CORPS OF ENGINEERS U.S. ARMY

38°14'10"N 122°38'10"W 122°38'0"W 122°37'50"W 5,949,796

122°38'20"W 38°14'0"N

06+57 07+00 06+00 05+00 04+00 03+00 02+00 01+00 00+00 08+00 09+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00

38°13'50"N 5,949,796 122°37'50"W

122°38'20"W 122°38'10"W 38°13'50"N 122°38'0"W

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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	2269972.25
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
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	2275496.85	76	5952293.82	2278870.75
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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.65
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	2278839.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948678.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953585.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954326.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274968.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.92	2273783.85
41	5958169.42	2273621.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960548.62	2272735.85
47	5962163.02	2270483.85
48	5962698.22	2269699.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed by:
Designed by:
Plotted by: PDT
Drawn by: PDT
Checked by: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
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
04 & 17 MARCH 2020

Sheet Reference Number
1 of 37

122°37'40"W 122°37'30"W 122°37'20"W 122°37'10"W

38°13'50"N

38°13'40"N

122°37'50"W

5,952,458

5,952,458

wreck showing any portion of h

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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	2269972.25
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	5953598.52	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	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	2273635.35	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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953595.72	2276752.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274968.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.02	2273763.85
41	5958169.42	2273621.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959958.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270453.85
48	5962698.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

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:

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

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The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. Engineers activity and indicates the general existing conditions. Data may not meet specifications for navigation, mapping or other accuracy specifications. The user is responsible for the results of any of the application of the data for other than its intended purpose.

Surveyed by:	Plotted by:	Checked by: PDT	Chart Date: Mar 19, 2020
			Designed by:
			Drawn by: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, CE, DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
2 of 37

38°13'50"N 122°37'0"W 122°36'50"W 122°36'40"W 5,955,351

38°13'40"N 5,955,351 122°37'10"W 122°36'40"W

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	5963083.62	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269972.25
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
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	2275496.85	76	5952293.82	2278870.75
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	2273635.35	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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953569.72	2276752.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956786.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.92	2273763.85
41	5958169.42	2273621.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962698.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268860.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020	Designed by:	Drawn by: PDT
Surveyed by:	Plotted by:	Checked by: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

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

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
3 of 37

122°36'30"W 122°36'20"W 122°36'10"W 38°13'30"N 5,958,045 122°36'0"W

38°13'30"N 122°36'40"W 38°13'20"N

94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00

wreck showing any portion of h

wreck showing any portion of h

5,958,045

122°36'40"W 38°13'20"N 122°36'30"W 122°36'20"W 122°36'10"W

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	5963083.62	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269972.25
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	5953598.52	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	2275496.85	76	5952293.82	2278870.75
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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.65
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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953595.72	2276752.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954326.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956786.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.02	2273763.85
41	5958169.42	2273621.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962698.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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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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US Army Corps of Engineers
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Surveyed by:	Plotted by:	Checked by: PDT	Chart Date: Mar 19, 2020
			Designed by:
			Drawn by: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
4 of 37

122°36'0"W 38°13'20"N 122°35'50"W 122°35'40"W 122°35'30"W

5,960,508

38°13'20"N

38°13'10"N

122°35'30"W

5,960,508

38°13'0"N

122°36'10"W 122°36'0"W 122°35'50"W 38°13'0"N 122°35'40"W

127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00

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	2273673.15
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	2278963.75	67	5954744.42	2276435.85
22	5952732.72	2278774.85	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	2278669.65
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	5948051.42	2278994.25
42	5960589.72	2272764.95	88	5947855.22	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	2278956.85
3	5947595.22	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	5948878.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953586.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955186.42	2275455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5958900.42	2273655.85
44	5959858.42	2273707.85
45	5960098.02	2273498.85
46	5960548.62	2272735.85
47	5962193.02	2270453.85
48	5962688.72	2269699.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268885.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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

Contours
-8
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CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Chart Date:	Mar 19, 2020
Surveyed by:	
Designed by:	
Plotted By:	
Drawn by:	PDT
Submitted:	PDT Hydro Survey Team Leader
Recommended:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch
Checked By:	PDT

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
5 of 37

122°35'40"W 122°35'30"W 122°35'20"W 122°35'10"W

38°13'0"N

38°12'50"N

5,962,392

5,962,392

122°35'40"W 122°35'30"W 122°35'20"W 122°35'10"W

160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00

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	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	5954616.62	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948260.12	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	5947599.22	2279022.85
4	5947611.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278738.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277568.85
16	5950564.42	2277269.85
17	5950737.02	2277118.85
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	5953686.72	2276792.85
24	5954179.82	2276518.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954486.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275716.85
34	5955788.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273336.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273498.85
46	5960546.52	2272735.85
47	5962163.02	2270433.85
48	5962668.22	2269699.85
49	5962883.22	2269429.85
50	5963198.22	2269327.85
51	5964061.72	2268889.85

Feet
0 100 200 400 600

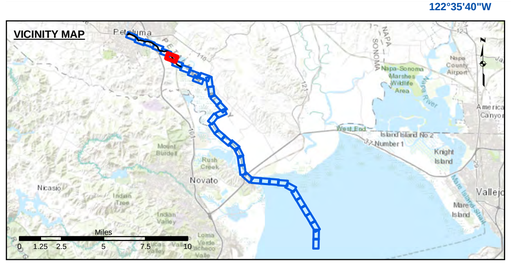
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed By:
Plotted By:
Designed By:
Checked By:
Drawn By: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
6 of 37

122°35'10"W 122°35'0"W 122°34'50"W 38°12'40"N 122°34'40"W

5,964,274

184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00

Petaluma River Outfall Light

38°12'30"N

5,964,274

122°35'20"W 38°12'40"N

122°35'10"W 122°35'0"W 122°34'50"W

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	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	5954616.62	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948260.12	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	5947599.22	2279022.85
4	5947611.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278738.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277269.85
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	5953636.72	2276792.85
24	5954179.82	2276518.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954486.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275716.85
34	5955198.42	2275455.85
35	5956671.52	2275084.85
36	5956798.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.65
41	5958109.42	2273621.85
42	5958725.42	2273336.65
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273458.85
46	5960546.52	2272735.85
47	5962163.02	2270433.85
48	5962668.22	2269699.85
49	5962883.22	2269429.85
50	5963108.22	2269327.85
51	5964061.72	2268889.85

Feet
0 100 200 400 600

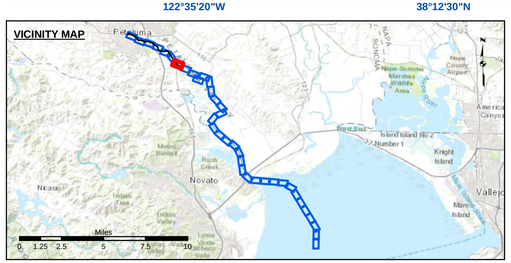
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
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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

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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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020			
Surveyed By:	Plotted By:	Checked By: PDT	Drawn By: PDT
PREPARED UNDER THE DIRECTION OF: JOHN D. CUNNINGHAM LT COLONEL, C.E., DISTRICT ENGINEER			
Submitted: PDT Hydro Survey Team Leader			
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch			

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
7 of 37

122°34'40"W 122°34'30"W 122°34'20"W 122°34'10"W

38°12'30"N

122°34'50"W

38°12'20"N

5,966,738

213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00

122°34'50"W 122°34'40"W 122°34'30"W 38°12'10"N 122°34'20"W

38°12'10"N

5,966,738

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	5954616.62	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948260.12	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	5947599.22	2279022.85
4	5947611.52	2279060.85
5	5947810.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278671.85
13	5949448.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277269.85
17	5950737.02	2277118.85
18	5950969.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953863.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954486.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275716.85
34	5955198.42	2275455.85
35	5956671.52	2275084.85
36	5956798.22	2274868.85
37	5956873.12	2274515.85
38	5957031.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.65
41	5958189.42	2273621.65
42	5958725.42	2273335.65
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273458.85
46	5960546.52	2272735.85
47	5962163.02	2270433.85
48	5962668.22	2269699.85
49	5962883.22	2269429.85
50	5963108.22	2269327.85
51	5964061.72	2268889.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

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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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 Market Street
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Chart Date: Mar 19, 2020			
Surveyed by:	Plotted By:	Designed by:	Drawn by: PDT
			Checked By: PDT

