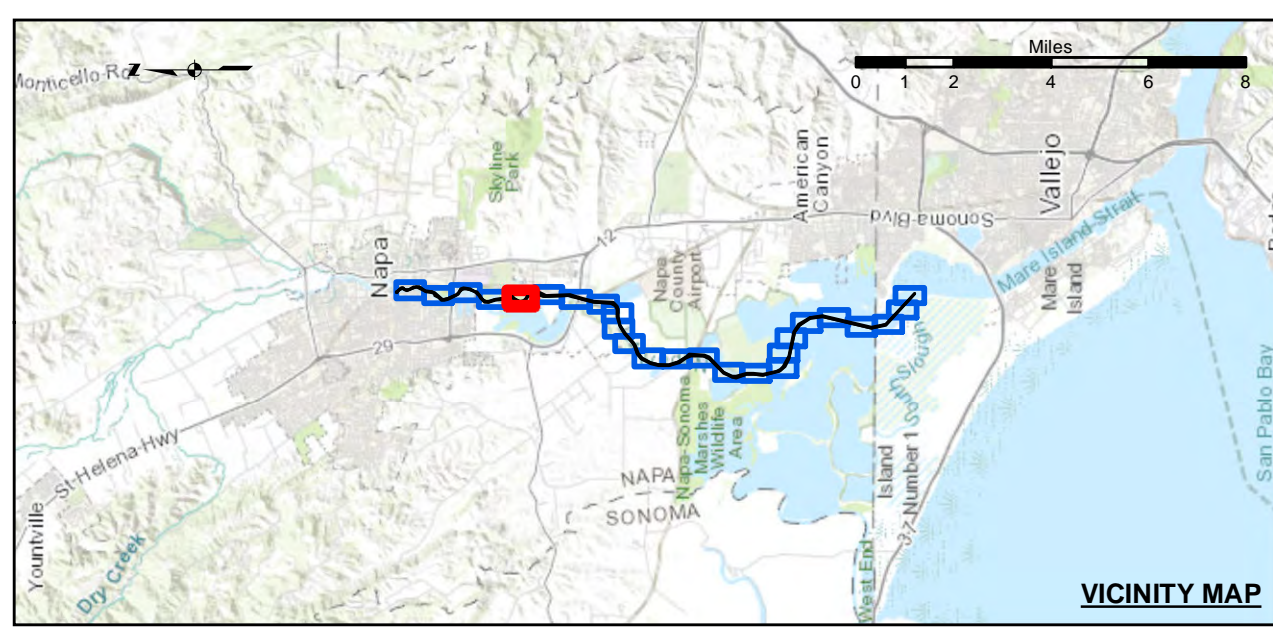




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| Prepared Under the Direction of | Chart Date:  |
| KEVIN P. ARNETT                 | Feb 18, 2022 |
| Submitted:                      | Plotted By:  |
| Hydro Survey Team Leader        | PDT          |
| Recommended:                    | Checked By:  |
| Chief, Hydro Survey Section     | PDT          |
| Approved:                       | Drawn by:    |
| Chief, Construction Branch      | PDT          |



|                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| 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             |

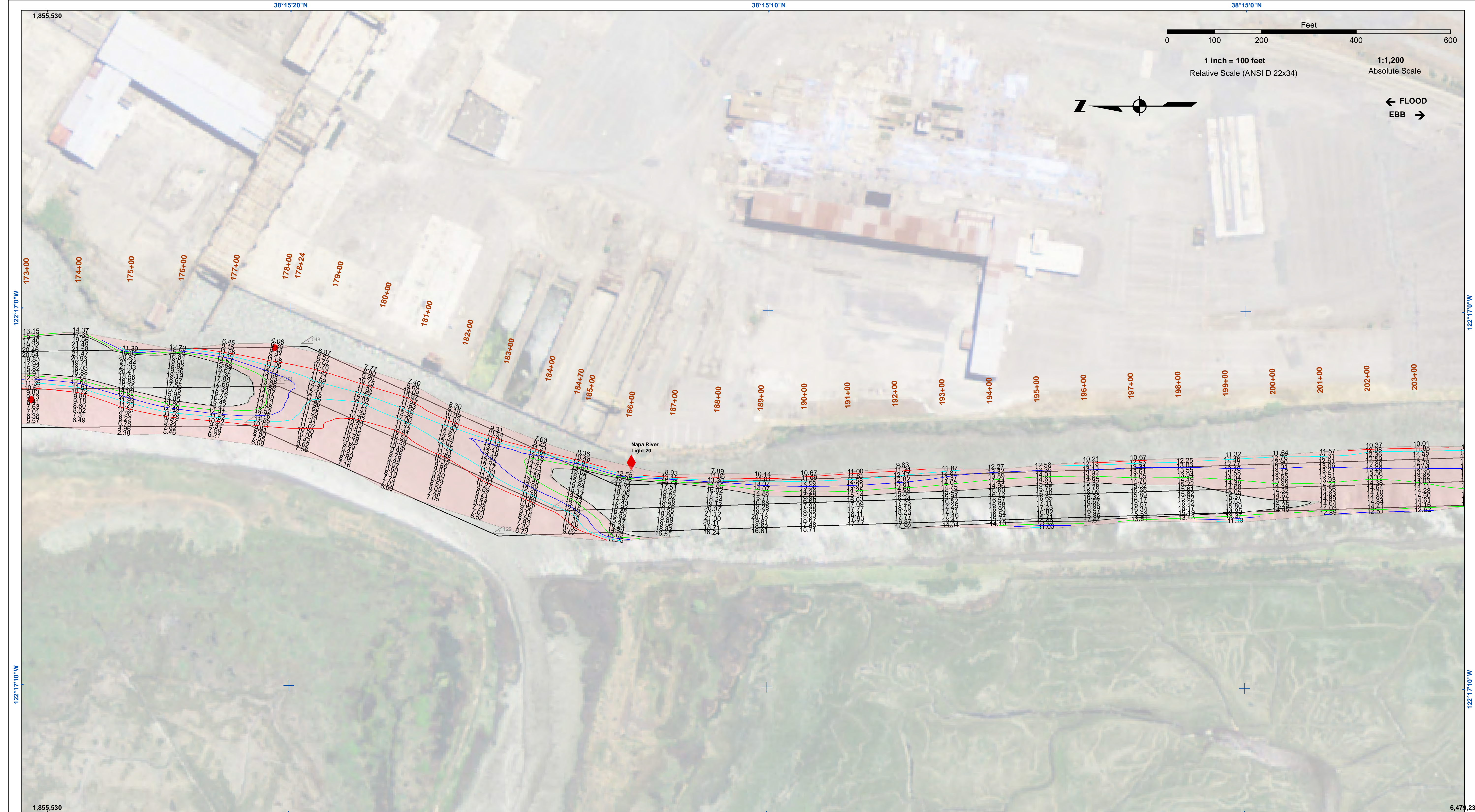
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 VERTICAL CONTROLS:  
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

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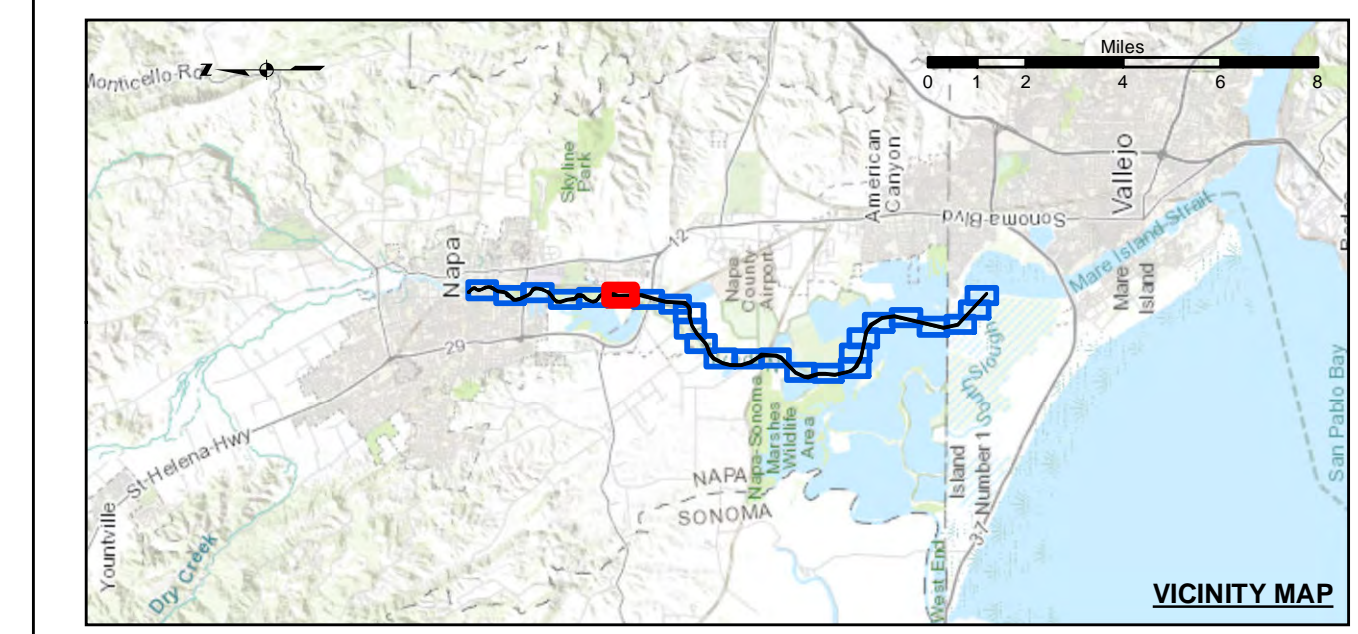
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| Chart Date:  | Feb 18, 2022 |
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| Checked by:  | PDT          |
| Drawn by:    | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

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

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 176+00 TO 224+00 - NARFP4 - 2.652m MLLW - 29.11m 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 - NARFP2 - 3.653m MLLW - 28.24m 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 - 28.41m 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.





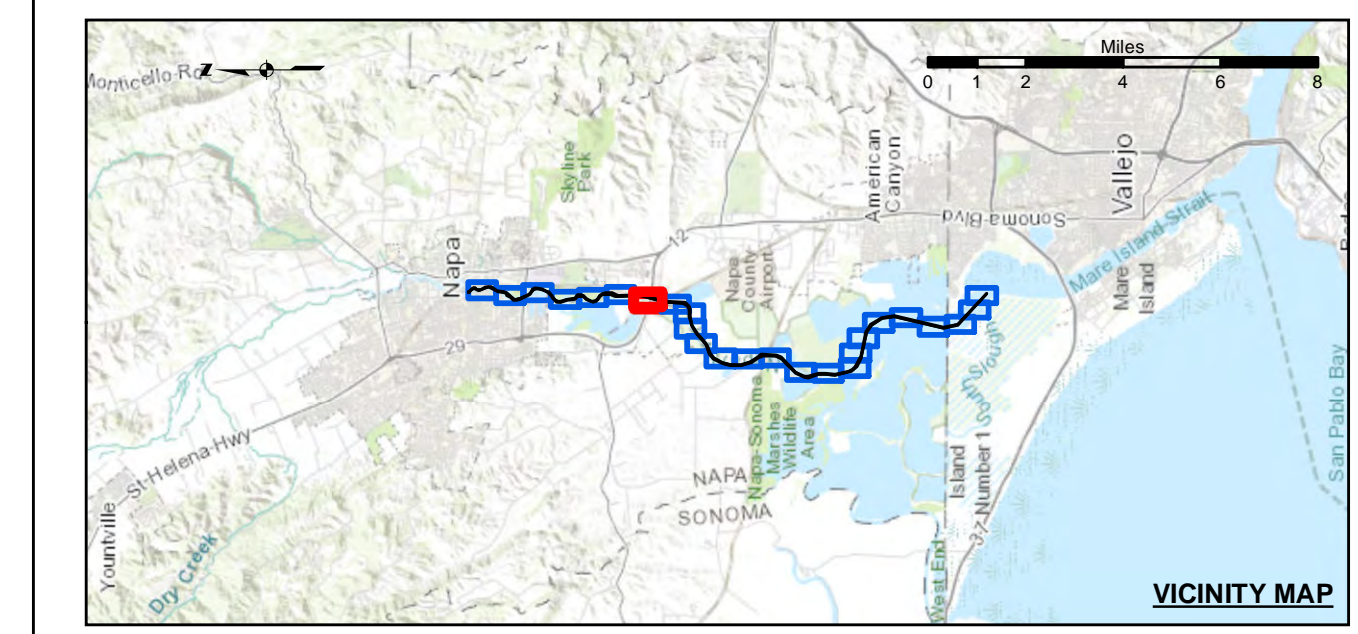
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

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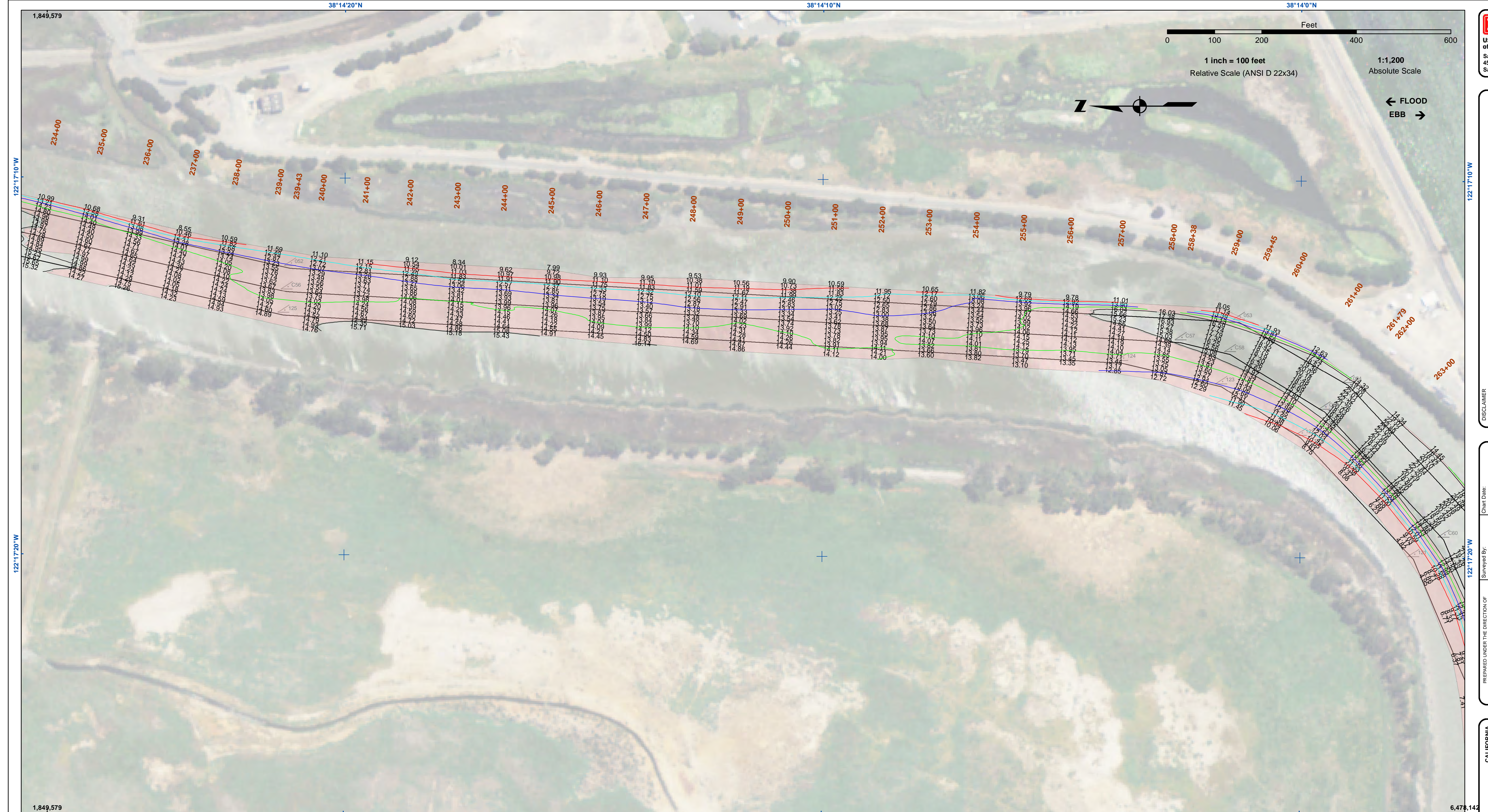


|                            |                    |                    |     |
|----------------------------|--------------------|--------------------|-----|
| Federal Navigation Channel | Shoaling Area      | Beacon, General    | -15 |
| Placement Area             | Obstruction Point  | Navigation Buoy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

