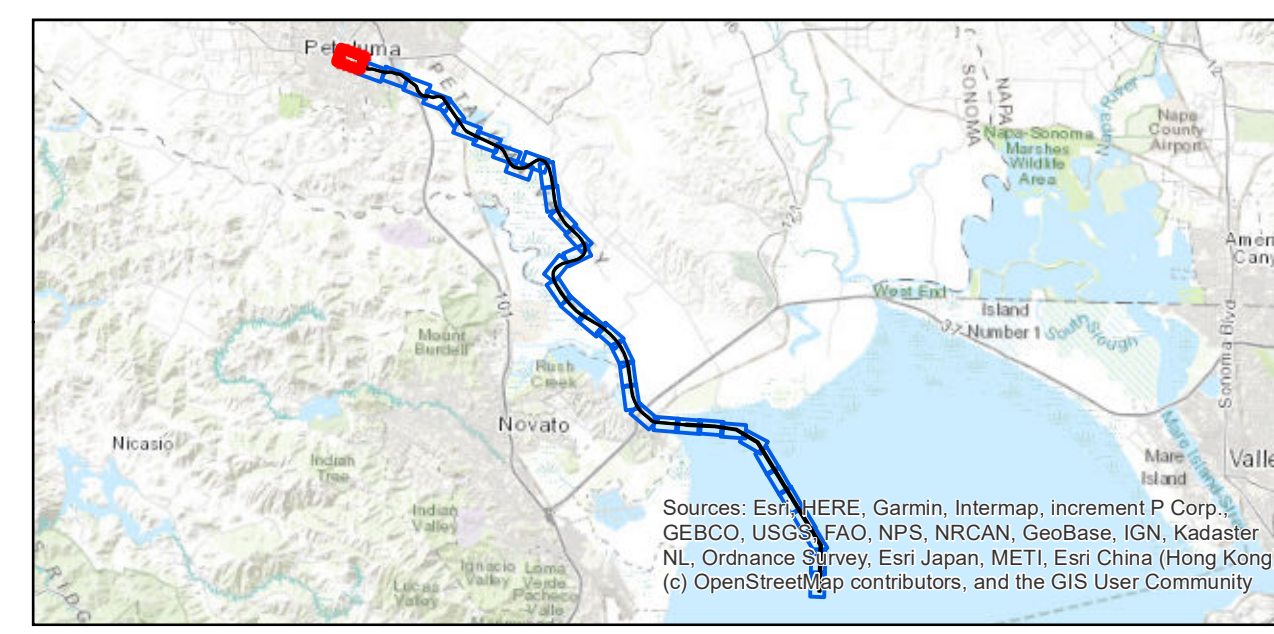
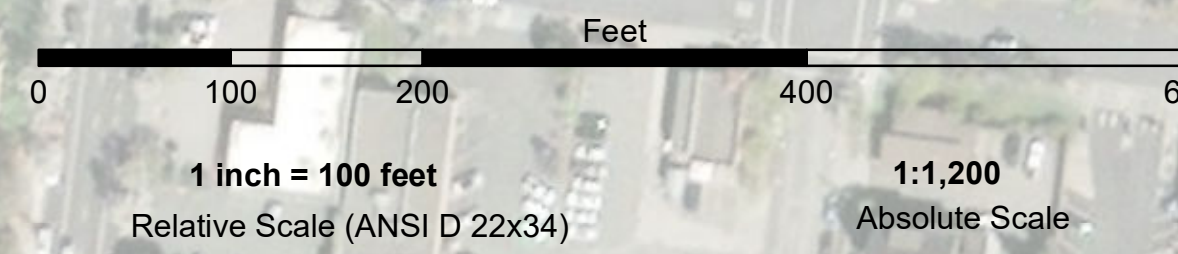


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| | | |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General | Contours |
| Shoaling Area | Obstruction Point | |
| Placement Area | Navigation Buoy | -8 |
| Anchorage Area | Navigation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

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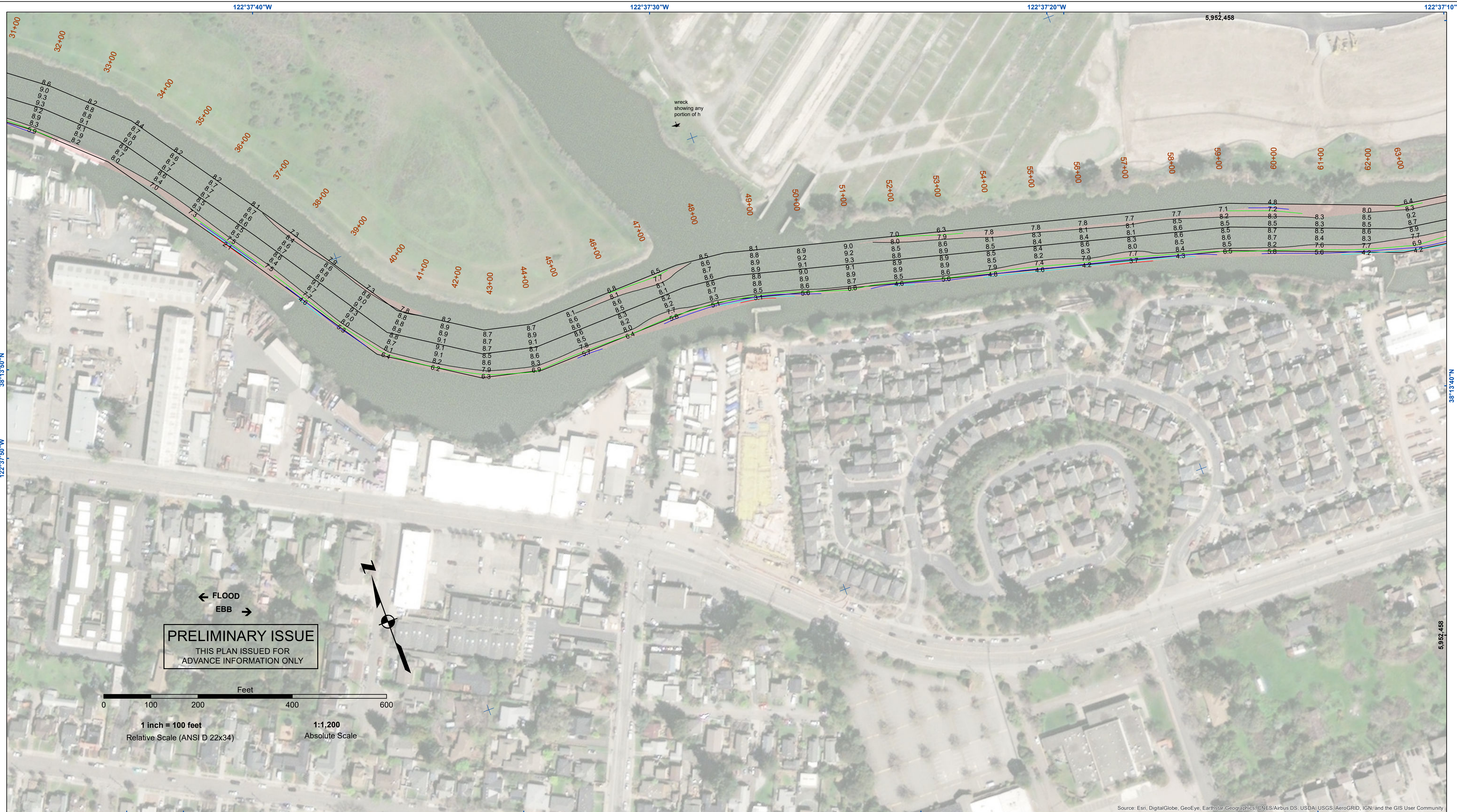
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| Chart Date: | Apr 15, 2022 |
| Designed by: | |
| Drawn by: | PDT |
| Surveyed By: | |
| Plotted By: | |
| Checked By: | PDT |
| Approved: | |

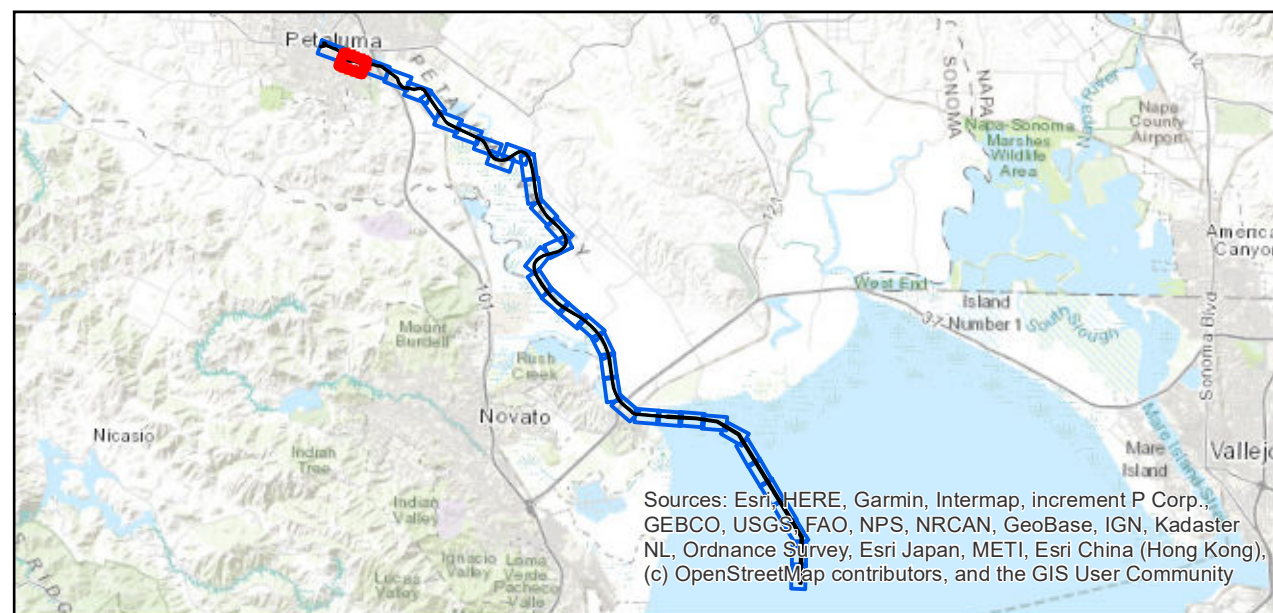
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
1 of 37



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



| | | |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General | Contours |
| Shoaling Area | Obstruction Point | |
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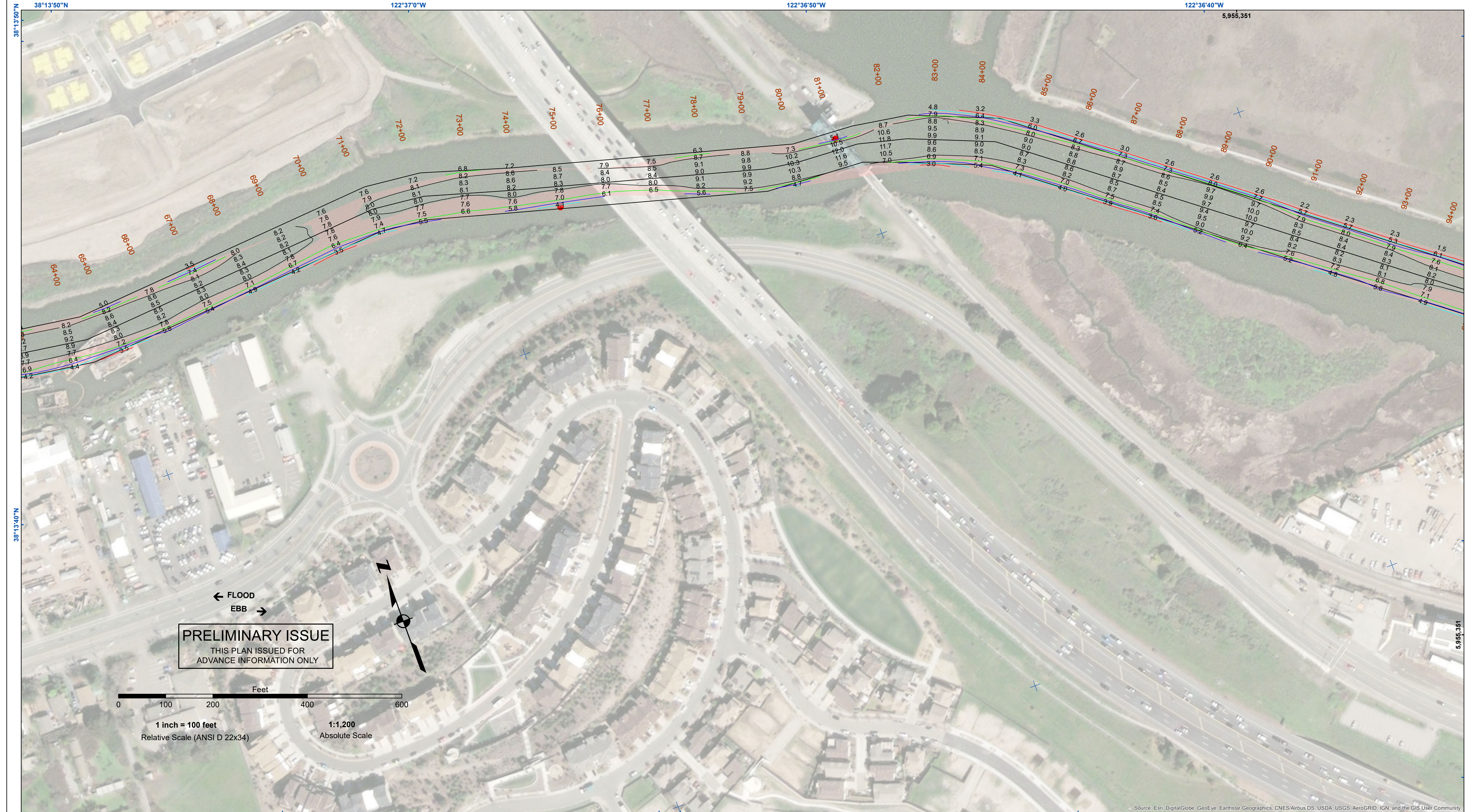
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| Prepared Under the Direction of KEVIN P. ARNETT LT COLONEL, C.E., DISTRICT ENGINEER | Surveyed By: | Chart Date: |
| Subject: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommendation: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Drawn by: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
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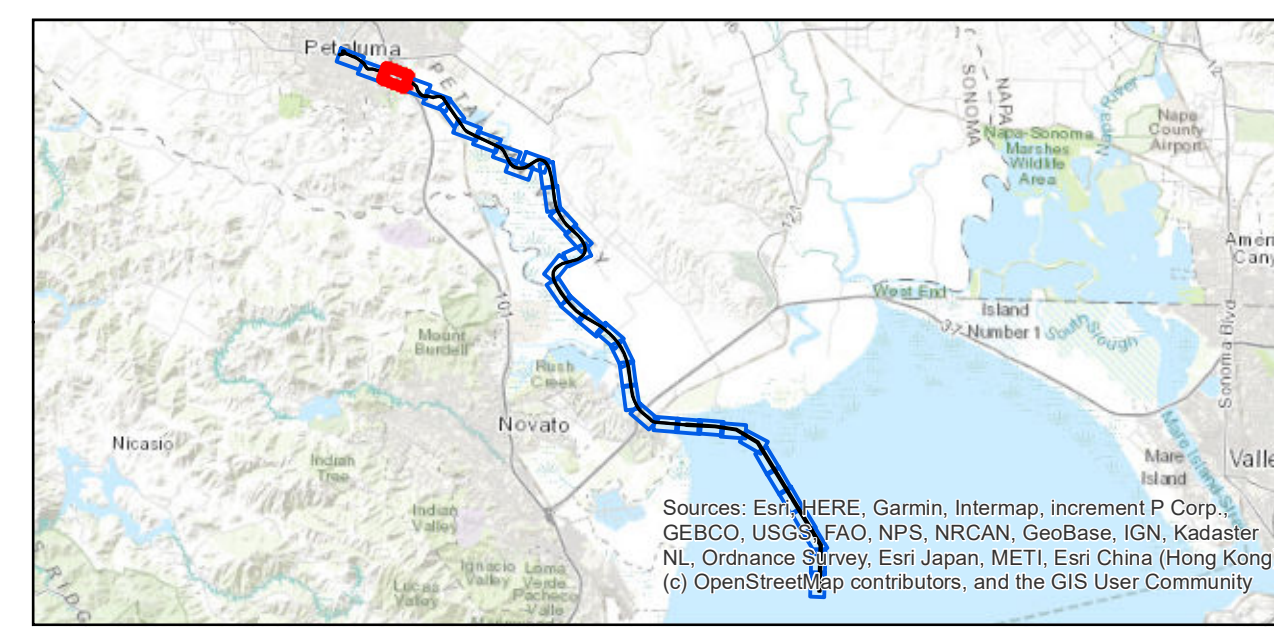
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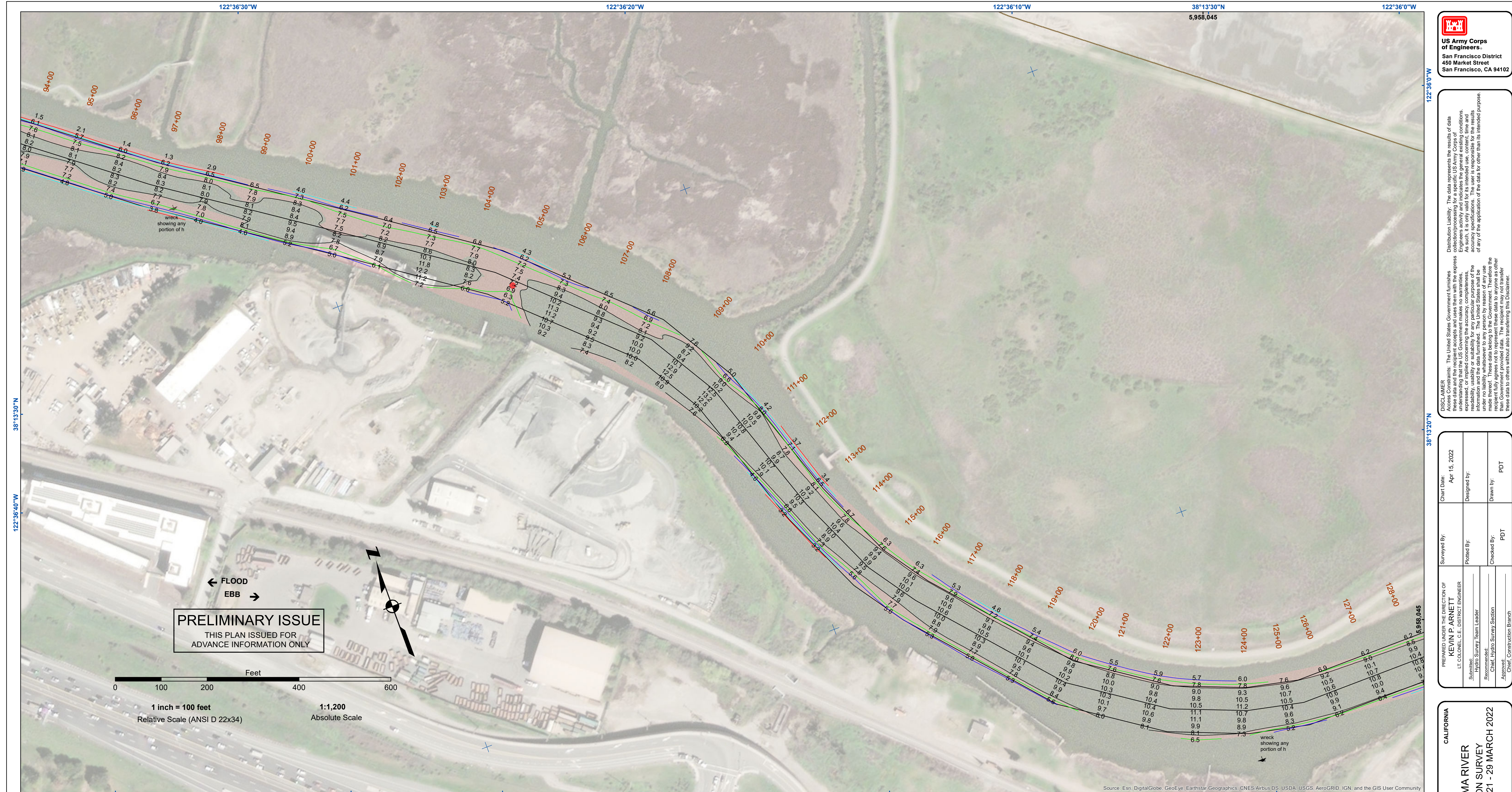


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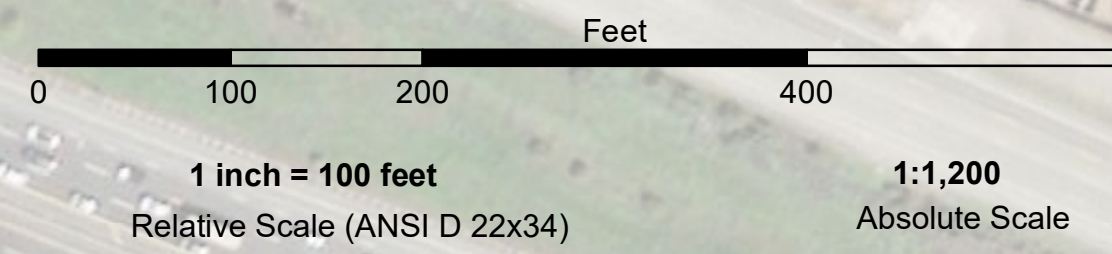
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| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT | Surveyed By: | Chart Date: |
| Subproject: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommendation: Chief, Hydro Survey Section | Checked By: | |
| Approved: Chief, Construction Branch | Drawn By: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
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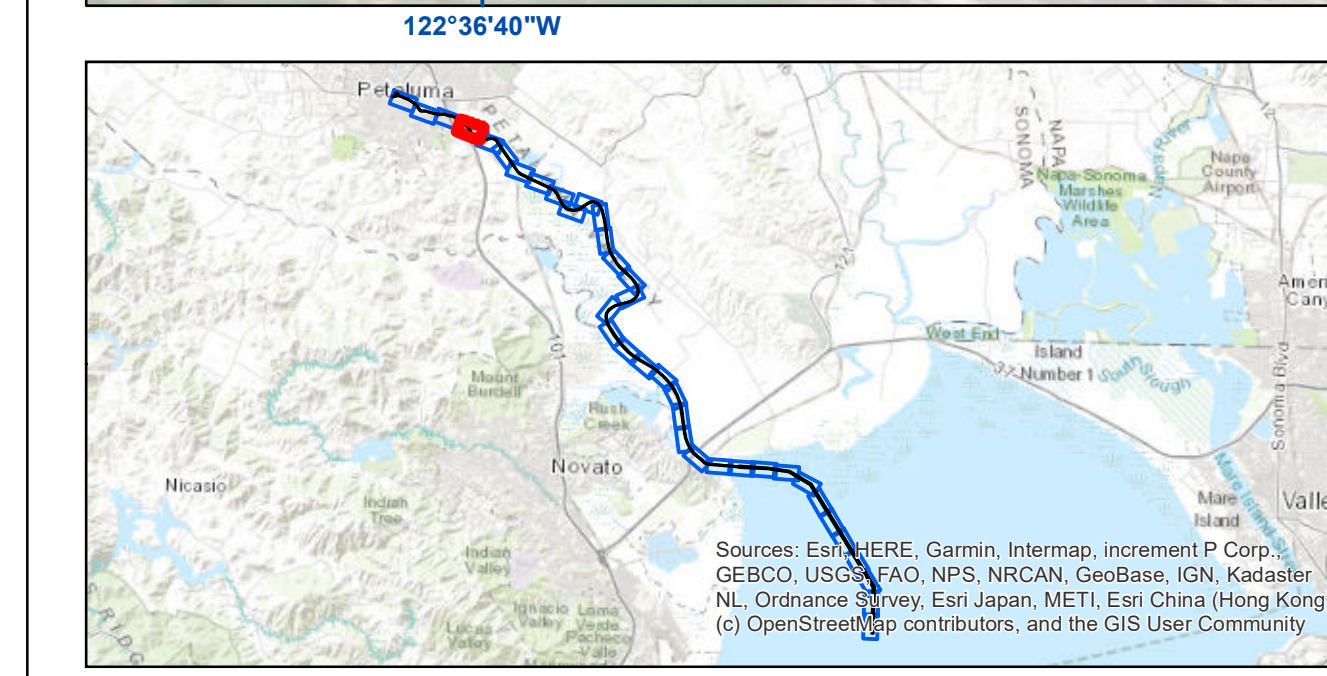
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- Federal Navigation Channel
 - Shoaling Area
 - Placement Area
 - Anchorage Area
 - Wreck Area
 - Submerged Wreck
 - Angle Point
 - Beacon, General
 - Obstruction Point
 - Navigation Buoy
 - Navigation Buoy
 - Shoalest Sounding*
- Contours**
- 8
 - 7
 - 6
 - 5
 - 4

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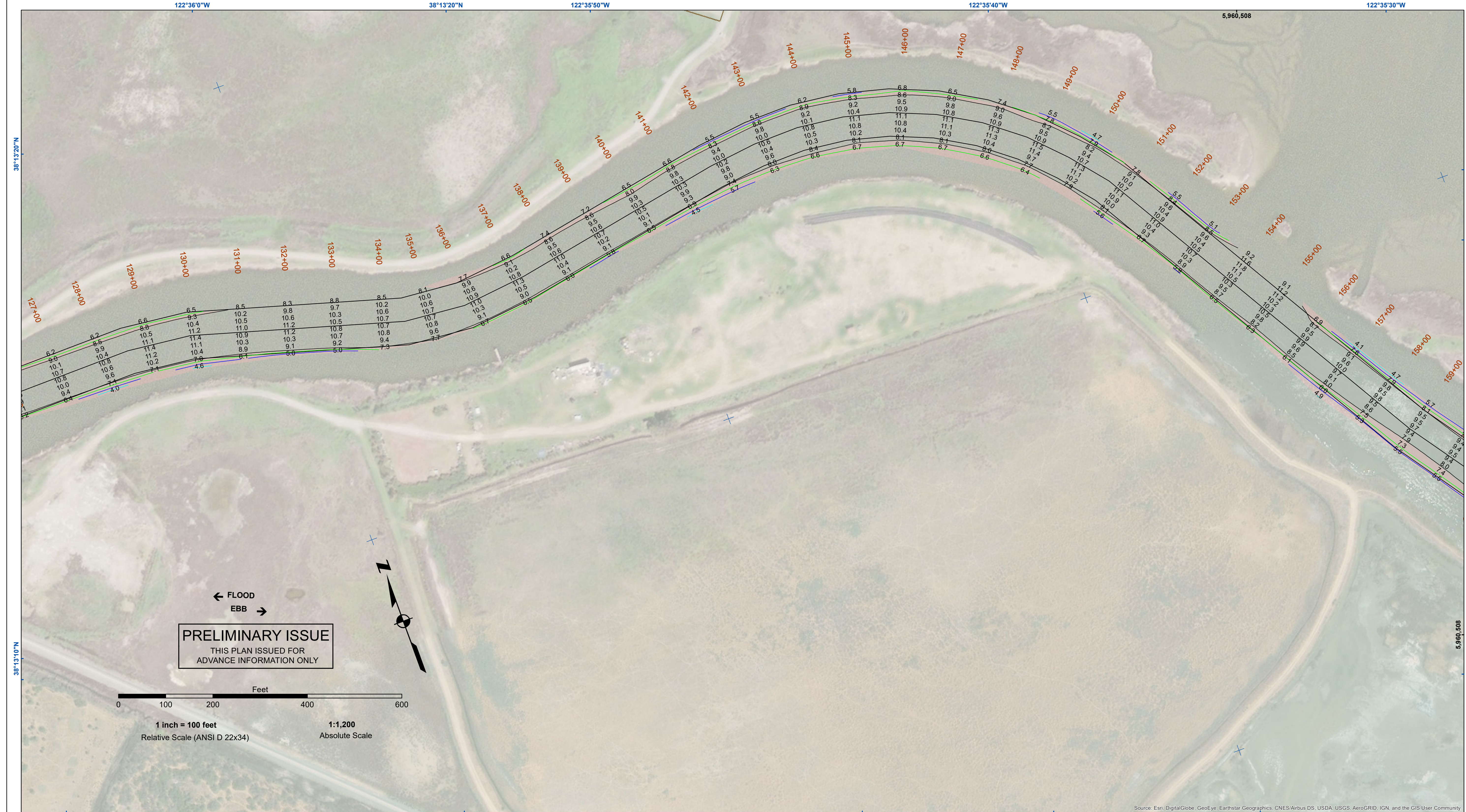
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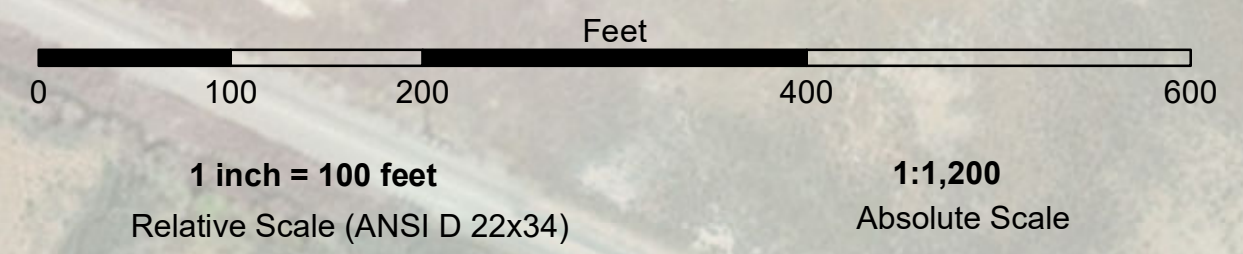
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| Prepared Under the Direction of | Chart Date: |
| KEVIN P. ARNETT | Apr 15, 2022 |
| Submittal: | Designed by: |
| Hydro Survey Team Leader | |
| Recommendation: | Checked by: |
| Chief, Hydro Survey Section | PDT |
| Approved: | Drawn by: |
| Chief, Construction Branch | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

