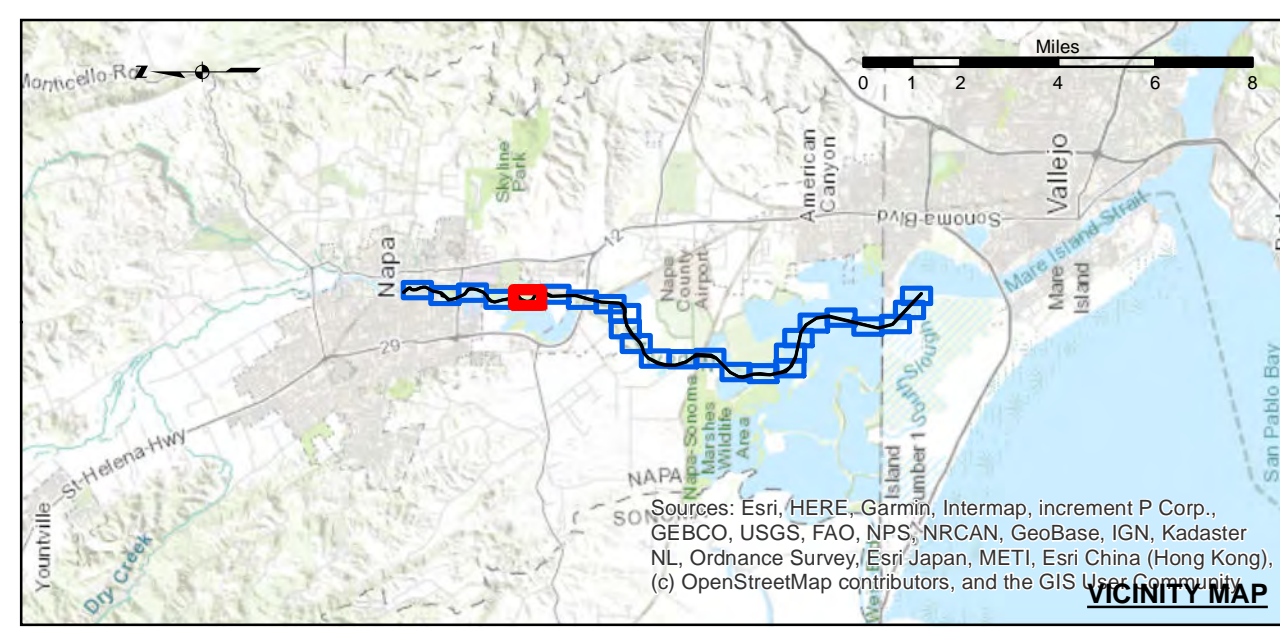




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Prepared Under the Direction of	Chart Date:
LT COLONEL W. SHEBESTA	Feb 05, 2024
Submittal:	Plotted By:
Hydro Survey Team Leader	PDT
Recommended:	Checked By:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		-15
Angle Point		-14
		-13
		-12
		-11

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

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 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.

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*SHOALEST SOUNDING PER QUARTER PER REACH

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

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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.

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VERTICAL CONTROLS:
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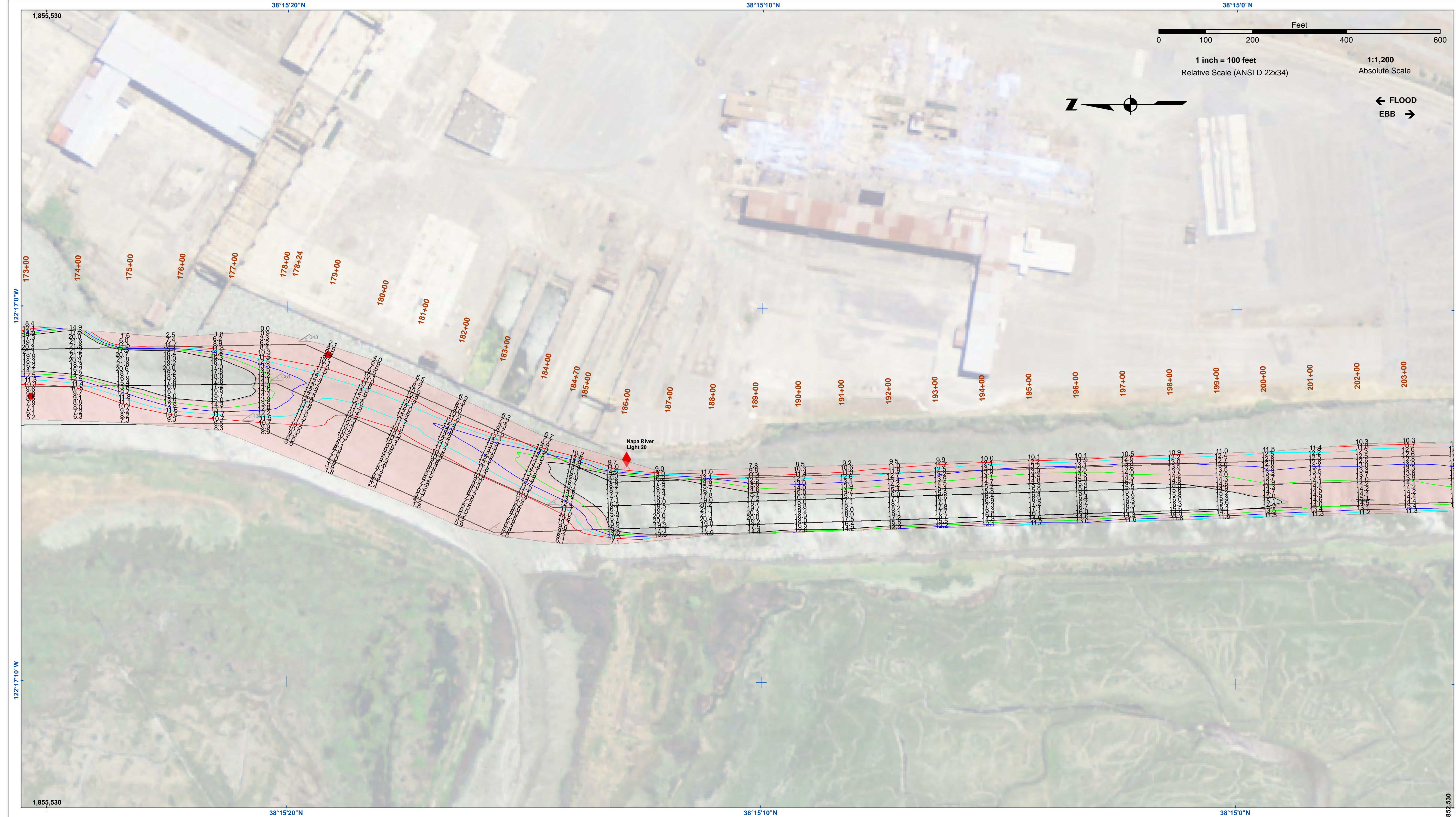
176+00 TO 224+00 - NAPA01 - 2.652m MLLW, -29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSECT 11 AND NRFP4 USING RTK OBSERVATIONS PID PENDING.

225+00 TO 640+00 - NAPA02 - 3.653m MLLW -28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

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CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

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 Number
 5 of 25**



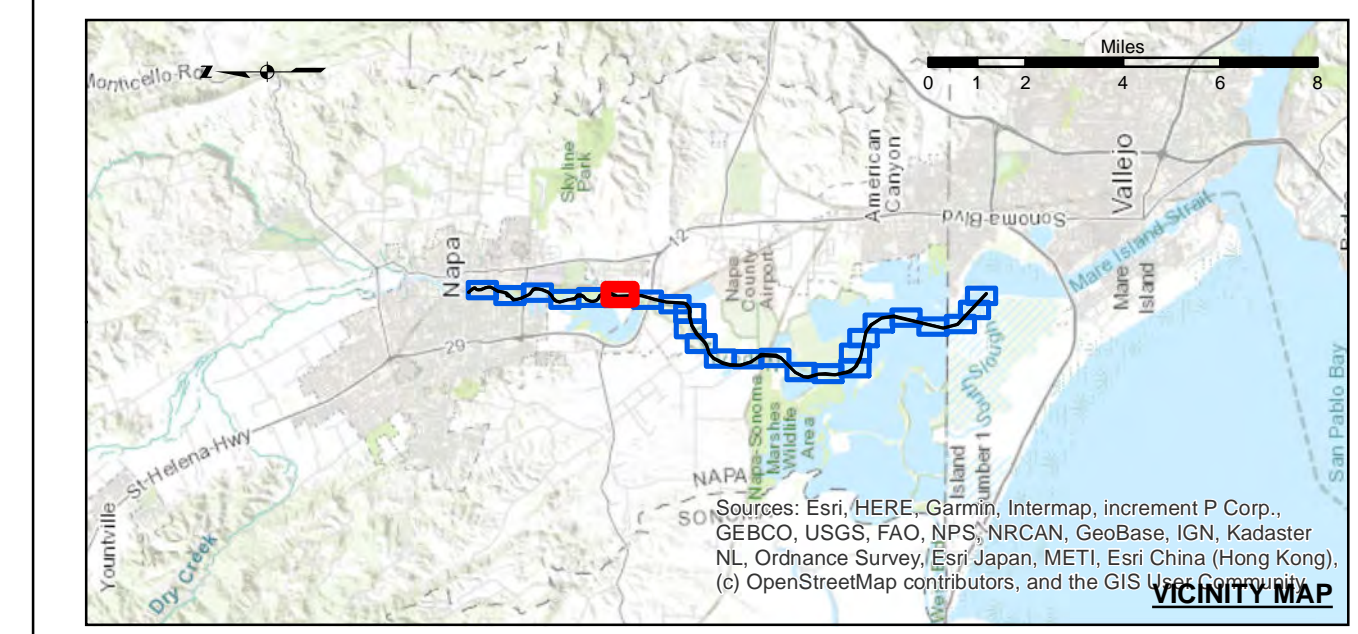
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Chart Date:	Feb 05, 2024
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

CALIFORNIA
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

**Sheet
 Reference
 Number
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Federal Navigation Channel	Shoaling Area	Beacon, General	Contours
Placement Area	Navigation Buoy	Navigation Buoy	-14
Anchorage Area	Shoalest Sounding*	Shoalest Sounding*	-13
Wreck Area			-12
Submerged Wreck			-11
Angle Point			

NOTES:
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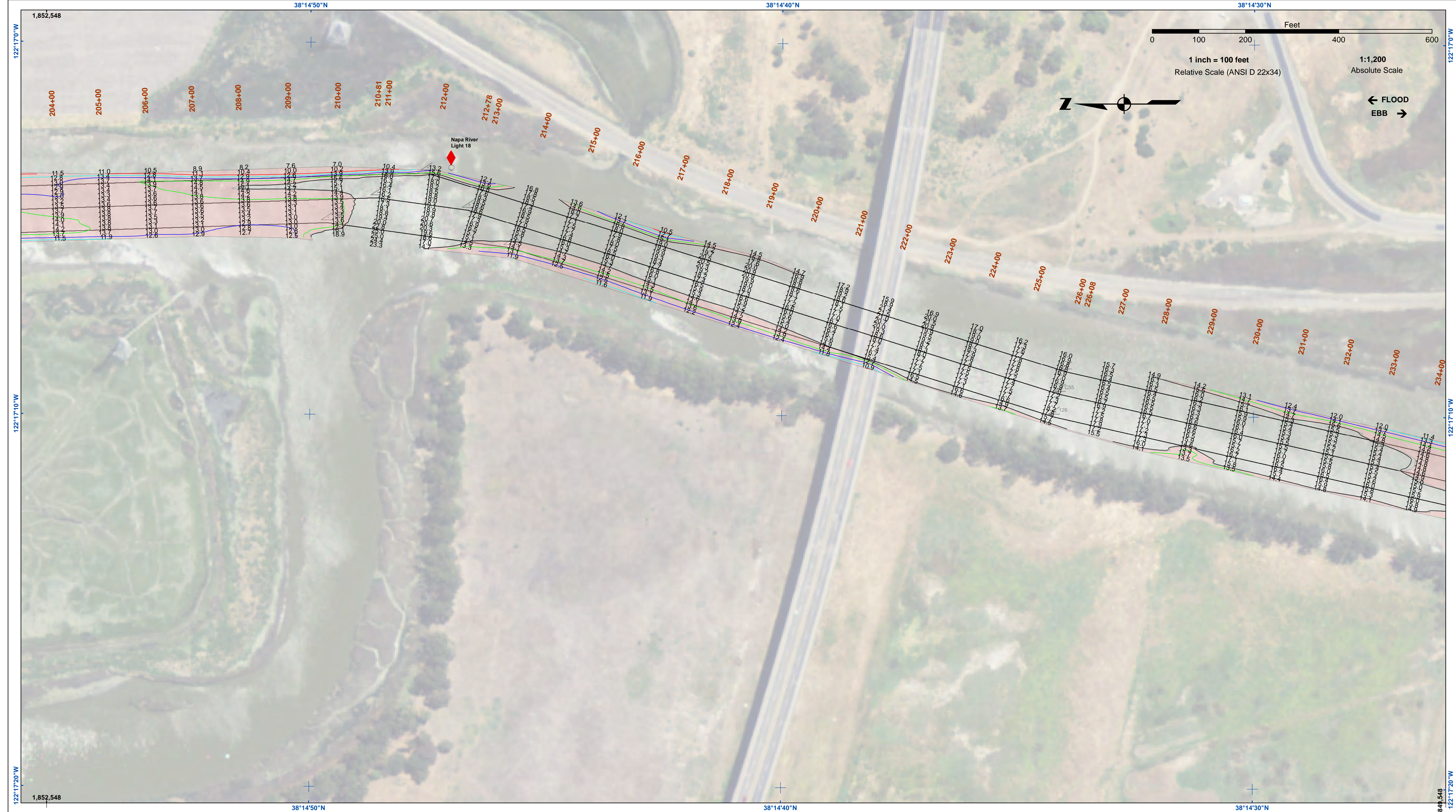
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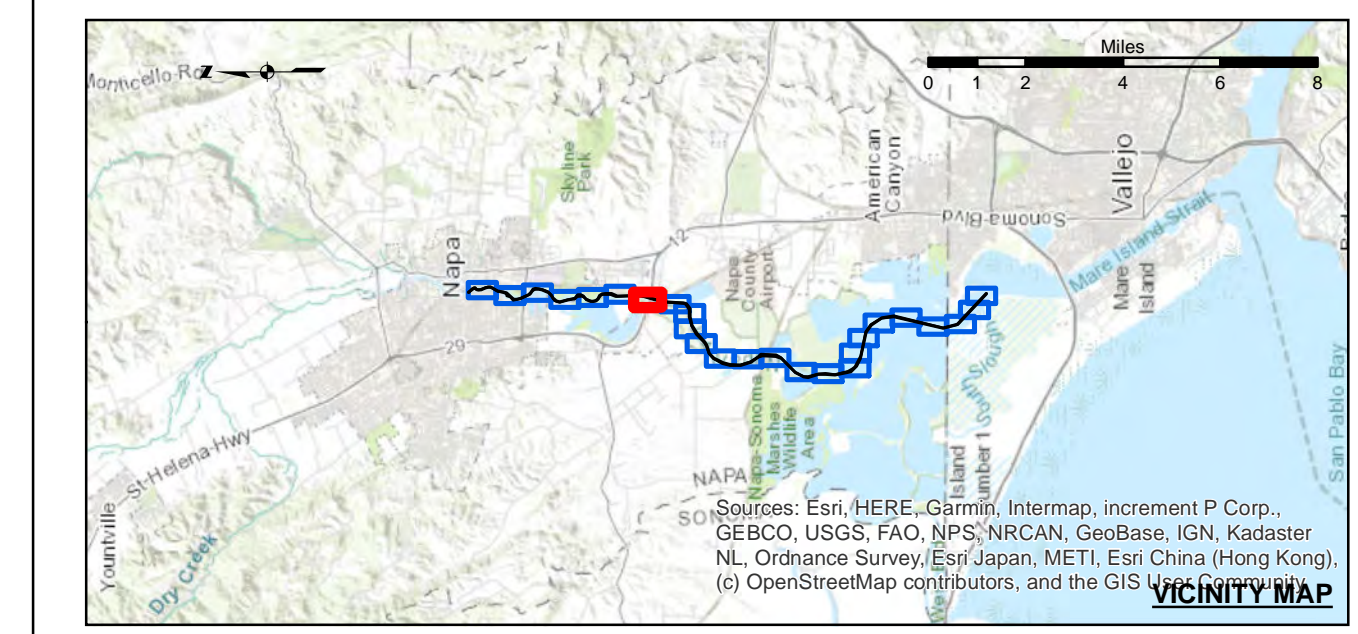
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Surveyed By:	PDT
Plotted By:	PDT
Checked By:	PDT
Drawn By:	PDT

CALIFORNIA
 NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY
 30-31 JANUARY 2024

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Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-15
Placement Area	Navigation Buoy	-14
Anchorage Area	Navigation Buoy	-13
Wreck Area	Shoalest Sounding*	-12
Submerged Wreck		-11
Angle Point		

