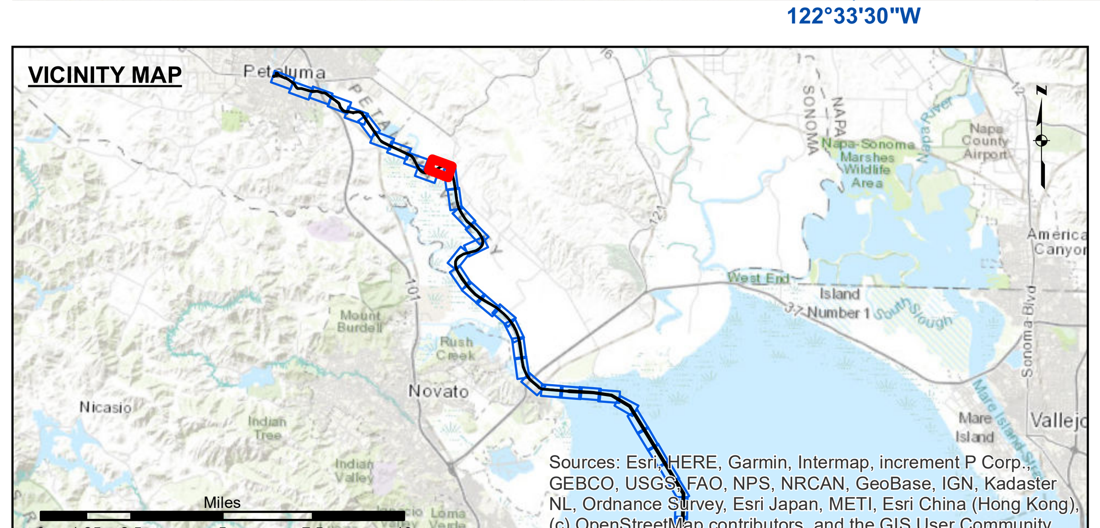
US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953495.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268869.85



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
-8
-7
-6
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-4

NOTES:

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SURVEYED BY THE CORPS OF ENGINEERS.

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NOAA TIDE STATION:
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PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

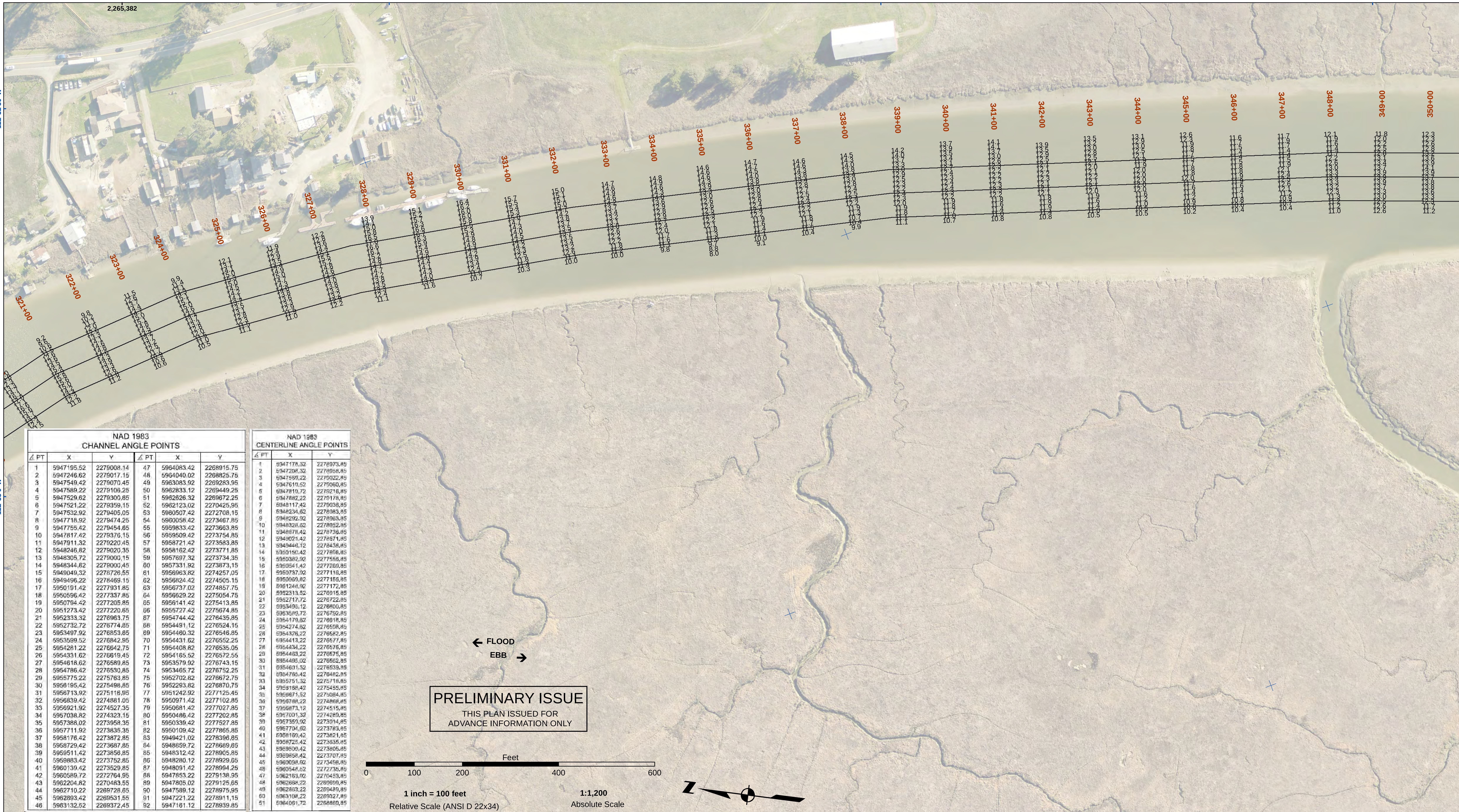
Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader
Recommended:
Chief, Hydro Survey Section
Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number
11 of 37



NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.72	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

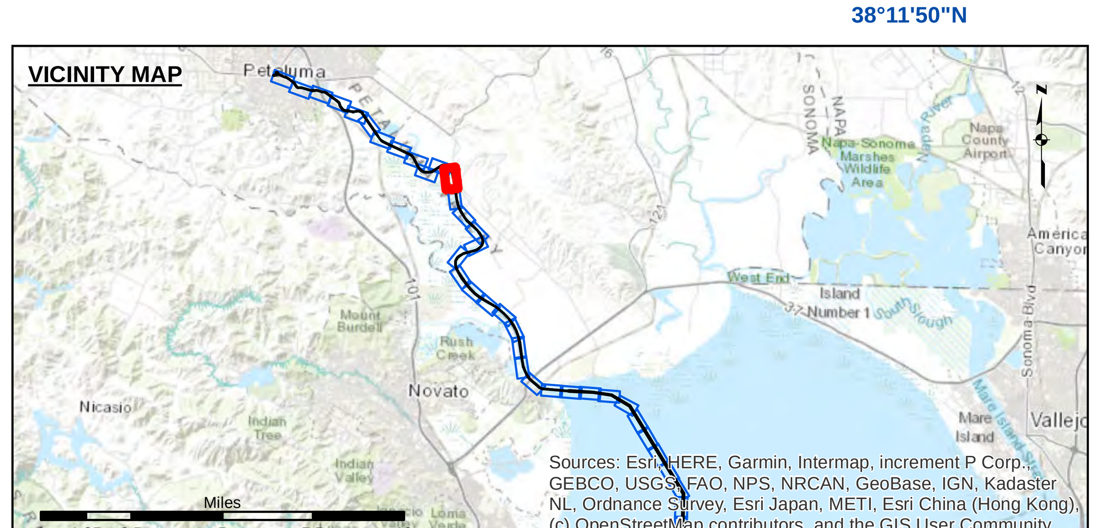
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600

1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

VICINITY MAP



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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

Surveyed By:	Chart Date: Mar 19, 2024
Plotted By:	Designed by:
Checked By: PDT	Drawn by: PDT

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

PRELIMINARY ISSUE
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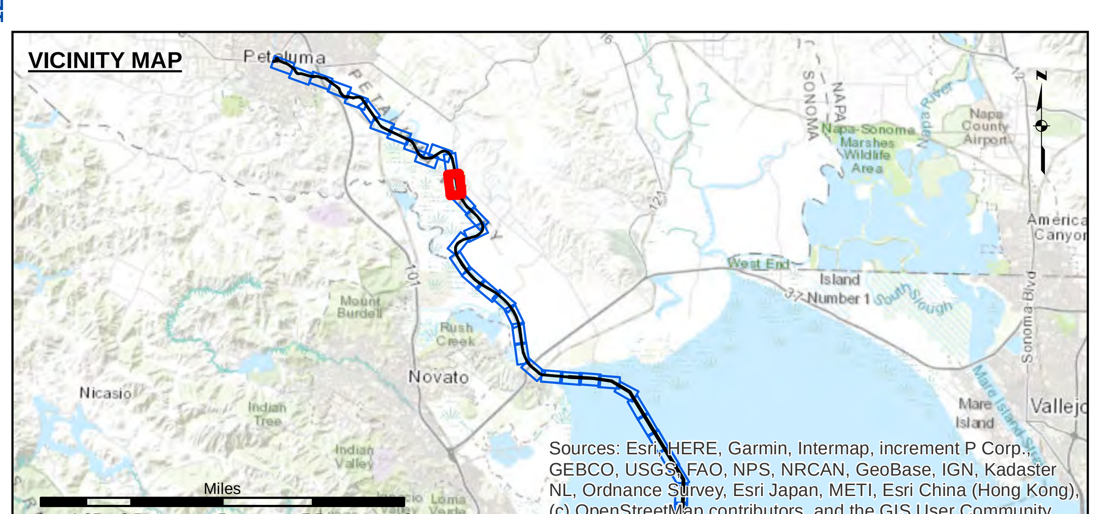

Federal Navigation Channel
Shoaling Area
Placement Area
Anchorage Area
Wreck Area
Submerged Wreck
Angle Point
Beacon, General
Obstruction Point
Navigation Buoy
Navigation Buoy
Shoalest Sounding*

Contours
-8
-7
-6
-5
-4

NOTES:

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

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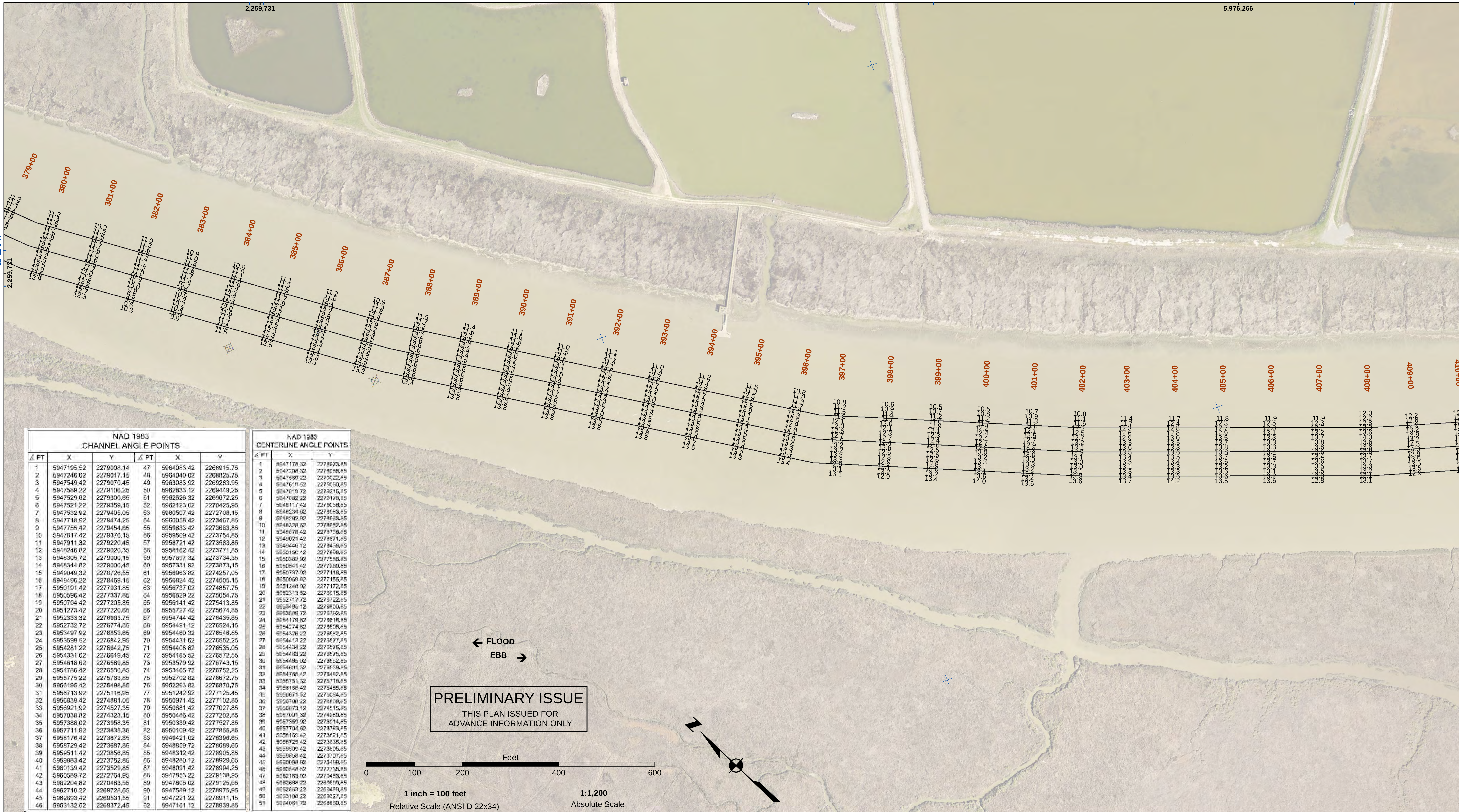
US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983
CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
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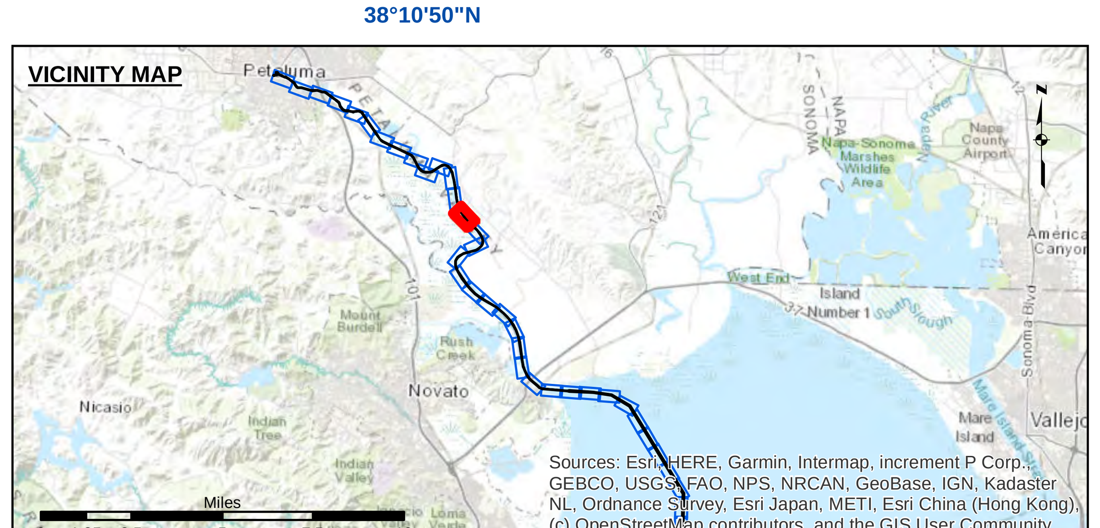
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.72	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85



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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024	Surveyed By:
Designed by:	Plotted By:
Drawn by: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962826.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

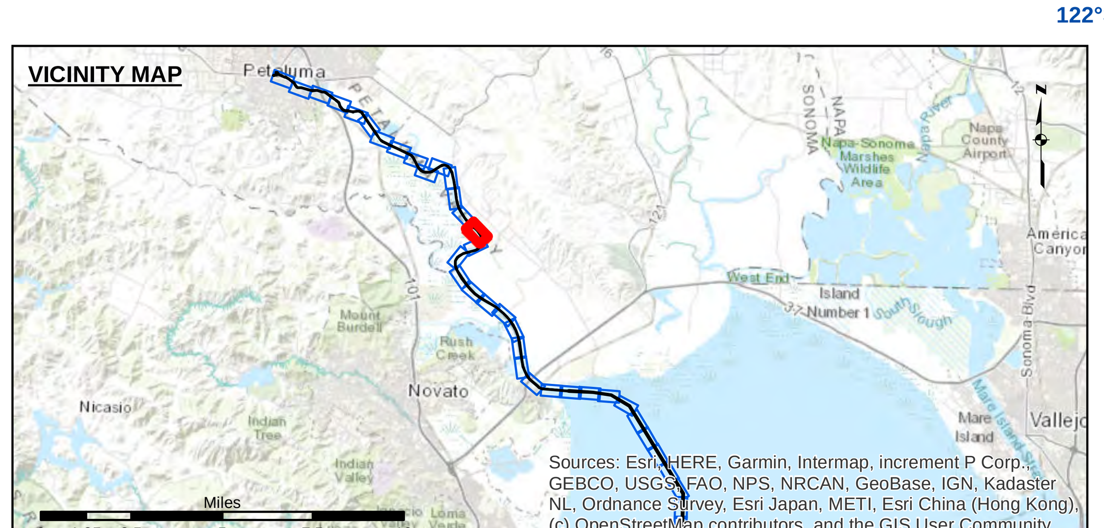
NAD 1983
CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

VICINITY MAP



Legend		Contours
Federal Navigation Channel	Beacon, General	-8
Shoaling Area	Obstruction Point	-7
Placement Area	Navigation Buoy	-6
Anchorage Area	Navigation Buoy	-5
Wreck Area	Shoalest Sounding*	-4
Submerged Wreck		
Angle Point		

NOTES:

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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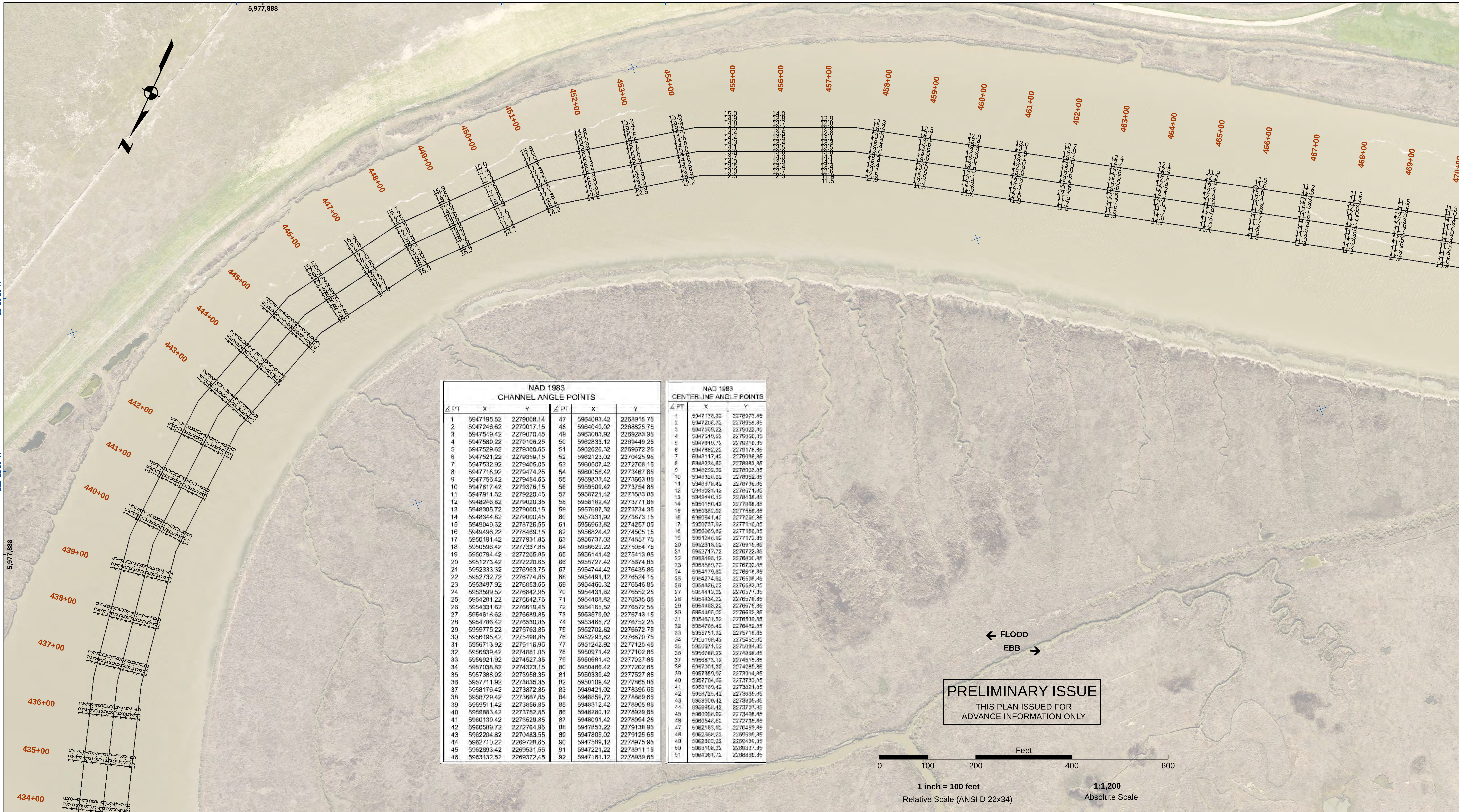
US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