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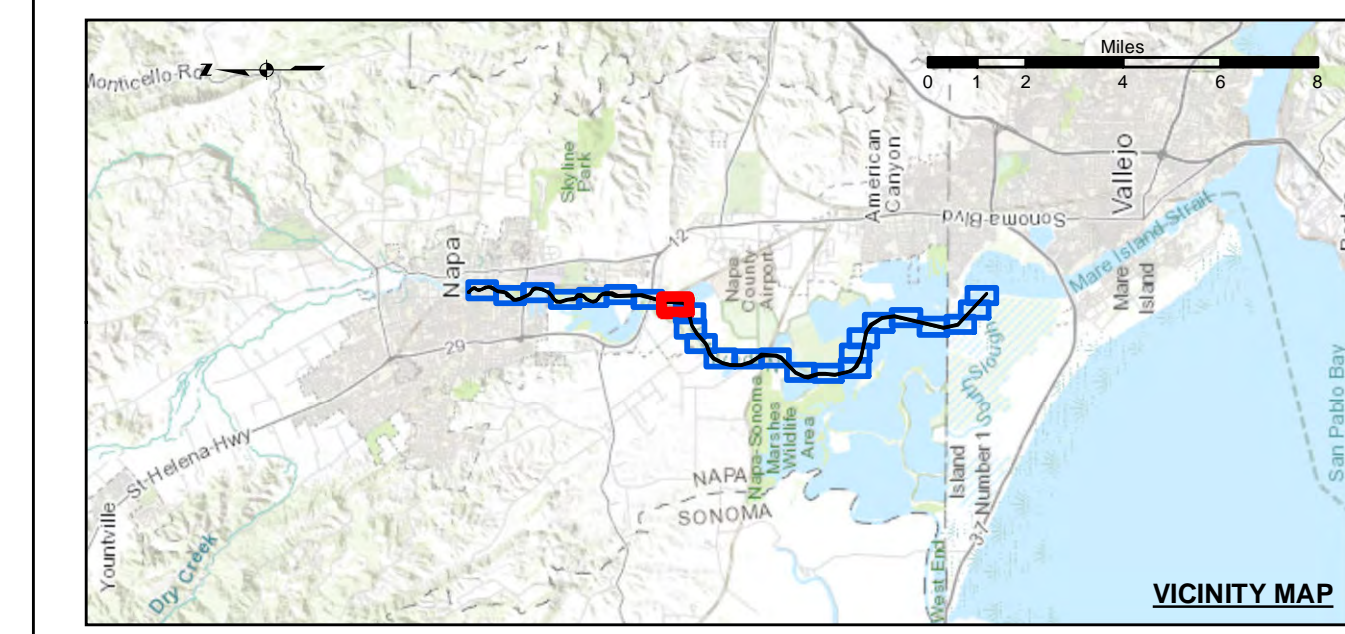
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| Drawn by:    | PDT                        |
| Checked by:  | PDT                        |
| Approved:    | Chief, Construction Branch |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

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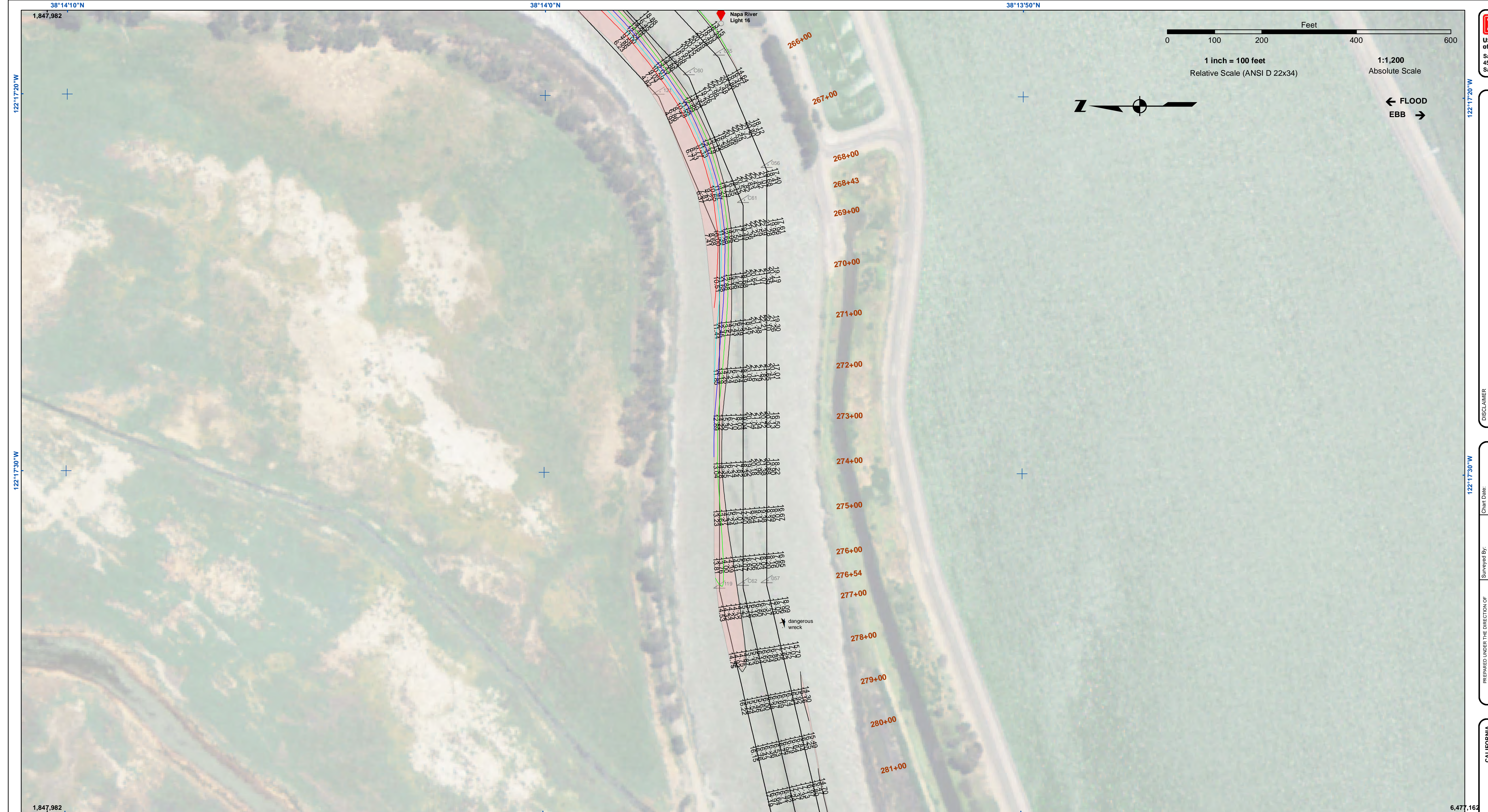


|                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  |                 |
| Placement Area    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

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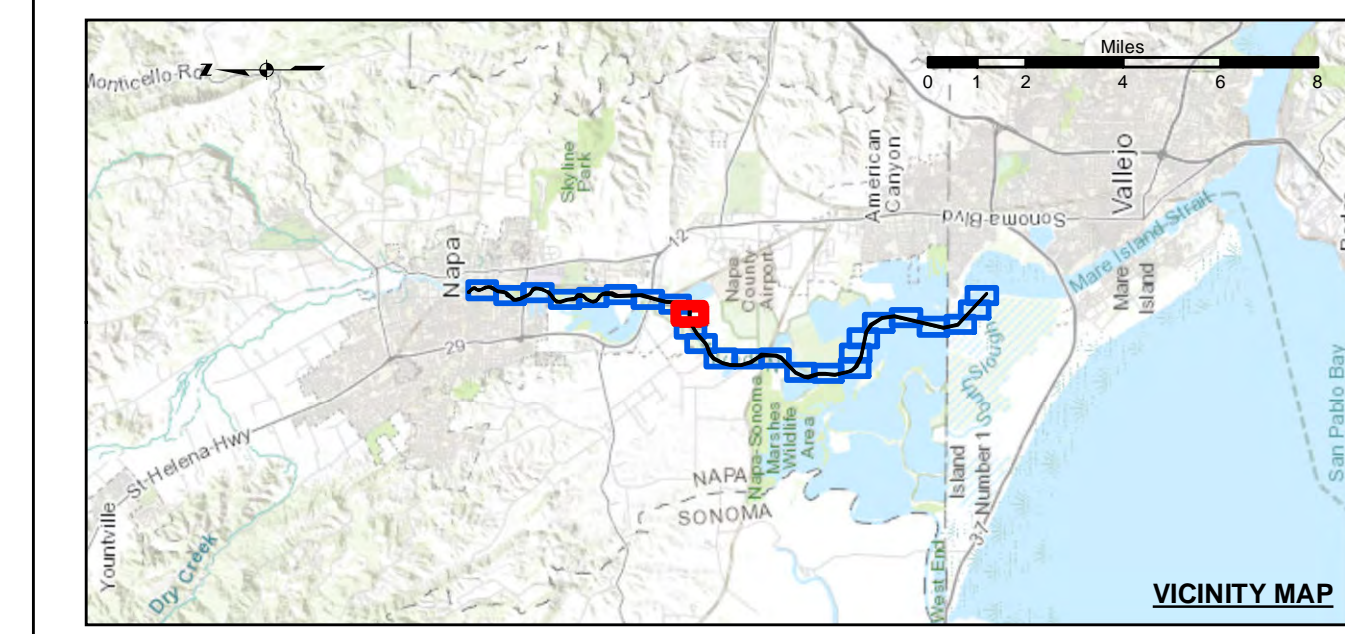
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
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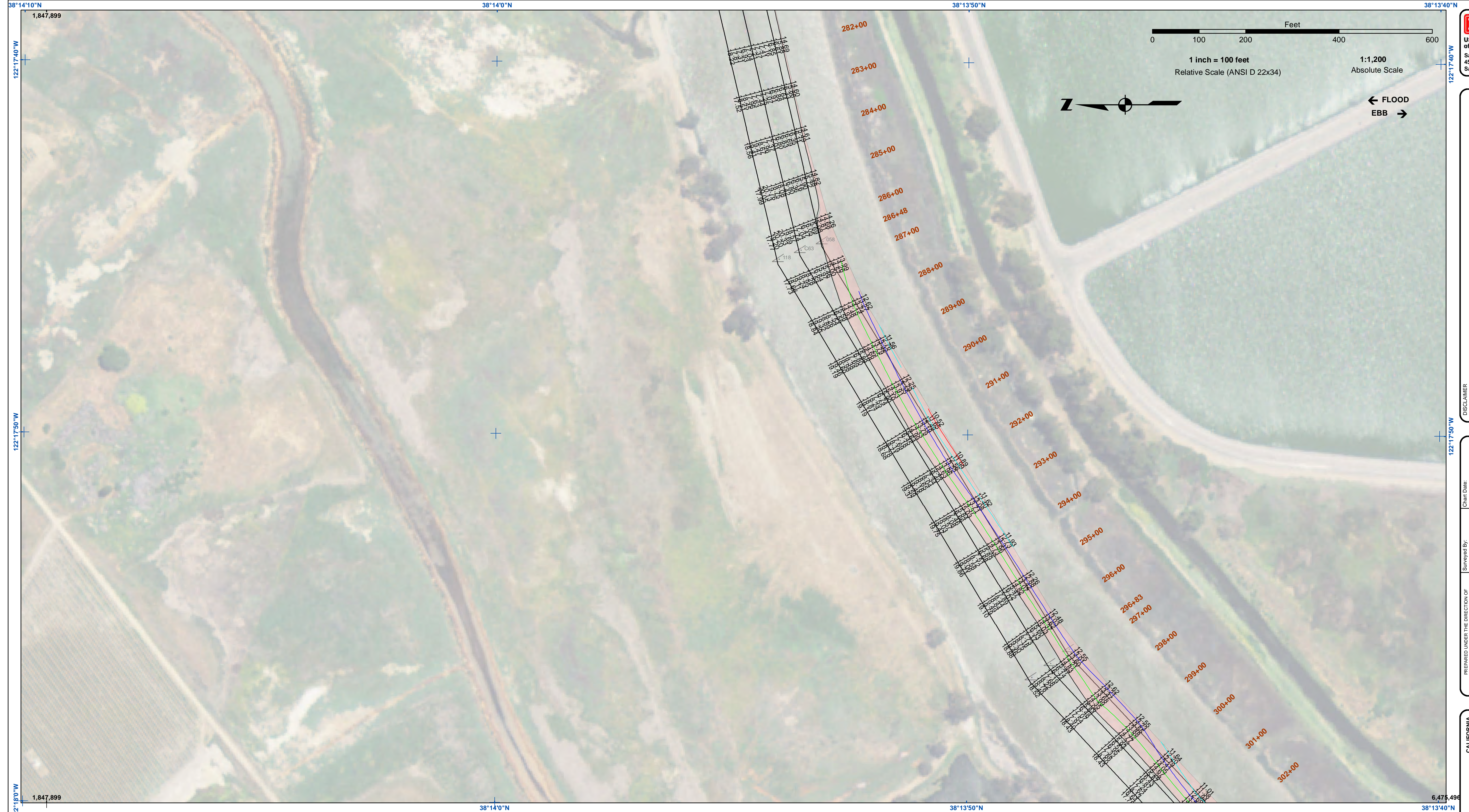