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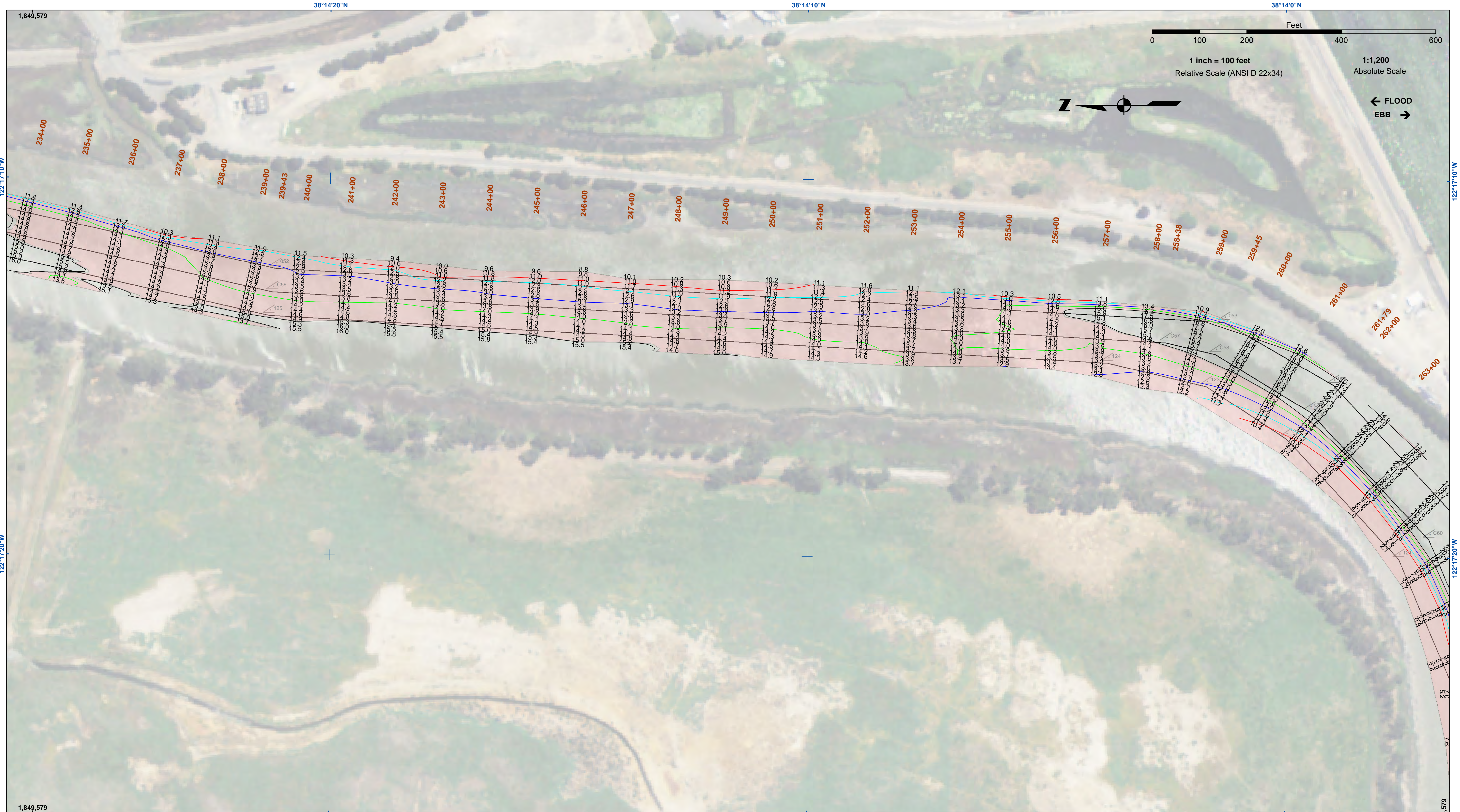
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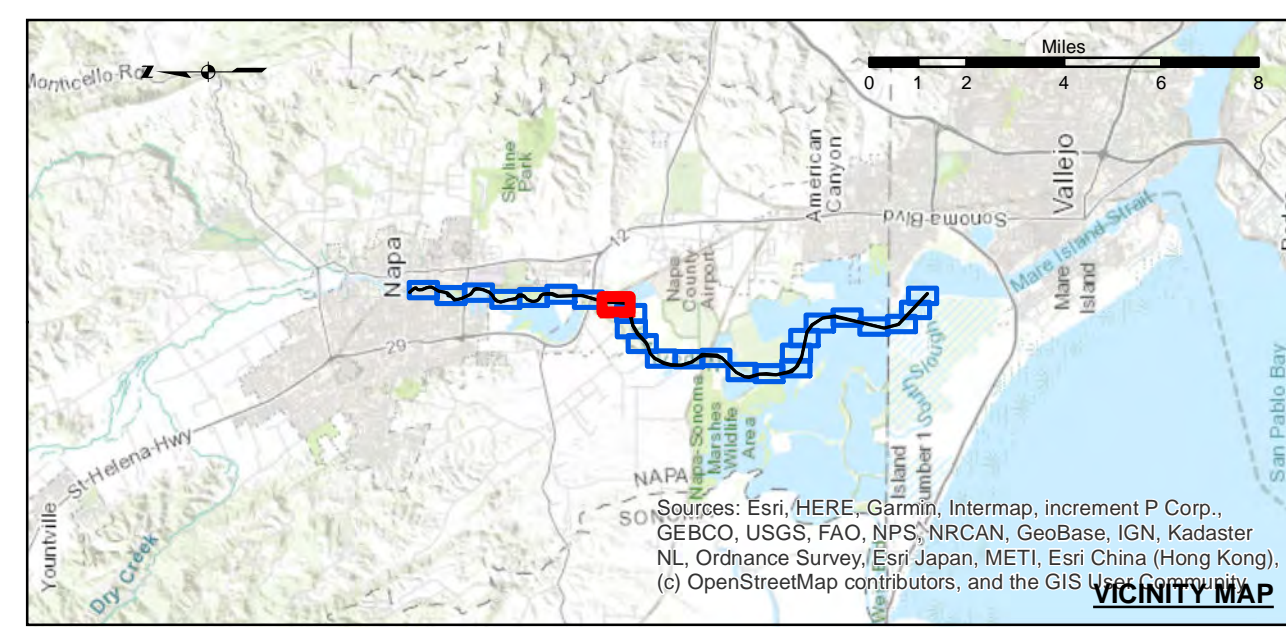
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Chart Date:	Feb 05, 2024
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

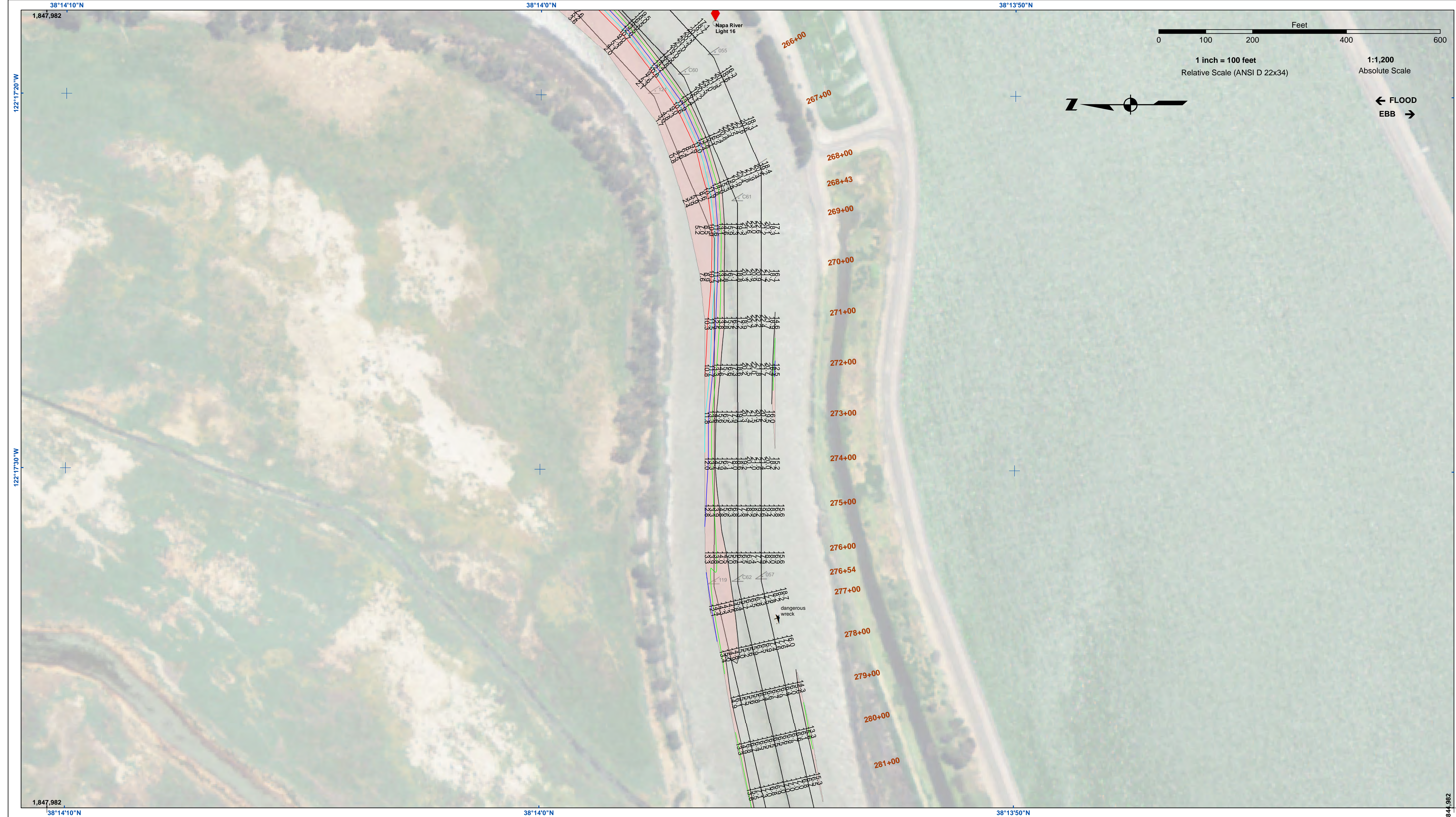
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 Reference
 Number**
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Federal Navigation Channel	Beacon, General	Contours
Placement Area	Obstruction Point	
Anchorage Area	Navigation Buoy	
Wreck Area	Navigation Buoy	
Submerged Wreck	Shoalest Sounding*	
Angle Point		-15
		-14
		-13
		-12
		-11

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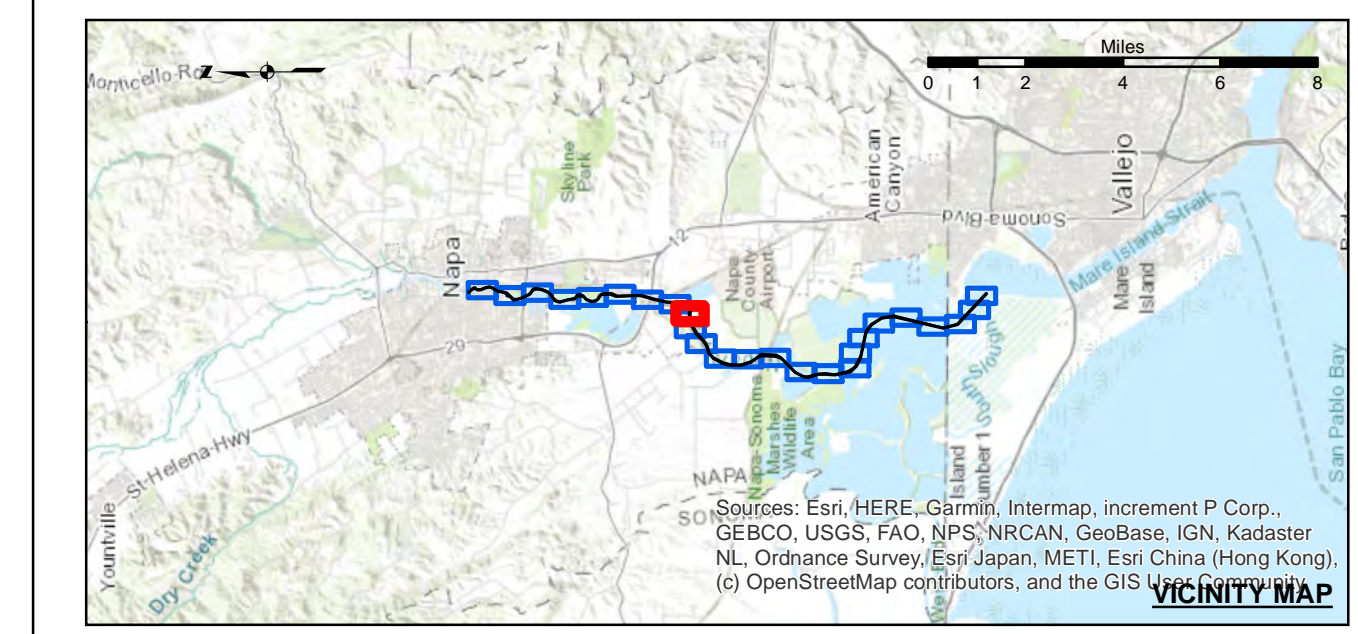
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Chart Date:	Feb 05, 2024
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

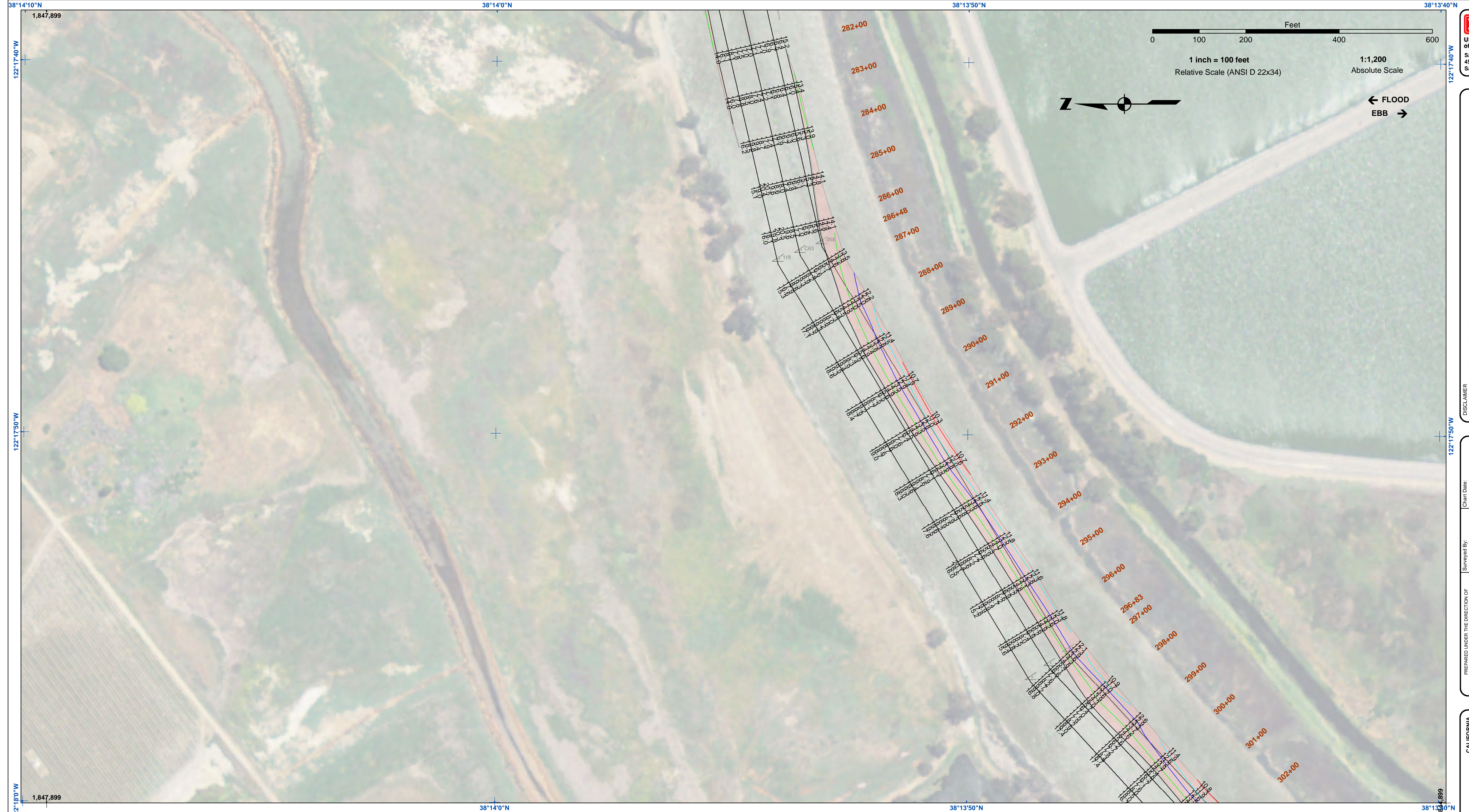
**Sheet
 Reference
 Number
 9 of 25**



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-14
Placement Area	Navigation Buoy	-13
Anchorage Area	Navigation Buoy	-12
Wreck Area	Shoalest Sounding*	-11
Submerged Wreck		
Angle Point		