PRELIMINARY ISSUE
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NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
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46	5960548.52	2272735.85
47	5962163.92	2270453.85
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49	5962863.22	2269489.85
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US Army Corps of Engineers
San Francisco District
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TIMOTHY W. SHEBESTA
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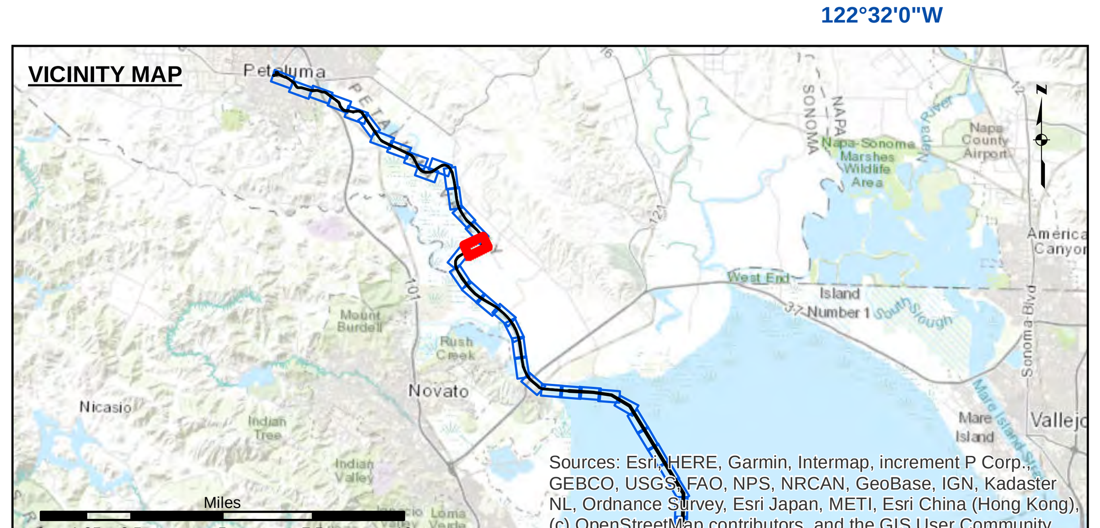
Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



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
-8
-7
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-4

NOTES:

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PRIMARY PROJECT CONTROL POINT
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NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947611.52	2279060.85
5	5947610.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.82	2278983.85
9	5948292.92	2278963.85
10	5948328.82	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277868.85
15	5950382.92	2277558.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950969.82	2277159.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953480.12	2276800.85
23	5953580.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276578.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954795.42	2276482.85
33	5955751.32	2275718.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.82	2273783.85
41	5958180.42	2273821.85
42	5958725.42	2273635.85
43	5959506.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273458.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962684.22	2269699.85
49	5962863.32	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

2,253,709

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024	Surveyed By:
Designed by:	Plotted By:
Drawn by: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

VICINITY MAP

- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

NAD 1983 CHANNEL ANGLE POINTS					
∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953569.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

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
-8
-7
-6
-5
-4

NOTES:

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SURVEYED BY THE CORPS OF ENGINEERS.

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983 CHANNEL ANGLE POINTS					
∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915.75
2	5947246,62	2279017,15	48	5964040,02	2268825,75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469,15	62	5956824,42	2274505,15
17	5950191,42	2277931,85	63	5956737,02	2274857,75
18	5950596,42	2277337,85	64	5956629,22	2275054,75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273,42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

NAD 1983 CENTERLINE ANGLE POINTS		
∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947810,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278436,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951246,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954326,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,72	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

PRELIMINARY ISSUE
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Feet
0 100 200 400 600

1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

VICINITY MAP

- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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SURVEYED BY THE CORPS OF ENGINEERS.

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

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US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
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PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

Surveyed By:
Chart Date: Mar 19, 2024
Plotted By:
Designed by:
Checked By: PDT
Drawn by: PDT

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

PRELIMINARY ISSUE

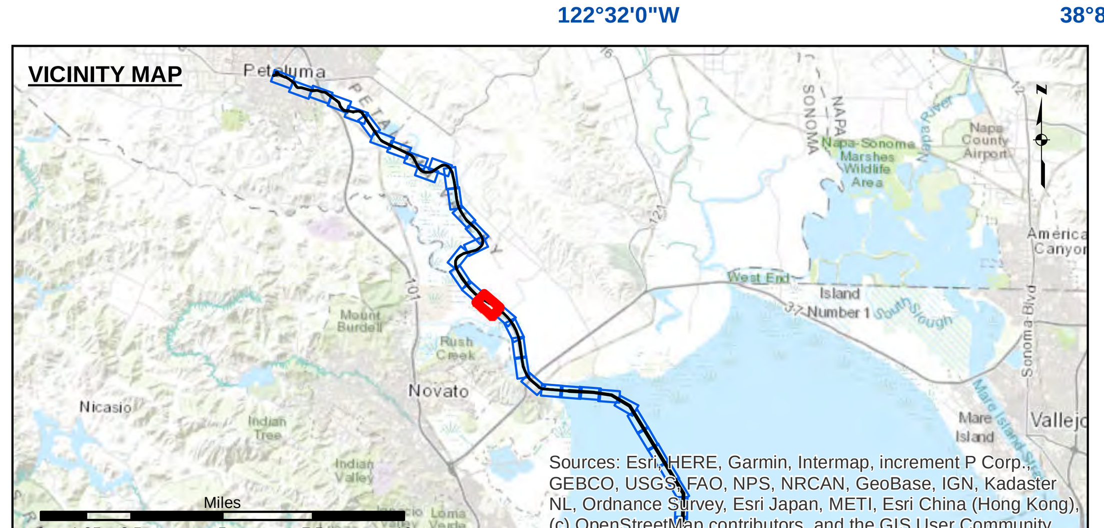
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

NAD 1983 CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.02	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85



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

-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Surveyed By:	Chart Date: Mar 19, 2024	
Plotted By:	Designed by:	
Checked By: PDT	Drawn by: PDT	

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader

Recommended: Chief, Hydro Survey Section

Approved: Chief, Construction Branch

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER

CONDITION SURVEY

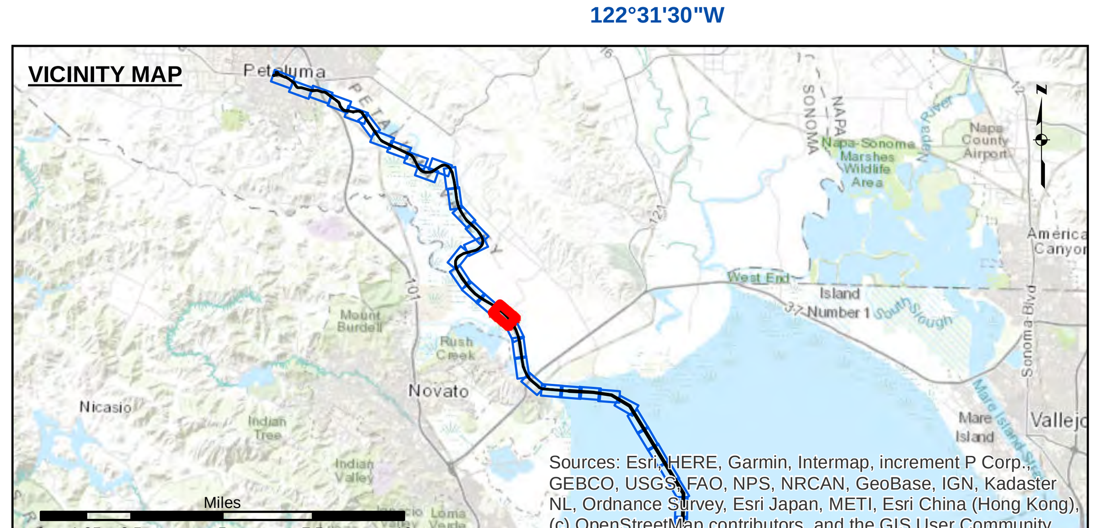
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.62	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85



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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY
CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

PRELIMINARY ISSUE

THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.02	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.62	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

Legend		Legend		Contours	
	Federal Navigation Channel		Beacon, General		-8
	Shoaling Area		Obstruction Point		-7
	Placement Area		Navigation Buoy		-6
	Anchorage Area		Navigation Buoy		-5
	Wreck Area		Shoalest Sounding*		-4
	Submerged Wreck				
	Angle Point				

NOTES:

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

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PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915,75
2	5947246,62	2279017,15	48	5964040,02	2268825,75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469,15	62	5956824,42	2274505,15
17	5950191,42	2277931,85	63	5956737,02	2274857,75
18	5950596,42	2277337,85	64	5956629,22	2275054,75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273,42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947819,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278571,85
13	5949446,12	2278438,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951248,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954326,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954785,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,72	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

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
-8
-7
-6
-5
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NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273858.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.85	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

VICINITY MAP

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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
-8
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NOTES:

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.