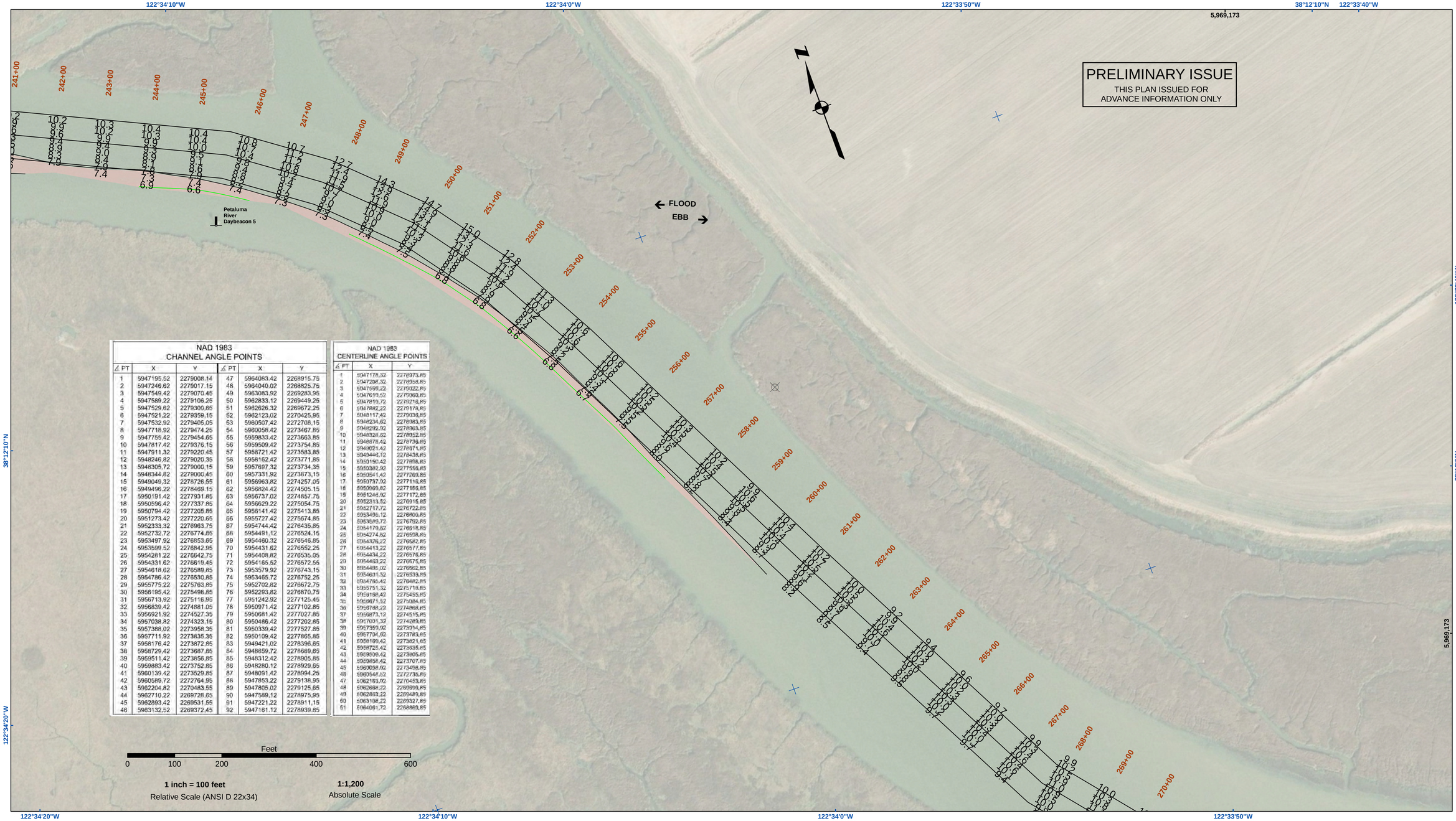
PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
8 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	2279300.85	51	5962626.32	2269872.25
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	2276853.85	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954261.22	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	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.85
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	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	5947819.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948676.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950869.82	2277156.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953586.72	2276792.85
24	5954179.82	2276818.85
25	5954274.62	2276658.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276533.85
32	5954798.42	2276482.85
33	5955751.32	2275718.85
34	5955198.42	2275455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.65
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960098.92	2273458.85
46	5960548.62	2272735.85
47	5962163.02	2270483.85
48	5962668.22	2269990.85
49	5962483.22	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:

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US Army Corps of Engineers
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Chart Date: Mar 19, 2020			
Surveyed By:	Plotted By:	Checked By:	PDT
	Designed by:	Drawn by:	PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
9 of 37

122°33'50"W 122°33'40"W 122°33'30"W 122°33'20"W

38°12'0"N 38°11'50"N 38°11'40"N 38°11'50"N 38°11'40"N

122°34'0"W 122°33'50"W 38°11'40"N 122°33'40"W 122°33'30"W

5,970,758

266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00 292+00 293+00

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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	5947246.82	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	2279454.85	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	2273673.15
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	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.65
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	5948051.42	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	5947599.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	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	5948678.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277568.85
16	5950561.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953436.12	2276600.85
23	5953585.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5959800.42	2273805.85
44	5959858.42	2273707.85
45	5960098.02	2273498.85
46	5960548.62	2272735.85
47	5962193.02	2270459.85
48	5962688.72	2269899.85
49	5962883.22	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

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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT Hydro Survey Team Leader	Chart Date: Mar 19, 2020	Surveyed by:	
Recommended: Chief, Hydro Survey Section	Plotted By:	Designed by:	
Approved: Chief, Construction Branch	Checked By: PDT	Drawn by: PDT	

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
10 of 37

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

122°33'20"W 122°33'10"W 122°33'0"W
38°12'0"N 38°11'50"N
5,972,715

FLOOD
EBB

VICINITY MAP

Miles
0 1.25 2.5 5 7.5 10

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

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

NOTES:

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SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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

San Francisco District
450 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed By:
Designed by:
Plotted By:
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
11 of 37

122°33'0"W 38°11'50"N 122°32'50"W 122°32'40"W

38°11'40"N

38°11'30"N

5,974,244

329+00 333+00 334+00 335+00 336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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	5947246.82	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	2279454.85	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	2273673.15
15	5948949.32	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	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.65
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	5948051.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.35
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	5947599.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	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	5948678.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277568.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953436.12	2276800.85
23	5953586.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274968.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5958900.42	2273695.85
44	5959858.42	2273707.85
45	5960098.02	2273498.85
46	5960548.62	2272735.85
47	5962193.02	2270454.85
48	5962688.72	2269999.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268885.85

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

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Surveyed by:
Designed by:
Plotted by:
Drawn by: PDT
Submitted: PDT Hydro Survey Team Leader
Checked by: PDT
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
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04 & 17 MARCH 2020

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122°33'0"W 122°32'50"W 122°32'40"W 122°32'30"W

38°11'20"N 38°11'10"N

5,974,833

358+00 359+00 360+00 361+00 362+00 363+00 364+00 365+00 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00 377+00

Feet
0 100 200 400 600

1 inch = 100 feet
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1:1,200
Absolute Scale

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15	5948049.32	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
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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	2278689.65
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	5948051.42	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

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11	5948678.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277568.85
16	5950561.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953436.12	2276800.85
23	5953586.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954486.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5958906.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960548.62	2272735.85
47	5962163.92	2270454.85
48	5962668.72	2269699.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268885.85

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
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Contours
-8
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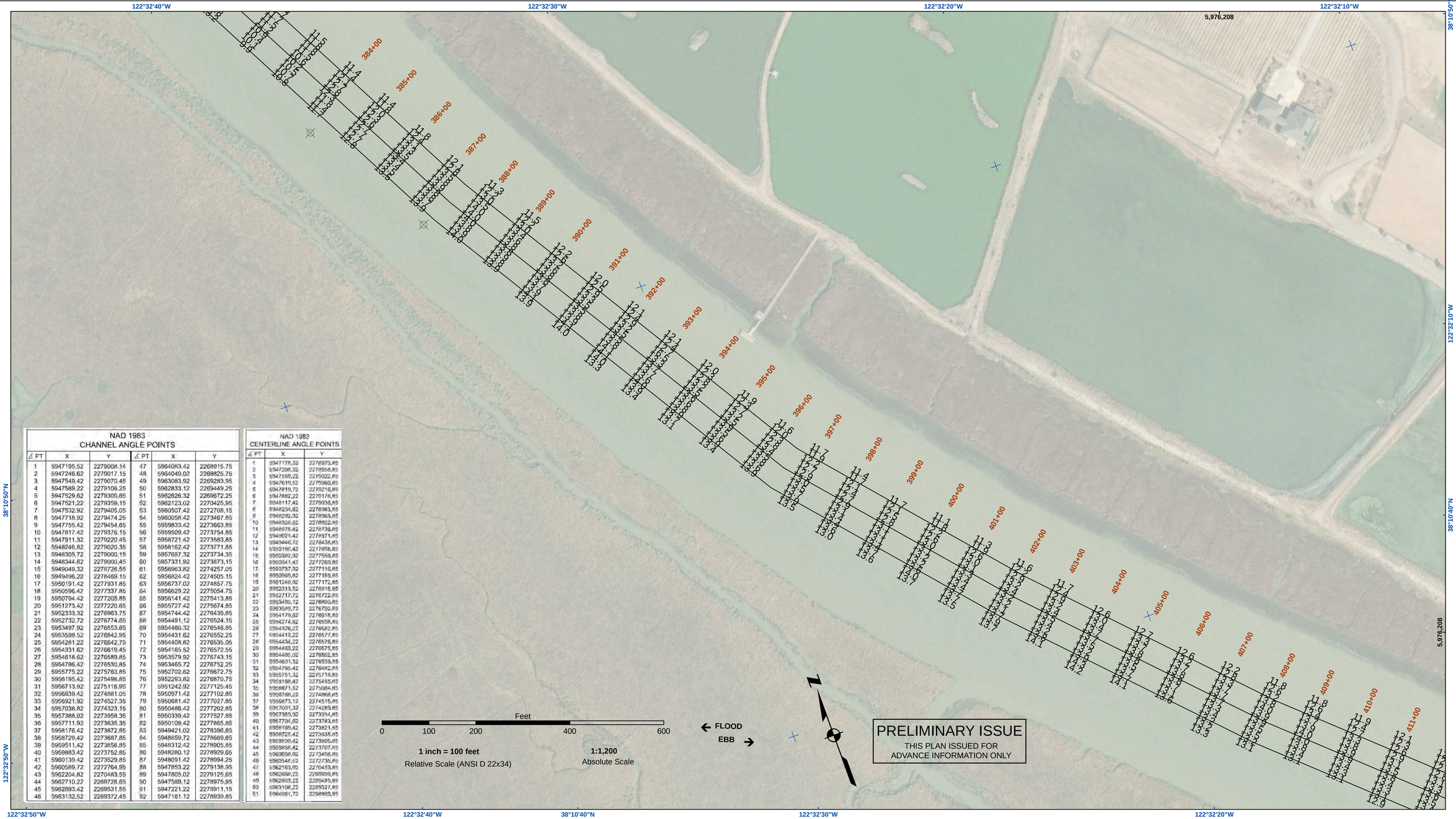
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Surveyed by:
Designed by:
Drawn by: PDT
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER
Plotted By:
Checked by: PDT
Submitted: PDT
Hydro Survey Team Leader
Recommended:
Chief, Hydro Survey Section
Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
13 of 37



