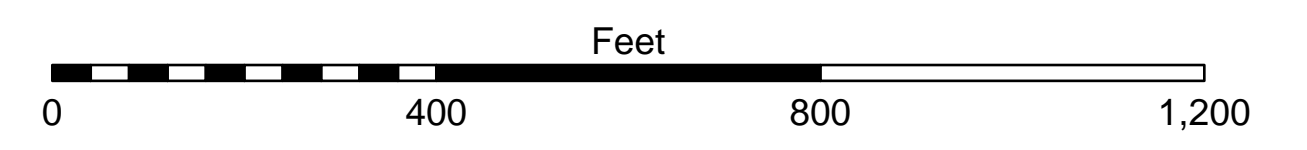
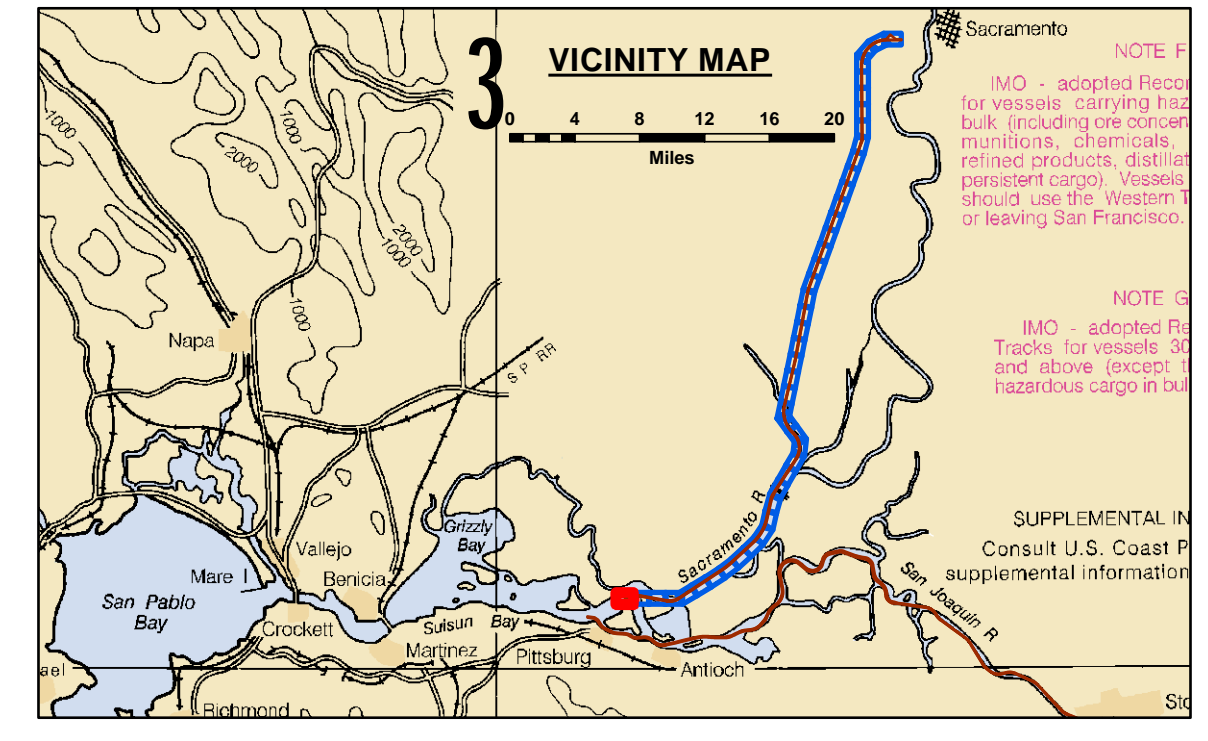


**Sacramento River Deep Water Ship Channel Lighted Buoy 2**



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.  
 Project Information:  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement  
 CONTROLS:  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014  
 LOCATION: PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014  
 All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

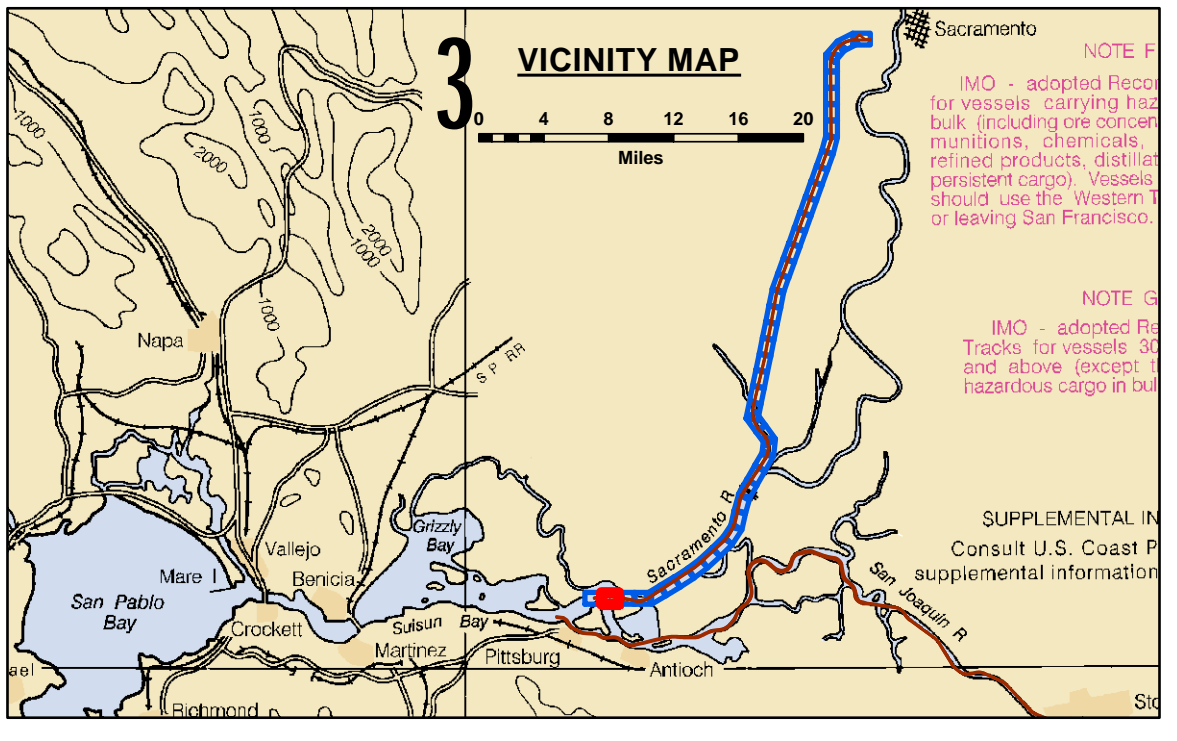
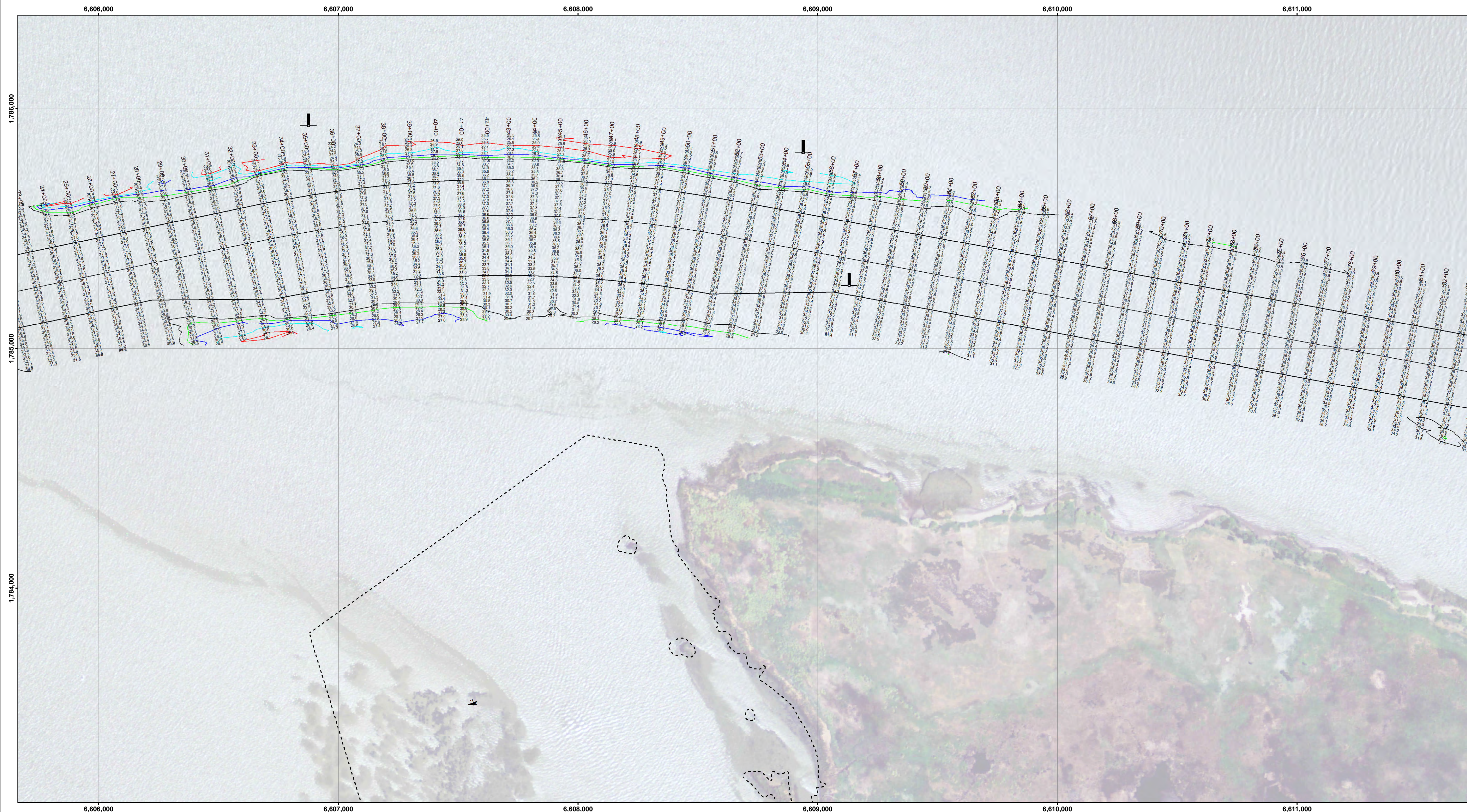


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Surveyed By:	
Plotted By:	PDT
Prepared Under the Direction of:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Supervised:	Hydro Survey Team Leader
Recommended:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number  
**1 of 45**



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⋯ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

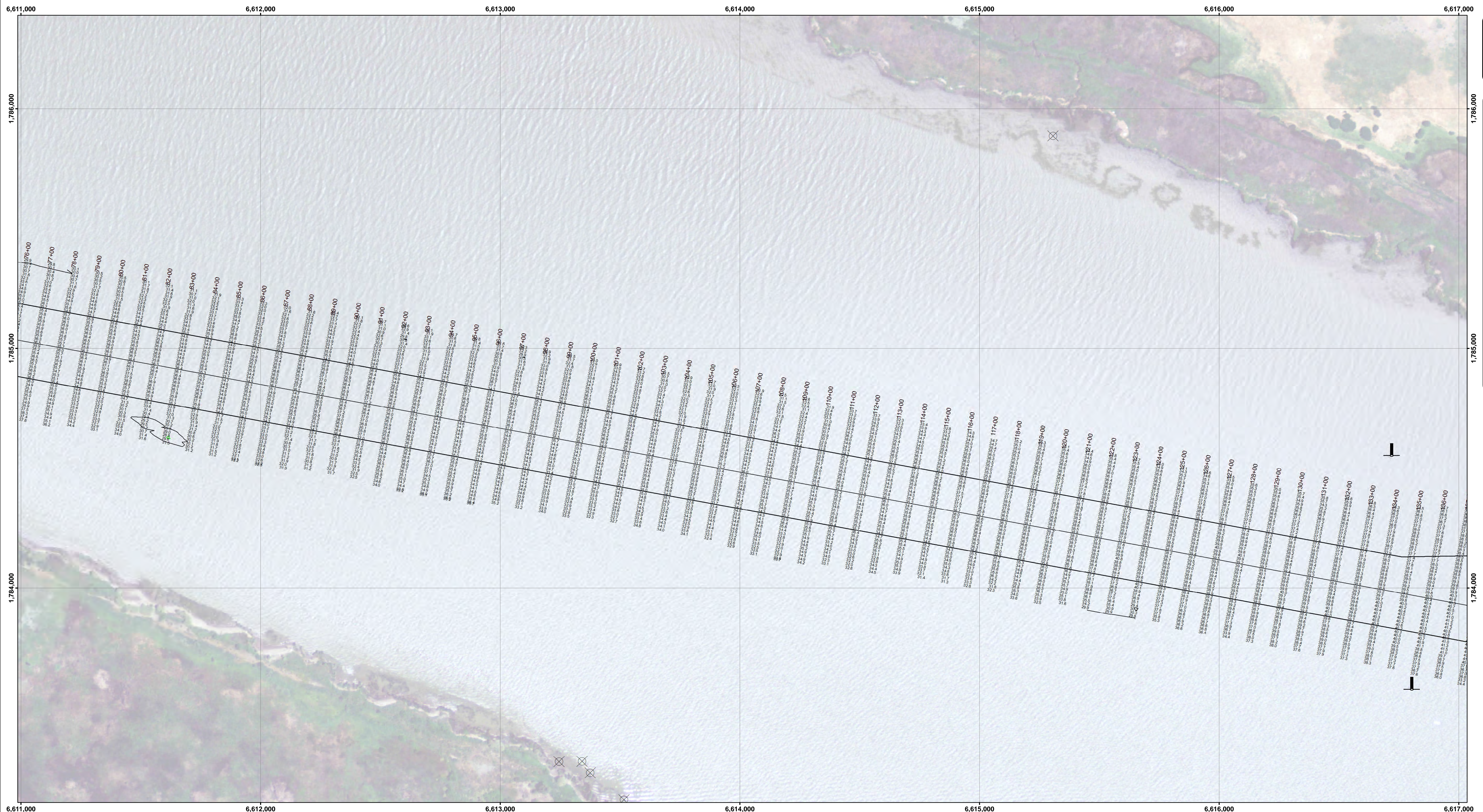


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Prepared Under the Direction of:	JOHN C. MORROW
LT Colonel, C.E. District Engineer	
Surgeon:	Hydro Survey Team Leader
Recommended:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch
Surveyed By:	
Plotted By:	PDT
Checked By:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 2 of 45



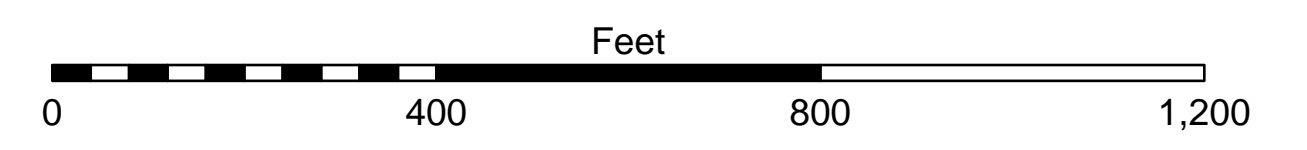
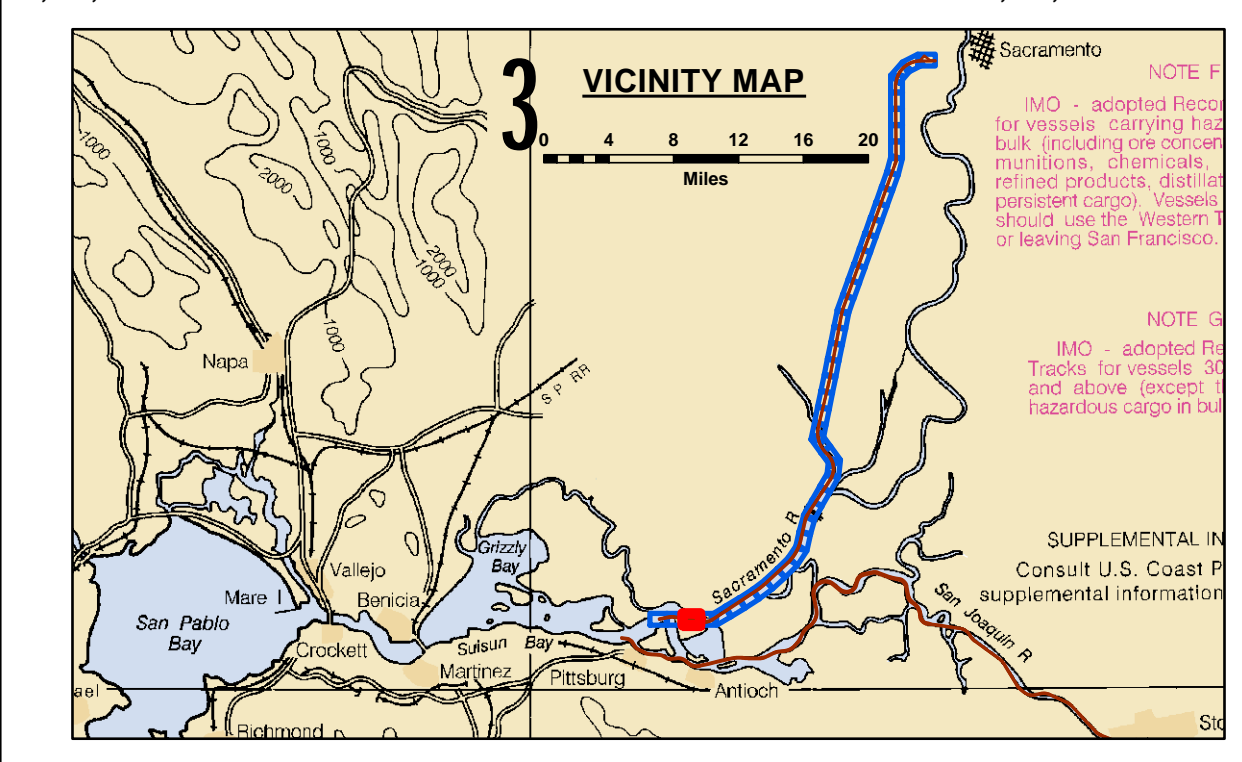
**DISCLAIMER**  
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**Access Constraints:** The United States Government furnishes these data and the U.S. Coast Guard does not assume any liability for the accuracy, completeness, or implied consequences of the data. The user is responsible for the results of any application of the data for other than its intended purpose.

Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Designed by:	
Checked By:	PDT
Drawn by:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number  
**3 of 45**



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.

Vertical Datum:  
 Soundings are shown in feet and indicate depths below MLLW Datum.

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The location of navigation aids are based on and provided by the U.S. Coast Guard.

2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

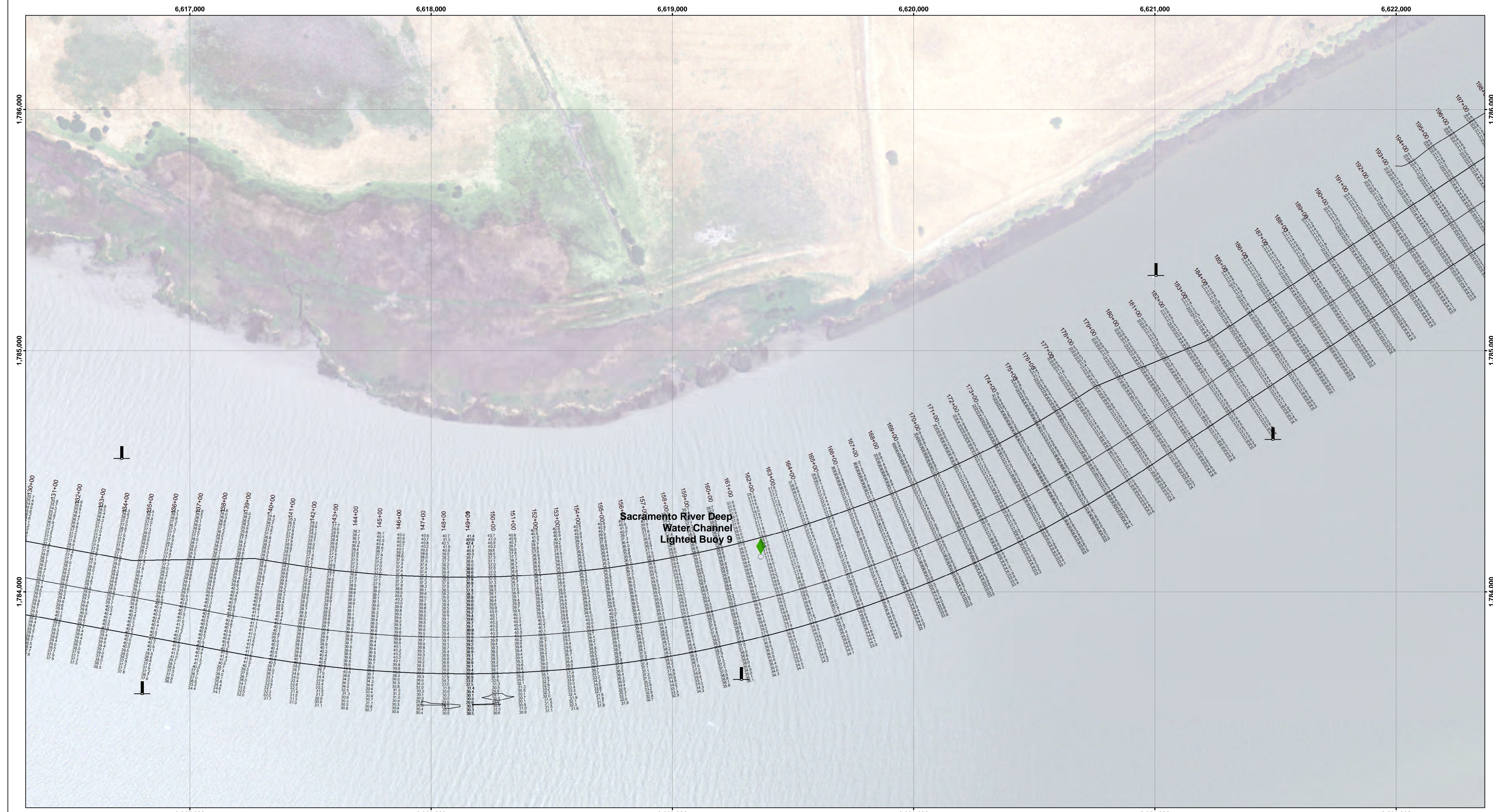
Reference is N.O.A. Navigation Chart No. 18521.

Project Information:  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

CONTROLS:  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

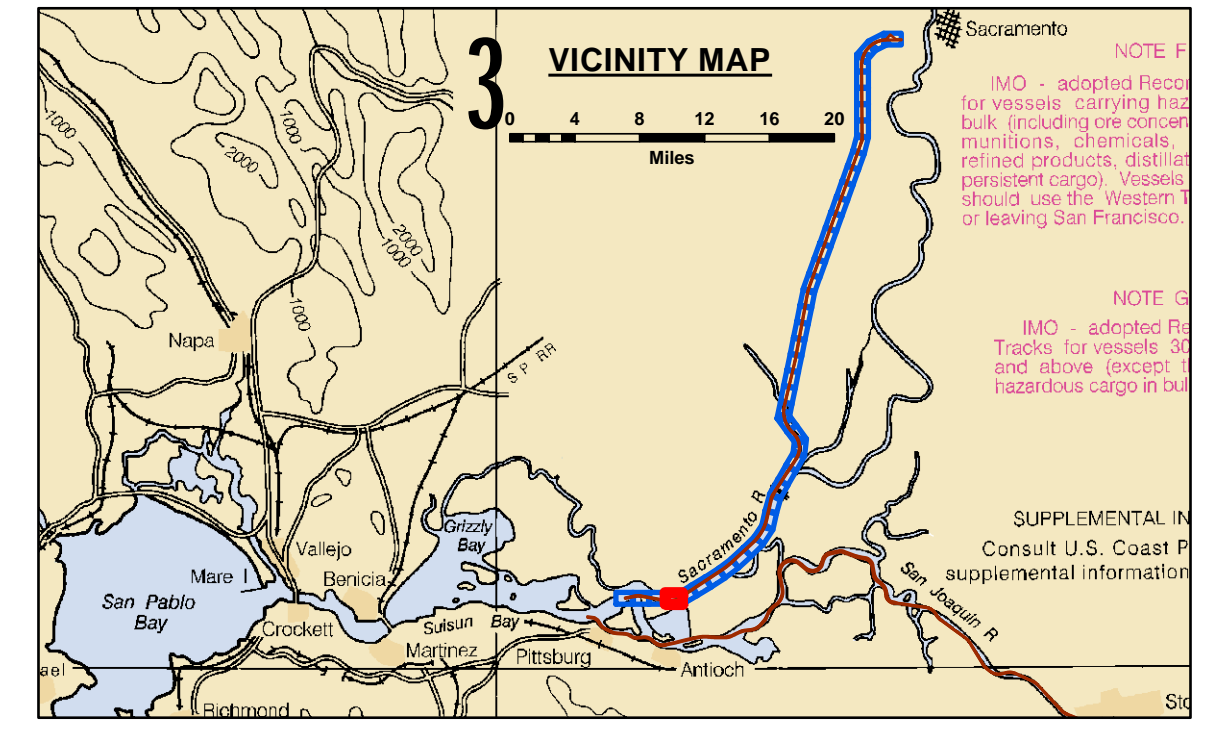
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Drawn By:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015



Feet  
0 400 800 1,200

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

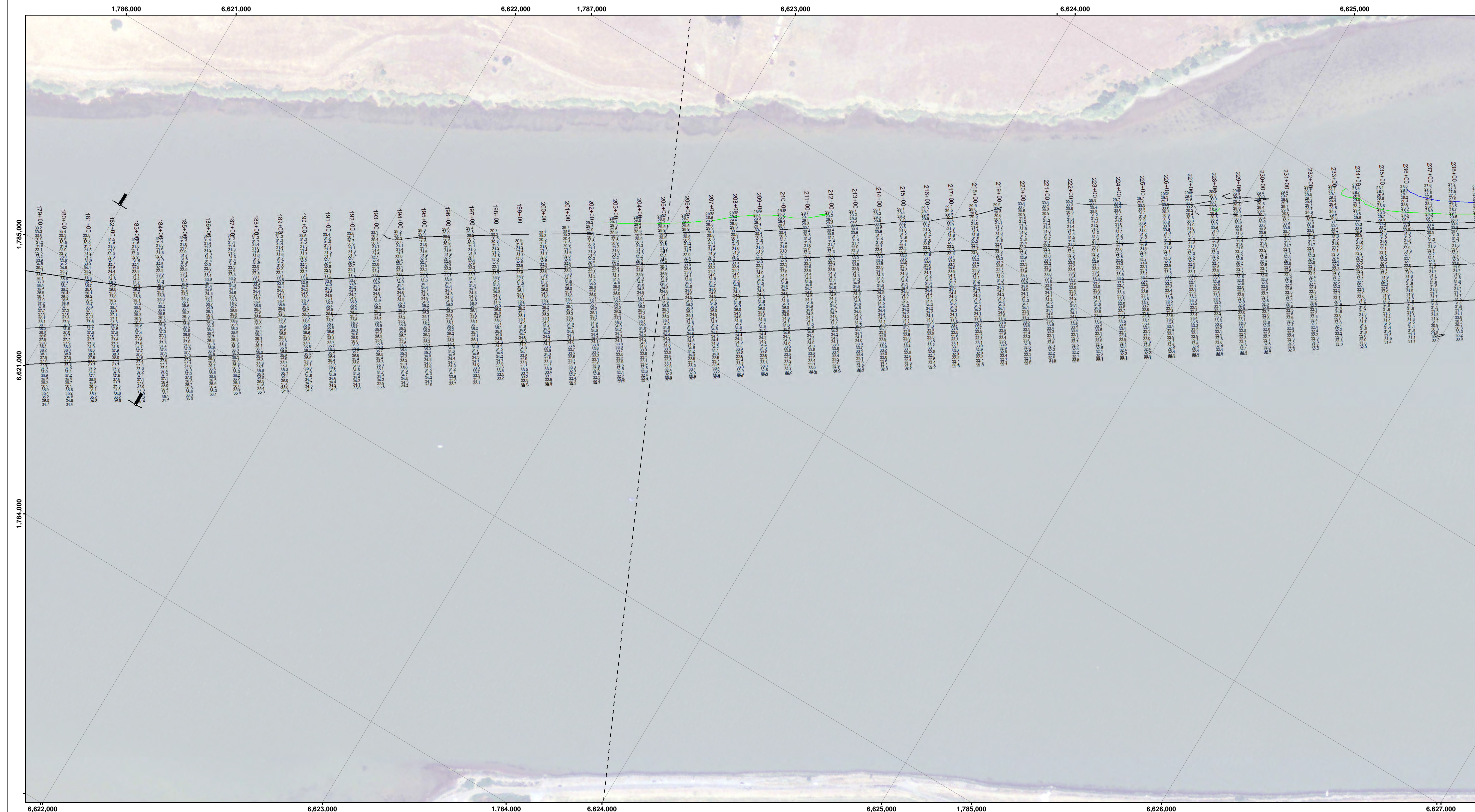
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