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SURVEY CONTROL:
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PRIMARY PROJECT CONTROL POINT
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US Army Corps of Engineers
San Francisco District
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PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
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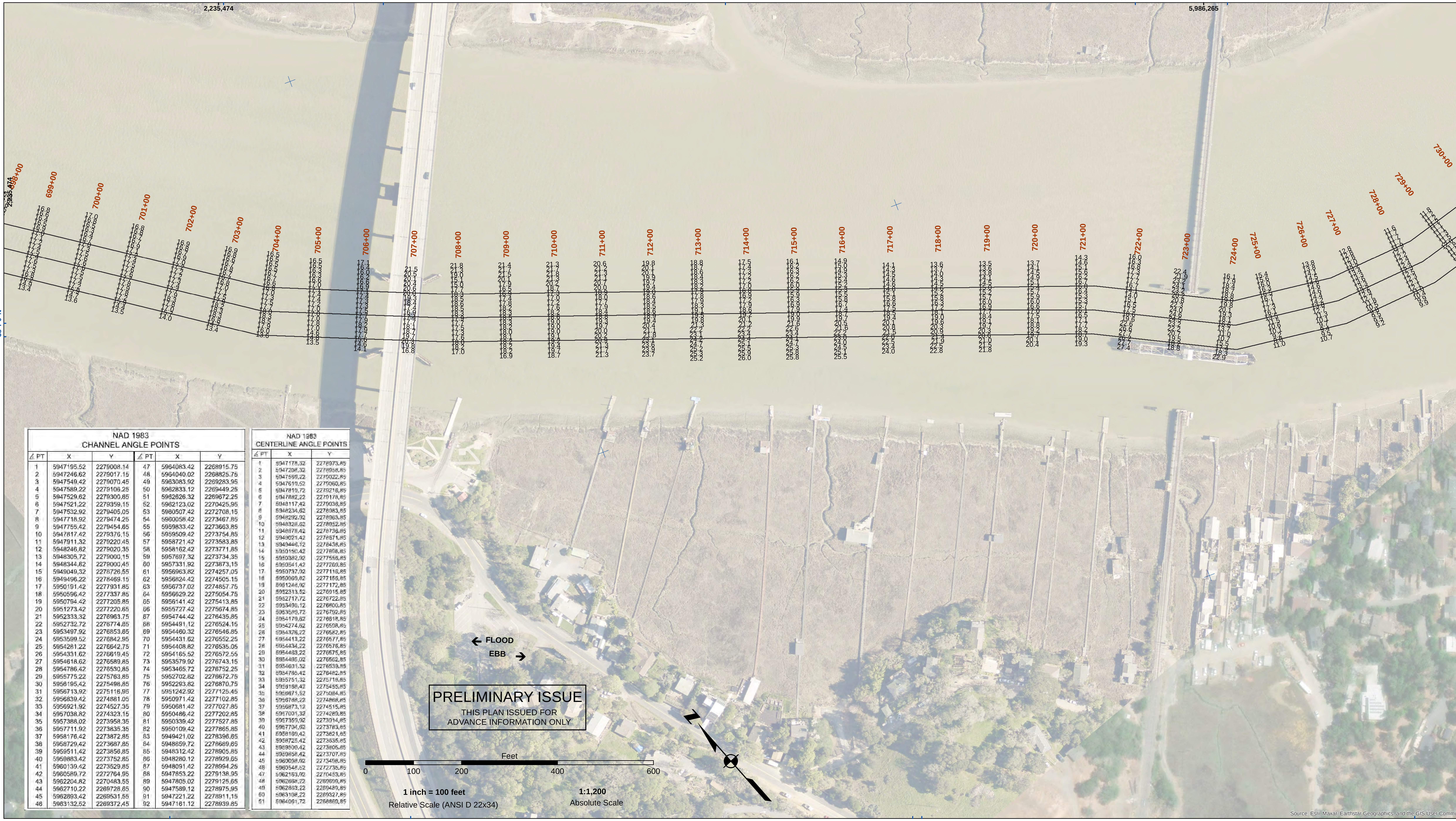
Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

Surveyed By:
Chart Date: Mar 19, 2024
Plotted By:
Designed by:
Checked By: PDT
Drawn by: PDT

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268869.85

VICINITY MAP

- 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

- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E. DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915,75
2	5947246,62	2279017,15	48	5964040,02	2268825,75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469,15	62	5956824,42	2274505,15
17	5950191,42	2277931,85	63	5956737,02	2274857,75
18	5950596,42	2277337,85	64	5956629,22	2275054,75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273,42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947610,52	2279060,85
5	5947810,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278436,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951246,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953569,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954376,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Legend		Legend		Contours	
	Federal Navigation Channel		Beacon, General		-8
	Shoaling Area		Obstruction Point		-7
	Placement Area		Navigation Buoy		-6
	Anchorage Area		Navigation Buoy		-5
	Wreck Area		Shoalest Sounding*		-4
	Submerged Wreck				
	Angle Point				

NOTES:

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.

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number

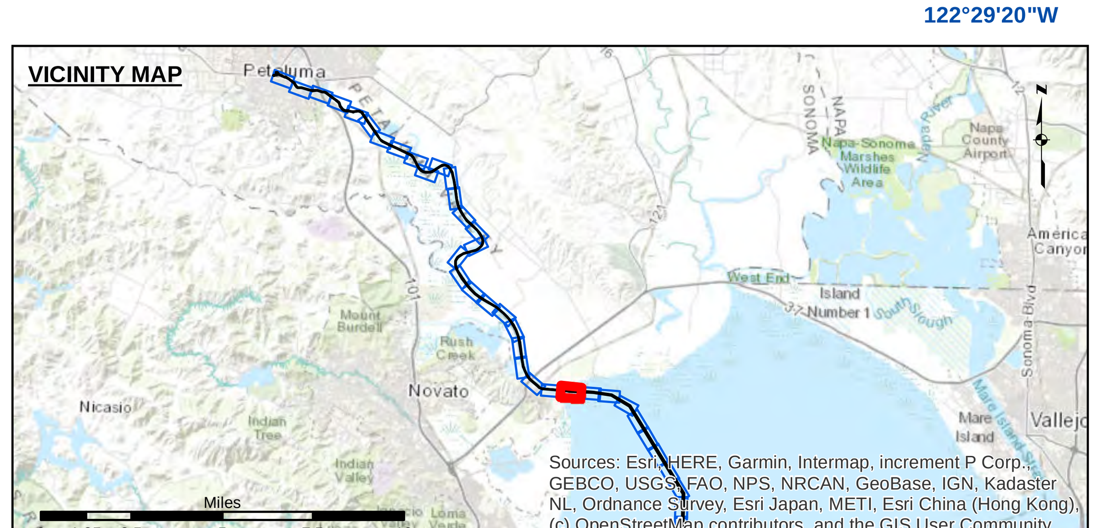
NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008.14	47	5964083.42	2268915.75
2	5947246,62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083,92	2269283,95
4	5947589,22	2279106.25	50	5962833,12	2269449.25
5	5947529,62	2279300,65	51	5962626.32	2269672.25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718.92	2279474.25	54	5960058.42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817.42	2279376,15	56	5959509.42	2273754,85
11	5947911,32	2279220.45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469.15	62	5956824.42	2274505.15
17	5950191,42	2277931.85	63	5956737,02	2274857.75
18	5950596,42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205,85	65	5956141,42	2275413,85
20	5951273.42	2277220.65	66	5955727.42	2275674,85
21	5952333,32	2276963.75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460.32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535.05
26	5954331,62	2276619,45	72	5954165,52	2276572.55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971,42	2277102,85
33	5956921,92	2274527.35	79	5950681,42	2277027.85
34	5957038,82	2274323.15	80	5950486,42	2277202,85
35	5957388,02	2273958.35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280.12	2278929,65
41	5960139.42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947610,52	2279060,85
5	5947810,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278436,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951248,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954376,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,02	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

VICINITY MAP



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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
-8
-7
-6
-5
-4

NOTES:

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
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PID: BBDJ93

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US Army Corps of Engineers
San Francisco District
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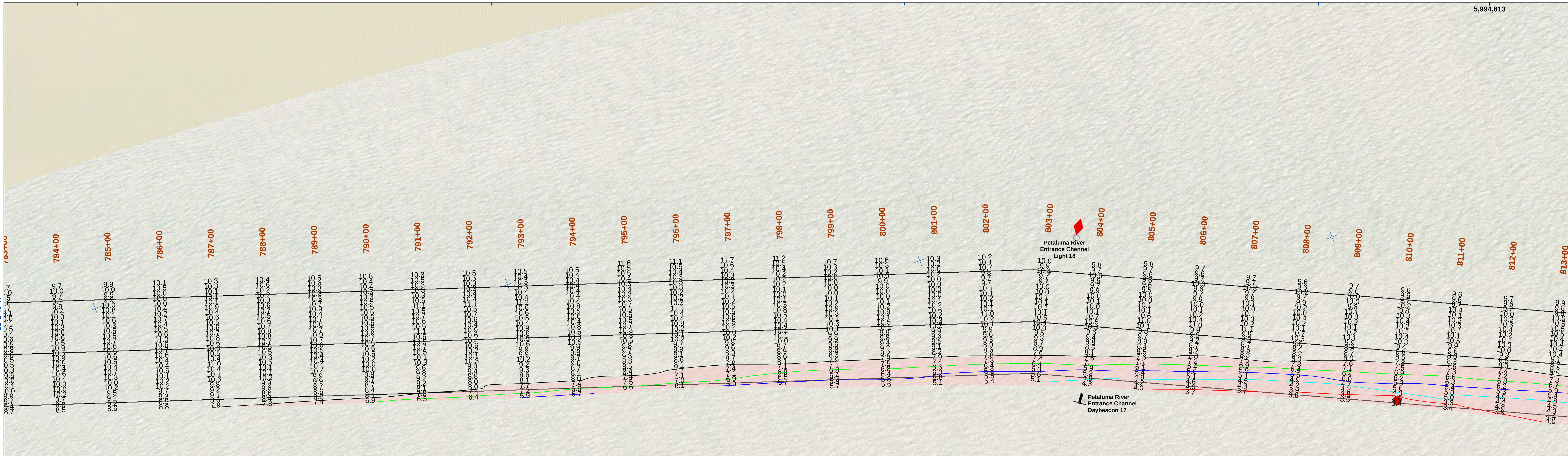
PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader
Recommended:
Chief, Hydro Survey Section
Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983 CHANNEL ANGLE POINTS					
∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