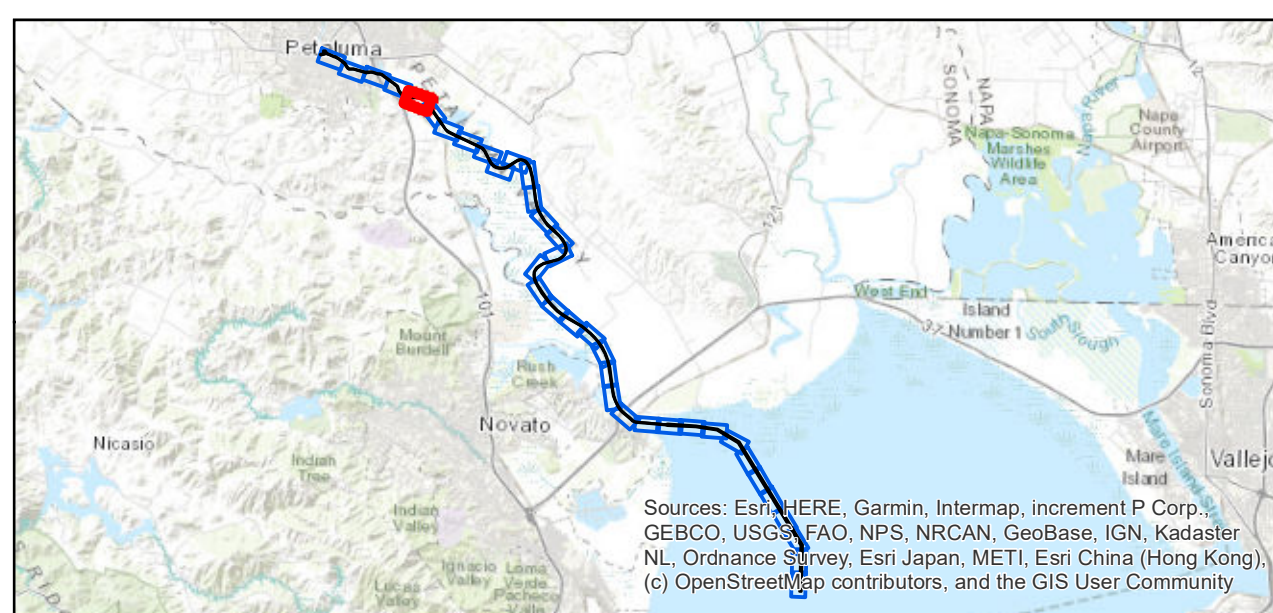
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|--|----------------------------|--|--------------------|-----------------|----|
| | Federal Navigation Channel | | Beacon, General | Contours | |
| | Shoaling Area | | Obstruction Point | | |
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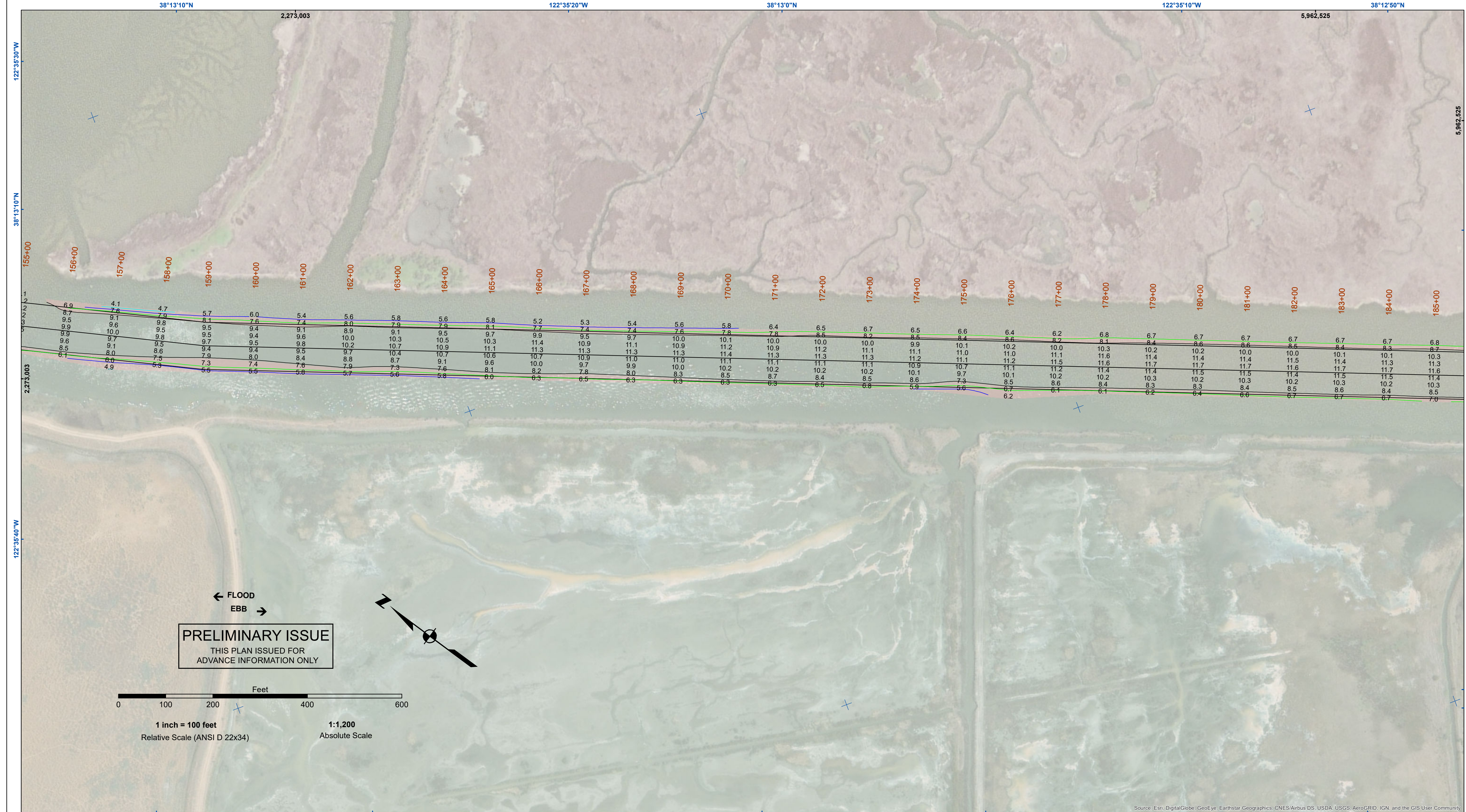


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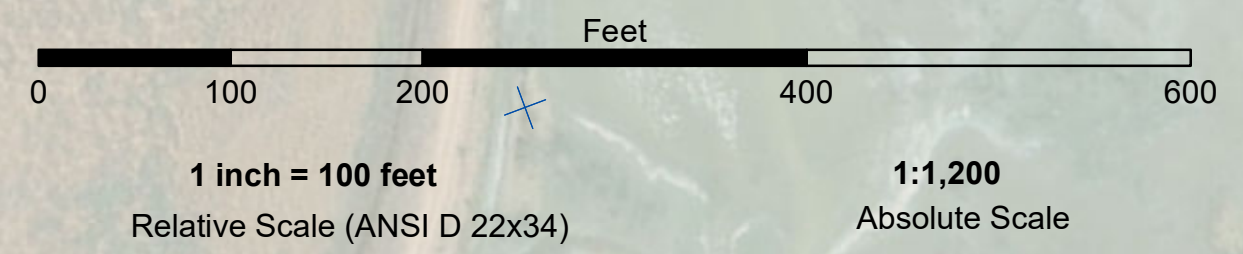
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| Prepared Under the Direction of | Chart Date: | Apr 15, 2022 |
| LT COLONEL C.E. DISTRICT ENGINEER | Designed by: | |
| Subplot: | Plotted By: | |
| Hydro Survey Team Leader | Checked By: | PDT |
| Recommendation: | Drawn by: | PDT |
| Chief, Hydro Survey Section | | |
| Approved: | | |
| Chief, Construction Branch | | |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

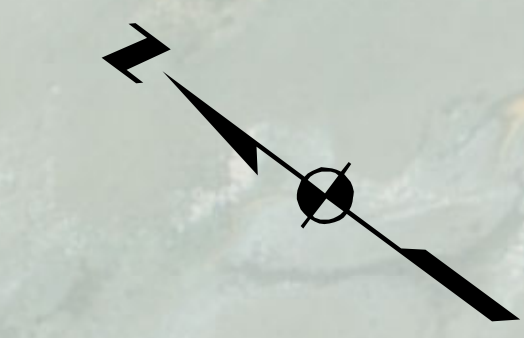
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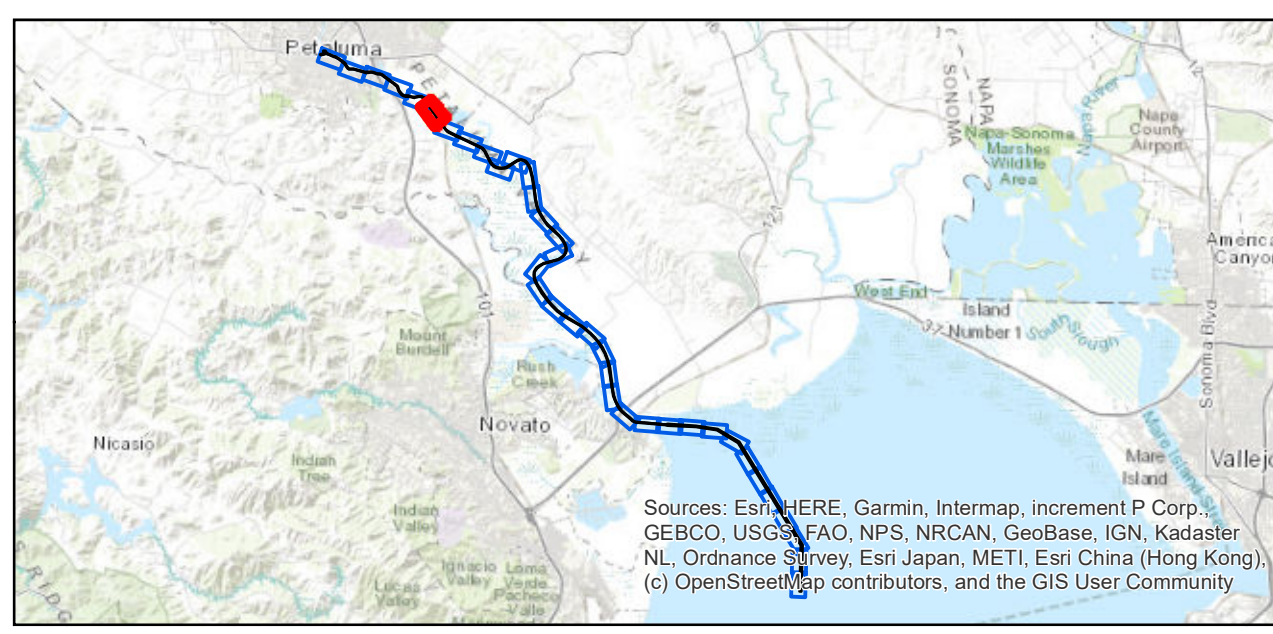


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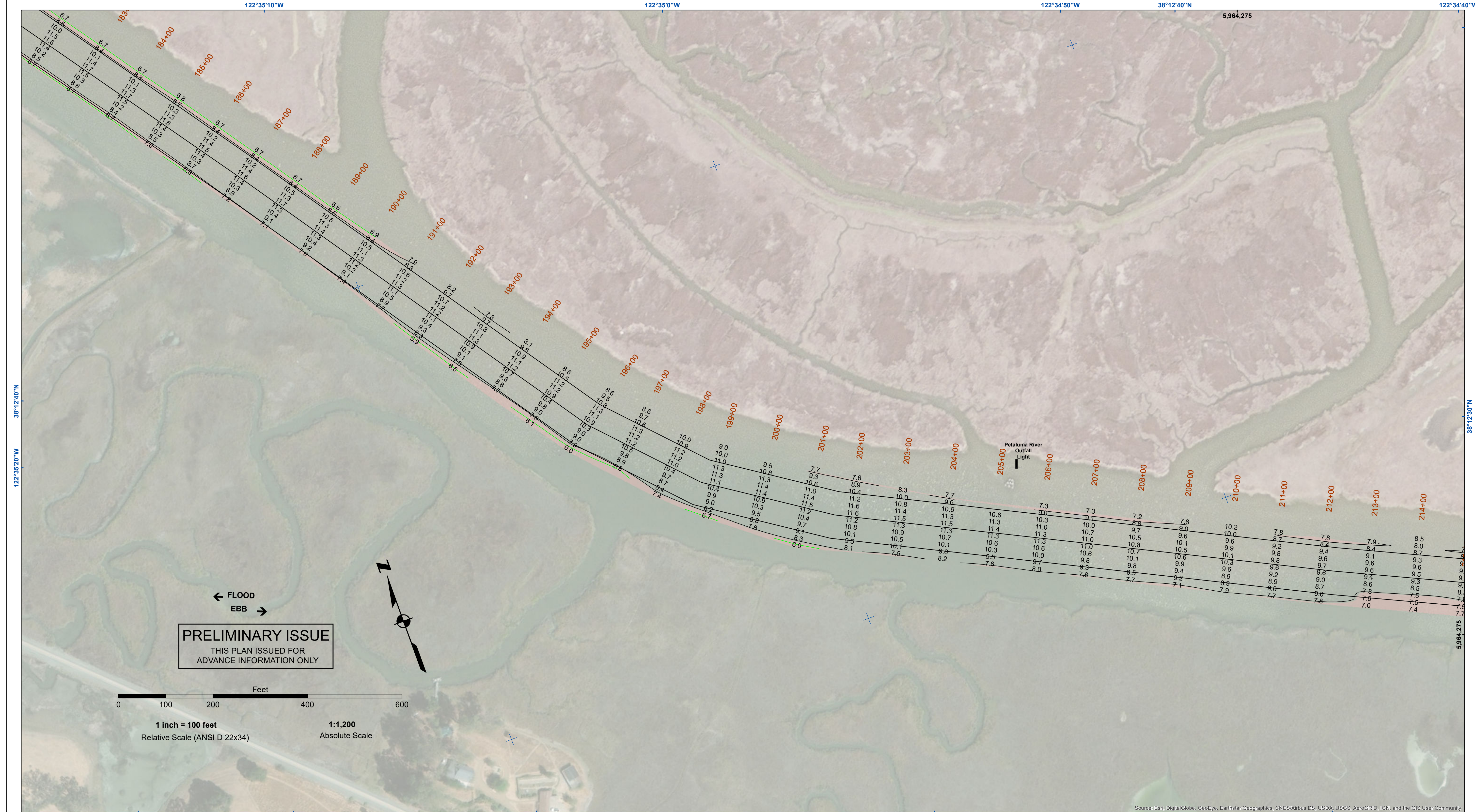
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022



- Federal Navigation Channel
- Shoaling Area
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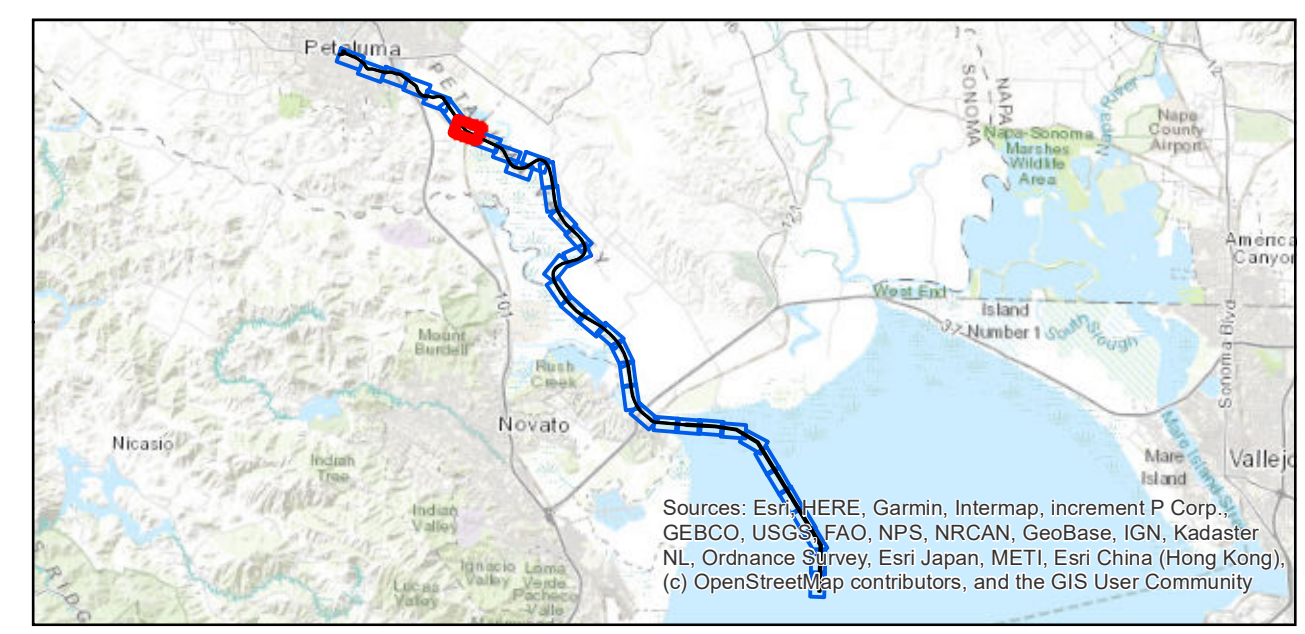
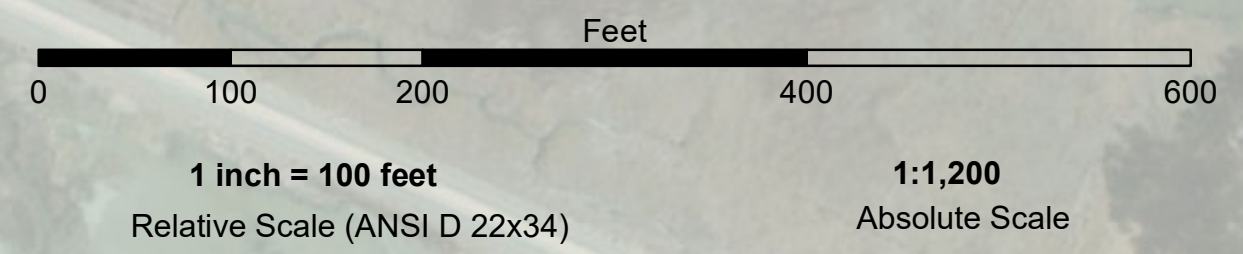
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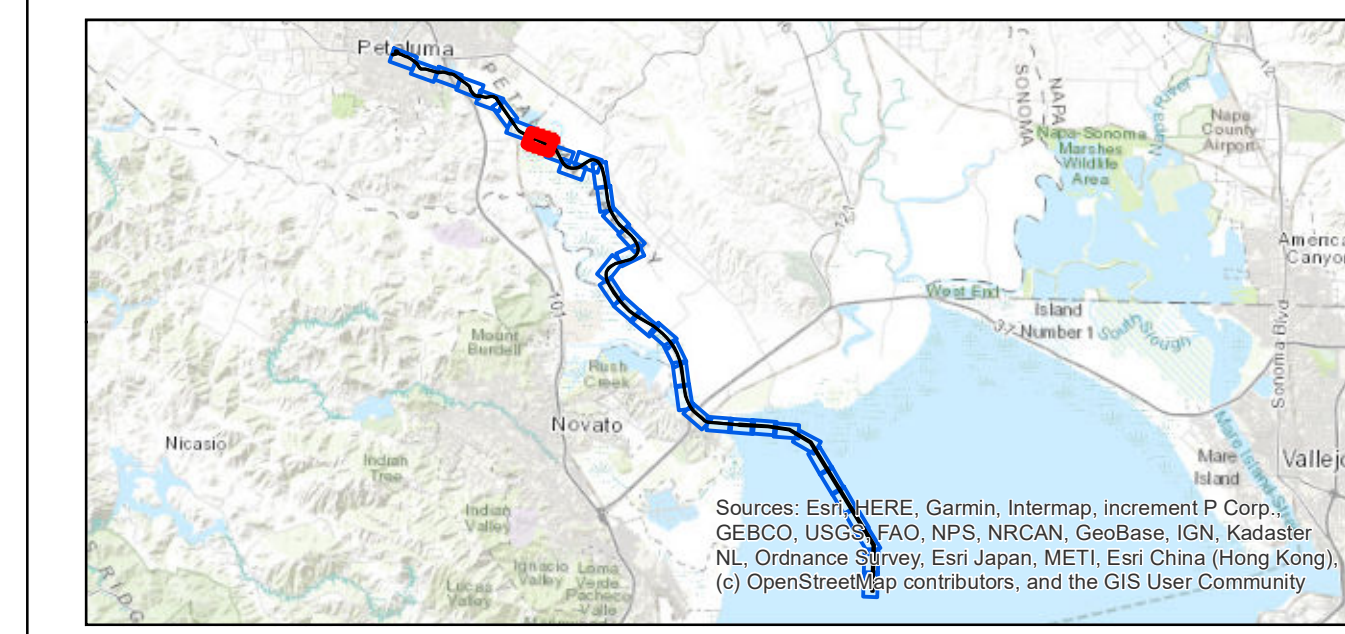
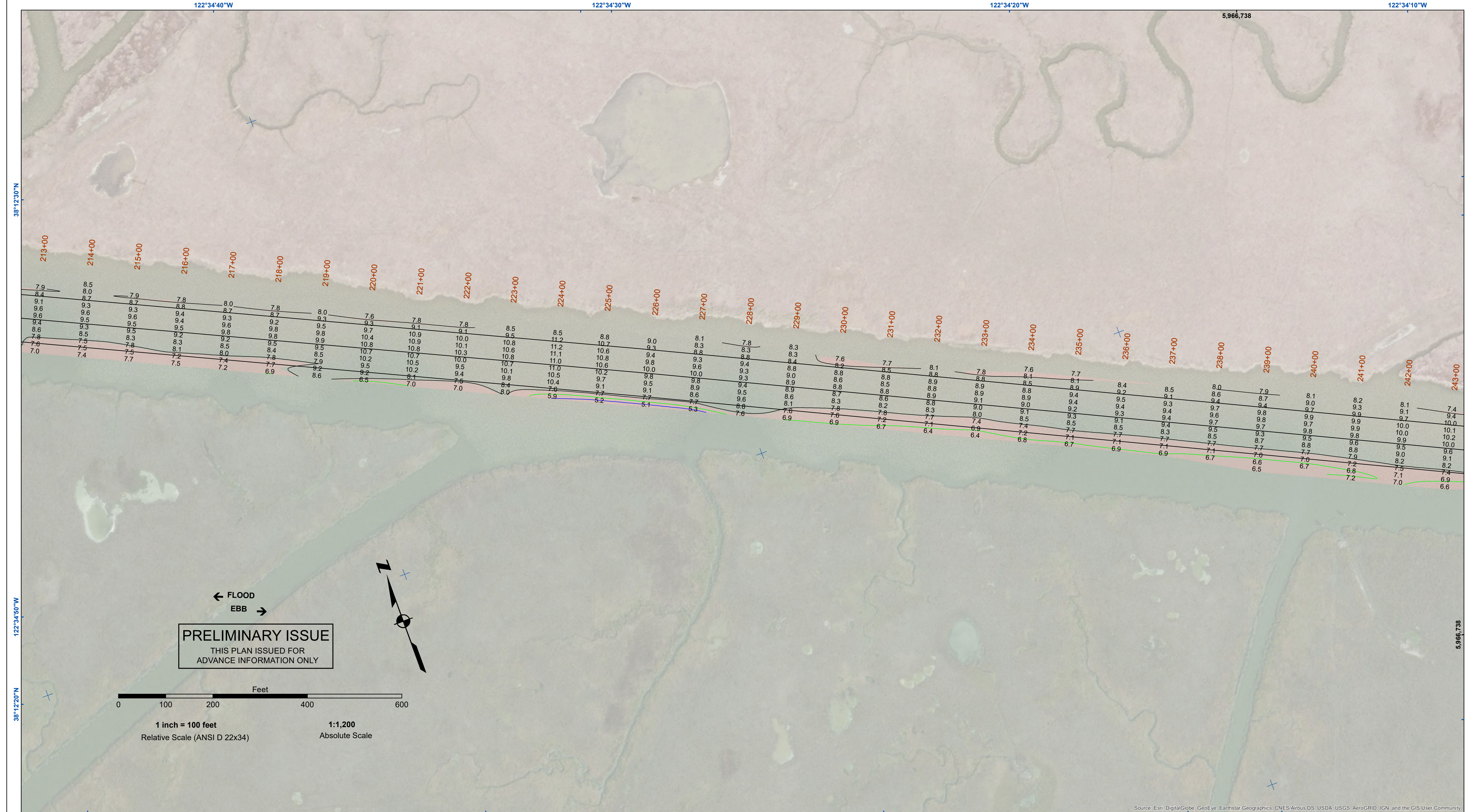
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| Designed by: | |
| Drawn by: | PDT |
| Surveyed By: | |
| Plotted By: | |
| Checked By: | PDT |
| Approved: | |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
7 of 37



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|--|----------------------------|--|--------------------|-----------------|----|
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| Recommendation: | Checked By: |
| Chief, Hydro Survey Section | PDT |
| Approved: | Drawn by: |
| Chief, Construction Branch | PDT |

SONOMA COUNTY

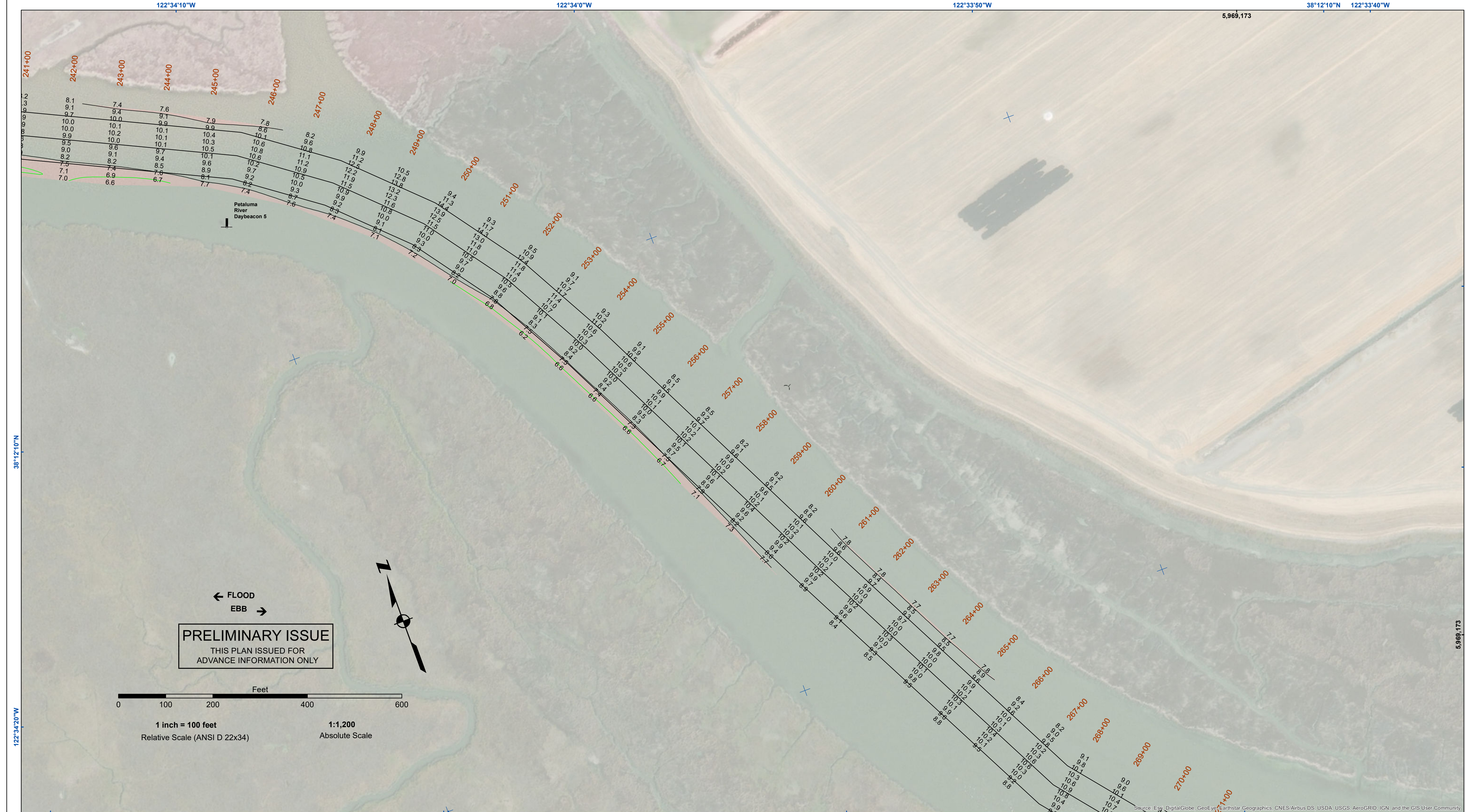
PETALUMA RIVER

CONDITION SURVEY

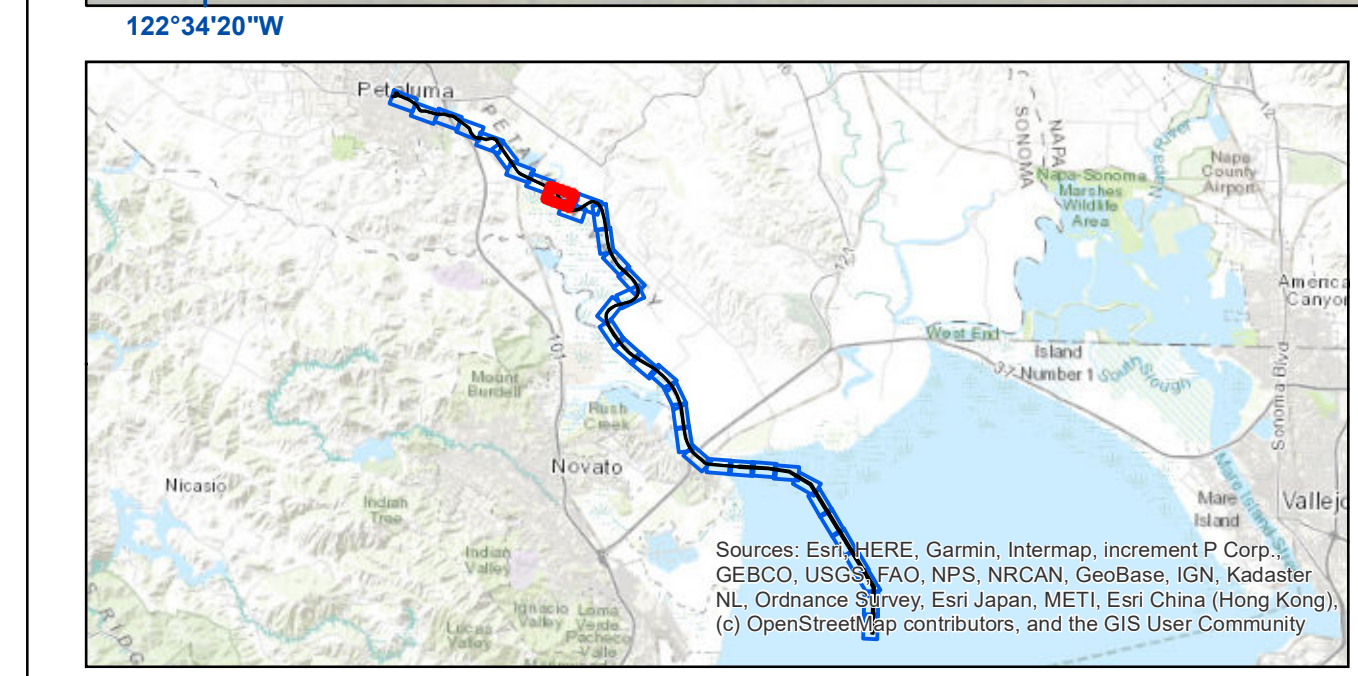
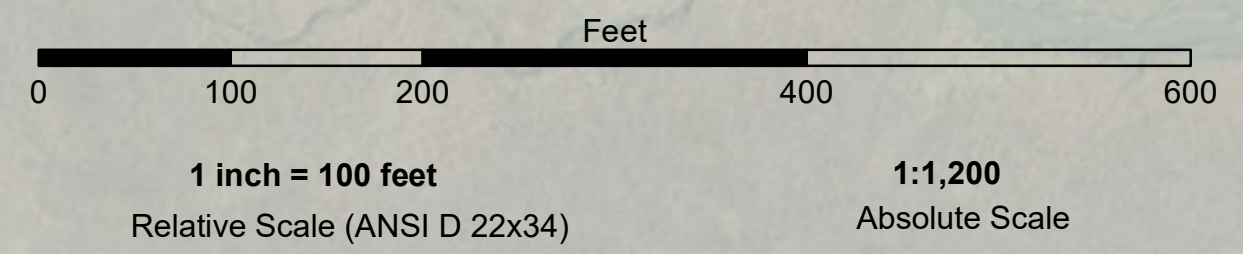
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number