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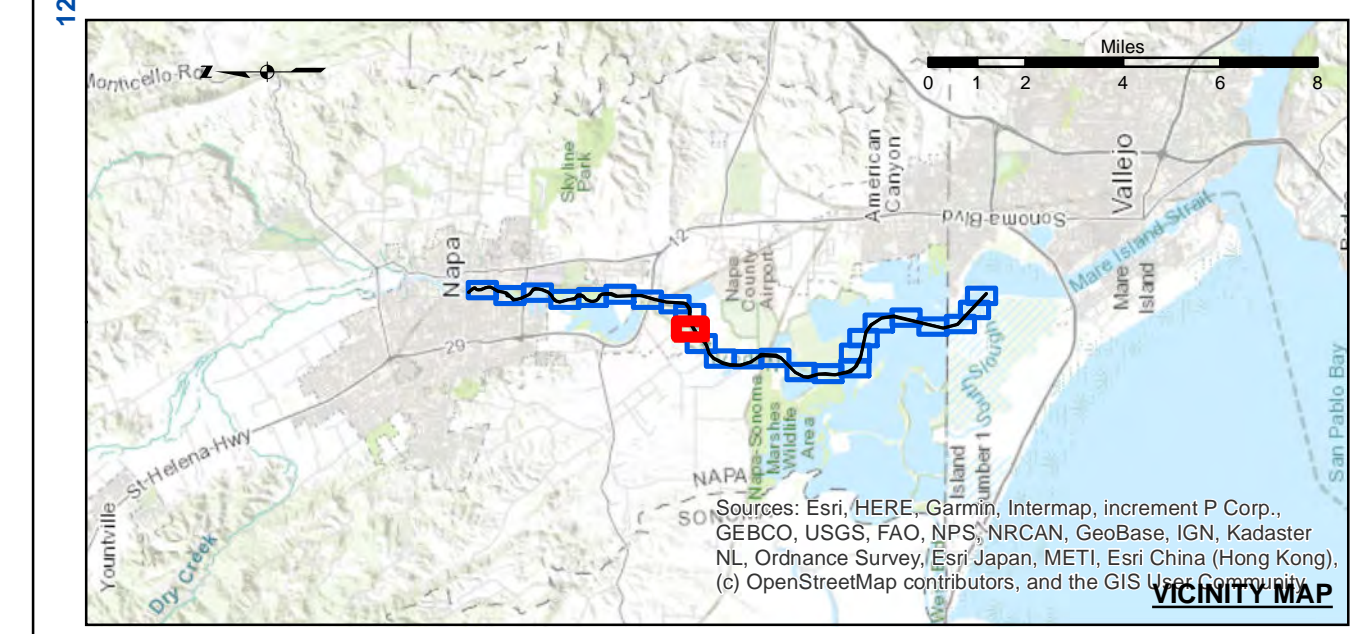


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Prepared Under the Direction of	Chart Date
LT COLONEL W. SHEBESTA	Feb 05, 2024
Plotted By	Designed by
PDT	PDT
Checked By	Drawn by
PDT	PDT

CALIFORNIA
 NAPA COUNTY
 NAPA RIVER
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 30-31 JANUARY 2024

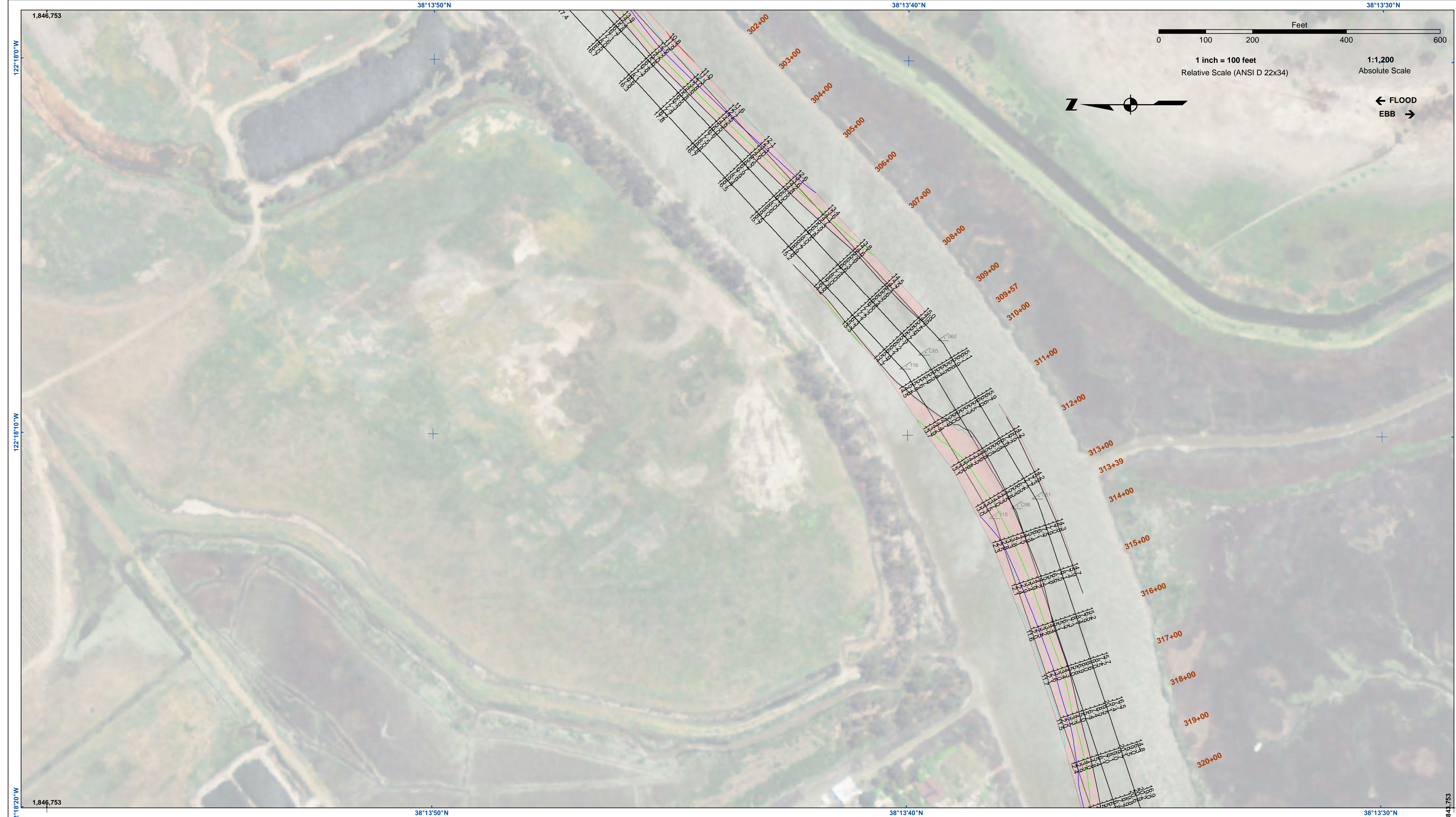
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Federal Navigation Channel	Beacon, General	-15
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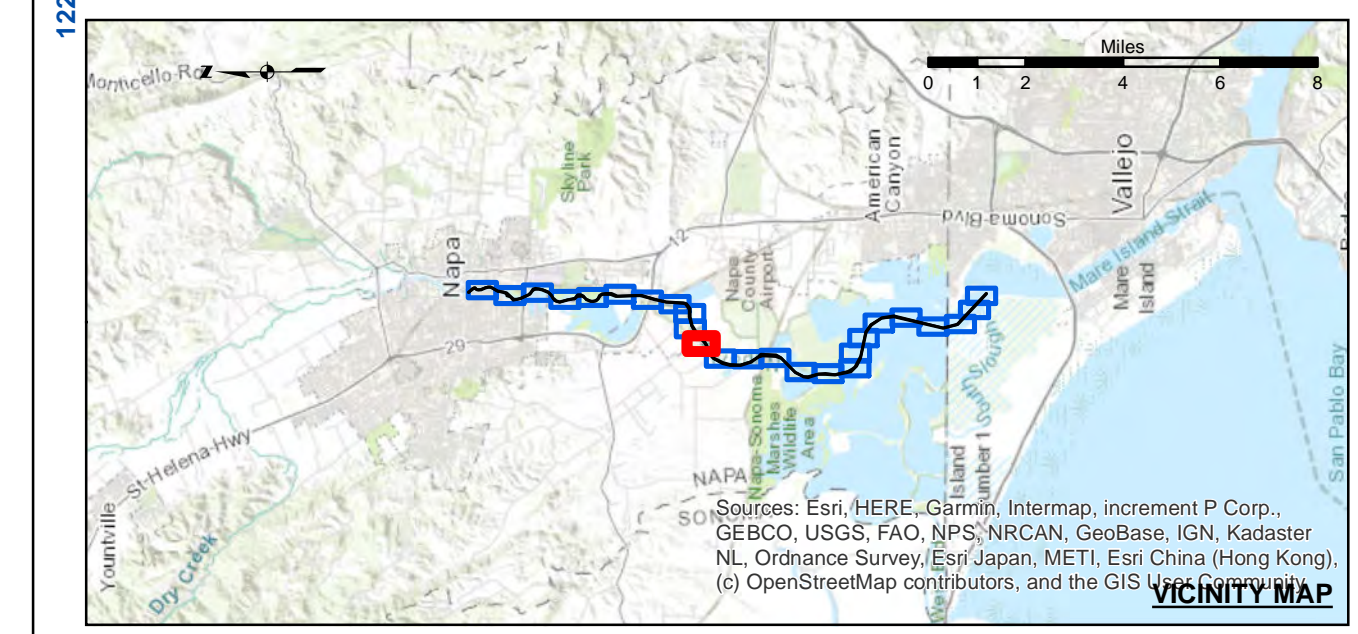
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 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

**Sheet
 Reference
 Number**
11 of 25

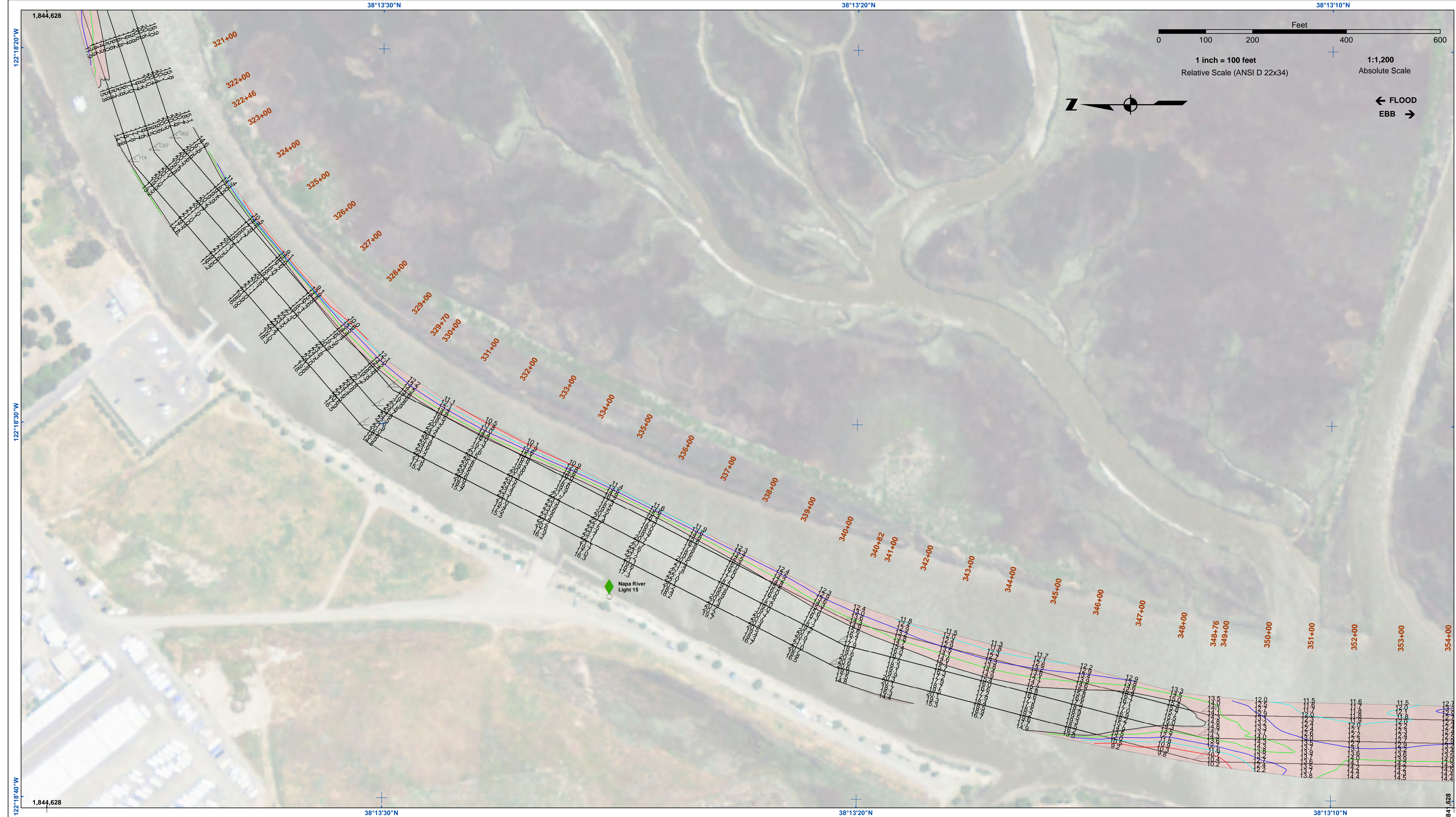


- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding*

- Contours**
- 15
 - 14
 - 13
 - 12
 - 11

NOTES:
 HORIZONTAL COORDINATE SYSTEM:
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. DISTANCE UNITS IN U.S. SURVEY FEET.
 VERTICAL DATUM:
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
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 *SHOALEST SOUNDING PER QUARTER PER REACH
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SURVEYED BY THE CORPS OF ENGINEERS.
 SOUNDING FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT.
 SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
 THE PROJECT DEPTH IS 15 FROM ENTRANCE AT THE MARE ISLAND CAUSEWAY TO ASYLUM SLOUGH, THENCE 10 FEET TO HEAD OF NAVIGATION.
 VERTICAL CONTROLS:
 0+00 TO 175+00 - NARFP4 - 30.54m - USACE - RTK BASE STATION TRANSCECT 11 - 6.593m MLLW - USACE - MLLW LEVELED FROM 20 AND TIDAL 5 FROM TIDE STATION 941 5623 ON 3/29/2012.
 176+00 TO 224+00 - NARFP1 - 2.652m MLLW - 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSCECT 11 AND NRFP4 USING RTK OBSERVATIONS PID PENDING.
 225+00 TO 640+00 - NARFP2 - 3.653m MLLW - 28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.
 641+00 TO 692+00 - NARFP3 - 3.553m MLLW - 28.416m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. TRANSFERRED FROM BM 5218 J 1976 VIA RTK ON 4/10/2012 PID PENDING.



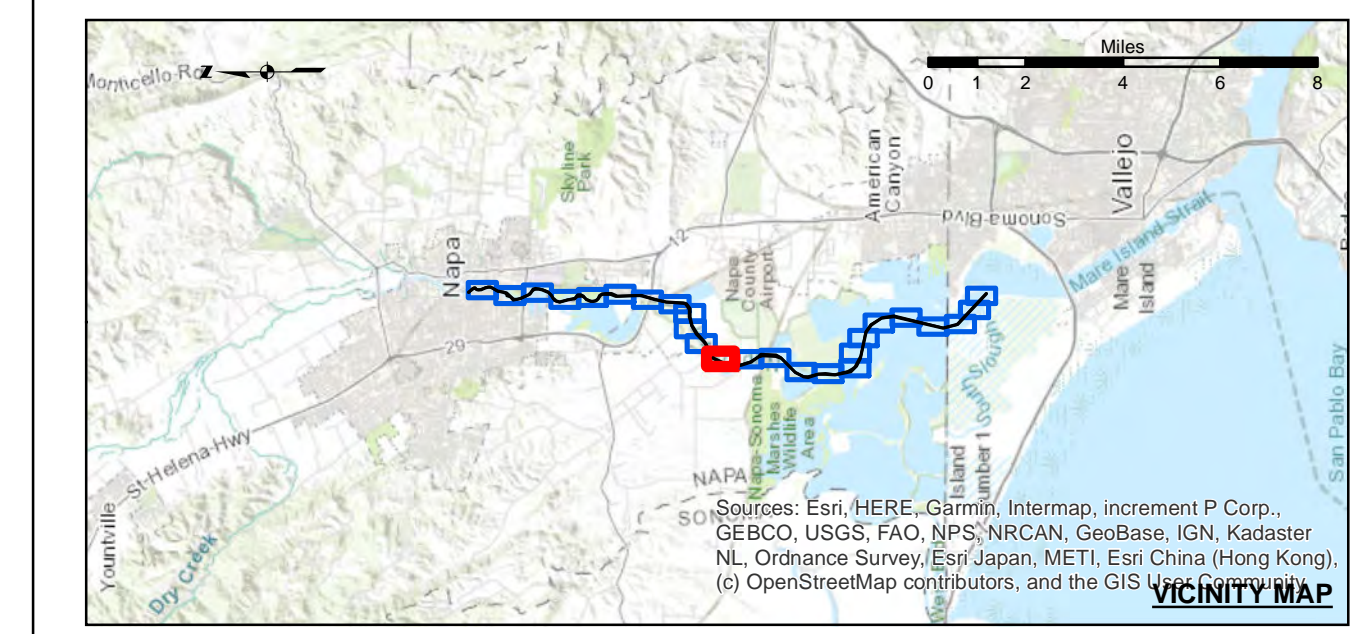
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 450 Market Street
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Prepared Under the Direction of TIMOTHY W. SHEBESTA LT COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Feb 05, 2024
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	

CALIFORNIA
NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY
 30-31 JANUARY 2024