← FLOOD
EBB →

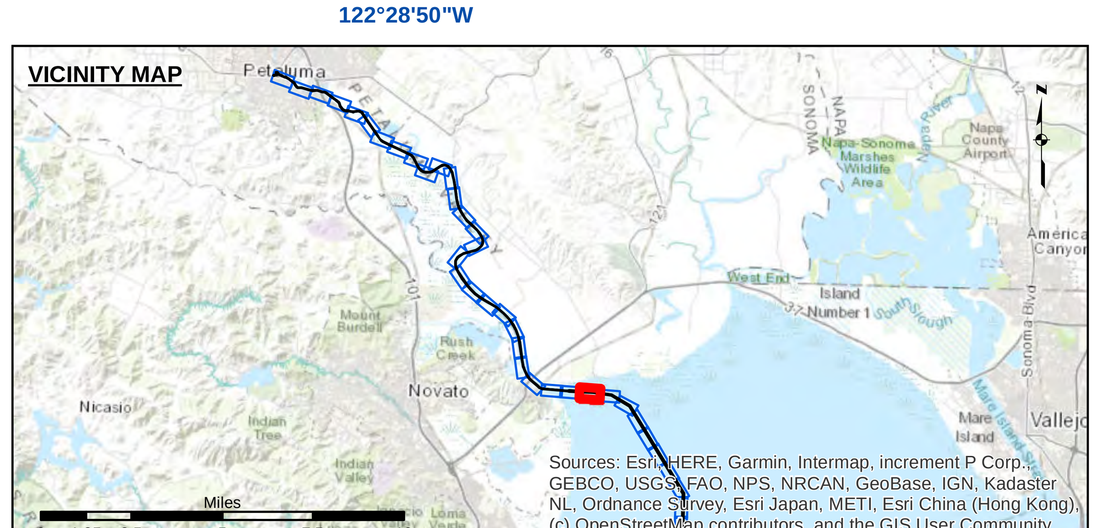
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

N

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
5,994,613
38°6'30"N
122°28'50"W 122°28'40"W 122°28'30"W 122°28'20"W

VICINITY MAP



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
-8
-7
-6
-5
-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

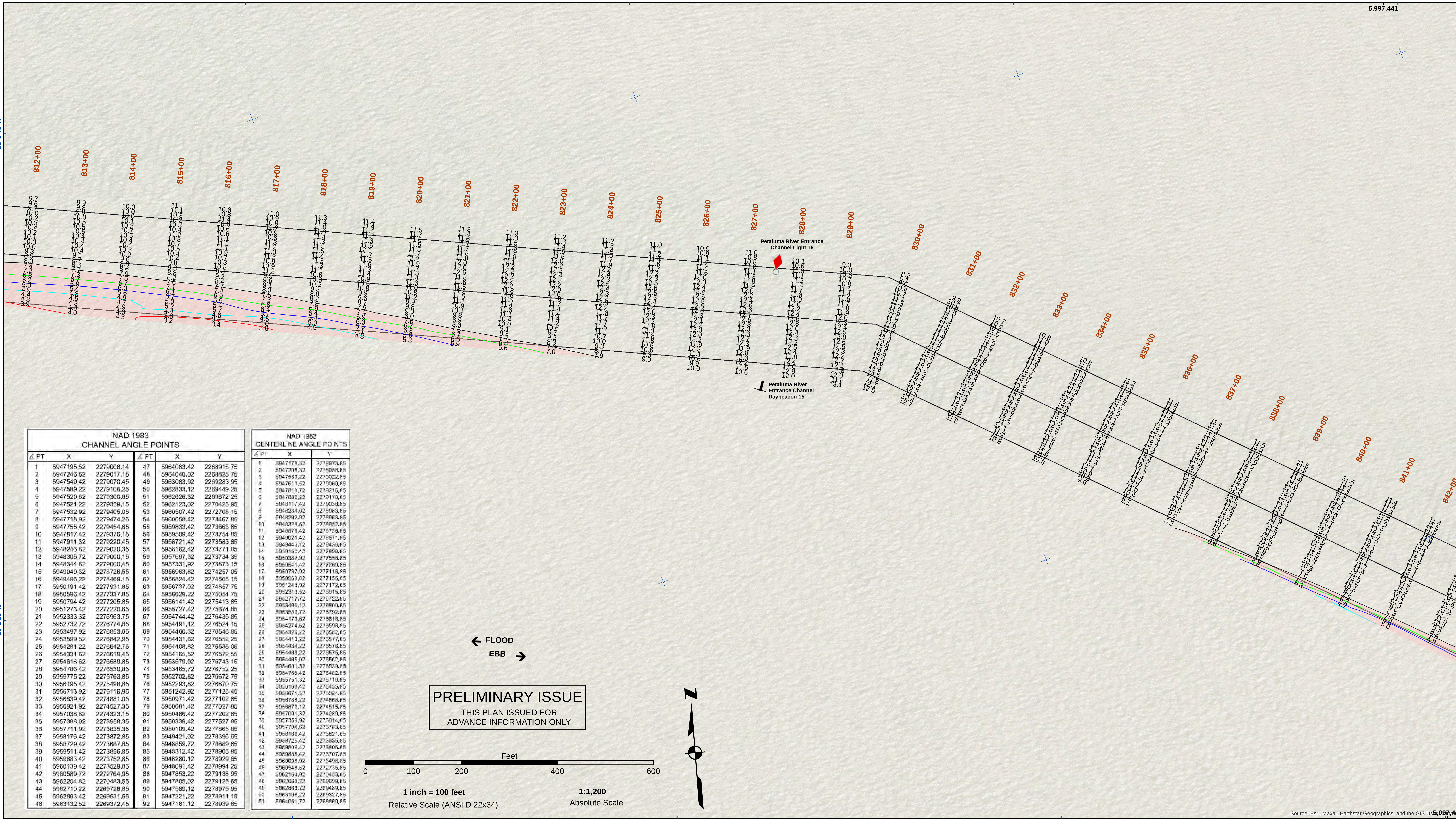
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983 CHANNEL ANGLE POINTS					
∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915.75
2	5947246,62	2279017,15	48	5964040,02	2268825.75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469.15	62	5956824.42	2274505.15
17	5950191,42	2277931.85	63	5956737,02	2274857.75
18	5950596,42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205,85	65	5956141,42	2275413,85
20	5951273.42	2277220.65	66	5955727.42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125.45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280.12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947610,52	2279060,85
5	5947810,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278671,85
13	5949446,12	2278438,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951248,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954376,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,72	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

PRELIMINARY ISSUE
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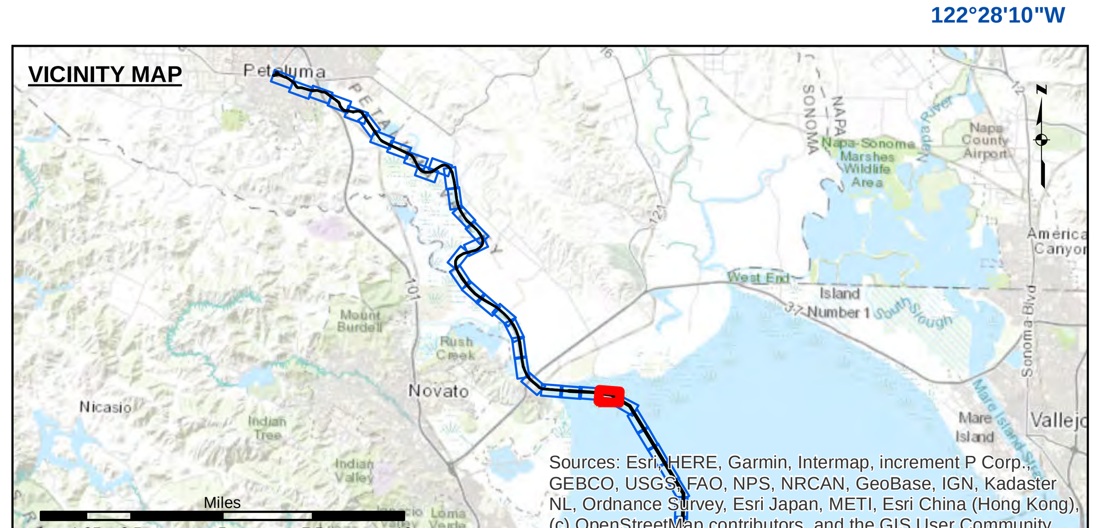

Legend		Contours	
Federal Navigation Channel	Beacon, General	-8	
Shoaling Area	Obstruction Point	-7	
Placement Area	Navigation Buoy	-6	
Anchorage Area	Navigation Buoy	-5	
Wreck Area	Shoalest Sounding*	-4	
Submerged Wreck			
Angle Point			

NOTES:

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.

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

PRELIMINARY ISSUE

THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

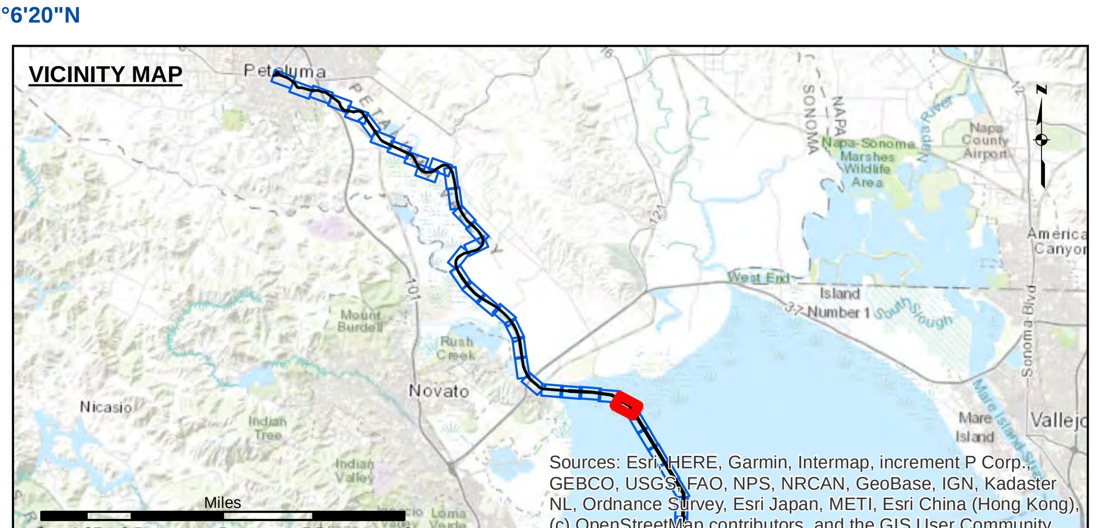
NAD 1983 CHANNEL ANGLE POINTS

PT	X	Y	PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS

PT	X	Y
1	5947178.32	2278973.85
2	5947206.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948978.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277856.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.52	2277116.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953499.12	2276800.85
23	5953589.72	2276792.85
24	5954179.82	2276618.85
25	5954274.62	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275716.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959506.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273458.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962684.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268869.85

VICINITY MAP



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

- 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

- -8
- -7
- -6
- -5
- -4

NOTES:

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.