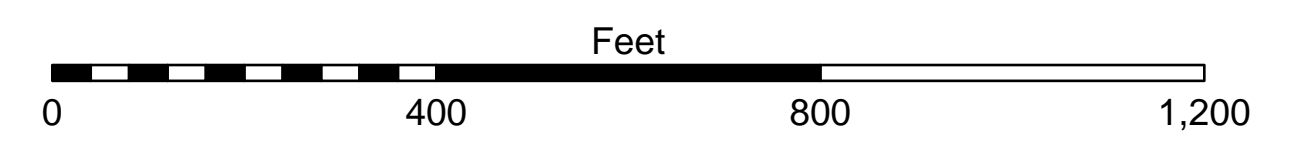
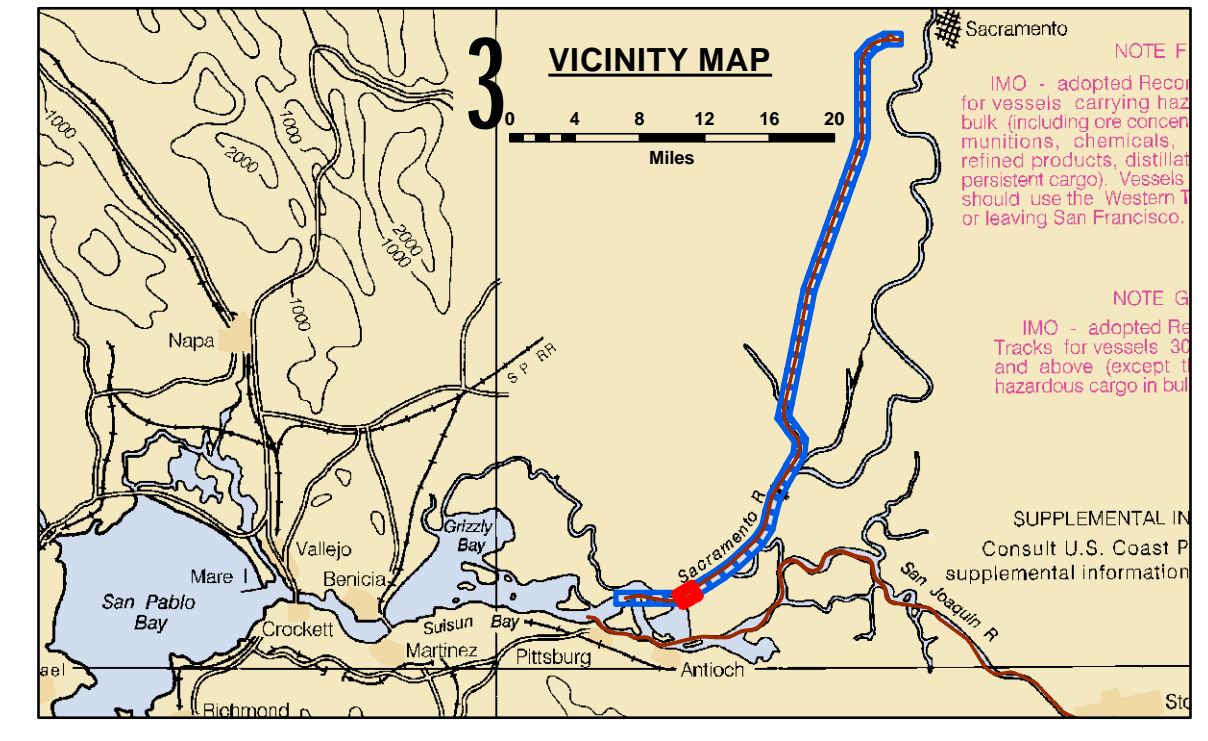


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

Sheet  
Reference  
Number  
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LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
⋯ Cable Submarine	⊠ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.  
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The location of navigation aids are based on and provided by the U.S. Coast Guard.  
2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

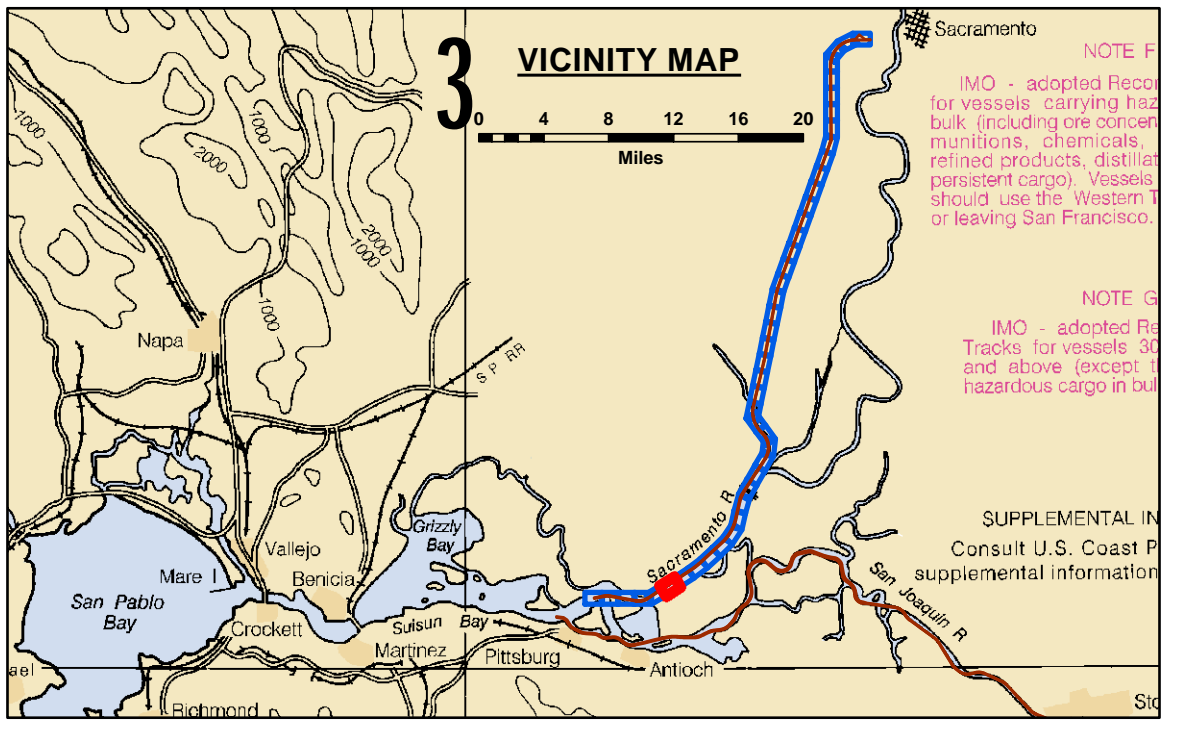
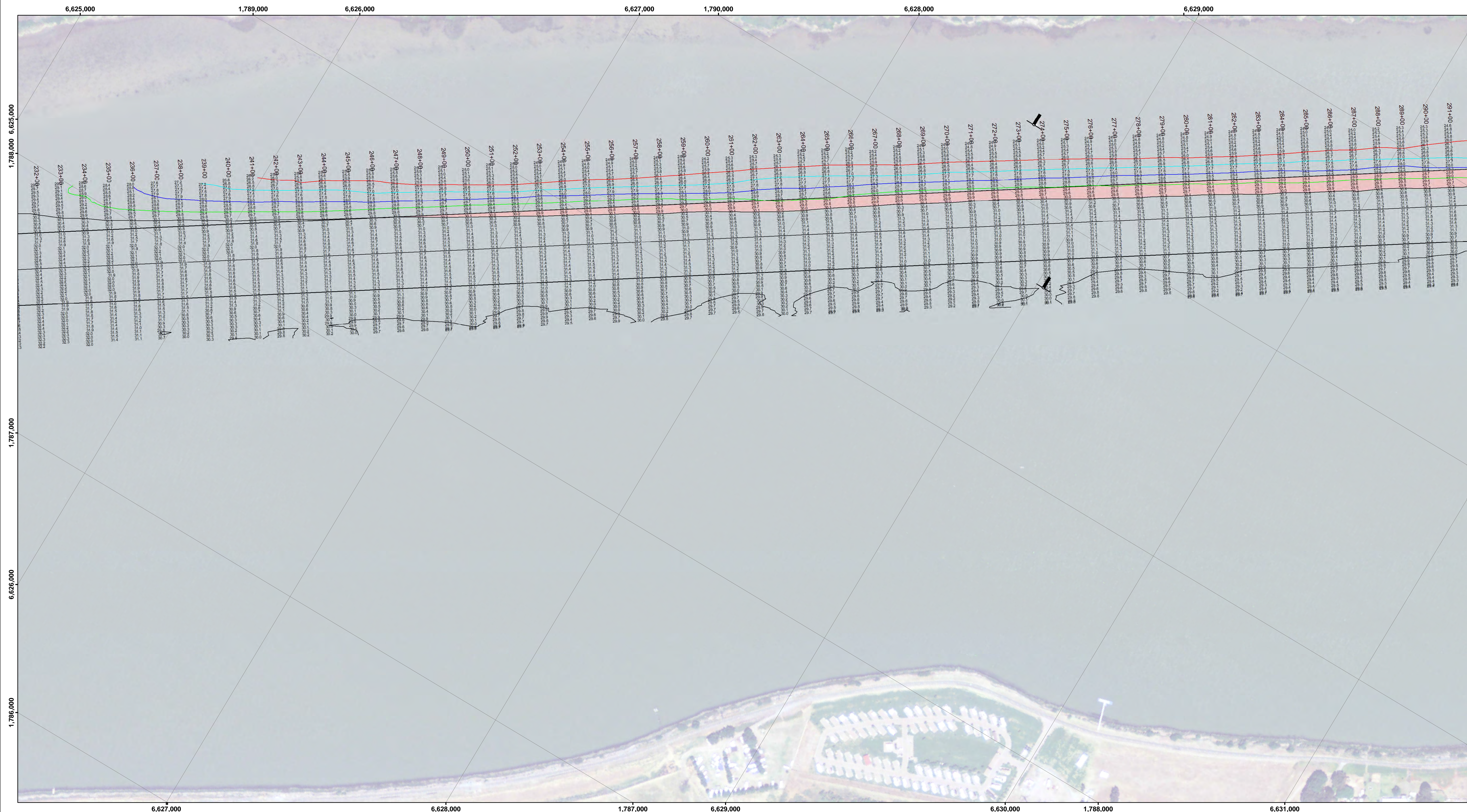


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Table with project metadata including Chart Date (Sep 04, 2015), Surveyed By (JOHN C. MORROW), Plotted By (PDT), and Drawn By (PDT).

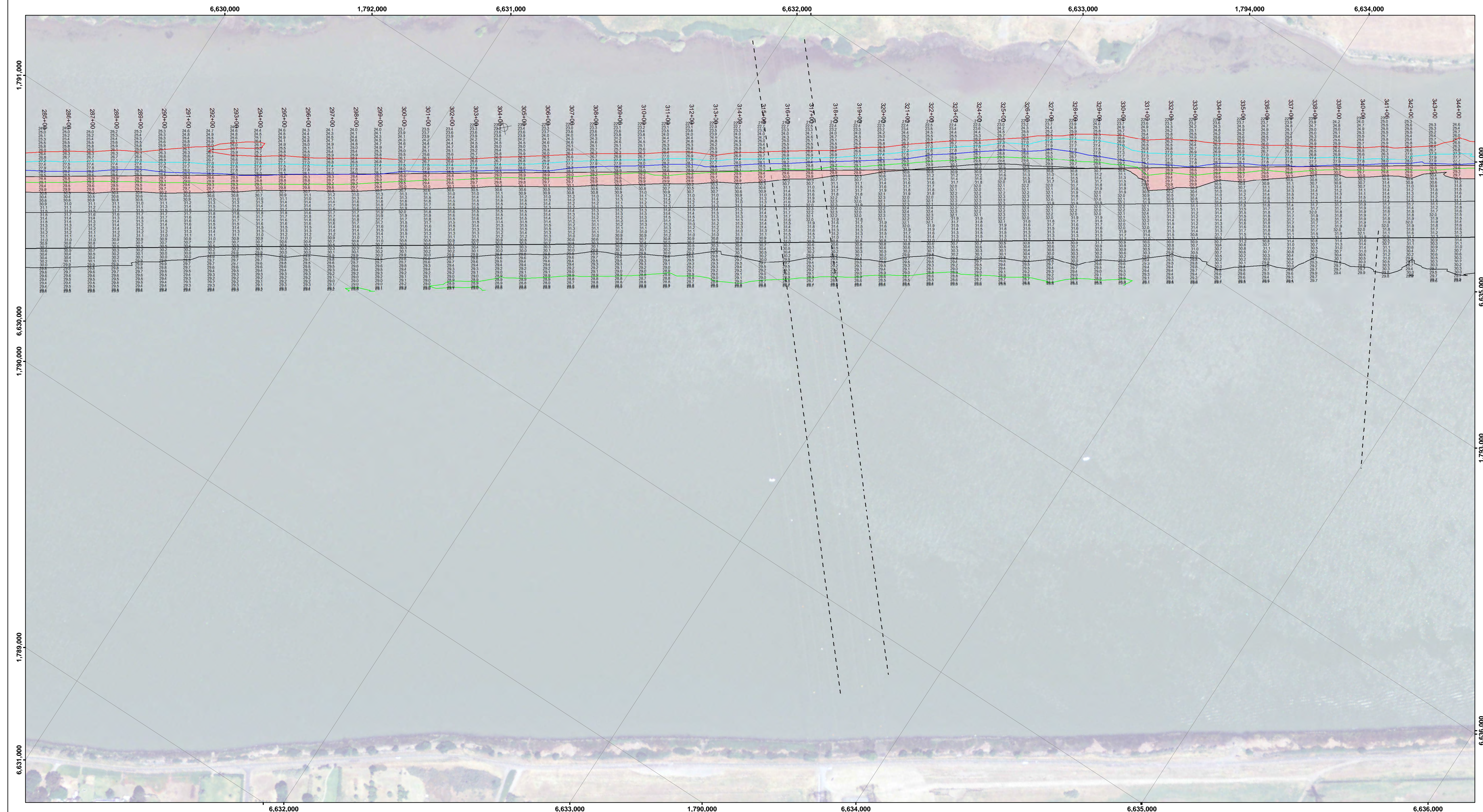
SAN JOAQUIN COUNTY CALIFORNIA SACRAMENTO RIVER CONDITION SURVEY 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number 6 of 45



LEGEND table defining symbols for Federal Navigation Channel, Cable Area, Shoaling Area, Shoalest Sounding, Beacon, Red Navigation Buoy, Green Navigation Buoy, Cable Submarine, Anchorage Area, Obstruction Point, Wrecks-Submerged, Cable Overhead, and Contour Line.

NOTES: Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum. Project Information: Drawing not to be used for navigation. CONTROLS: LOCATION: RIO VISTA, NOAA STATION: 9415316, BENCHMARK: 5316 B 1996 (No PID), TIDE GAUGE: Nail @ 8.2 ft MLLW, METADATA: Nail set by USACE 31 March, 2014.

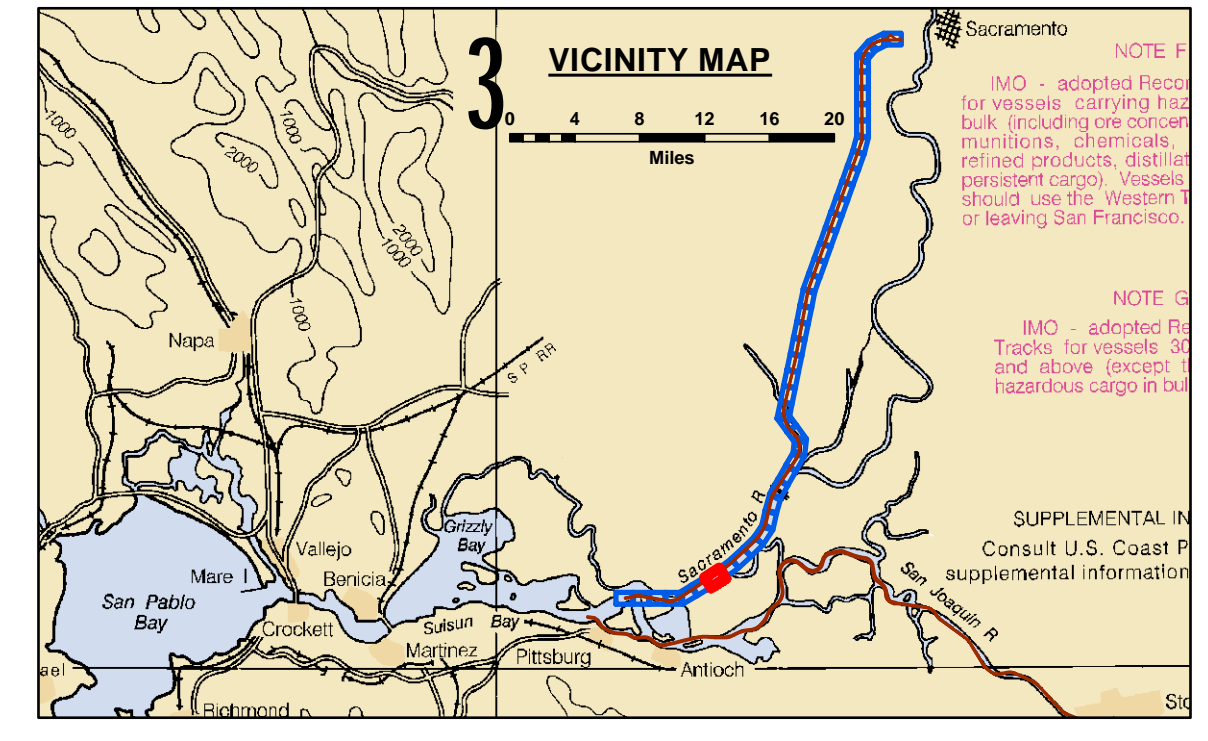


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Hydro Survey Section
Checked:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 7 of 45



Feet  
 0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

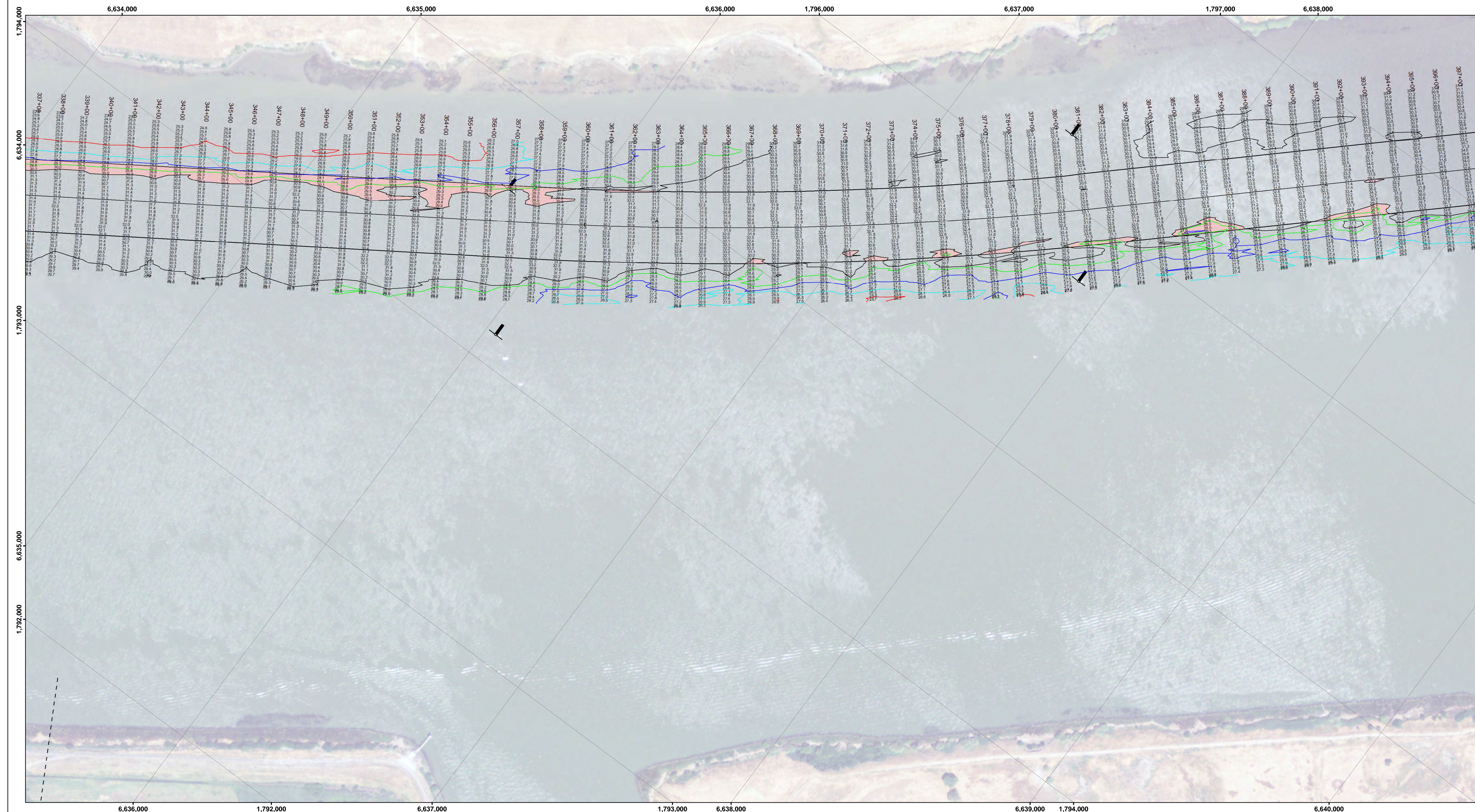
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

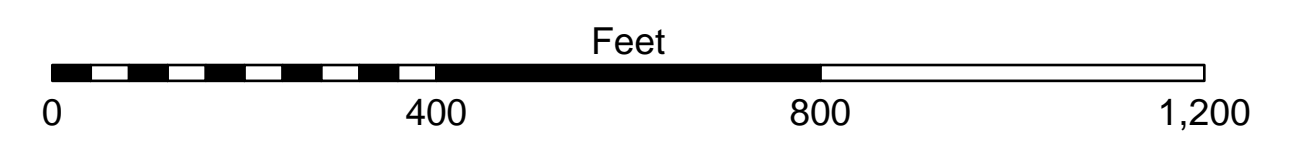
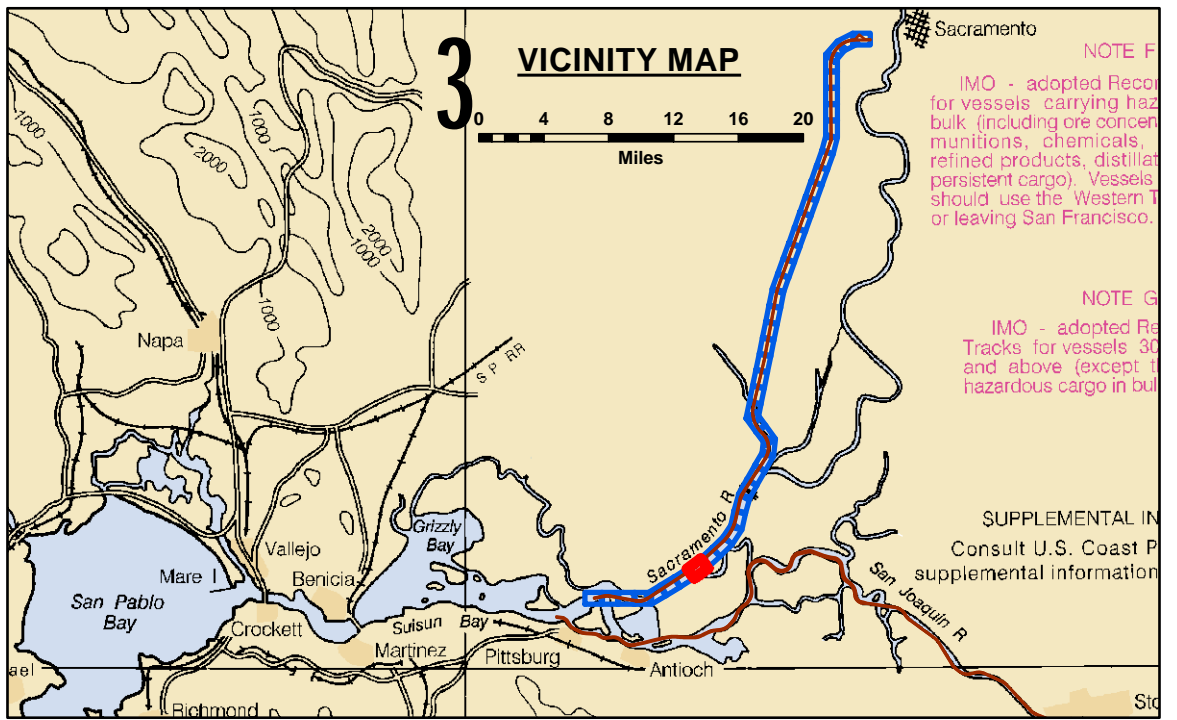


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Prepared Under the Direction of <b>JOHN C. MORROW</b> LT. COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Sep 04, 2015
Surveyed By: PDT	Designed by: PDT
Plotted By: PDT	Checked by: PDT
Recommended: Chief, Hydro Survey Section	Drawn by: PDT
Approved: Chief, Construction Branch	

**CALIFORNIA**  
**SAN JOAQUIN COUNTY**  
**SACRAMENTO RIVER**  
**CONDITION SURVEY**  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
**8 of 45**



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	▭ Shoaling Area
— Federal Navigation Center Line	▭ Placement Area	⤵ Shoalest Sounding**
⋯ Cable Submarine	▭ Anchorage Area	⬇ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum:  
 Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