|                            |                    |          |
|----------------------------|--------------------|----------|
| Federal Navigation Channel | Beacon, General    | Contours |
| Shoaling Area              | Obstruction Point  | -14      |
| Placement Area             | Navigation Buoy    | -13      |
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| Submerged Wreck            |                    |          |
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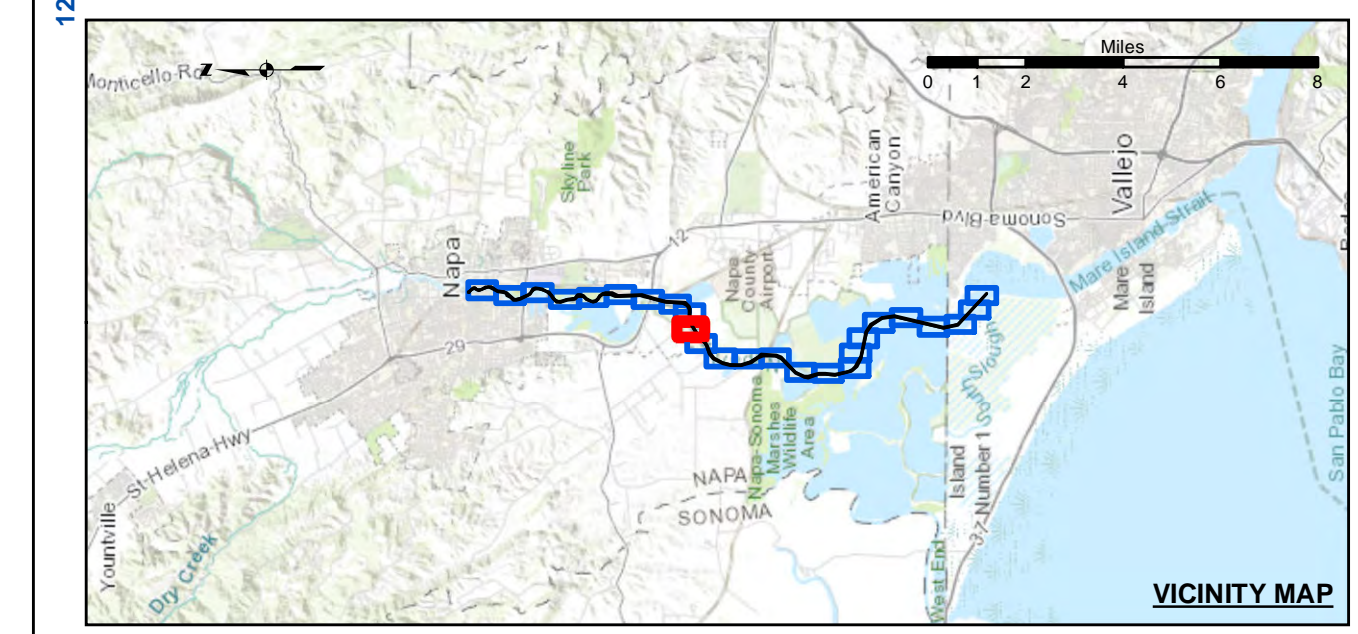
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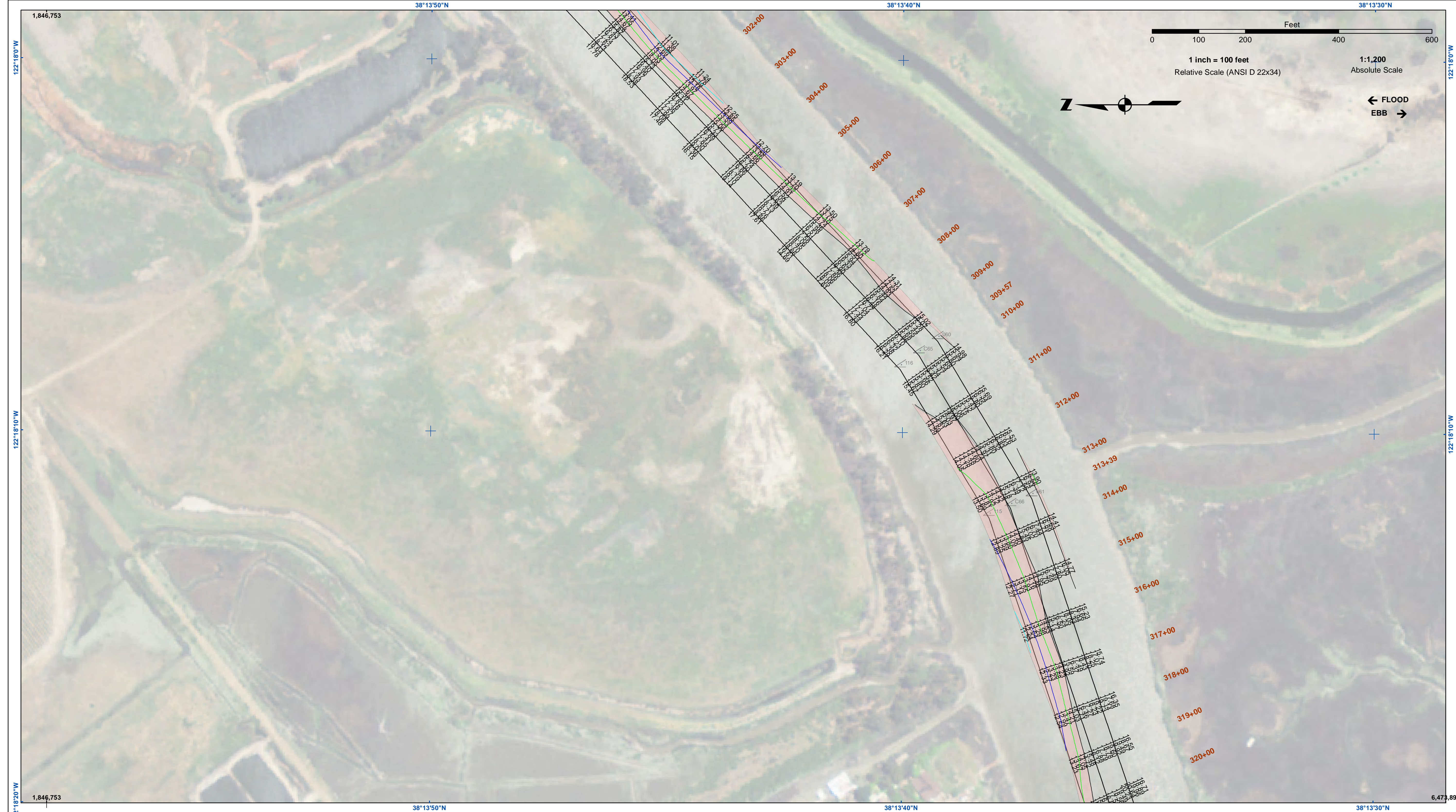


- Federal Navigation Channel
  - Shoaling Area
  - Placement Area
  - Anchorage Area
  - Wreck Area
  - Submerged Wreck
  - Angle Point
  - Beacon, General
  - Obstruction Point
  - Navigation Buoy
  - Navigation Buoy
  - Shoalest Sounding\*
- Contours**
- 15
  - 14
  - 13
  - 12
  - 11

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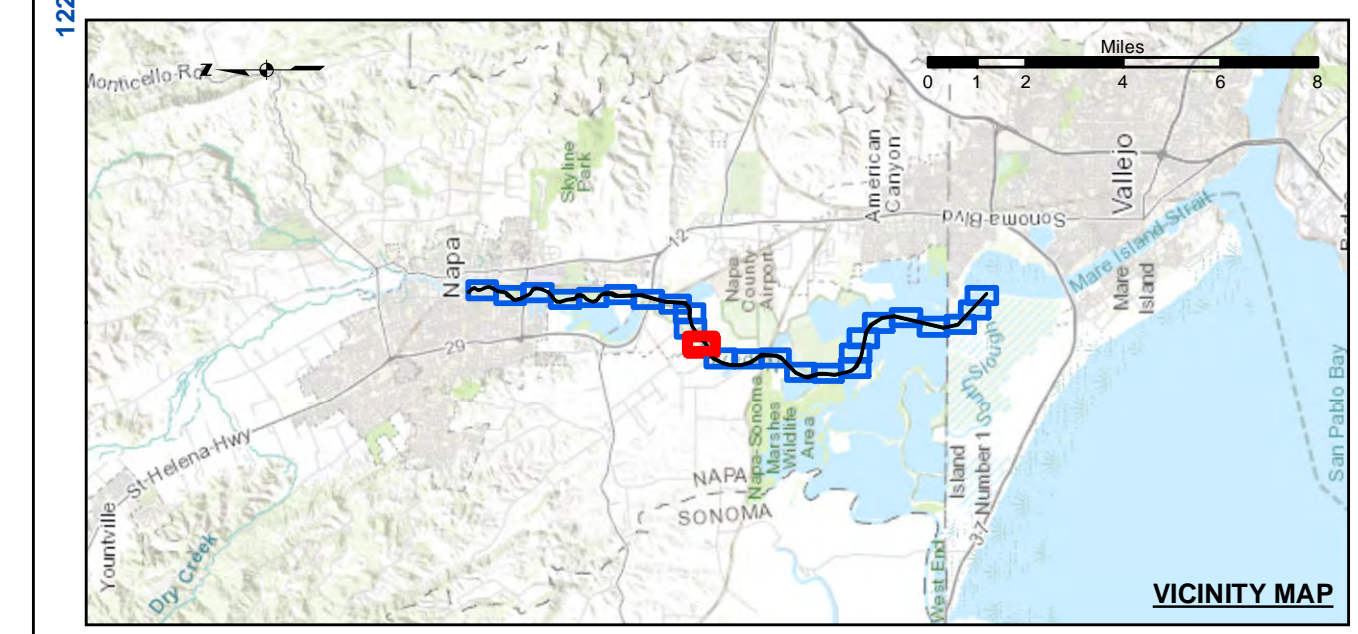
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|                                 |                             |              |              |
|---------------------------------|-----------------------------|--------------|--------------|
| Prepared Under the Direction of | KEVIN P. ARNETT             | Chart Date:  | Feb 18, 2022 |
| Submittal                       | Hydro Survey Team Leader    | Designed by: | PDT          |
| Recommended by:                 | Chief, Hydro Survey Section | Checked by:  | PDT          |
| Approved:                       | Chief, Construction Branch  | Drawn by:    | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

**Sheet  
 Reference  
 Number  
 11 of 25**

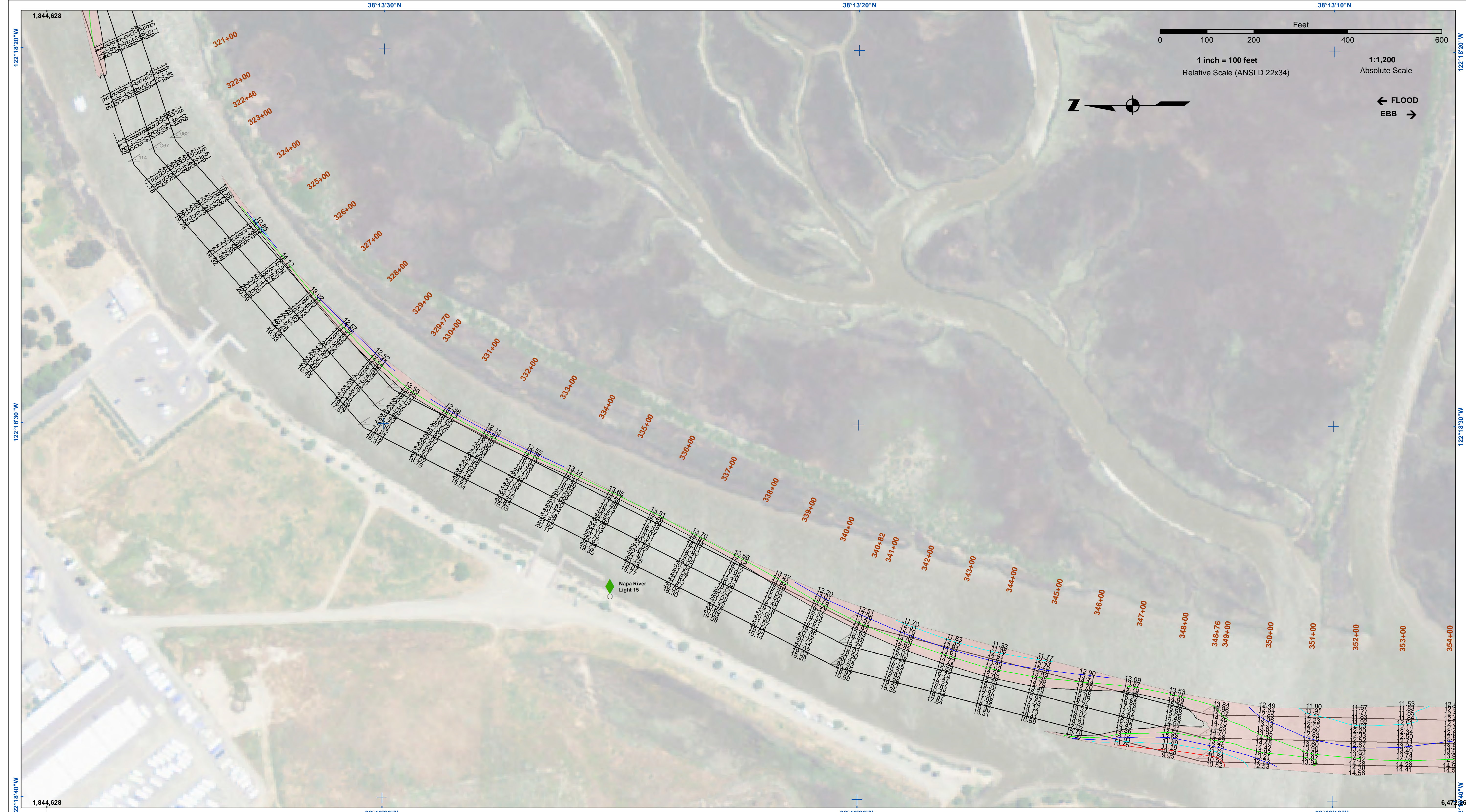


|                            |                    |                    |     |
|----------------------------|--------------------|--------------------|-----|
| Federal Navigation Channel | Shoaling Area      | Beacon, General    | -15 |
| Placement Area             | Obstruction Point  | Navigation Buoy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

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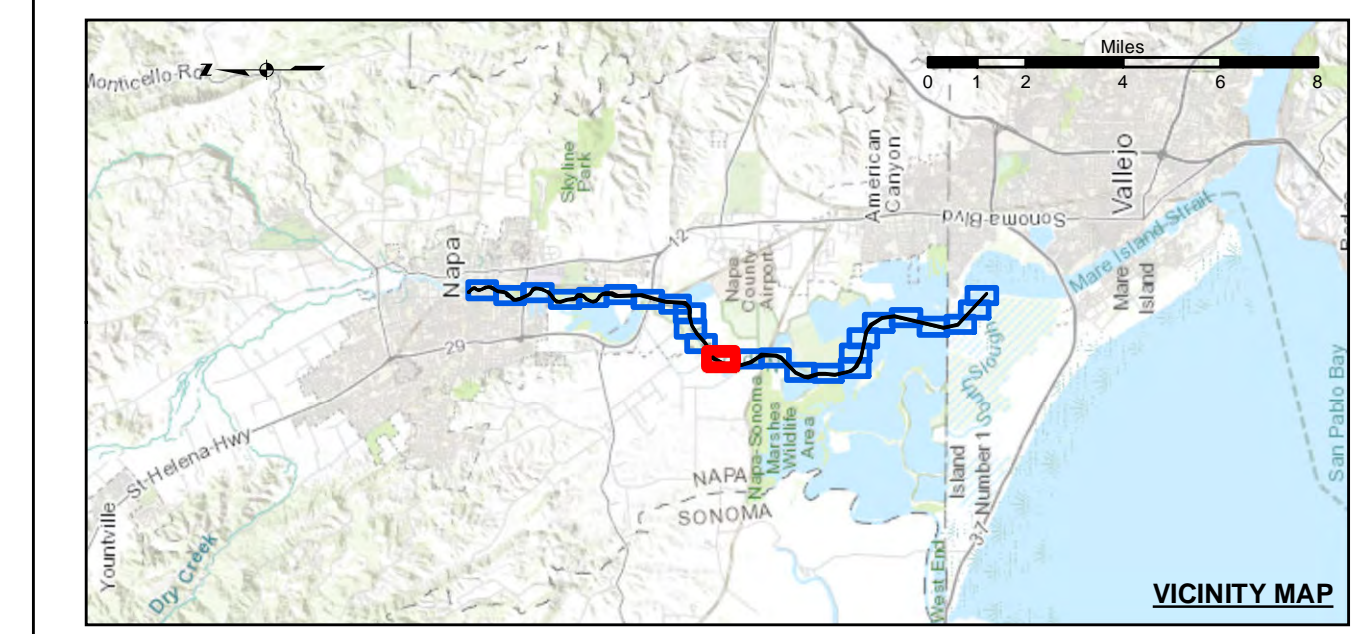
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| Plotted by:  | PDT          |
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| Drawn by:    | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