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
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US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF TIMOTHY W. SHEBESTA, LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Mar 19, 2024
Submitted: Hydro Survey Team Leader	Plotted By:	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983 CHANNEL ANGLE POINTS

PT	X	Y	PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.62	2276672.75
30	5956195.42	2275496.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948659.72	2278689.85
39	5959511.42	2273658.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS

PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947590.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277856.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953480.12	2276800.85
23	5953509.72	2276792.85
24	5954179.82	2276618.85
25	5954274.62	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954795.42	2276482.85
33	5955751.32	2275716.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.82	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959506.42	2273605.85
44	5959858.42	2273707.85
45	5960058.92	2273456.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962686.22	2269699.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

FLOOD
EBB

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600

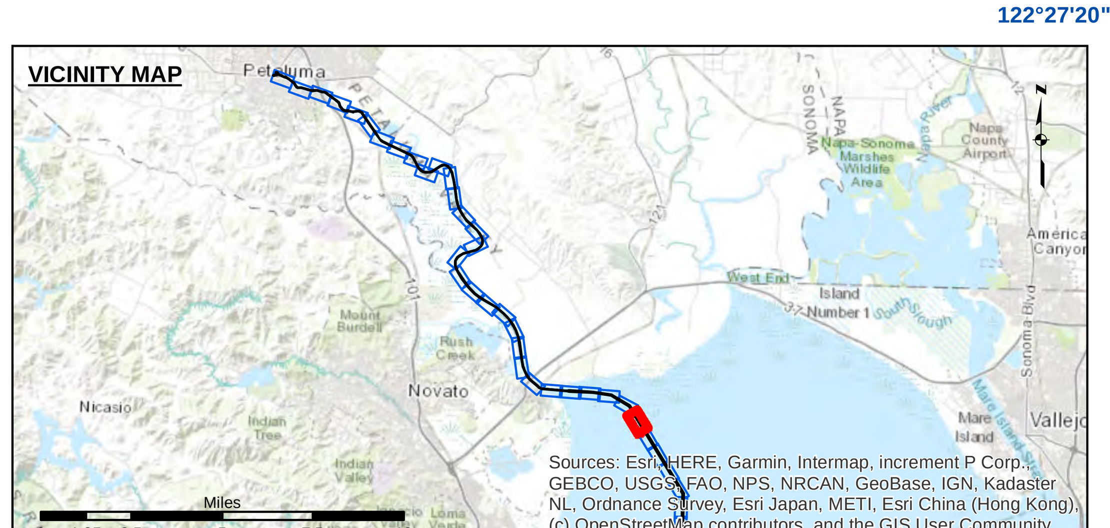
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

38°6'10"N 122°27'10"W 122°27'20"W 38°6'0"N 38°5'50"N 122°27'10"W 122°27'0"W 122°26'50"W

VICINITY MAP



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Legend		Legend		Contours	
	Federal Navigation Channel		Beacon, General		-8
	Shoaling Area		Obstruction Point		-7
	Placement Area		Navigation Buoy		-6
	Anchorage Area		Navigation Buoy		-5
	Wreck Area		Shoalest Sounding*		-4
	Submerged Wreck				
	Angle Point				

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

Surveyed By:	Chart Date: Mar 19, 2024
Plotted By:	Designed by:
Checked By: PDT	Drawn by: PDT

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195,52	2279008,14	47	5964083,42	2268915,75
2	5947246,62	2279017,15	48	5964040,02	2268825,75
3	5947549,42	2279070,45	49	5963083,92	2269283,95
4	5947589,22	2279106,25	50	5962833,12	2269449,25
5	5947529,62	2279300,65	51	5962626,32	2269672,25
6	5947521,22	2279359,15	52	5962123,02	2270425,95
7	5947532,92	2279405,05	53	5960507,42	2272708,15
8	5947718,92	2279474,25	54	5960058,42	2273467,85
9	5947755,42	2279454,65	55	5959833,42	2273663,85
10	5947817,42	2279376,15	56	5959509,42	2273754,85
11	5947911,32	2279220,45	57	5958721,42	2273583,85
12	5948246,82	2279020,35	58	5958162,42	2273771,85
13	5948305,72	2279000,15	59	5957697,32	2273734,35
14	5948344,82	2279000,45	60	5957331,92	2273873,15
15	5949049,32	2278726,55	61	5956963,82	2274257,05
16	5949496,22	2278469,15	62	5956824,42	2274505,15
17	5950191,42	2277931,85	63	5956737,02	2274857,75
18	5950596,42	2277337,85	64	5956629,22	2275054,75
19	5950794,42	2277205,85	65	5956141,42	2275413,85
20	5951273,42	2277220,65	66	5955727,42	2275674,85
21	5952333,32	2276963,75	67	5954744,42	2276435,85
22	5952732,72	2276774,85	68	5954491,12	2276524,15
23	5953497,92	2276853,65	69	5954460,32	2276546,85
24	5953599,52	2276842,95	70	5954431,62	2276552,25
25	5954281,22	2276642,75	71	5954408,82	2276535,05
26	5954331,62	2276619,45	72	5954165,52	2276572,55
27	5954618,62	2276589,85	73	5953579,92	2276743,15
28	5954786,42	2276530,85	74	5953465,72	2276752,25
29	5955775,22	2275763,85	75	5952702,82	2276672,75
30	5956195,42	2275498,85	76	5952293,82	2276870,75
31	5956713,92	2275116,95	77	5951242,92	2277125,45
32	5956839,42	2274881,05	78	5950971,42	2277102,85
33	5956921,92	2274527,35	79	5950681,42	2277027,85
34	5957038,82	2274323,15	80	5950486,42	2277202,85
35	5957388,02	2273958,35	81	5950339,42	2277527,85
36	5957711,92	2273835,35	82	5950109,42	2277865,85
37	5958176,42	2273872,85	83	5949421,02	2278396,65
38	5958729,42	2273687,85	84	5948859,72	2278689,65
39	5959511,42	2273856,85	85	5948312,42	2278905,85
40	5959883,42	2273752,85	86	5948280,12	2278929,65
41	5960139,42	2273529,85	87	5948091,42	2278994,25
42	5960589,72	2272764,95	88	5947853,22	2279138,95
43	5962204,82	2270483,55	89	5947805,02	2279125,65
44	5962710,22	2269728,65	90	5947589,12	2278975,95
45	5962893,42	2269531,55	91	5947221,22	2278911,15
46	5963132,52	2269372,45	92	5947161,12	2278939,85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178,32	2278973,85
2	5947208,32	2278958,85
3	5947569,22	2279022,85
4	5947619,52	2279060,85
5	5947819,72	2279216,85
6	5947882,22	2279178,85
7	5948117,42	2279036,85
8	5948234,62	2278983,85
9	5948292,92	2278963,85
10	5948328,62	2278952,85
11	5948878,42	2278736,85
12	5949021,42	2278571,85
13	5949446,12	2278438,85
14	5950150,42	2277898,85
15	5950382,92	2277556,85
16	5950541,42	2277269,85
17	5950737,92	2277116,85
18	5950969,82	2277156,85
19	5951246,92	2277172,85
20	5952313,52	2276915,85
21	5952717,72	2276722,85
22	5953496,12	2276800,85
23	5953589,72	2276792,85
24	5954179,62	2276618,85
25	5954274,62	2276598,85
26	5954326,22	2276582,85
27	5954413,22	2276577,85
28	5954434,22	2276576,85
29	5954463,22	2276575,85
30	5954495,02	2276562,85
31	5954601,52	2276539,85
32	5954765,42	2276482,85
33	5955751,32	2275718,85
34	5956168,42	2275455,85
35	5956671,52	2275084,85
36	5956788,22	2274868,85
37	5956873,12	2274515,85
38	5957001,32	2274289,85
39	5957359,92	2273914,85
40	5957704,62	2273783,85
41	5958169,42	2273821,85
42	5958725,42	2273635,85
43	5959509,42	2273805,85
44	5959858,42	2273707,85
45	5960098,92	2273498,85
46	5960548,52	2272735,85
47	5962163,92	2270453,85
48	5962668,22	2269699,85
49	5962863,22	2269489,85
50	5963108,22	2269327,85
51	5964061,72	2268860,85

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
-8
-7
-6
-5
-4

NOTES:

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.