Sheet Reference Number
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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
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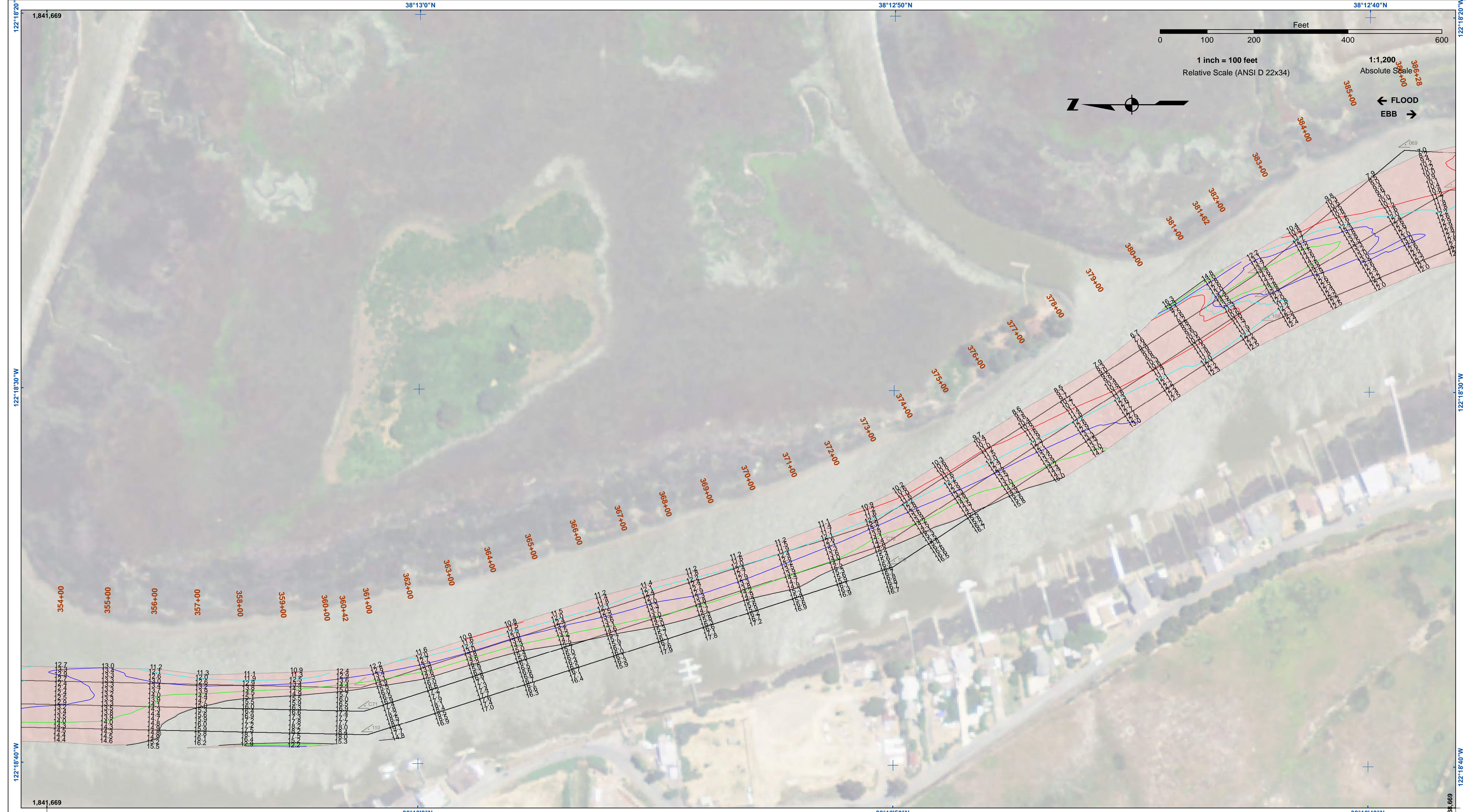
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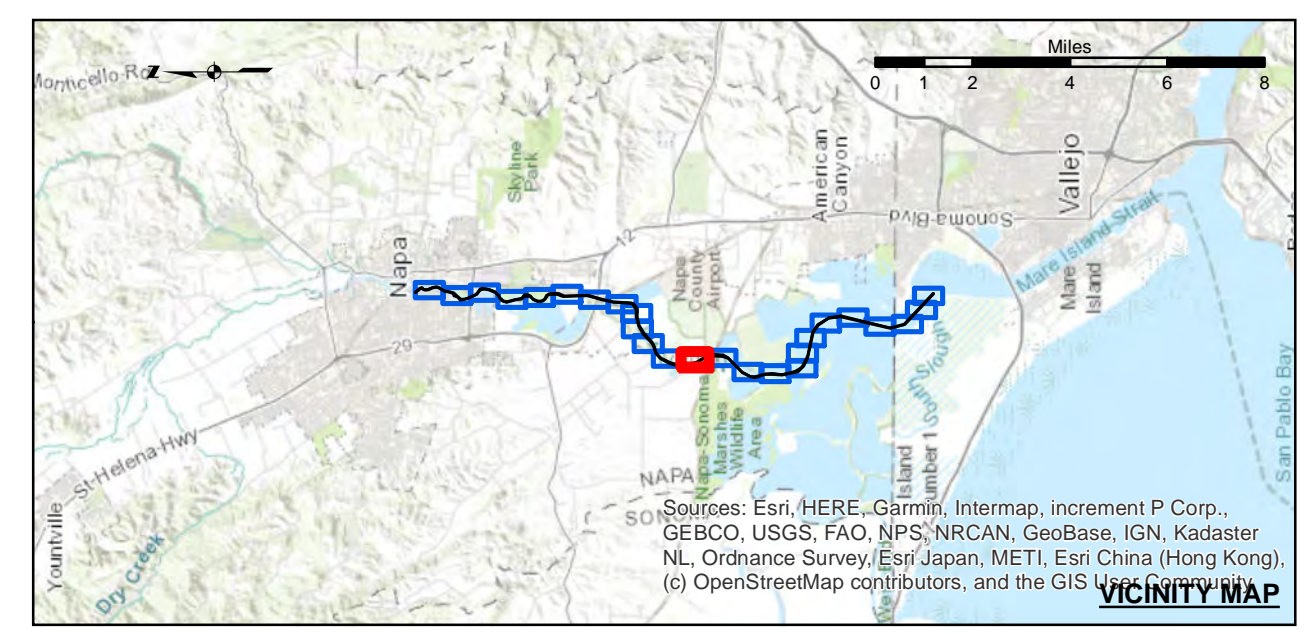
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Prepared Under the Direction of TIMOTHY W. SHEBESTA LT Colonel, C.E., District Engineer	Chart Date: Feb 05, 2024
Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Drawn by: PDT
Approved by: Chief, Construction Branch	PDT

CALIFORNIA
NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY
 30-31 JANUARY 2024

Sheet Reference Number
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Federal Navigation Channel	Shoaling Area	Beacon, General	-15
Placement Area	Obstruction Point	Navigation Buoy	-14
Anchorage Area	Navigation Buoy	Navigation Buoy	-13
Wreck Area	Shoalest Sounding*	Shoalest Sounding*	-12
Submerged Wreck			-11
Angle Point			

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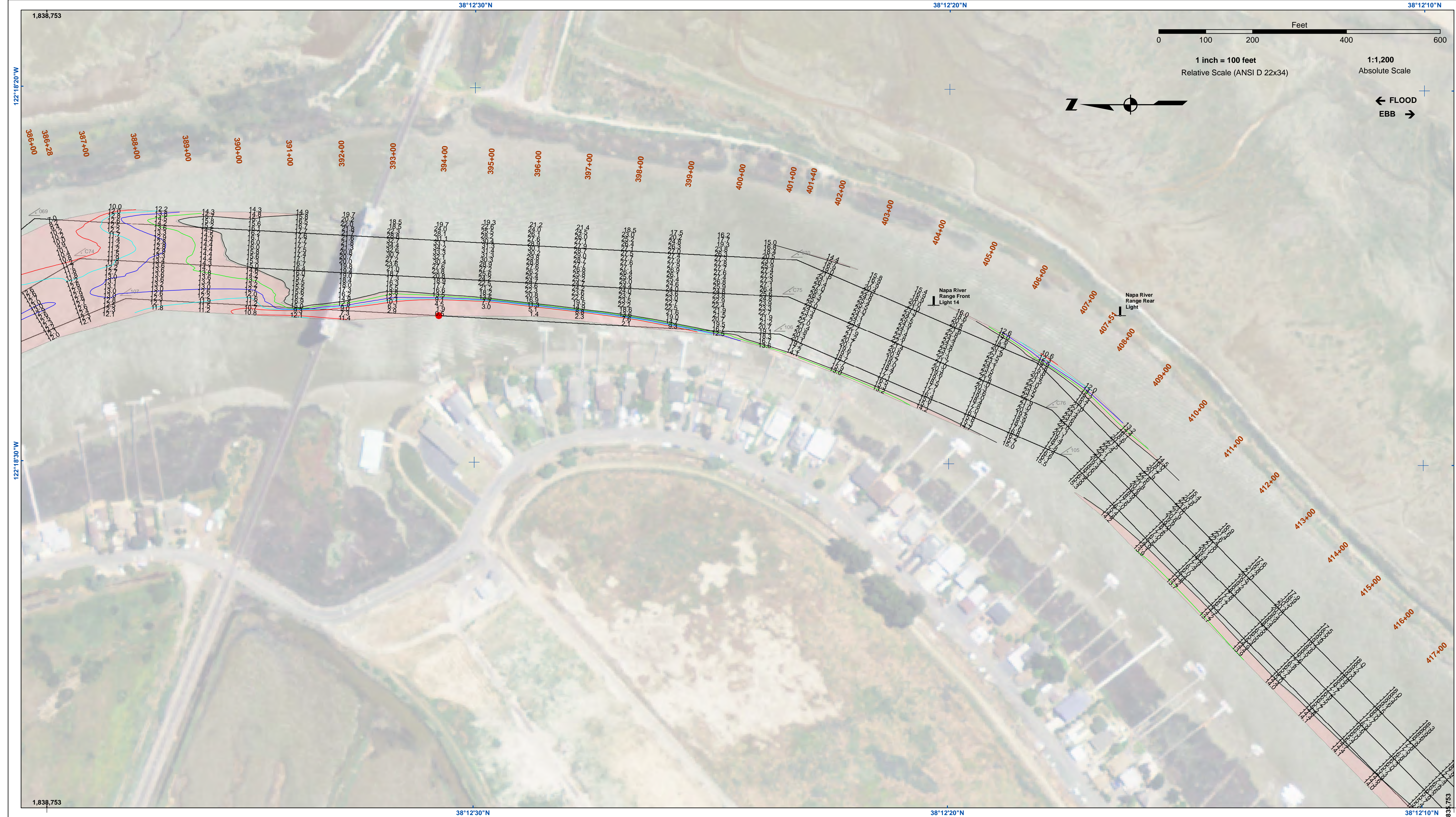
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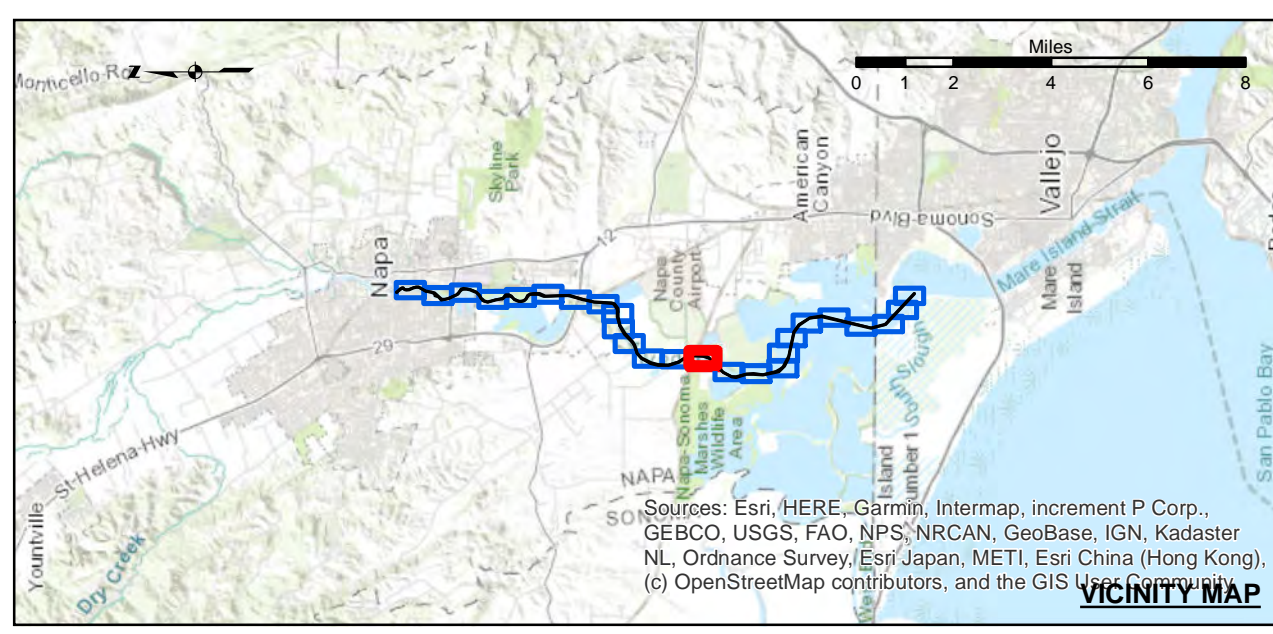
Chart Date:	Feb 05, 2024
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

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

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

CALIFORNIA
NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY
 30-31 JANUARY 2024

Sheet
Reference
Number
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Federal Navigation Channel	Beacon, General	-15
Shoaling Area	Obstruction Point	-14
Placement Area	Navigation Buoy	-13
Anchorage Area	Navigation Buoy	-12
Wreck Area	Shoalest Sounding*	-11
Submerged Wreck		
Angle Point		

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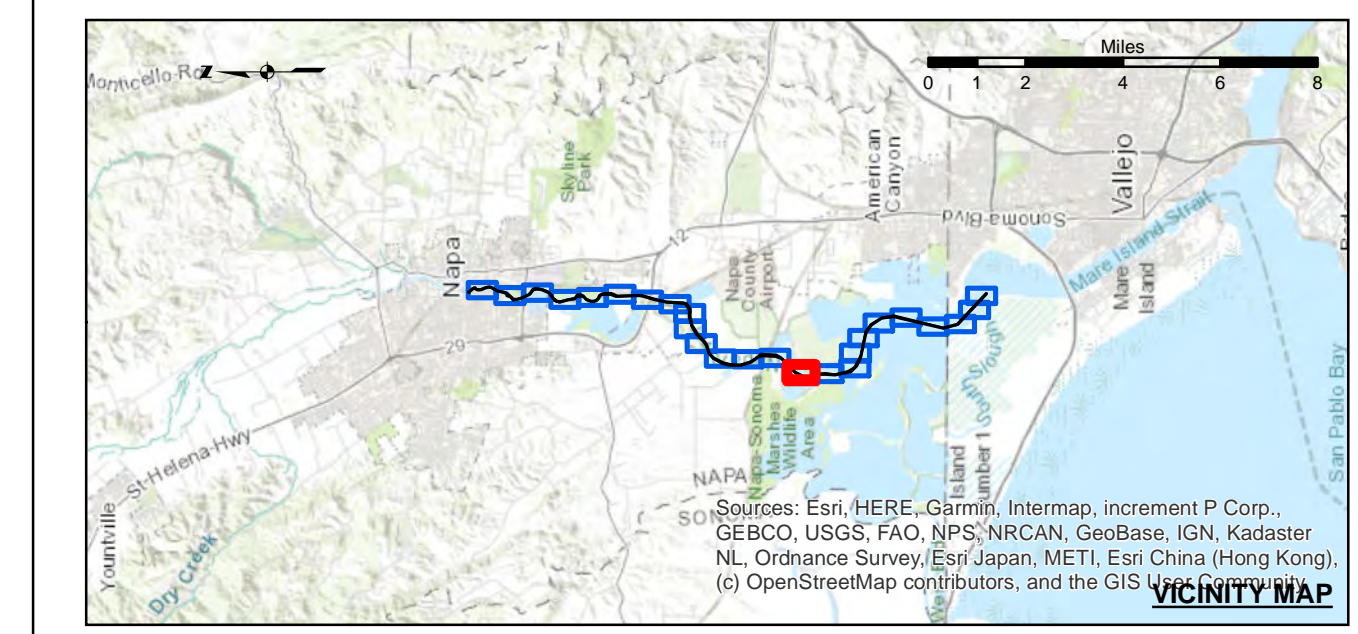
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Chart Date:	Feb 05, 2024
Designed by:	PDT
Plotted by:	PDT
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CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