**Sheet  
 Reference  
 Number  
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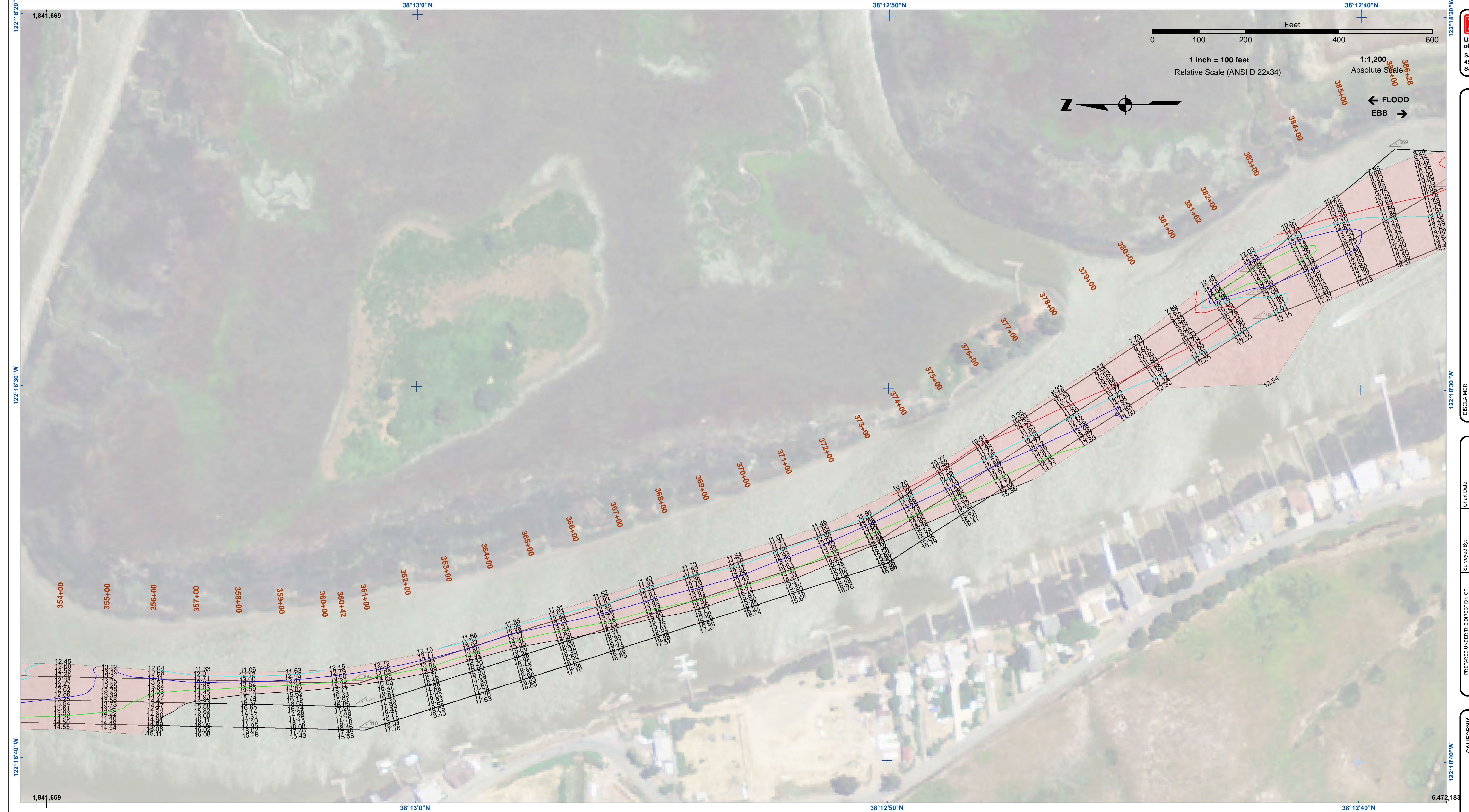


|                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  |                 |
| Placement Area    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

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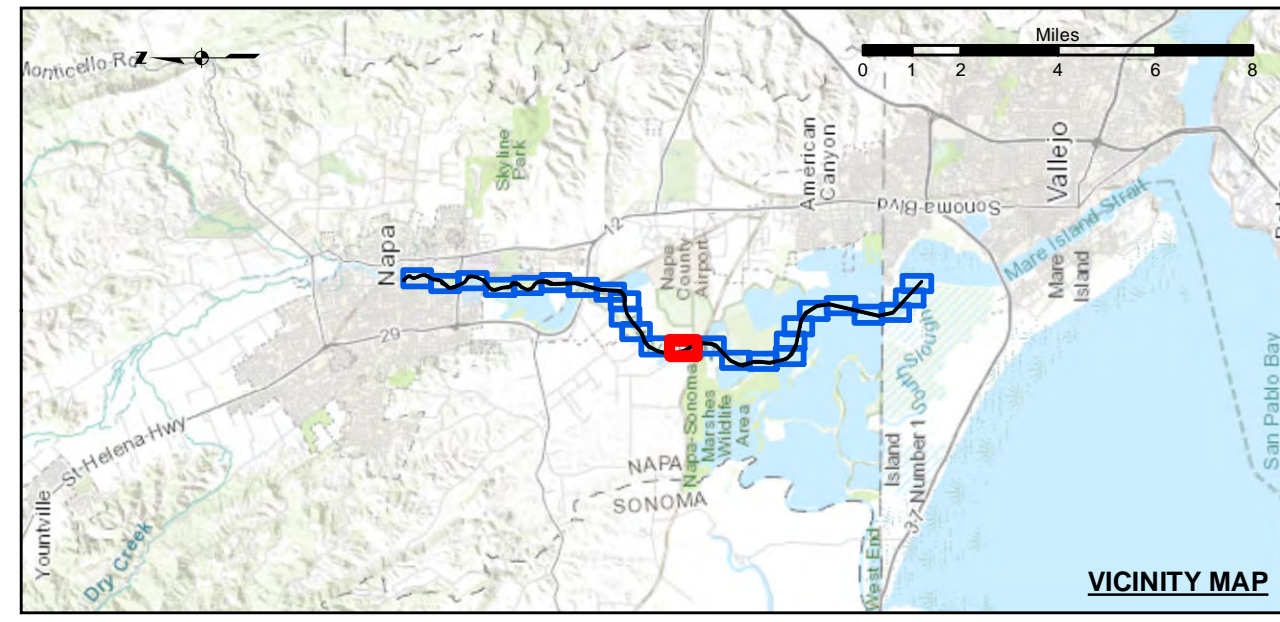


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|                                 |              |
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| Prepared Under the Direction of | Chart Date:  |
| KEVIN P. ARNETT                 | Feb 18, 2022 |
| Submittal                       | Designed by: |
| Hydro Survey Team Leader        | PDT          |
| Recommended                     | Checked by:  |
| Chief, Hydro Survey Section     | PDT          |
| Approved                        | Drawn by:    |
| Chief, Construction Branch      | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY**  
 02-10 FEBRUARY 2022

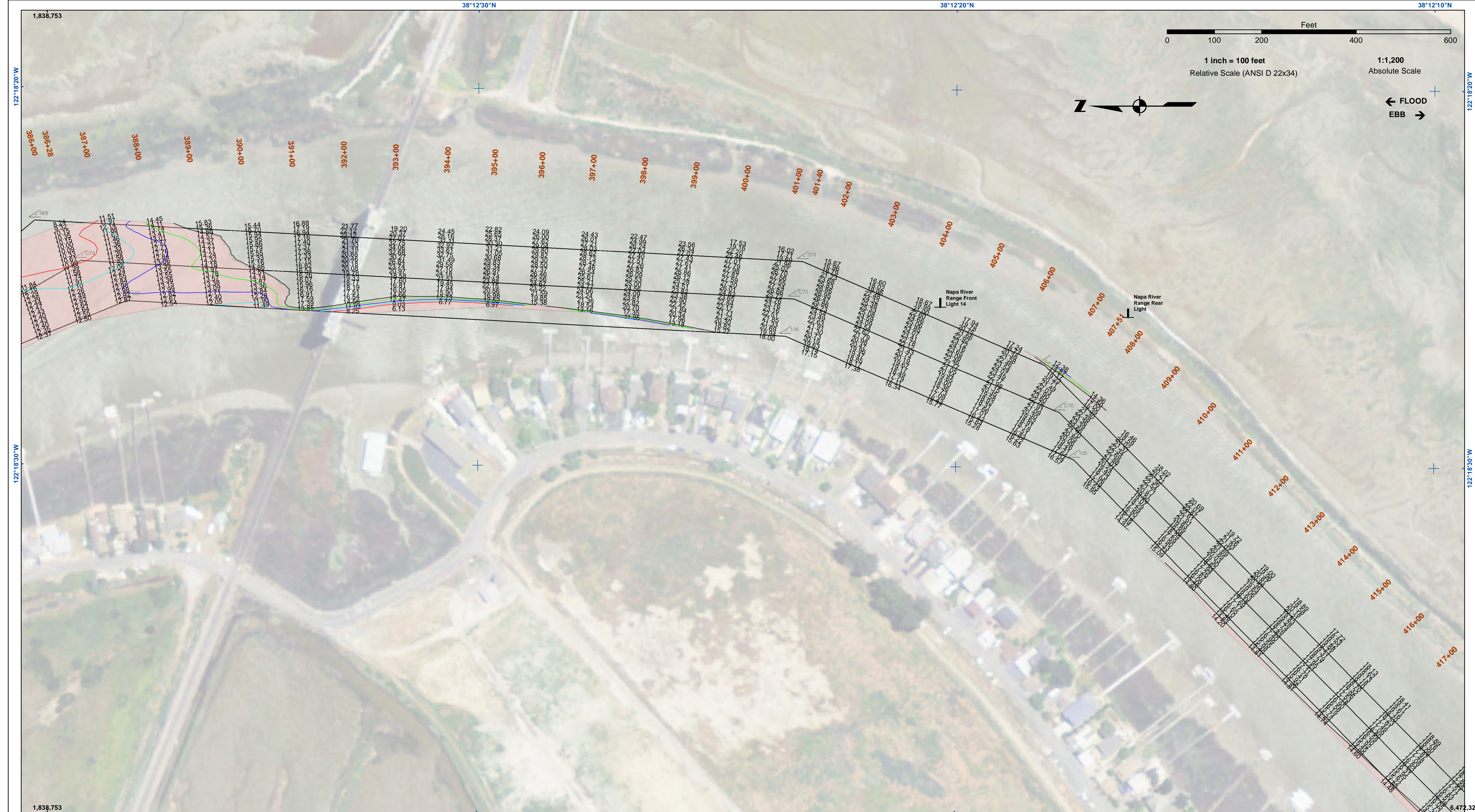


|                            |                    |                 |                 |
|----------------------------|--------------------|-----------------|-----------------|
| Federal Navigation Channel | Shoaling Area      | Beacon, General | <b>Contours</b> |
| Placement Area             | Obstruction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

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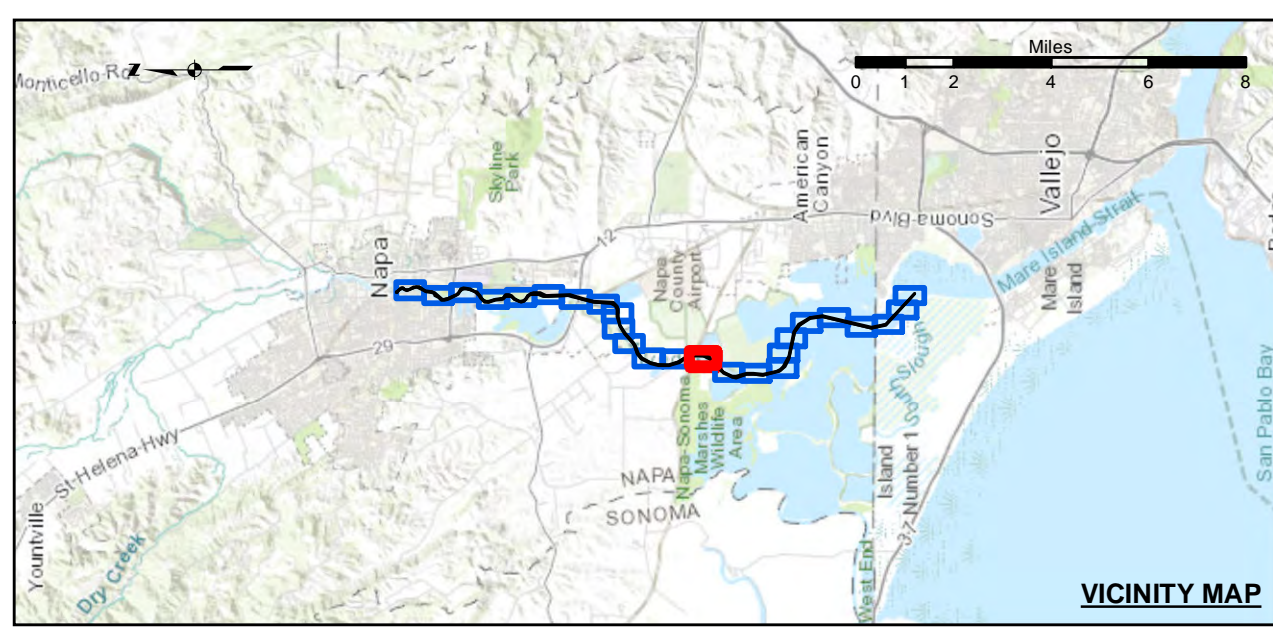
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| Chart Date:  | Feb 18, 2022 |
| Designed by: | PDT          |
| Plotted by:  | PDT          |
| Checked by:  | PDT          |
| Drawn by:    | PDT          |

CALIFORNIA  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY**  
 02-10 FEBRUARY 2022

**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
  - Navigation Buoy
  - Shoalest Sounding\*
- Contours**
- 15
  - 14
  - 13
  - 12
  - 11