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

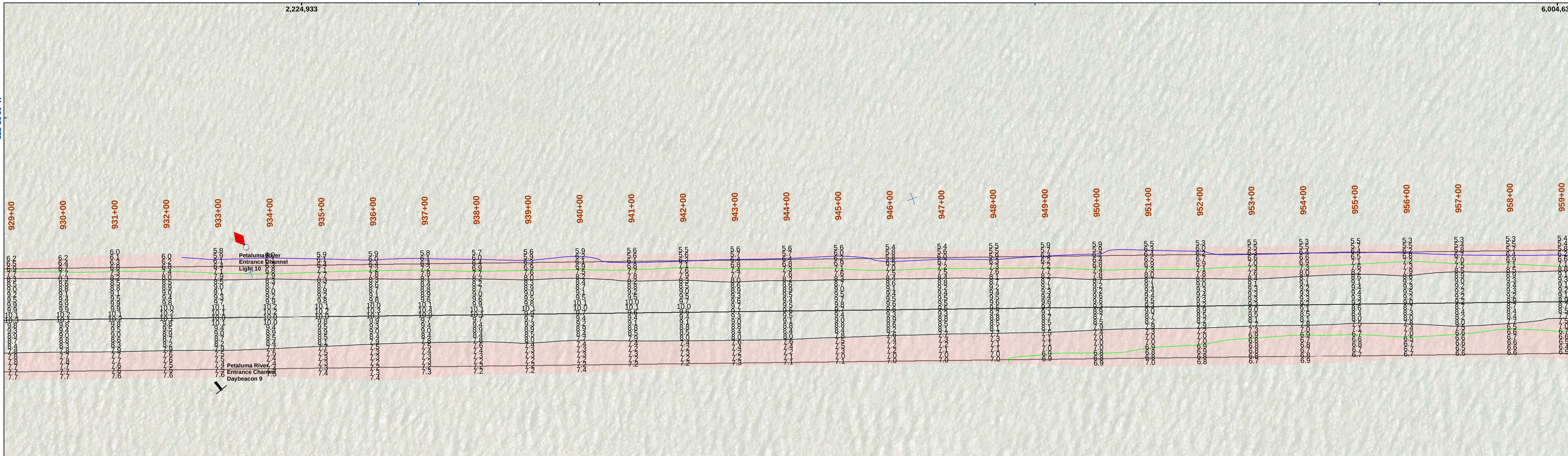
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

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

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983 CHANNEL ANGLE POINTS					
∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953569.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962668.72	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

FLOOD

EBB

PRELIMINARY ISSUE

THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet

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1 inch = 100 feet

Relative Scale (ANSI D 22x34)

1:1,200

Absolute Scale

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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

-8

-7

-6

-5

-4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
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PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

Chart Date: Mar 19, 2024

Designed by:

Drawn by: PDT

Surveyed By:

Plotted By:

Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader

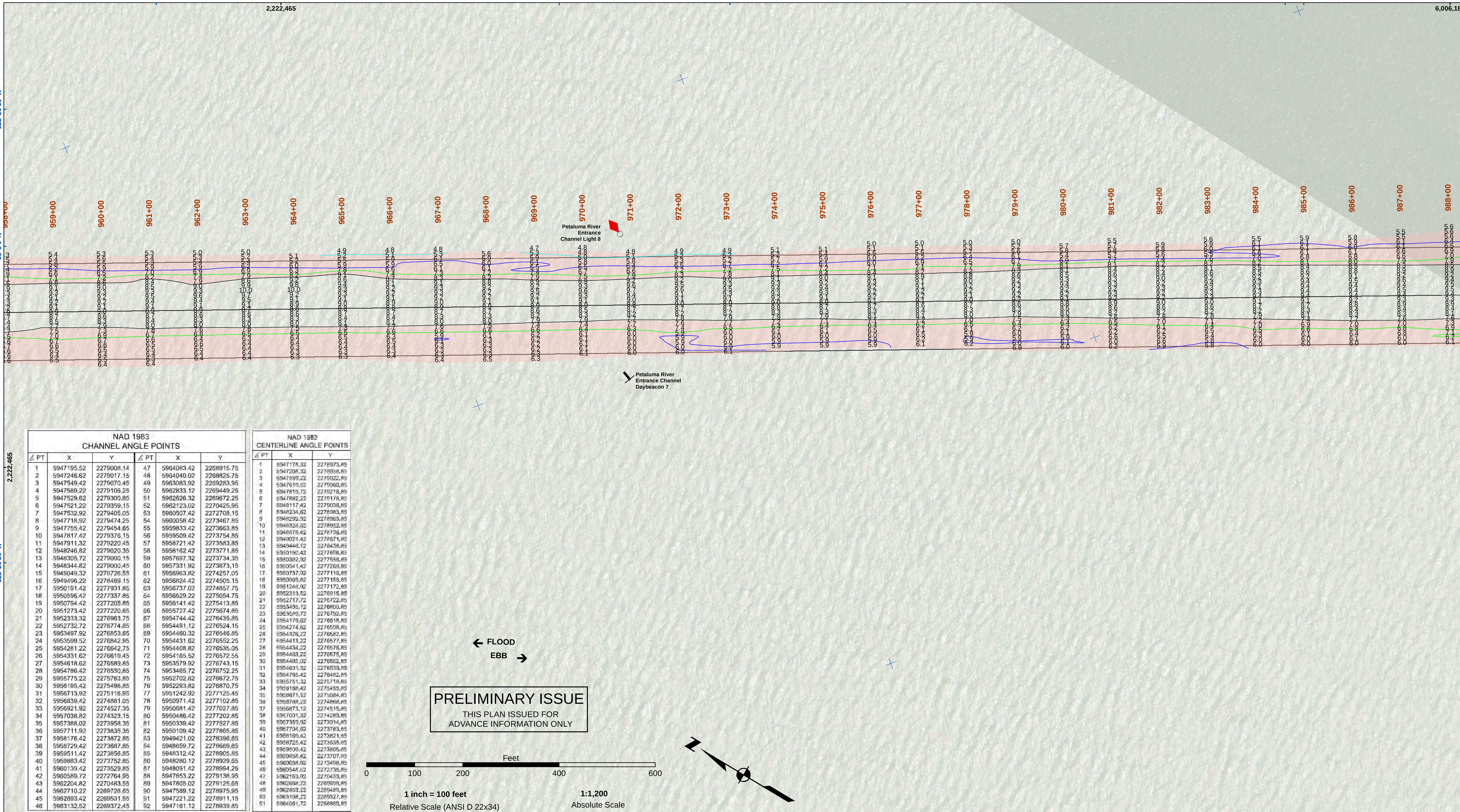
Recommended: Chief, Hydro Survey Section

Approved: Chief, Construction Branch

CALIFORNIA

SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



NAD 1983
CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958169.42	2273821.85
42	5958725.42	2273635.85
43	5959509.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273498.85
46	5960548.62	2272735.85
47	5962163.92	2270453.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
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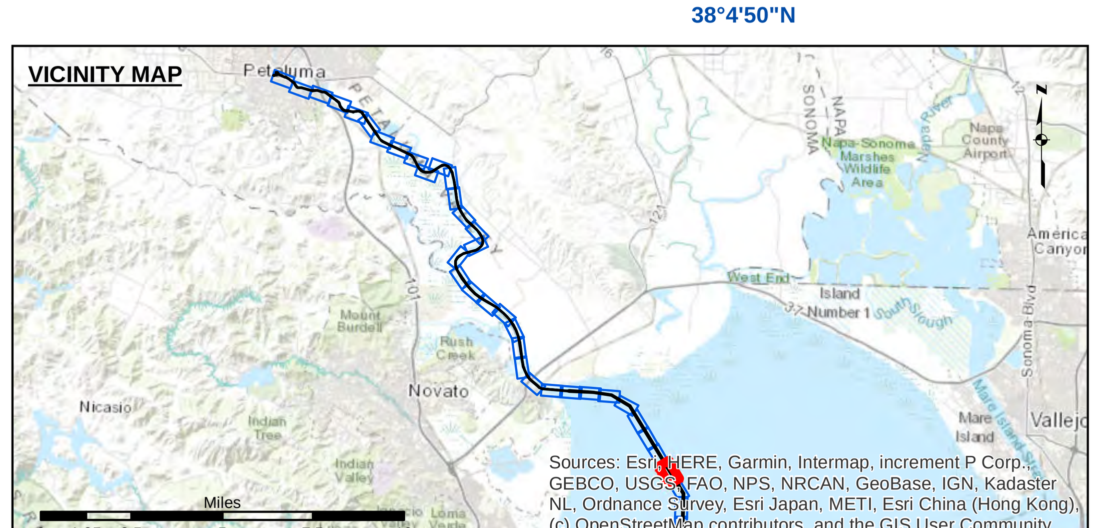
VICINITY MAP



- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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SURVEYED BY THE CORPS OF ENGINEERS.

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SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
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US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF TIMOTHY W. SHEBESTA LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Mar 19, 2024
Submitted: Hydro Survey Team Leader	Plotted By:	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983 CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.85	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953589.52	2276842.95	70	5954431.62	2276552.25
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26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.62	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277207.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.85
39	5959511.42	2273656.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270463.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

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∡ PT	X	Y
1	5947178.32	2278973.85
2	5947206.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279218.85
6	5947882.22	2277017.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277858.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953480.12	2276800.85
23	5953589.72	2276792.85
24	5954179.82	2276618.85
25	5954274.62	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954795.42	2276482.85
33	5955751.32	2275718.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273821.85
42	5958725.42	2273635.85
43	5959506.42	2273605.85
44	5959858.42	2273707.85
45	5960058.92	2273458.85
46	5960548.52	2272735.85
47	5962163.92	2270453.85
48	5962669.22	2269690.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268889.85

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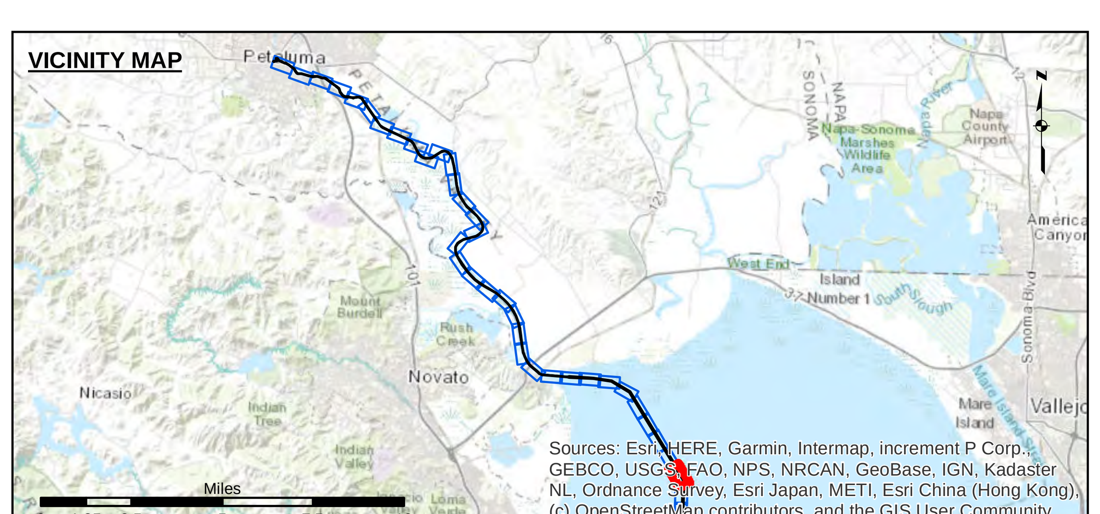
Feet
0 100 200 400 600
1 inch = 100 feet
Relative Scale (ANSI D 22x34)
1:1,200
Absolute Scale