**Sheet
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Federal Navigation Channel	Beacon, General	Contours -15 -14 -13 -12 -11
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
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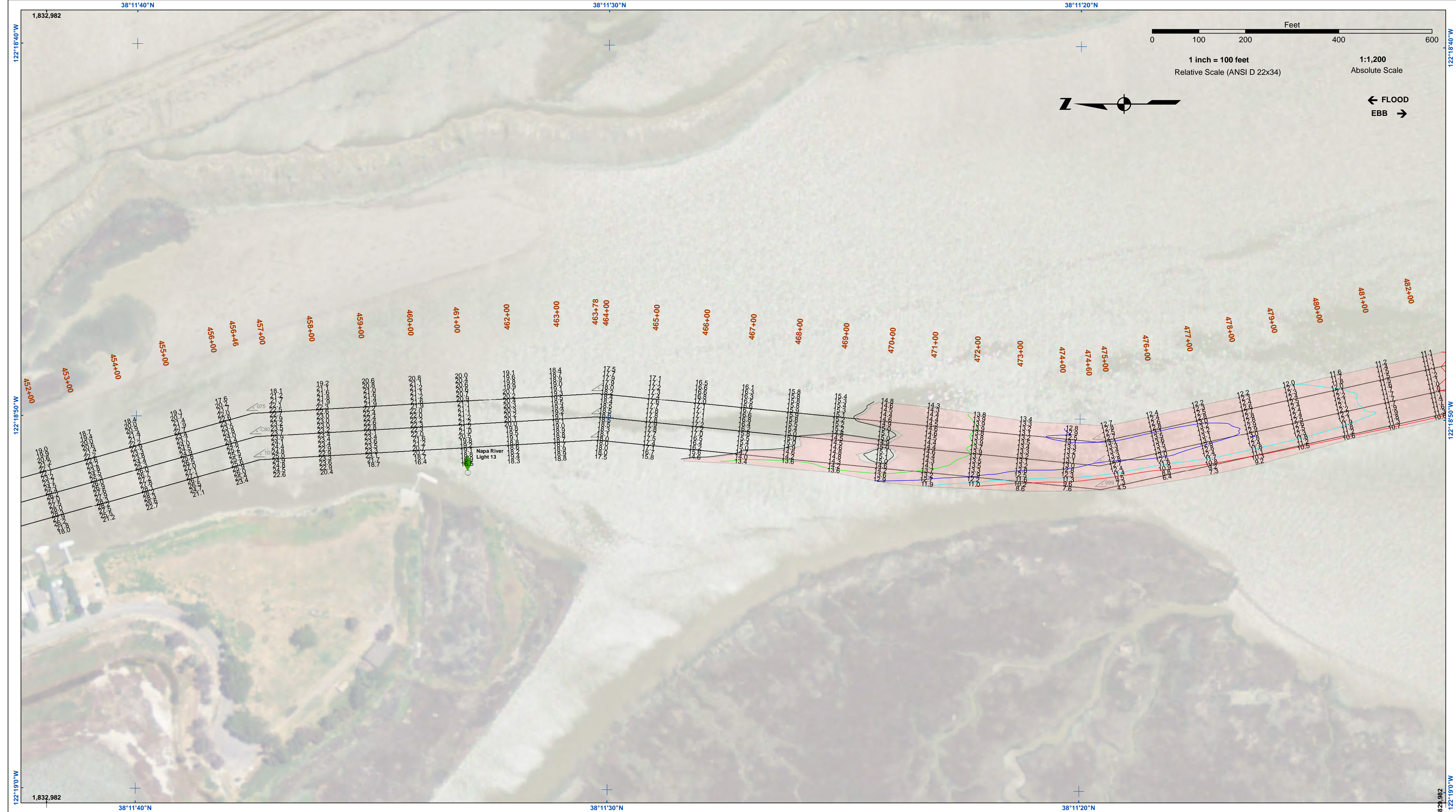
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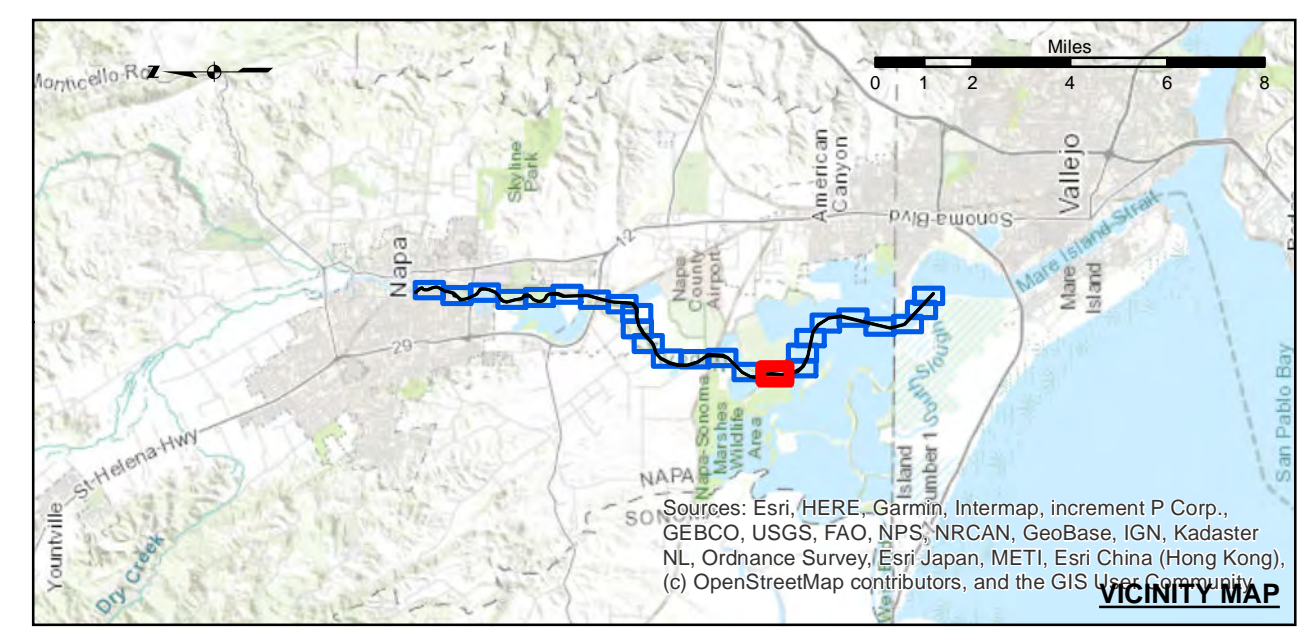
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 NAPA COUNTY

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- Federal Navigation Channel
 - Shoaling Area
 - Placement Area
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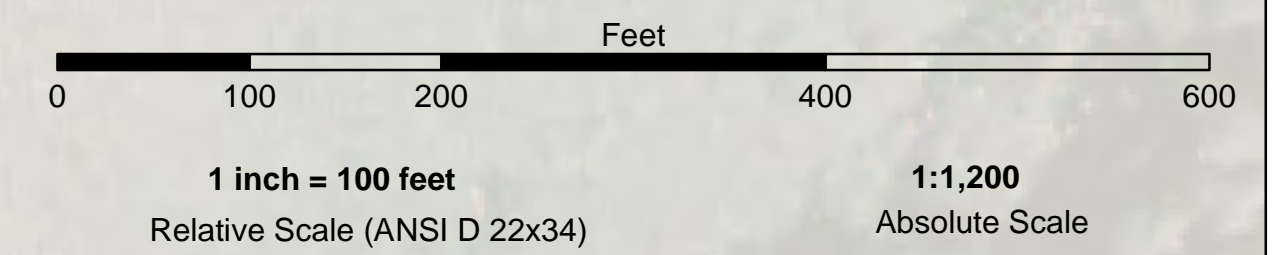
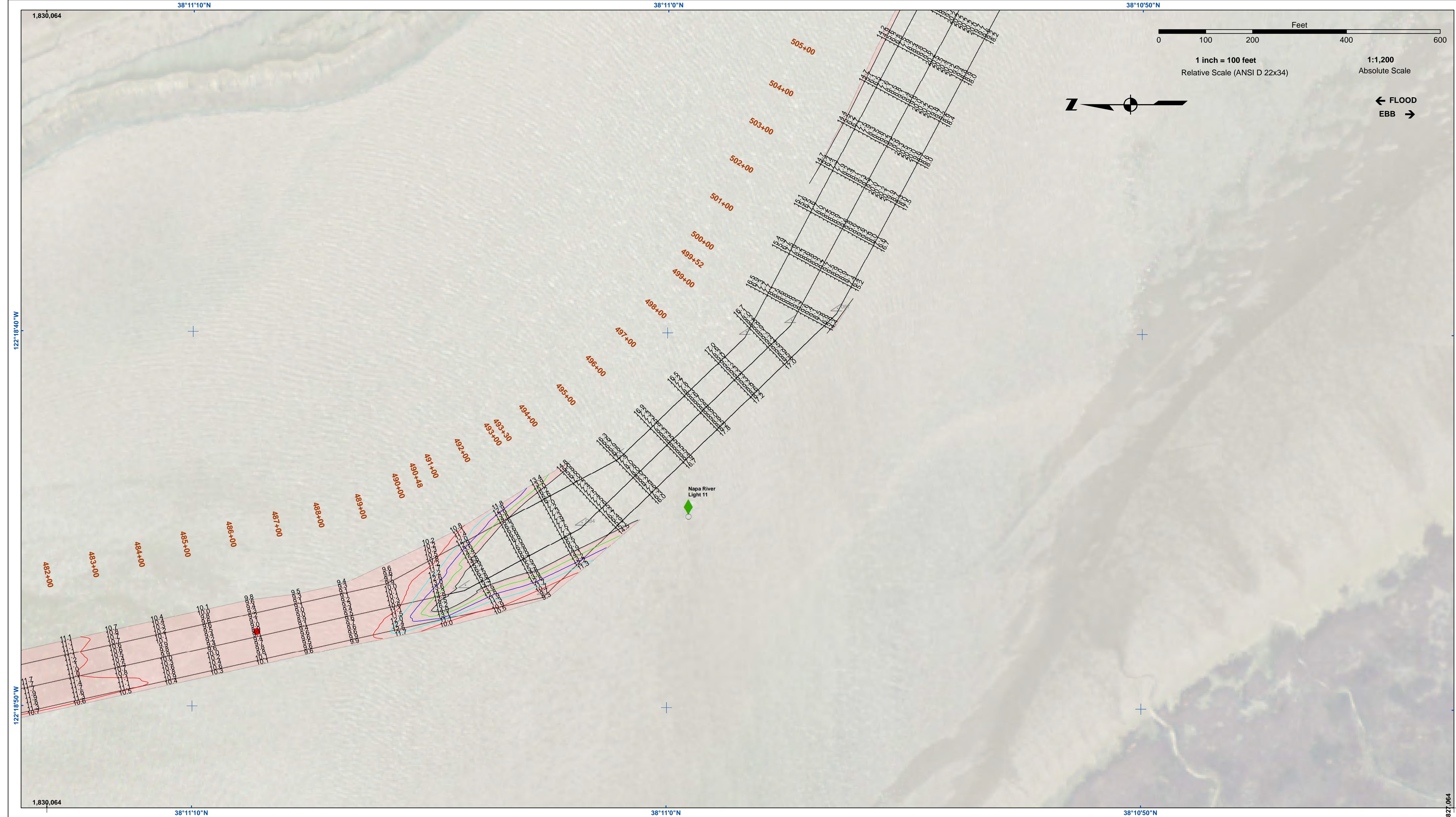
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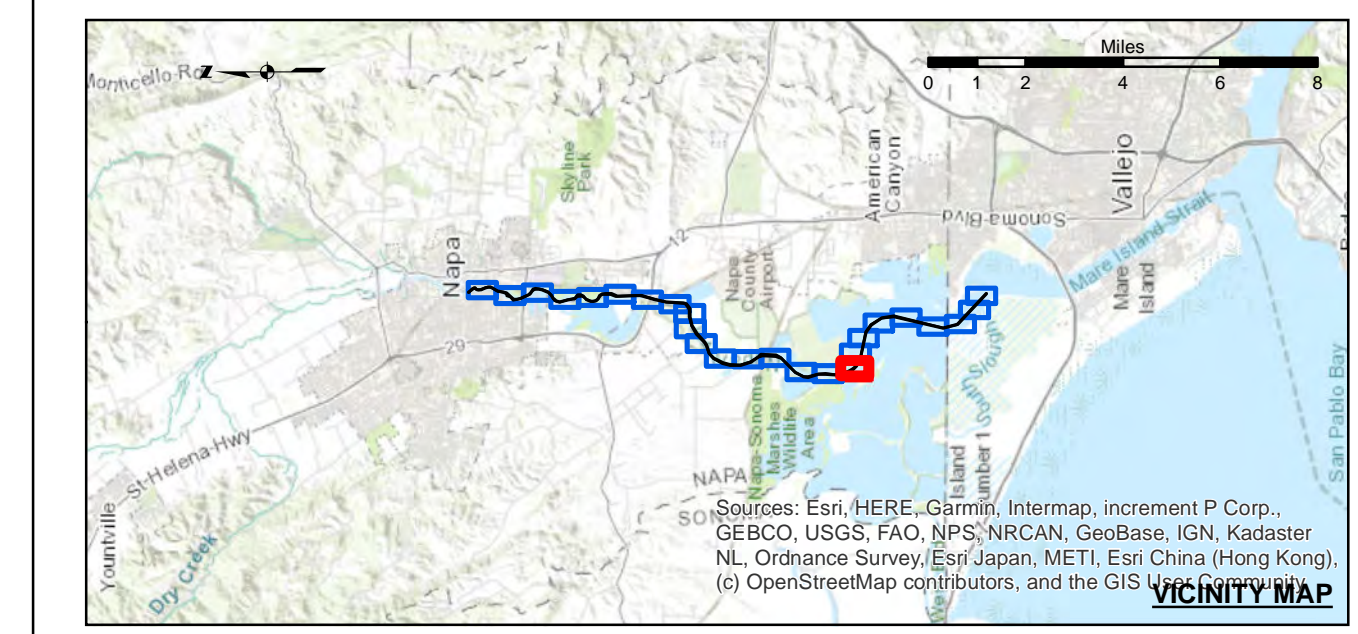
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← FLOOD
EBB →

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

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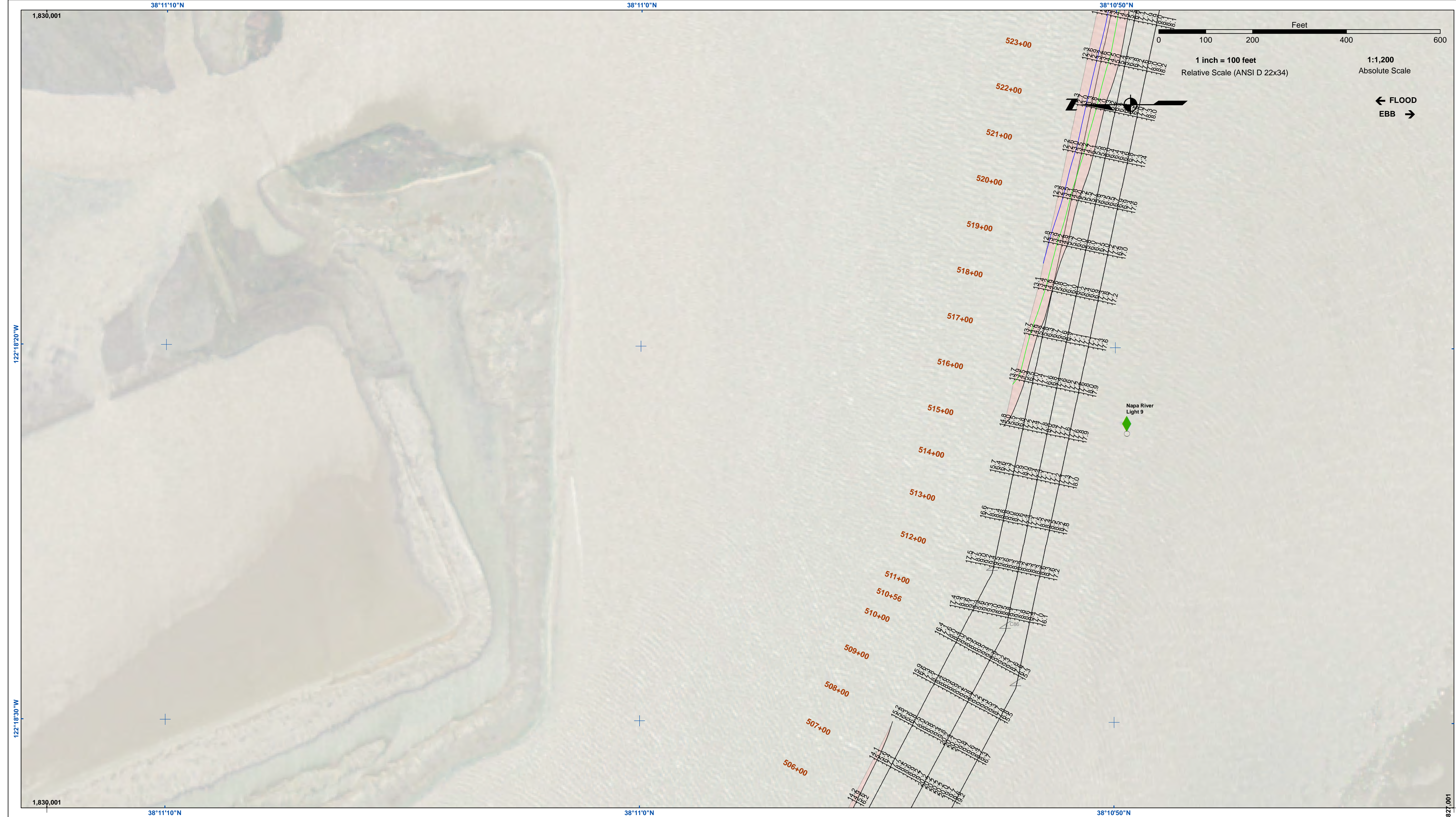
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Prepared Under the Direction of TIMOTHY W. SHEBESTA LT COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Feb 05, 2024
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	Drawn by: PDT