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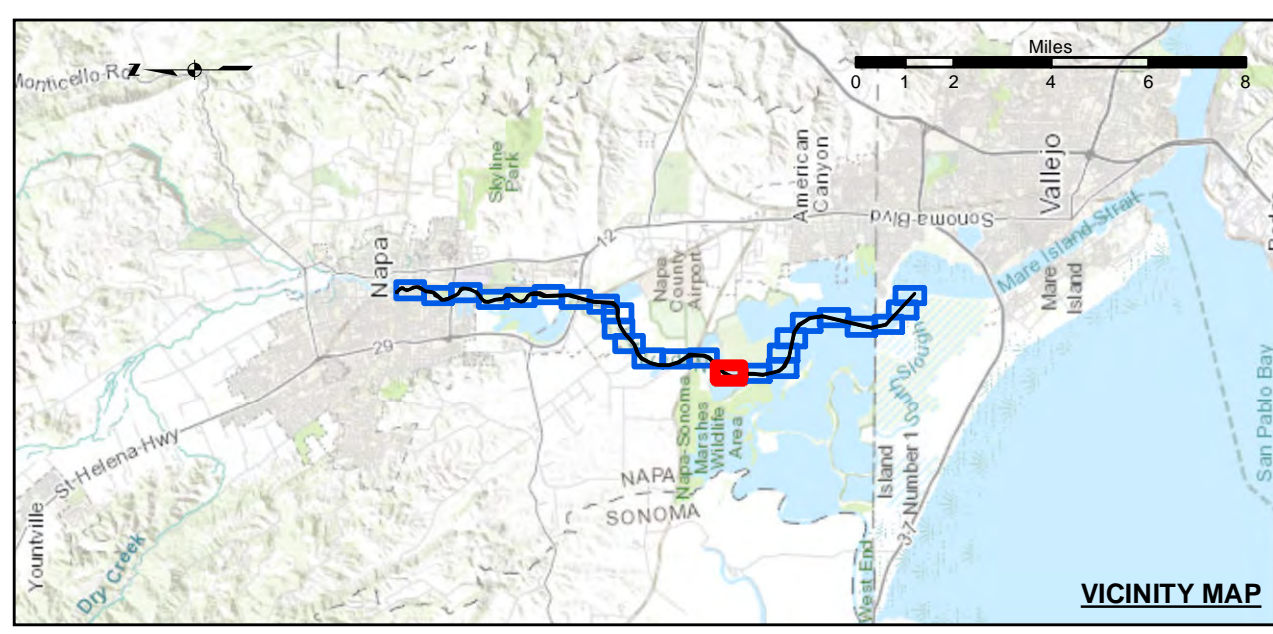
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| Designed by: | PDT                        |
| Drawn by:    | PDT                        |
| Checked by:  | PDT                        |
| Approved:    | Chief, Construction Branch |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
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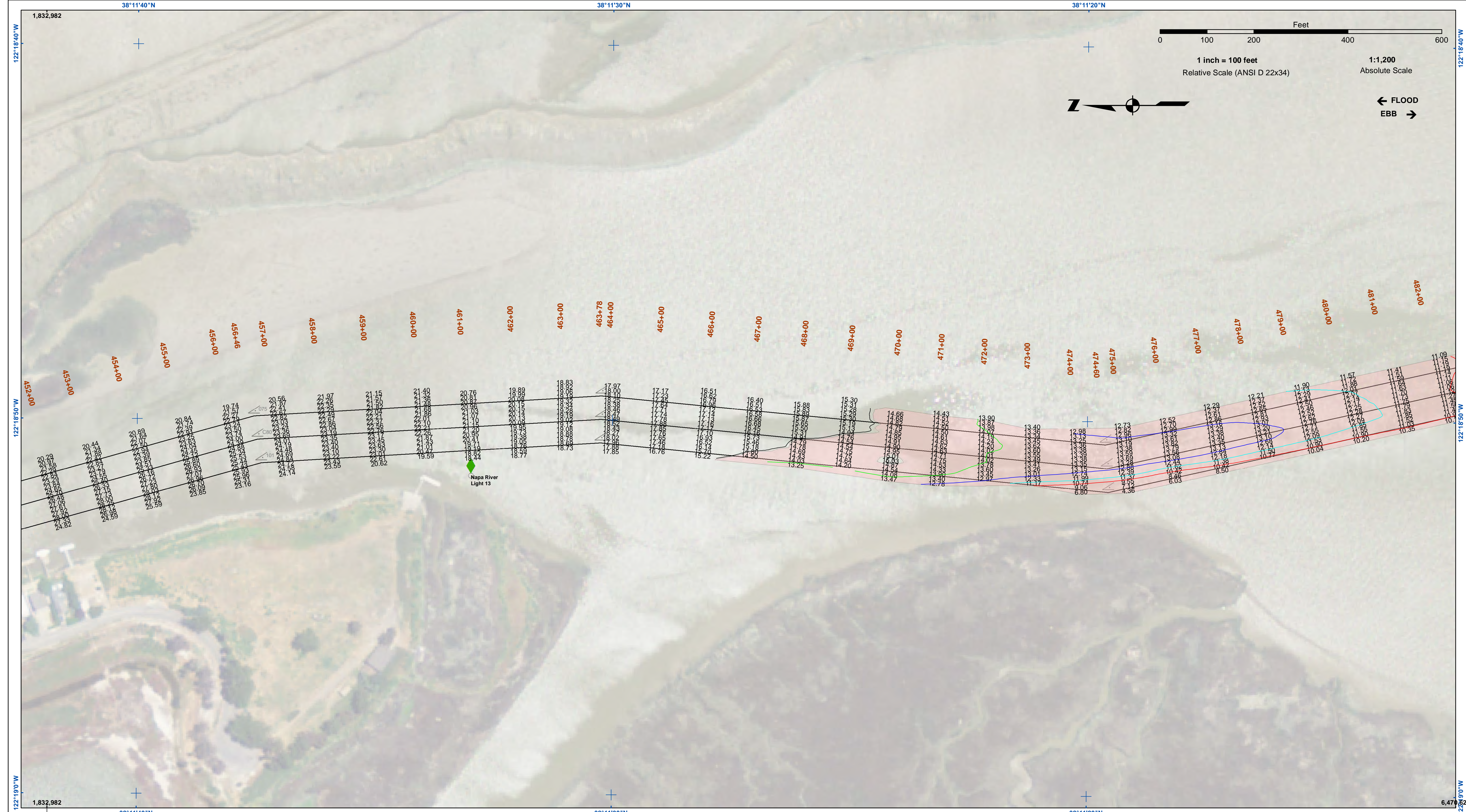


|                            |                    |                   |     |
|----------------------------|--------------------|-------------------|-----|
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| Placement Area             | Navigation Buoy    | Obstruction Point | -14 |
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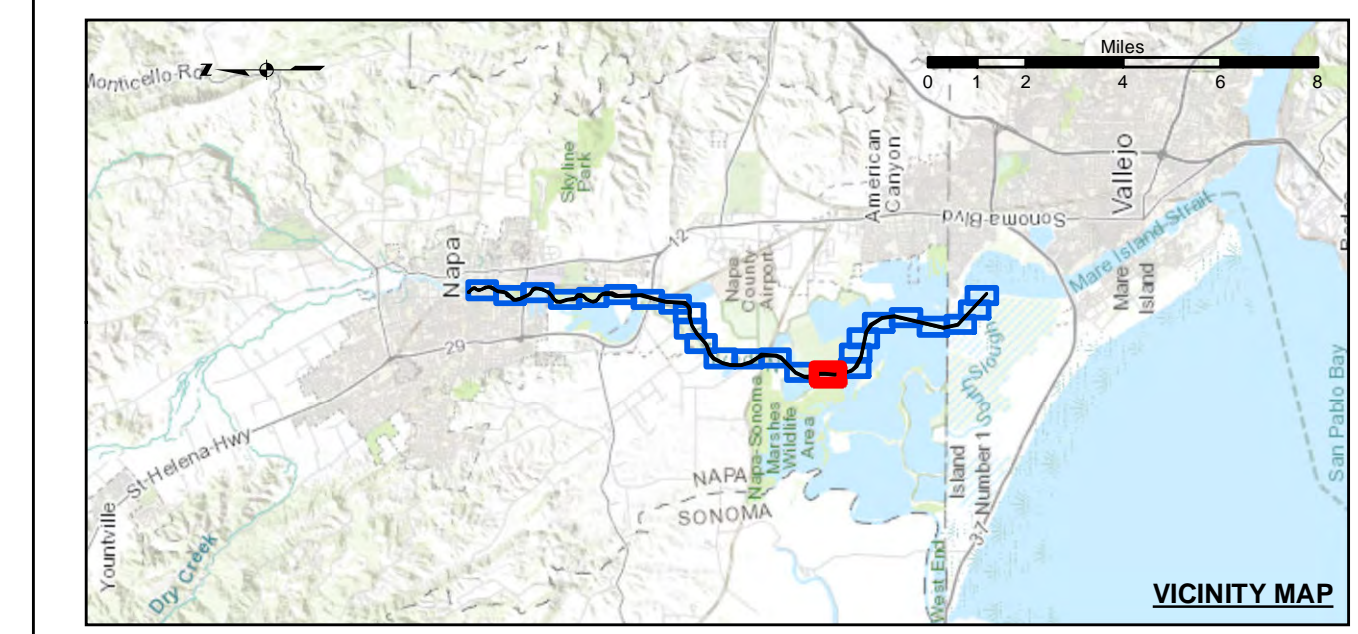
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**US Army Corps of Engineers**  
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 450 Market Street  
 San Francisco, CA 94102

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

**NOTES:**  
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 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 - 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.  
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|  |                             |
|--|-----------------------------|
| PREPARED UNDER THE DIRECTION OF<br><b>KEVIN P. ARNETT</b><br>LT COLONEL, C.E., DISTRICT ENGINEER | Chart Date:<br>Feb 18, 2022 |
| Subject:<br>Hydro Survey Team Leader   | Designed by:<br>PDT         |
| Recommendation:<br>Chief, Hydro Survey Section   | Plotted by:<br>PDT          |
| Approved:<br>Chief, Construction Branch  | Checked by:<br>PDT          |
|  | Drawn by:<br>PDT            |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

**Sheet  
 Reference  
 Number  
 16 of 25**

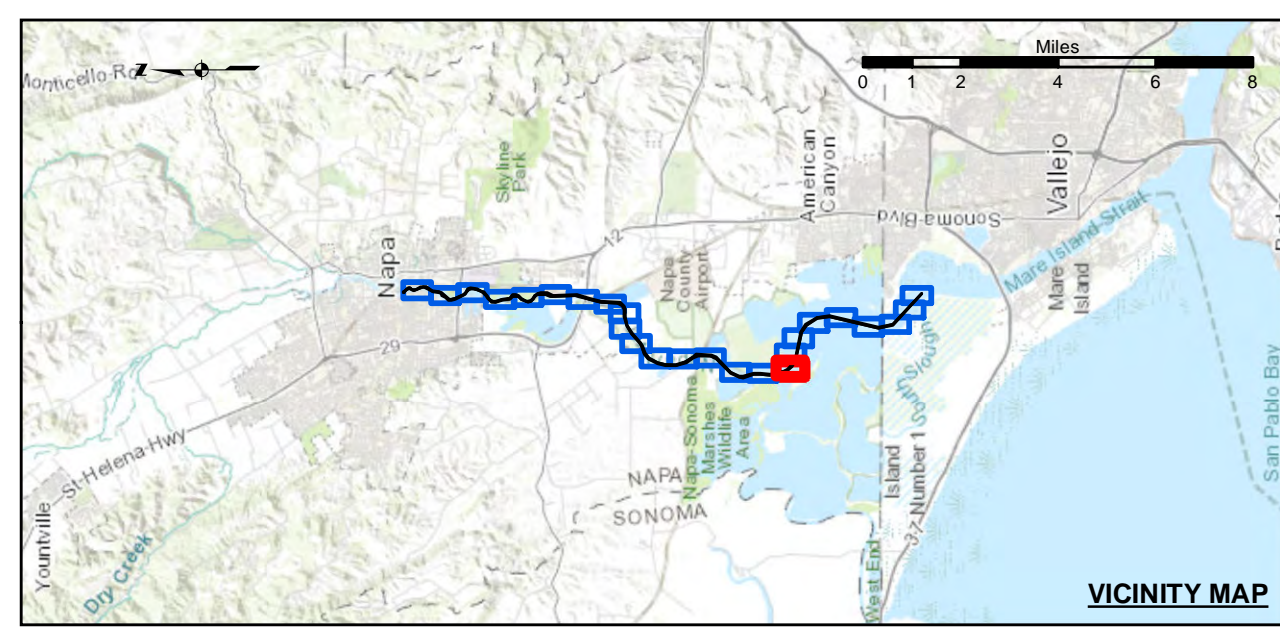




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|                                 |                            |             |              |
|---------------------------------|----------------------------|-------------|--------------|
| Prepared Under the Direction of | LT Colonel P. Arnett       | Chart Date  | Feb 18, 2022 |
| Surveyed By                     | PDT                        | Designed by | PDT          |
| Plotted By                      | PDT                        | Drawn by    | PDT          |
| Checked By                      | PDT                        |             |              |
| Approved                        | Chief, Construction Branch |             |              |



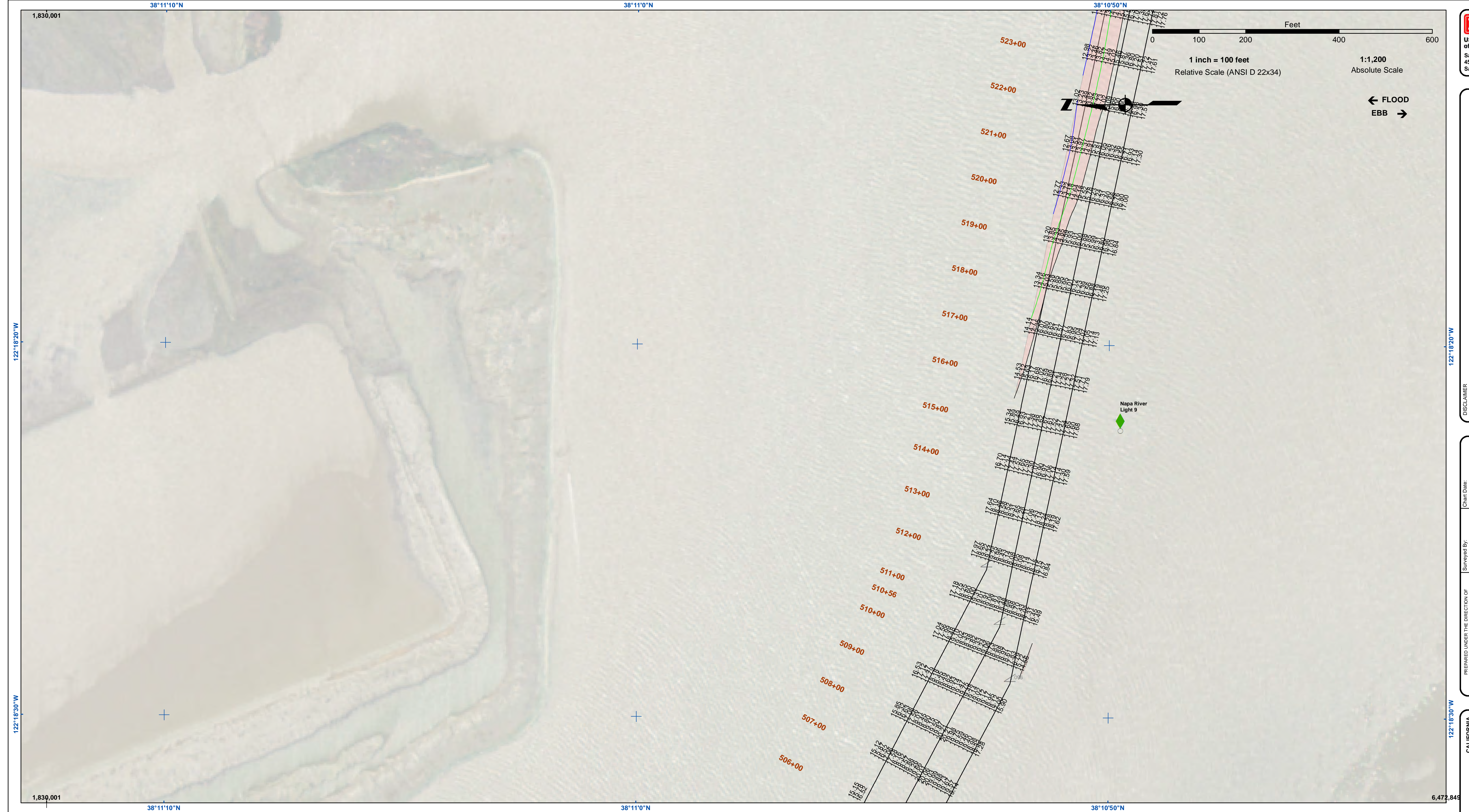
|                            |                    |                    |     |
|----------------------------|--------------------|--------------------|-----|
| Federal Navigation Channel | Shoaling Area      | Beacon, General    | -15 |
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER LOWER NAPA CONDITION SURVEY**  
 02-10 FEBRUARY 2022  
**Sheet Number 17 of 25**