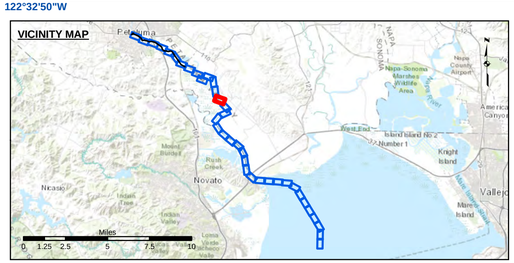
NAD 1983 CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
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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	2276853.85	69	5954480.32	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	2276872.75
30	5956195.42	2275496.85	76	5952293.82	2276870.75
31	5956713.92	2275118.95	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.65
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	5962204.42	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	2278956.85
3	5947595.22	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	5948326.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950909.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953580.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955198.42	2275485.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957350.92	2273914.85
40	5957704.62	2273763.85
41	5958189.42	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959958.42	2273707.85
45	5960058.62	2273458.85
46	5960546.62	2272735.85
47	5962163.92	2270483.85
48	5962698.22	2269999.85
49	5962883.22	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:

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SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, CE, DISTRICT ENGINEER

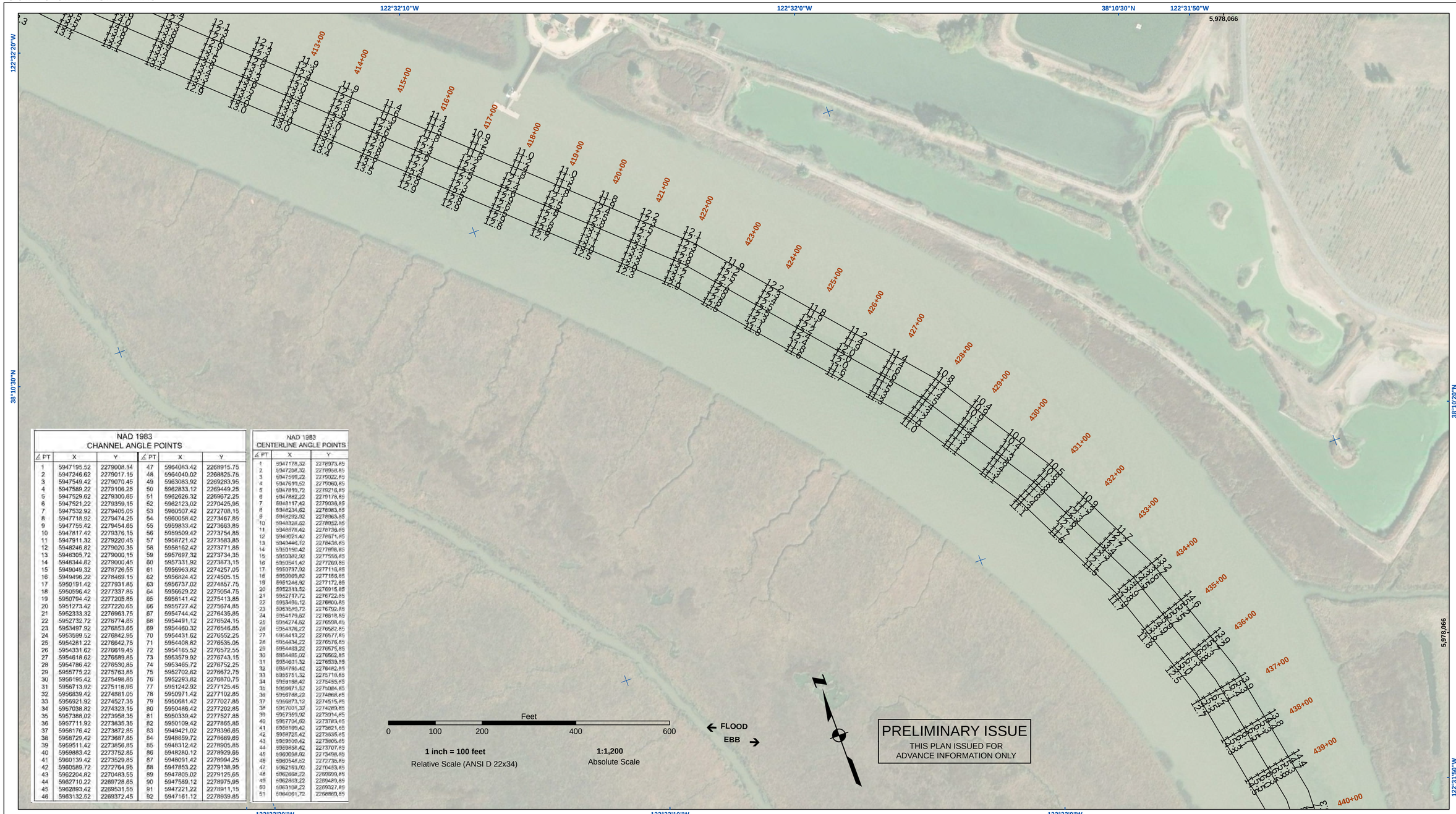
Surveyed by:	Plotted By:	Checked By: PDT
Submitted: PDT Hydro Survey Team Leader		Drawn by: PDT
Recommended: Chief, Hydro Survey Section		
Approved: Chief, Construction Branch		

Chart Date: Mar 19, 2020

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
14 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	2273673.15
15	5948949.32	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	2278963.75	67	5954744.42	2276435.85
22	5952732.72	2278774.85	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	2278669.65
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	5948051.42	2278994.25
42	5960589.72	2272764.95	88	5947855.22	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	2278956.85
3	5947595.22	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	5948678.42	2278738.85
12	5949021.42	2278571.85
13	5949448.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953586.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276598.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955186.42	2275455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5958900.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960548.62	2272735.85
47	5962163.02	2270453.85
48	5962684.72	2269699.85
49	5962883.22	2269489.85
50	5963109.22	2269327.85
51	5964061.72	2268885.85

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:

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SURVEYED BY THE CORPS OF ENGINEERS.

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

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Chart Date: Mar 19, 2020
Surveyed by:
Designed by:
Drawn by: PDT
Checked by: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E. DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
15 of 37

122°32'20"W 122°32'10"W 122°32'0"W 122°31'50"W

38°10'10"N

5,977,906

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

FLOOD
EBB

443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00

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	2272709.15
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	2278669.85
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	5948051.42	2278994.25
42	5960589.72	2272764.35	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	2278938.85
3	5947595.22	2275022.85
4	5947610.52	2275060.85
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	5948678.42	2278736.85
12	5948921.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.02	2277116.85
18	5950989.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276916.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953580.72	2276792.85
24	5954179.82	2276818.85
25	5954274.62	2276558.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954463.22	2276575.85
30	5954486.02	2276562.85
31	5954631.32	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955186.42	2275455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273535.85
43	5959506.42	2273605.85
44	5959858.42	2273707.85
45	5960098.02	2273458.85
46	5960548.62	2272735.85
47	5962193.02	2270453.85
48	5962688.22	2269699.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268889.85

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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SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020

Surveyed by:

Designed by:

Plotted By:

Drawn by: PDT

Checked By: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
16 of 37

122°32'50"W 122°32'40"W 122°32'30"W 122°32'20"W

38°10'0"N 38°9'50"N 38°9'40"N 38°9'30"N

5,975,384 5,975,384

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

FLOOD
EBB

475+00 476+00 477+00 478+00 479+00 480+00 481+00 482+00 483+00 484+00 485+00 486+00 487+00 488+00 489+00 490+00 491+00 492+00 493+00 494+00 495+00 496+00

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	2272709.15
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	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	5957386.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278669.85
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	5948051.42	2278994.25
42	5960589.72	2272764.95	88	5947855.22	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

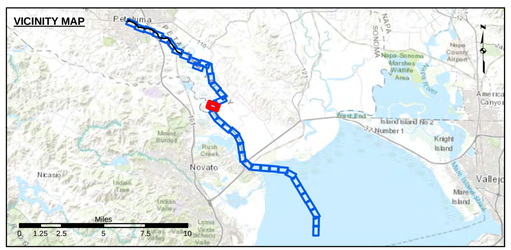
∠ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278938.85
3	5947595.22	2275022.85
4	5947610.52	2275060.85
5	5947810.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.82	2278952.85
11	5948678.42	2278736.85
12	5948921.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277858.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.02	2277116.85
18	5950989.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953580.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954434.22	2276576.85
27	5954463.22	2276575.85
28	5954486.02	2276562.85
29	5954631.52	2276539.85
30	5954786.42	2276482.85
31	5955751.32	2275718.85
32	5956186.42	2275455.85
33	5956671.52	2275084.85
34	5956788.22	2274968.85
35	5956873.12	2274515.85
36	5957001.32	2274289.85
37	5957359.02	2273914.85
38	5957704.62	2273783.85
39	5958189.42	2273621.85
40	5958725.42	2273535.85
41	5959506.42	2273605.85
42	5959858.42	2273707.85
43	5960058.62	2273498.85
44	5960548.62	2272735.85
45	5962163.02	2270453.85
46	5962688.22	2269699.85
47	5962883.22	2269489.85
48	5963108.22	2269327.85
49	5964061.72	2268869.85

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

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Chart Date: Mar 19, 2020

Surveyed by:

Designed by:

Plotted By:

Drawn by: PDT

Checked By: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

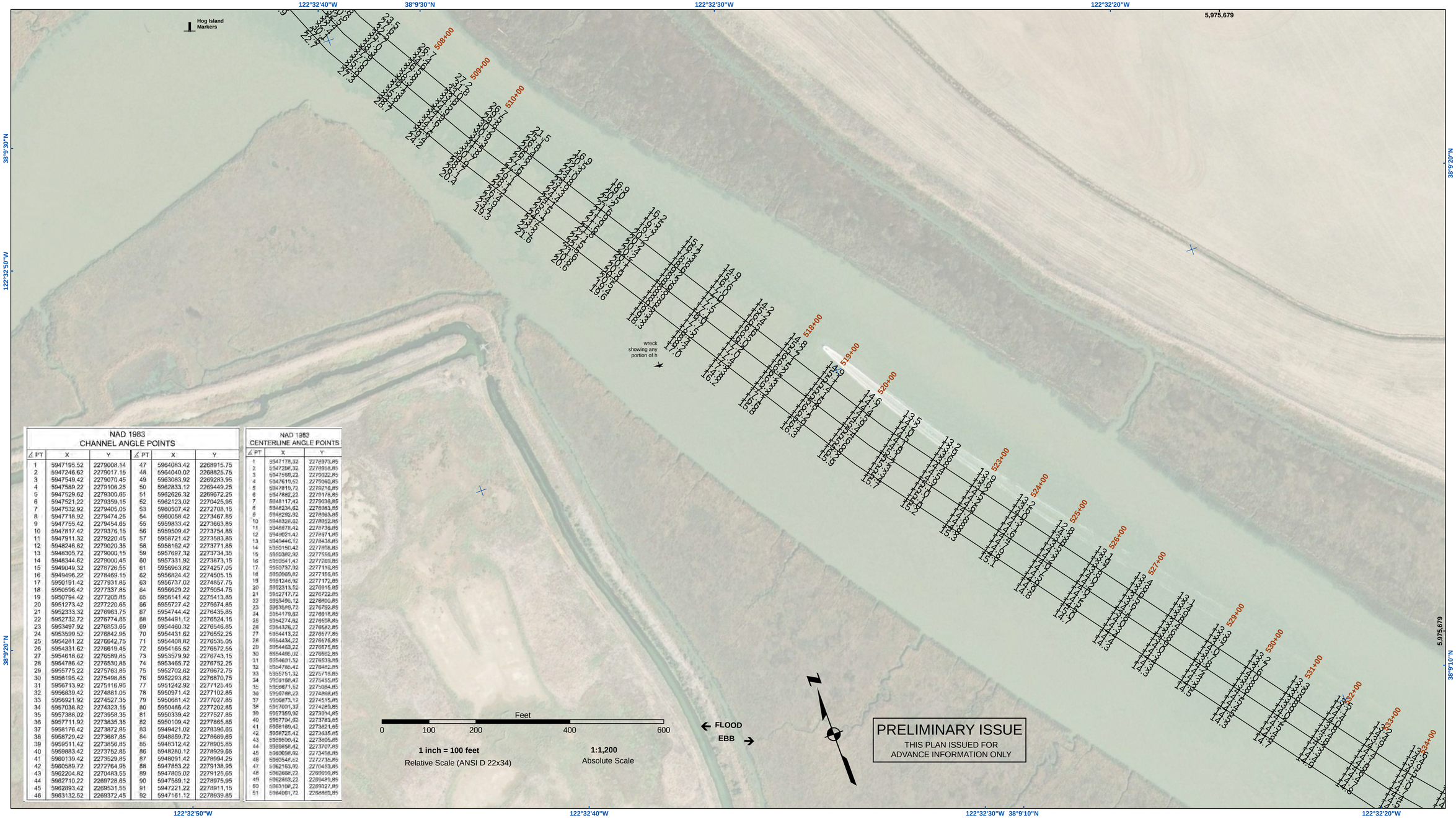
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
17 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	2273673.15
15	5948949.32	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	2278963.75	67	5954744.42	2276435.85
22	5952732.72	2278774.85	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	2278689.65
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	5947855.22	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	2278956.85
3	5947595.22	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	5948878.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277858.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953436.12	2276600.85
23	5953586.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954486.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274968.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5958900.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960548.62	2272735.85
47	5962163.02	2270453.85
48	5962688.72	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268885.85

VICINITY MAP



- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
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Contours
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Chart Date: Mar 19, 2020
Surveyed by:
Designed by:
Plotted By:
Checked By: PDT
Drawn by: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, CE, DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
18 of 37

122°32'20"W 38°9'10"N 122°32'10"W 122°32'0"W 122°31'50"W 5,977,540

38°9'0"N 122°31'50"W 38°8'50"N 122°32'30"W

532+00 533+00 534+00 535+00 545+00 547+00 548+00 558+00 559+00 560+00 561+00

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CHANNEL ANGLE POINTS

∠ PT	X	Y	∠ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.82	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	2279494.85	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	2273673.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278468.15	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	2278669.65
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	5948051.42	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	5947599.22	2279022.85
4	5947619.52	2279060.85
5	5947810.72	2279216.85
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	5948678.42	2278738.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277568.85
16	5950561.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953436.12	2276600.85
23	5953586.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274968.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5959090.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960548.62	2272735.85
47	5962193.02	2270458.85
48	5962688.72	2269999.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020			
Surveyed by:	Designed by:		Drawn by: PDT
Plotted By:			Checked by: PDT
PREPARED UNDER THE DIRECTION OF JOHN D. CUNNINGHAM LT COLONEL, C.E. DISTRICT ENGINEER			
Submitted: PDT Hydro Survey Team Leader			
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch			

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
19 of 37

122°31'50"W 38°8'50"N 122°31'40"W 122°31'30"W

5,979,668

38°8'40"N

122°32'0"W

558+00 559+00 560+00 561+00 562+00 563+00 564+00 568+00 569+00 573+00 574+00 578+00 579+00 580+00 585+00

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	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	5947719.92	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	2273635.35	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	5947595.22	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	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277260.85
17	5950737.02	2277118.85
18	5950969.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960059.92	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962688.22	2269999.85
49	5962883.22	2269429.85
50	5963198.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

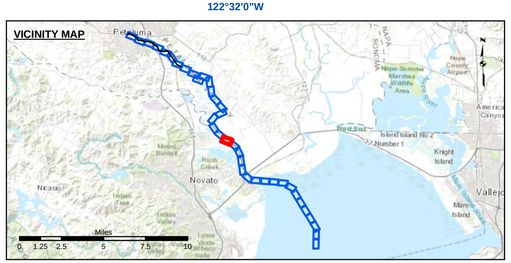
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

FLOOD
EBB

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

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 Market Street
San Francisco, CA 94102

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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

Chart Date: Mar 19, 2020	Surveyed By:	Plotted By:	Checked By: PDT
			Designed by:
			Drawn by: PDT

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
20 of 37

122°31'20"W 122°31'10"W 122°31'0"W 38°8'30"N

5,982,014

122°31'30"W 38°8'30"N

38°8'20"N 5,982,014

122°31'30"W 122°31'20"W 122°31'10"W 122°31'0"W

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	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	2273635.35	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	2278929.55
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	5947595.22	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	5948678.42	2278736.85
12	5948921.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955188.42	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	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273505.85
44	5959858.42	2273707.85
45	5960059.92	2273498.85
46	5960546.52	2273735.85
47	5962163.02	2270483.85
48	5962688.22	2269999.85
49	5962883.22	2269429.85
50	5963198.22	2269327.85
51	5964061.72	2268869.85

Feet
0 100 200 400 600

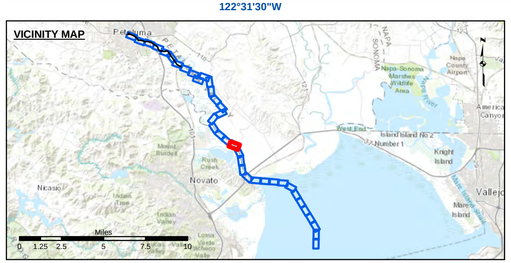
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
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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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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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed By:
Plotted By:
Designed by:
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
21 of 37

122°31'0"W 122°30'50"W 122°30'40"W 38°8'10"N 5,983,466

122°31'10"W 38°8'10"N

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	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	2273635.35	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	5948260.12	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	5947599.22	2279022.85
4	5947611.52	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	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960059.92	2273498.85
46	5960546.52	2272735.85
47	5962163.02	2270483.85
48	5962668.22	2269699.85
49	5962883.22	2269489.85
50	5963198.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

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

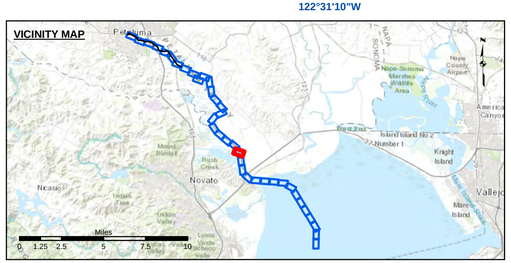
1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

122°31'10"W 38°8'0"N 122°31'0"W 122°30'50"W 122°30'40"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

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Chart Date: Mar 19, 2020			
Surveyed By:	Plotted By:	Designed by:	Drawn by: PDT
			Checked By: PDT