CALIFORNIA
**NAPA RIVER
LOWER NAPA
CONDITION SURVEY**
30-31 JANUARY 2024

**Sheet
Reference
Number**
17 of 25

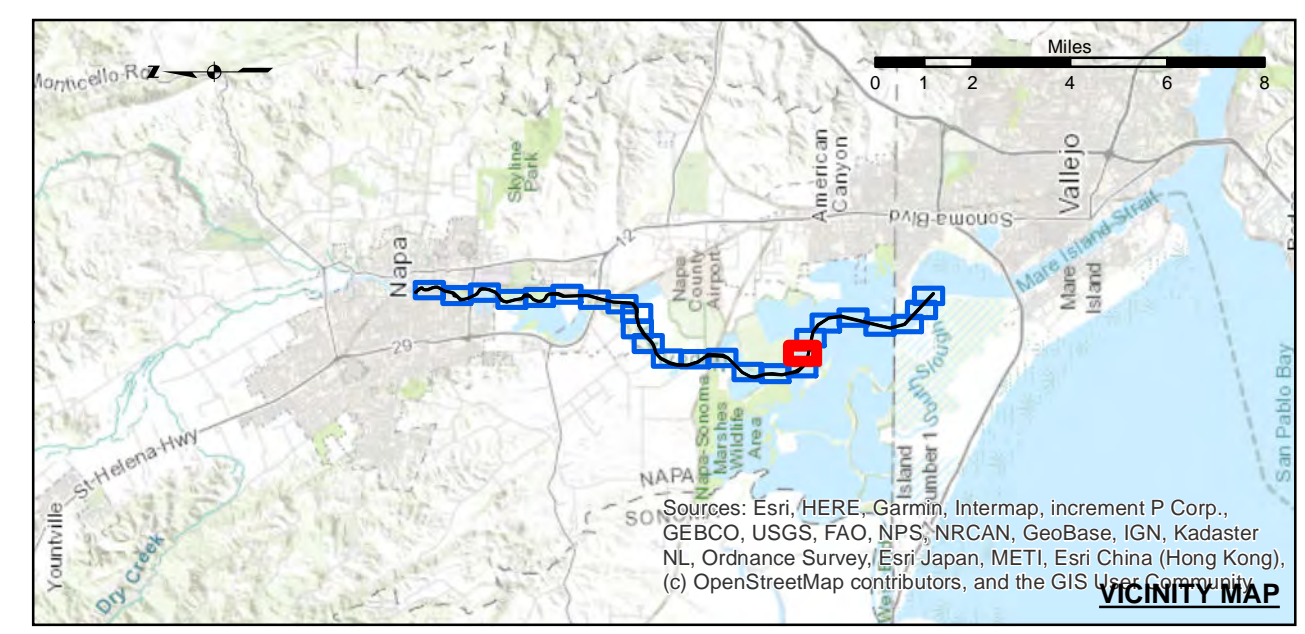


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Designed by:	PDT
Drawn by:	PDT
Surveyed By:	PDT
Plotted By:	PDT
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Approved:	Chief, Construction Branch

CALIFORNIA
NAPA RIVER
LOWER NAPA
CONDITION SURVEY
 30-31 JANUARY 2024



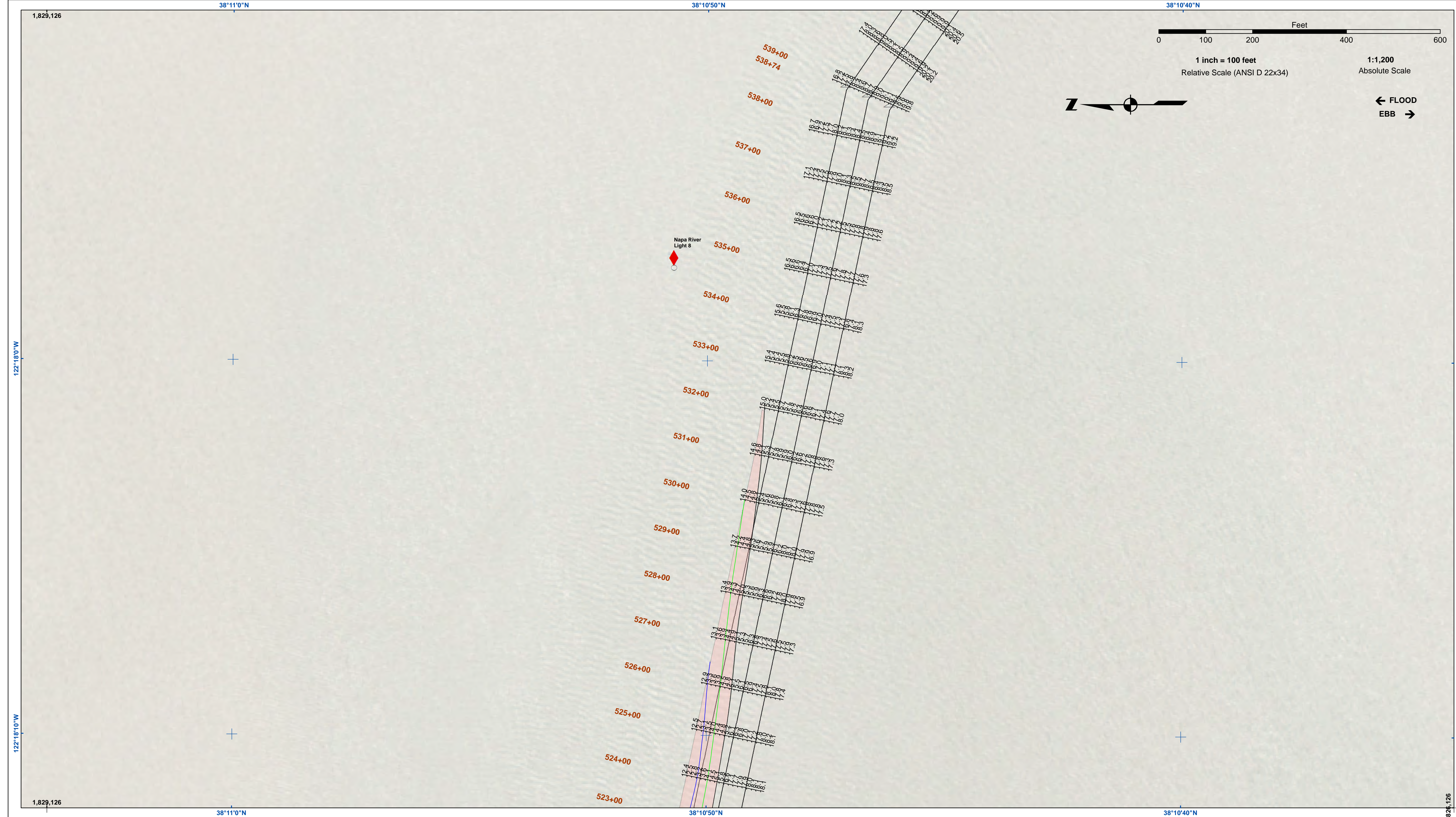
- Federal Navigation Channel
- Shoaling Area
- Placement Area
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- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
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- Navigation Buoy
- Shoalest Sounding*

- Contours**
- 15
 - 14
 - 13
 - 12
 - 11

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 HORIZONTAL COORDINATE SYSTEM:
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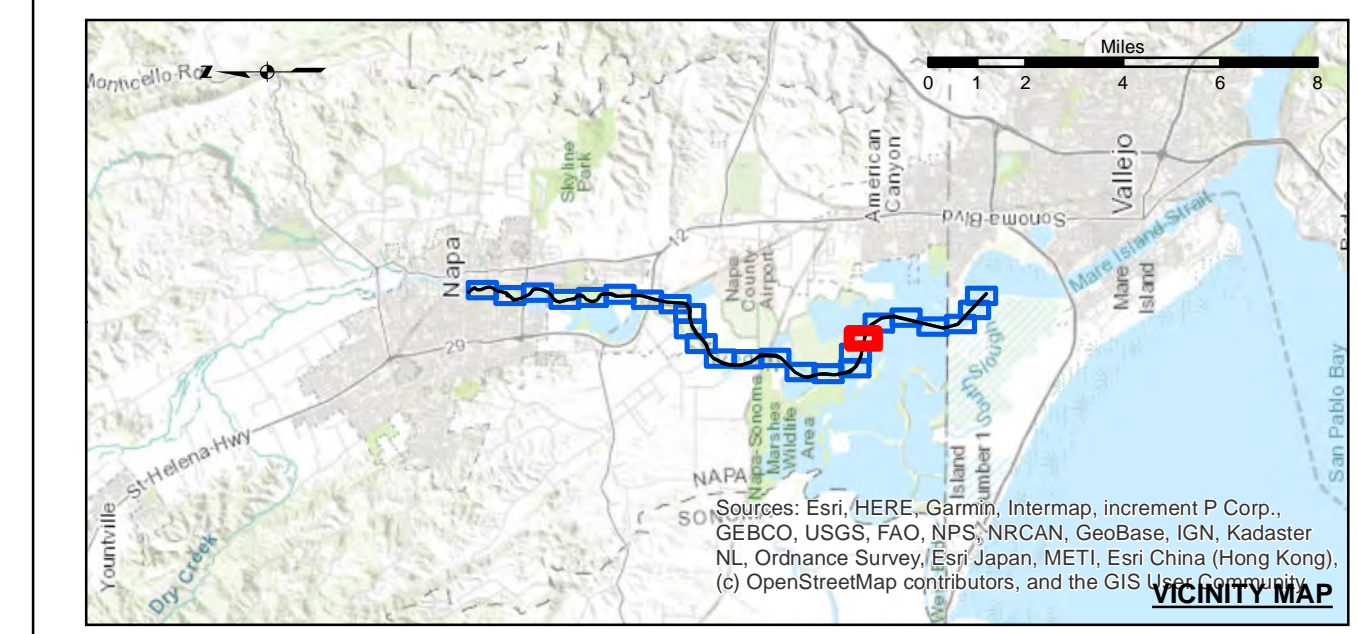
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Subproject: Hydro Survey Team Leader	Designed by: PDT
Recommendation: Chief, Hydro Survey Section	Drawn by: PDT
Approved: Chief, Construction Branch	

CALIFORNIA
NAPA COUNTY
NAPA RIVER
LOWER NAPA
CONDITION SURVEY
30-31 JANUARY 2024

Sheet Reference Number
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Federal Navigation Channel	Shoaling Area	Beacon, General	Contours -15
Placement Area	Obstruction Point	Navigation Buoy	Contours -14
Anchorage Area	Navigation Buoy	Contours -13	Contours -12
Wreck Area	Shoalest Sounding*	Contours -11	
Submerged Wreck			
Angle Point			

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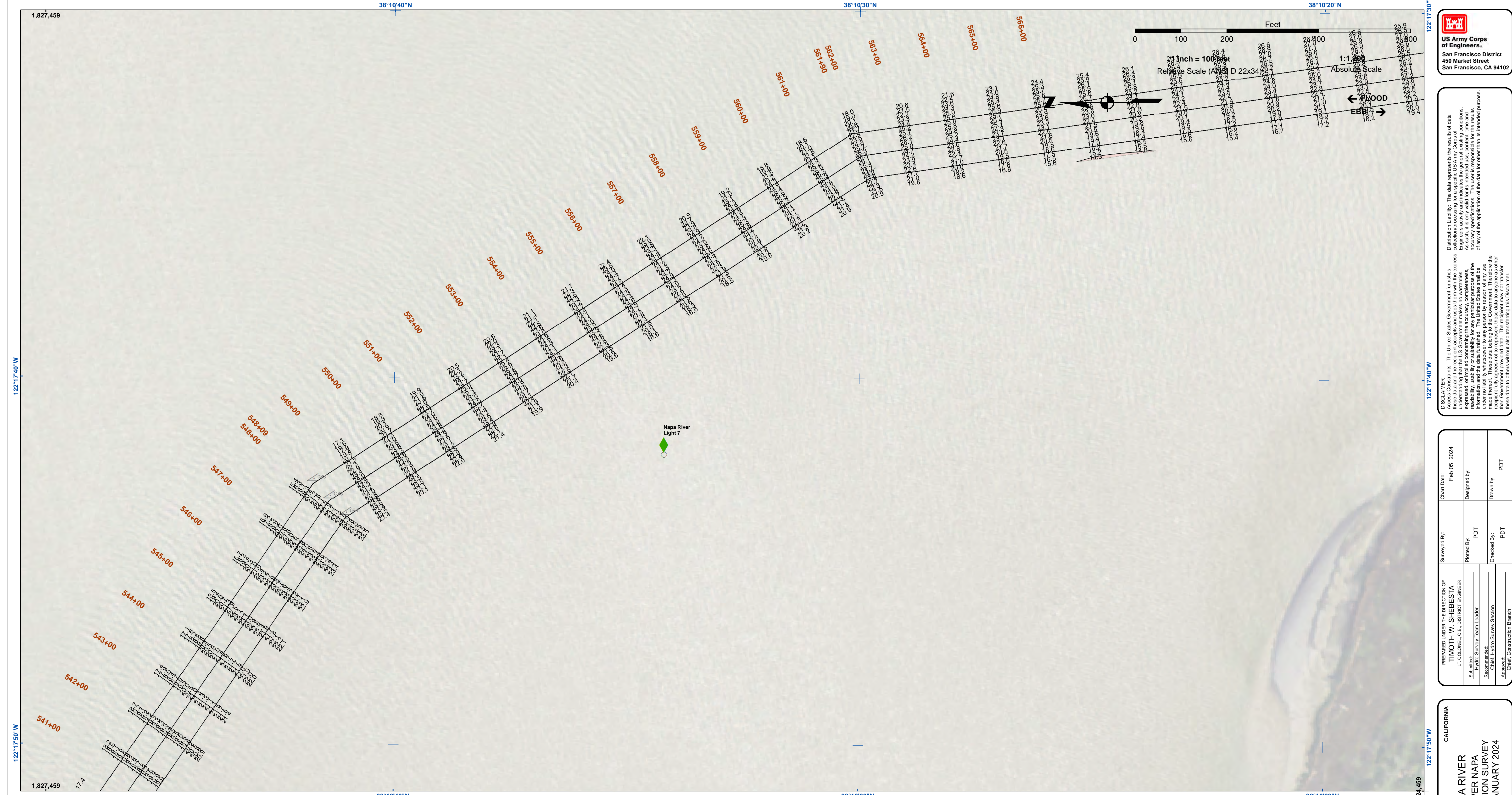
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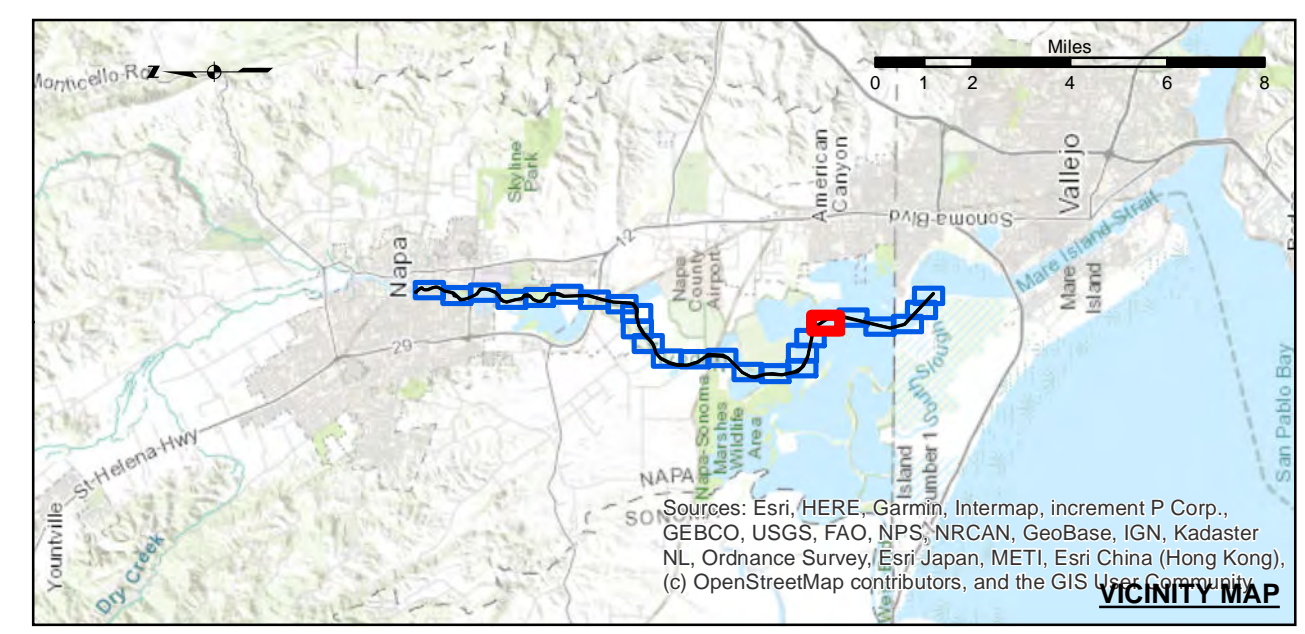


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Chart Date:	Feb 05, 2024
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA
NAPA COUNTY
NAPA RIVER
LOWER NAPA
CONDITION SURVEY
30-31 JANUARY 2024