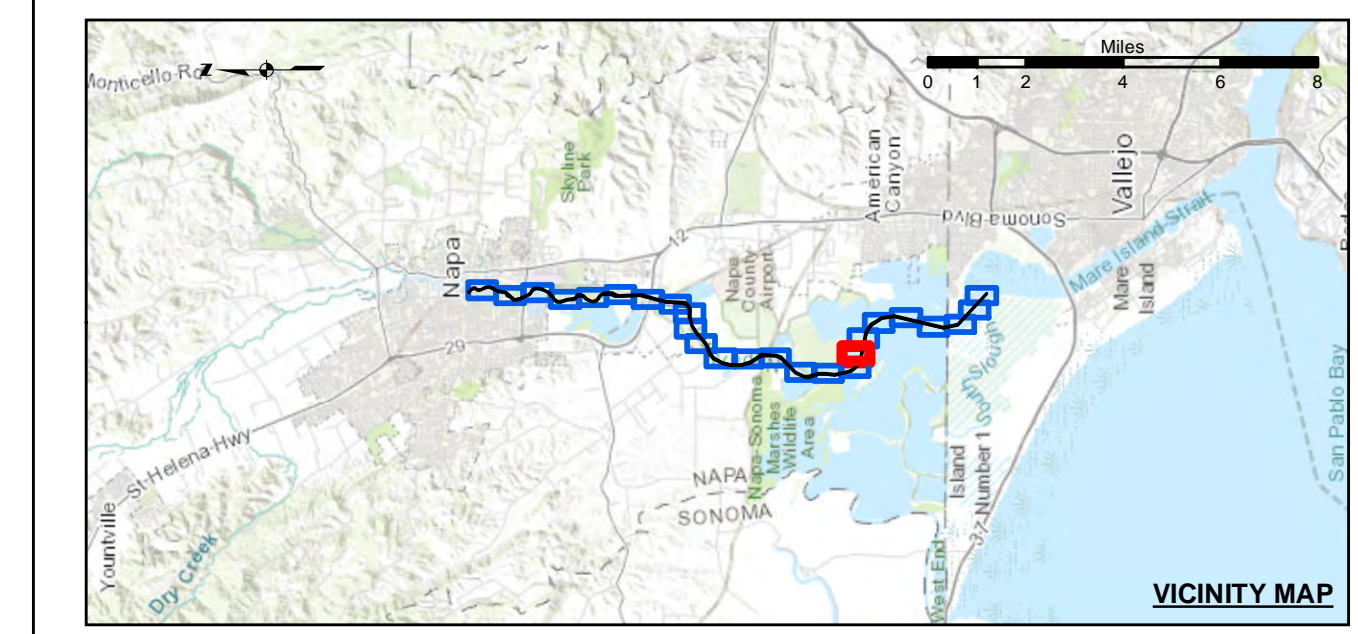




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|              |                             |
|--------------|-----------------------------|
| Chart Date:  | Feb 18, 2022                |
| Designed by: | PDT                         |
| Drawn by:    | PDT                         |
| Checked by:  | PDT                         |
| Approved:    | Chief, Construction Branch  |
| Surveyed By: | KEVIN P. ARNETT             |
| Plotted By:  | PDT                         |
| Flashed By:  | PDT                         |
| Recommended: | Chief, Hydro Survey Section |
| Approved:    | Chief, Construction Branch  |



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

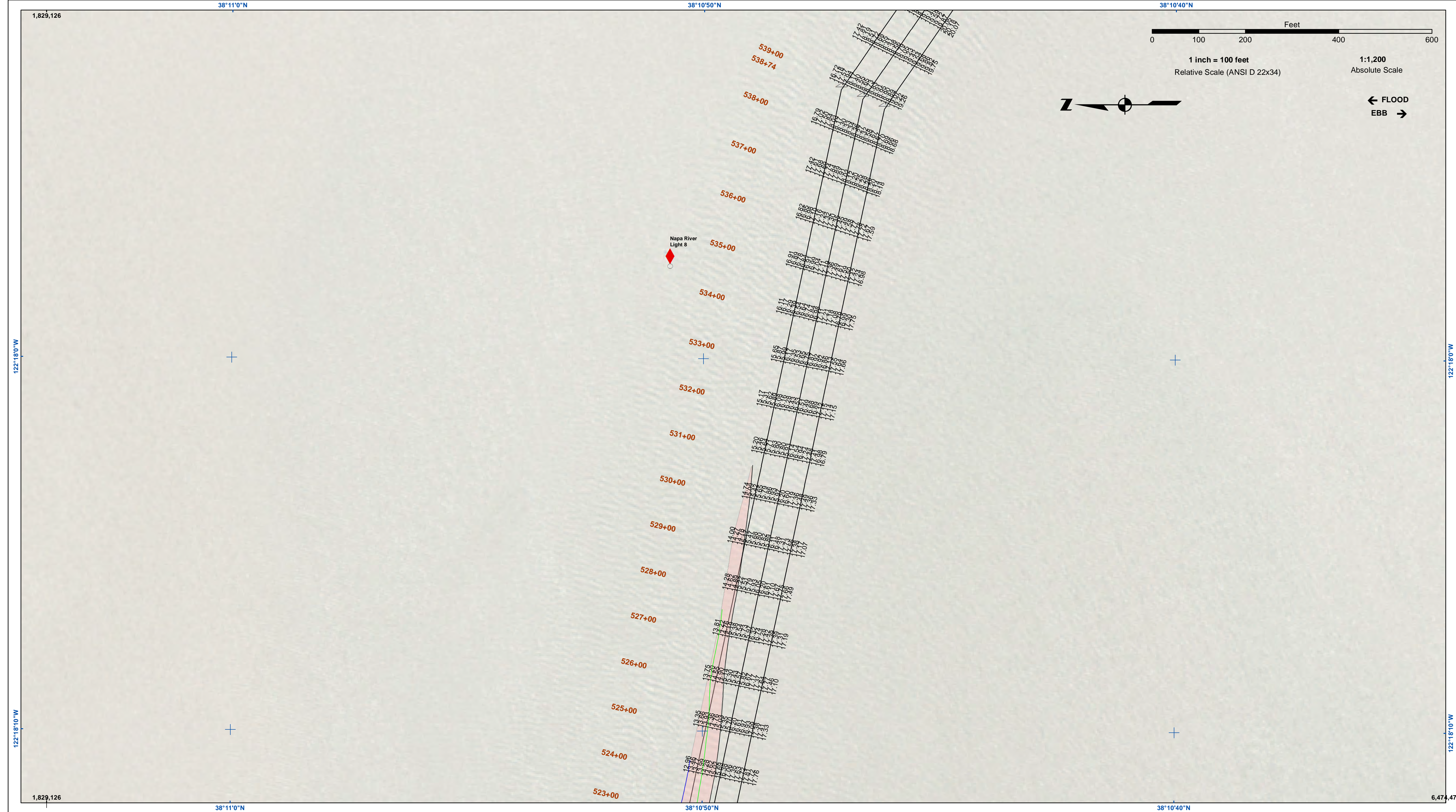
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

**Sheet  
 Reference  
 Number  
 18 of 25**

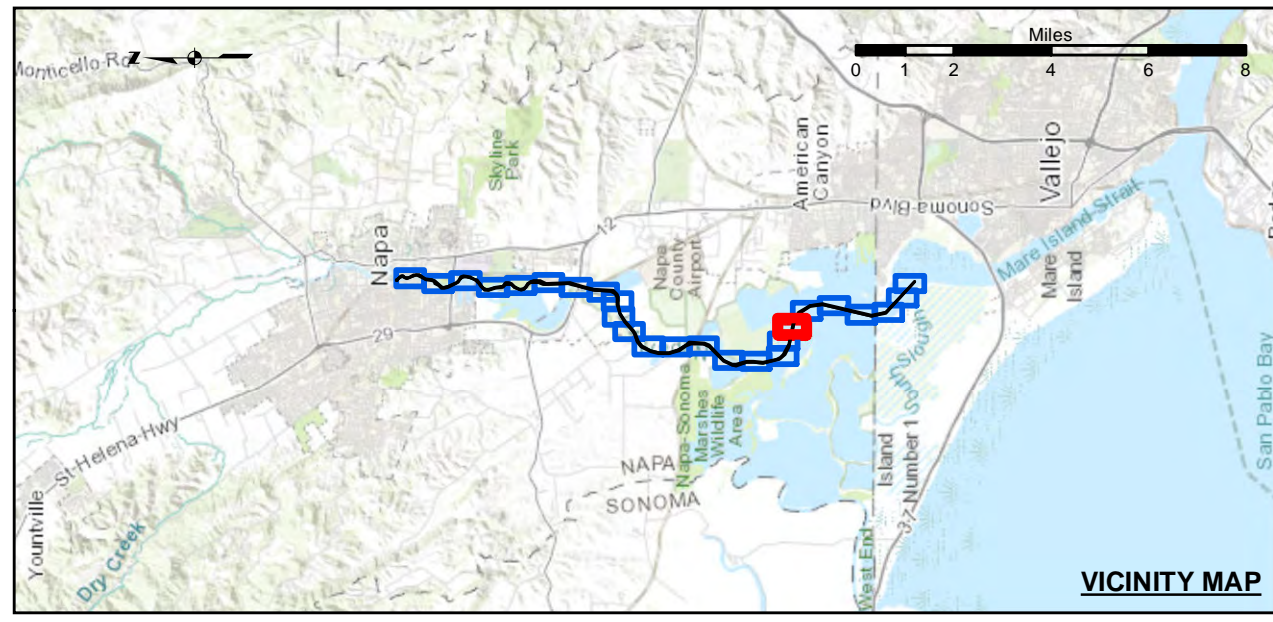




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|                                  |              |
|----------------------------------|--------------|
| Prepared Under the Direction of  | Chart Date   |
| LT COLONEL, C.E. KEVIN P. ARNETT | Feb 18, 2022 |
| Subject                          | Designed by: |
| Hydro Survey Team Leader         | PDT          |
| Recommended                      | Checked By:  |
| Chief, Hydro Survey Section      | PDT          |
| Approved                         | Drawn by:    |
| Chief, Construction Branch       | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022**

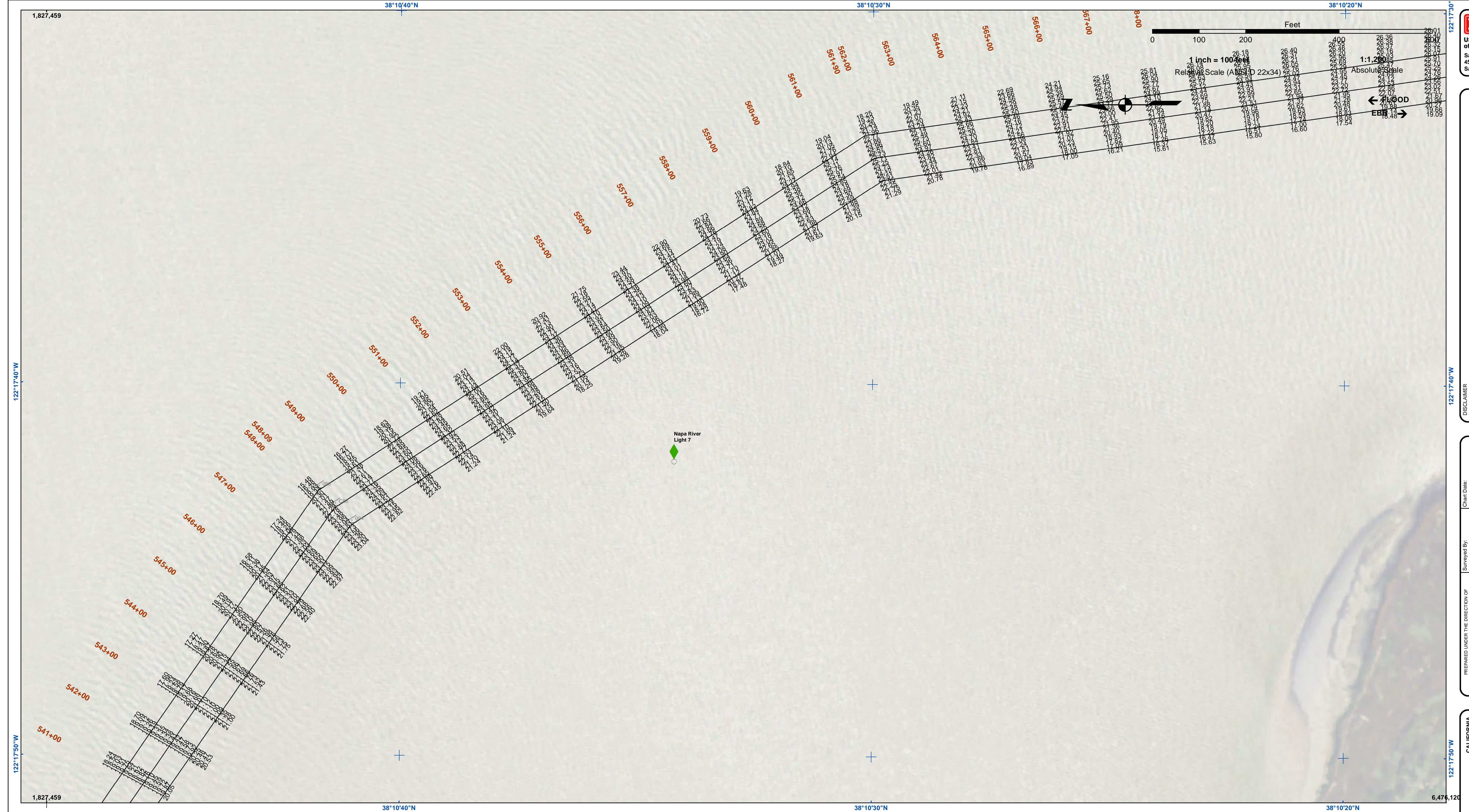


- |                            |                    |                    |              |
|----------------------------|--------------------|--------------------|--------------|
| Federal Navigation Channel | Shoaling Area      | Beacon, General    | Contours -15 |
| Placement Area             | Obstruction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