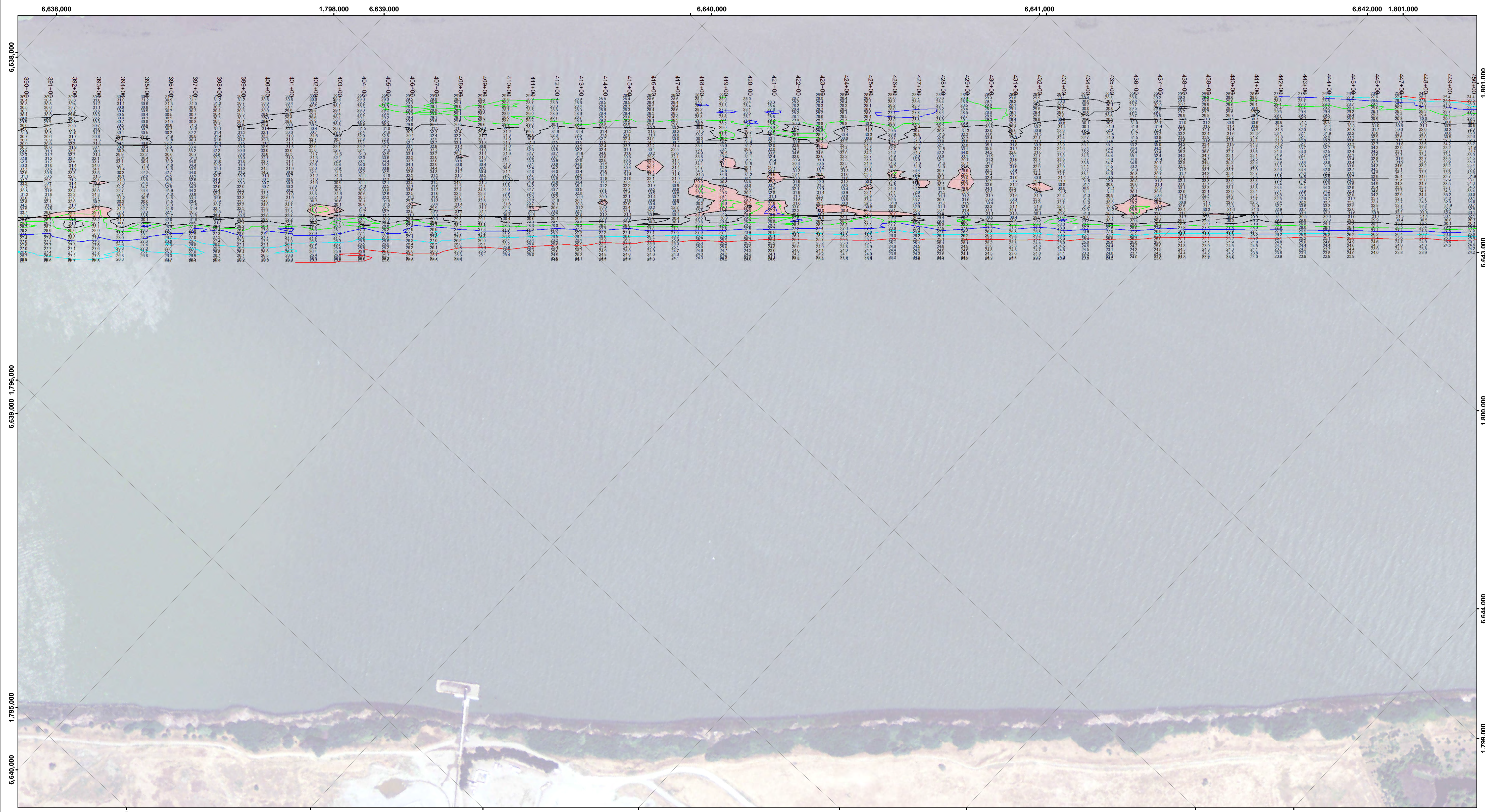
**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



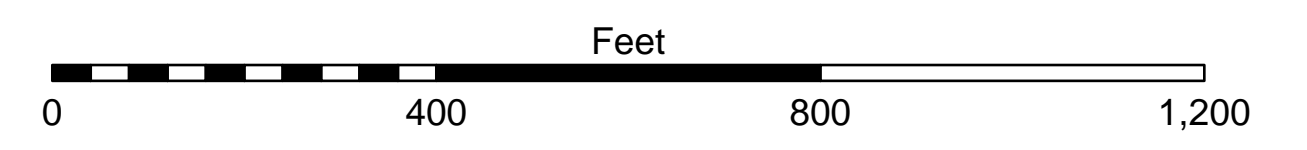
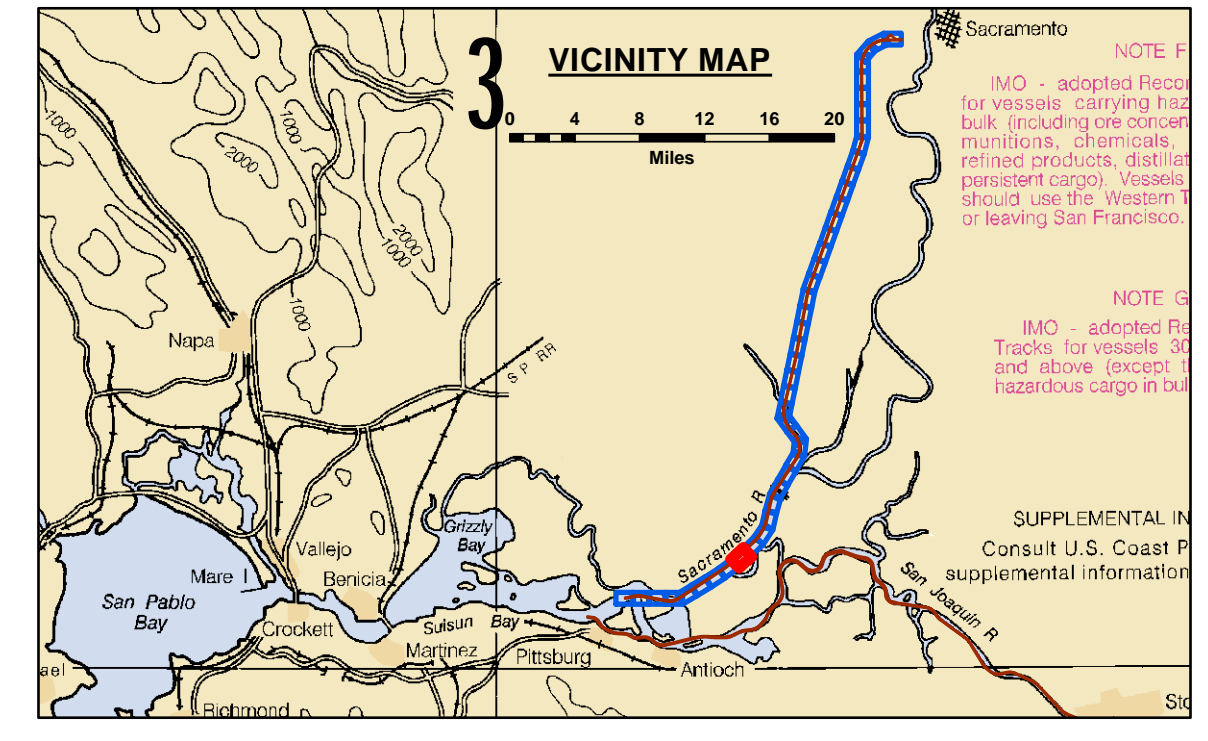


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E. DISTRICT ENGINEER
Plotted By:	PDT
Checked By:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number  
**9 of 45**



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

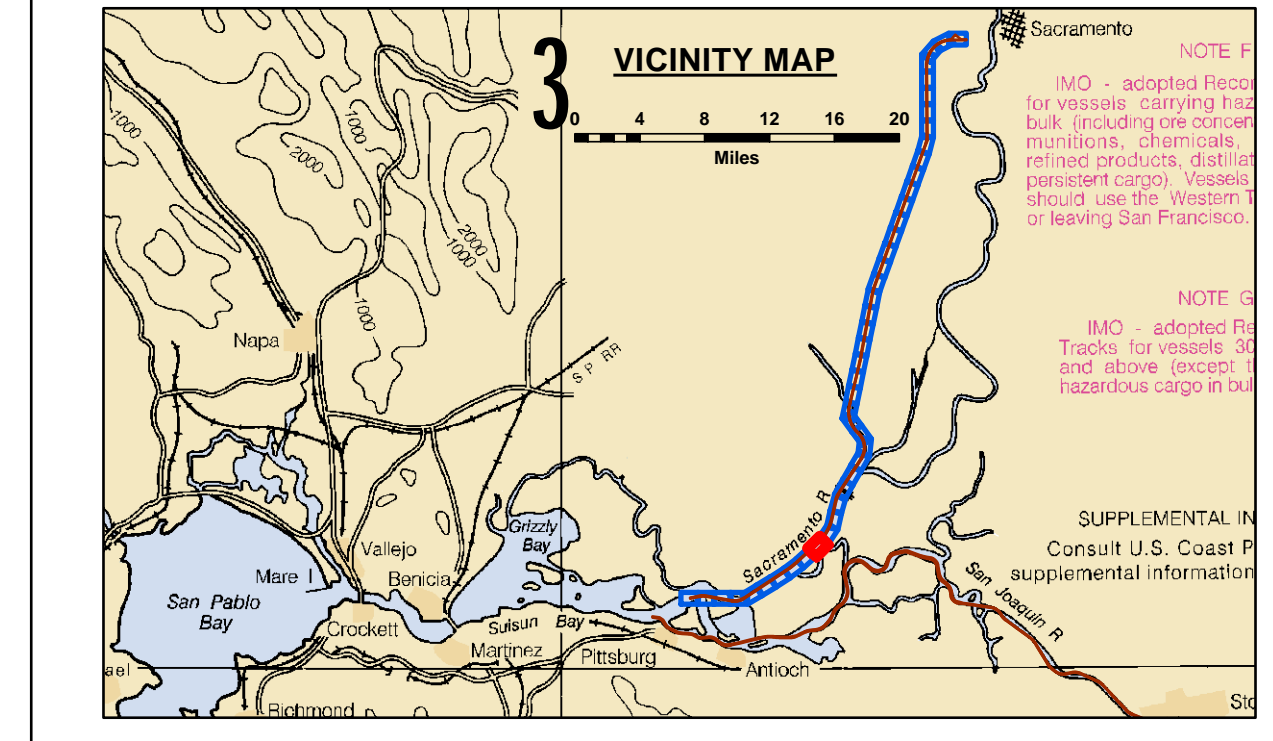
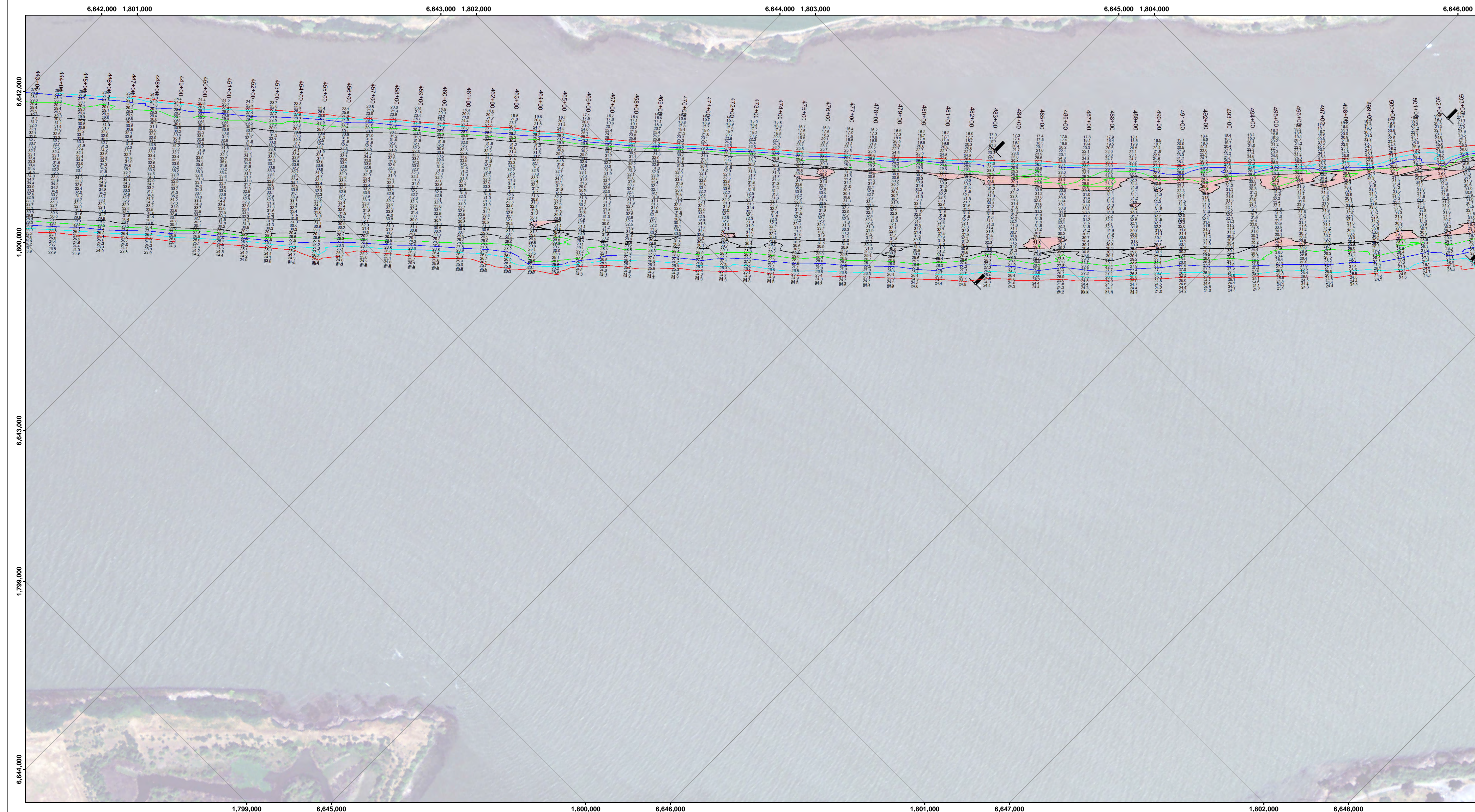
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



Feet  
0 400 800 1,200

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⬇ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POW51 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

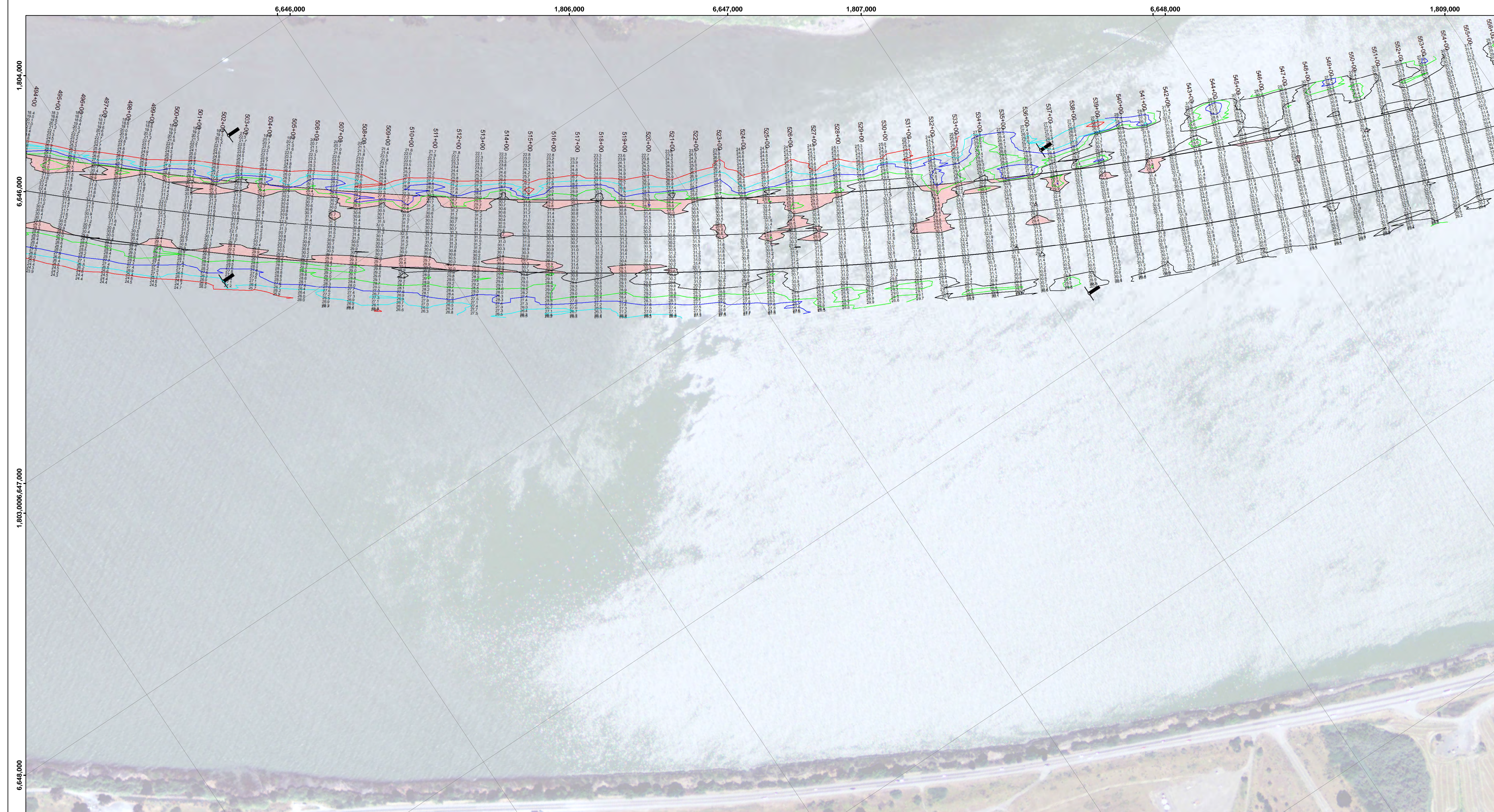


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

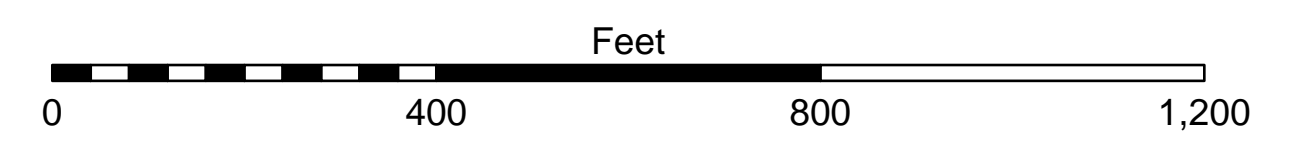
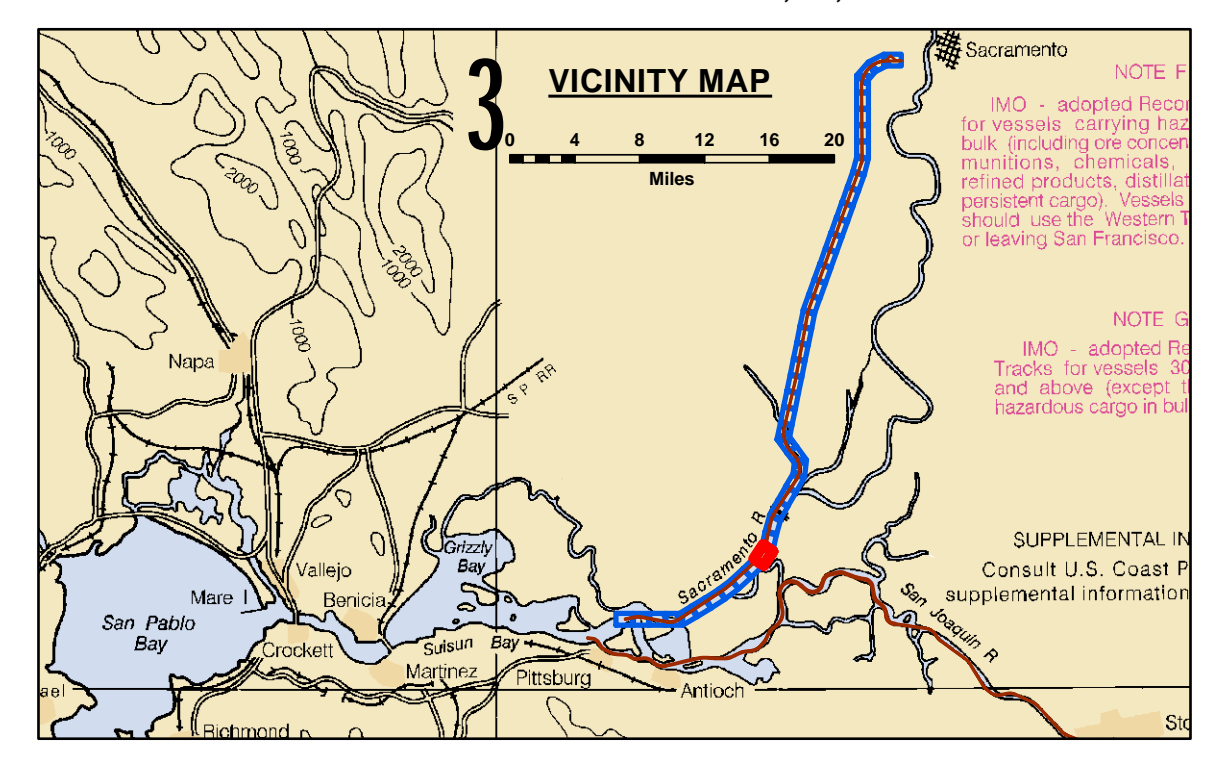
Prepared Under the Direction of  
**JOHN C. MORROW**  
 LT Colonel, C.E. District Engineer  
 Suggested: Hydro Survey Team Leader  
 Recommended: Chief, Hydro Survey Section  
 Approved: Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015



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Prepared Under the Direction of <b>JOHN C. MORROW</b> LT Colonel, C.E. District Engineer	Chart Date: Sep 04, 2015
Survised By: Hydro Survey Team Leader	Designed By: PDT
Plotted By: PDT	Drawn By: PDT
Checked By: PDT	
Approved: Chief, Construction Branch	



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

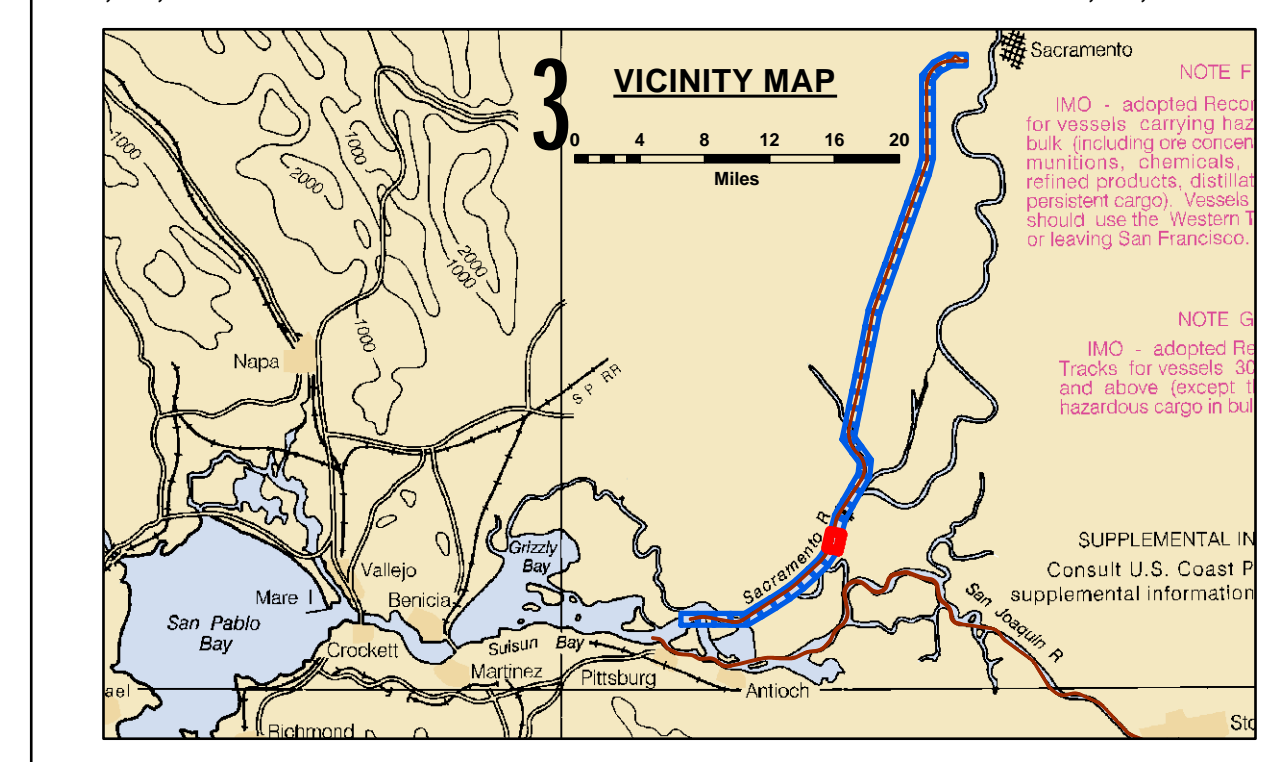
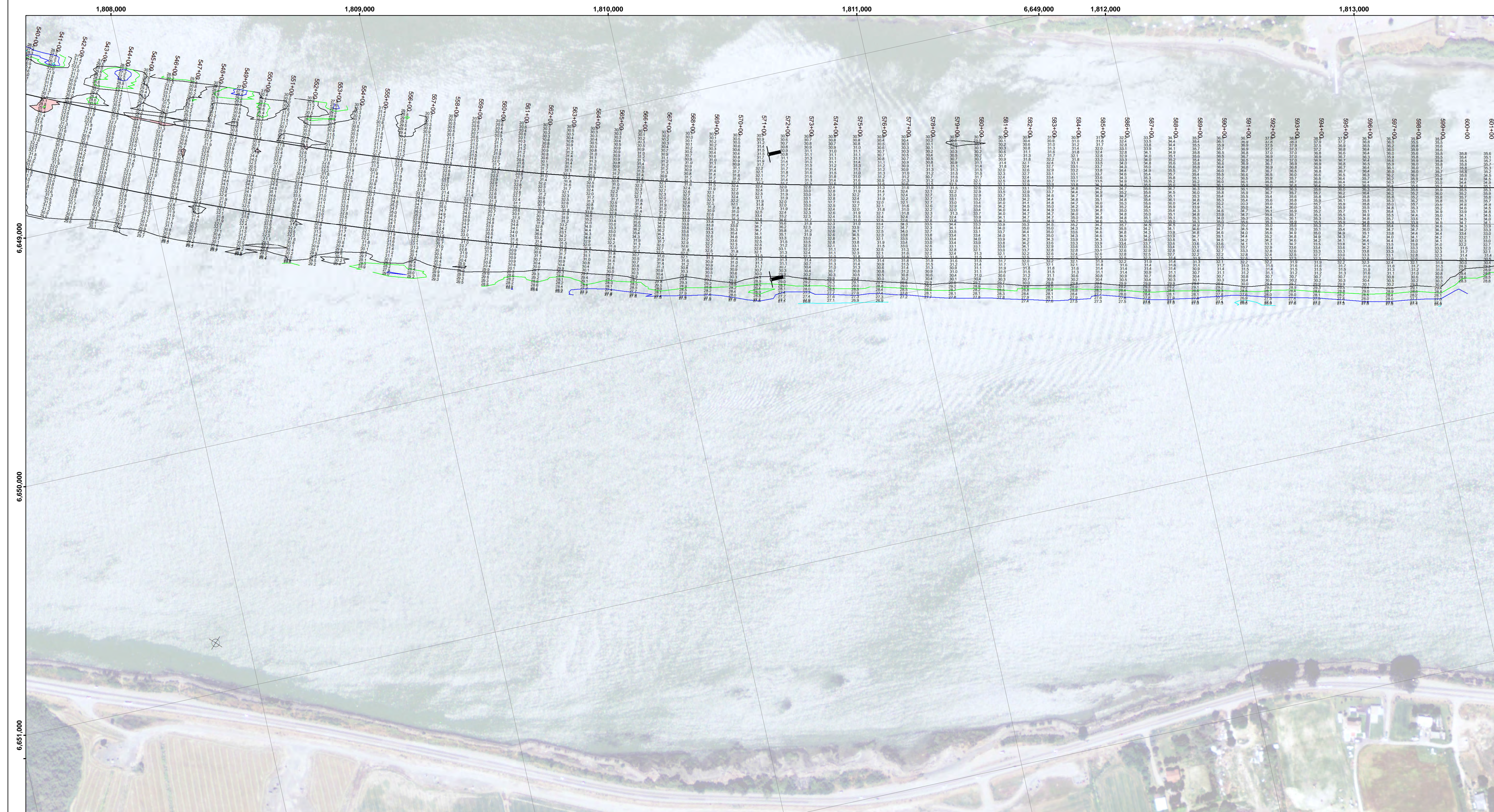
**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 11 of 45



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy



**NOTES:**

Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.