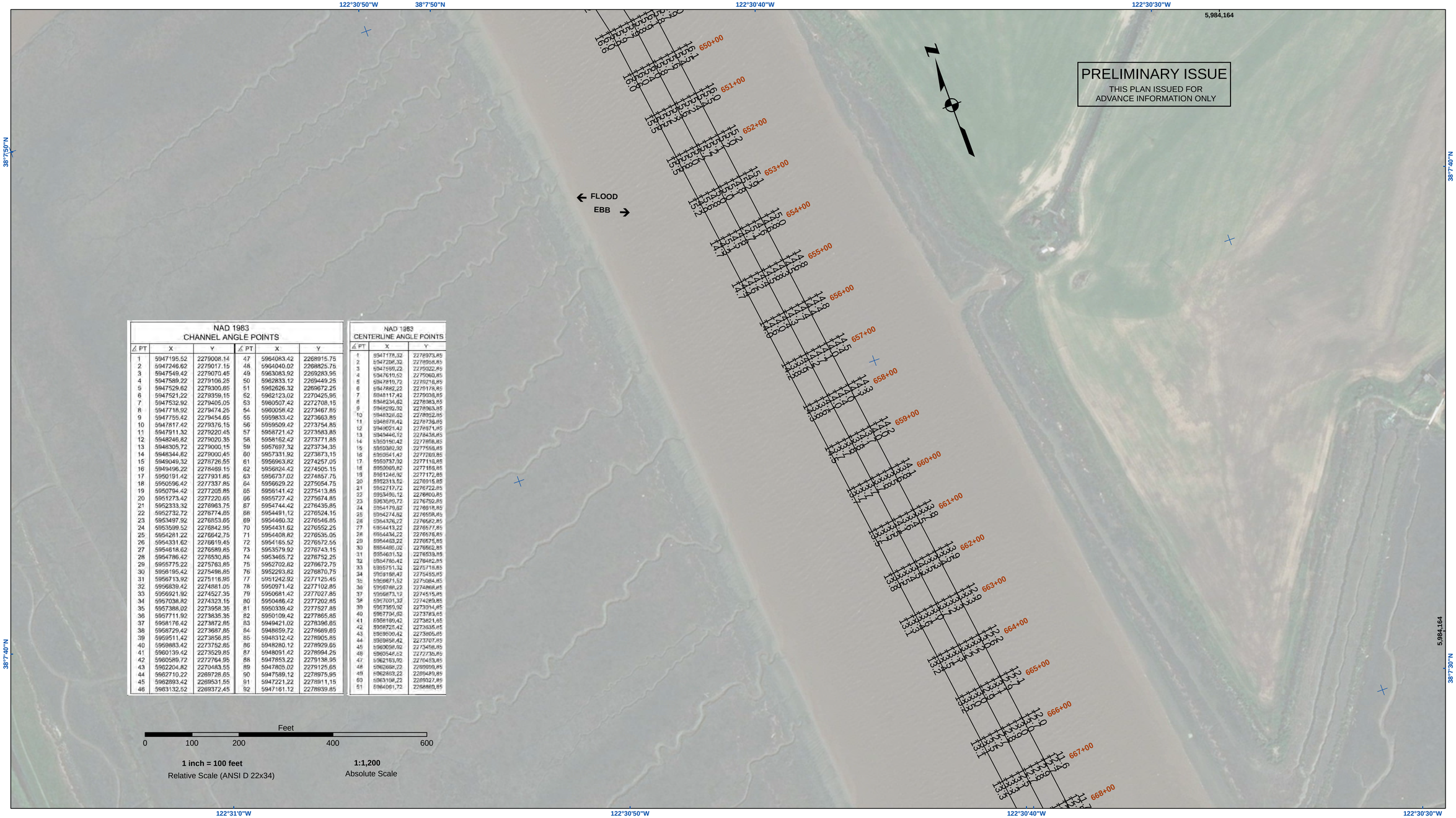
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
22 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
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6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
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9	5947755.42	2279454.65	55	5959833.42	2273663.85
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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	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	2278669.85
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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947610.52	2279060.85
5	5947810.72	2279216.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953580.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954326.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5959506.42	2273805.85
44	5959858.42	2273707.85
45	5960058.62	2273498.85
46	5960548.62	2272735.85
47	5962183.62	2270453.85
48	5962688.72	2269699.85
49	5962883.22	2269489.85
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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
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
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Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
23 of 37

122°30'50"W 122°30'40"W 38°7'20"N 122°30'30"W 122°30'20"W 5,984,611 38°7'10"N

679+00 680+00 681+00 682+00 683+00 684+00 685+00 686+00 687+00 688+00 689+00 690+00 691+00 692+00 693+00 694+00 695+00 696+00 697+00 698+00 699+00 700+00

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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	5947595.22	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	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960059.92	2273498.85
46	5960546.52	2272735.85
47	5962163.92	2270483.85
48	5962688.22	2269899.85
49	5962883.22	2269429.85
50	5963198.22	2269227.85
51	5964061.72	2268869.85

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed By:
Plotted By:
Designed by:
Checked By: PDT
Drawn by: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

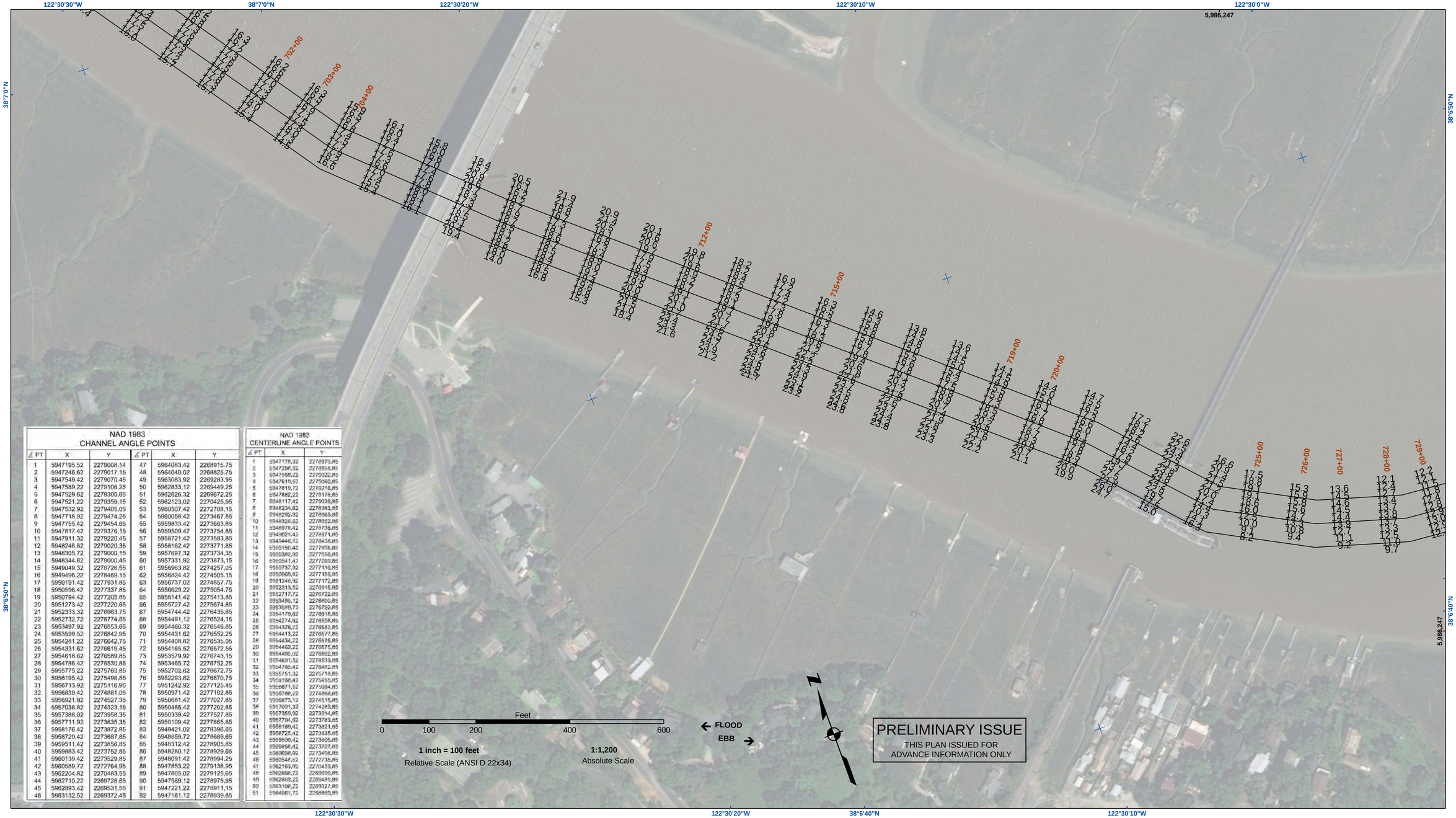
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
24 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	2279300.85	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	2278396.85
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	5947599.22	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	5948328.82	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950564.12	2277260.85
17	5950737.02	2277118.85
18	5950969.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953963.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955158.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273783.85
41	5958199.42	2273621.85
42	5958725.42	2273336.85
43	5959600.42	2273805.85
44	5959858.42	2273707.85
45	5960059.92	2273498.85
46	5960546.52	2272735.85
47	5962163.02	2270483.85
48	5962668.22	2269699.85
49	5962883.22	2269429.85
50	5963198.22	2269227.85
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:

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US Army Corps of Engineers
San Francisco District
450 Market Street
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Chart Date: Mar 19, 2020
Surveyed By:
Plotted By:
Designed by:
Drawn By: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted: PDT
Hydro Survey Team Leader