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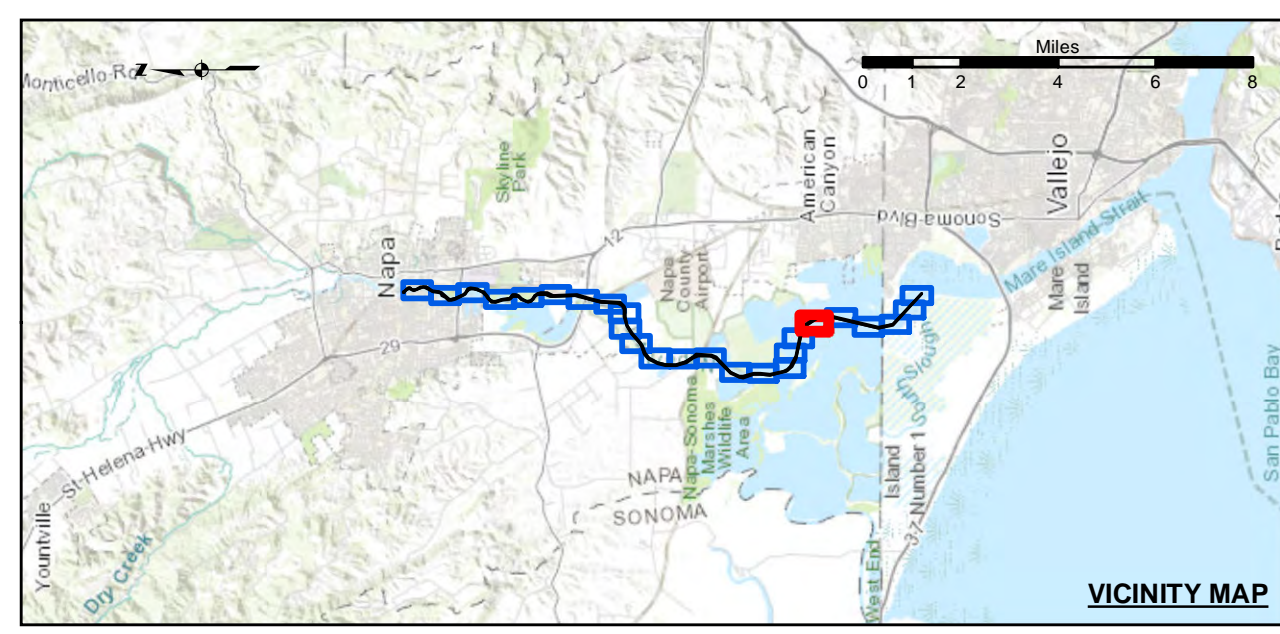


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|                                  |                                   |
|----------------------------------|-----------------------------------|
| Chart Date:                      | Feb 18, 2022                      |
| Designed by:                     | PDT                               |
| Drawn by:                        | PDT                               |
| Checked by:                      | PDT                               |
| Approved:                        | Chief, Construction Branch        |
| Prepared Under the Direction of: | LT COLONEL C.E. DISTRICT ENGINEER |
| Plotted By:                      | PDT                               |
| Surveyed By:                     | Hydro Survey Team Leader          |
| Recommended:                     | Chief, Hydro Survey Section       |
| Approved:                        | Chief, Construction Branch        |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
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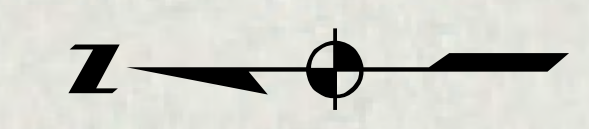
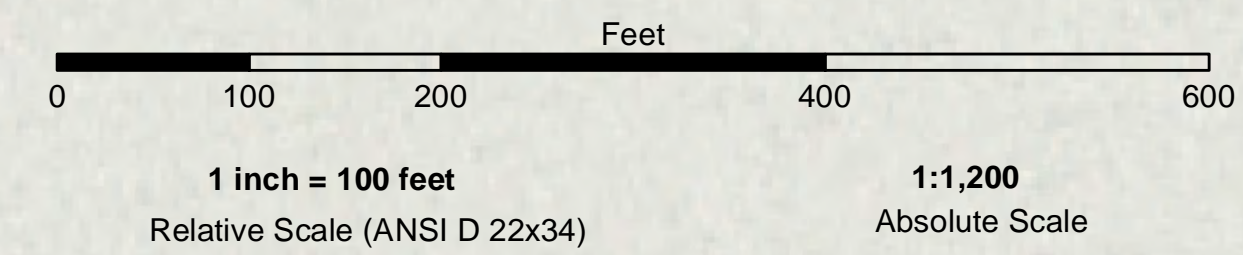


|                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  |                 |
| Placement Area             | Navigation Buoy    |                 |
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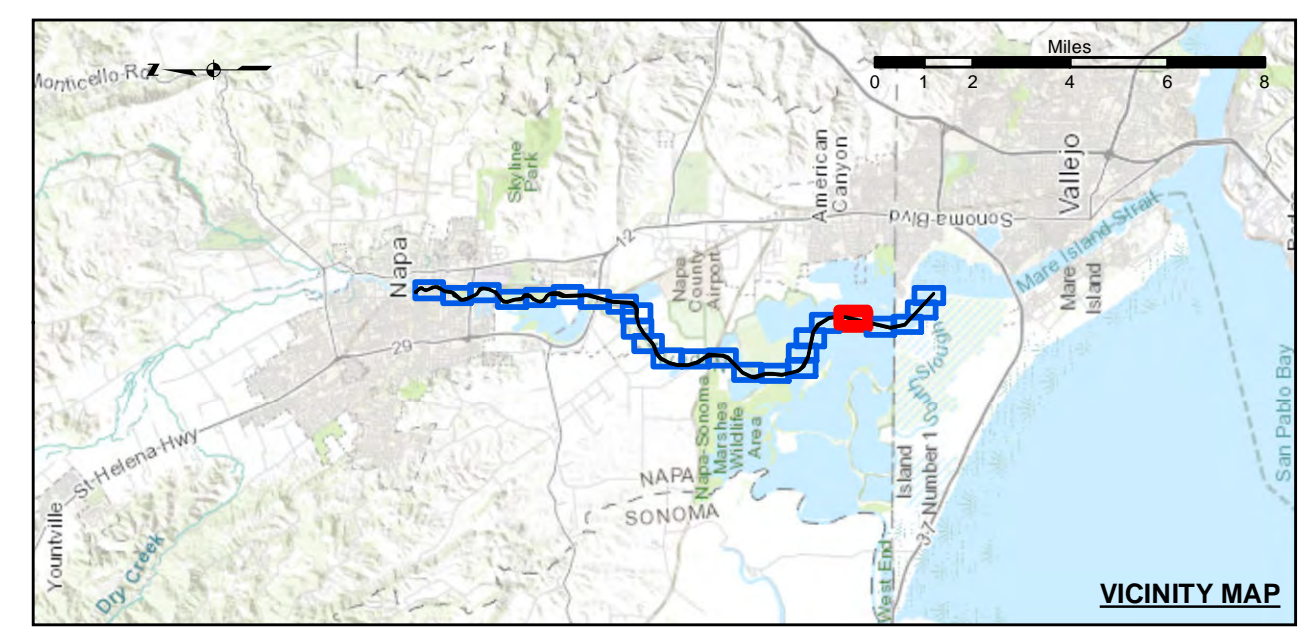


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San Francisco, CA 94102

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|--------------|--------------|
| Chart Date:  | Feb 18, 2022 |
| Designed by: | PDT          |
| Plotted by:  | PDT          |
| Checked by:  | PDT          |
| Drawn by:    | PDT          |



|                            |                    |     |
|----------------------------|--------------------|-----|
| 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                |                    |     |

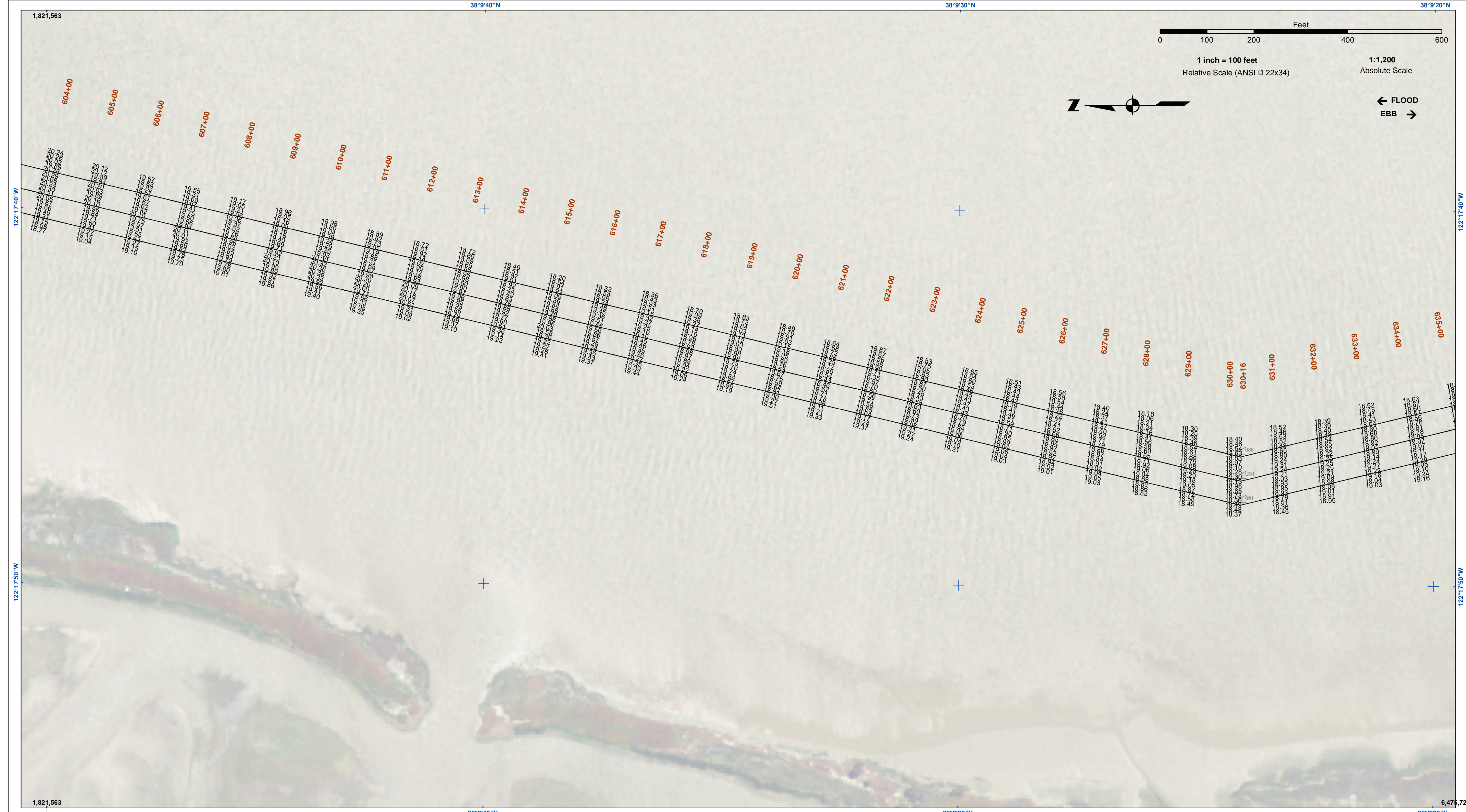
**NOTES:**  
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CALIFORNIA  
NAPA COUNTY  
NAPA RIVER  
LOWER NAPA  
CONDITION SURVEY  
02-10 FEBRUARY 2022

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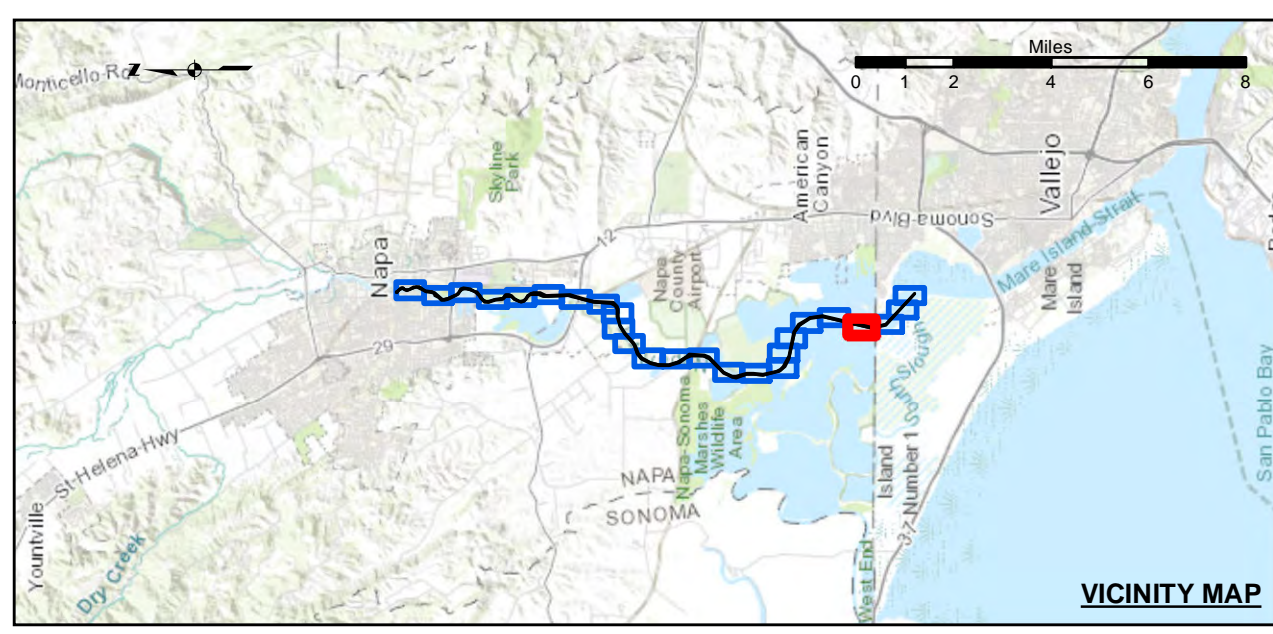
**US Army Corps of Engineers**  
 San Francisco District  
 450 Market Street  
 San Francisco, CA 94102

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| Prepared Under the Direction of<br><b>KEVIN P. ARNETT</b><br>LT Colonel, C.E., District Engineer | Chart Date: Feb 18, 2022 |
| Submitted by:<br>Hydro Survey Team Leader  | Designed by:<br>PDT      |
| Recommended by:<br>Chief, Hydro Survey Section   | Drawn by:<br>PDT         |
| Approved by:<br>Chief, Construction Branch   |                          |