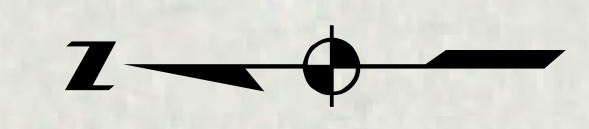
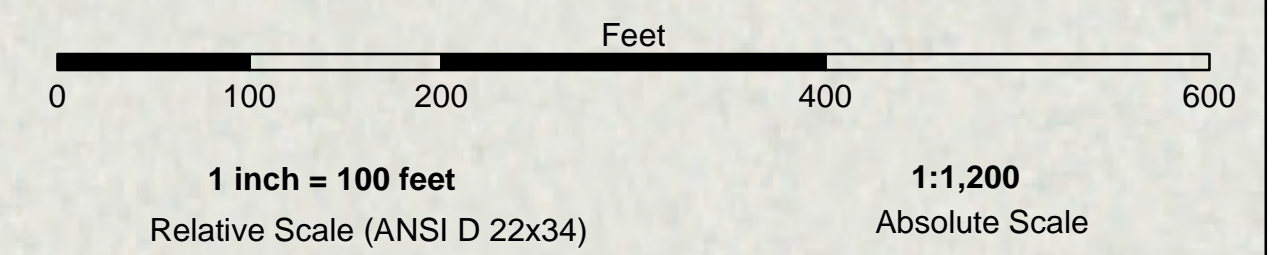
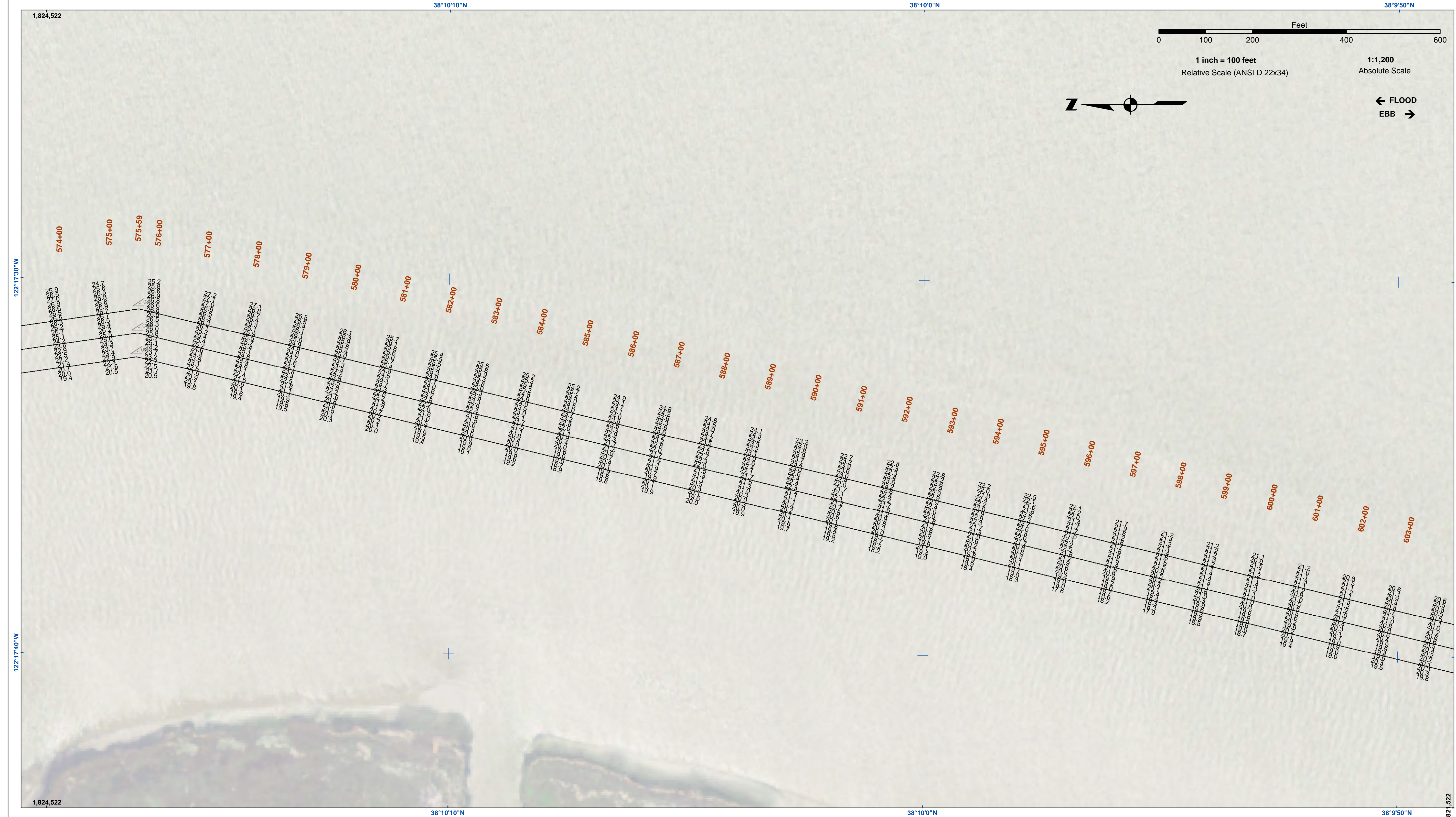


Federal Navigation Channel	Beacon, General	-15
Shoaling Area	Obstruction Point	-14
Placement Area	Navigation Buoy	-13
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Angle Point		

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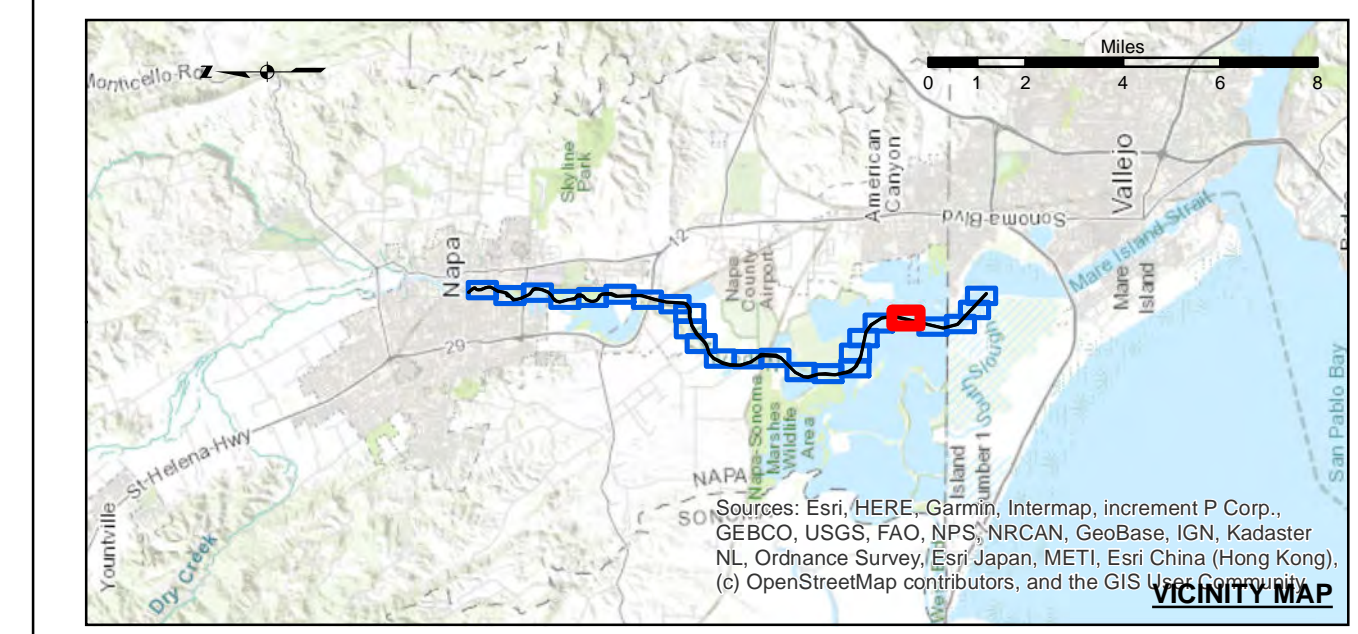


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Chart Date:	Feb 05, 2024
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Surveyed By:	Plotted By:
LT COLONEL W. SHEBESTA	PDT
Hydro Survey Team Leader	
Recommendation:	
Chief, Hydro Survey Section	



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
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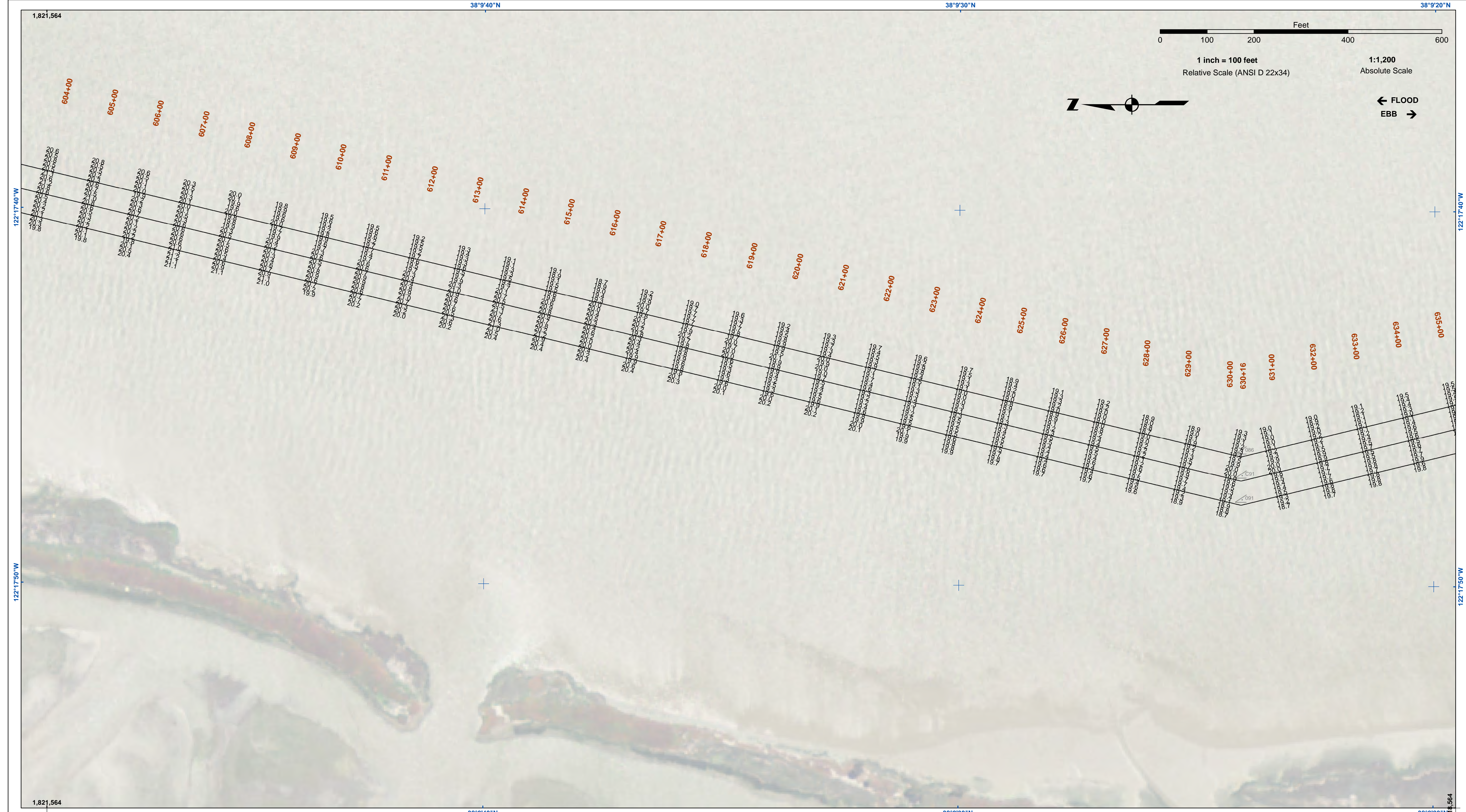
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CALIFORNIA
NAPA COUNTY
**NAPA RIVER
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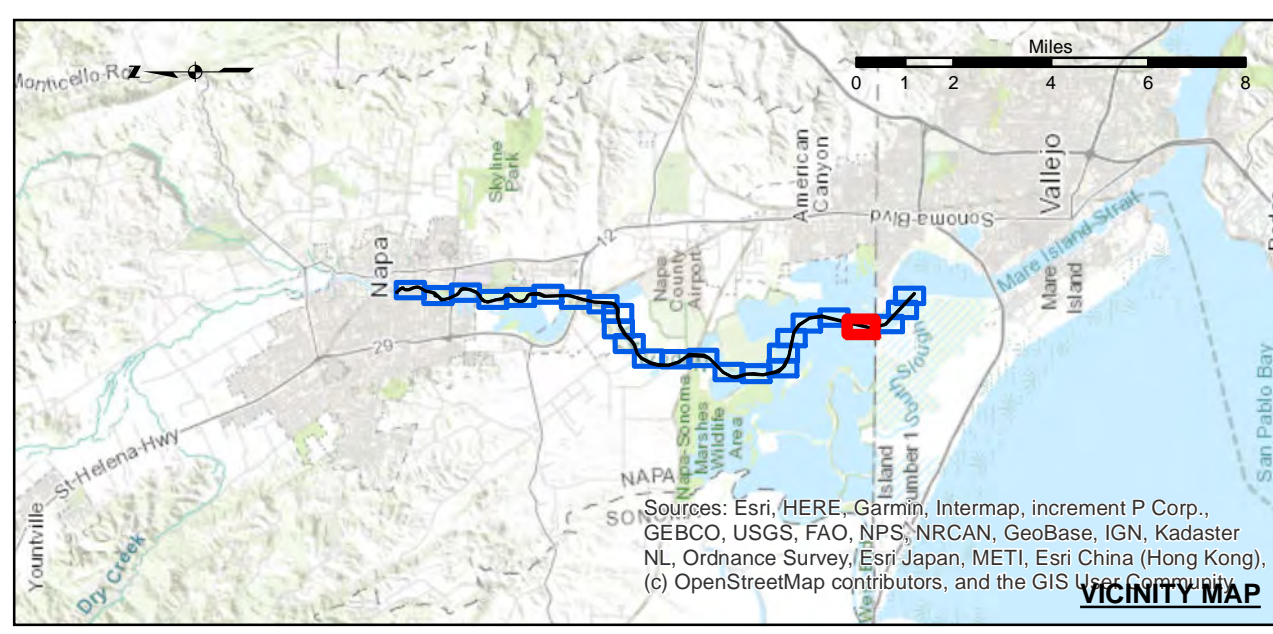
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Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Drawn by: PDT
Approved by: Chief, Construction Branch	

CALIFORNIA
NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY
 30-31 JANUARY 2024
 NAPA COUNTY

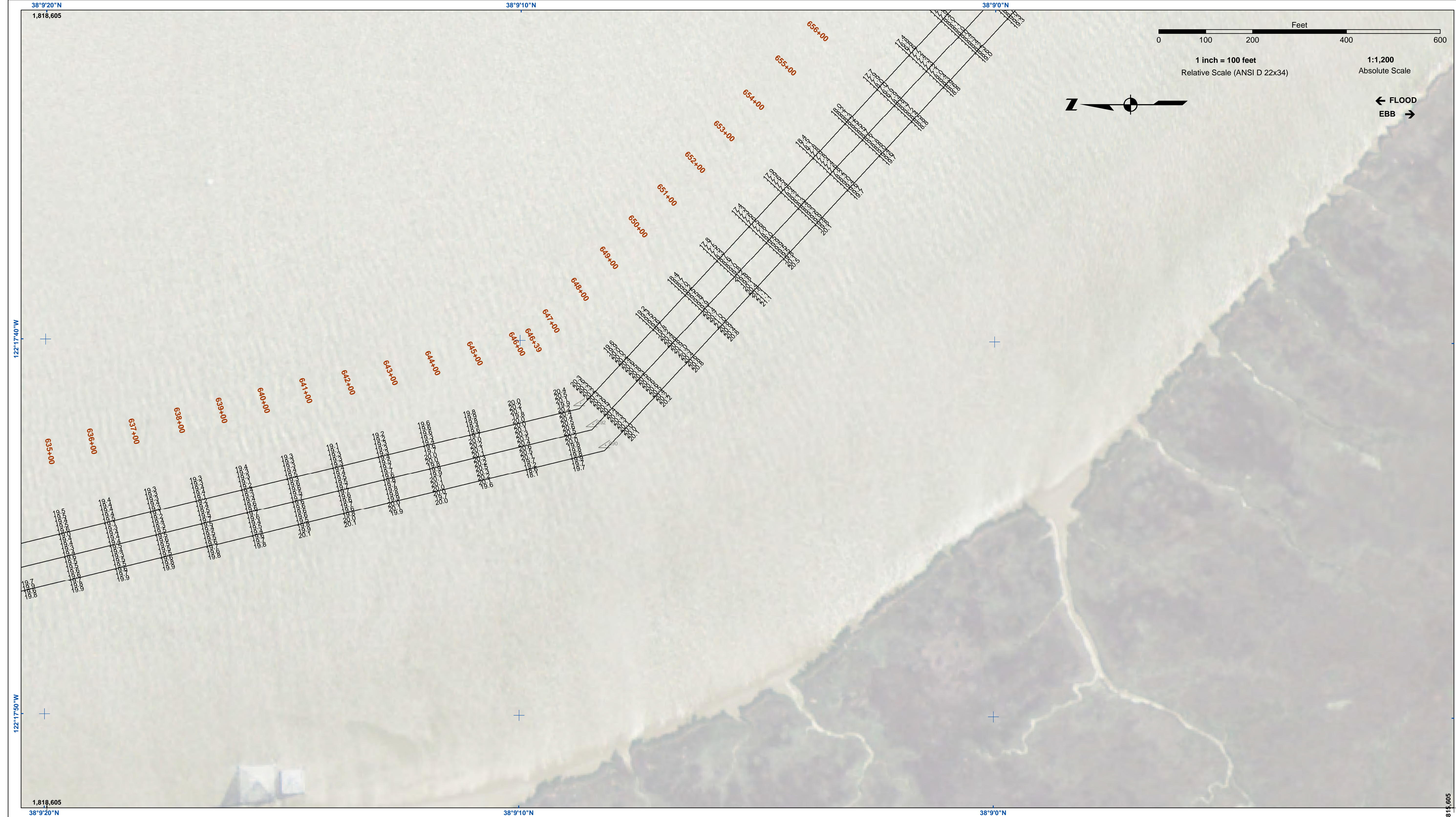
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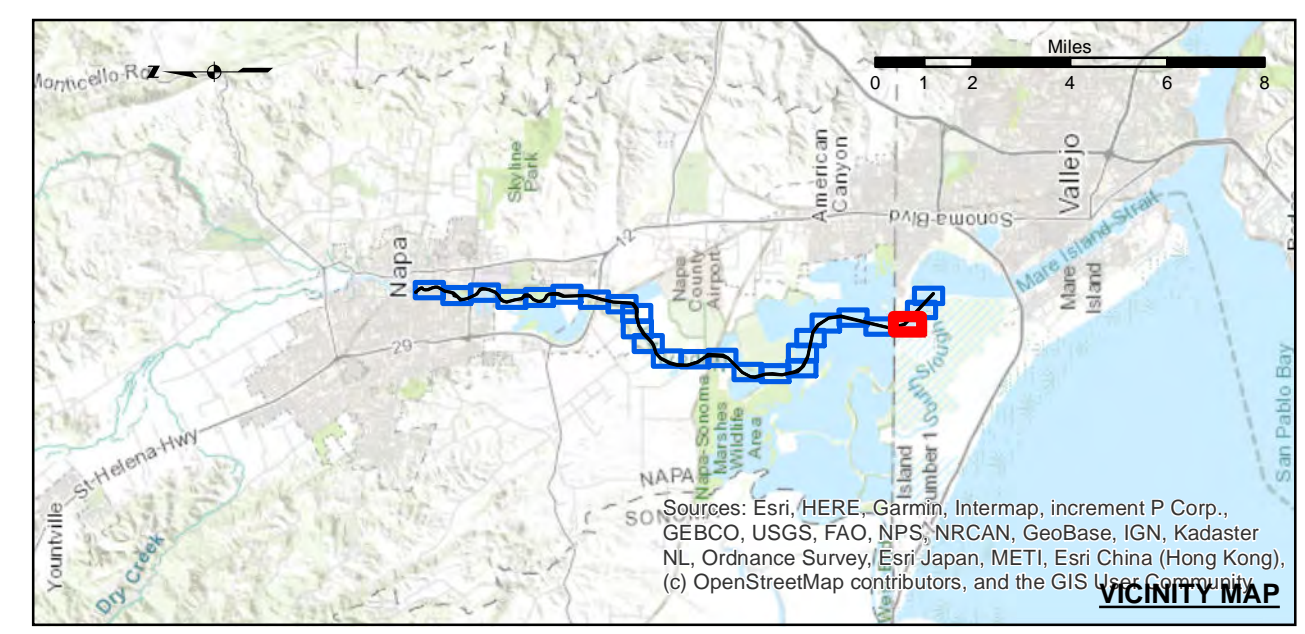
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Prepared Under the Direction of TIMOTHY W. SHEBESTA LT Colonel, C.E., District Engineer	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Feb 05, 2024
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	

CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 LOWER NAPA
 CONDITION SURVEY**
 30-31 JANUARY 2024

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Federal Navigation Channel	Beacon, General	-15
Shoaling Area	Obstruction Point	-14
Placement Area	Navigation Buoy	-13
Anchorage Area	Navigation Buoy	-12
Wreck Area	Navigation Buoy	-11
Submerged Wreck	Shoalest Sounding*	
Angle Point		

NOTES:
 HORIZONTAL COORDINATE SYSTEM:
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*SHOALEST SOUNDING PER QUARTER PER REACH

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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.