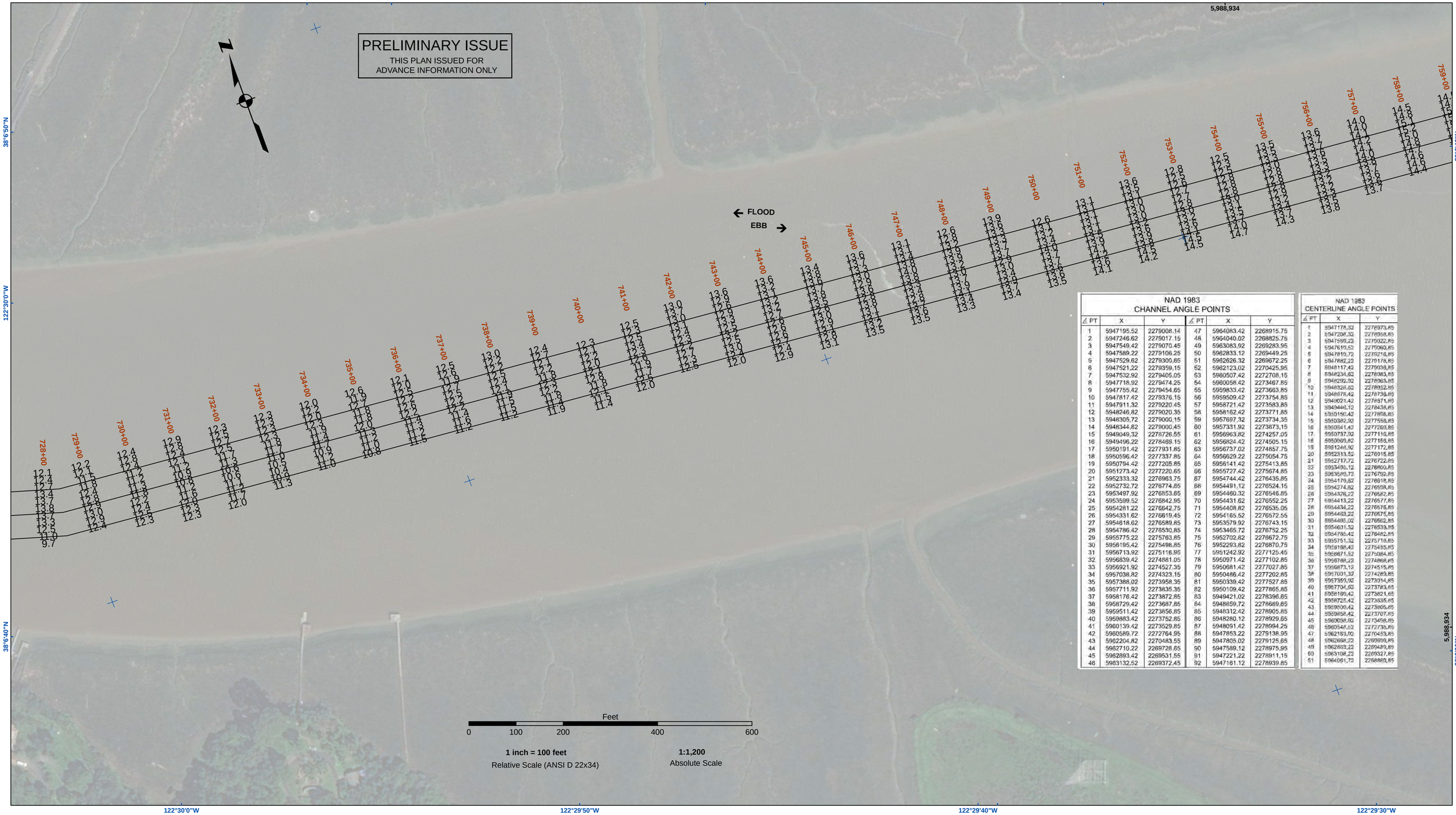
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
25 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	5948344.62	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	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	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.62	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	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	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	2278956.85
3	5947695.22	2279022.85
4	5947610.52	2279060.85
5	5947819.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278963.85
9	5948292.92	2278963.85
10	5948326.82	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277556.85
16	5950564.42	2277260.85
17	5950737.92	2277116.85
18	5950869.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276916.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953695.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276658.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276519.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956156.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274988.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.02	2273914.85
40	5957704.62	2273763.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273458.85
46	5960546.62	2272735.85
47	5962163.92	2270453.85
48	5962688.22	2269859.85
49	5962803.22	2269429.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85



- 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

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San Francisco, CA 94102

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Chart Date: Mar 19, 2020			
Surveyed by:		Designed by:	
		Plotted By:	Drawn by: PDT
			Checked By: PDT

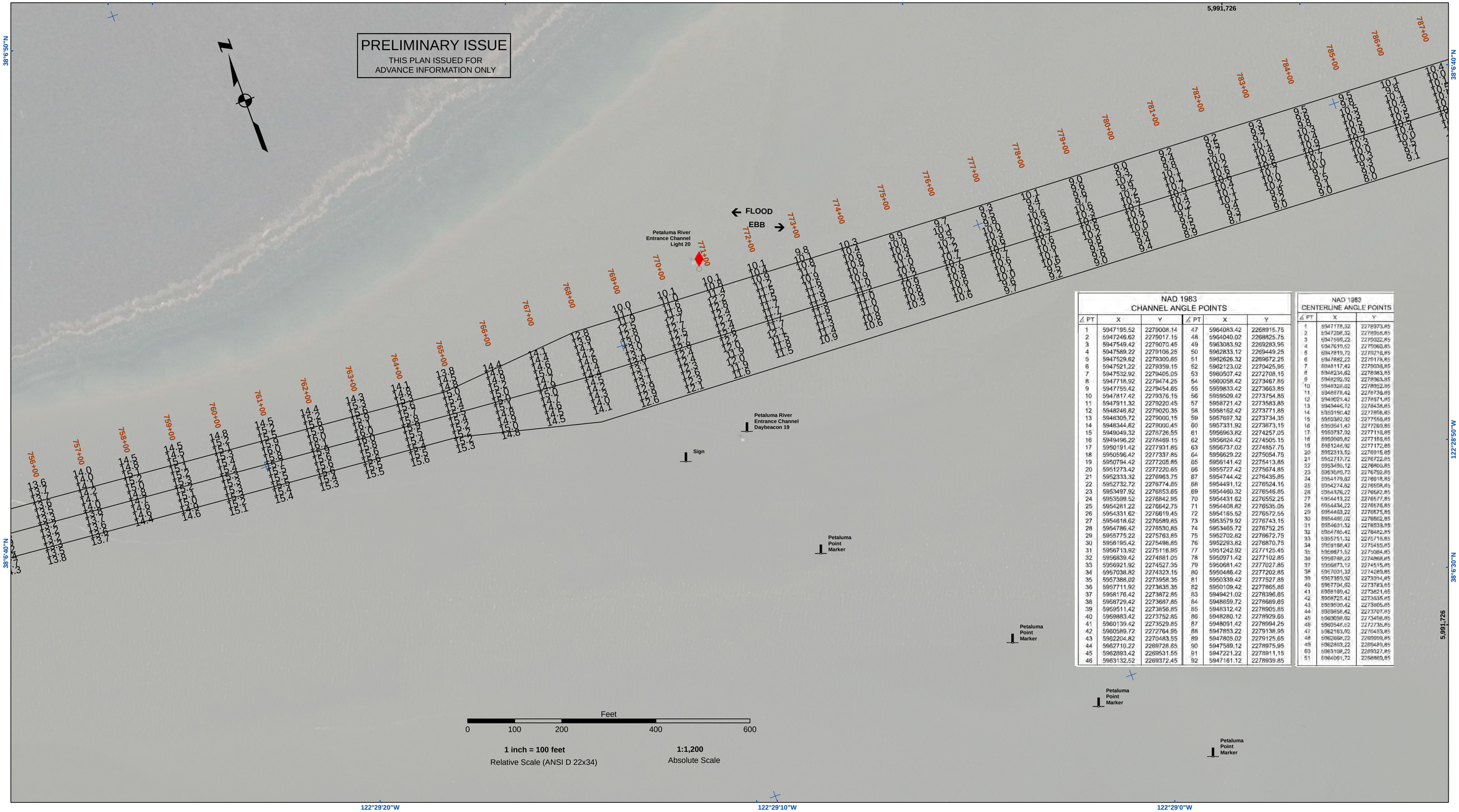
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, CE, DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
26 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	2279300.85	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	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	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.62	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	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	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	2278956.85
3	5947695.22	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	5948326.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277958.85
15	5950382.92	2277556.85
16	5950564.42	2277260.85
17	5950737.92	2277116.85
18	5950989.62	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276916.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953695.72	2276792.85
24	5954179.82	2276818.85
25	5954274.82	2276658.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276519.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956156.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274988.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273763.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273458.85
46	5960546.62	2272735.85
47	5962163.92	2270453.85
48	5962688.22	2269899.85
49	5962803.22	2269429.85
50	5963108.22	2269327.85
51	5964091.72	2268880.85



- 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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed by:
Designed by:
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, CE, DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
27 of 37

122°28'40"W 122°28'30"W 122°28'20"W 38°6'40"N

5,994,477

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Petaluma River Entrance Channel Light 18

FLOOD
EBB

Petaluma River Entrance Channel Daybeacon 17

784+00 785+00 786+00 787+00 788+00 789+00 790+00 791+00 792+00 793+00 794+00 795+00 796+00 797+00 798+00 799+00 800+00 801+00 802+00 803+00 804+00 805+00 806+00 807+00 808+00 809+00 810+00 811+00 812+00 813+00 814+00

38°6'40"N

122°28'50"W

38°6'30"N

5,994,477

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

122°28'50"W 38°6'30"N 122°28'40"W 122°28'30"W 122°28'20"W

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	5948344.62	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	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	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.62	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	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	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	5947695.22	2279022.85
4	5947610.52	2279060.85
5	5947819.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278963.85
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	2277958.85
15	5950382.92	2277558.85
16	5950564.42	2277260.85
17	5950737.92	2277118.85
18	5950869.62	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276916.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953695.72	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	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276519.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956156.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274988.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273763.85
41	5958189.42	2273821.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273458.85
46	5960548.62	2272735.85
47	5962163.92	2270453.85
48	5962688.22	2269859.85
49	5962803.22	2269429.85
50	5963108.22	2269327.85
51	5964091.72	2268880.85

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:

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US Army Corps of Engineers
San Francisco District
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Chart Date: Mar 19, 2020
Surveyed by:
Designed by:
Plotted By:
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, CE, DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
28 of 37

122°28'10"W 122°28'0"W 122°27'50"W 122°27'40"W

38°6'40"N 38°6'30"N

5,997,305

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

FLOOD
EBB
Petaluma River Entrance Channel Light 16
Petaluma River Entrance Channel Daybeacon 15

813+00 814+00 815+00 816+00 817+00 818+00 819+00 820+00 821+00 822+00 823+00 824+00 825+00 826+00 827+00 828+00 829+00 830+00 831+00 832+00 833+00 834+00 835+00 836+00 837+00 838+00 839+00 840+00 841+00 842+00

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

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	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	5960056.42	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
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	5950336.42	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	2278689.65
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	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948328.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949448.12	2278436.85
14	5950150.42	2277868.85
15	5950382.92	2277559.85
16	5950541.42	2277269.85
17	5950737.92	2277116.85
18	5950909.62	2277159.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953490.12	2276600.85
23	5953589.72	2276792.85
24	5954179.62	2276518.85
25	5954274.62	2276558.45
26	5954376.22	2276562.85
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	5954785.42	2276482.85
33	5955751.32	2275716.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957369.92	2273914.85
40	5957704.62	2273783.65
41	5958189.42	2273621.85
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	5962153.92	2270483.85
48	5962688.22	2269999.85
49	5962803.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268889.85