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

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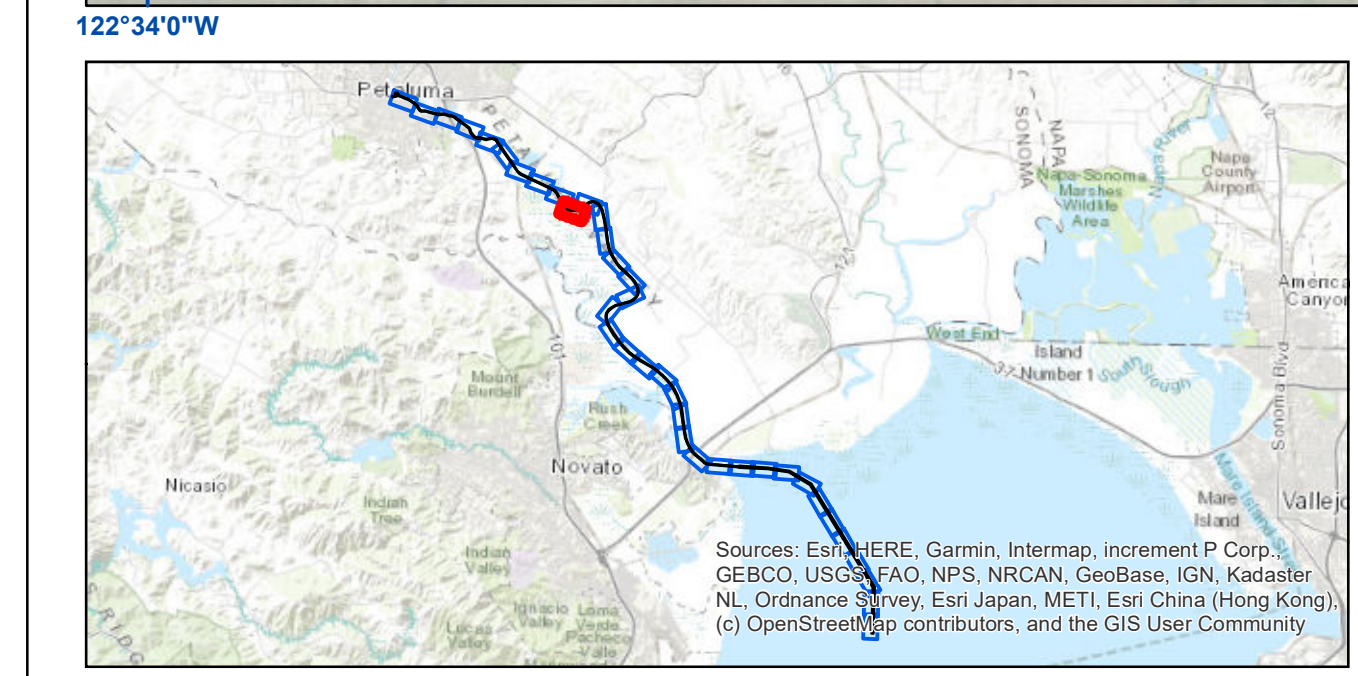
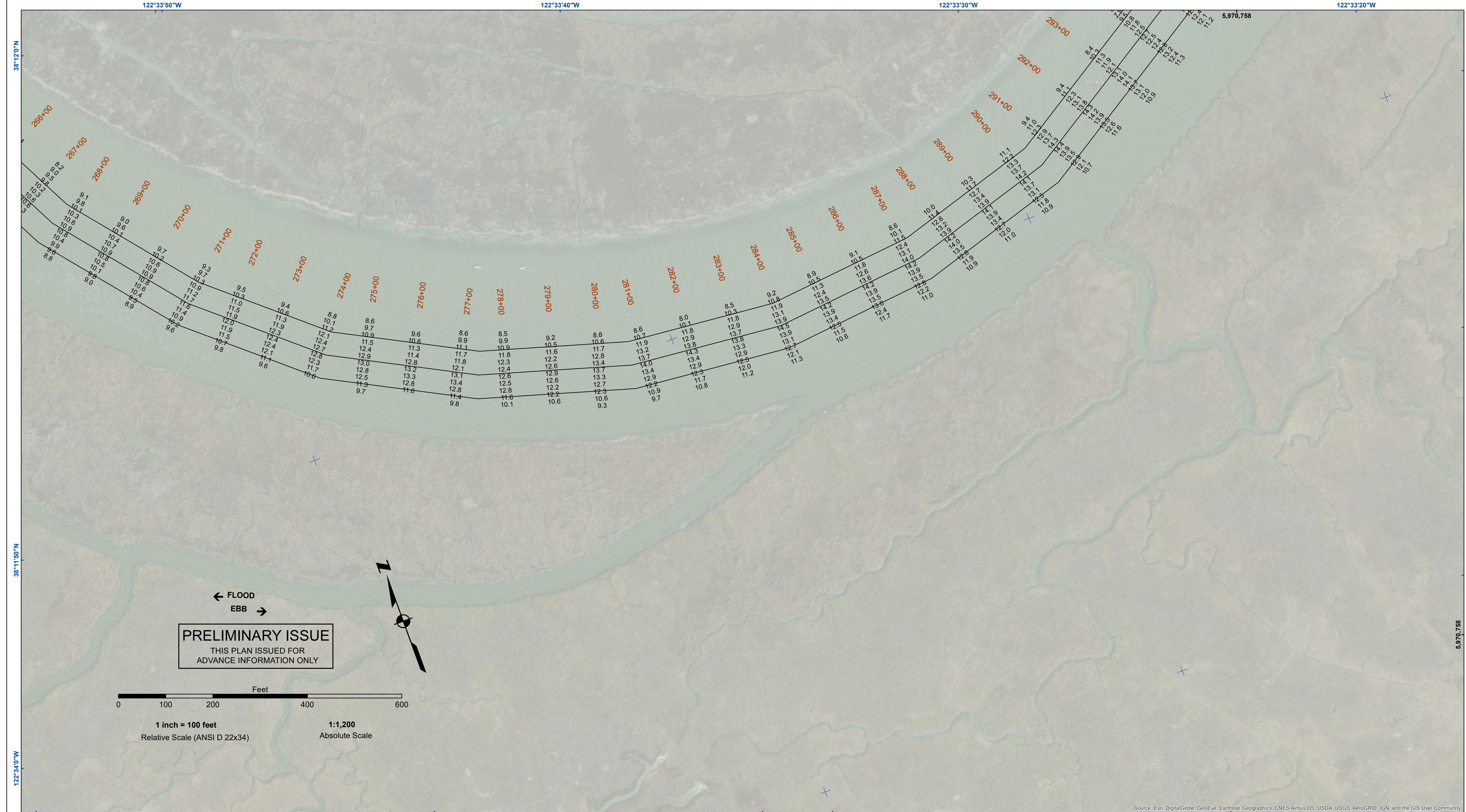


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| | | | |
|---------------------------------|-----------------------------------|--------------|--------------|
| Prepared Under the Direction of | LT Colonel C.E. DISTRICT ENGINEER | Chart Date: | Apr 15, 2022 |
| Submittal: | Hydro Survey Team Leader | Designed by: | |
| Recommendation: | Chief, Hydro Survey Section | Plotted by: | |
| Approved: | Chief, Construction Branch | Checked by: | PDT |
| | | Drawn by: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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| | | | | | |
|--|----------------------------|--|--------------------|-----------------|----|
| | Federal Navigation Channel | | Beacon, General | Contours | |
| | Shoaling Area | | Obstruction Point | | |
| | Placement Area | | Navigation Buoy | | |
| | Anchorage Area | | Navigation Buoy | | |
| | Wreck Area | | Shoalest Sounding* | | |
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| | Angle Point | | | | -7 |
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| | | |
|--|--------------|--------------|
| Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer | Surveyed By: | Chart Date: |
| Submitted: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommended: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Checked By: | Drawn by: |
| | PDT | PDT |

SONOMA COUNTY

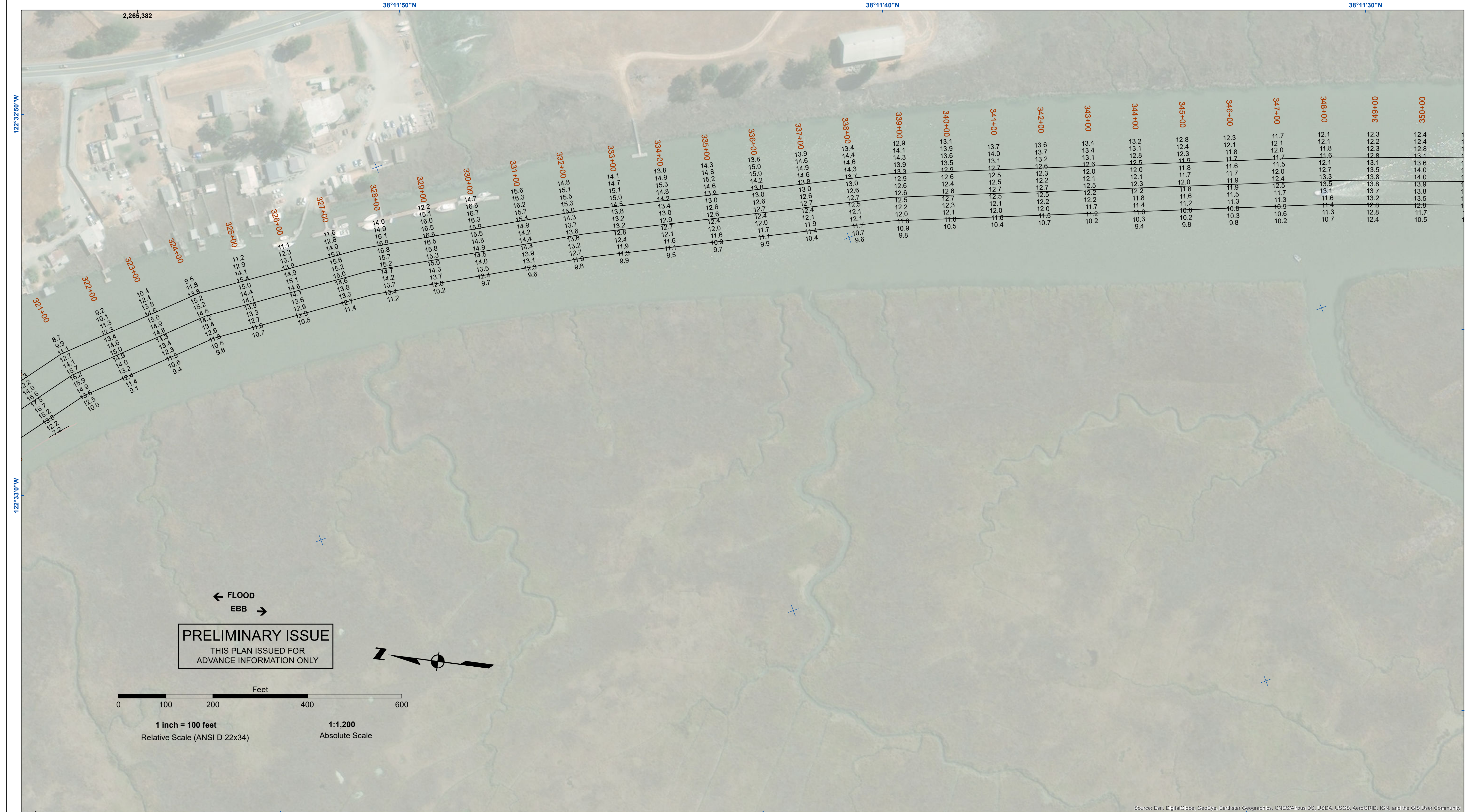
PETALUMA RIVER

CONDITION SURVEY

16 NOVEMBER 2021 - 29 MARCH 2022

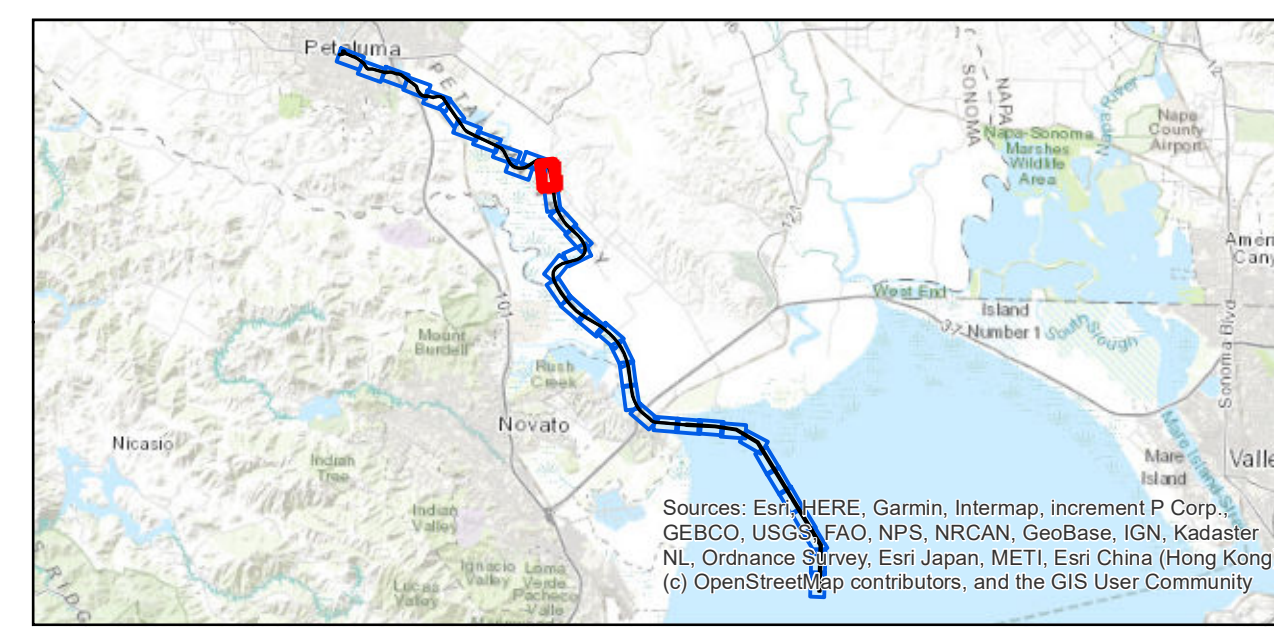
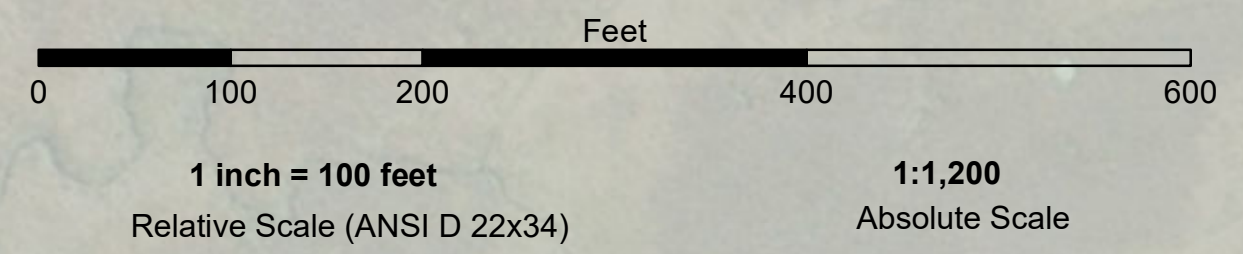
Sheet Reference Number

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PRELIMINARY ISSUE
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← FLOOD
EBB →



- 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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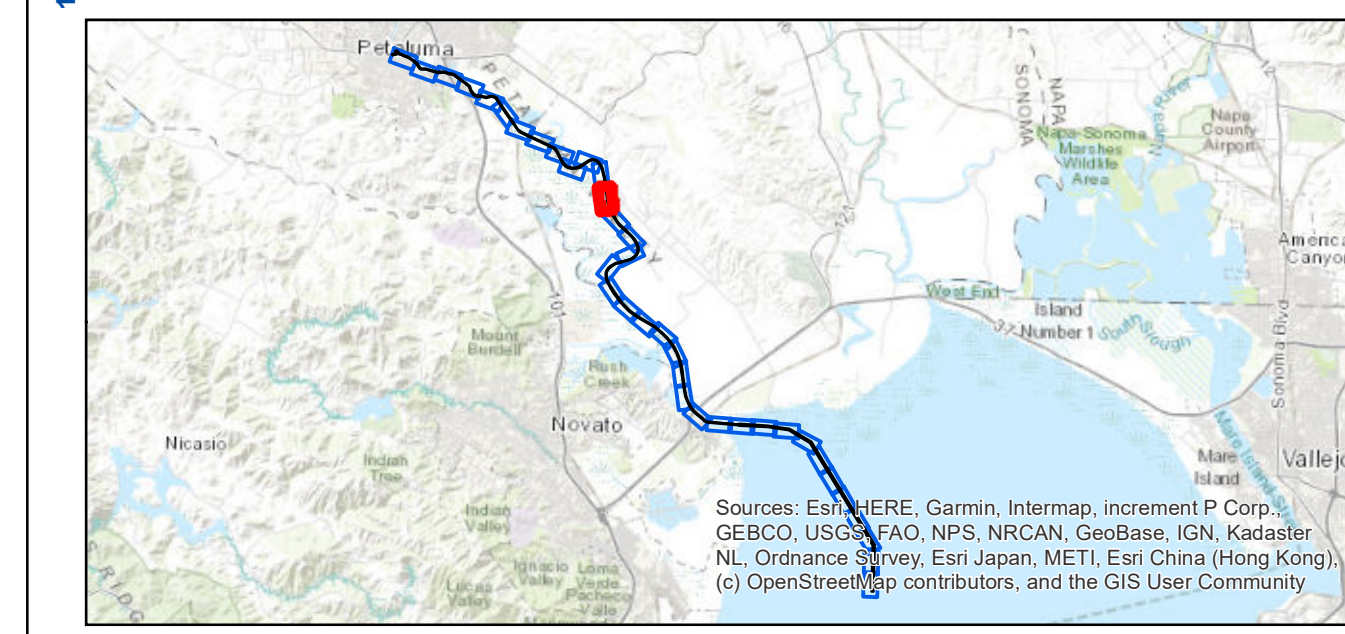
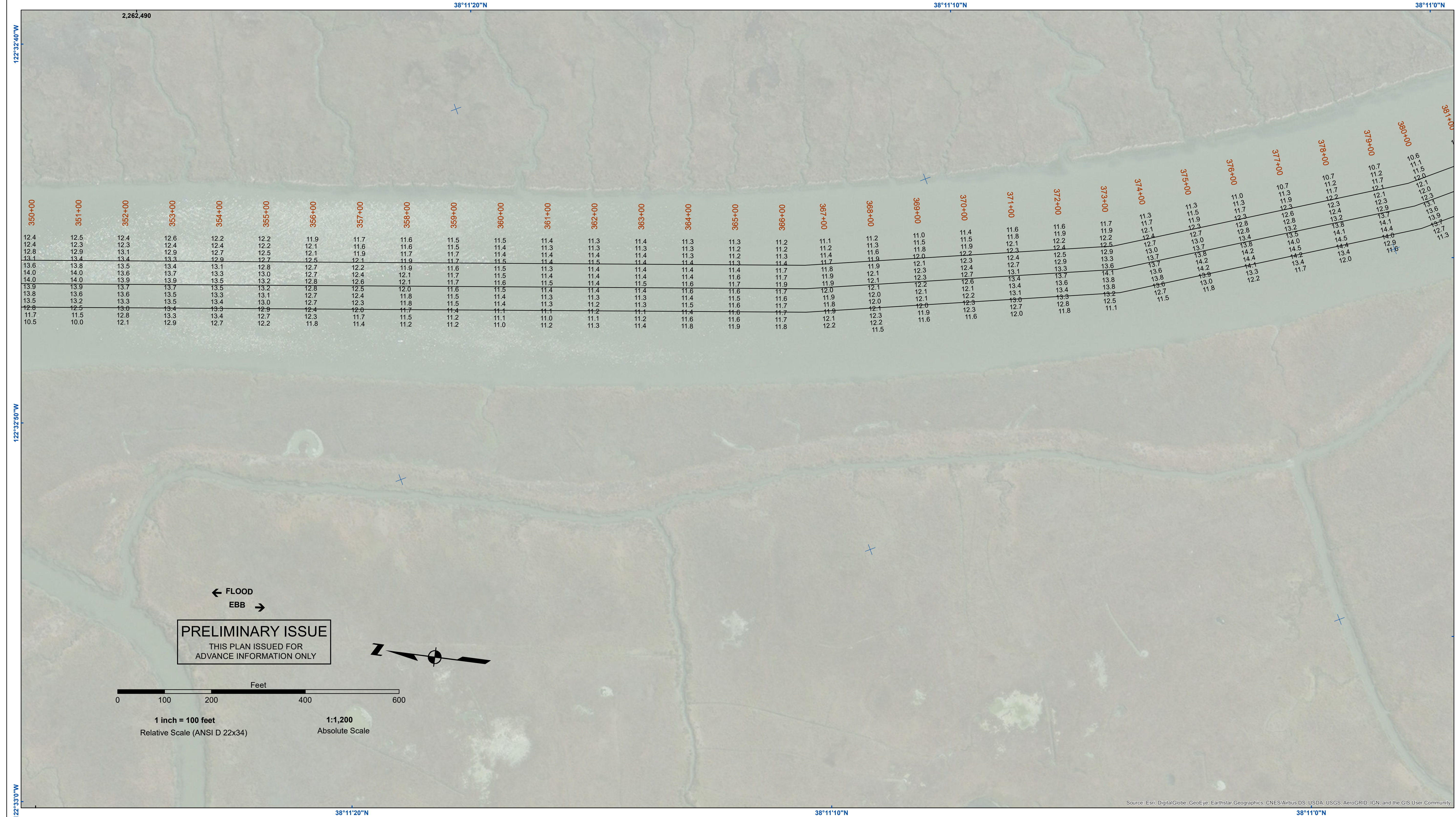


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| PREPARED UNDER THE DIRECTION OF KEVIN P. ARNETT LT COLONEL, C.E., DISTRICT ENGINEER | Surveyed By: | Chart Date: |
| Submitted: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommended: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Drawn by: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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| | | | | |
|--|----------------------------|--|--------------------|-----------------|
| | Federal Navigation Channel | | Beacon, General | Contours |
| | Shoaling Area | | Obstruction Point | |
| | Placement Area | | Navigation Buoy | |
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| | Wreck Area | | Shoalest Sounding* | |
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| | Angle Point | | -5 | |
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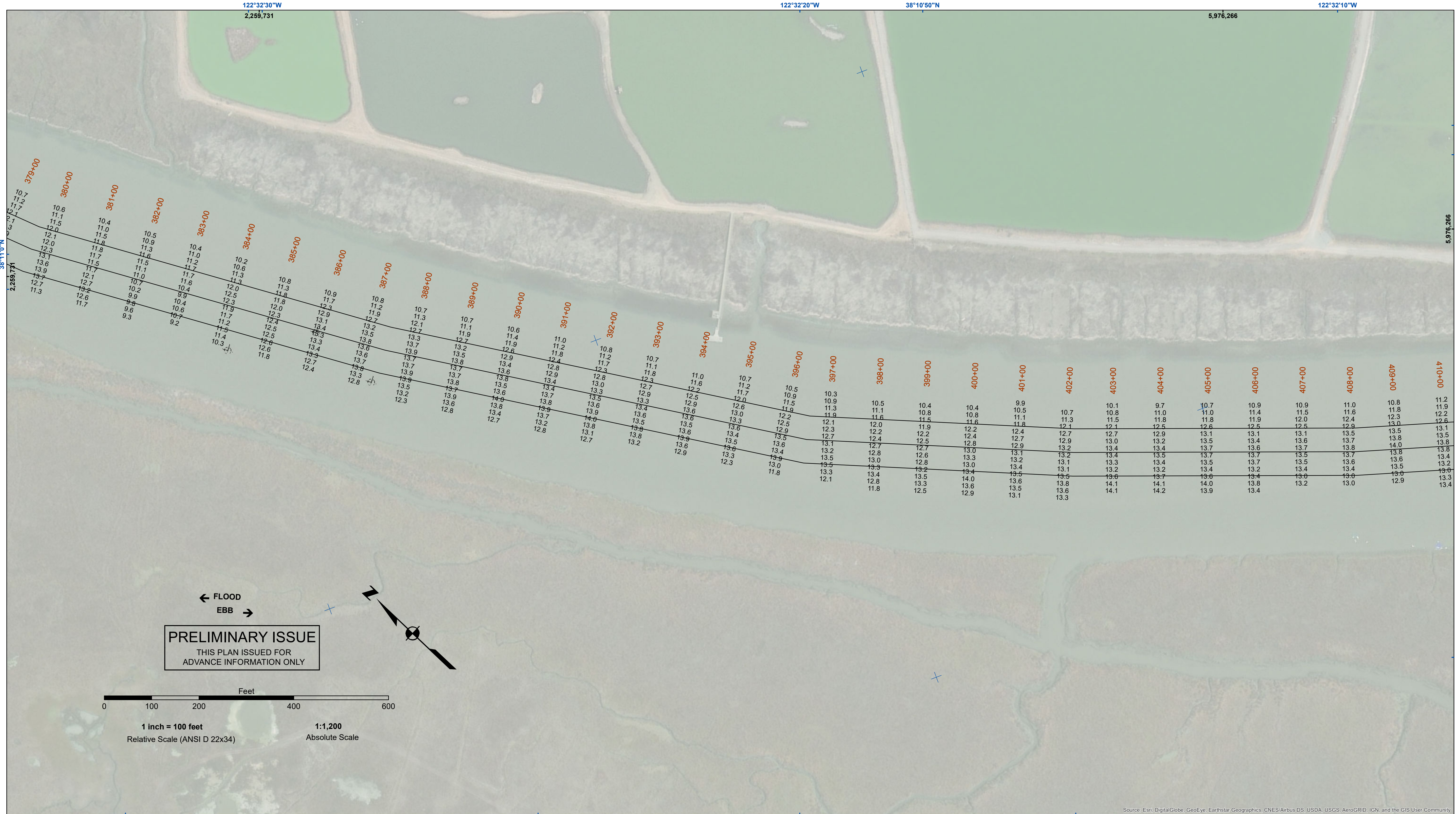
US Army Corps of Engineers
 San Francisco District
 450 Market Street
 San Francisco, CA 94102