CALIFORNIA  
**NAPA RIVER**  
 LOWER NAPA  
 CONDITION SURVEY  
 02-10 FEBRUARY 2022

**Sheet**  
**Reference**  
**Number**  
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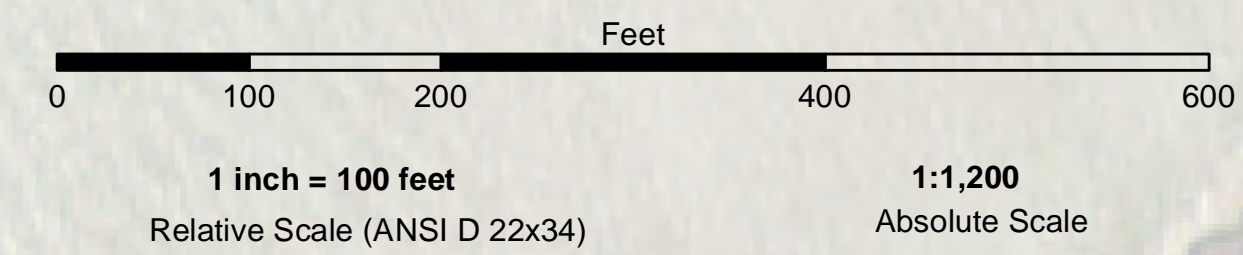


|                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  |                 |
| Placement Area    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

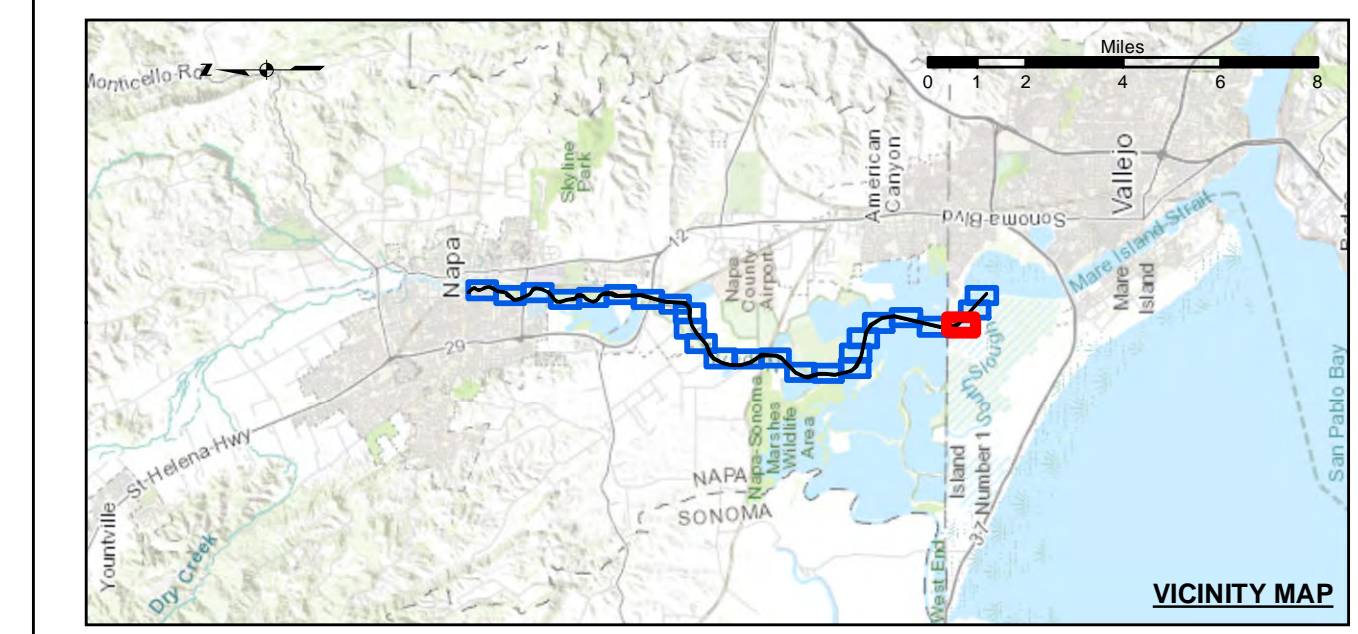
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|                            |                    |     |
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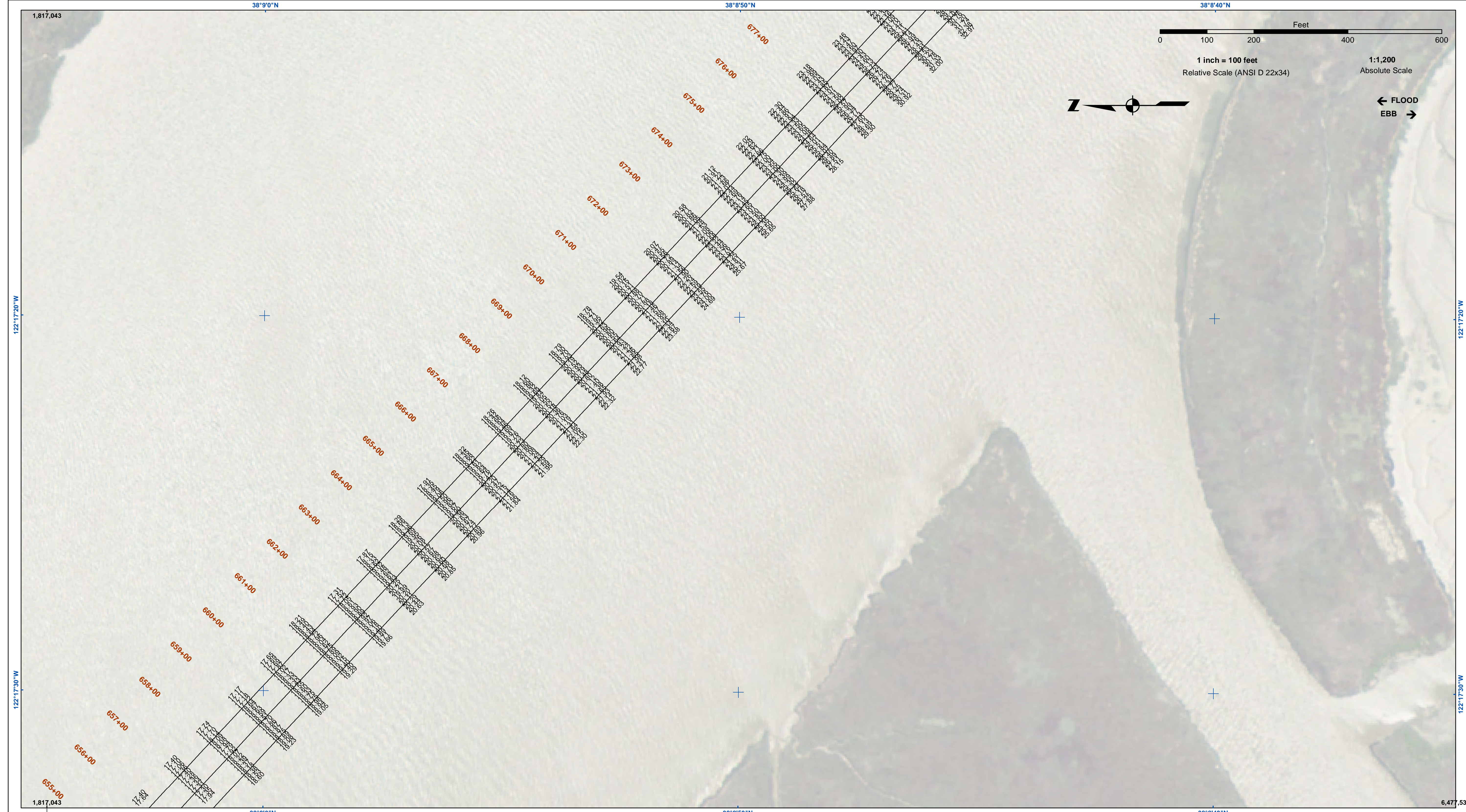
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|  |                          |
|--|--------------------------|
| PREPARED UNDER THE DIRECTION OF<br><b>KEVIN P. ARNETT</b><br>LT COLONEL, C.E., DISTRICT ENGINEER | Chart Date: Feb 18, 2022 |
| Subject: Hydro Survey Team Leader  | Designed by: PDT         |
| Recommended: Chief, Hydro Survey Section   | Plotted by: PDT          |
| Approved: Chief, Construction Branch   | Checked by: PDT          |
|  | Drawn by: PDT            |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
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 02-10 FEBRUARY 2022**

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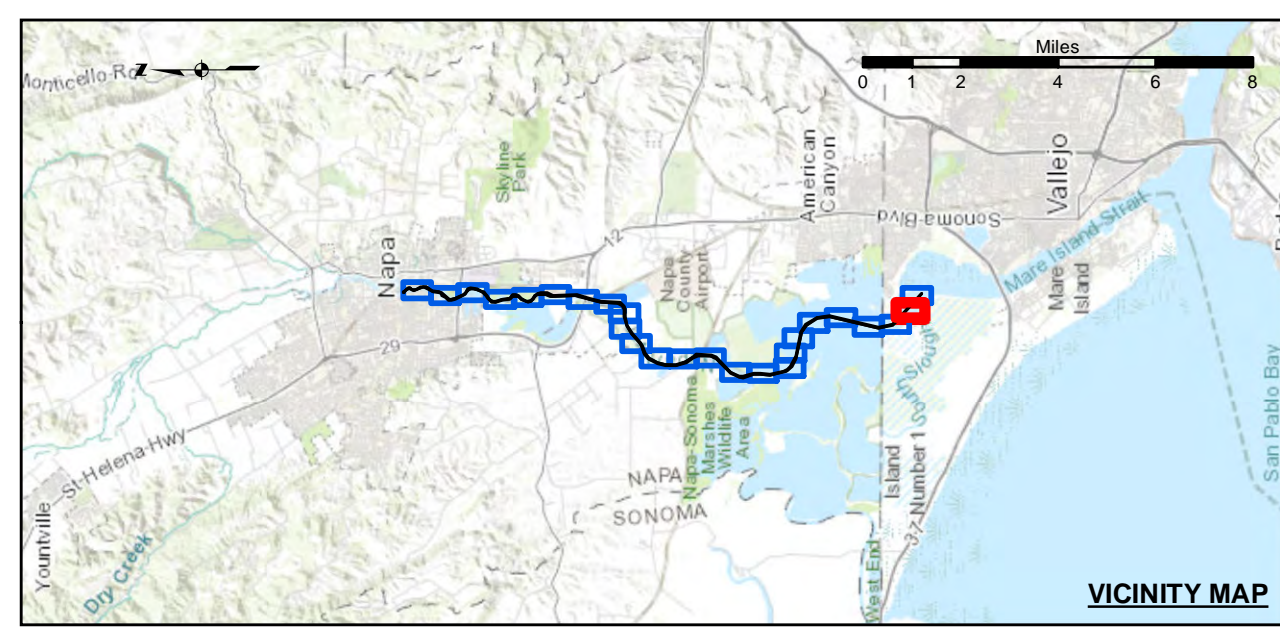




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|                                 |                             |              |              |
|---------------------------------|-----------------------------|--------------|--------------|
| Prepared Under the Direction of | KEVIN P. ARNETT             | Chart Date:  | Feb 18, 2022 |
| Submitted:                      | Hydro Survey Team Leader    | Designed by: | PDT          |
| Recommended:                    | Chief, Hydro Survey Section | Checked by:  | PDT          |
| Approved:                       | Chief, Construction Branch  | Drawn by:    | PDT          |



|                            |                    |          |
|----------------------------|--------------------|----------|
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CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
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 CONDITION SURVEY  
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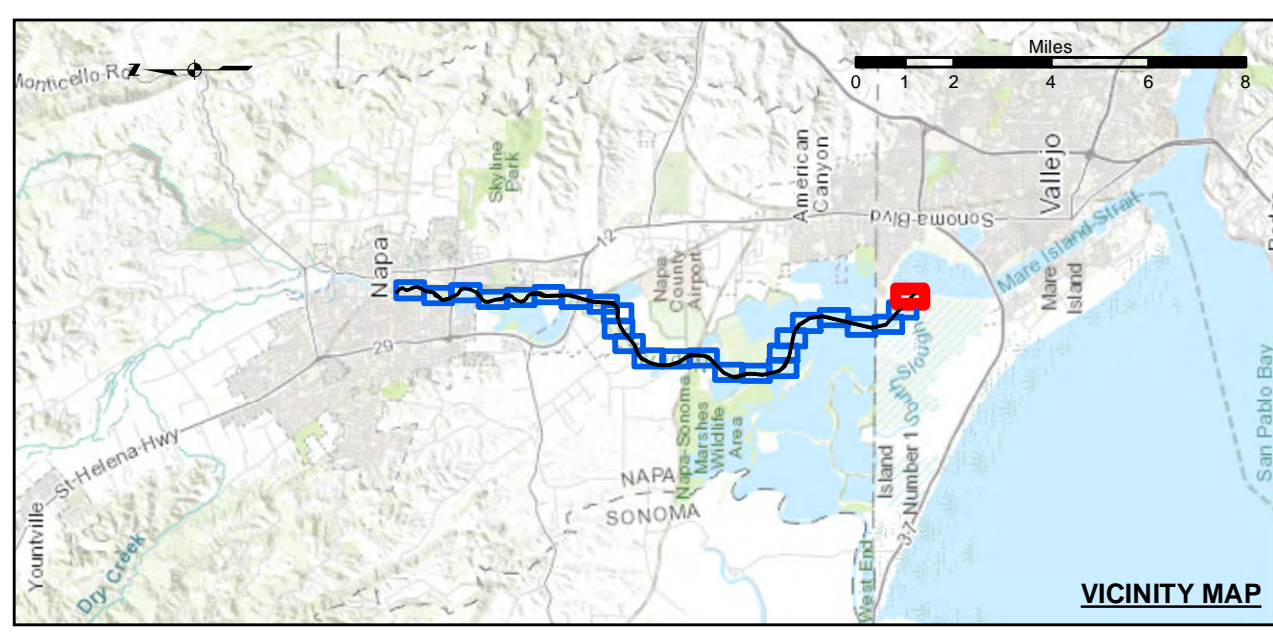
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|---------------------------------|--------------|
| Prepared Under the Direction of | Chart Date   |
| KEVIN P. ARNETT                 | Feb 18, 2022 |
| Subject                         | Designed by: |
| Hydro Survey Team Leader        | PDT          |
| Recommended by:                 | Checked by:  |
| Chief, Hydro Survey Section     | PDT          |
| Approved by:                    | Drawn by:    |
| Chief, Construction Branch      | PDT          |

CALIFORNIA  
 NAPA COUNTY  
**NAPA RIVER  
 LOWER NAPA  
 CONDITION SURVEY**  
 02-10 FEBRUARY 2022

**Sheet  
 Reference  
 Number**  
**25 of 25**



|                            |                    |                 |          |
|----------------------------|--------------------|-----------------|----------|
| Federal Navigation Channel | Shoaling Area      | Beacon, General | Contours |
| Placement Area             | Obstruction Point  | Navigation Buoy | -14      |
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