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:

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed By:
Designed by:
Plotted By:
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
29 of 37

122°27'40"W 122°27'30"W 38°6'30"N 122°27'20"W 122°27'10"W

5,999,773

38°6'30"N

38°6'20"N

840+00 841+00 842+00 843+00 844+00 845+00 846+00 847+00 848+00 849+00 850+00 851+00 852+00 853+00 854+00 855+00 856+00 857+00 858+00 859+00 860+00 861+00 862+00 863+00 864+00 865+00 866+00 867+00 868+00 869+00 870+00 871+00 872+00

Petaluma River Entrance Channel Light 14

Petaluma River Entrance Channel Daybeacon 13

38°6'20"N

38°6'10"N

122°27'10"W

5,999,773

122°27'40"W 122°27'30"W 122°27'20"W

Feet

0 100 200 400 600

1 inch = 100 feet

Relative Scale (ANSI D 22x34)

1:1,200

Absolute Scale

← FLOOD

EBB →

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	2279300.85	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	2276853.85	69	5954480.32	2276546.85
24	5953599.52	2276842.95	70	5954311.62	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	2276872.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275118.95	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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.65
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	5947206.32	2278956.85
3	5947595.22	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	5948326.62	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953580.72	2276592.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955198.42	2275455.85
35	5956671.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957350.92	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.65
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959958.42	2273707.85
45	5960058.62	2273458.85
46	5960546.62	2272735.85
47	5962163.92	2270483.85
48	5962698.22	2269999.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

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

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US Army Corps of Engineers

San Francisco District
450 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020

Surveyed by:

Designed by:

Plotted By:

Drawn by: PDT

Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E. DISTRICT ENGINEER

Submitted
PDT
Hydro Survey Team Leader

Recommended
Chief, Hydro Survey Section

Approved
Chief, Construction Branch

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
30 of 37

38°6'10"N 122°27'10"W 122°27'0"W 122°26'50"W 6,001,441

38°6'0"N 38°5'50"N 122°26'50"W 122°27'20"W 122°27'10"W 122°27'0"W 6,001,441

878+00 879+00 880+00 881+00 882+00 883+00 884+00 885+00 886+00 887+00 888+00 889+00 890+00 891+00 892+00 893+00 894+00 895+00 896+00 897+00 898+00 899+00 900+00 901+00 902+00

Petaluma River Entrance Channel Light 12

Petaluma River Entrance Channel Daybeacon 11

Feet
0 100 200 400 600

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

1:1,200
Absolute Scale

← FLOOD
EBB →

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	2279300.85	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	2279454.85	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	2278963.75	67	5954744.42	2276435.85
22	5952732.72	2278774.85	68	5954491.12	2276524.15
23	5953497.92	2278853.65	69	5954460.32	2276548.85
24	5953598.52	2278842.95	70	5954431.62	2276552.25
25	5954281.22	2278642.75	71	5954408.82	2276535.05
26	5954331.62	2278619.45	72	5954165.52	2276572.55
27	5954618.62	2278589.85	73	5953579.92	2276743.15
28	5954786.42	2278530.85	74	5953465.72	2276752.25
29	5955775.22	2275783.85	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	2278689.65
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	5948051.42	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	5947599.22	2279022.85
4	5947619.52	2279060.85
5	5947910.72	2279216.85
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	2278739.85
12	5949023.42	2278571.85
13	5949448.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277556.85
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	2276600.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954498.02	2276562.85
31	5954631.32	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5955198.42	2275455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.02	2273914.85
40	5957704.62	2273783.85
41	5958189.42	2273621.85
42	5958728.42	2273635.85
43	5959500.42	2273905.85
44	5959858.42	2273707.85
45	5960058.02	2273468.85
46	5960548.62	2272735.85
47	5962163.02	2270459.85
48	5962684.22	2269999.85
49	5962883.22	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

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450 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020
Surveyed by:
Plotted by:
Designed by:
Drawn by: PDT
Checked by: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, CE, DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
31 of 37

122°27'0"W 122°26'50"W 122°26'40"W 122°26'30"W

38°5'40"N

6,002,934

908+00 909+00 910+00 911+00 912+00 913+00 914+00 915+00 916+00 917+00 918+00 919+00 920+00 921+00 922+00 923+00 924+00 925+00 926+00 927+00 928+00 929+00 930+00 931+00

38°5'30"N

122°26'30"W

6,002,934

38°5'30"N 122°27'0"W 122°26'50"W 122°26'40"W

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	2269972.25
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
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	5952263.82	2278870.75
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	2273635.35	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	2279175.65
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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276752.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956786.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273763.65
41	5958169.42	2273821.65
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270453.85
48	5962688.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

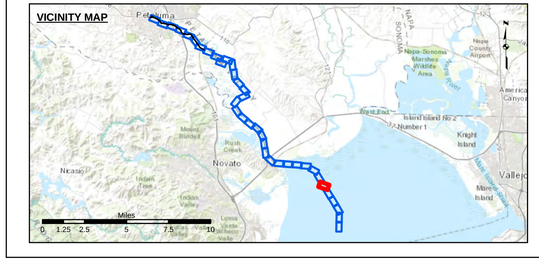
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Surveyed by:	Plotted by:	Checked by: PDT
		Drawn by: PDT
		Chart Date: Mar 19, 2020
		Designed by:

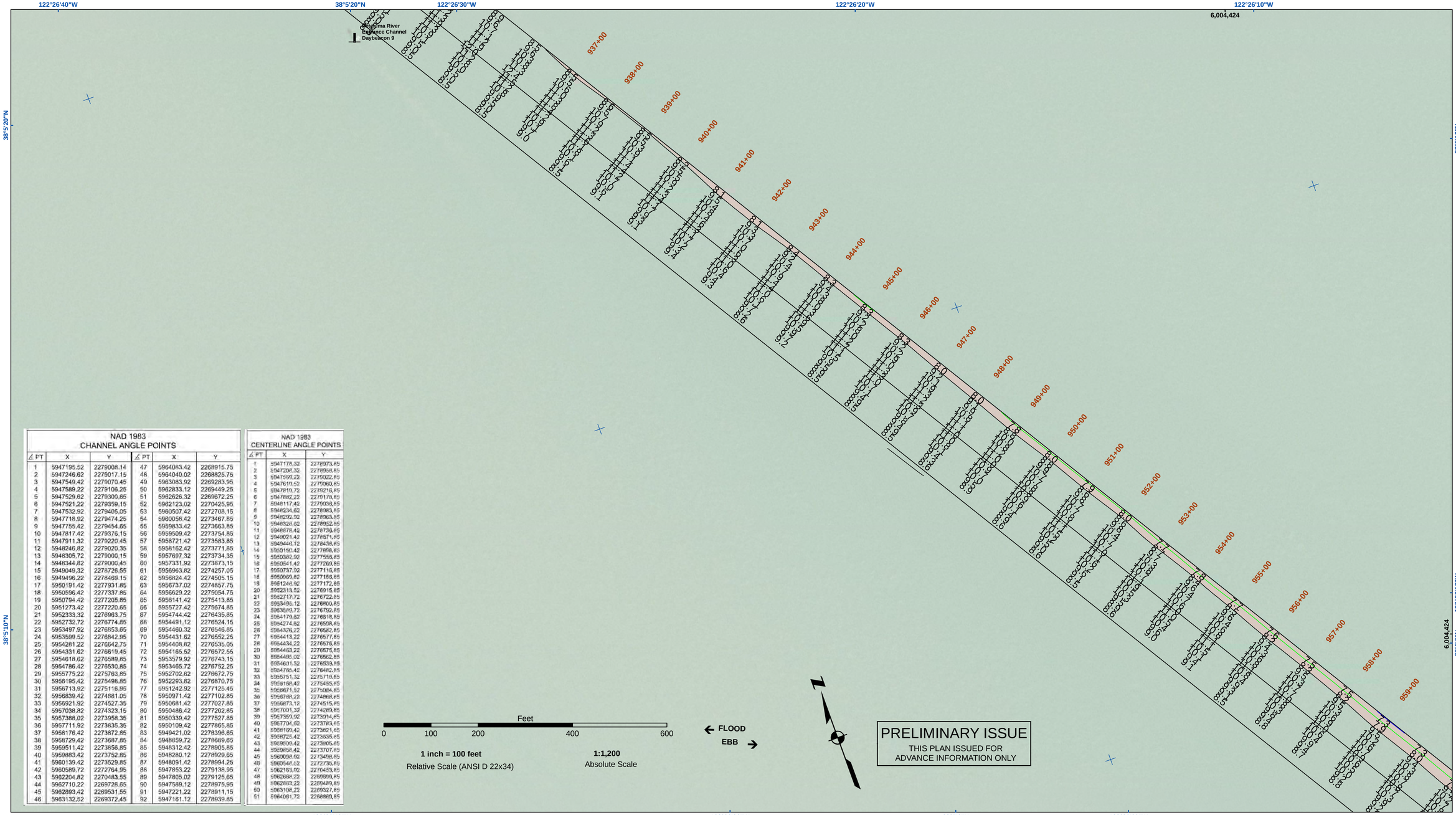
PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, CE, DISTRICT ENGINEER

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

SONOMA COUNTY
CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
32 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	2279300.85	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	5947719.92	2279474.25	54	5960056.42	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	2278900.45	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	2273635.35	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	5947595.22	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	5948326.82	2278952.85
11	5948678.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278438.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277168.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276558.85
26	5954376.22	2276562.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954485.02	2276562.85
31	5954631.52	2276539.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5955158.42	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	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.92	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962688.22	2269899.85
49	5962883.22	2269429.85
50	5963198.22	2269327.85
51	5964061.72	2268880.85

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:

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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

Chart Date: Mar 19, 2020		
Surveyed By:	Plotted By:	Checked By: PDT
Submitted: PDT Hydro Survey Team Leader	Designed by:	Drawn By: PDT
Recommended: Chief, Hydro Survey Section		
Approved: Chief, Construction Branch		