VICINITY MAP



Legend				Contours	
	Federal Navigation Channel		Beacon, General		-8
	Shoaling Area		Obstruction Point		-7
	Placement Area		Navigation Buoy		-6
	Anchorage Area		Navigation Buoy		-5
	Wreck Area		Shoalest Sounding*		-4
	Submerged Wreck				
	Angle Point				

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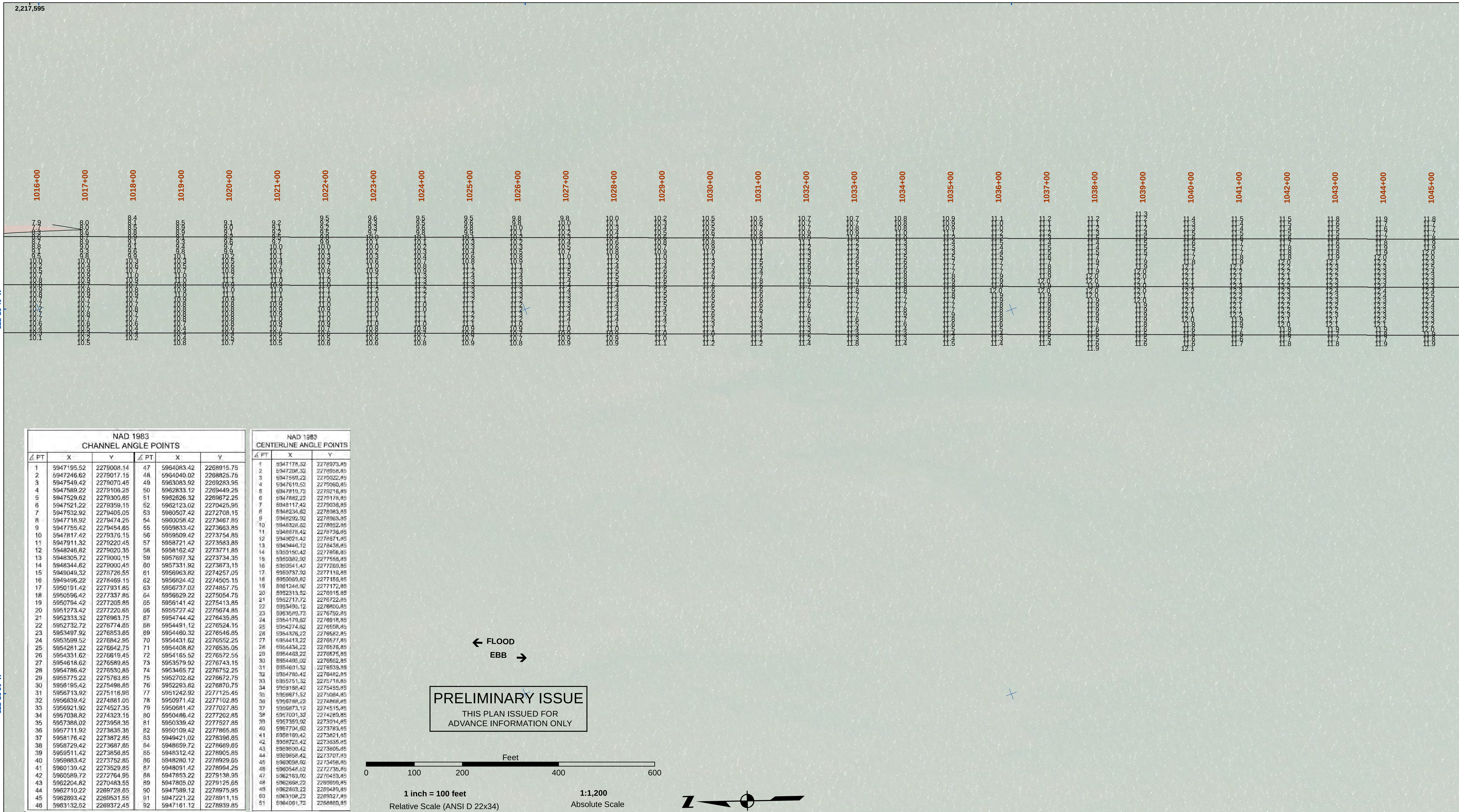
PREPARED UNDER THE DIRECTION OF TIMOTHY W. SHEBESTA LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Mar 19, 2024
Submitted: Hydro Survey Team Leader	Plotted By:	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024



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∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964063.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
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5	5947529.62	2279300.85	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2278672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948659.72	2278689.85
39	5959511.42	2273858.85	85	5948312.42	2278805.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270463.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948978.42	2278739.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277118.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953489.12	2276800.85
23	5953605.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276578.85
29	5954463.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954795.42	2276482.85
33	5955751.32	2275716.85
34	5956158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273821.85
42	5958725.42	2273635.85
43	5959506.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273458.85
46	5960548.52	2272735.85
47	5962163.92	2270433.85
48	5962668.22	2269699.85
49	5962863.22	2269499.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

2,217,595

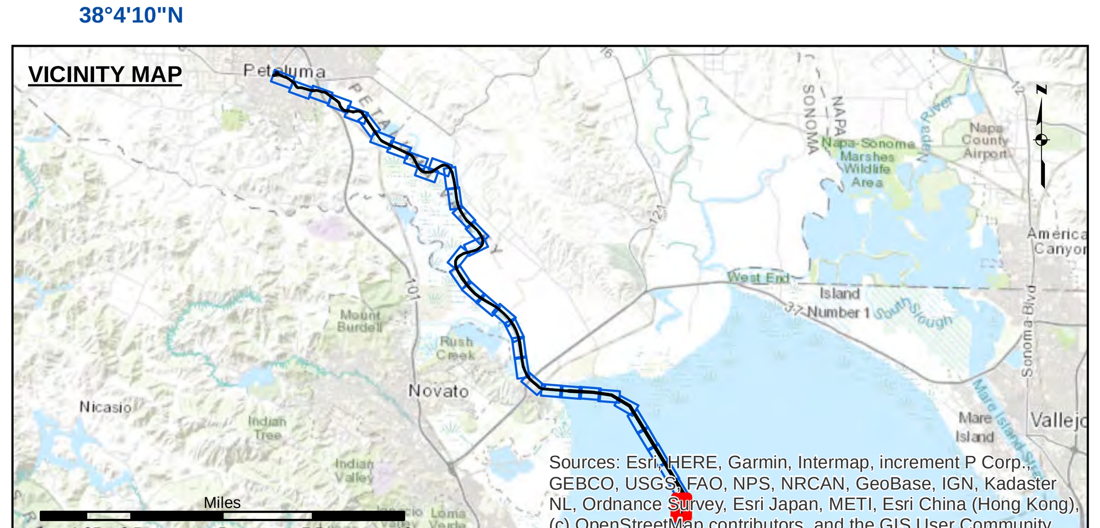
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 100 200 400 600

1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

VICINITY MAP



- 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
- -8
- -7
- -6
- -5
- -4

NOTES:

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.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83,
CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

US Army Corps of Engineers®
San Francisco District
450 Golden Gate Avenue
San Francisco, CA 94102

PREPARED UNDER THE DIRECTION OF TIMOTHY W. SHEBESTA LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Mar 19, 2024	
Submitted: Hydro Survey Team Leader	Plotted By:	Designed by:	
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT	
Approved: Chief, Construction Branch			

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

NAD 1983
CHANNEL ANGLE POINTS

∡ PT	X	Y	∡ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960058.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.65
38	5958729.42	2273687.85	84	5948859.72	2278689.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983
CENTERLINE ANGLE POINTS

∡ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279036.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950969.82	2277156.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953589.72	2276792.85
24	5954179.62	2276618.85
25	5954274.62	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954765.42	2276482.85
33	5955751.32	2275718.85
34	5956168.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
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48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

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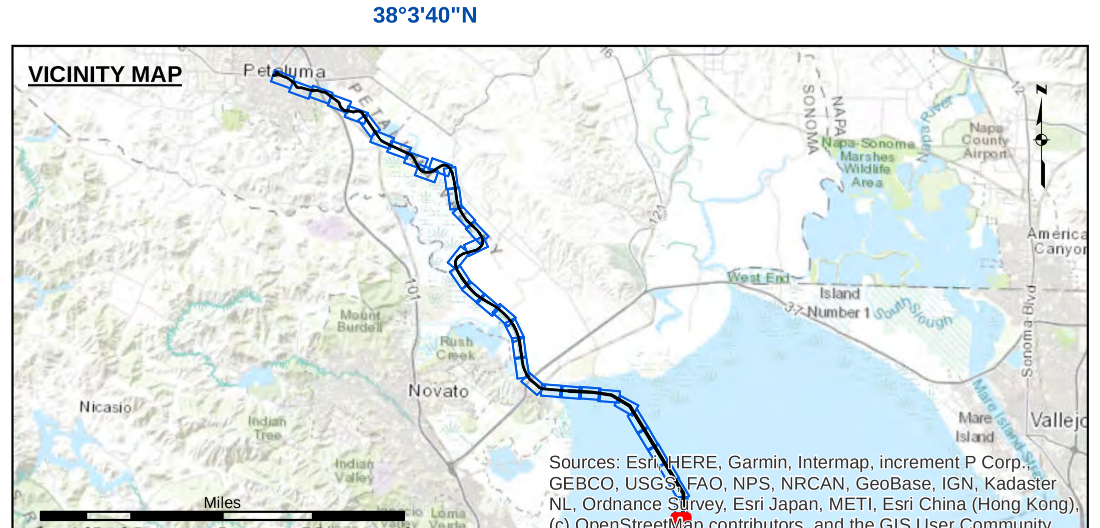

Federal Navigation Channel
Shoaling Area
Placement Area
Anchorage Area
Wreck Area
Submerged Wreck
Angle Point
Beacon, General
Obstruction Point
Navigation Buoy
Navigation Buoy
Shoalest Sounding*

Contours
-8
-7
-6
-5
-4

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US Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
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Chart Date: Mar 19, 2024
Designed by:
Drawn by: PDT
Surveyed By:
Plotted By:
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TIMOTHY W. SHEBESTA
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
12-14 MARCH 2024

Sheet Reference Number
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