Vertical Datum:  
Soundings are shown in feet and indicate depths below MLLW Datum.

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The location of navigation aids are based on and provided by the U.S. Coast Guard.

2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POW51 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

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**Access Contains:** The United States Government furnishes this data as is and does not warrant its accuracy, completeness, or implied consequences. The user is responsible for the results of any application of the data for other than its intended purpose.

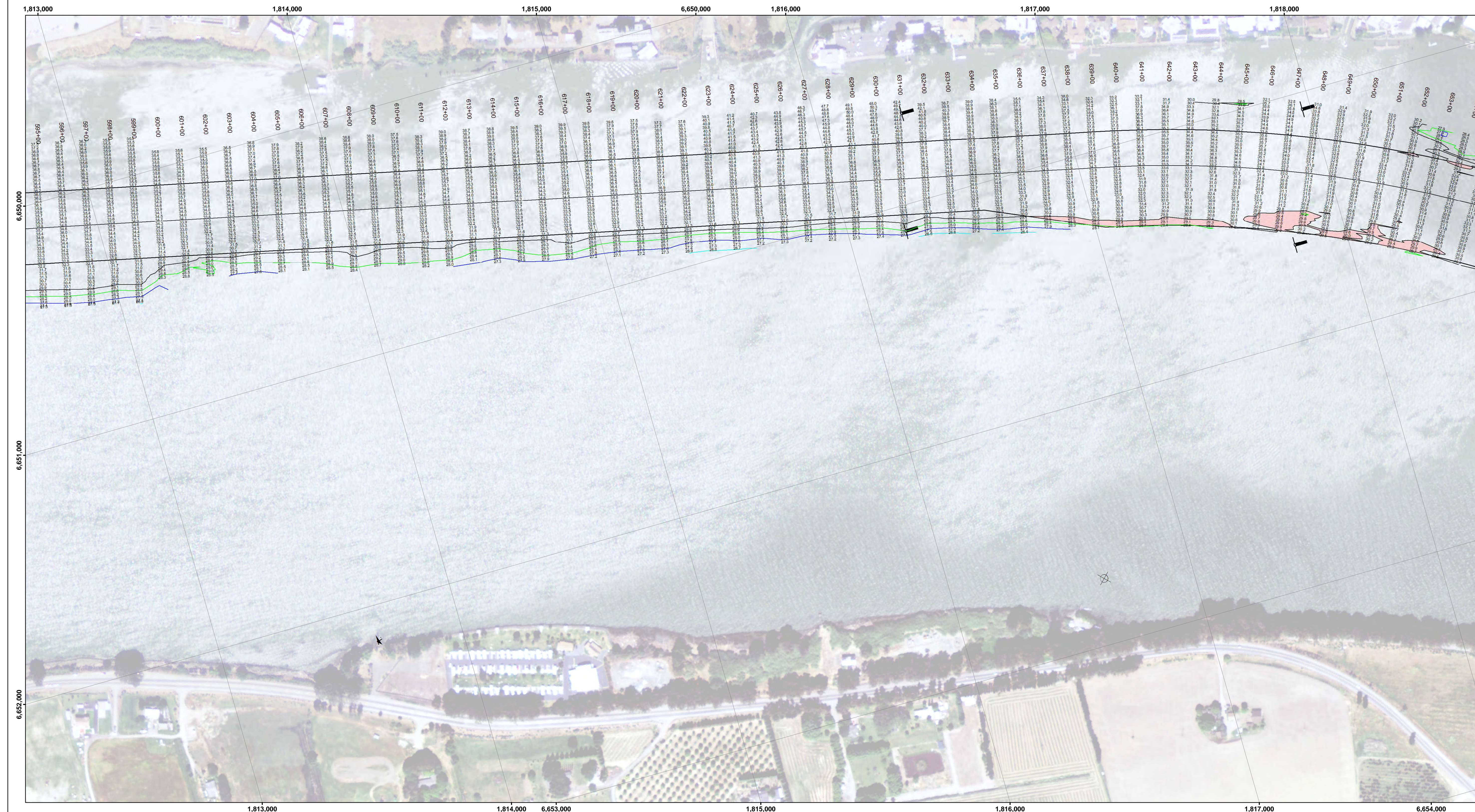
CHART DATE: Sep 04, 2015

Surveyed By:	Plotted By:	Checked By:
JOHN C. MORROW	PDT	PDT
Designed By:	Drawn By:	
	PDT	

CALIFORNIA

SAN JOAQUIN COUNTY

**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015



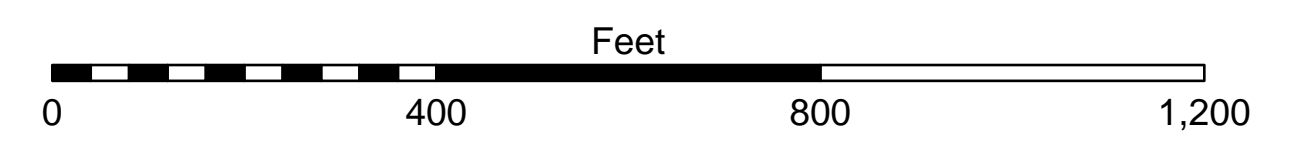
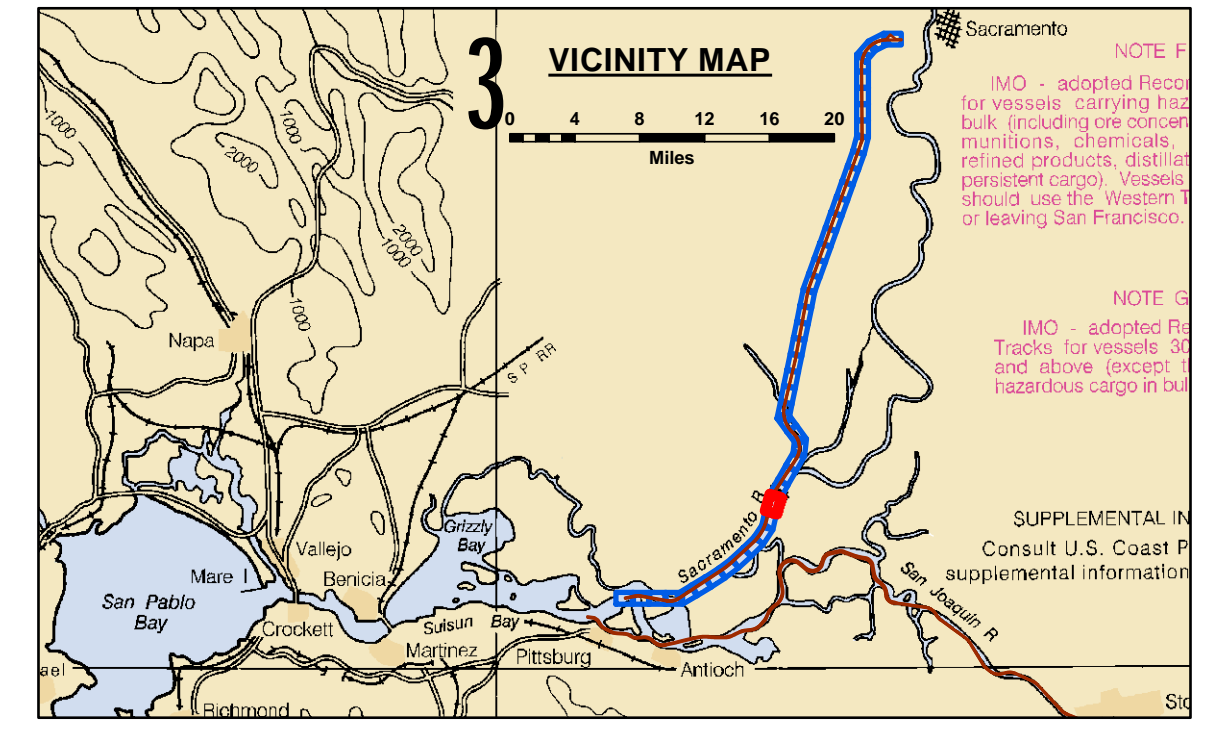
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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 13 of 45



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊕ Green Navigation Buoy

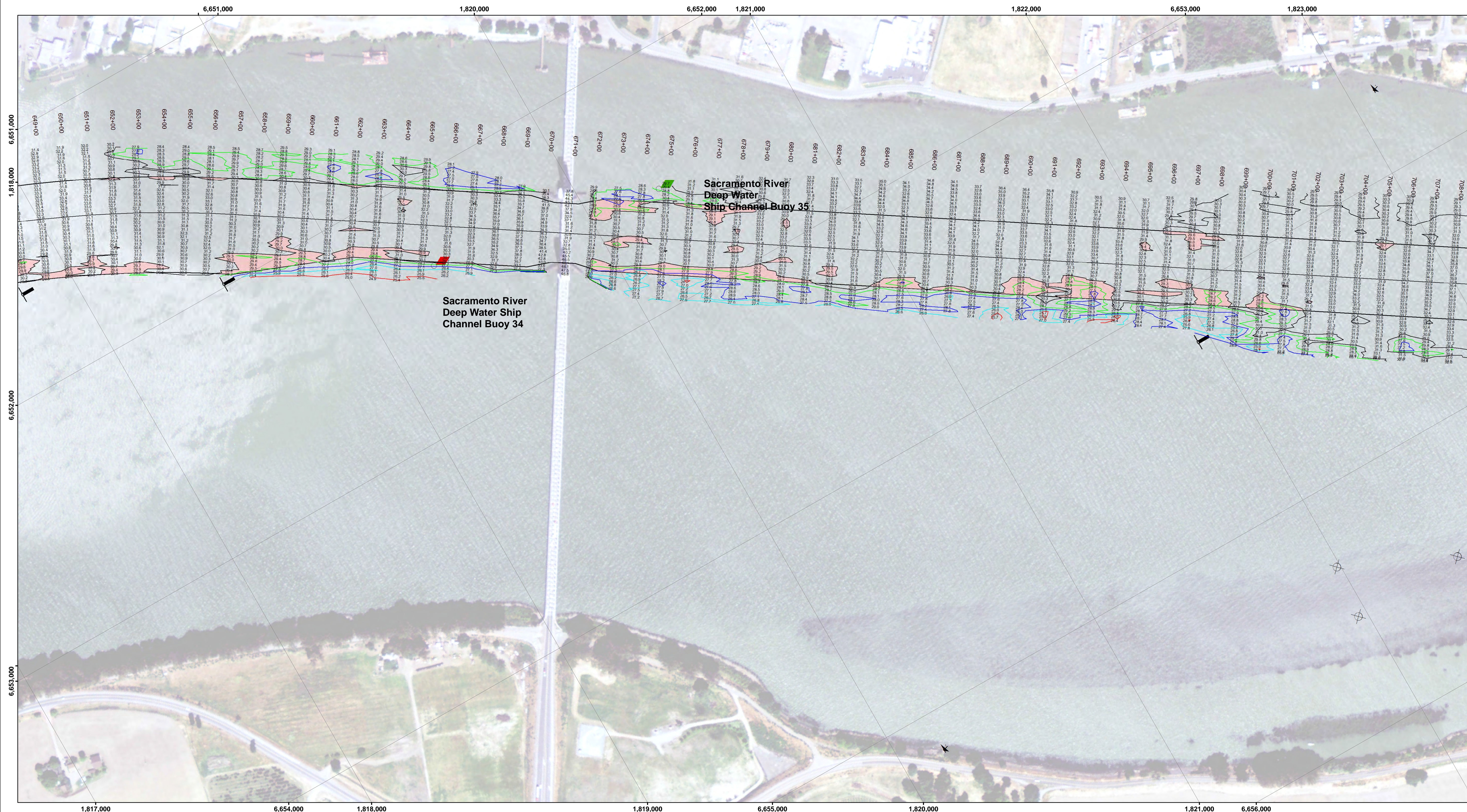
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

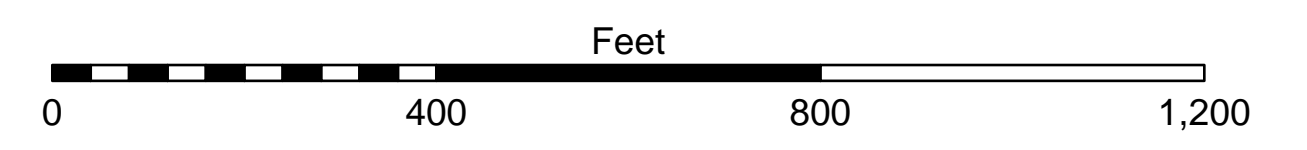
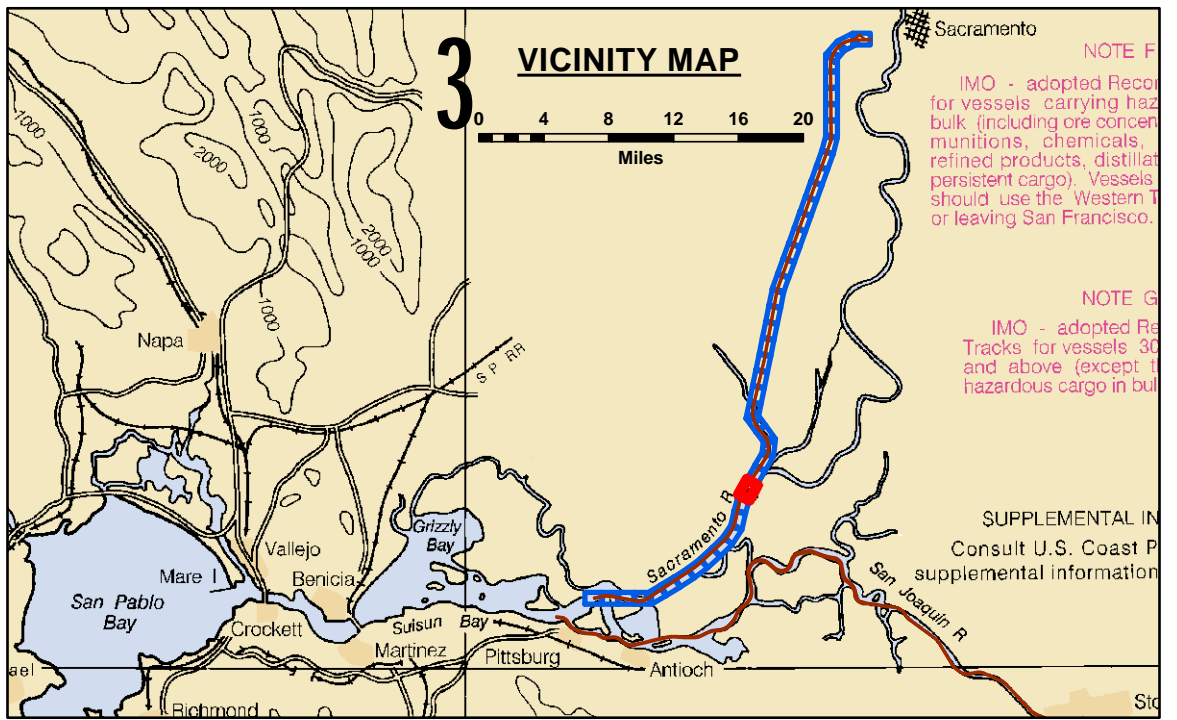
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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Chart Date: Sep 04, 2015  
Designed by: \_\_\_\_\_  
Drawn by: PDT  
Surveyed By: \_\_\_\_\_  
Plotted By: PDT  
Checked By: PDT  
Approved: Chief, Construction Branch

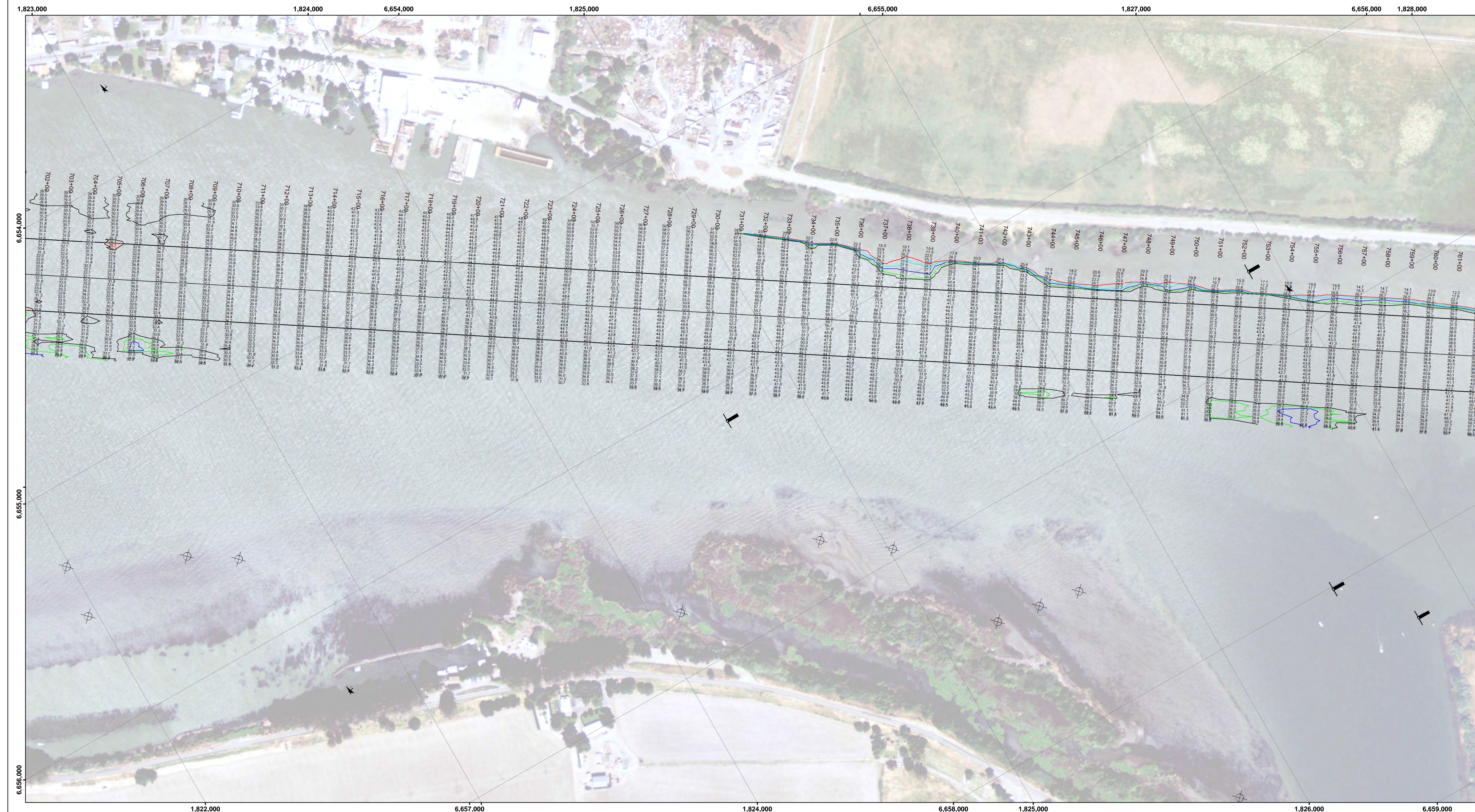
CALIFORNIA  
SAN JOAQUIN COUNTY  
SACRAMENTO RIVER  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.  
Project Information: Drawing not to be used for navigation. Project Depth -30' Tide gauge Equipment statement  
CONTROLS: LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014  
LOCATION: PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POW51 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014  
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

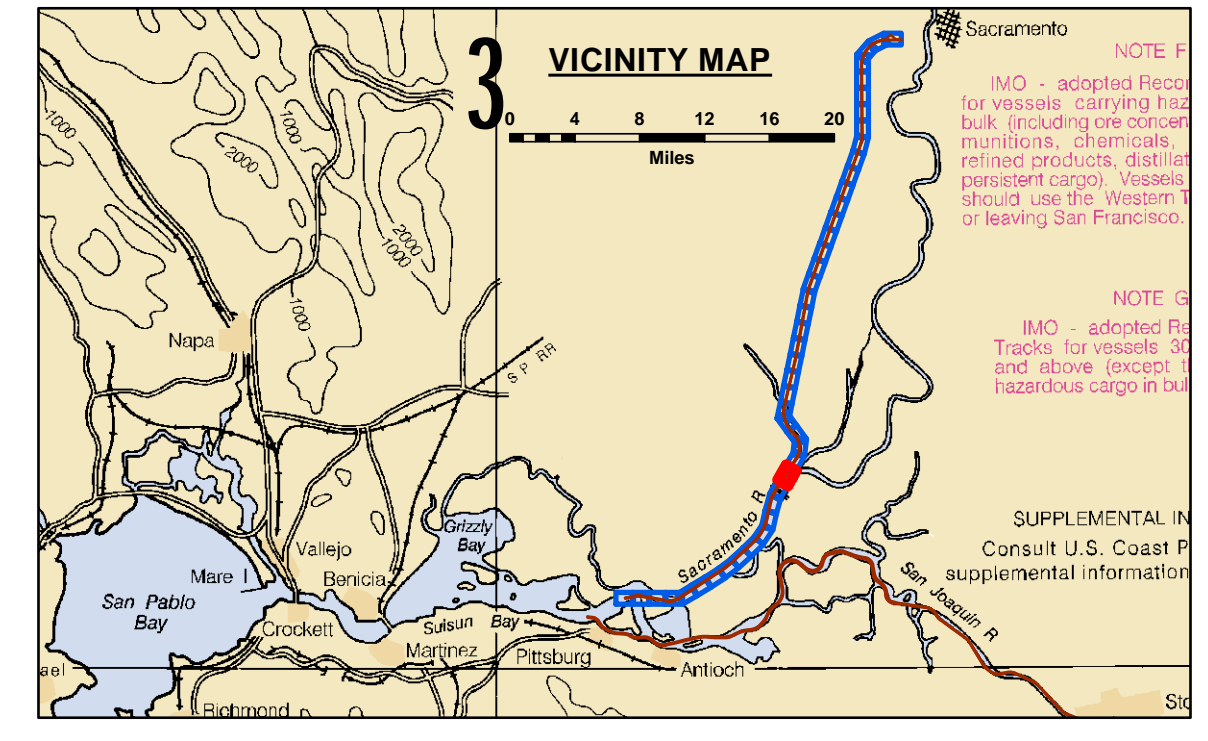


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**Under no liability:** The user is responsible for the results. Accuracy of the data is not guaranteed for any other purpose. The user is responsible for the results. Accuracy of the data is not guaranteed for any other purpose.

Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Drawn By:	PDT



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	▭ Shoaling Area
— Federal Navigation Center Line	▭ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POW51 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

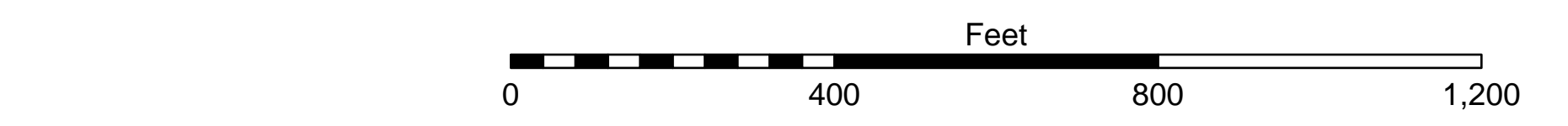
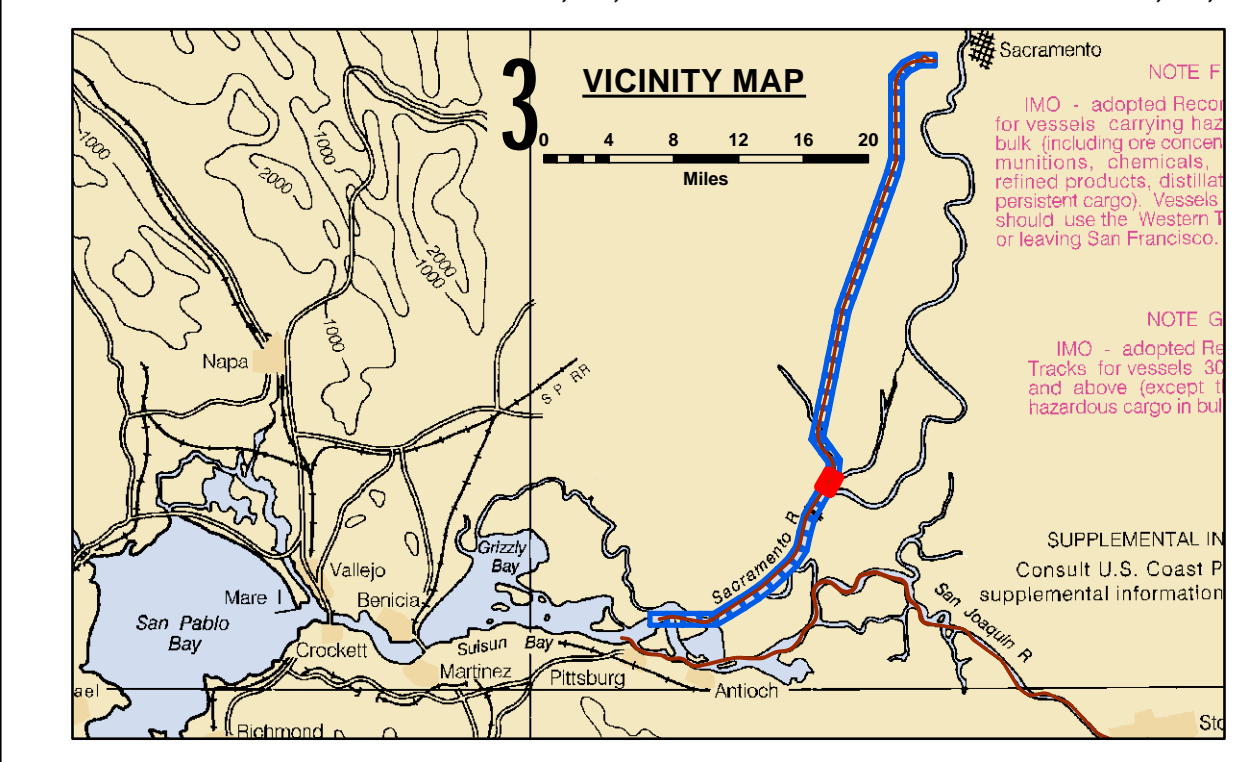
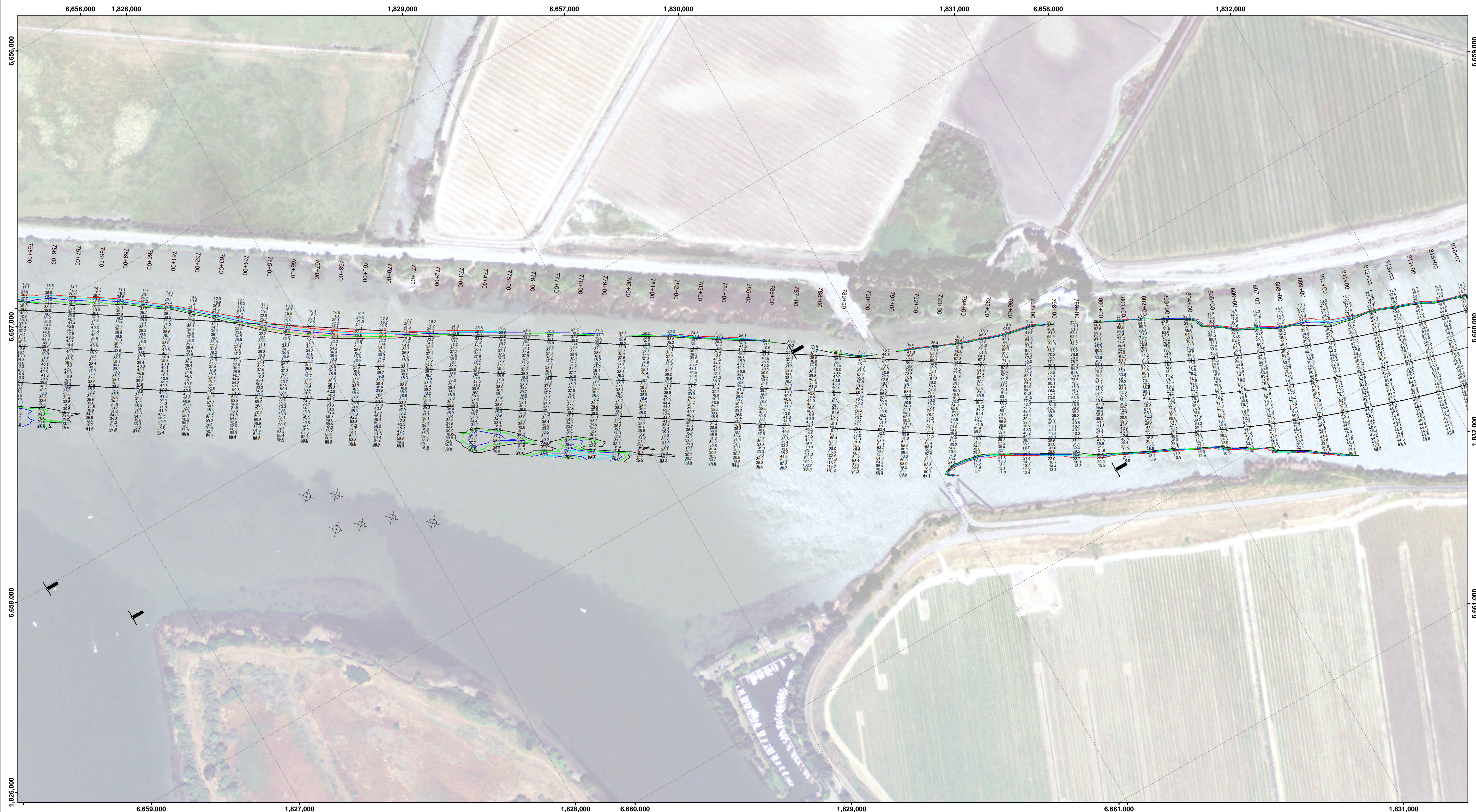
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA