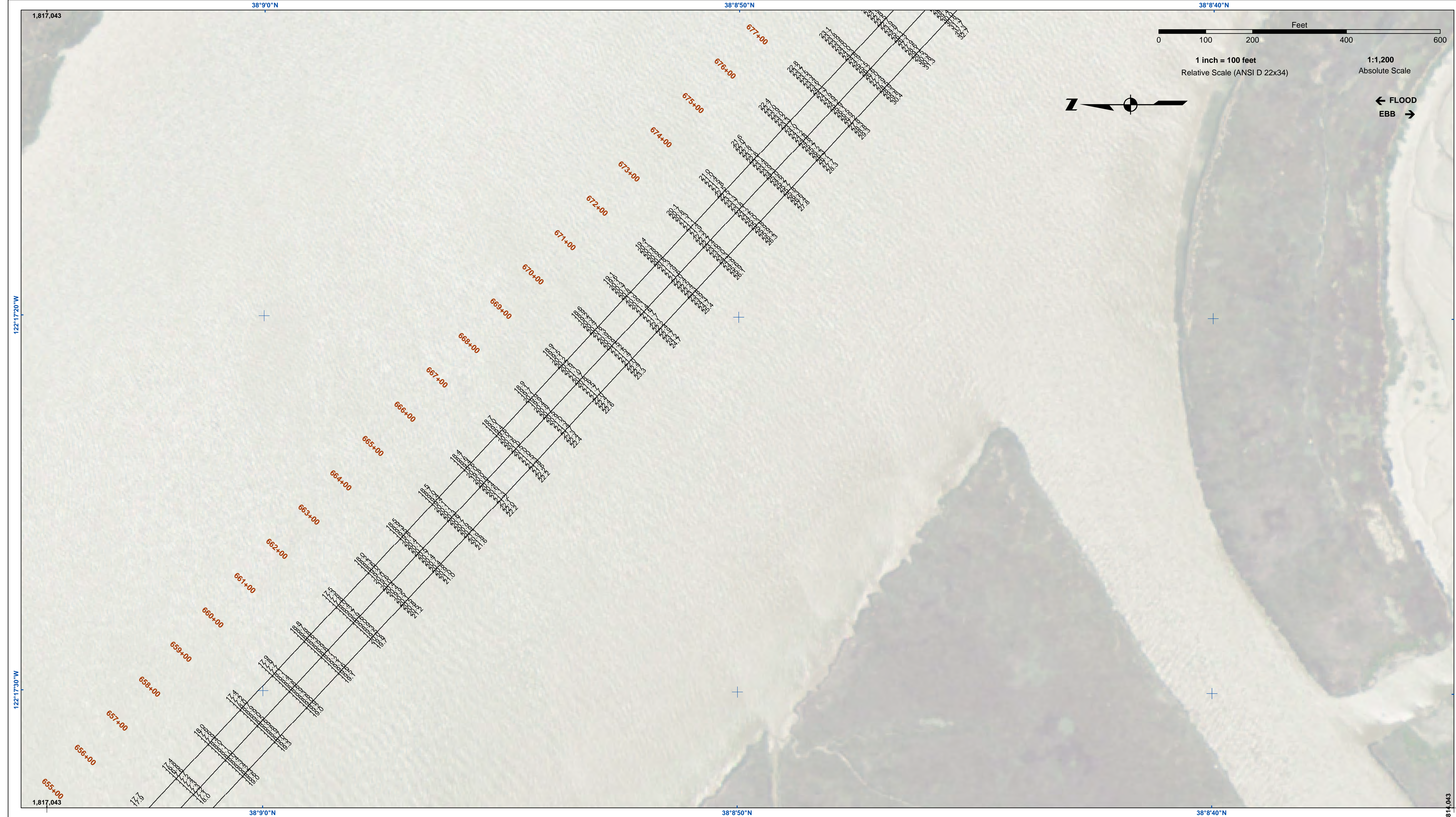
THE PROJECT DEPTH IS 15 FEET FROM ENTRANCE AT THE MARE ISLAND CAUSEWAY TO ASYLUM SLOUGH, THENCE 10 FEET TO HEAD OF NAVIGATION.

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

176+00 TO 224+00 - NAPANR01 - 2.652m MLLW - 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

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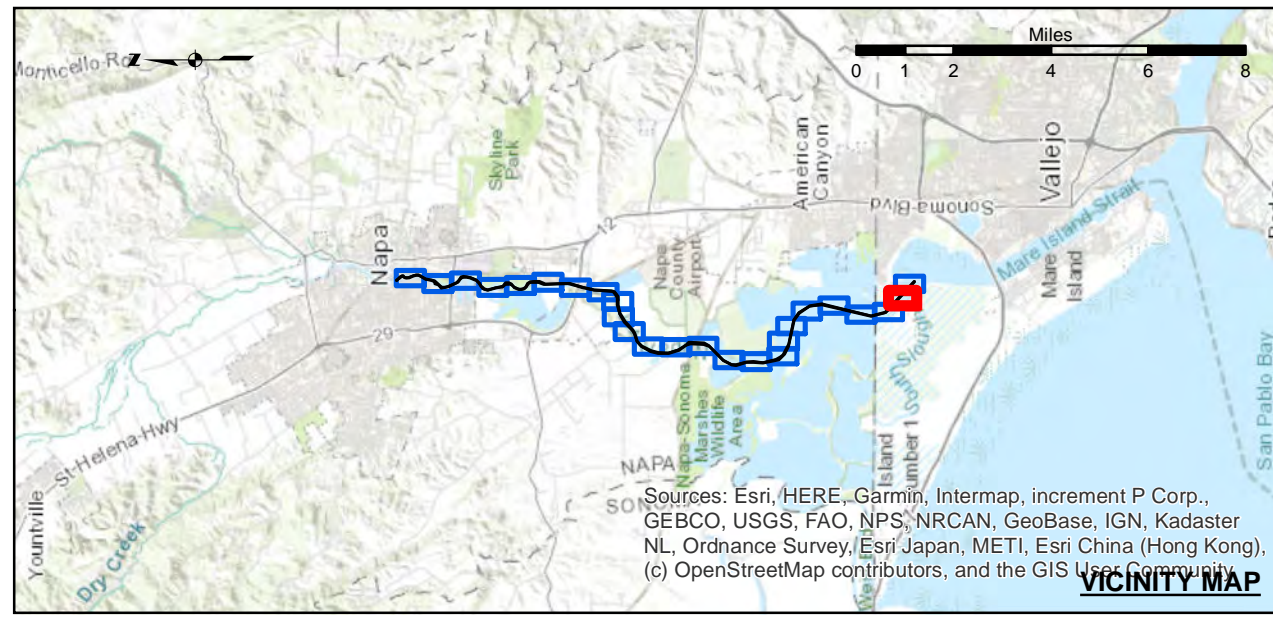
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Prepared Under the Direction of	Chart Date:
LT COLONEL W. SHEBESTA	Feb 05, 2024
Submittal:	Designed by:
Hydro Survey Team Leader	PDT
Recommendation:	Checked by:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT

CALIFORNIA
 NAPA COUNTY
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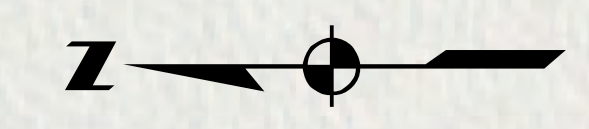
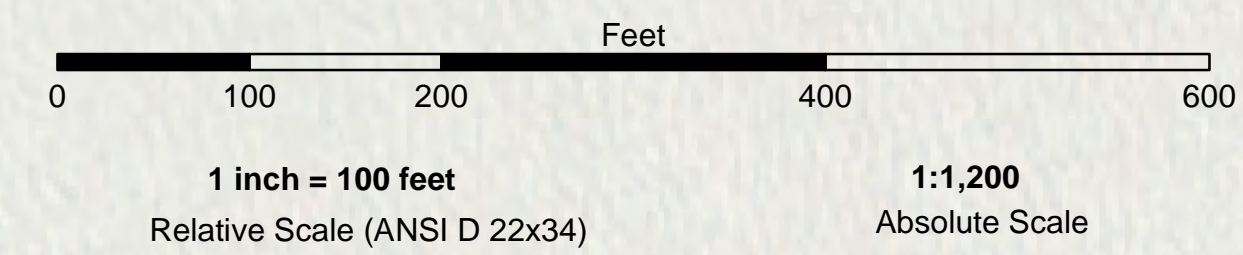
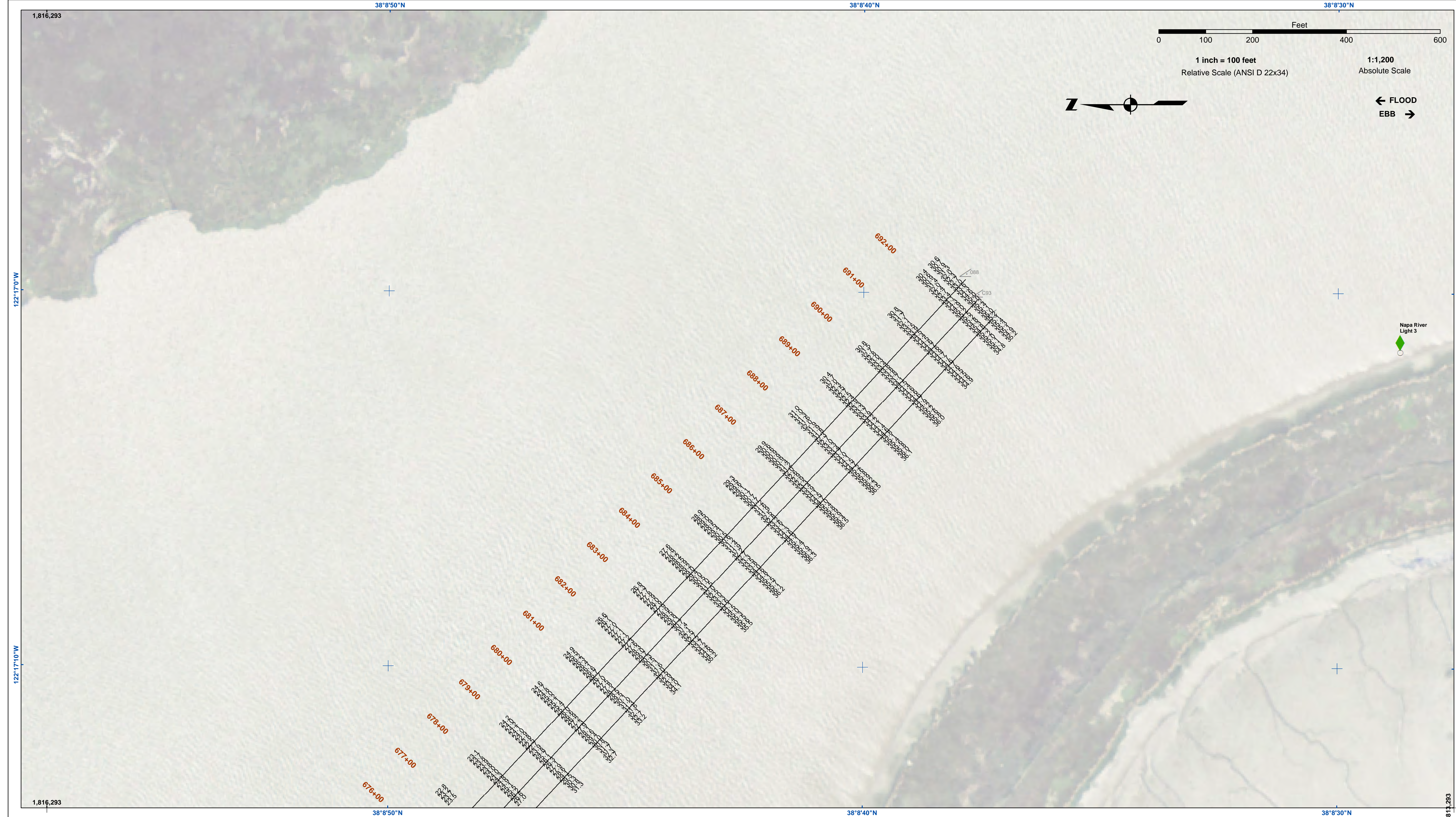
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Federal Navigation Channel	Beacon, General	Contours -15
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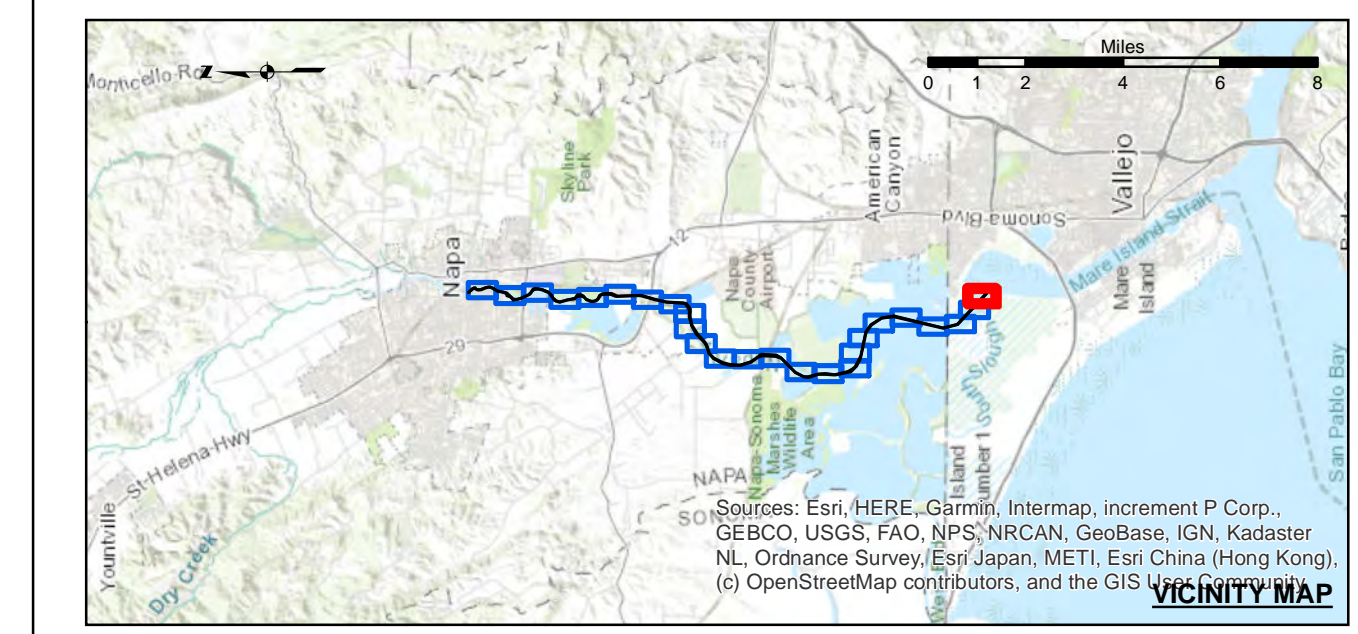
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Chart Date:	Feb 05, 2024
Designed by:	PDT
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Drawn by:	PDT

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