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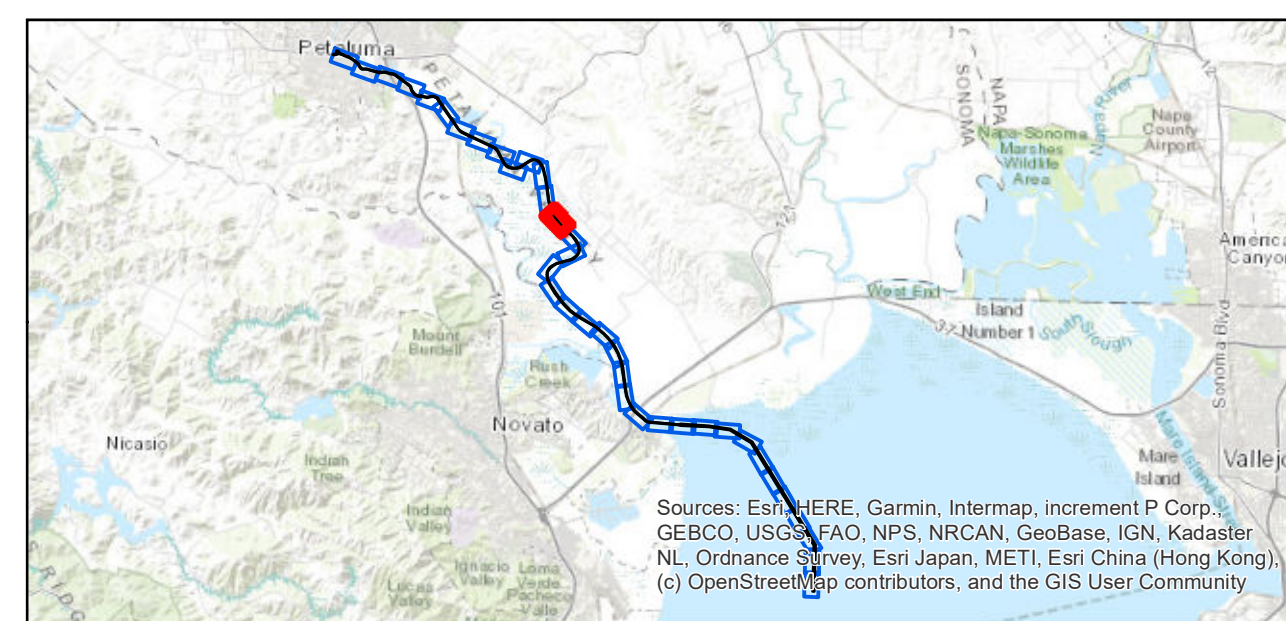
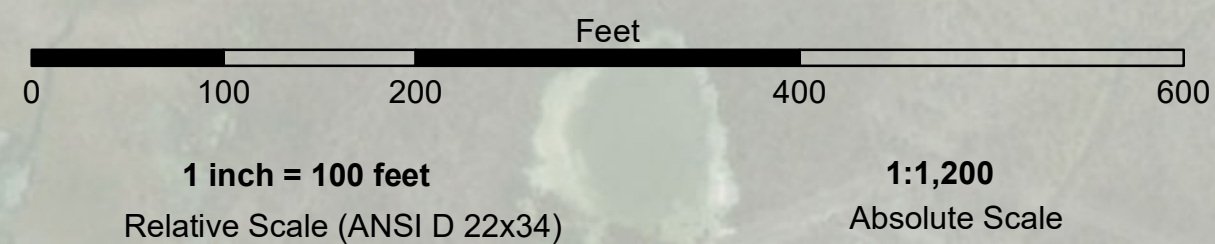
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|--|-----------------------------|
| Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer | Chart Date: Apr 15, 2022 |
| Submittal: Hydro Survey Team Leader | Designed by: |
| Recommendation: Chief, Hydro Survey Section | Drawn by: PDT |
| Approval: Chief, Construction Branch | |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
 16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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PRELIMINARY ISSUE
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- | | | | | |
|--|----------------------------|--|--------------------|-----------------|
| | Federal Navigation Channel | | Beacon, General | Contours |
| | Shoaling Area | | Obstruction Point | |
| | Placement Area | | Navigation Buoy | |
| | Anchorage Area | | Navigation Buoy | |
| | Wreck Area | | Shoalest Sounding* | |
| | Submerged Wreck | | -8 | |
| | Angle Point | | -7 | |
| | | | -6 | |
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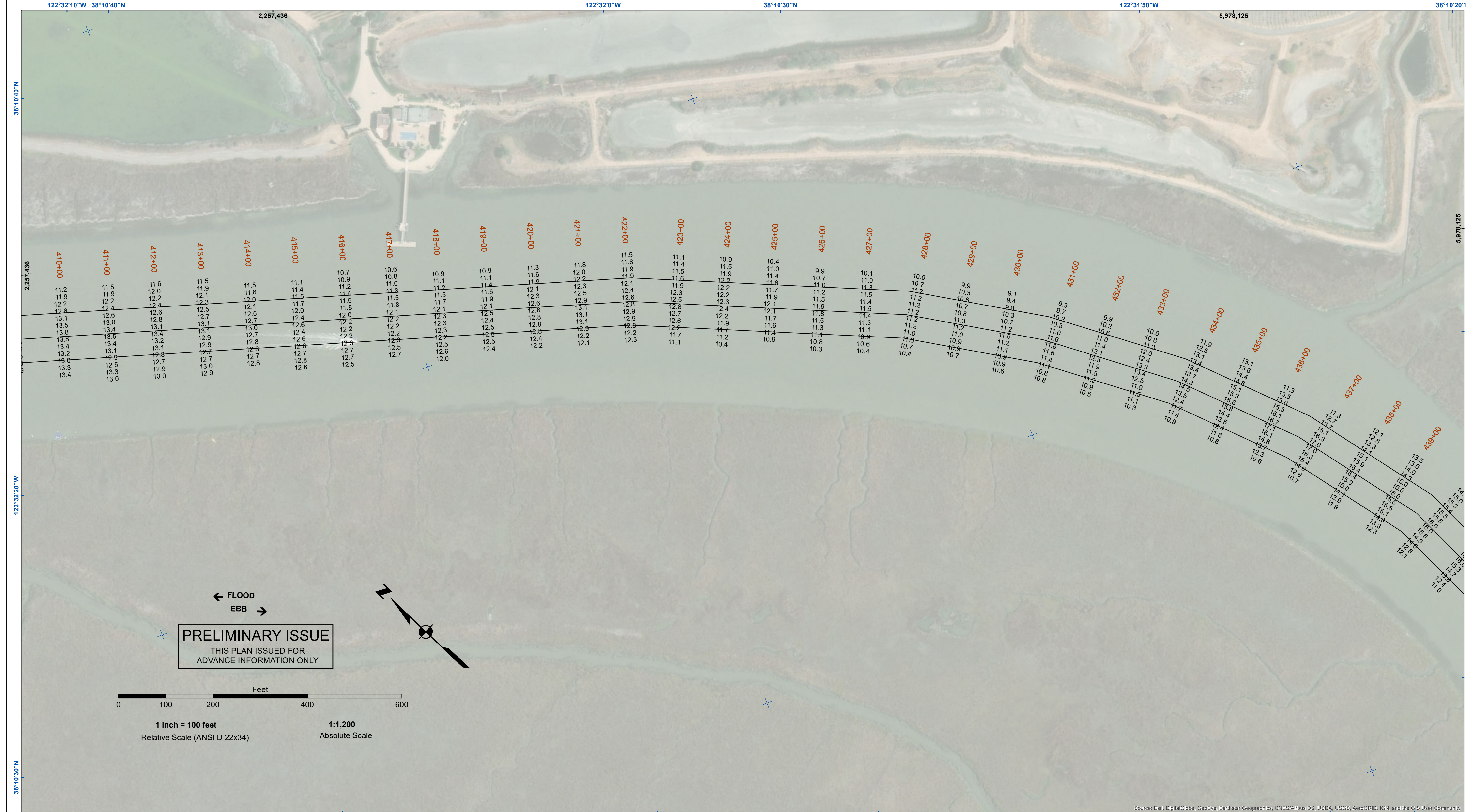


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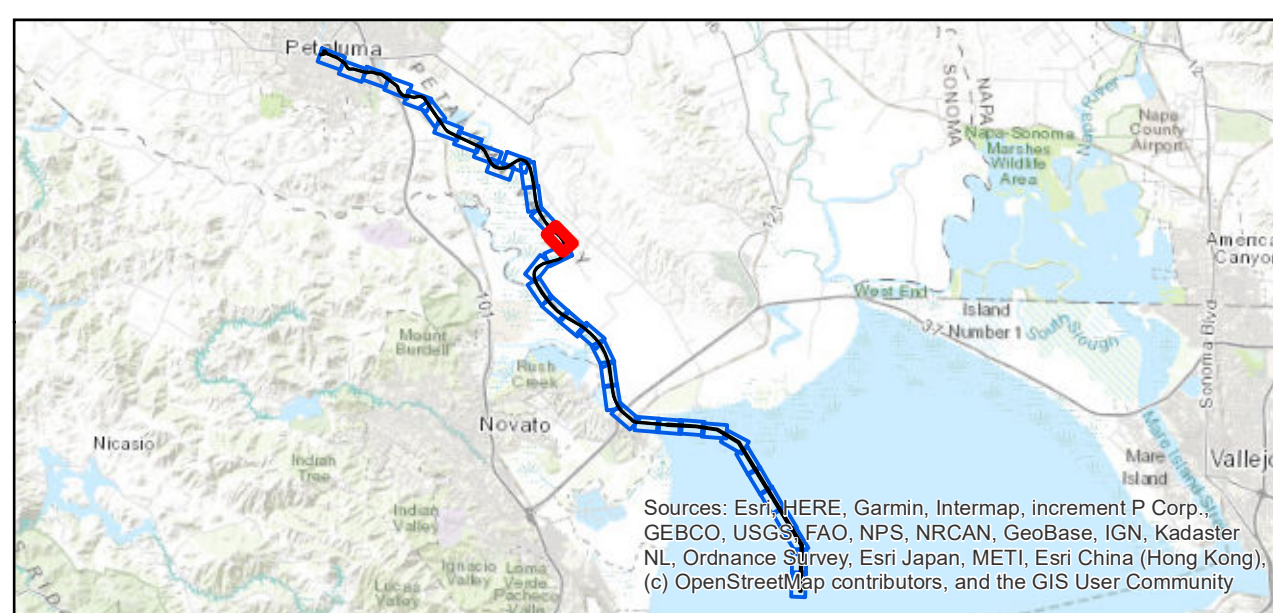
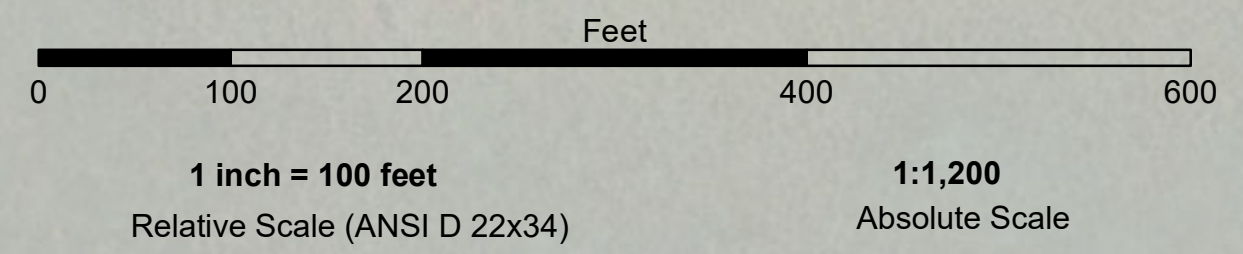
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|--|--------------|--------------|
| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT | Surveyed By: | Chart Date: |
| Submitted: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommended: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Drawn by: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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PRELIMINARY ISSUE
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| | | | | | |
|--|----------------------------|--|--------------------|-----------------|----|
| | Federal Navigation Channel | | Beacon, General | Contours | |
| | Shoaling Area | | Obstruction Point | | |
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| | Anchorage Area | | Navigation Buoy | | |
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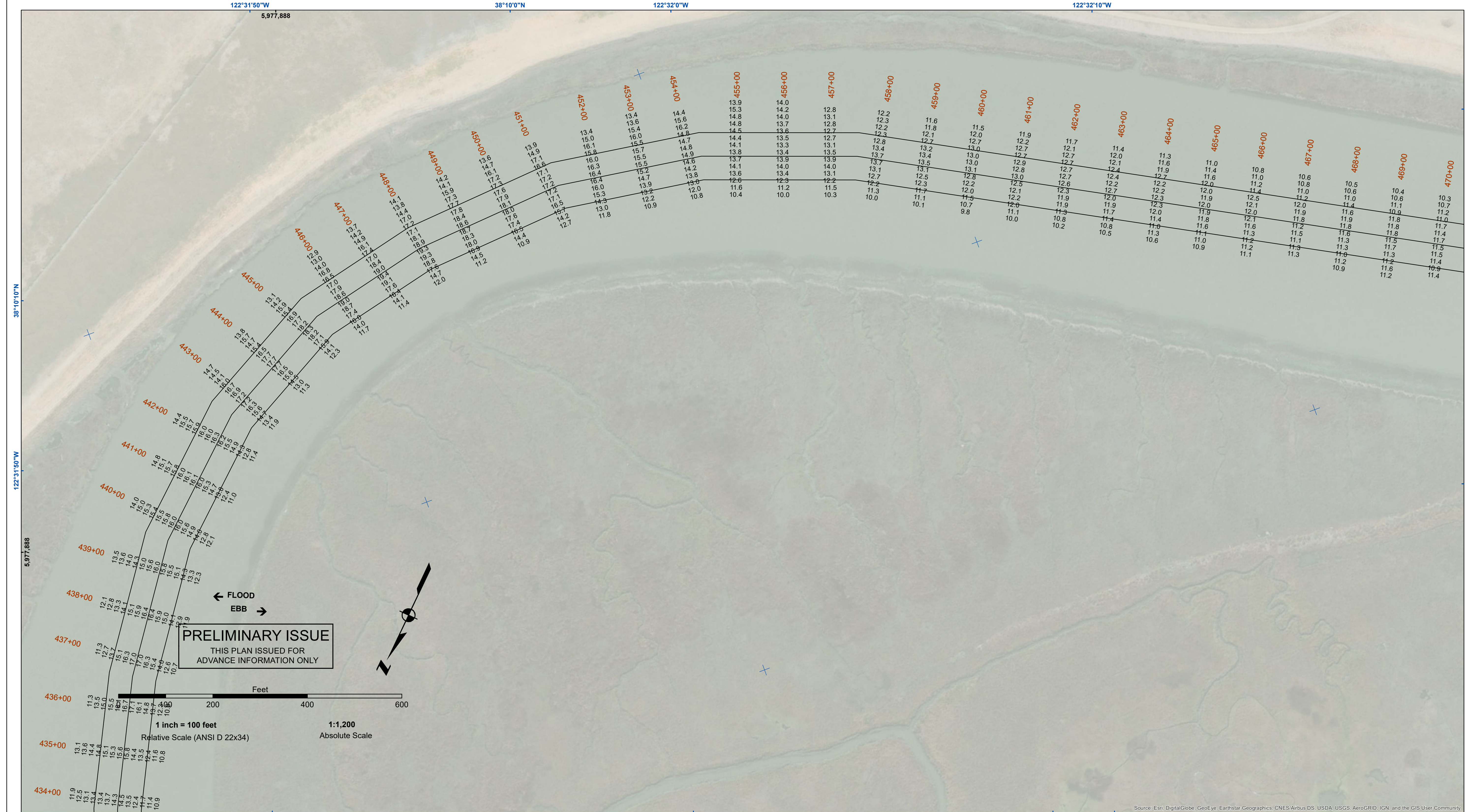
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| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER | Surveyed By: | Chart Date: |
| Submittal: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommendation: Chief, Hydro Survey Section | Checked By: | Designed by: |
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CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

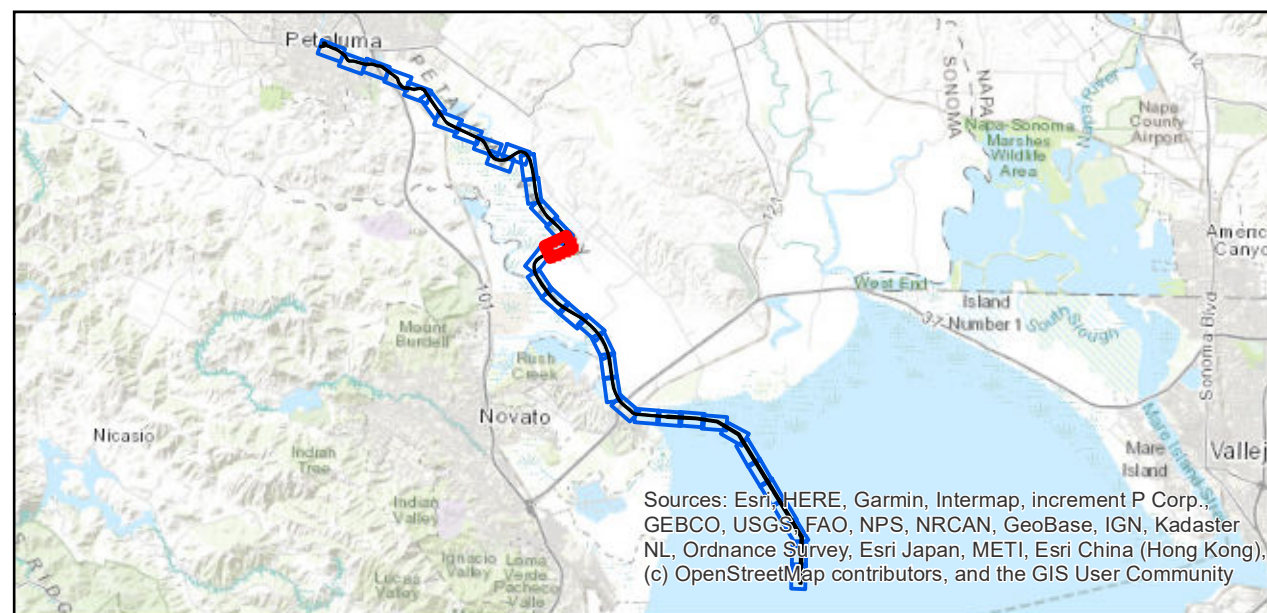
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15 of 37



PRELIMINARY ISSUE
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← FLOOD
EBB →

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



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

- Federal Navigation Channel
 - Shoaling Area
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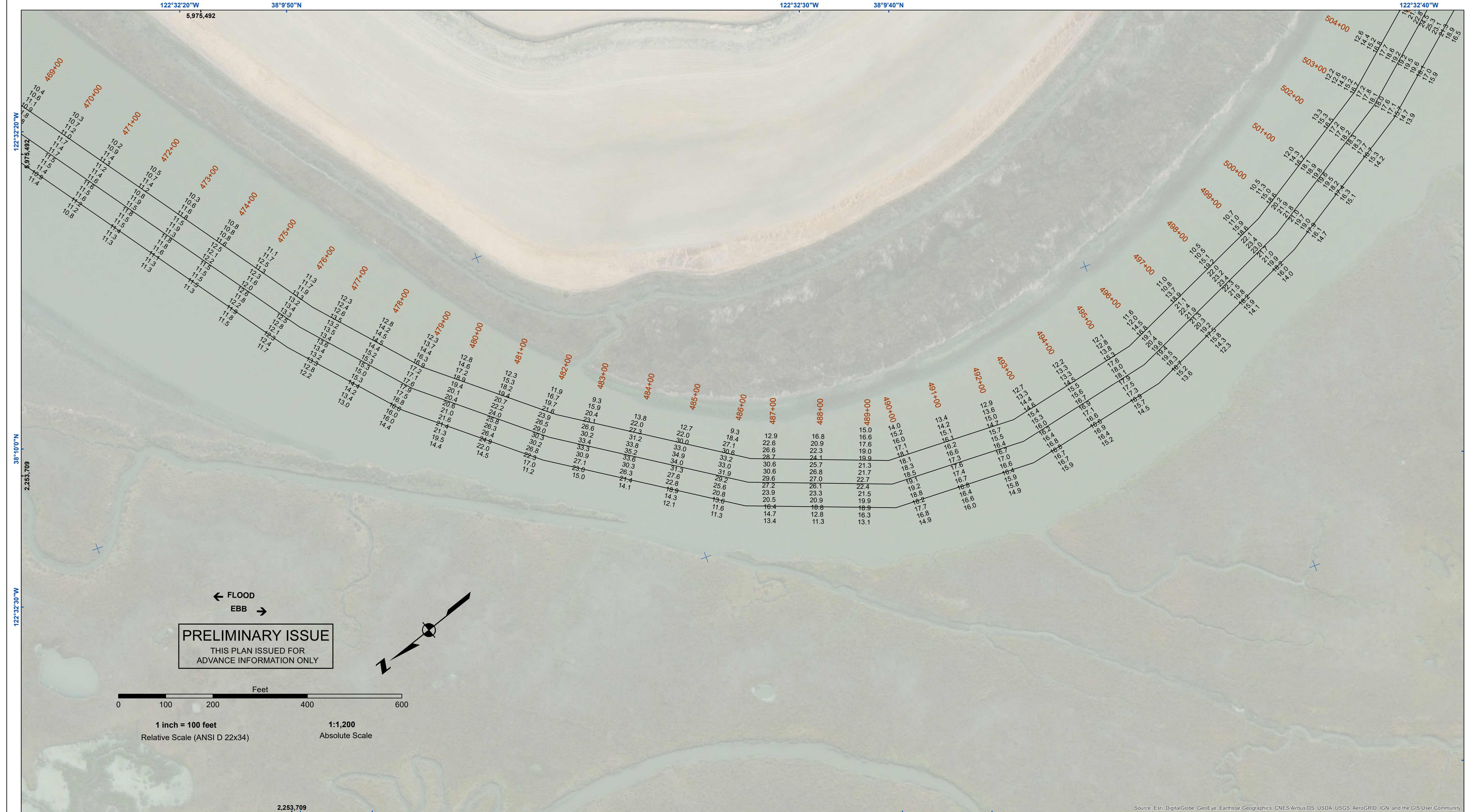
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| Chart Date: | Apr 15, 2022 |
| Designed by: | |
| Drawn by: | PDT |
| Checked by: | PDT |
| Approved: | Chief, Construction Branch |
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SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
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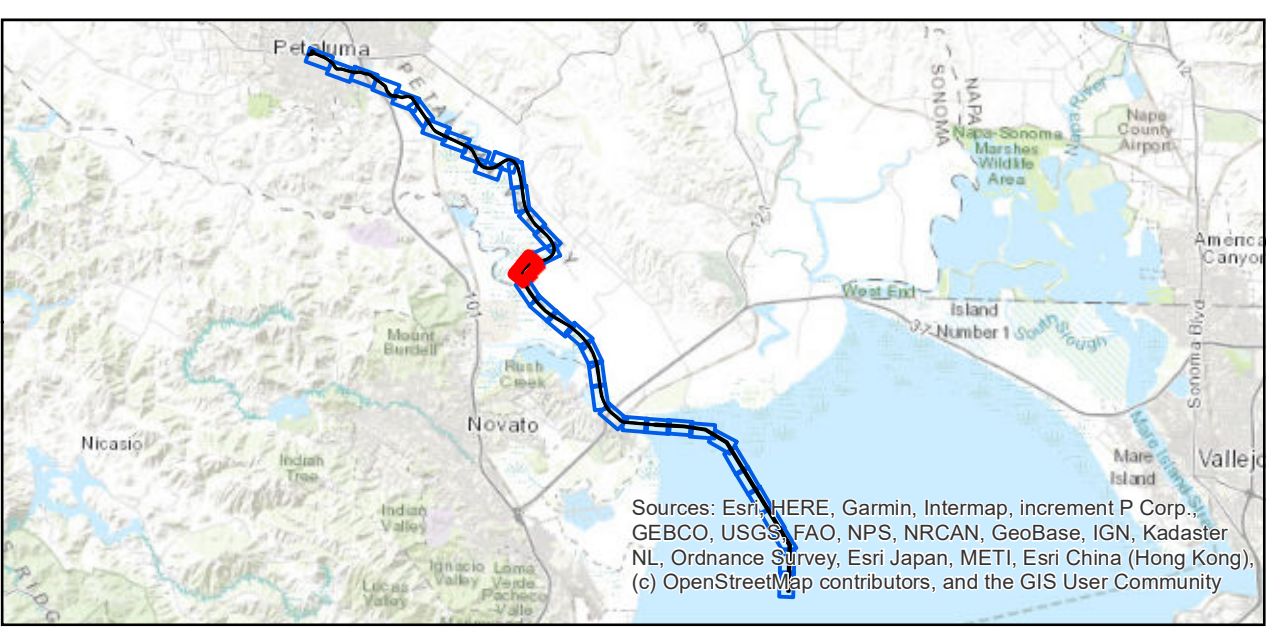
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| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT | Chart Date: Apr 15, 2022 |
| Submitted: Hydro Survey Team Leader | Designed by: |
| Recommended: Chief, Hydro Survey Section | Drawn by: PDT |
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PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

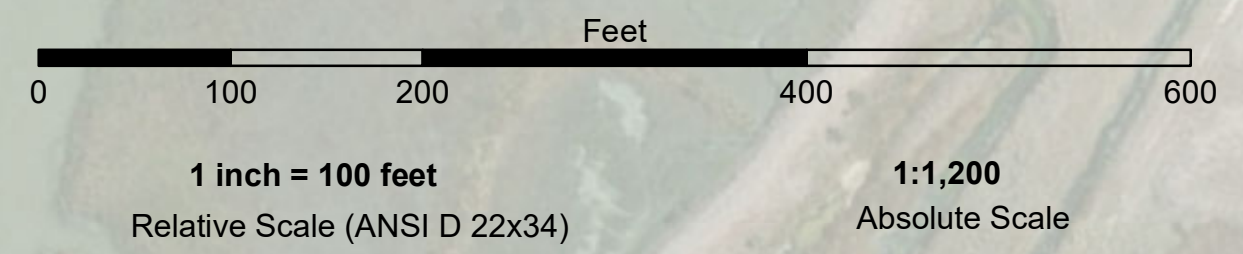


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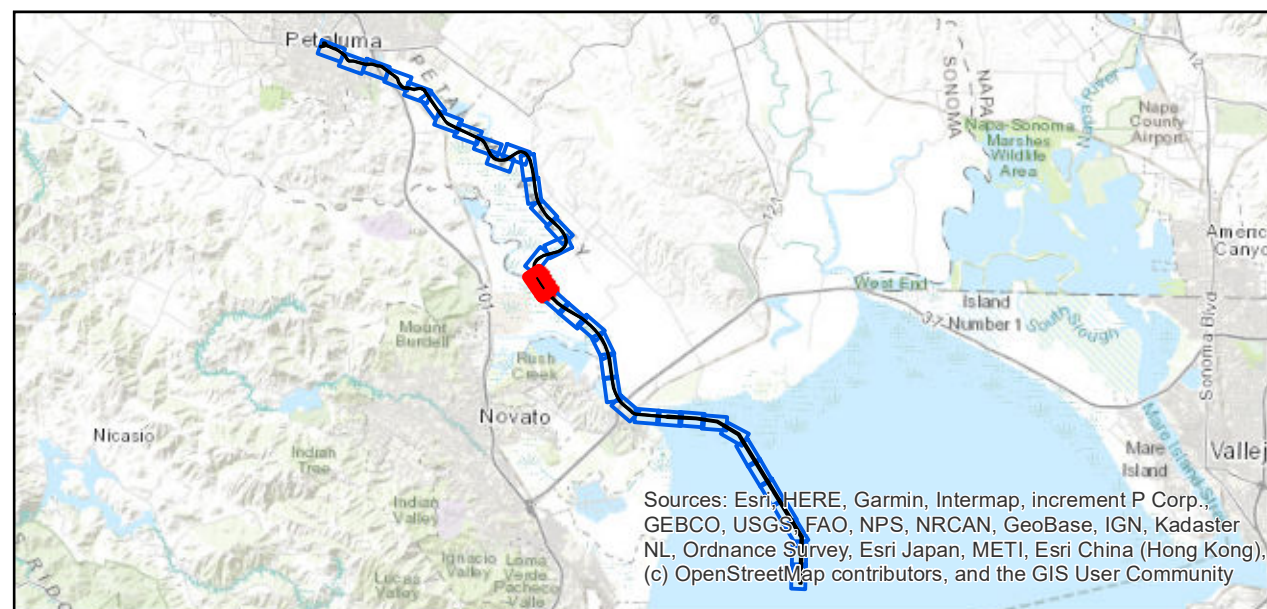
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122°32'50"W 38°9'30"N 122°32'40"W 38°9'10"N



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

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| | Anchorage Area | | Navigation Buoy | | |
| | Wreck Area | | Shoalest Sounding* | | |
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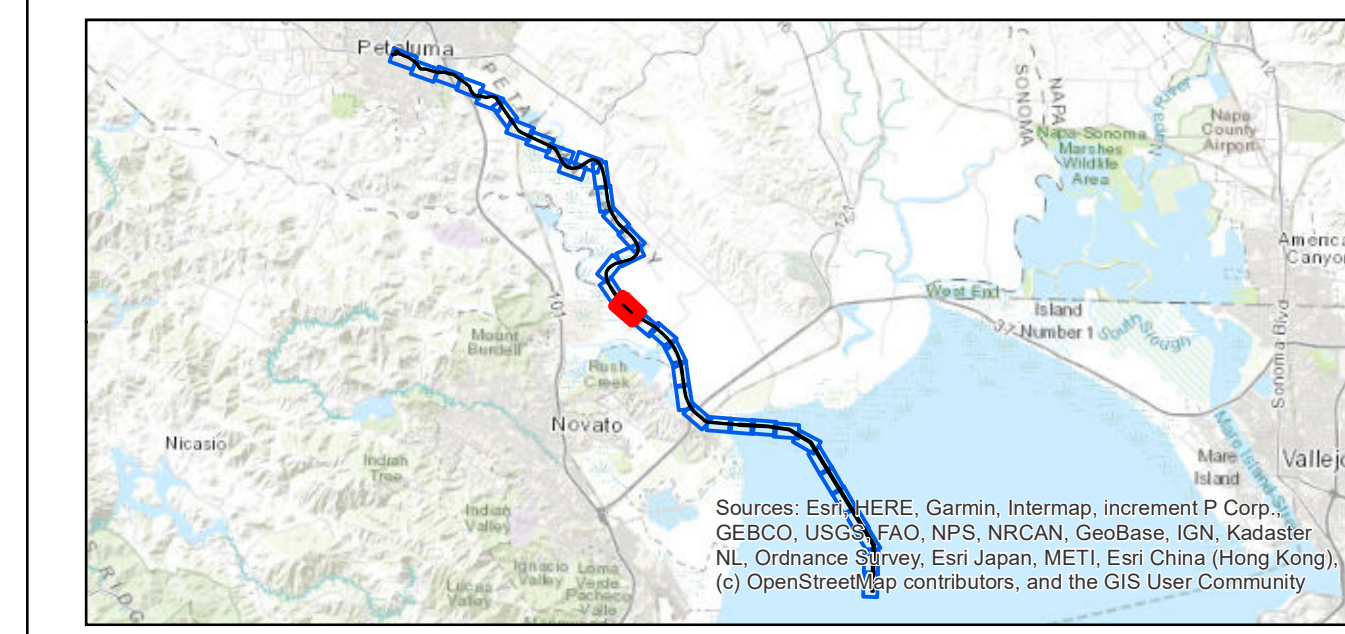
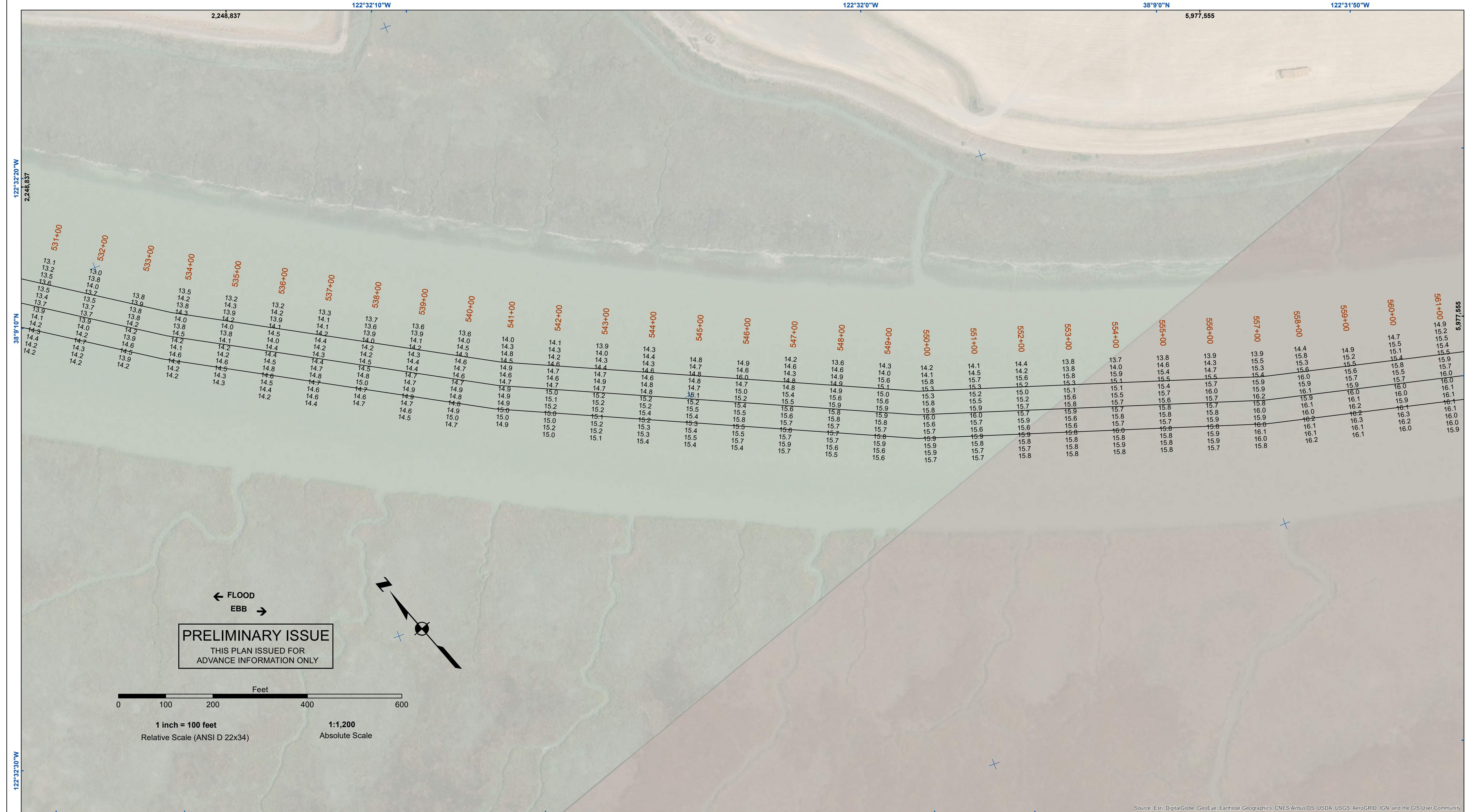