SAN JOAQUIN COUNTY

**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 15 of 45



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (4042). Distance units in U.S. Survey Feet.  
 Vertical Datum:  
 Soundings are shown in feet and indicate depths below MLLW Datum.  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



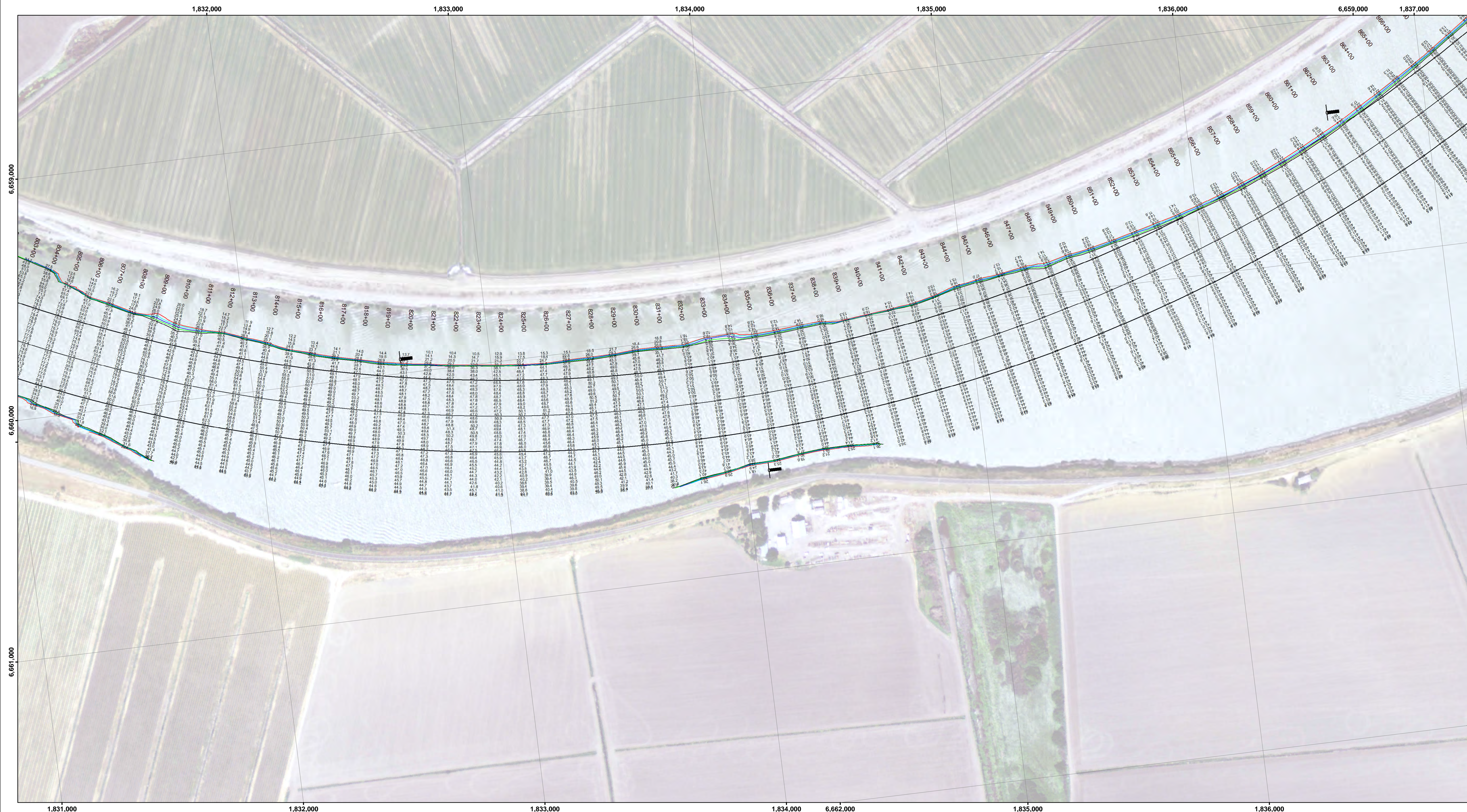
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Prepared Under the Direction of <b>JOHN C. MORROW</b> LT Colonel, C.E. District Engineer	Chart Date: Sep 04, 2015
Surveyed By: Hydro Survey Team Leader	Designed by: PDT
Plotted By: Chief, Hydro Survey Section	Checked By: PDT
Approved: Chief, Construction Branch	Drawn by: PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

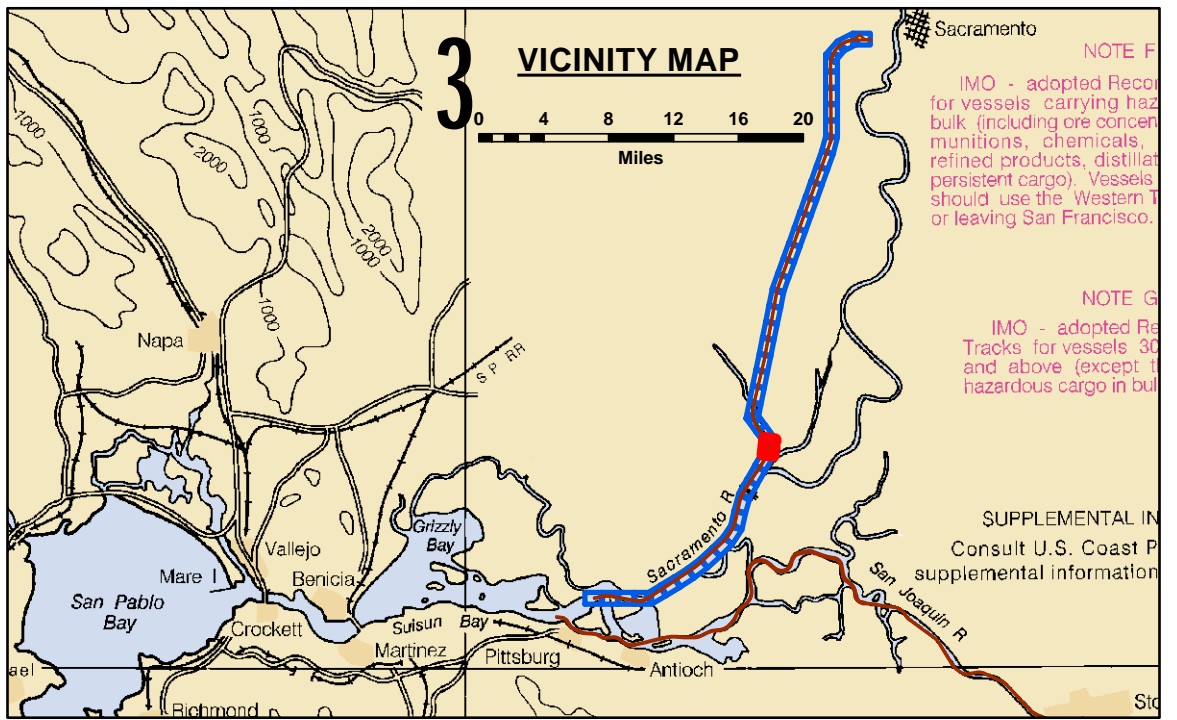




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Chart Date:	Sept 04, 2015
Prepared Under the Direction of:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Surveyed By:	Hydro Survey Team Leader
Plotted By:	PDT
Checked By:	PDT
Designed By:	PDT
Drawn By:	PDT

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	○ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

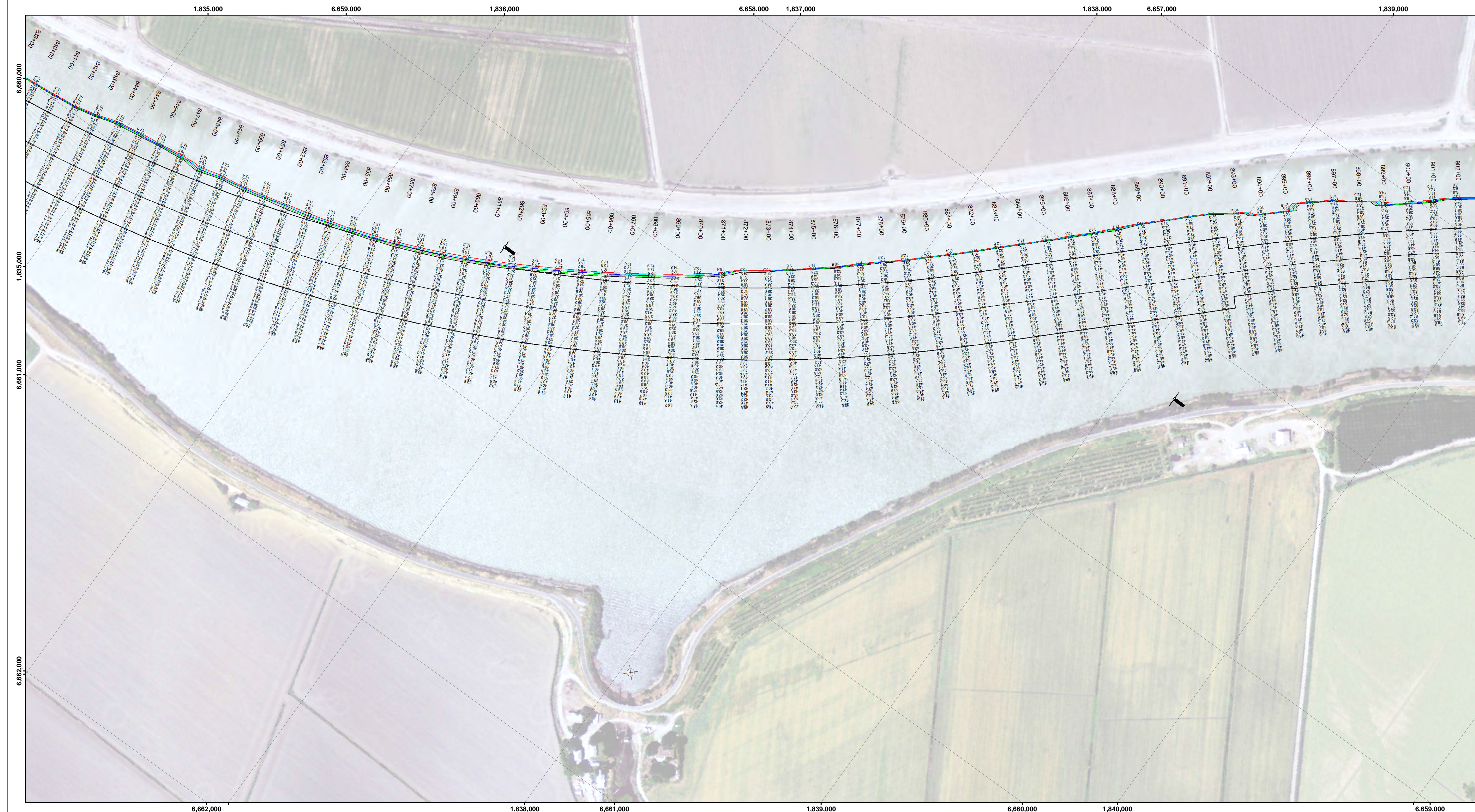
**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

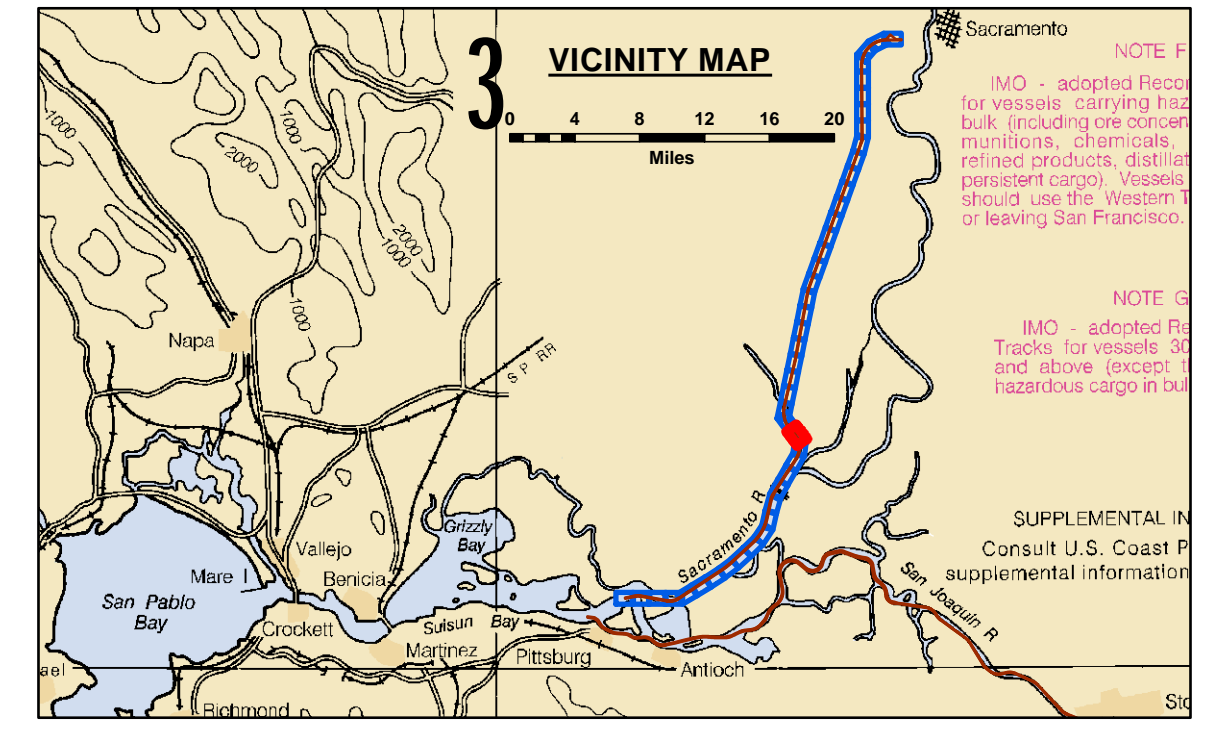


**DISCLAIMER:** The United States Government furnishes this data as is and the user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	PDT
Plotted By:	PDT
Checked By:	PDT

**CALIFORNIA**  
**SAN JOAQUIN COUNTY**  
**SACRAMENTO RIVER**  
**CONDITION SURVEY**  
**7-9, 13-16 AND 30 APRIL 2015**

**Sheet Reference Number**  
**18 of 45**



Feet  
0 400 800 1,200

LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

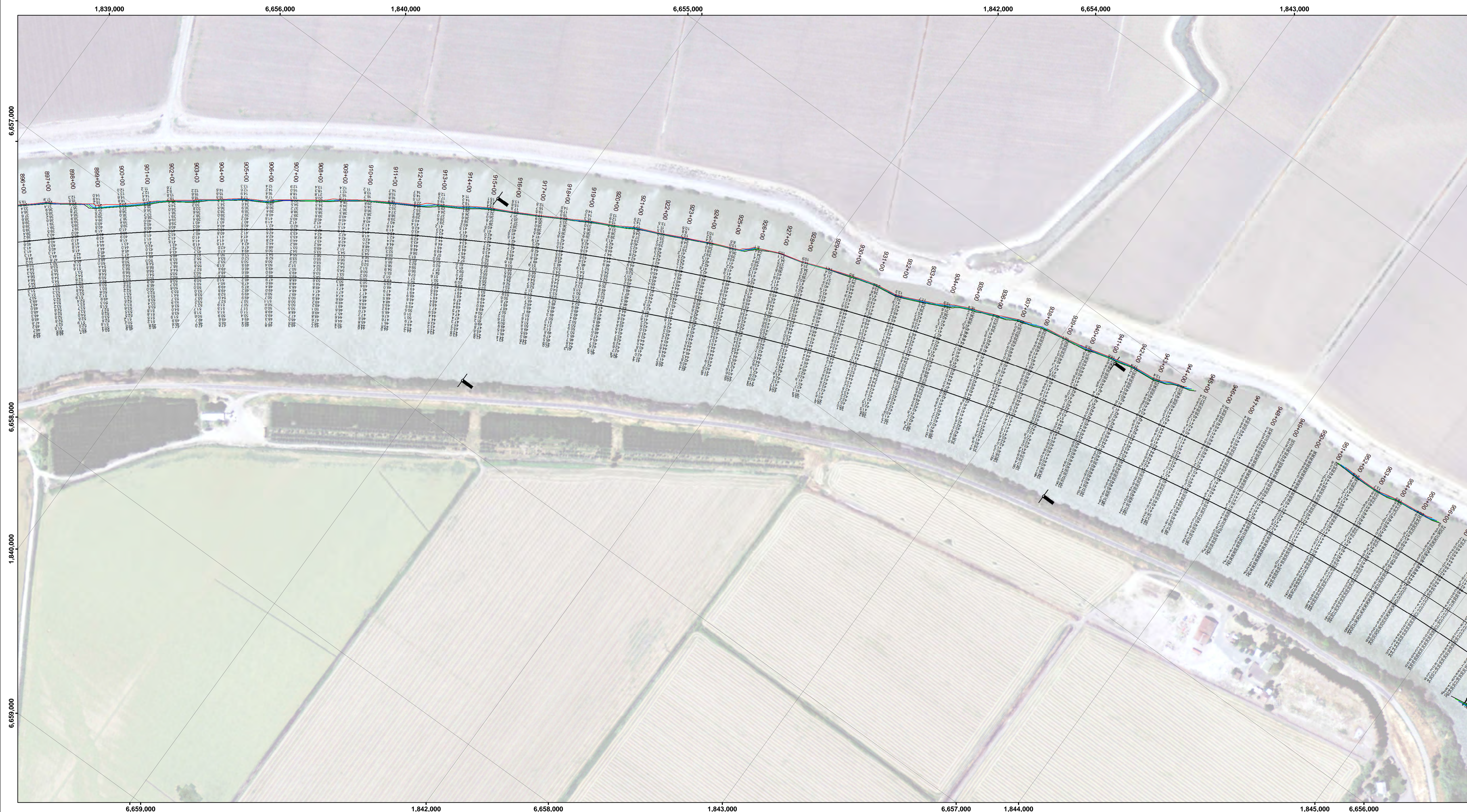
**NOTES:**  
Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum:  
Soundings are shown in feet and indicate depths below MLLW Datum.  
The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
The location of navigation aids are based on and provided by the U.S. Coast Guard.  
2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

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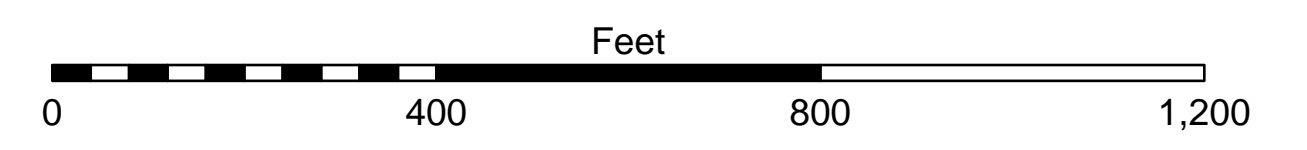
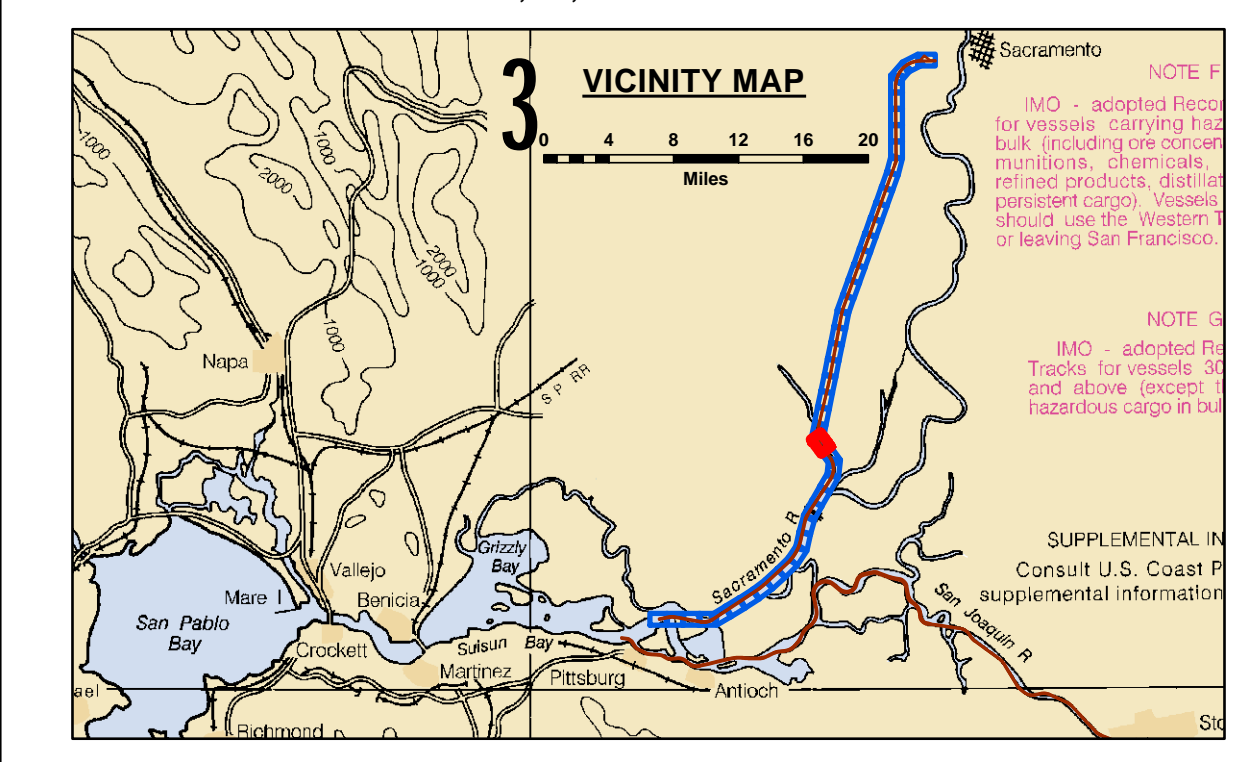
**DISCLAIMER**  
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**Access Constraints:** The United States Government furnishes this data and the US Army Corps of Engineers does not accept or assume any liability for the accuracy, completeness, or implied consequences of the data. The user is responsible for the information and the data furnished. The United States shall be under no liability whatsoever to any person by reason of any use of the data furnished hereunder, and the user shall be held responsible for any damage or loss of property or other than Government provided data. The recipient may not transfer their data to others without transferring this Disclaimer.

Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	John C. Morrow
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 19 of 45



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

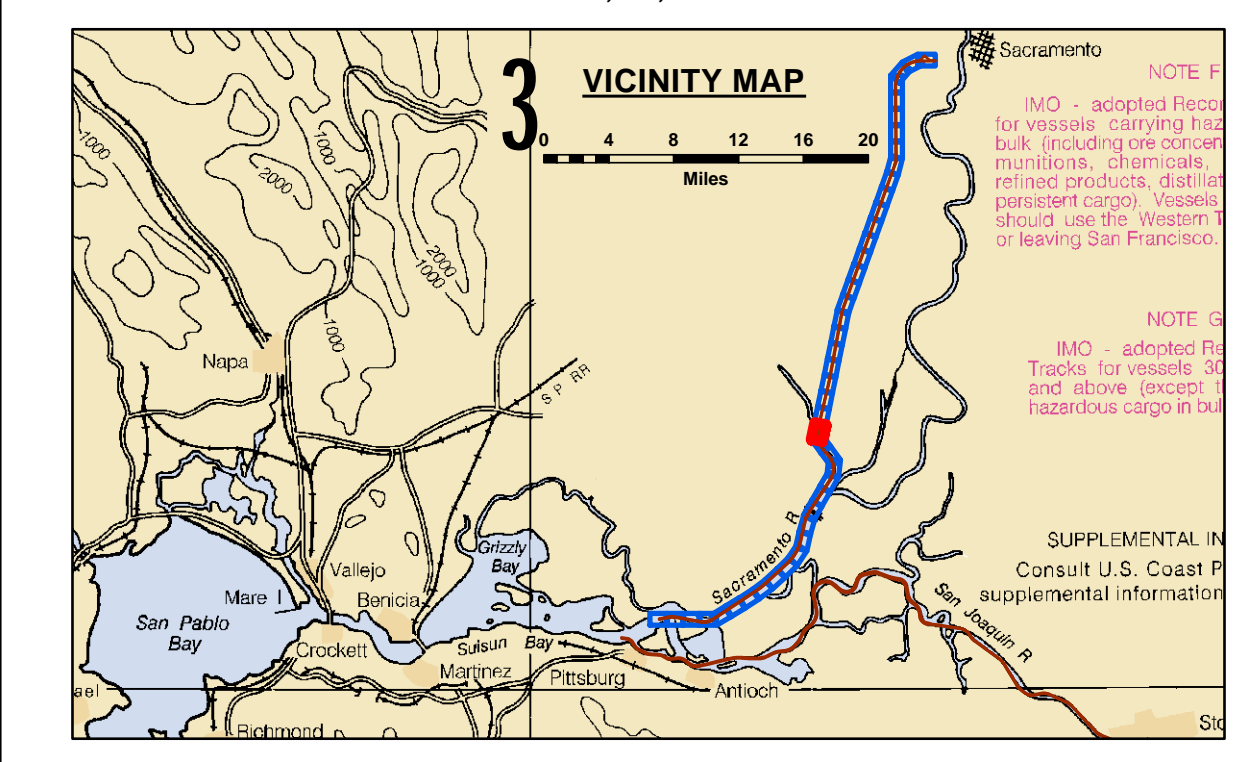
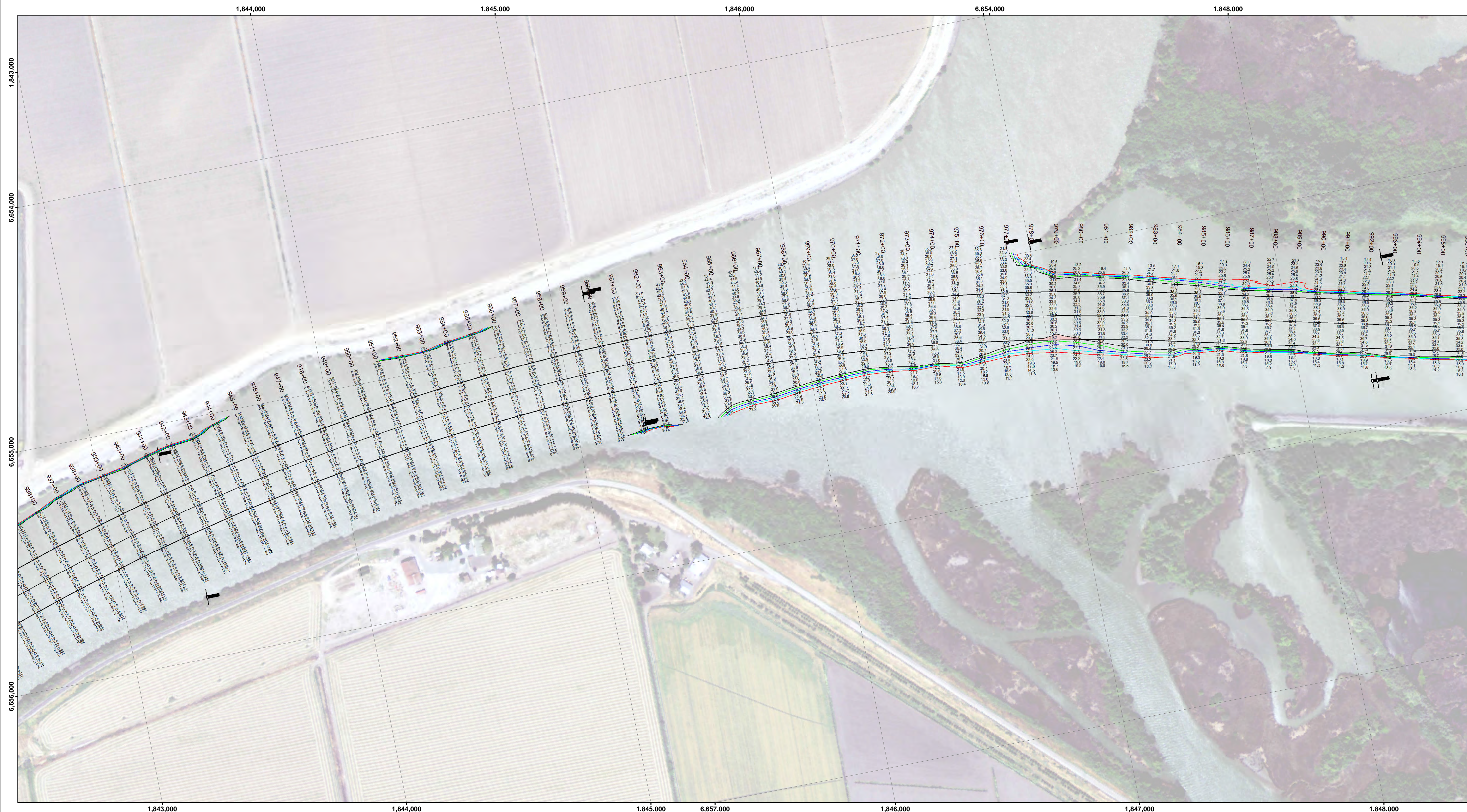
**NOTES:**  
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 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
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 BENCHMARK: 5316 B 1996 (No PID)  
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 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



Feet  
0 400 800 1,200

LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
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 Equipment statement

**CONTROLS:**  
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 NOAA STATION: 9415316  
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**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
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 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

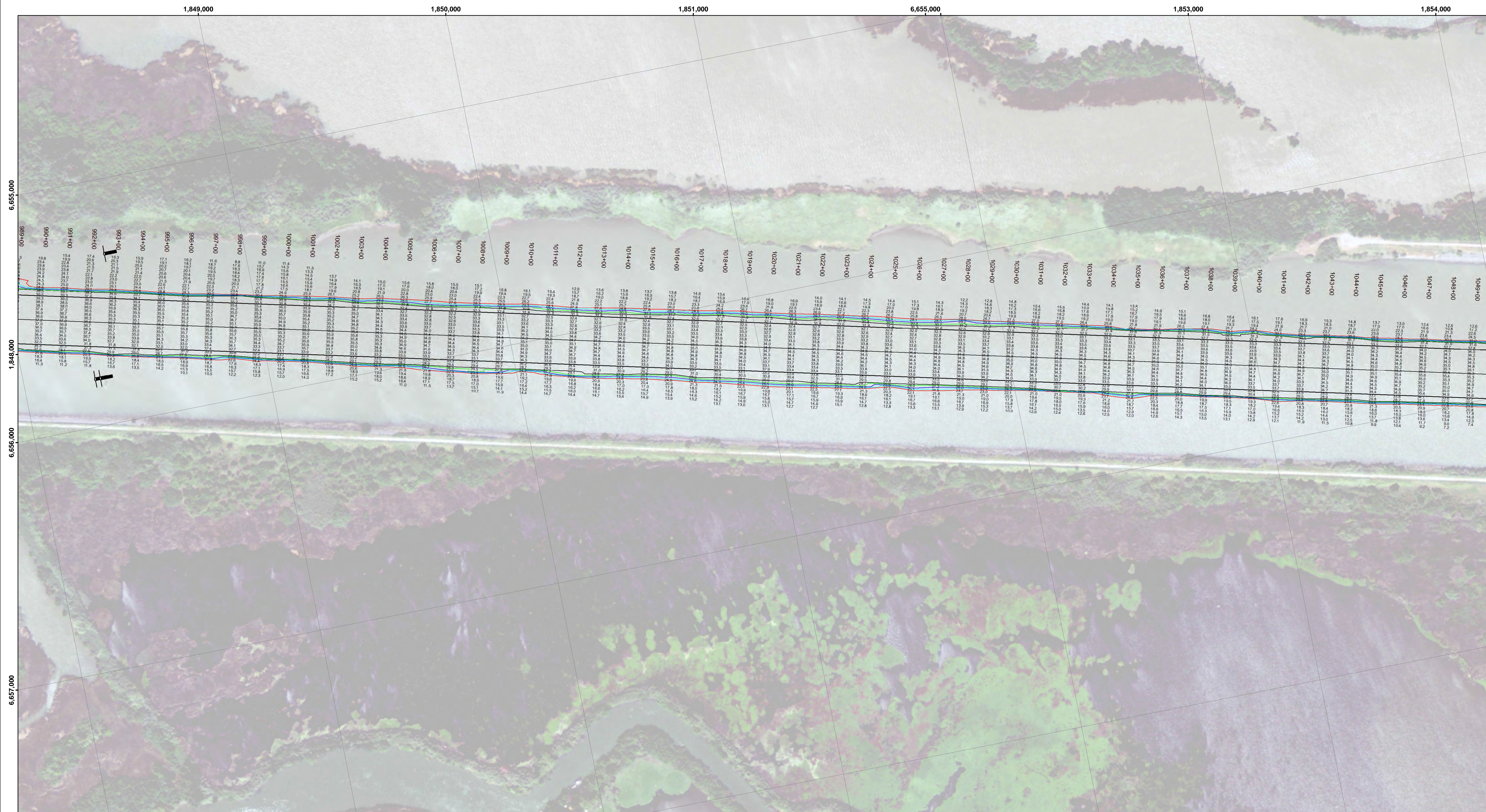


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

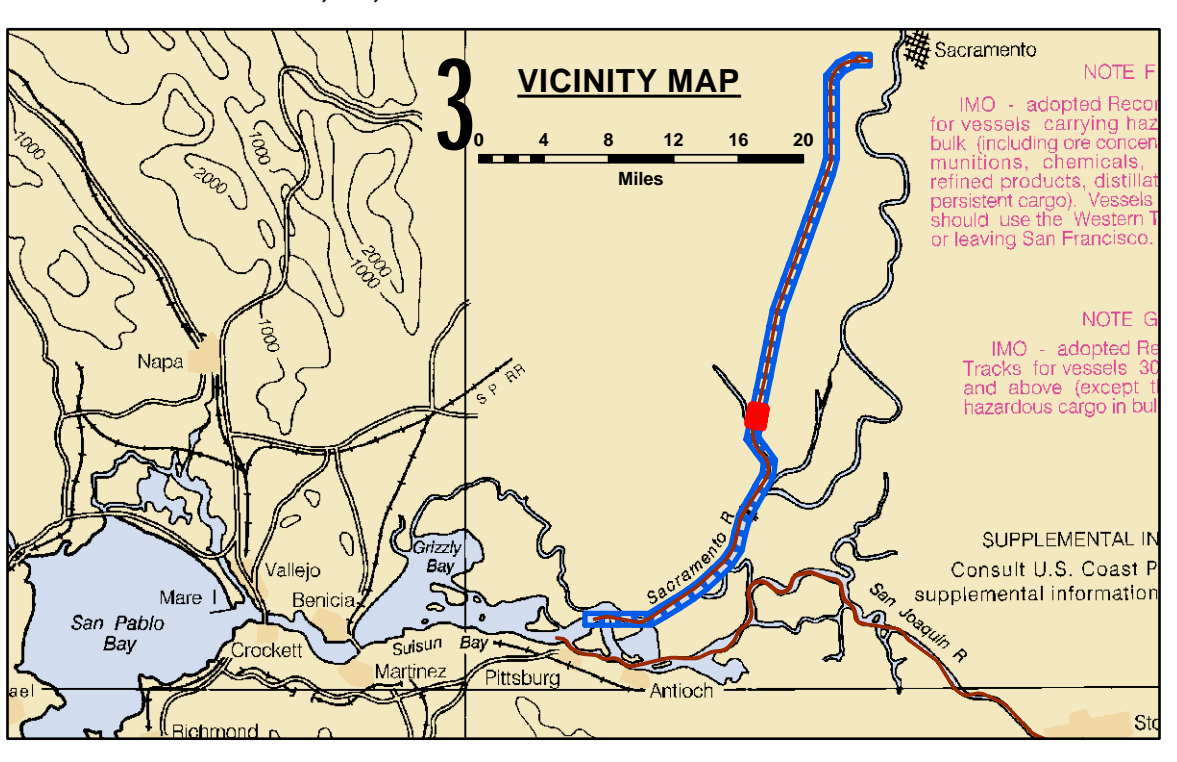


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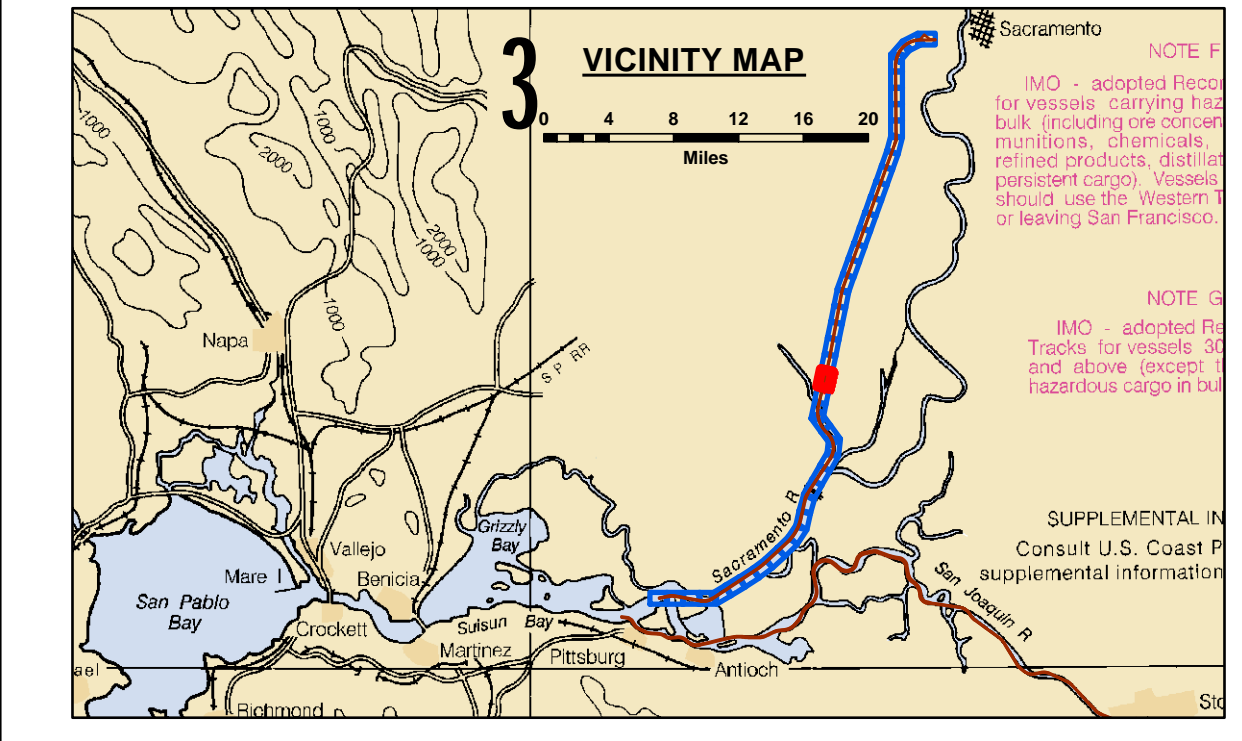
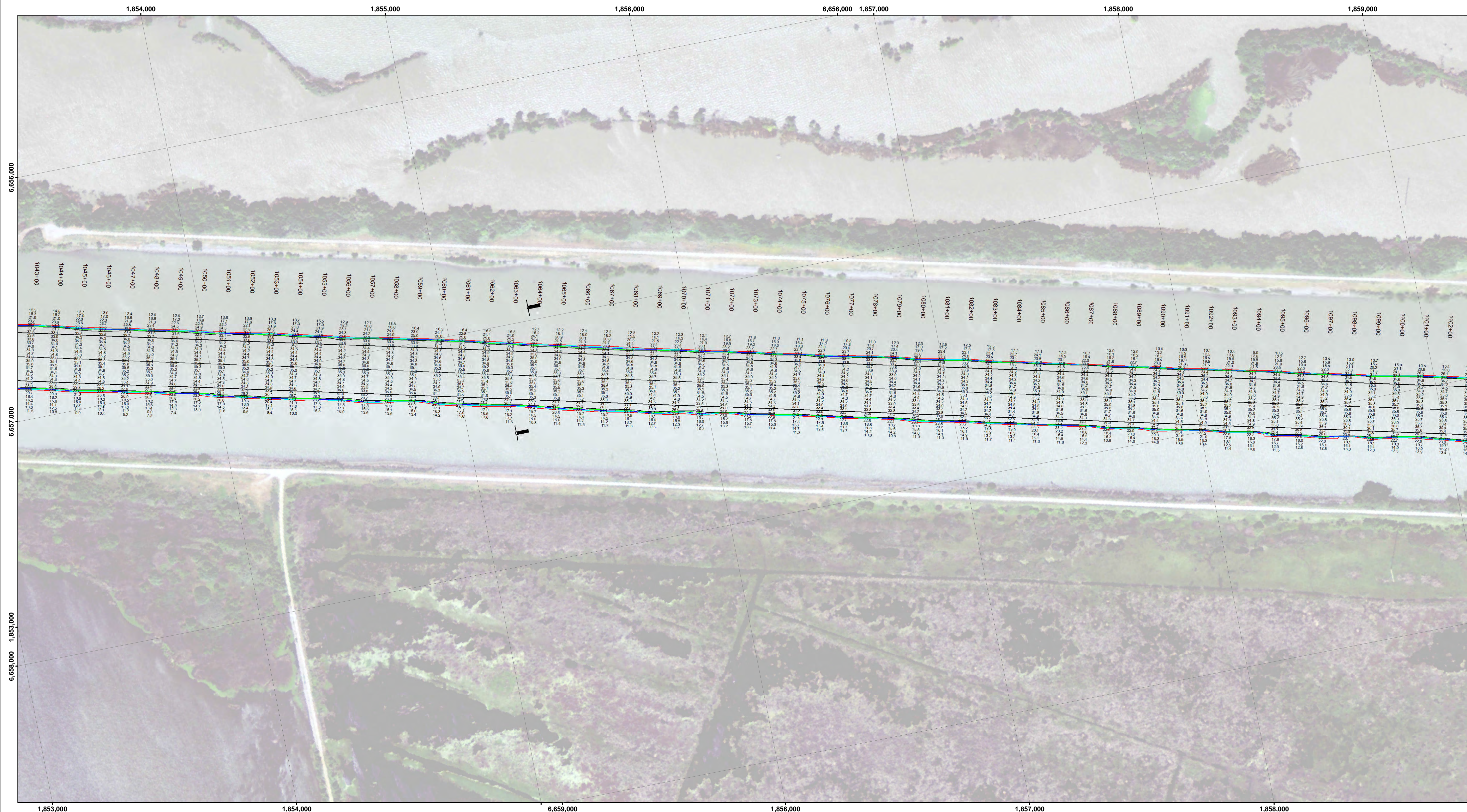
Table with columns: Surveyed By, Plotted By, Checked By, Chart Date, Designed by, Drawn by. Includes names like JOHN C. MORROW and dates like Sep 04, 2015.

SAN JOAQUIN COUNTY CALIFORNIA SACRAMENTO RIVER CONDITION SURVEY 7-9, 13-16 AND 30 APRIL 2015



LEGEND section containing symbols and descriptions for Federal Navigation Channel, Cable Area, Shoaling Area, Shoalest Sounding, Beacon, Red Navigation Buoy, Green Navigation Buoy, Cable Submarine, Anchorage Area, Obstruction Point, Wrecks-Submerged, Cable Overhead, and Contour Line.

NOTES: Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum. Project Information: Drawing not to be used for navigation. Project Depth -30'. TIDE GAUGE: Nail @ 10.0 ft MLLW. METADATA: Nail set by USACE 31 March, 2014. LOCATION: PORT OF WEST SACRAMENTO. NOAA STATION: 9416131. BENCHMARK: POW51 (No PID). TIDE GAUGE: Nail @ 10.0 ft MLLW. METADATA: Nail set by USACE 8 April, 2014. Reference is N.O.A. Navigation Chart No. 18521. STA. 0-200 - 07 APRIL. STA. 200-450 - 09 APRIL. STA. 450-600 - 13 APRIL. STA. 600-700 - 07 APRIL. STA. 700-1100 - 14 APRIL. STA. 1100-1600 - 15 APRIL. STA. 1600-2000 - 16 APRIL. STA. 2000 TO END - 30 APRIL.



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	Cable Area	Shoaling Area
— Federal Navigation Center Line	Placement Area	Shoalest Sounding**
..... Cable Submarine	Anchorage Area	Beacon, General
--- Cable Overhead	Obstruction Point	Red Navigation Buoy
— Contour Line	Wrecks-Submerged	Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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**ACCESS CONTROLS:**  
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Chart Date: Sep 04, 2015

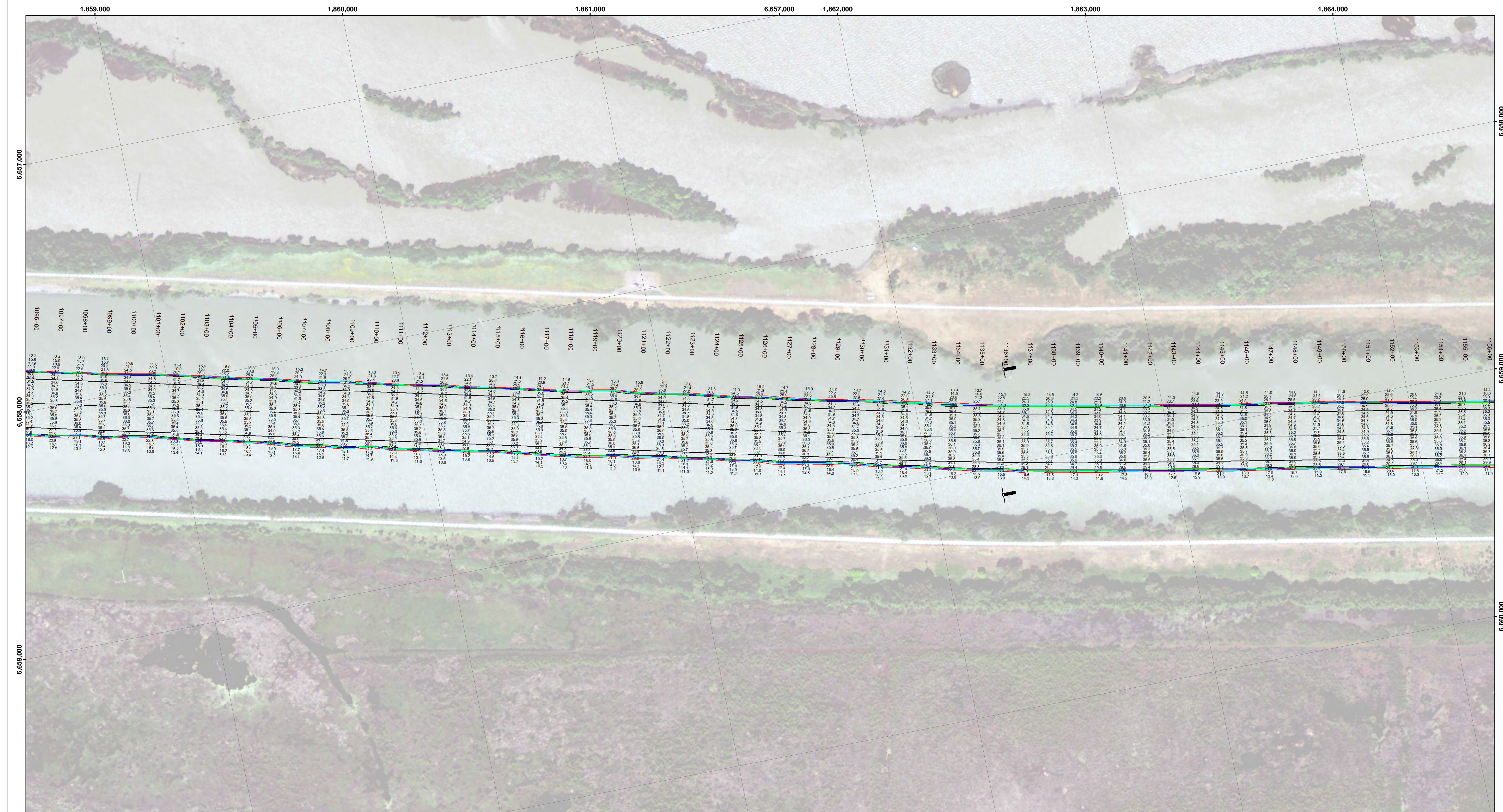
Prepared Under the Direction of: JOHN C. MORROW  
 Lt. Colonel, C.E., District Engineer

Surveyed By: \_\_\_\_\_  
 Plotted By: PDT  
 Checked By: PDT

Designed by: \_\_\_\_\_  
 Drawn by: PDT

Recommended: \_\_\_\_\_  
 Approved: \_\_\_\_\_  
 Chief, Hydro Survey Section  
 Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER  
 CONDITION SURVEY**  
 7-9, 13-16 AND 30 APRIL 2015

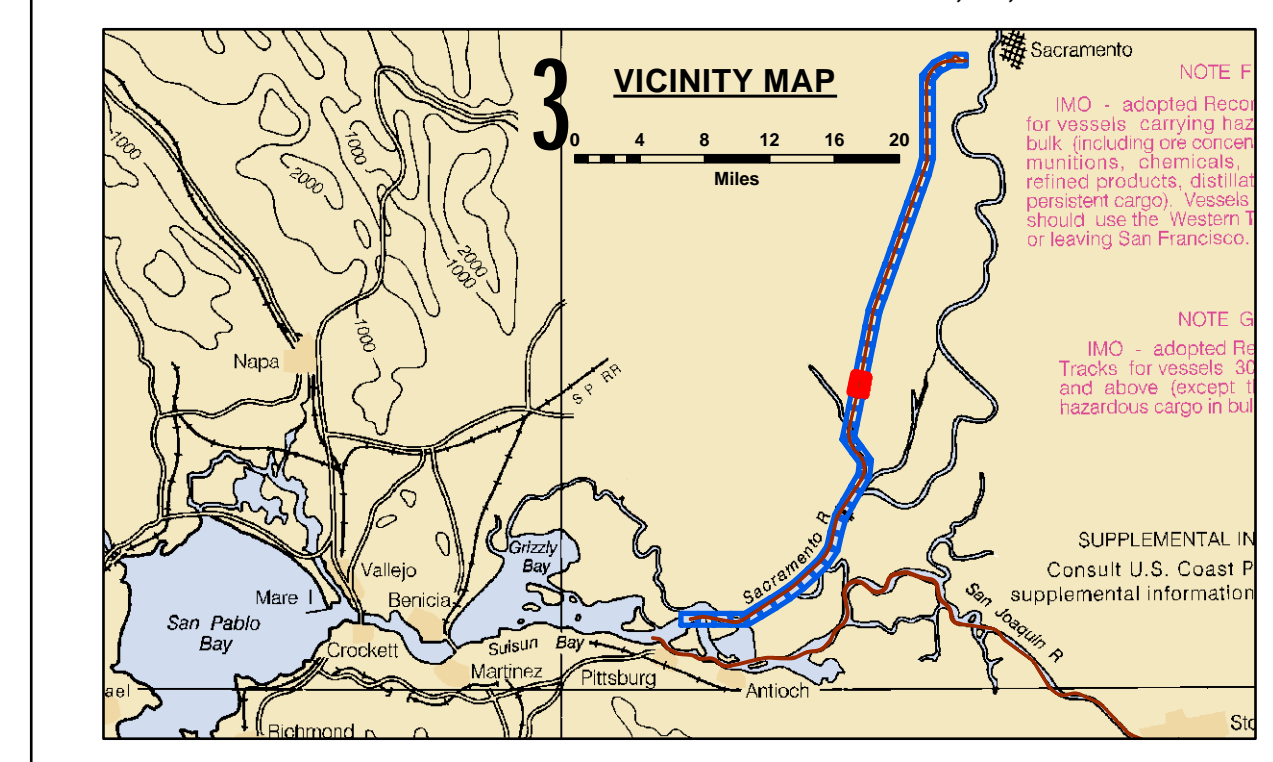


**US Army Corps of Engineers District: CESP**

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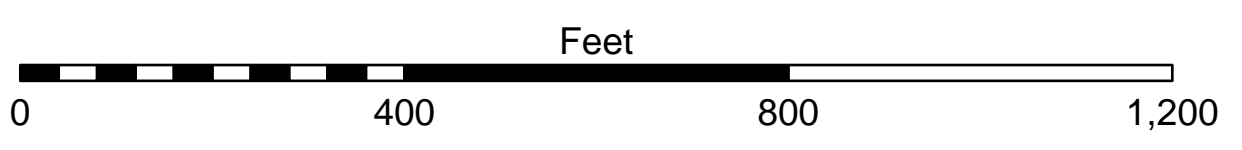
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Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Designed By:	PDT
Drawn By:	PDT



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy



**NOTES:**

Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.