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
33 of 37

122°26'20"W 122°26'10"W 122°26'0"W 122°25'50"W

38°4'50"N

38°4'40"N

6,005,971

966+00 967+00 968+00 969+00 970+00 971+00 972+00 973+00 974+00 975+00 976+00 977+00 978+00 979+00 980+00 981+00 982+00 983+00 984+00 985+00 986+00 987+00 988+00 989+00

Petaluma River Entrance Channel Light 8

Petaluma River Entrance Channel Daybeacon 7

6,005,971

122°25'50"W

38°4'40"N

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	2269972.25
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	5953588.52	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	2278870.75
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	2273635.35	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	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.82	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953585.72	2276792.85
24	5954179.82	2276618.85
25	5954274.82	2276558.85
26	5954376.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956786.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273763.65
41	5958169.42	2273621.65
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962698.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85

Feet
0 100 200 400 600

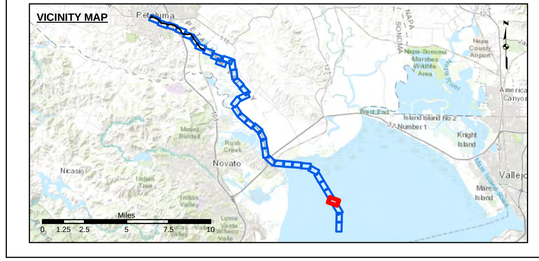
1 inch = 100 feet
Relative Scale (ANSI D 22x34)

1:1,200
Absolute Scale

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

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.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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 Market Street
San Francisco, CA 94102

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Chart Date: Mar 19, 2020			
Surveyed by:	Plotted by:	Designed by:	Drawn by: PDT
PREPARED UNDER THE DIRECTION OF: JOHN D. CUNNINGHAM, LT COLONEL, C.E., DISTRICT ENGINEER	PDT		Checked by: PDT
Submitted: Hydro Survey Team Leader			
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch			

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
34 of 37

CORPS OF ENGINEERS U.S. ARMY

122°26'0"W 122°25'50"W 38°4'30"N 122°25'40"W 122°25'30"W

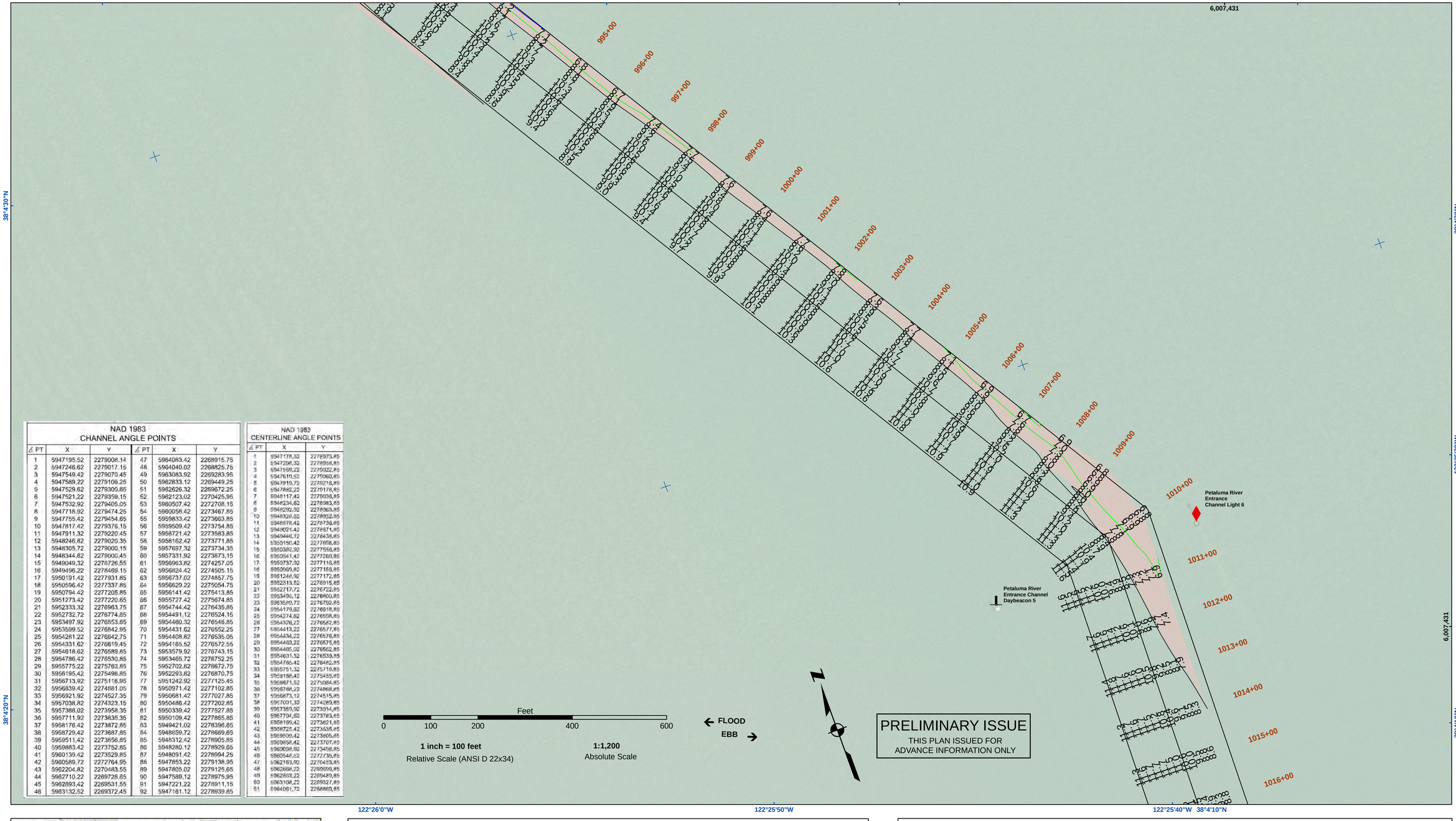
6,007,431

38°4'20"N

6,007,431

38°4'10"N

122°25'30"W



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	2269972.25
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
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	5952263.82	2278870.75
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	2273635.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278689.65
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	2279175.65
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	2278839.85

NAD 1983 CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947296.32	2278956.85
3	5947569.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947992.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948878.42	2278736.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277958.85
15	5950382.92	2277558.85
16	5950541.42	2277260.85
17	5950737.92	2277118.85
18	5950969.62	2277155.85
19	5951246.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953496.12	2276600.85
23	5953585.72	2276752.85
24	5954179.82	2276818.85
25	5954274.82	2276558.85
26	5954376.22	2276542.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954785.42	2276482.85
33	5955751.32	2275718.85
34	5956186.42	2275455.85
35	5956671.52	2275084.85
36	5956786.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274269.85
39	5957359.92	2273914.85
40	5957704.62	2273763.65
41	5958199.42	2273621.65
42	5958725.42	2273635.85
43	5959500.42	2273805.85
44	5959958.42	2273707.85
45	5960058.02	2273498.85
46	5960546.62	2272735.85
47	5962163.02	2270483.85
48	5962698.22	2269899.85
49	5962883.22	2269489.85
50	5963108.22	2269327.85
51	5964061.72	2268880.85



- 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

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

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Chart Date: Mar 19, 2020	Designed by:	Drawn by: PDT
Surveyed by:	Plotted by:	Checked by: PDT

PREPARED UNDER THE DIRECTION OF:
JOHN D. CUNNINGHAM
LT COLONEL, CE, DISTRICT ENGINEER

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

SONOMA COUNTY CALIFORNIA

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

Sheet Reference Number
35 of 37

122°25'50"W 122°25'40"W 122°25'30"W 38°4'0"N

6,007,777

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

1024+00
1025+00
1026+00
1027+00
1028+00
1029+00
1030+00
1031+00
1032+00
1033+00
1034+00
1035+00
1036+00
1037+00
1038+00
1039+00
1040+00

← FLOOD
EBB →

38°4'0"N 122°26'0"W

38°3'50"N

6,007,777

122°26'0"W 38°3'50"N 122°25'50"W 122°25'40"W 122°25'30"W

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	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	5958182.42	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	2275974.85
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	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	2274981.05	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	2278669.85
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	2278839.85

NAD 1983
CENTERLINE ANGLE POINTS

∠ PT	X	Y
1	5947178.32	2278973.85
2	5947296.32	2278958.85
3	5947595.22	2279022.85
4	5947619.52	2279060.85
5	5947819.72	2279218.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.62	2278983.85
9	5948292.92	2278963.85
10	5948326.62	2278952.85
11	5948678.42	2278739.85
12	5949021.42	2278571.85
13	5949446.12	2278436.85
14	5950150.42	2277858.85
15	5950382.92	2277556.85
16	5950541.42	2277260.85
17	5950737.92	2277116.85
18	5950969.82	2277158.85
19	5951246.92	2277172.85
20	5952313.52	2276916.85
21	5952717.72	2276722.85
22	5953496.12	2276800.85
23	5953580.72	2276792.85
24	5954179.82	2276618.85
25	5954274.92	2276598.85
26	5954376.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276576.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954631.52	2276533.85
32	5954786.42	2276482.85
33	5955751.32	2275718.85
34	5956158.42	2275455.85
35	5956871.52	2275084.85
36	5956748.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957350.92	2273914.85
40	5957704.62	2273783.85
41	5958186.42	2273621.85
42	5958725.42	2273535.85
43	5959500.42	2273805.85
44	5959858.42	2273707.85
45	5960058.62	2273456.85
46	5960546.62	2272730.85
47	5962163.02	2270483.85
48	5962668.22	2269699.85
49	5962863.22	2269489.85
50	5963196.22	2269327.85
51	5964061.72	2268860.85

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
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- Placement Area
- Anchorage Area
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- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
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SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

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
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Surveyed By:	Plotted By:	Checked By: PDT	Drawn by: PDT
			Chart Date: Mar 19, 2020

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SONOMA COUNTY

PETALUMA RIVER
CONDITION SURVEY
04 & 17 MARCH 2020

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