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| Prepared Under the Direction of | Chart Date: | Apr 15, 2022 |
| LT COLONEL C.E. DISTRICT ENGINEER | Designed by: | |
| Submittal: | Plotted By: | |
| Hydro Survey Team Leader | Checked By: | PDT |
| Recommendation: | Drawn by: | PDT |
| Chief, Hydro Survey Section | | |
| Approved: | | |
| Chief, Construction Branch | | |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

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| | Federal Navigation Channel | | Beacon, General | Contours |
| | Shoaling Area | | Obstruction Point | |
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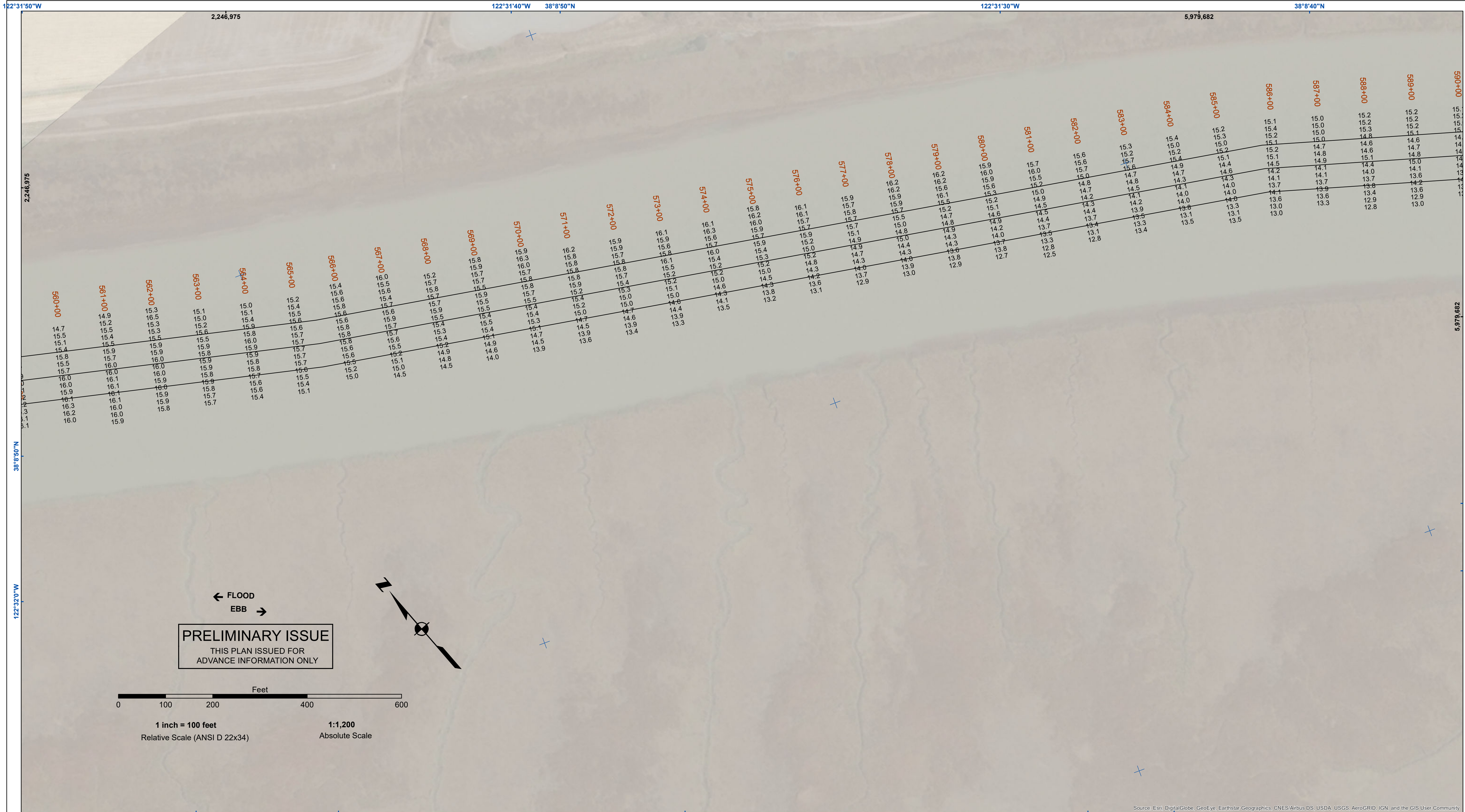
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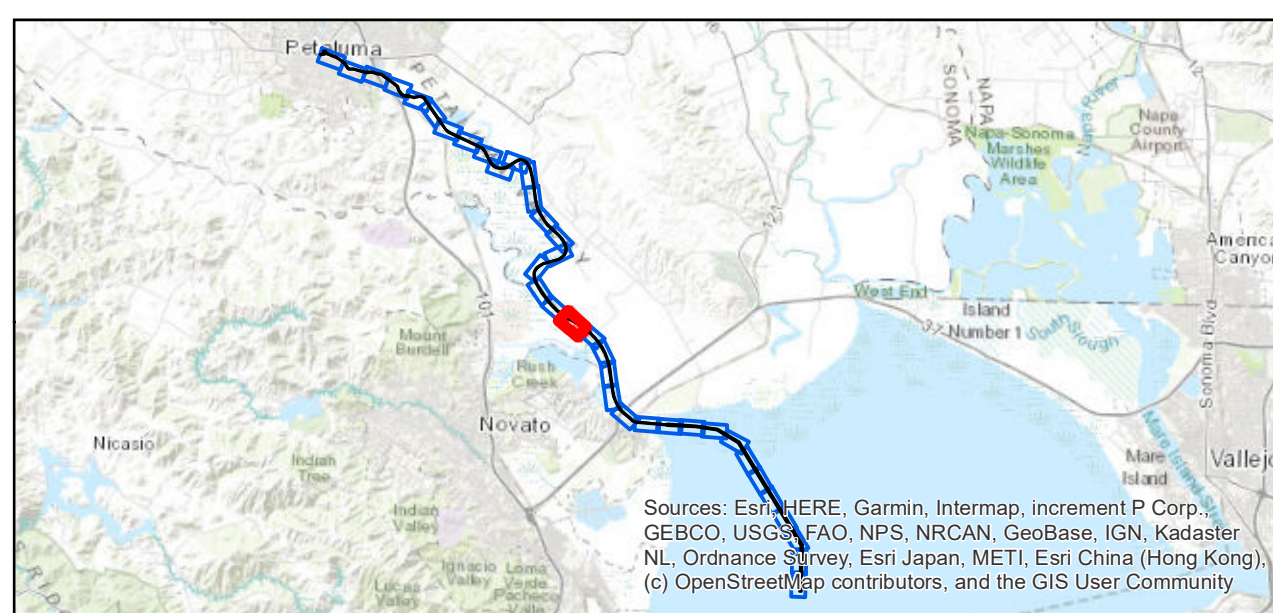
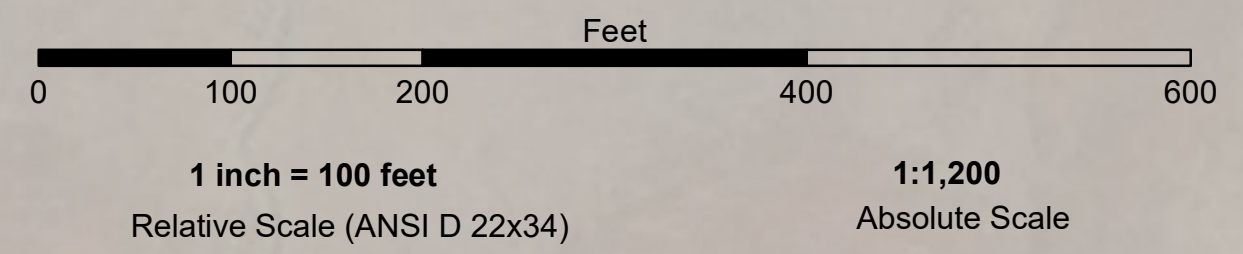
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| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER | Chart Date: Apr 15, 2022 |
| Submittal: Hydro Survey Team Leader | Designed by: |
| Recommendation: Chief, Hydro Survey Section | Drawn by: PDT |
| Approved: Chief, Construction Branch | Checked by: PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
 16 NOVEMBER 2021 - 29 MARCH 2022



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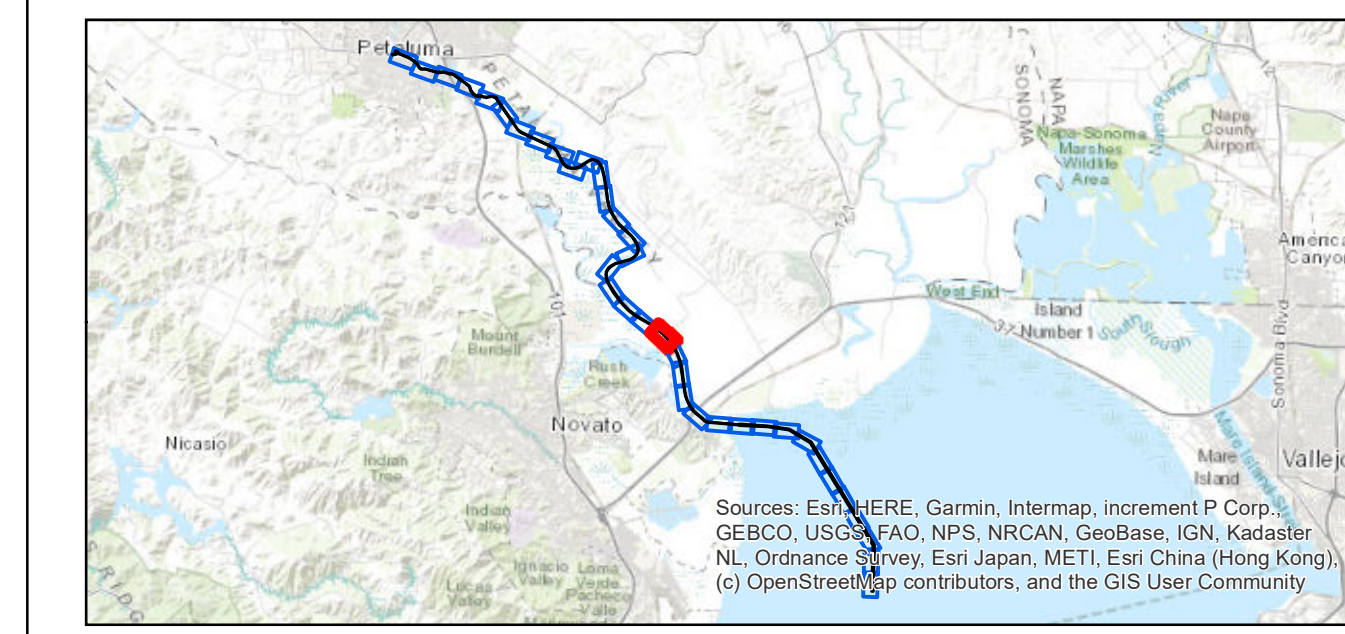
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| Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer | Chart Date: Apr 15, 2022 |
| Submittal: Hydro Survey Team Leader | Designed by: |
| Recommendation: Chief, Hydro Survey Section | Drawn by: PDT |
| Approval: Chief, Construction Branch | Checked By: PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

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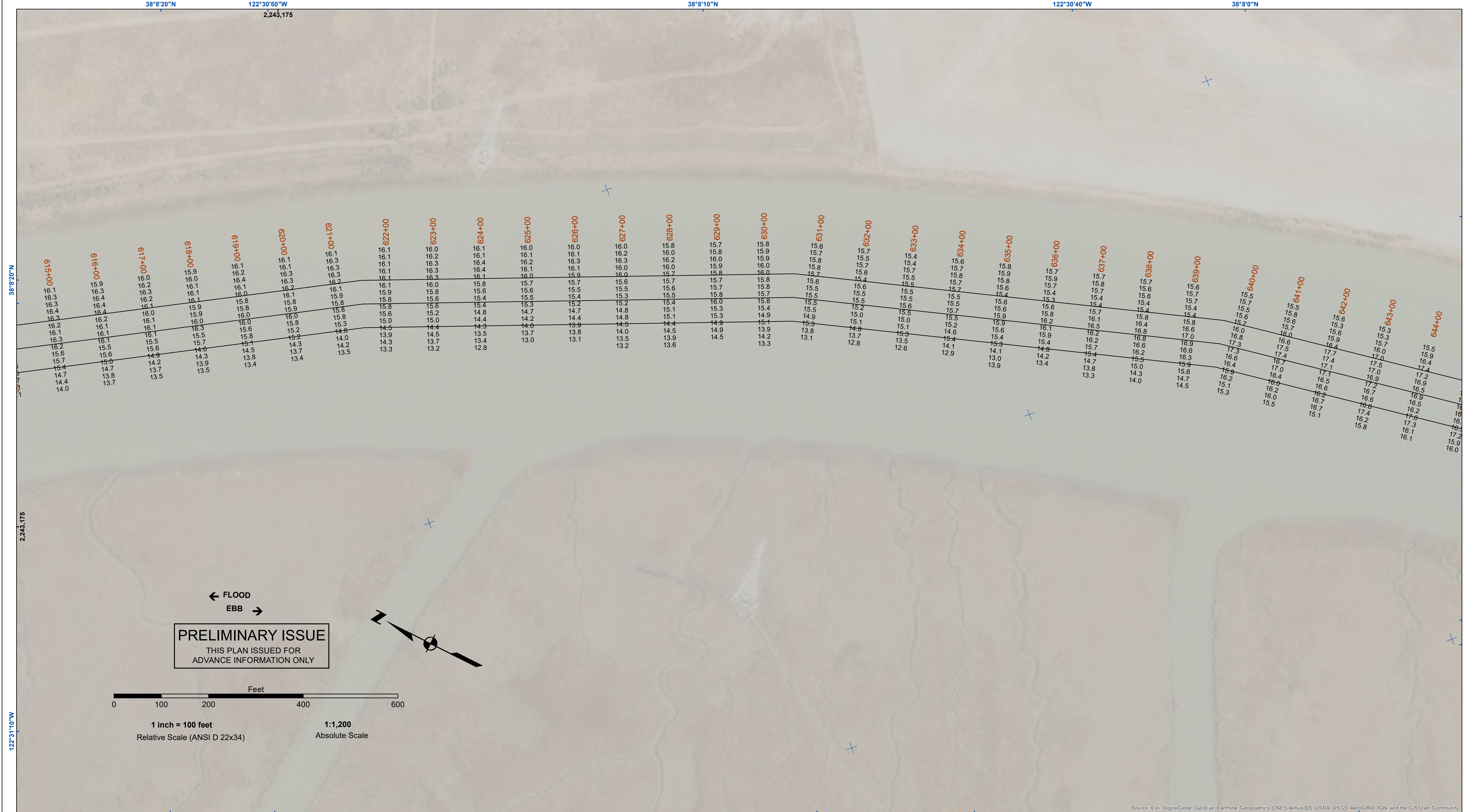
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| LT COLONEL C.E. DISTRICT ENGINEER | Apr 15, 2022 |
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PETALUMA RIVER
CONDITION SURVEY
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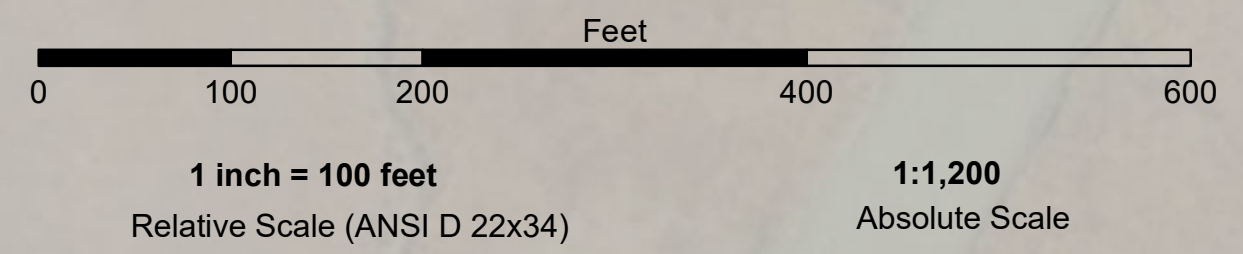
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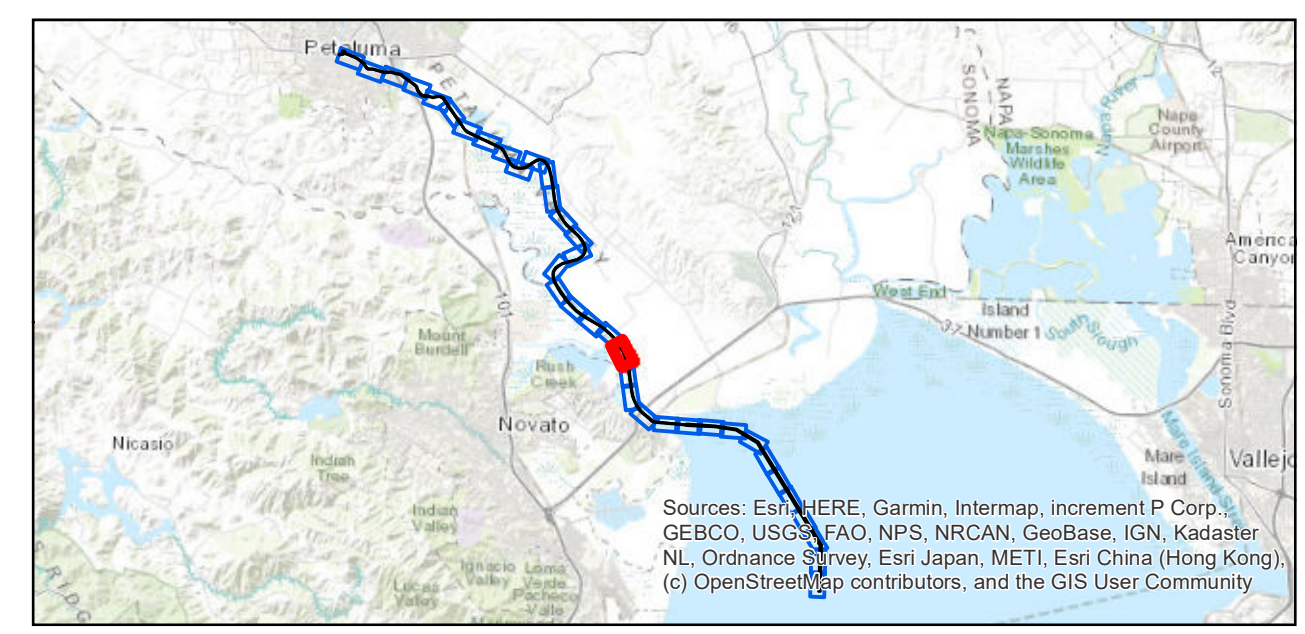
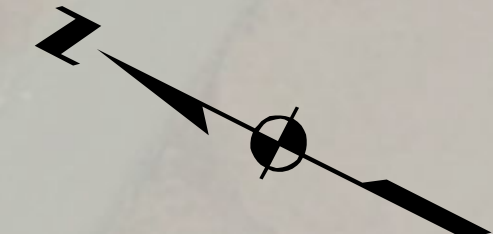
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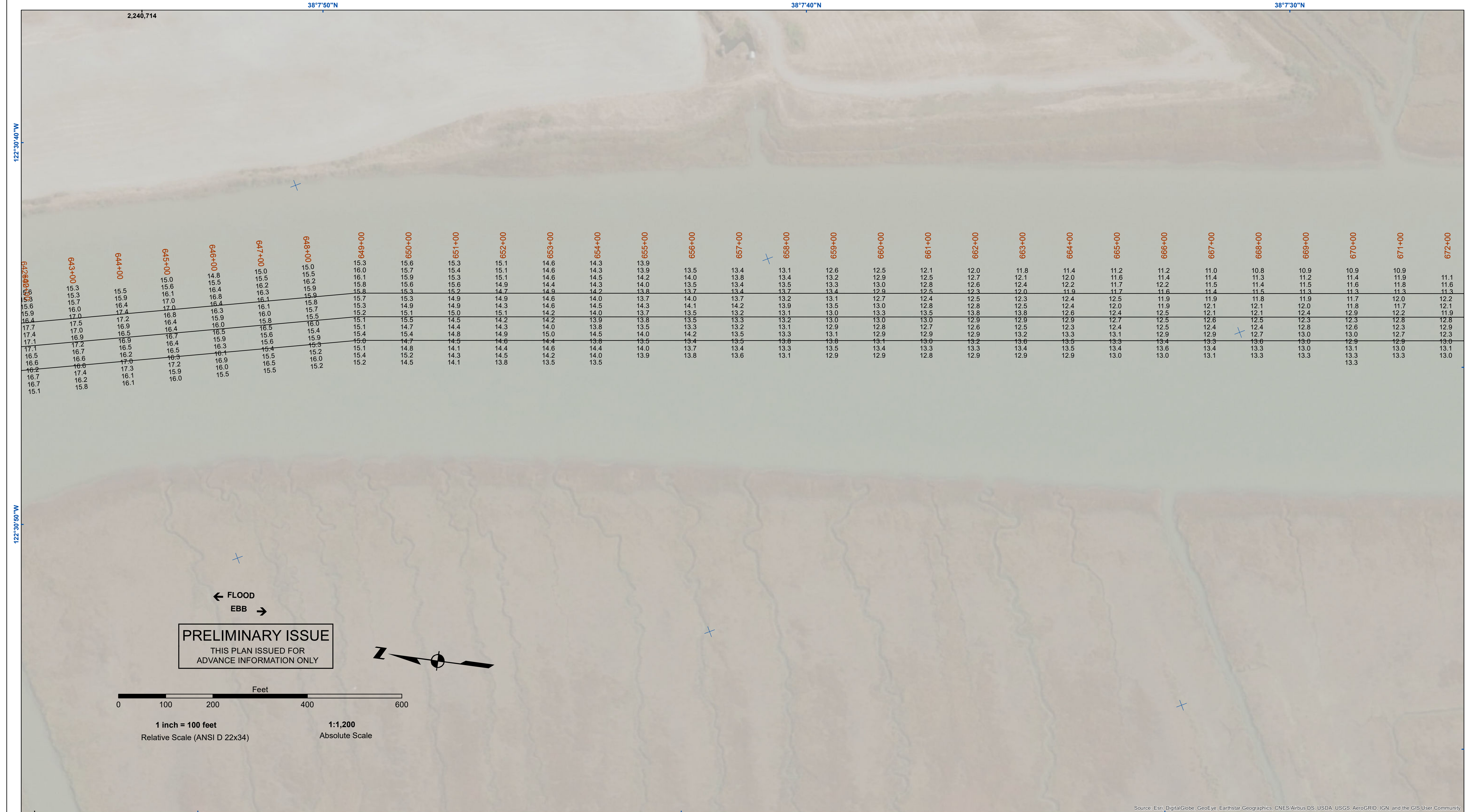
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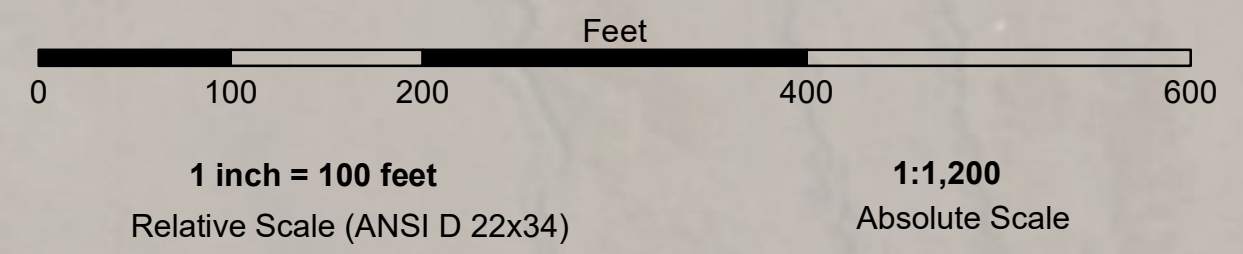
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| Chart Date: | Apr 15, 2022 |
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PETALUMA RIVER
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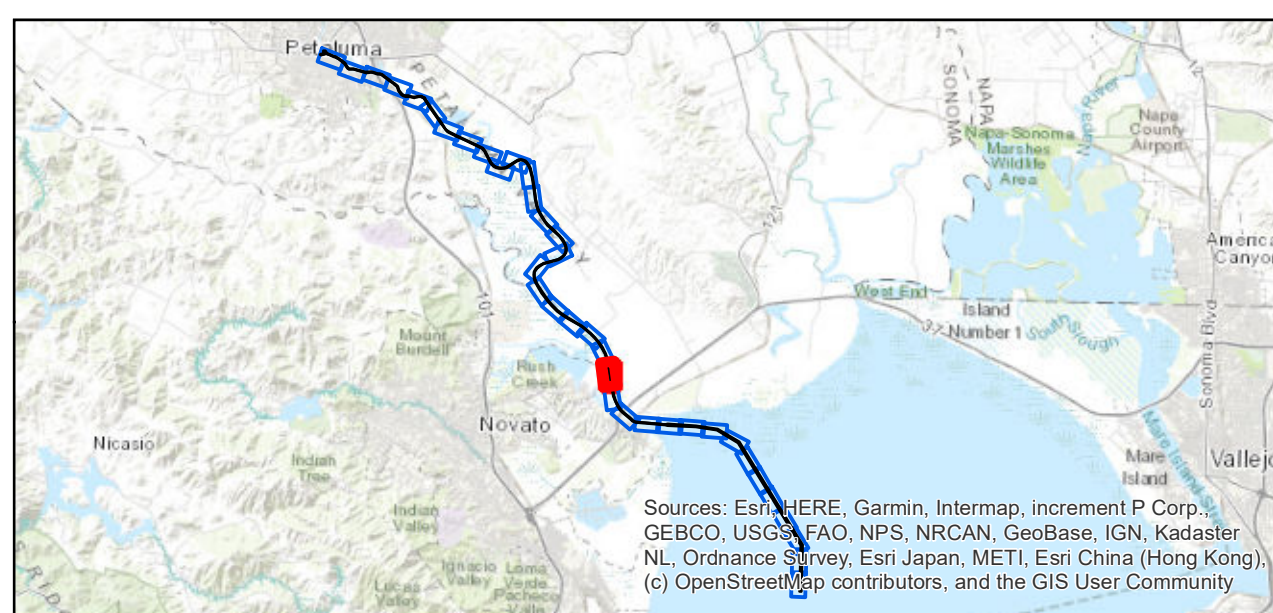
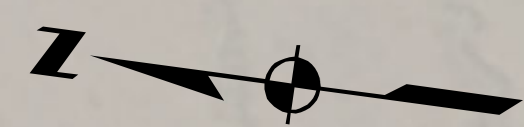
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| Prepared Under the Direction of KEVIN P. ARNETT LT COLONEL, C.E., DISTRICT ENGINEER | Surveyed By: | Chart Date: |
| Submitted: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommended: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Checked By: | Drawn by: |
| | PDT | PDT |

SONOMA COUNTY
PETALUMA RIVER
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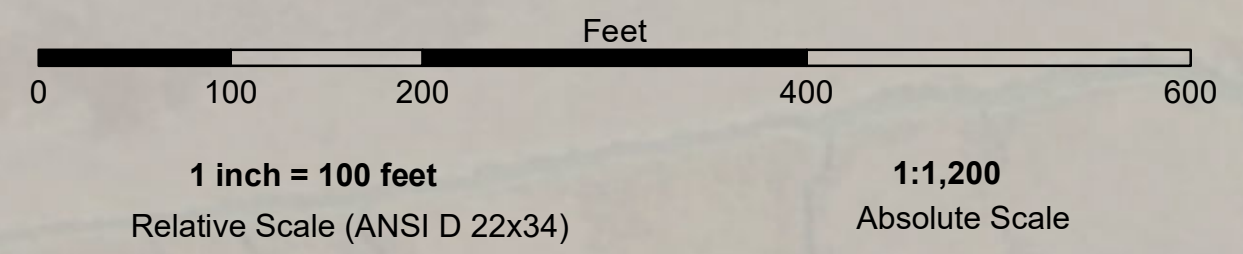