Vertical Datum:  
Soundings are shown in feet and indicate depths below MLLW Datum.

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2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

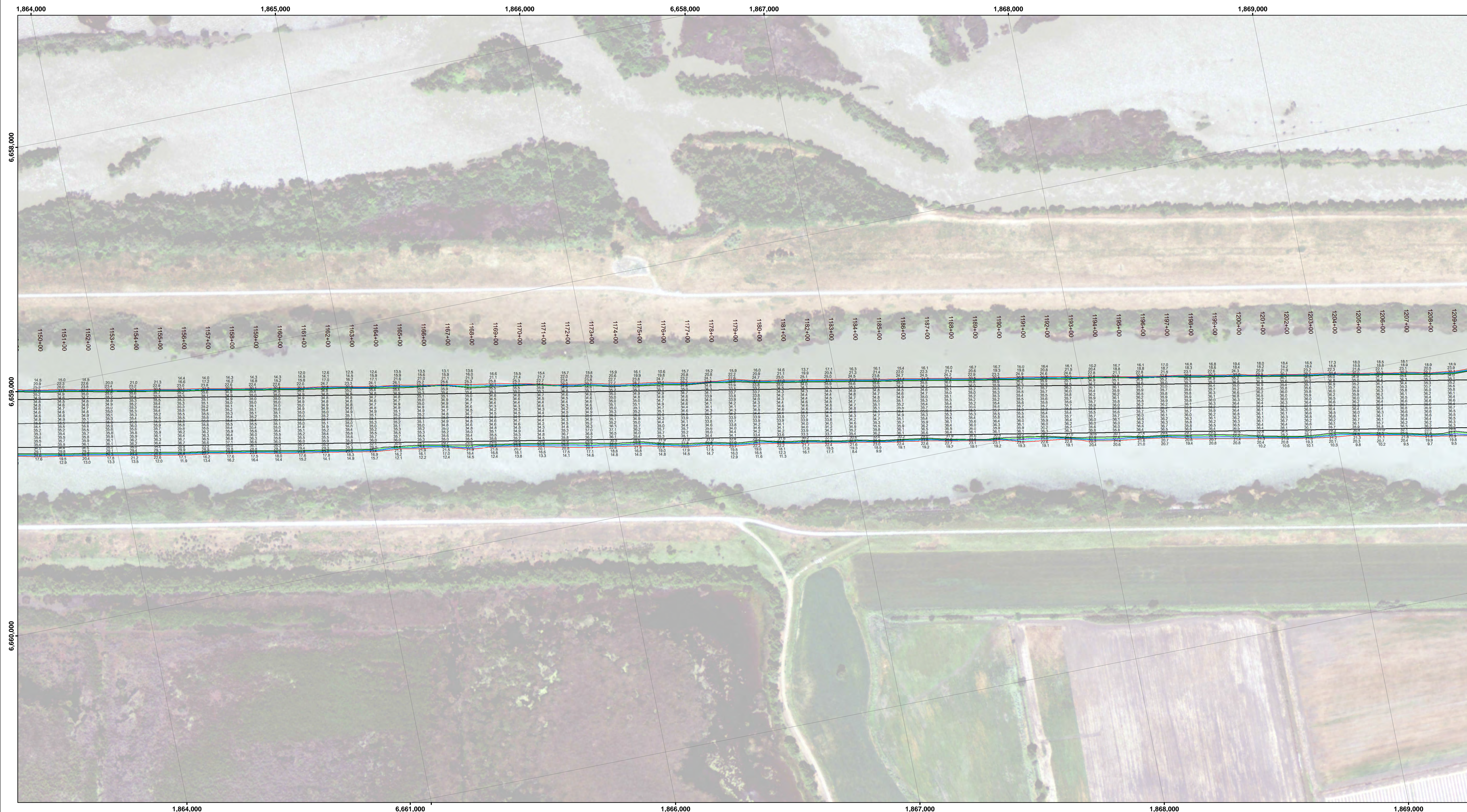
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA

SAN JOAQUIN COUNTY

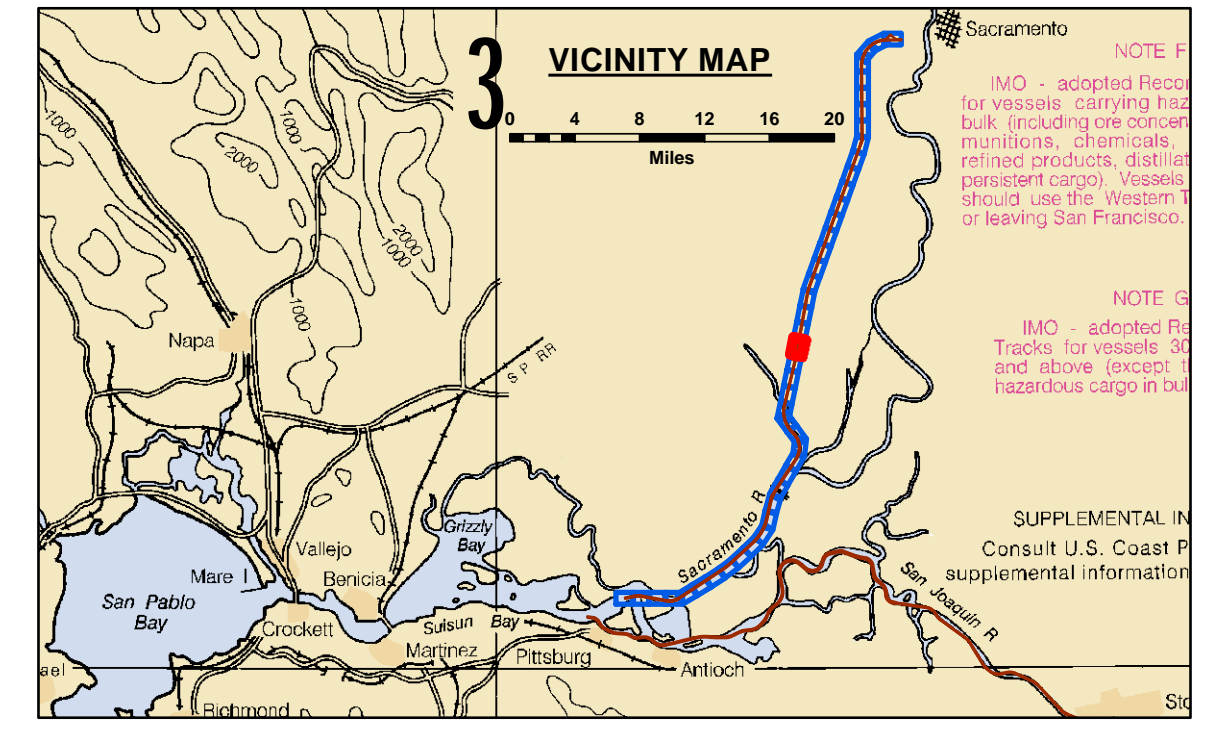
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
**23 of 45**



**DISCLAIMER:** The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. The data is not intended for navigation purposes. The user is responsible for the accuracy of the data and for its application. The user is responsible for the accuracy of the data and for its application. The user is responsible for the accuracy of the data and for its application.

Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Drawn By:	PDT



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▨ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
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**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

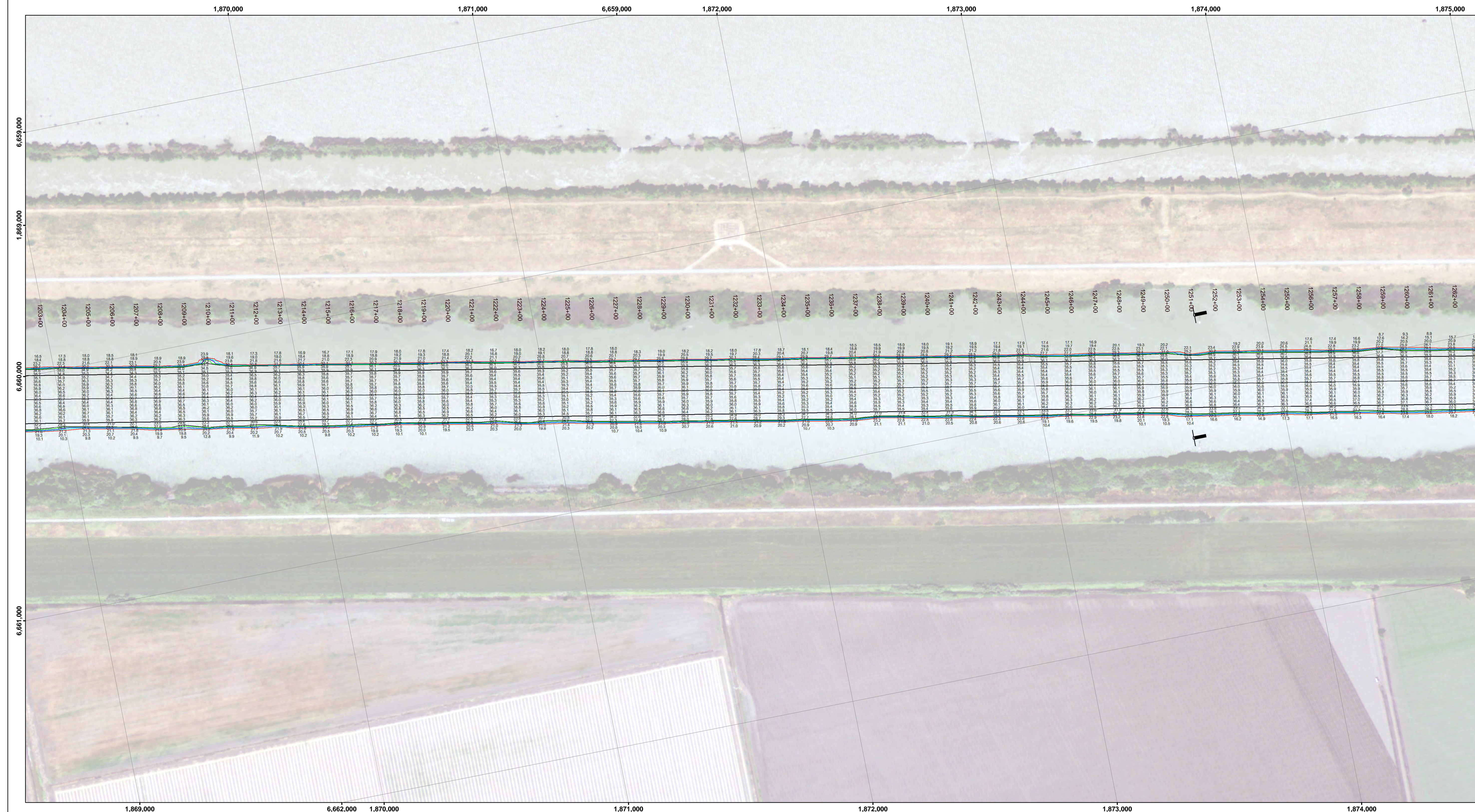
**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
NOAA STATION: 9416131  
BENCHMARK: POW51 (No PID)  
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CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015  
**Sheet Reference Number**  
**24 of 45**



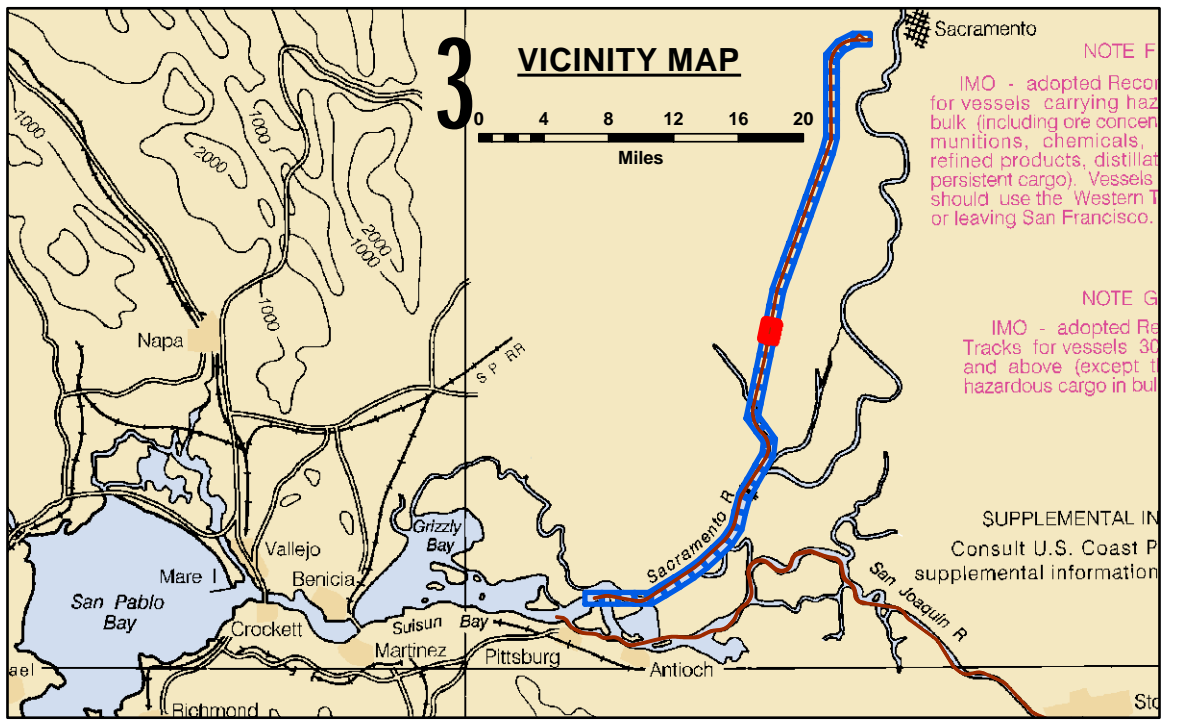


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

**CALIFORNIA**  
**SAN JOAQUIN COUNTY**  
**SACRAMENTO RIVER**  
**CONDITION SURVEY**  
 7-9, 13-16 AND 30 APRIL 2015



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

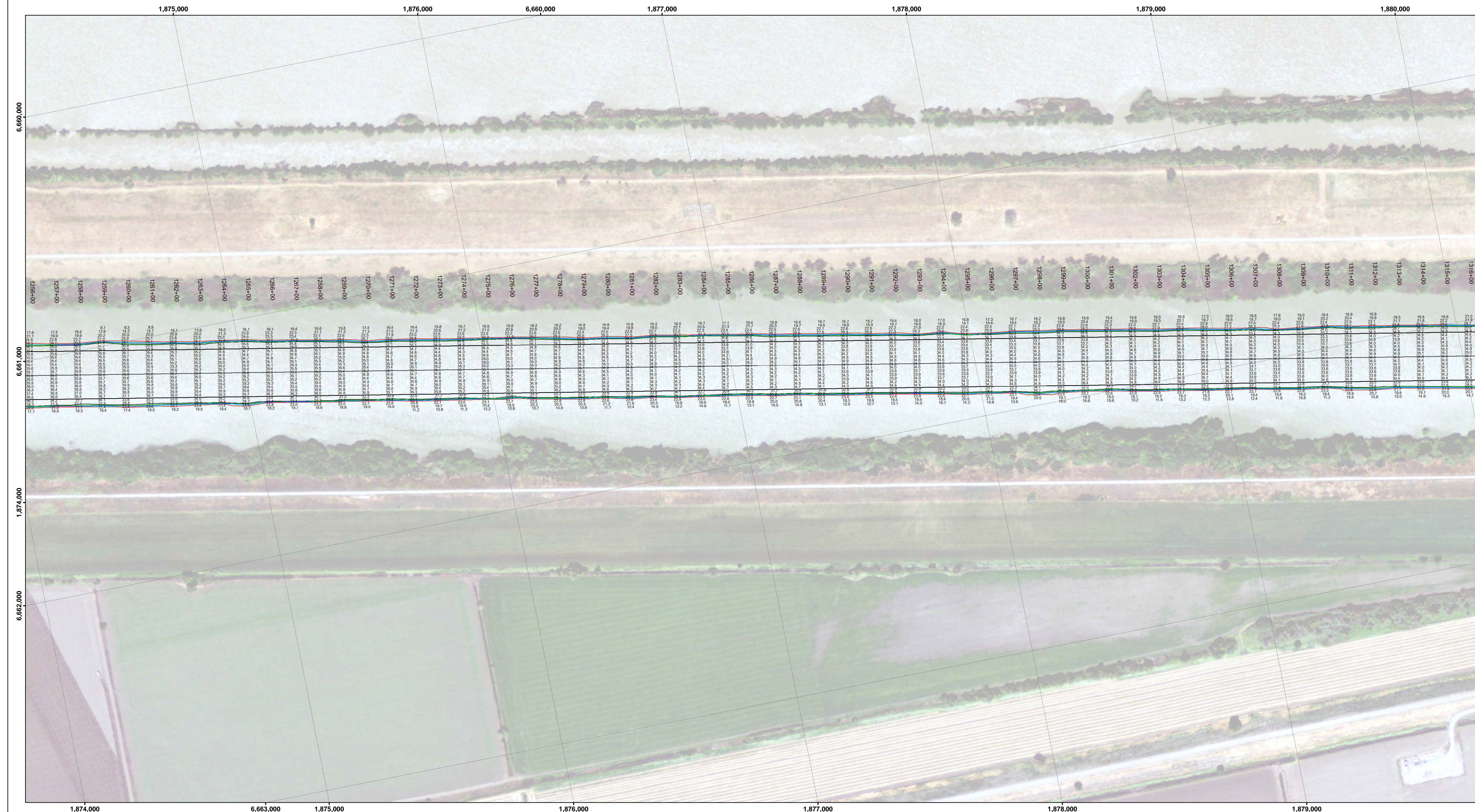
**NOTES:**  
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**CONTROLS:**  
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**LOCATION: PORT OF WEST SACRAMENTO**  
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 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

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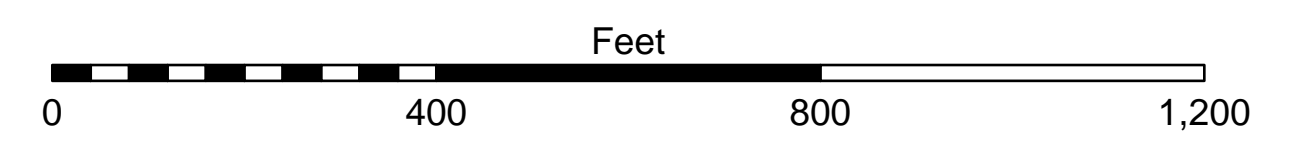
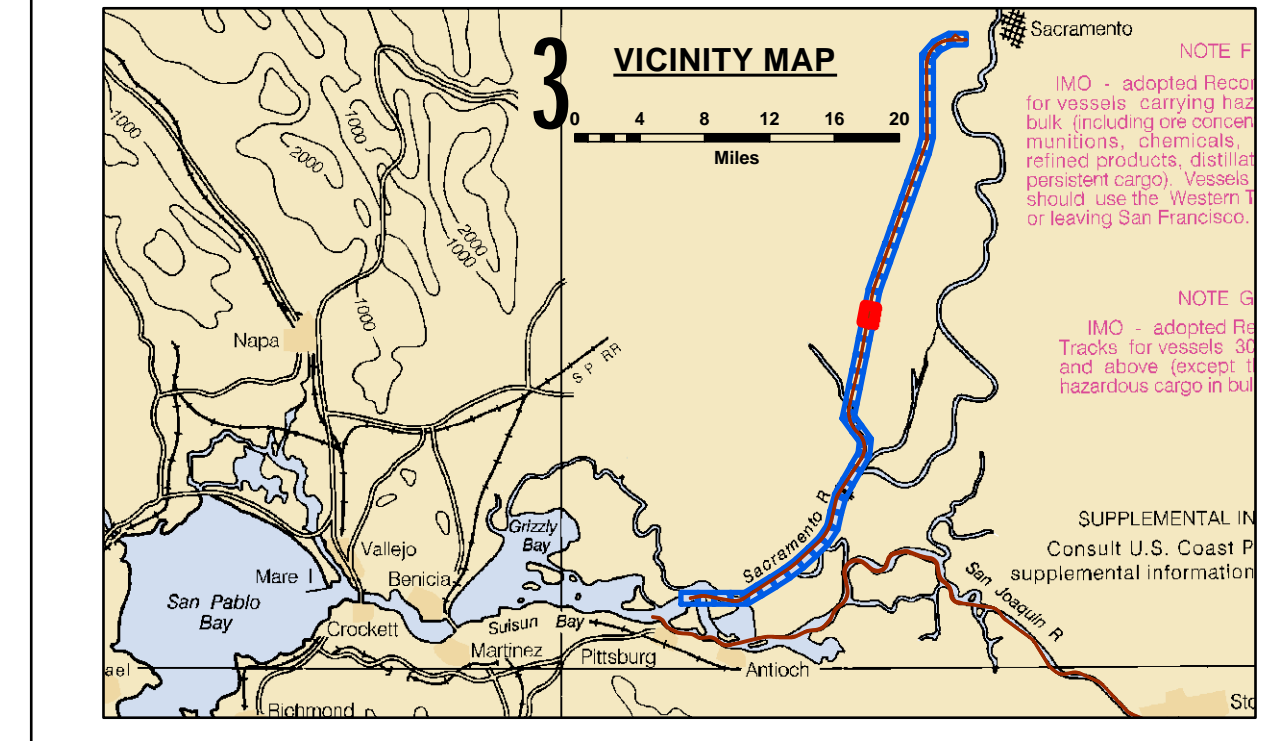


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Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Designed by:	
Checked By:	PDT
Drawn by:	PDT

**SAN JOAQUIN COUNTY**  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
**26 of 45**



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

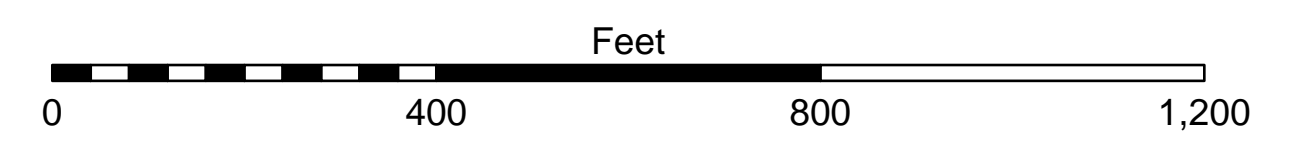
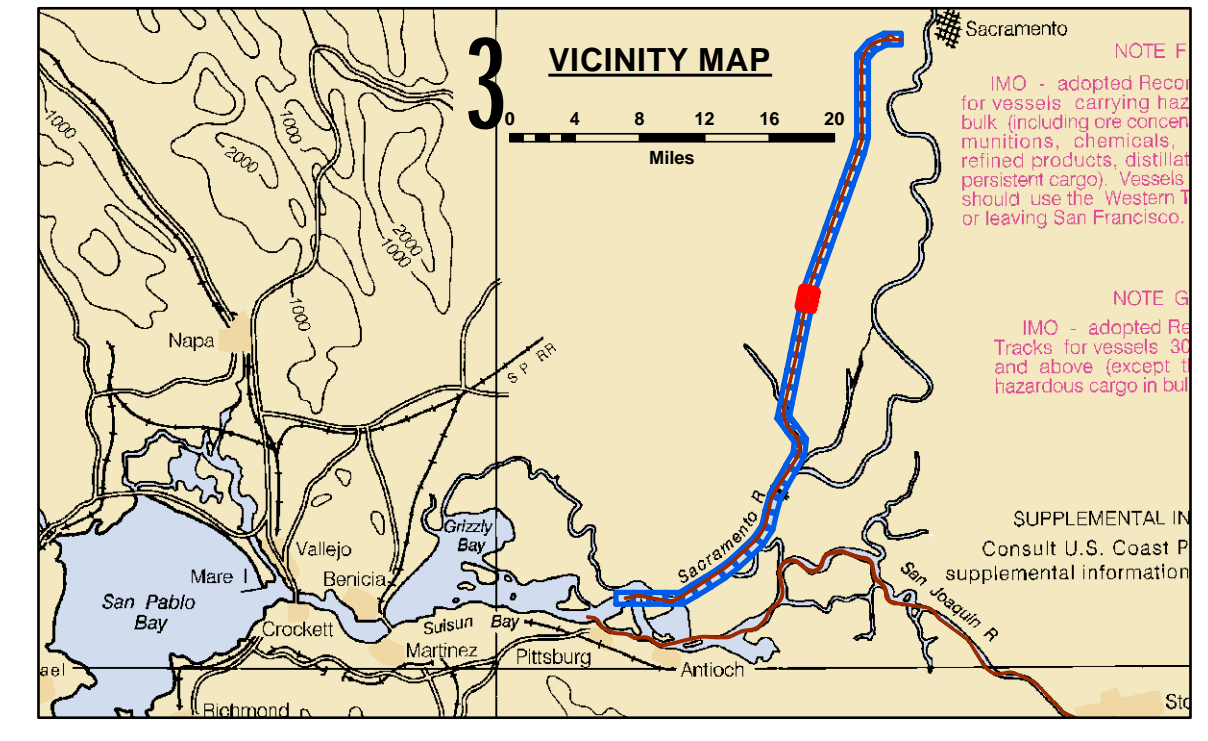


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊕ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POW51 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA

SAN JOAQUIN COUNTY

**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
 27 of 45



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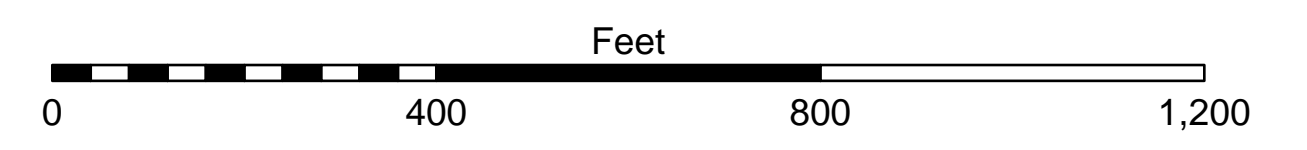
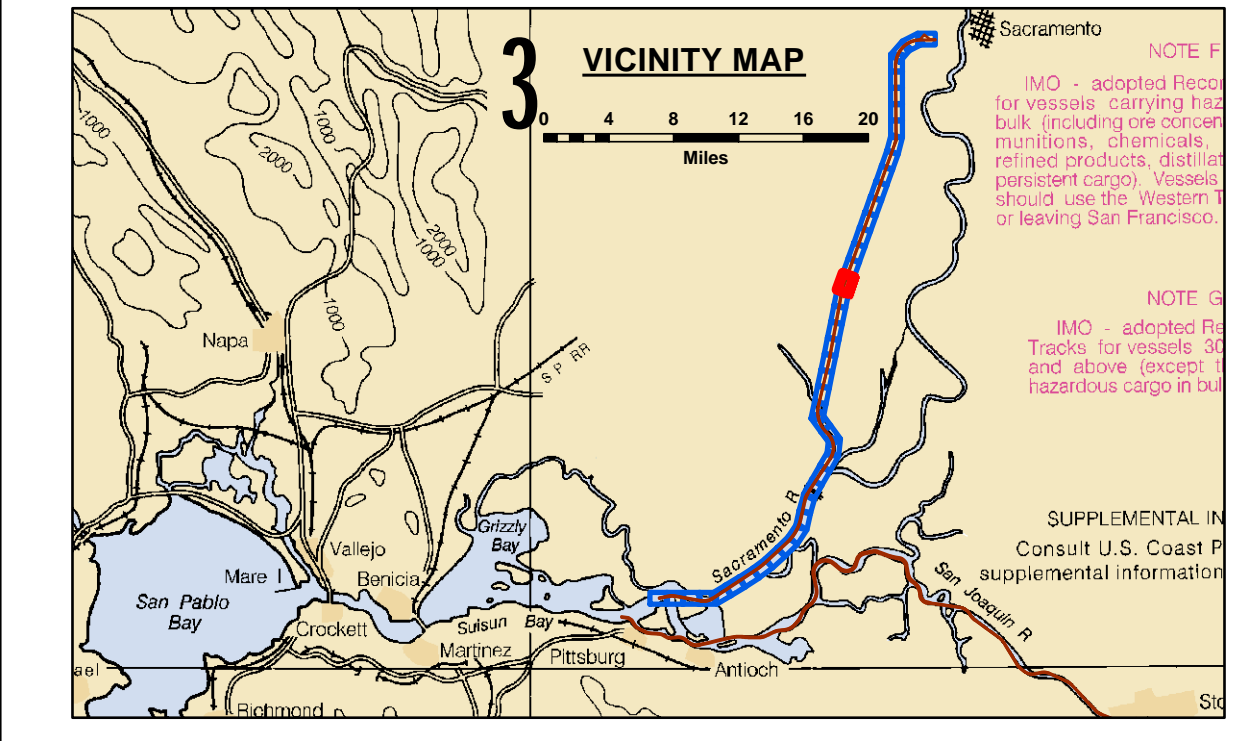
Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	PDT
Plotted By:	PDT
Checked By:	PDT