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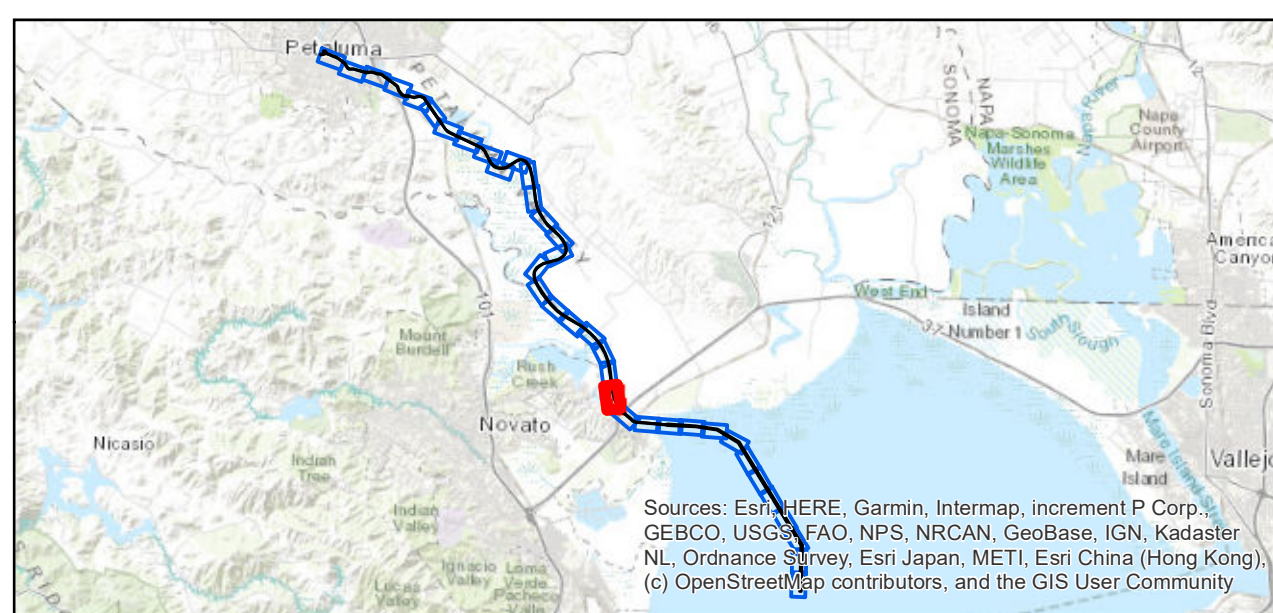
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| Approved: | Chief, Construction Branch |
| Submitted: | Hydro Survey Team Leader |
| Recommended: | Chief, Hydro Survey Section |
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| Plotted By: | |

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PETALUMA RIVER
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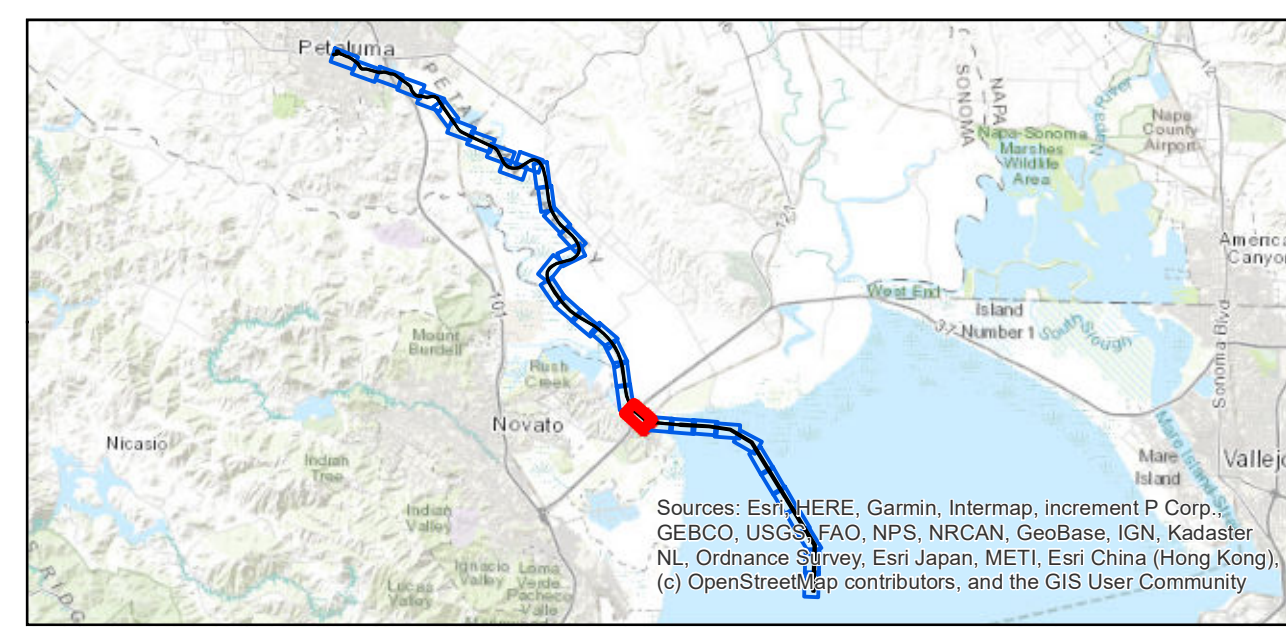
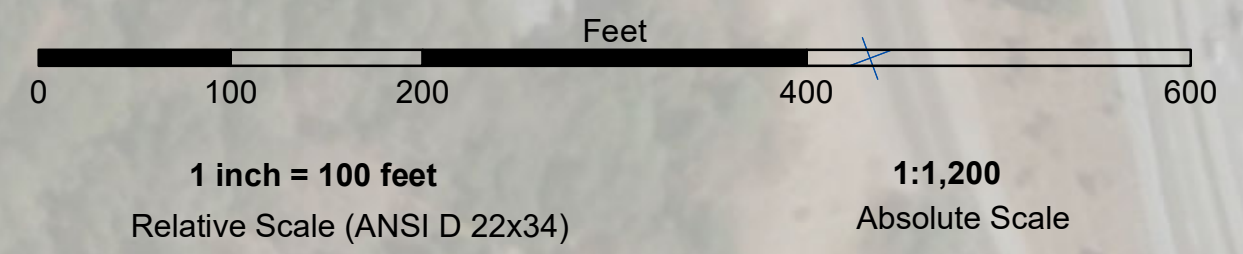
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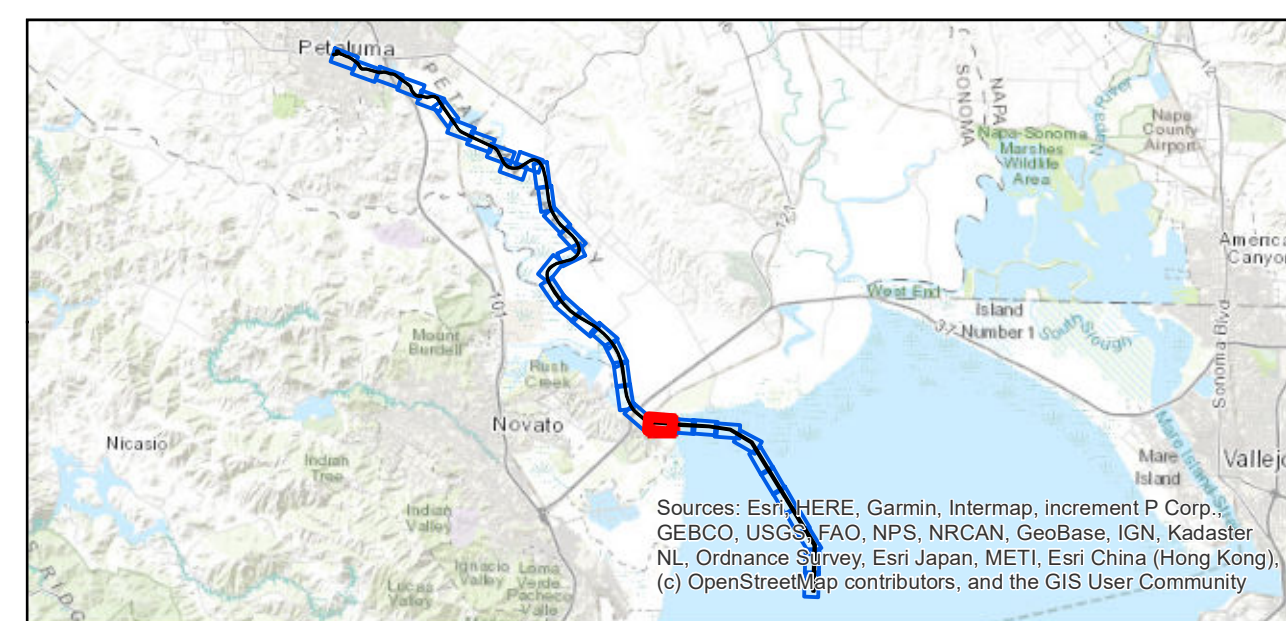
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| PREPARED UNDER THE DIRECTION OF LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT | Chart Date: Apr 15, 2022 |
| Submittal: Hydro Survey Team Leader | Designed by: |
| Recommendation: Chief, Hydro Survey Section | Drawn by: PDT |
| Approval: Chief, Construction Branch | Checked by: PDT |

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| Prepared Under the Direction of | Chart Date: |
| LT COLONEL C.E. DISTRICT ENGINEER | Apr 15, 2022 |
| Submitted: | Designed by: |
| Hydro Survey Team Leader | |
| Recommended: | Drawn by: |
| Chief, Hydro Survey Section | PDT |
| Approved: | Checked By: |
| Chief, Construction Branch | PDT |

SONOMA COUNTY

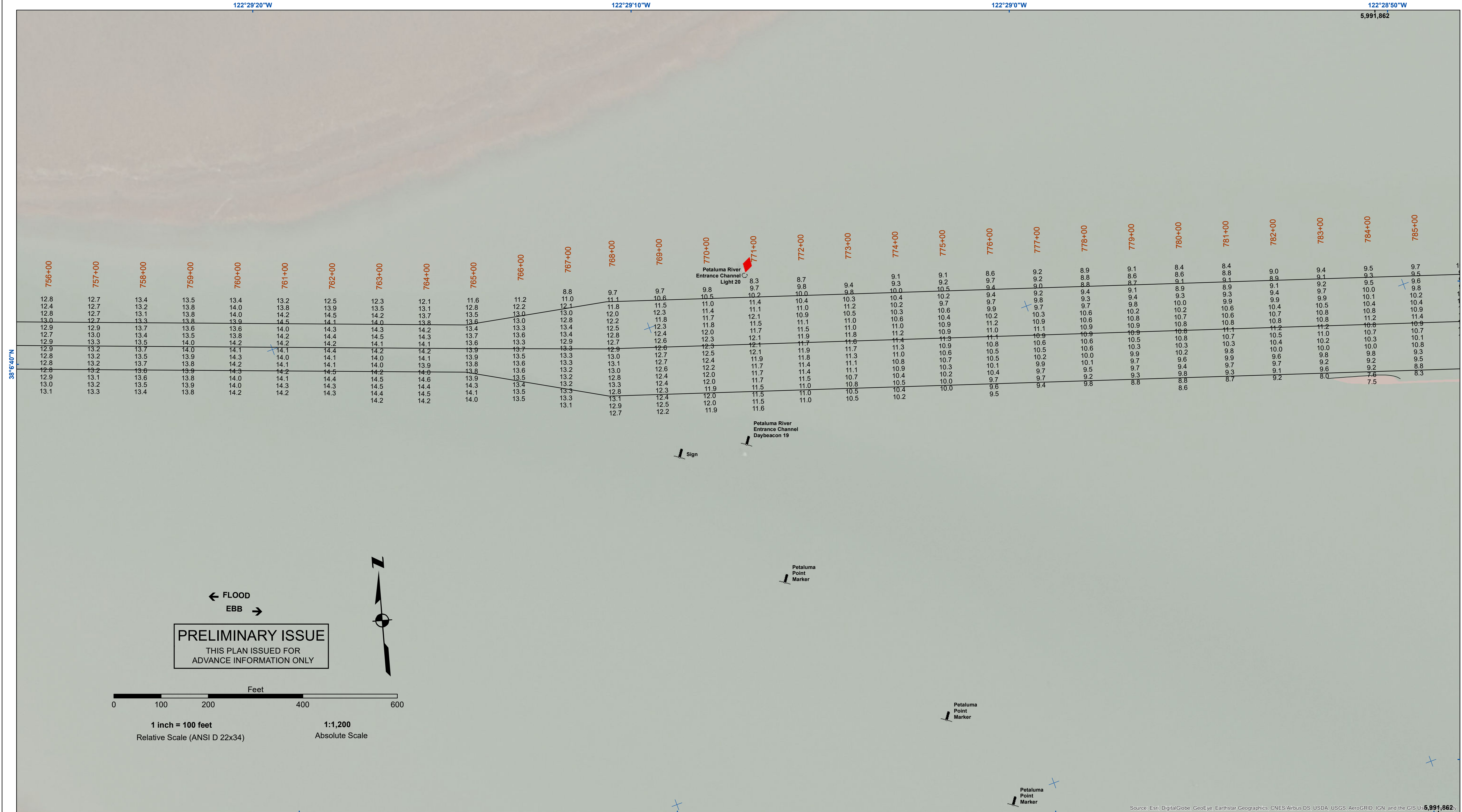
PETALUMA RIVER

CONDITION SURVEY

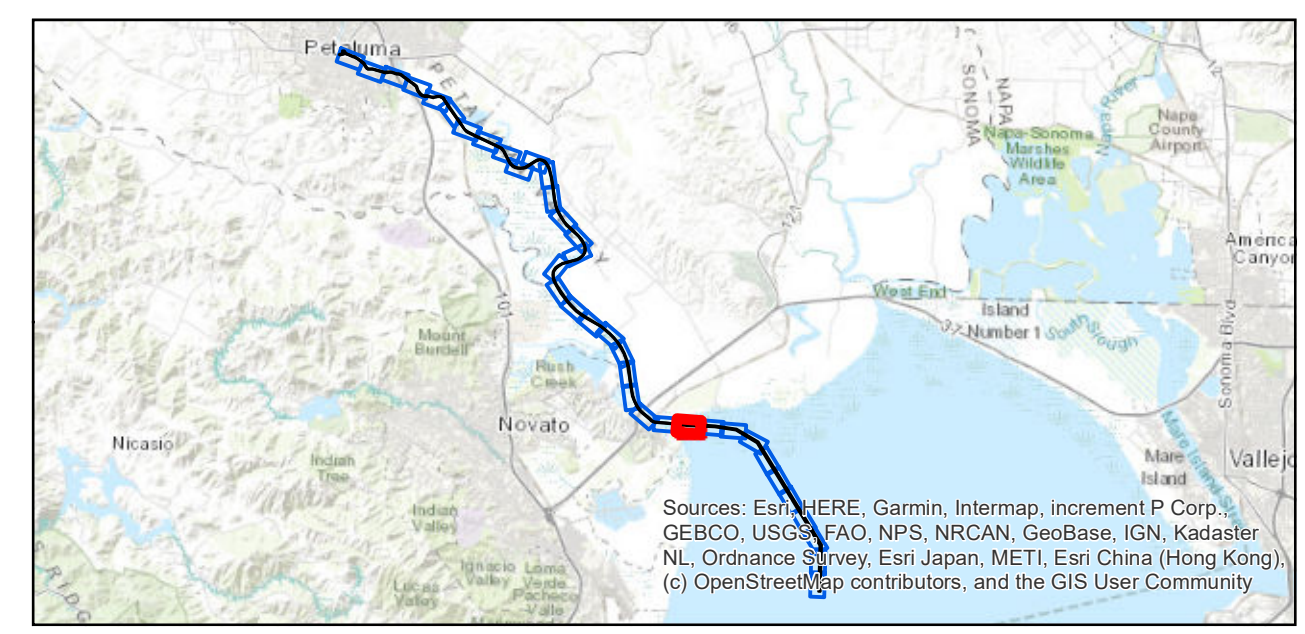
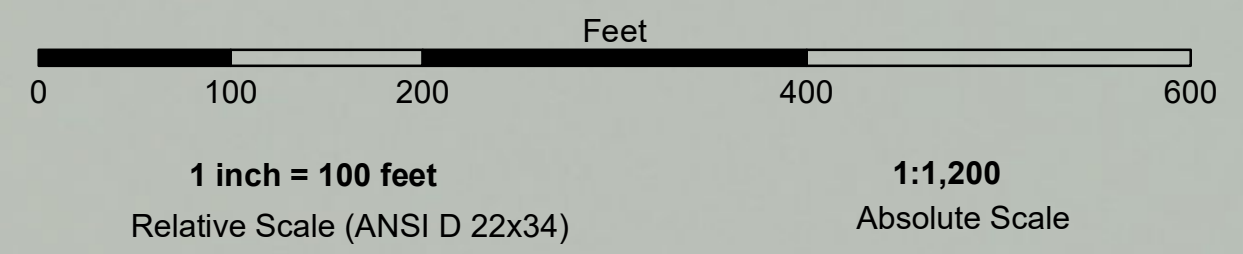
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number

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|--|----------------------------|--|--------------------|-----------------|----|
| | Federal Navigation Channel | | Beacon, General | Contours | |
| | Shoaling Area | | Obstruction Point | | |
| | Placement Area | | Navigation Buoy | | |
| | Anchorage Area | | Navigation Buoy | | |
| | Wreck Area | | Shoalest Sounding* | | |
| | Submerged Wreck | | | | -8 |
| | Angle Point | | | | -7 |
| | | | | | -6 |
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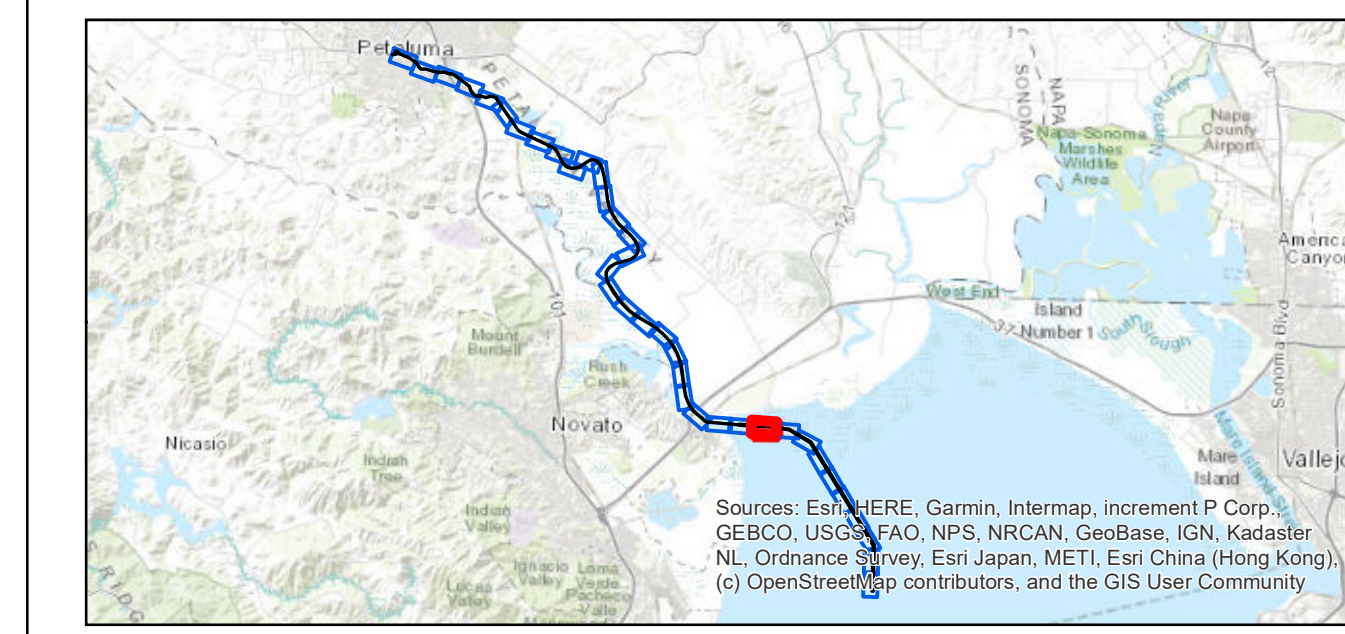
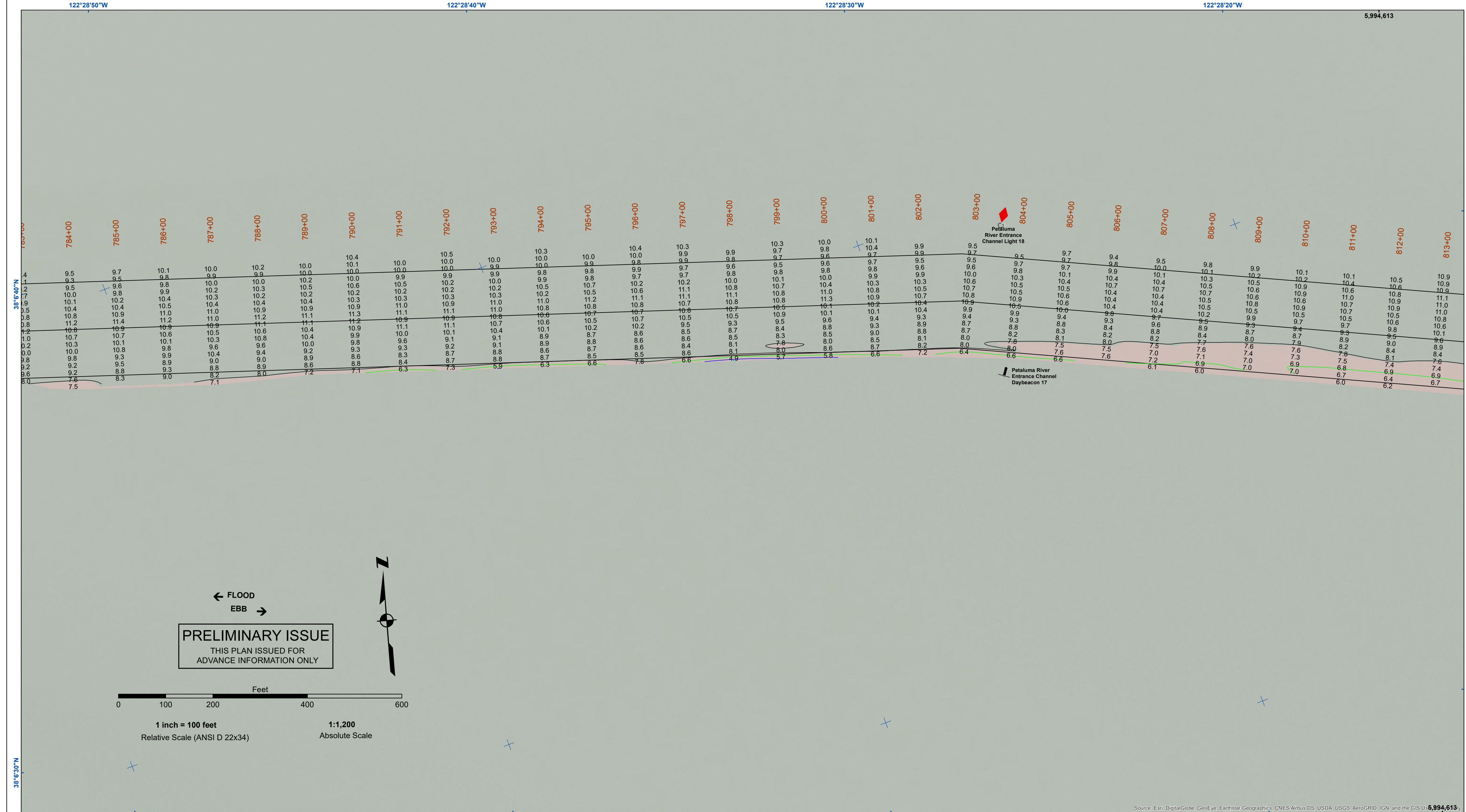
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| Prepared Under the Direction of KEVIN P. ARNETT LT COLONEL, C.E. DISTRICT ENGINEER | Surveyed By: | Chart Date: |
| Submittal: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommendation: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approval: Chief, Construction Branch | Drawn by: | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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|--|----------------------------|--|--------------------|-----------------|----|
| | Federal Navigation Channel | | Beacon, General | Contours | |
| | Shoaling Area | | Obstruction Point | | |
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SONOMA COUNTY

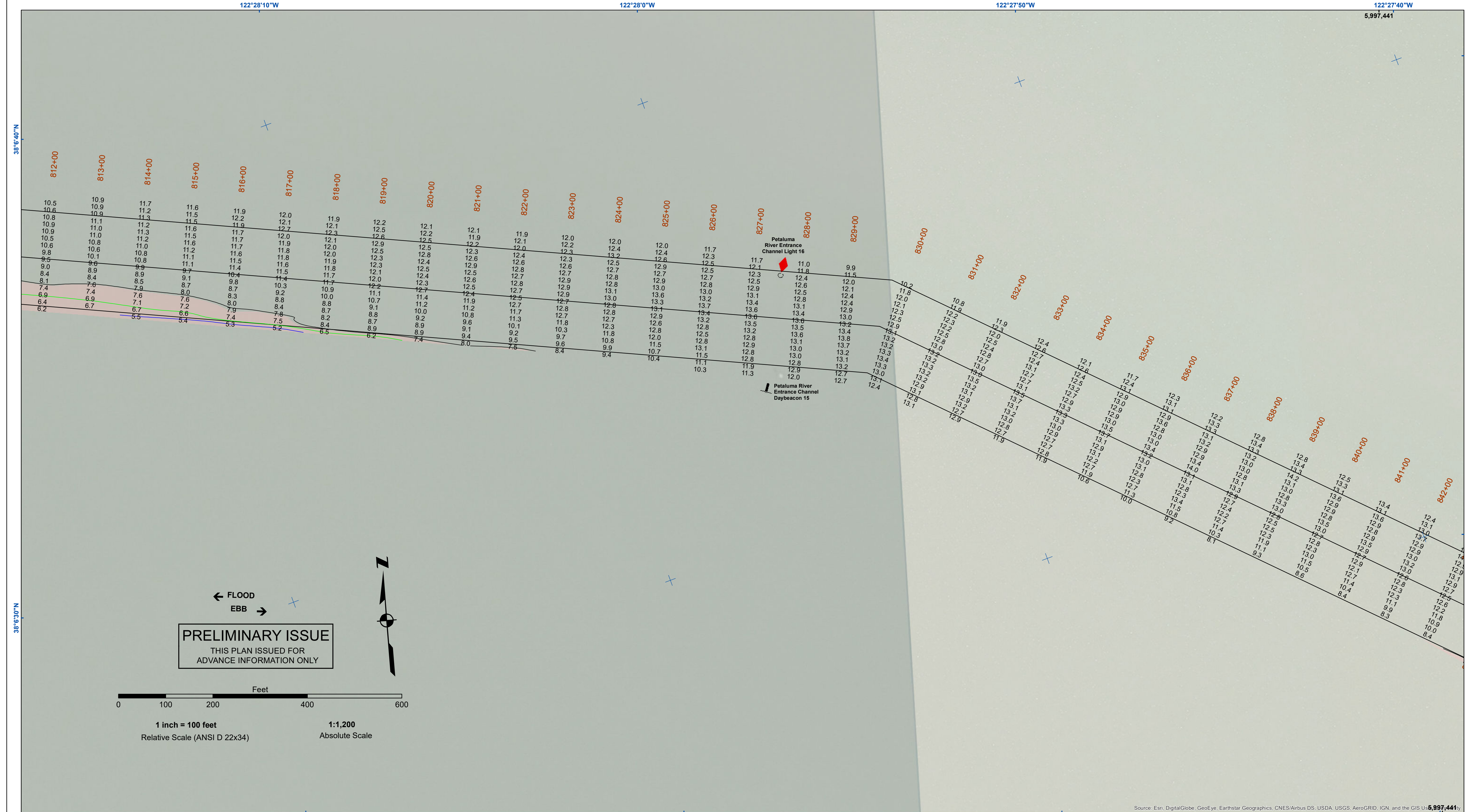
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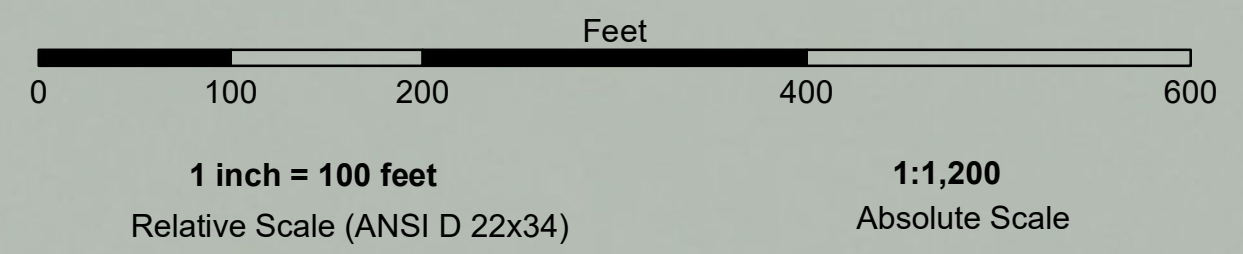
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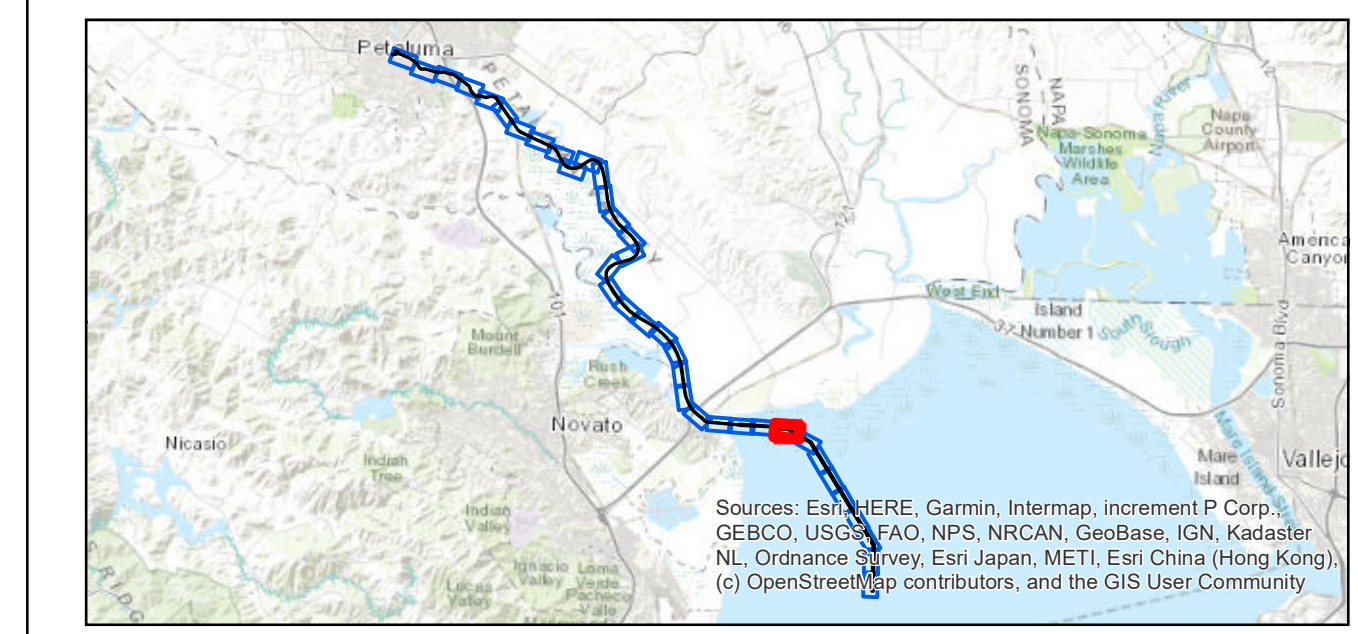
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122°28'10"W 122°28'0"W 122°27'50"W 122°27'40"W



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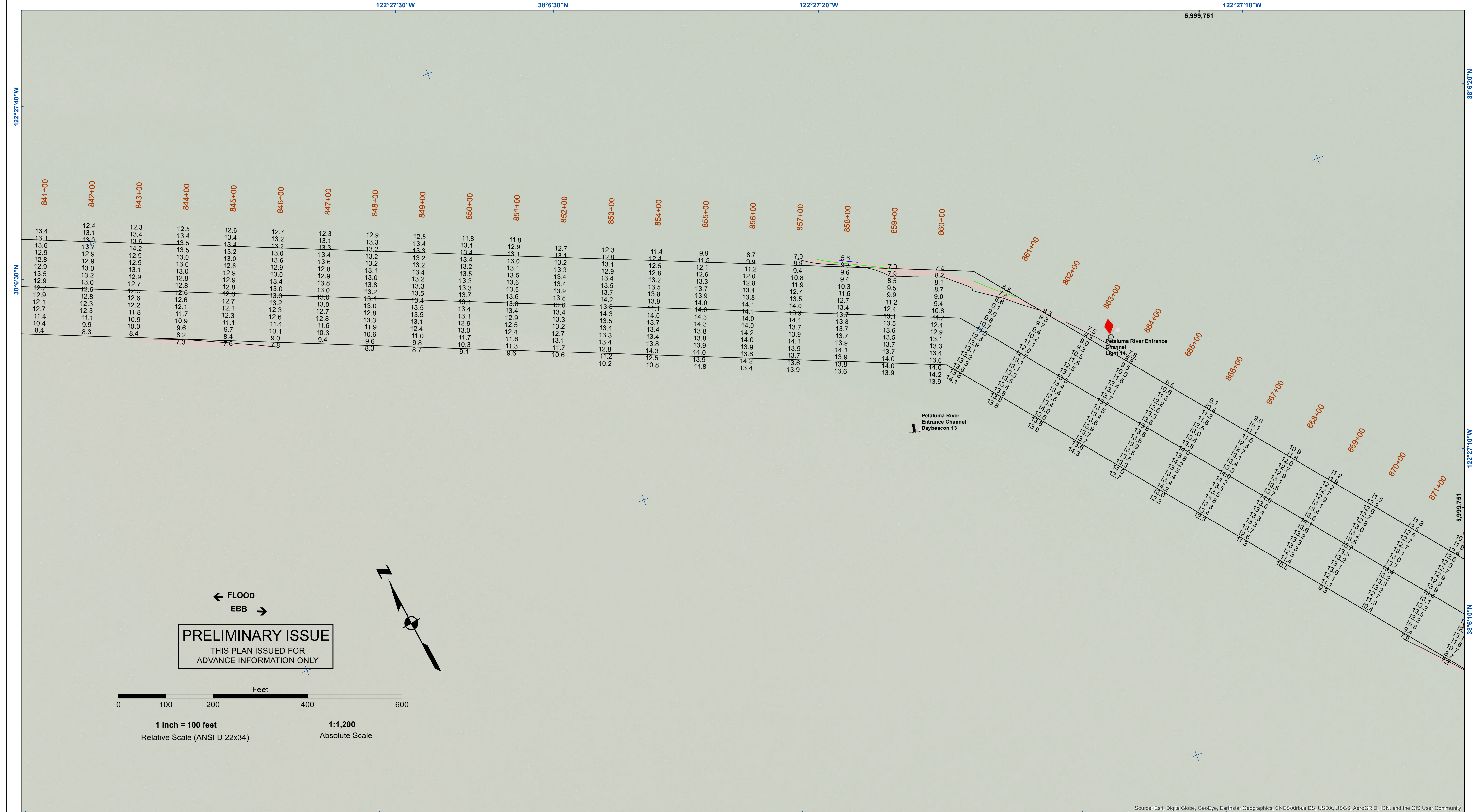


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| Submittal: Hydro Survey Team Leader | Plotted By: | |
| Recommendation: Chief, Hydro Survey Section | Checked By: | PDT |
| Approved: Chief, Construction Branch | Drawn by: | PDT |

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

Sheet Reference Number
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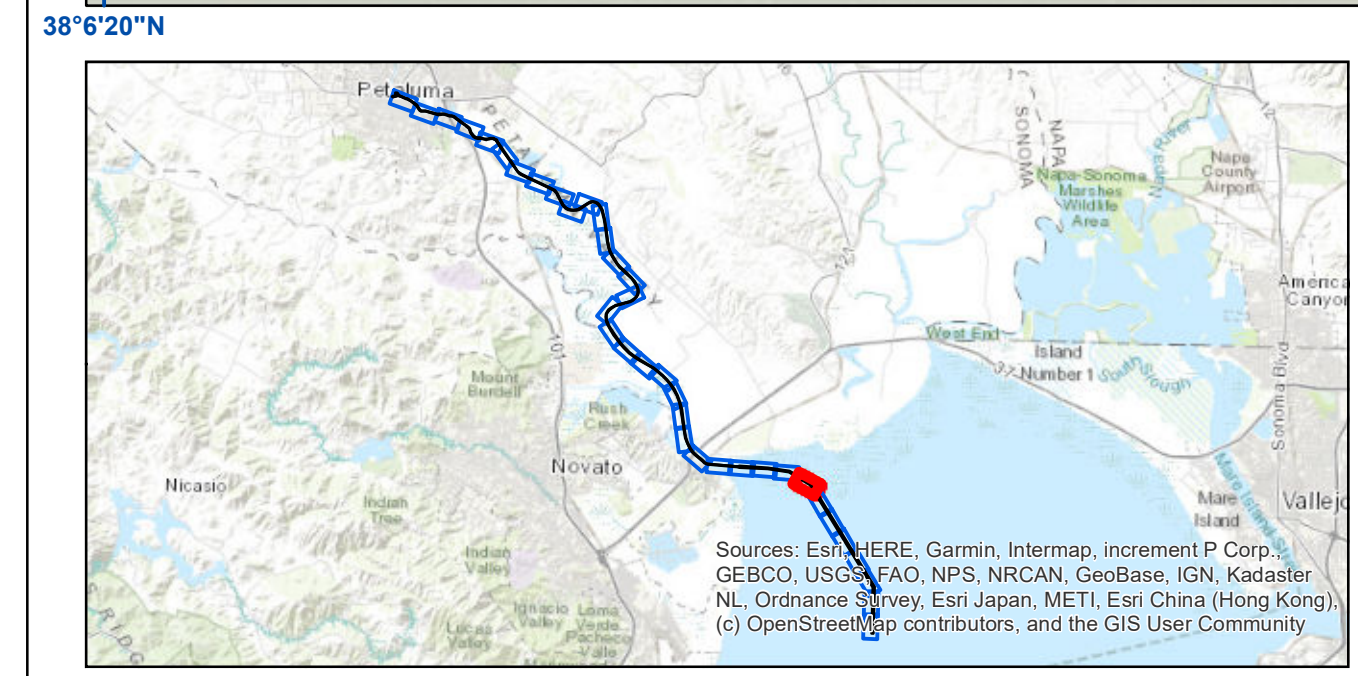
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| Designed by: | |
| Drawn by: | PDT |
| Surveyed By: | |
| Plotted By: | |
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| Approved: | Chief, Construction Branch |

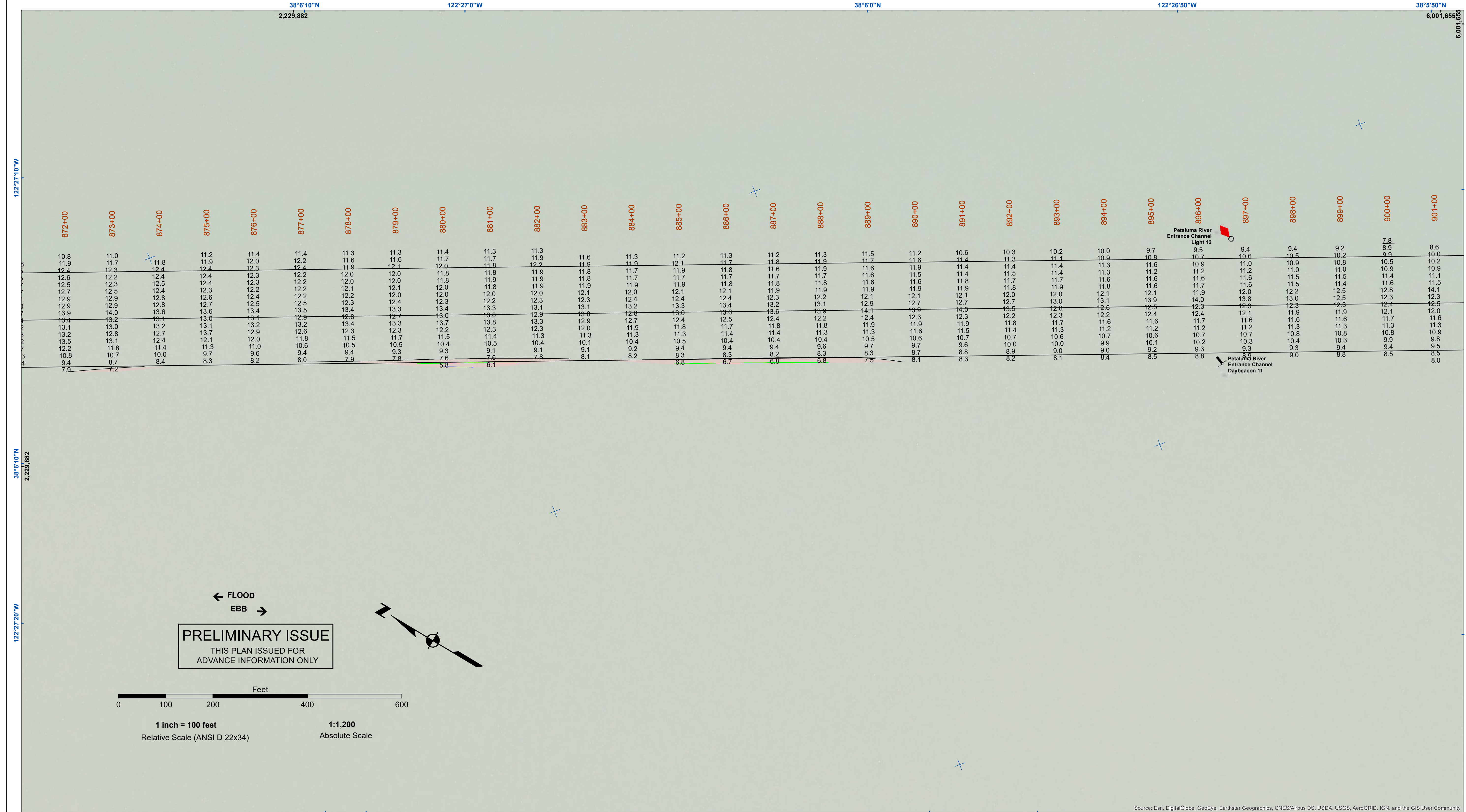
SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
 16 NOVEMBER 2021 - 29 MARCH 2022

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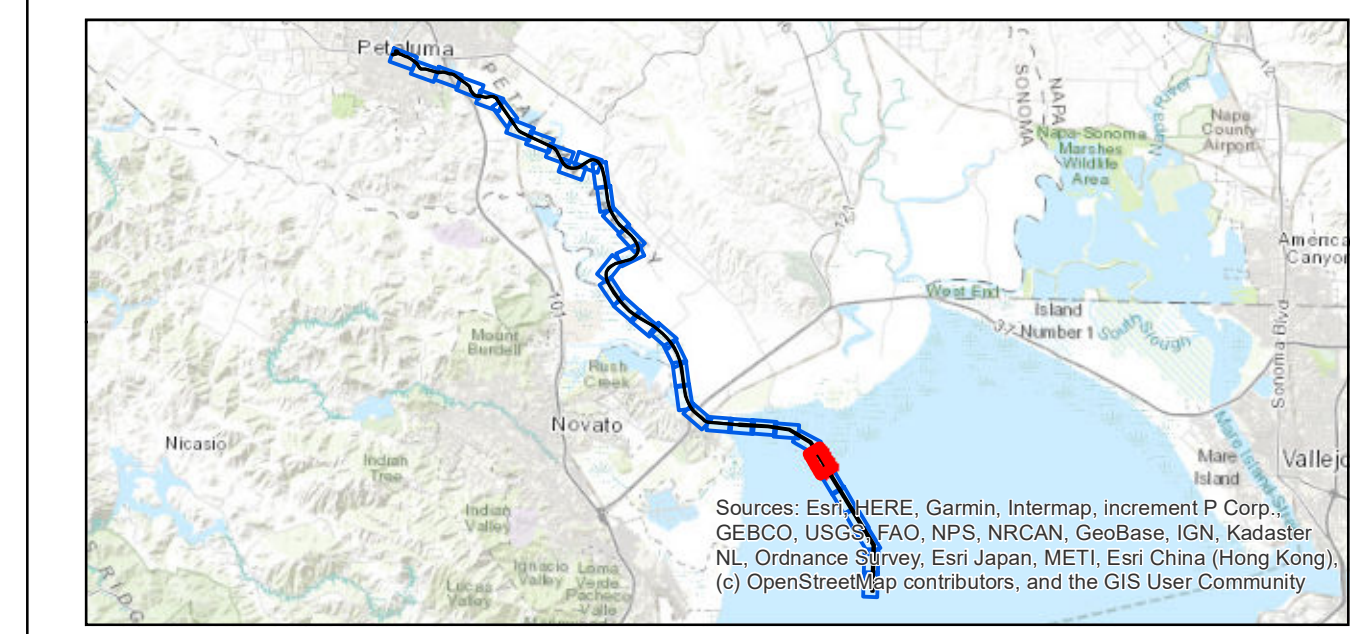
- Federal Navigation Channel
 - Shoaling Area
 - Placement Area
 - Anchorage Area
 - Wreck Area
 - ✈ Submerged Wreck
 - ∠ Angle Point
 - ⊥ Beacon, General
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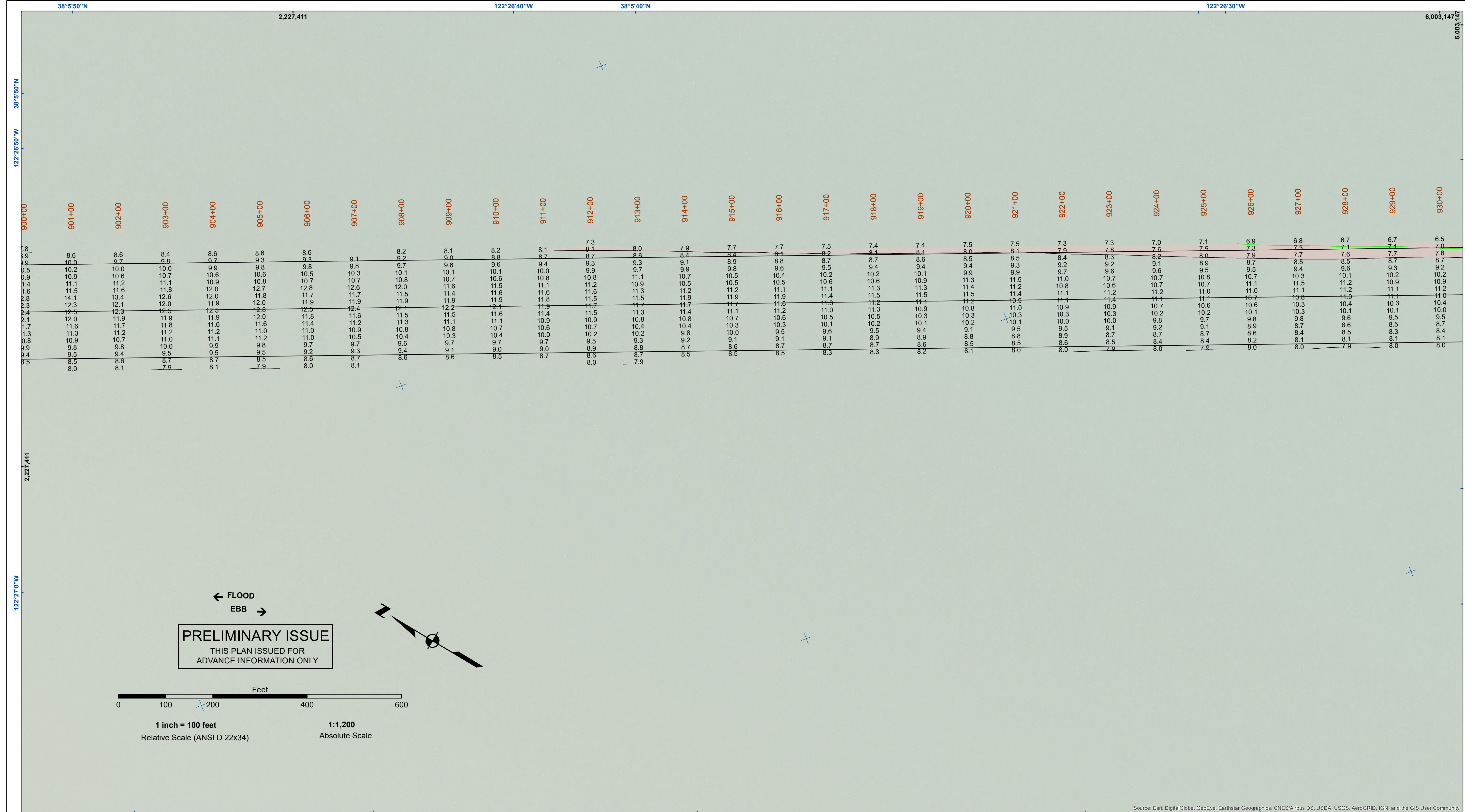
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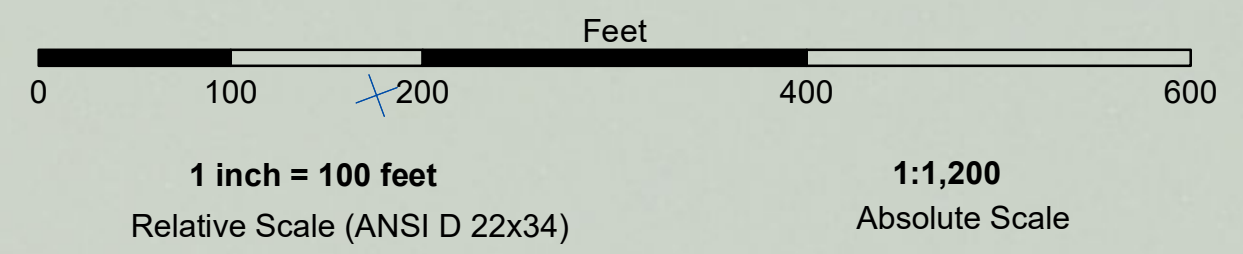
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SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

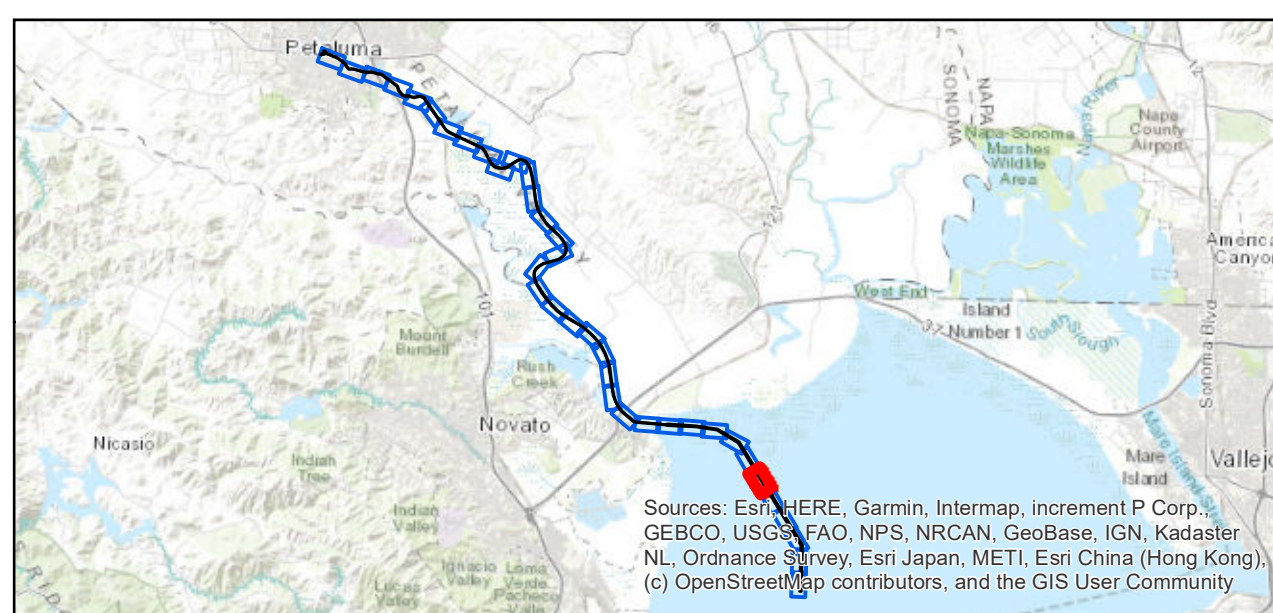
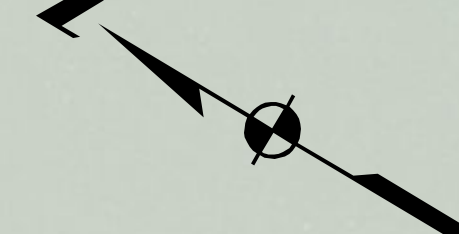
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- Federal Navigation Channel
 - Shoaling Area
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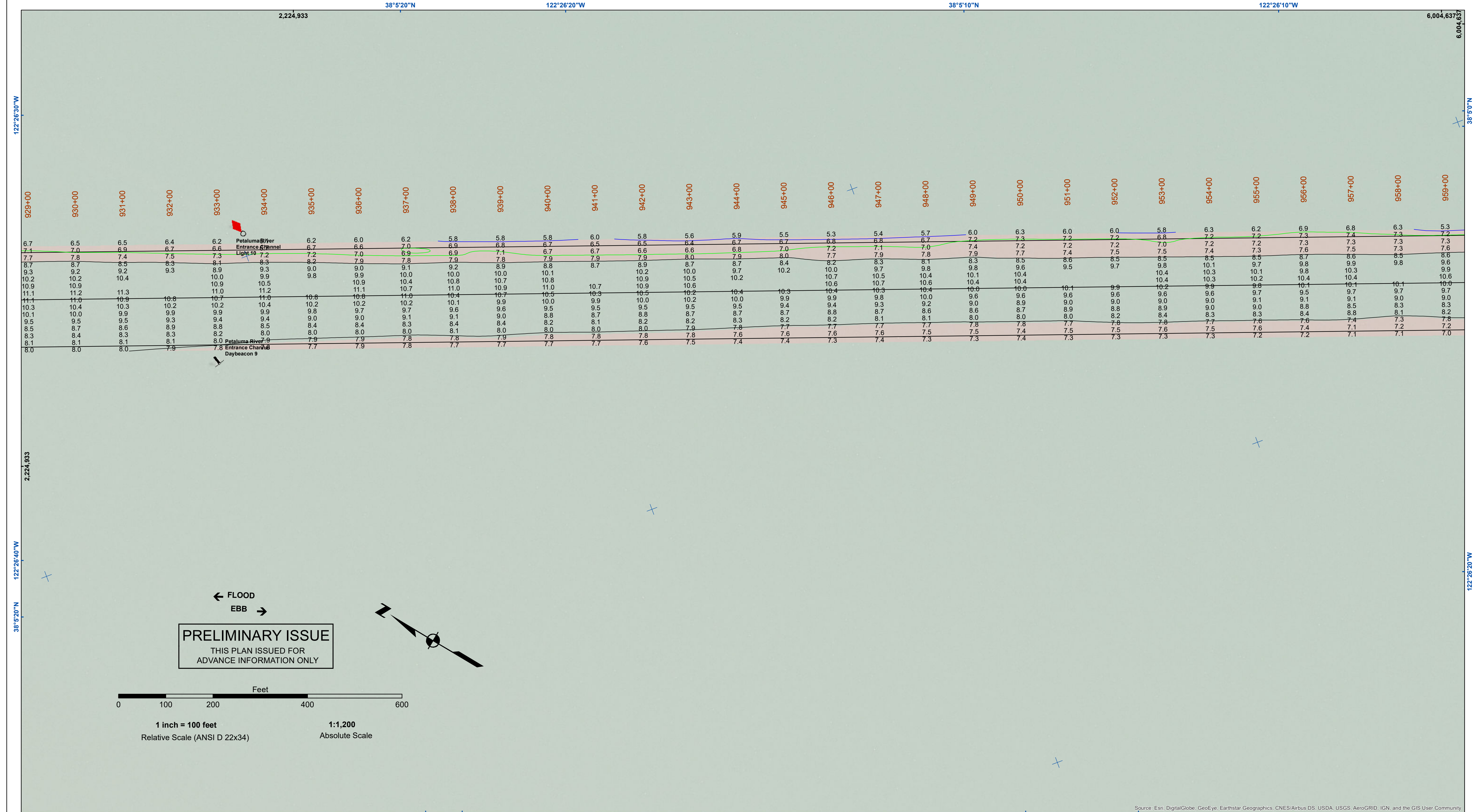
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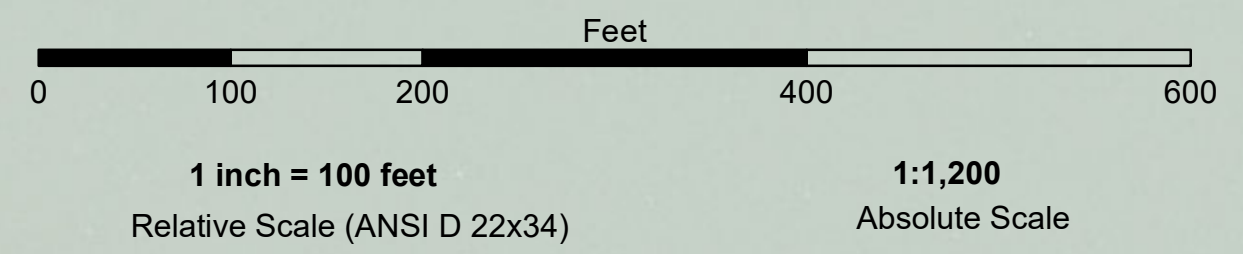
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SONOMA COUNTY
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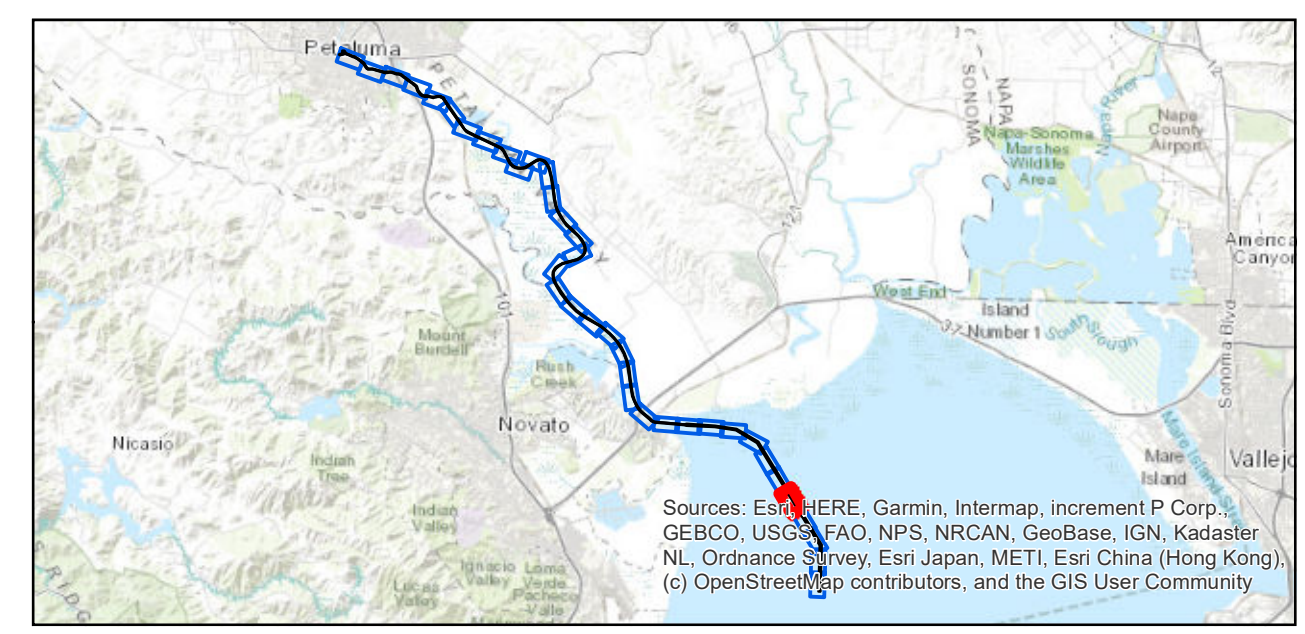
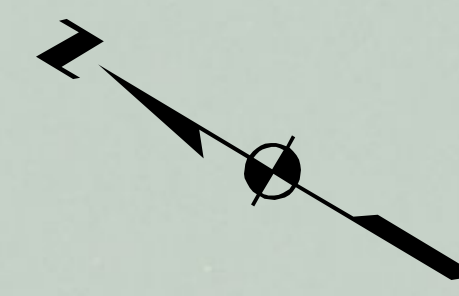
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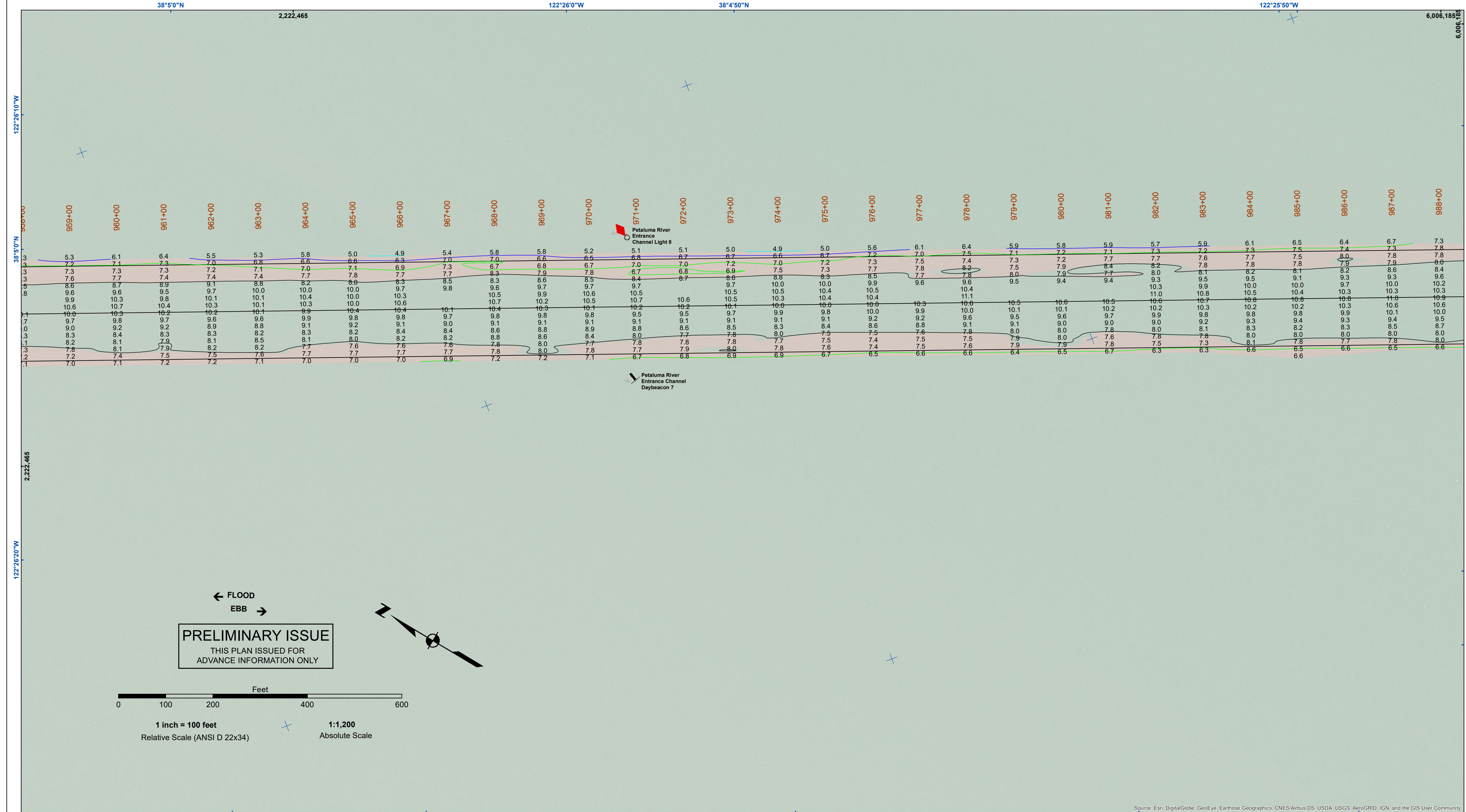
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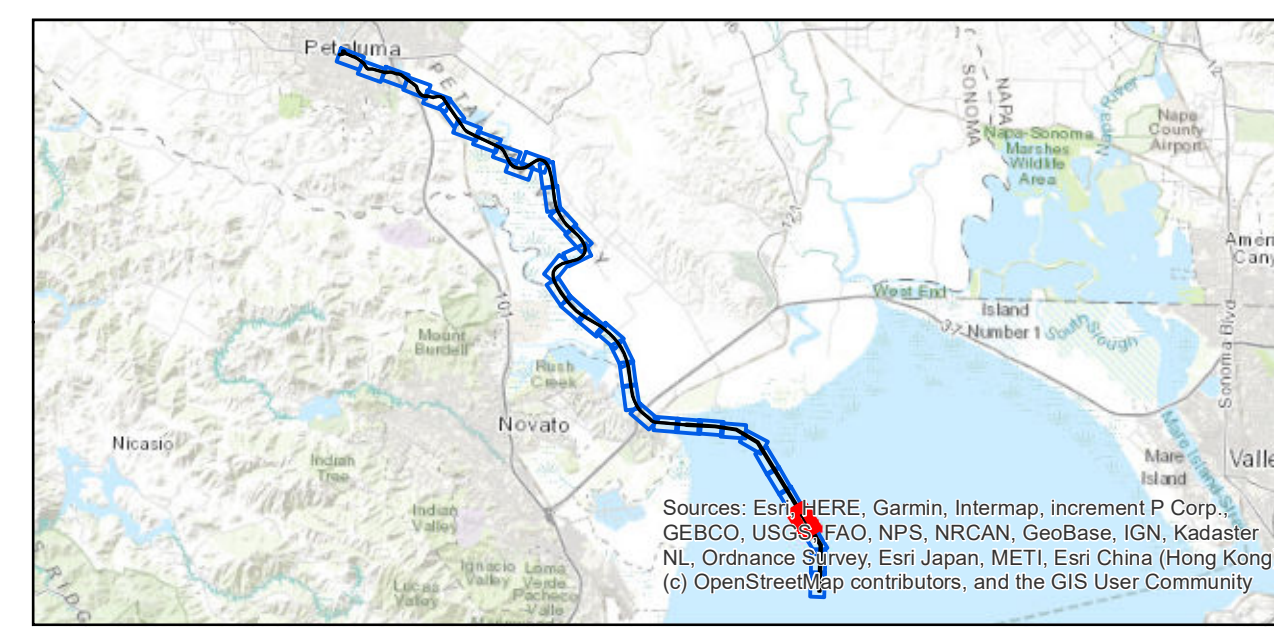
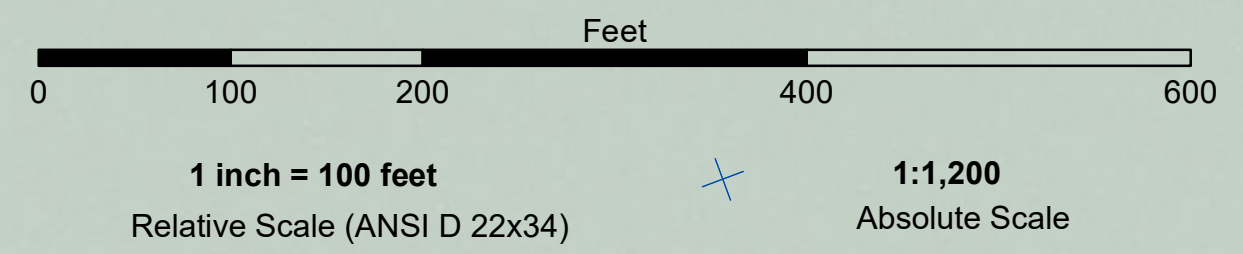
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| Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer | Chart Date: Apr 15, 2022 |
| Submitted: Hydro Survey Team Leader | Designed by: |
| Recommended: Chief, Hydro Survey Section | Drawn by: PDT |
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ELEVATIONS 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

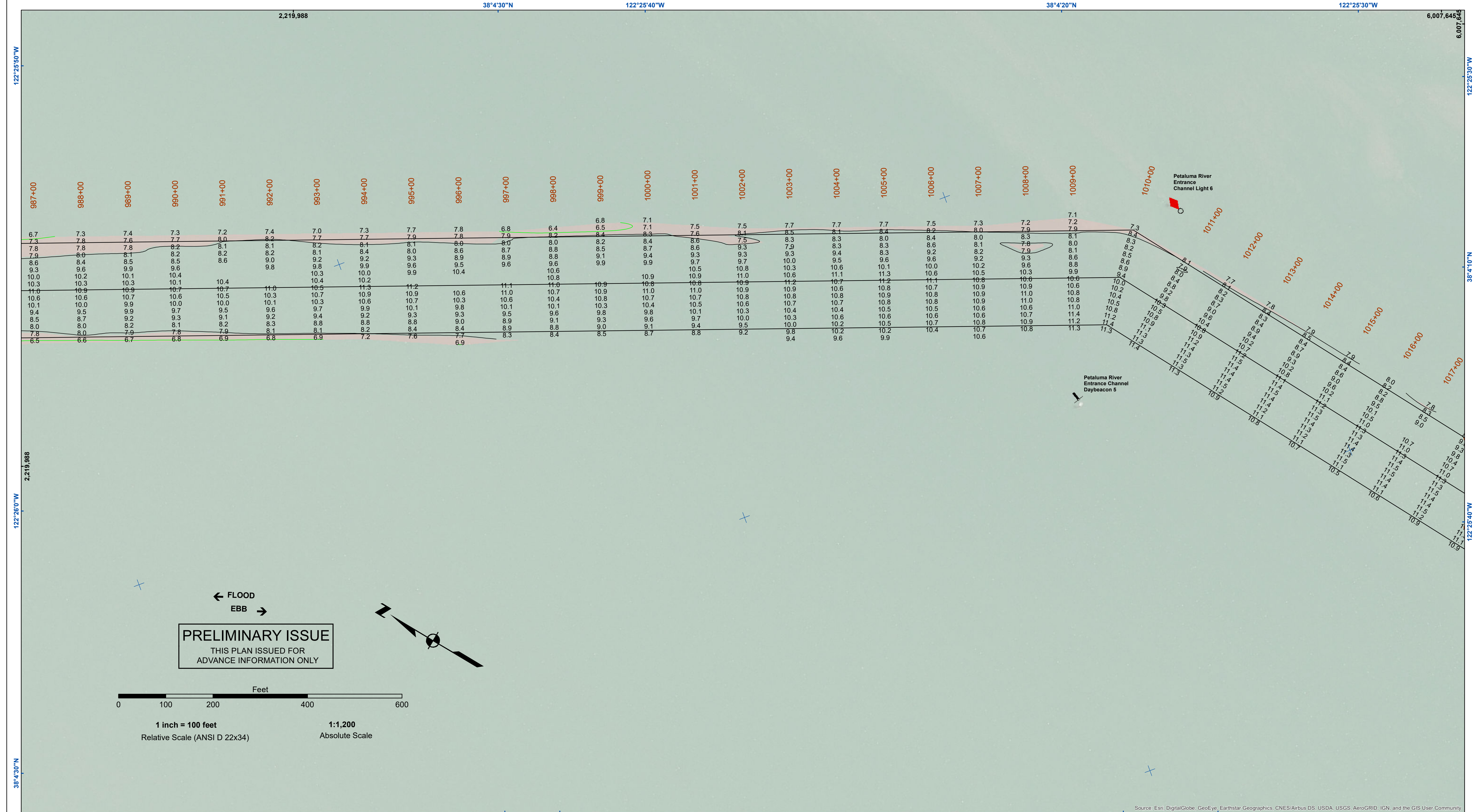


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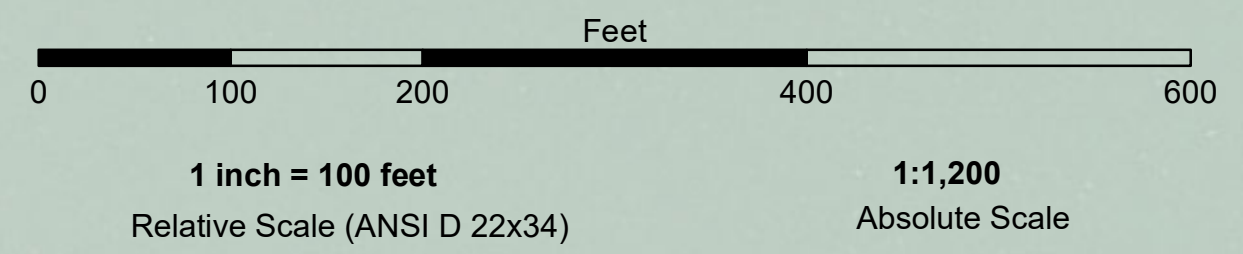
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| Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT | Surveyed By: | Chart Date: |
| Submitted: Hydro Survey Team Leader | Plotted By: | Apr 15, 2022 |
| Recommended: Chief, Hydro Survey Section | Checked By: | Designed by: |
| Approved: Chief, Construction Branch | Checked By: | Drawn by: |
| | PDT | PDT |

SONOMA COUNTY
PETALUMA RIVER
CONDITION SURVEY
16 NOVEMBER 2021 - 29 MARCH 2022

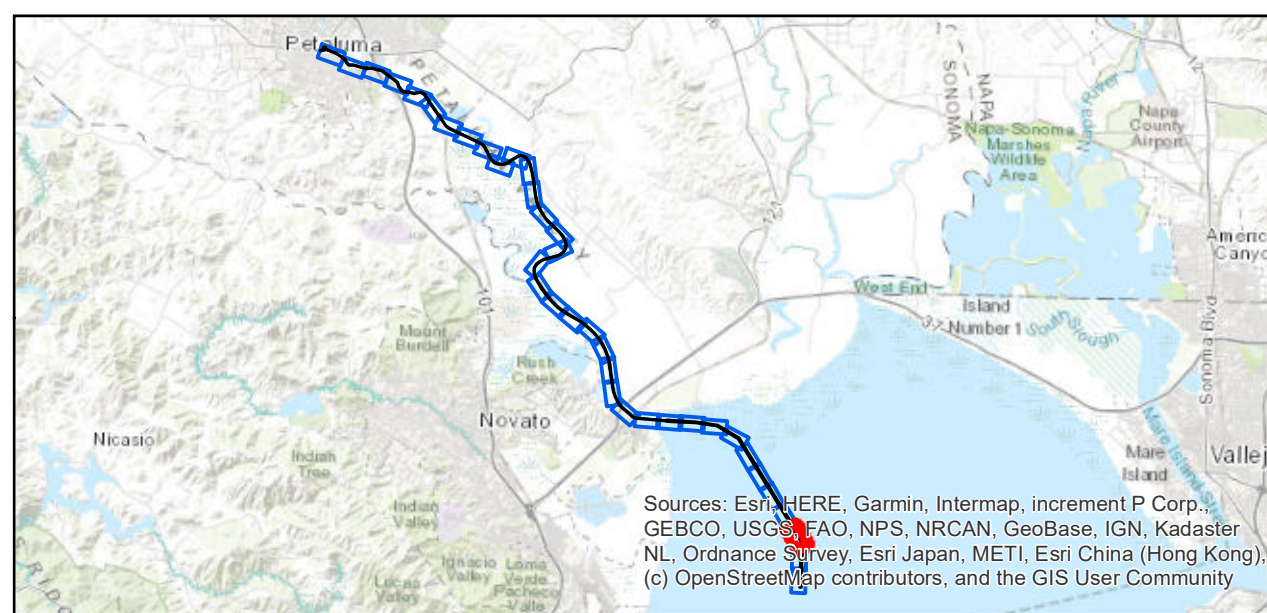
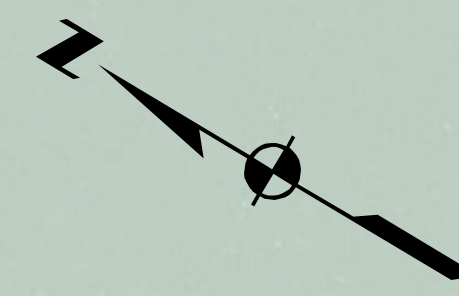
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PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



← FLOOD
EBB →



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

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| Prepared Under the Direction of | LT COLONEL C.E. DISTRICT ENGINEER | Chart Date: | Apr 15, 2022 |
| Submittal: | Hydro Survey Team Leader | Designed by: | |
| Recommendation: | Chief, Hydro Survey Section | Drawn by: | PDT |
| Approval: | Chief, Construction Branch | Checked By: | PDT |

SONOMA COUNTY

PETALUMA RIVER

CONDITION SURVEY

16 NOVEMBER 2021 - 29 MARCH 2022

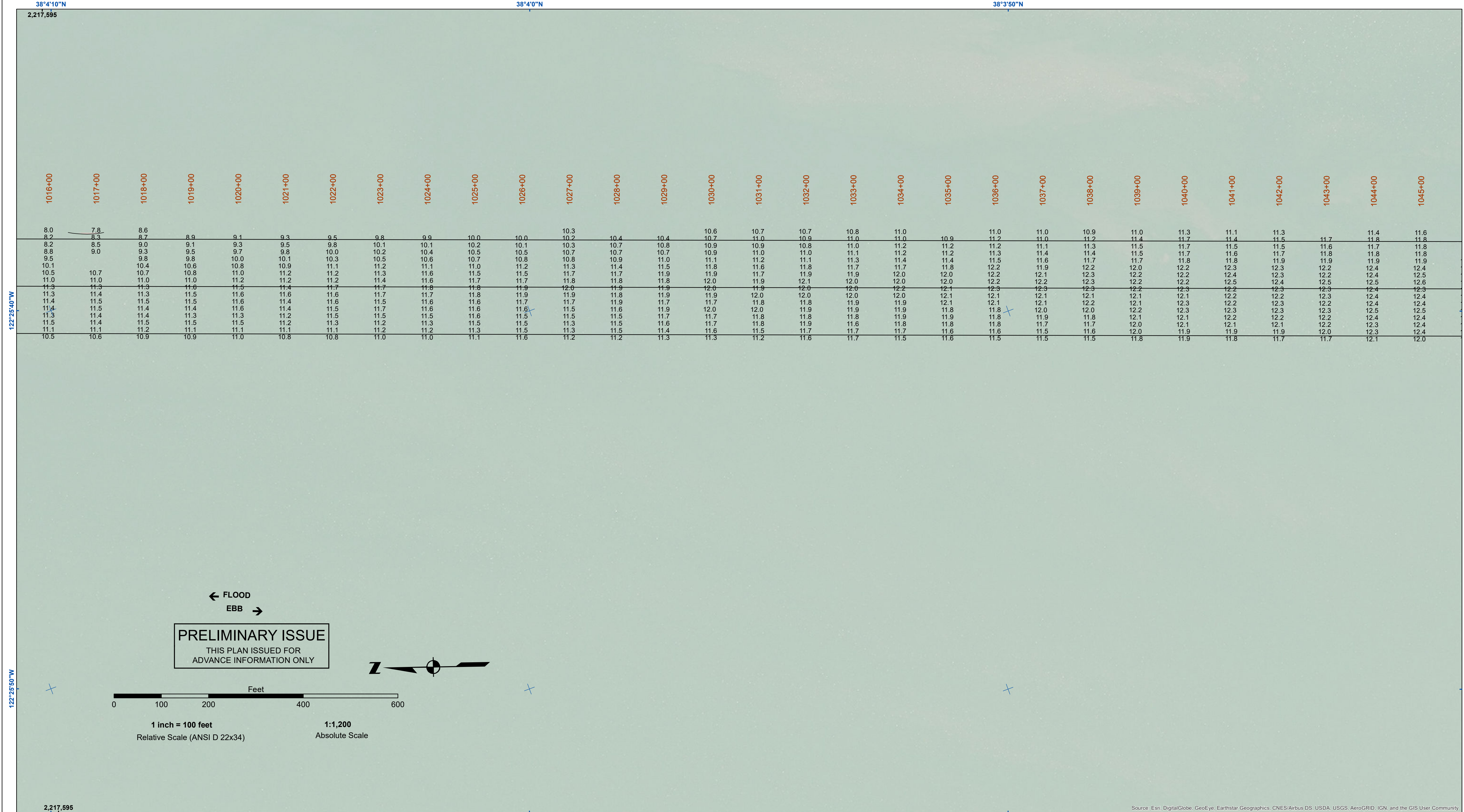
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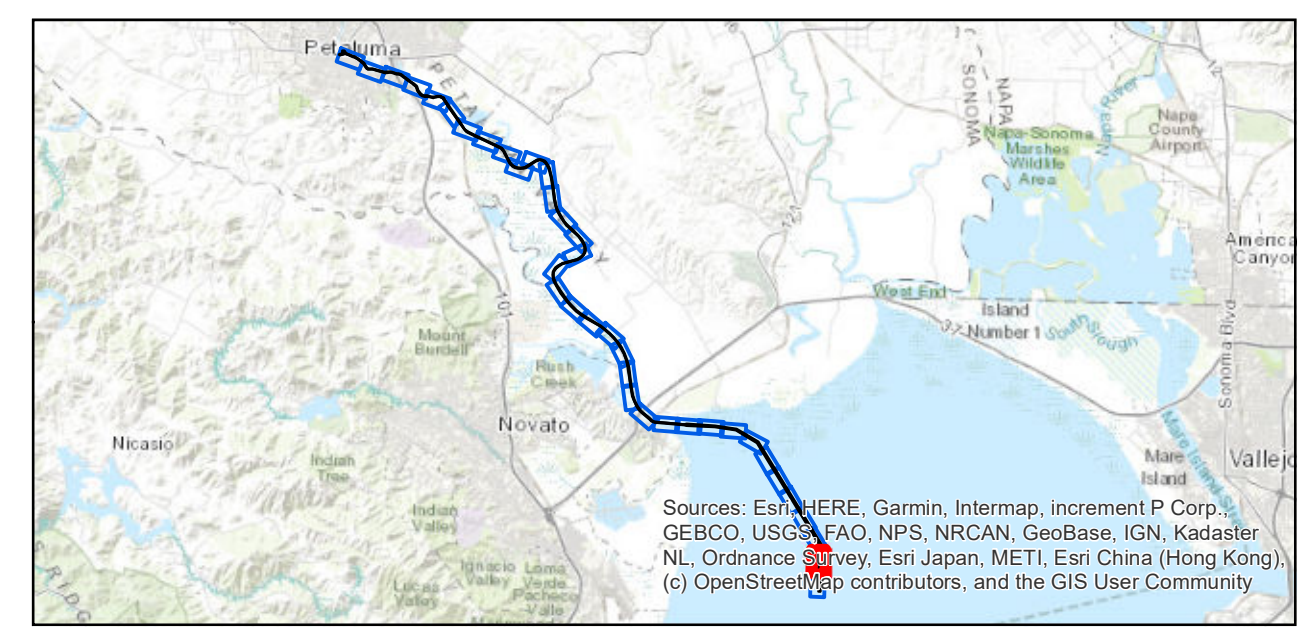
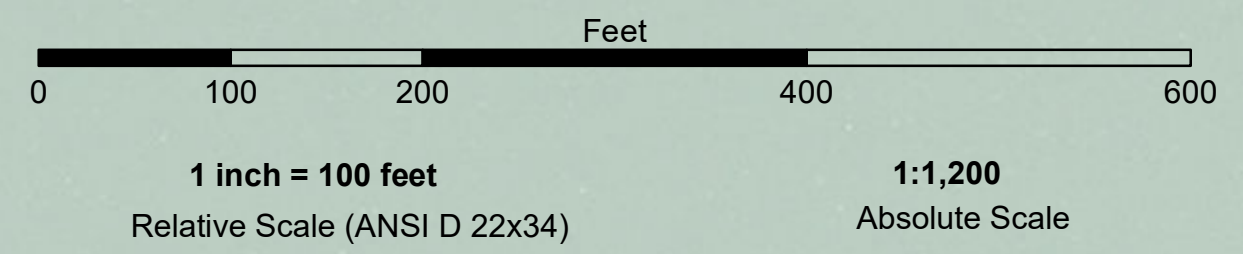


US Army Corps of Engineers
 San Francisco District
 450 Market Street
 San Francisco, CA 94102

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

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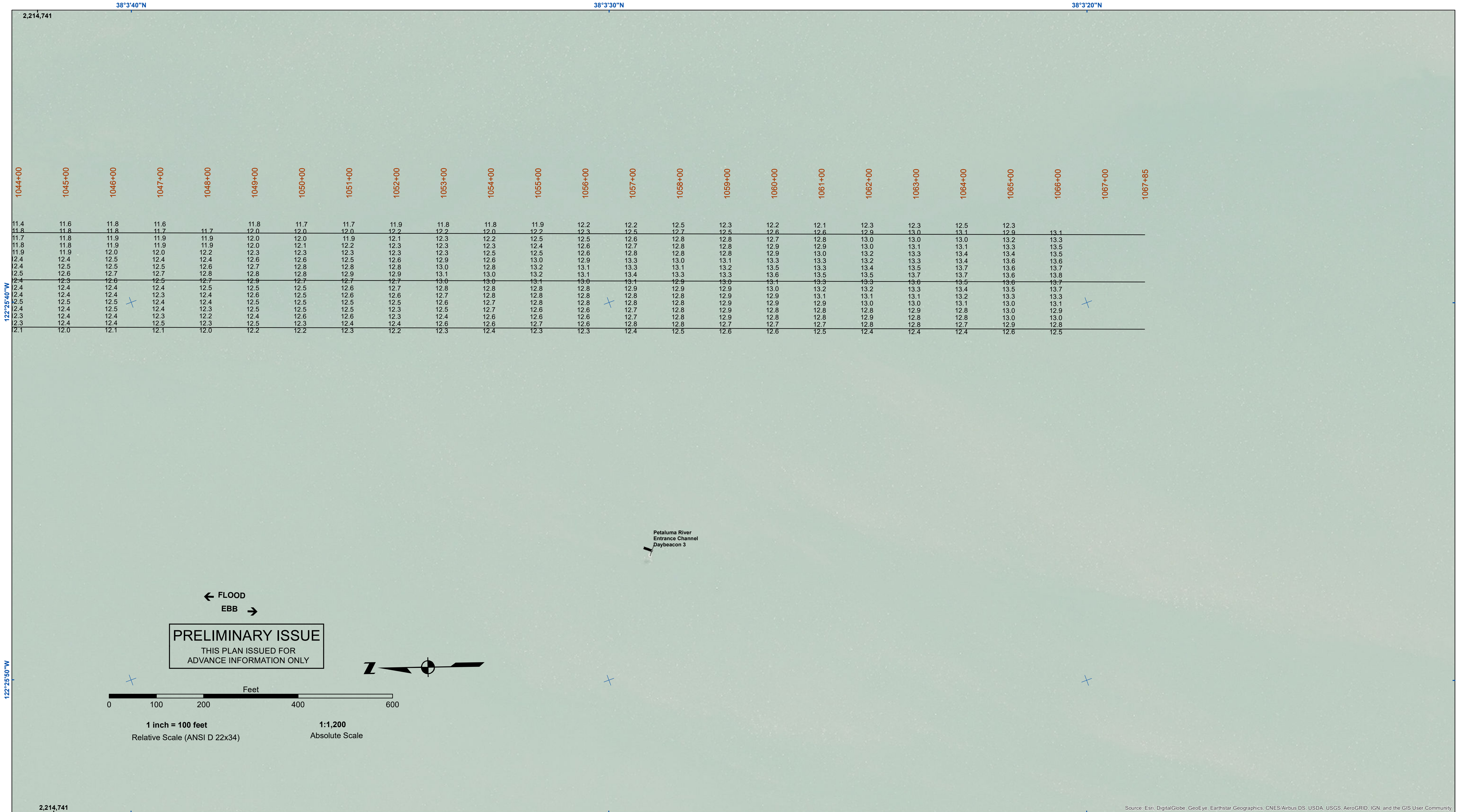
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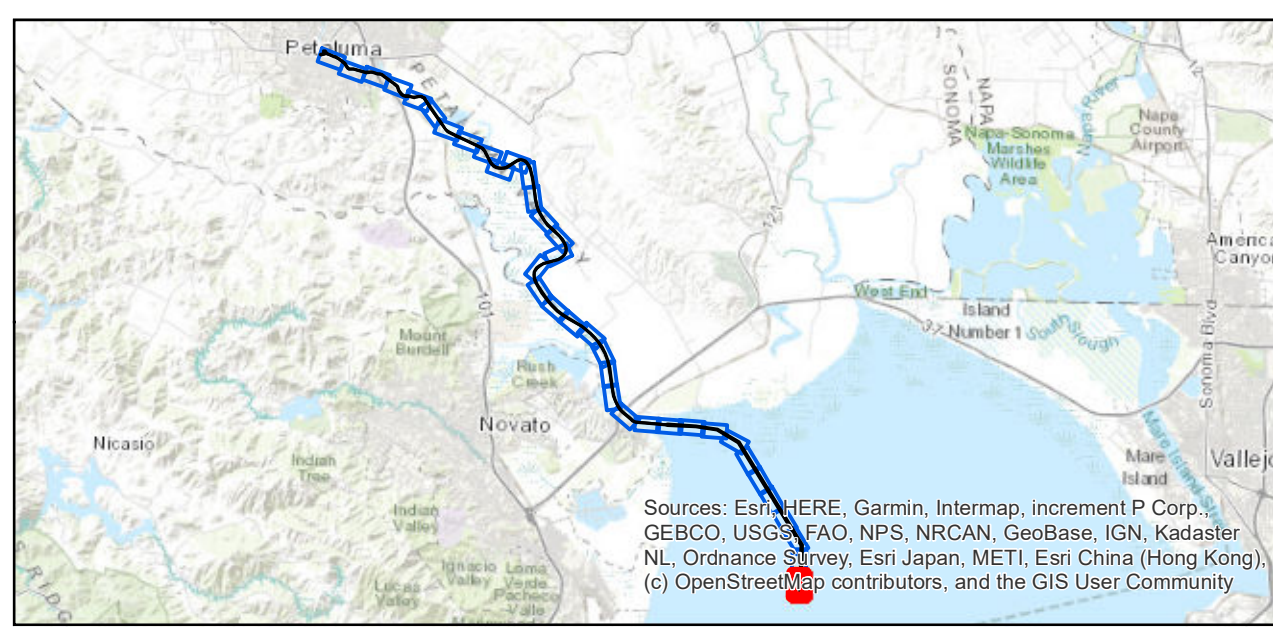
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SONOMA COUNTY
PETALUMA RIVER
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