PREPARED UNDER THE DIRECTION OF  
**JOHN C. MORROW**  
 LT. COLONEL, C.E. DISTRICT ENGINEER

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

CALIFORNIA  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number  
**28 of 45**



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	⊥ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

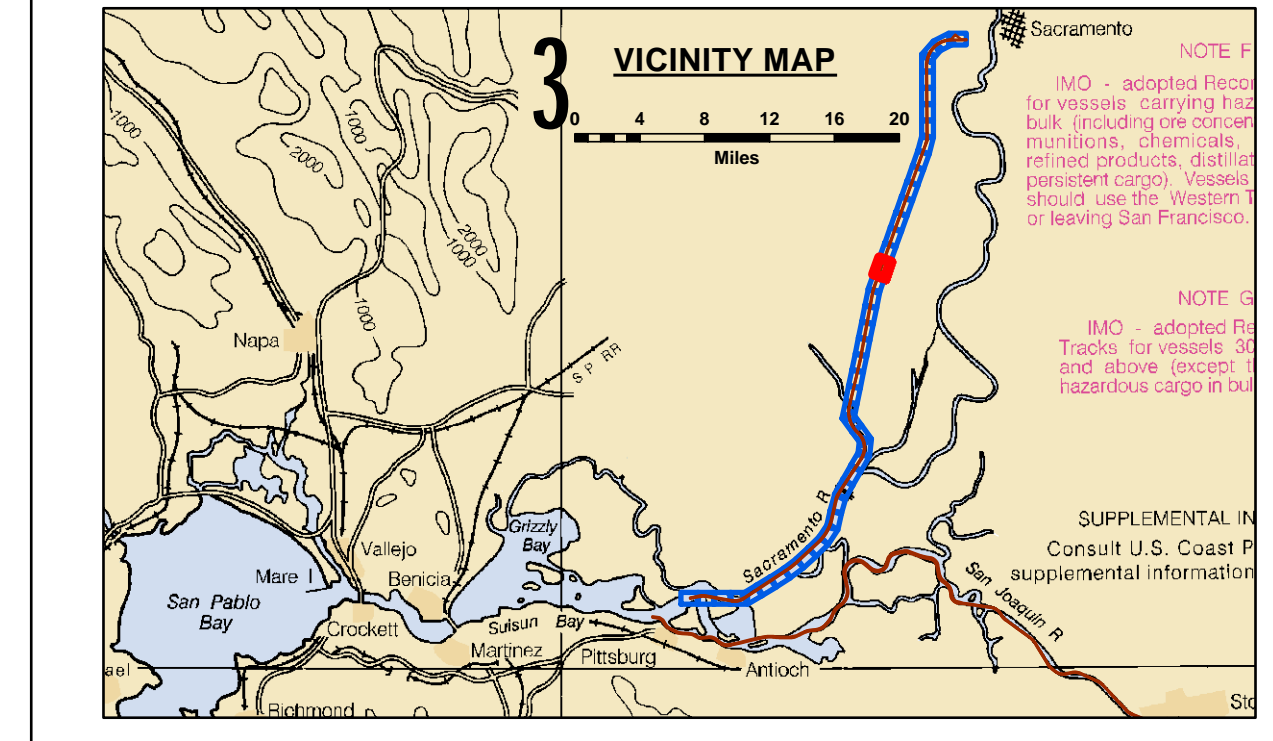
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

Project Information:  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

CONTROLS:  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	✕ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	✕ Green Navigation Buoy

**NOTES:**  
Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.

Vertical Datum:  
Soundings are shown in feet and indicate depths below MLLW Datum.

The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.

The location of navigation aids are based on and provided by the U.S. Coast Guard.

2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

Reference is N.O.A. Navigation Chart No. 18521.

Project Information:  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 R MLLW  
METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 R MLLW  
METADATA: Nail set by USACE 8 April, 2014

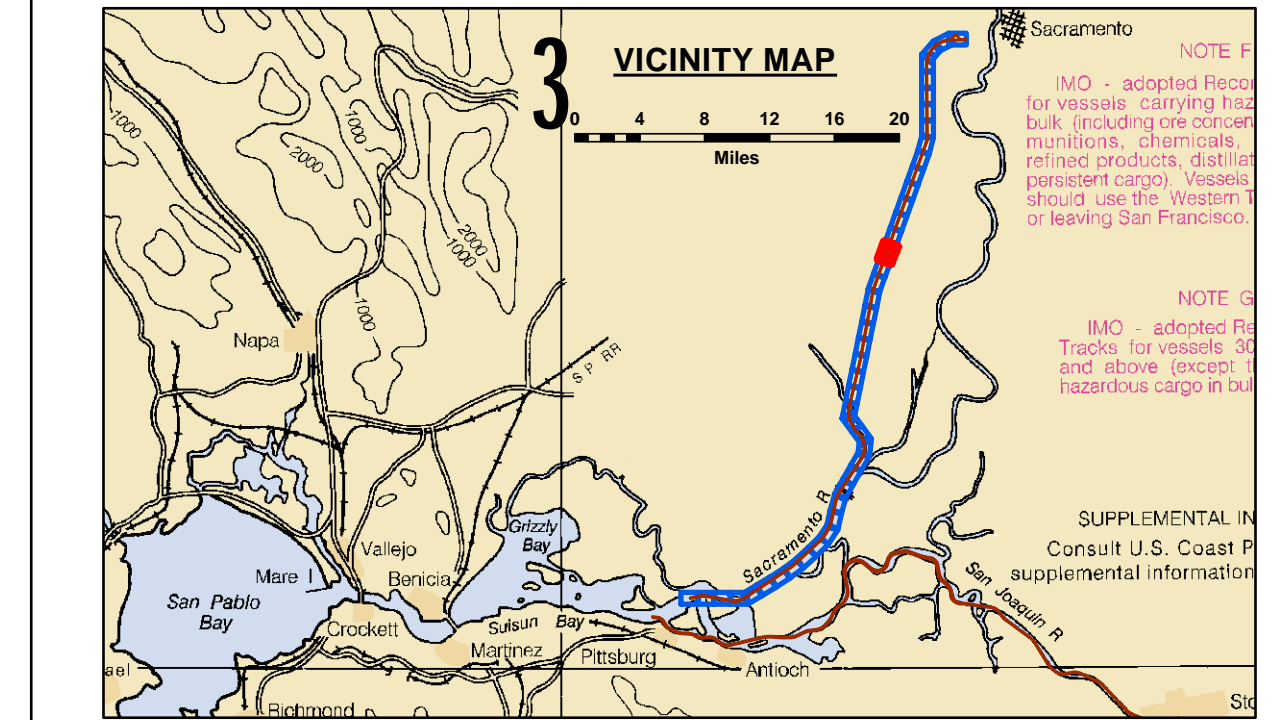
All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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Prepared Under the Direction of <b>JOHN C. MORROW</b> LT Colonel, C.E. District Engineer	Chart Date: Sep 04, 2015
Surgeon: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Printed By: PDT
Approved: Chief, Construction Branch	Checked By: PDT
	Drawn by: PDT

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015



Feet  
0 400 800 1,200

LEGEND					
---	Federal Navigation Channel	▨	Cable Area	■	Shoaling Area
—	Federal Navigation Center Line	□	Placement Area	○	Shoalest Sounding**
⋯	Cable Submarine	⬇	Anchorage Area	⬇	Beacon, General
---	Cable Overhead	⊗	Obstruction Point	⊗	Red Navigation Buoy
—	Contour Line	⊗	Wrecks-Submerged	⊗	Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPPS reference stations in the area.

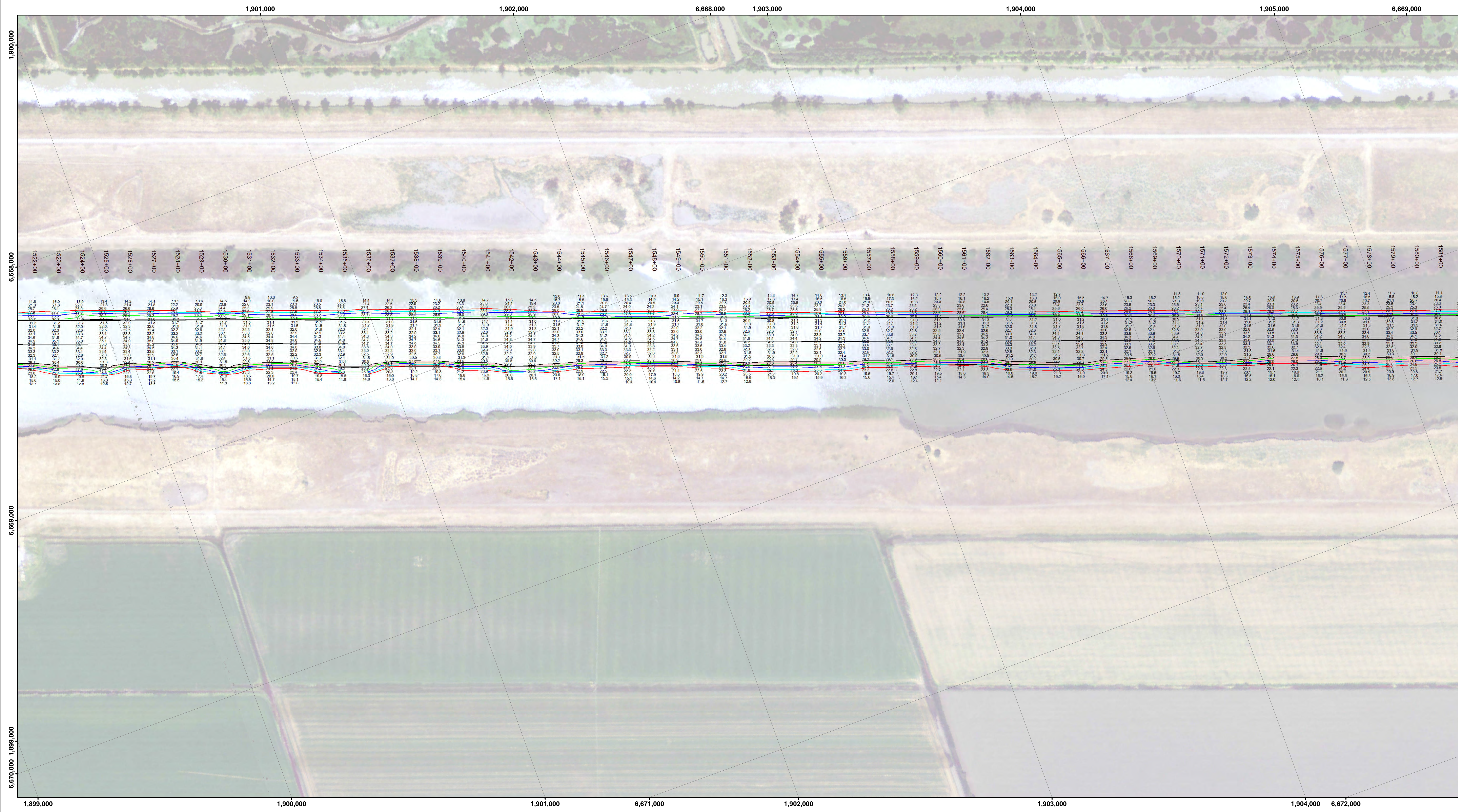


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Prepared Under the Direction of	JOHN C. MORROW	Chart Date:	Sep 04, 2015
Surgehead	Hydro Survey Team Leader	Designed by:	PDT
Recommended:	Chief, Hydro Survey Section	Plotted by:	PDT
Approved:	Chief, Construction Branch	Checked by:	PDT
		Drawn by:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER  
 CONDITION SURVEY**  
 7-9, 13-16 AND 30 APRIL 2015

Sheet  
 Reference  
 Number  
**30 of 45**

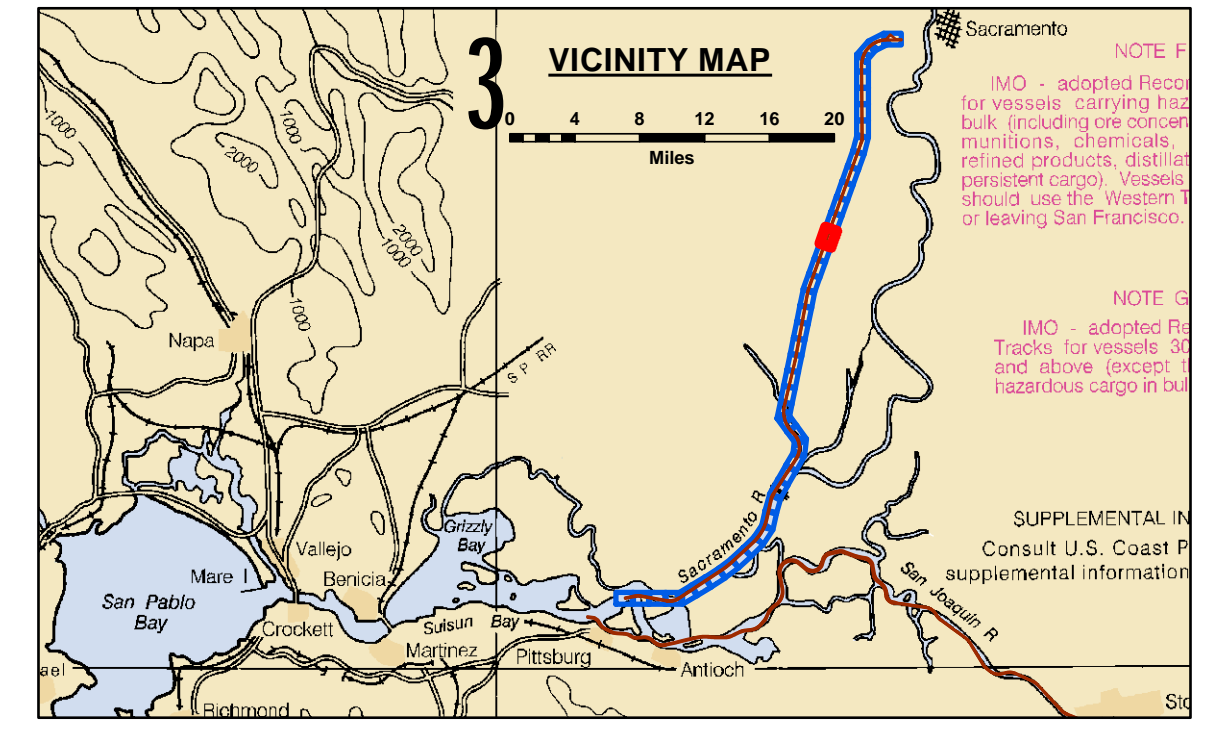


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Table with columns: Surveyed By, Plotted By, Checked By, Drawn By, Chart Date, Designed by. Includes names like JOHN C. MORROW and dates like Sep 04, 2015.

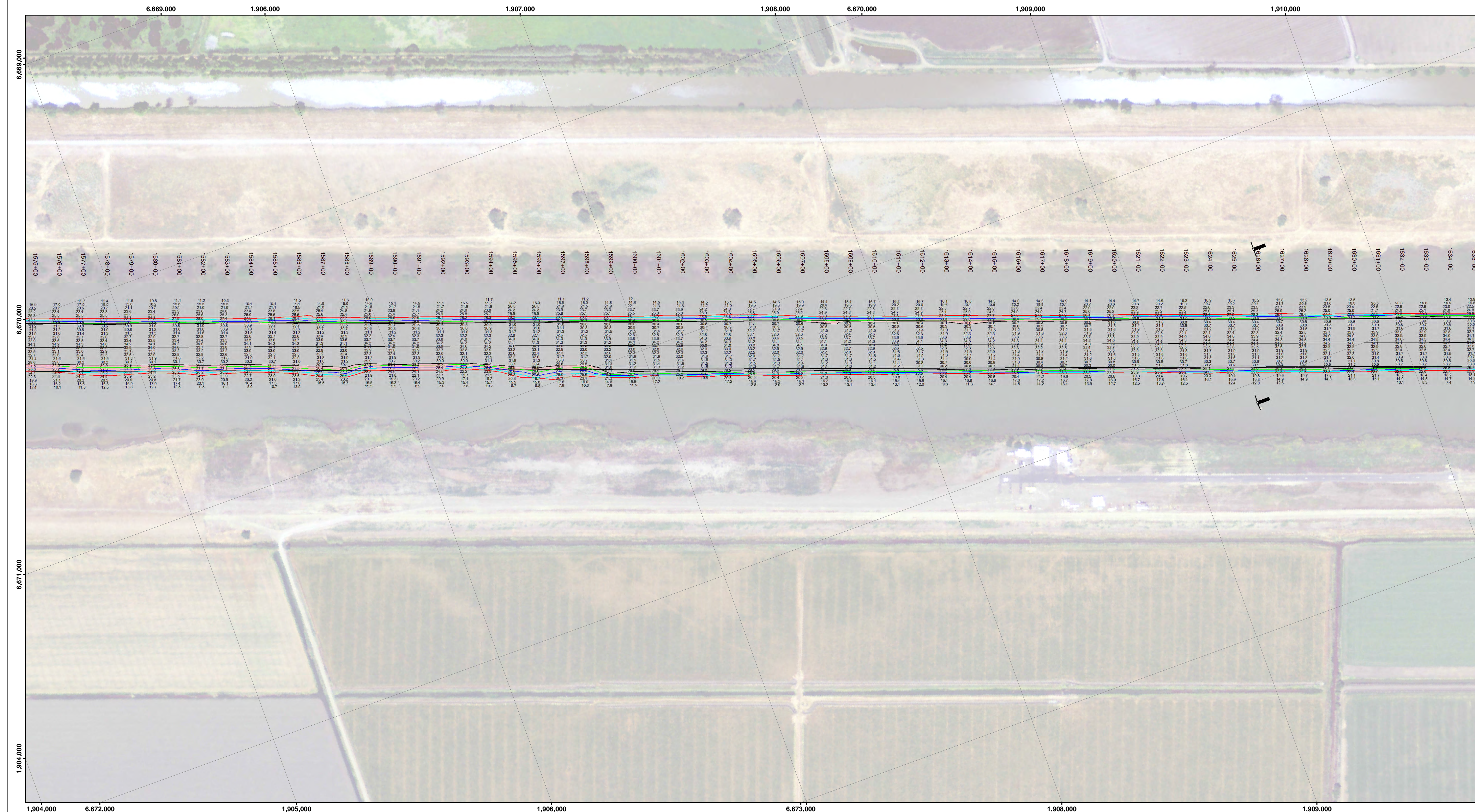
CALIFORNIA
SAN JOAQUIN COUNTY
SACRAMENTO RIVER
CONDITION SURVEY
7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number 31 of 45



LEGEND section with symbols for Federal Navigation Channel, Cable Area, Shoaling Area, Shoalest Sounding, Beacon, General, Red Navigation Buoy, Green Navigation Buoy, Cable Submarine, Placement Area, Anchorage Area, Obstruction Point, Wrecks-Submerged, Cable Overhead, Contour Line.

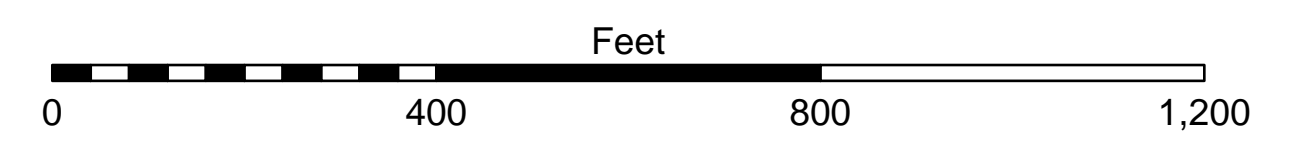
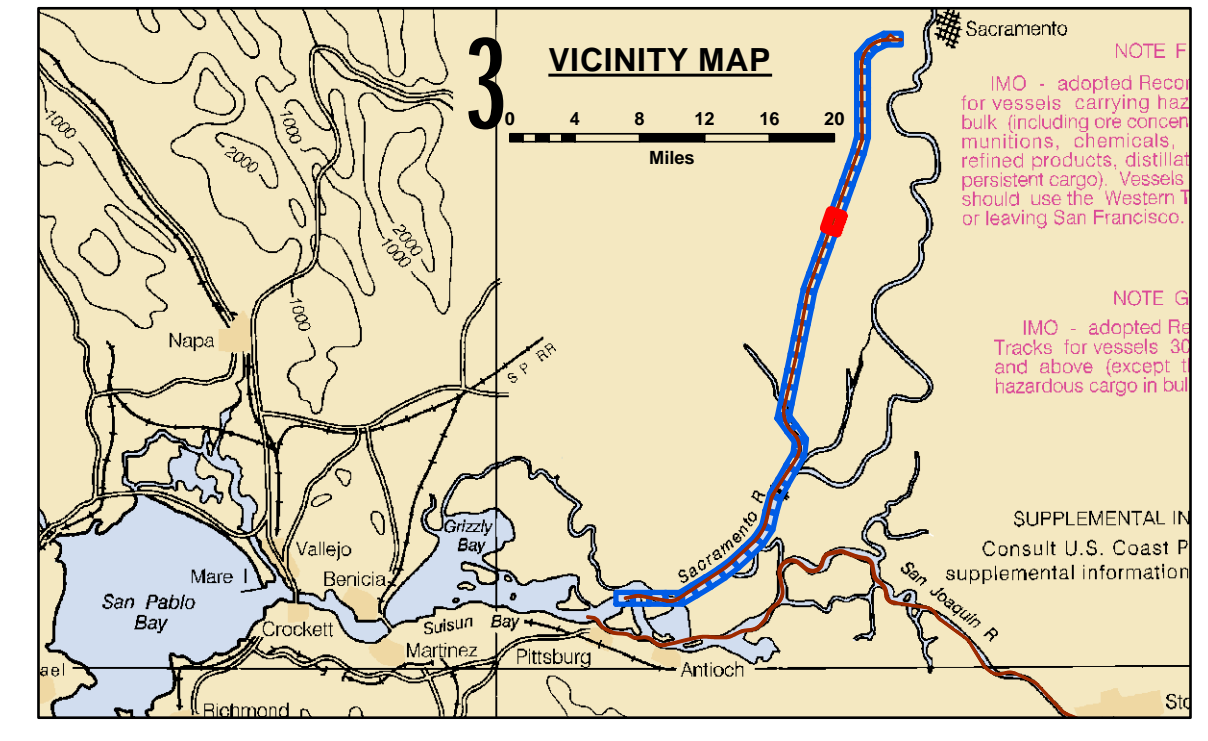
NOTES: Horizontal Coordinate System: North American Datum of 1983 (NAD83)... Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum... Project Information: NOAA STATION: 9415316... CONTROL: LOCATION: RIO VISTA... LOCATION: PORT OF WEST SACRAMENTO...



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Chart Date:	Sep 04, 2015
Prepared Under the Direction of:	JOHN C. MORROW
Surveyed By:	LT. COLONEL C.E. DISTRICT ENGINEER
Plotted By:	PDT
Designed by:	PDT
Checked By:	PDT
Drawn by:	PDT



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊕ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 R MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 R MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

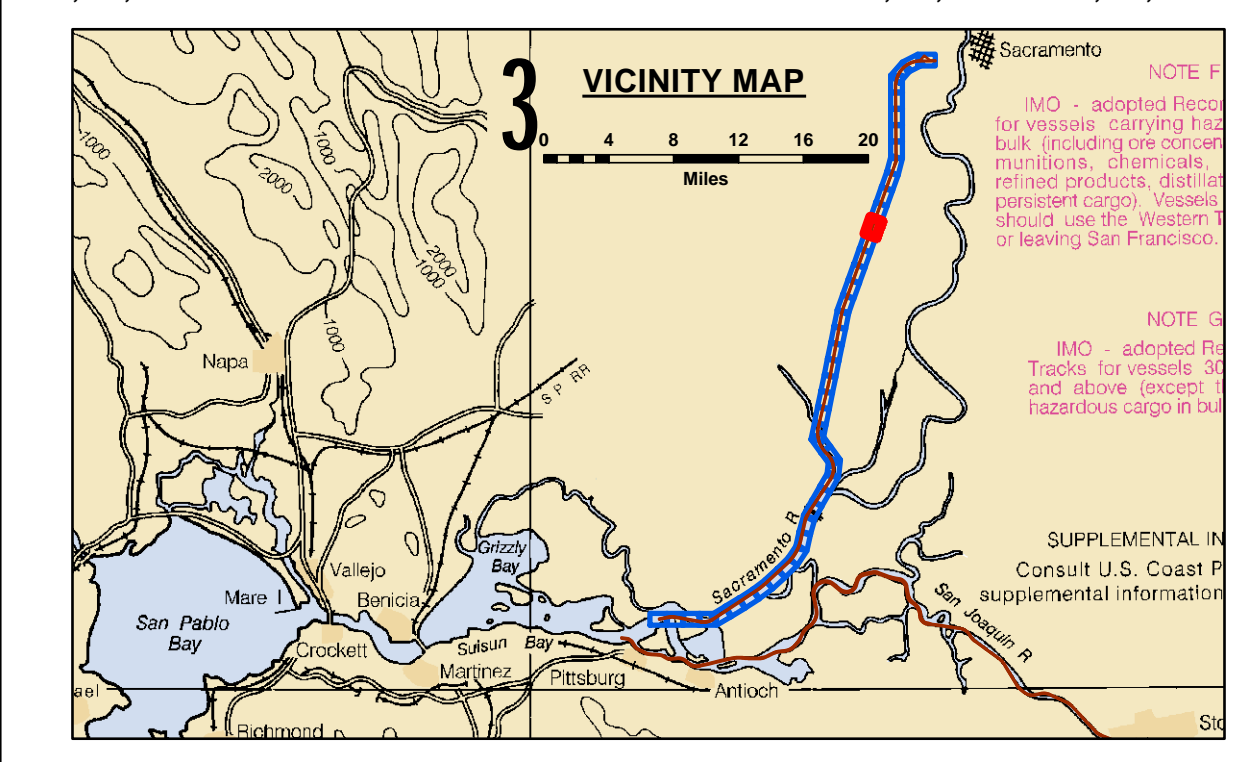
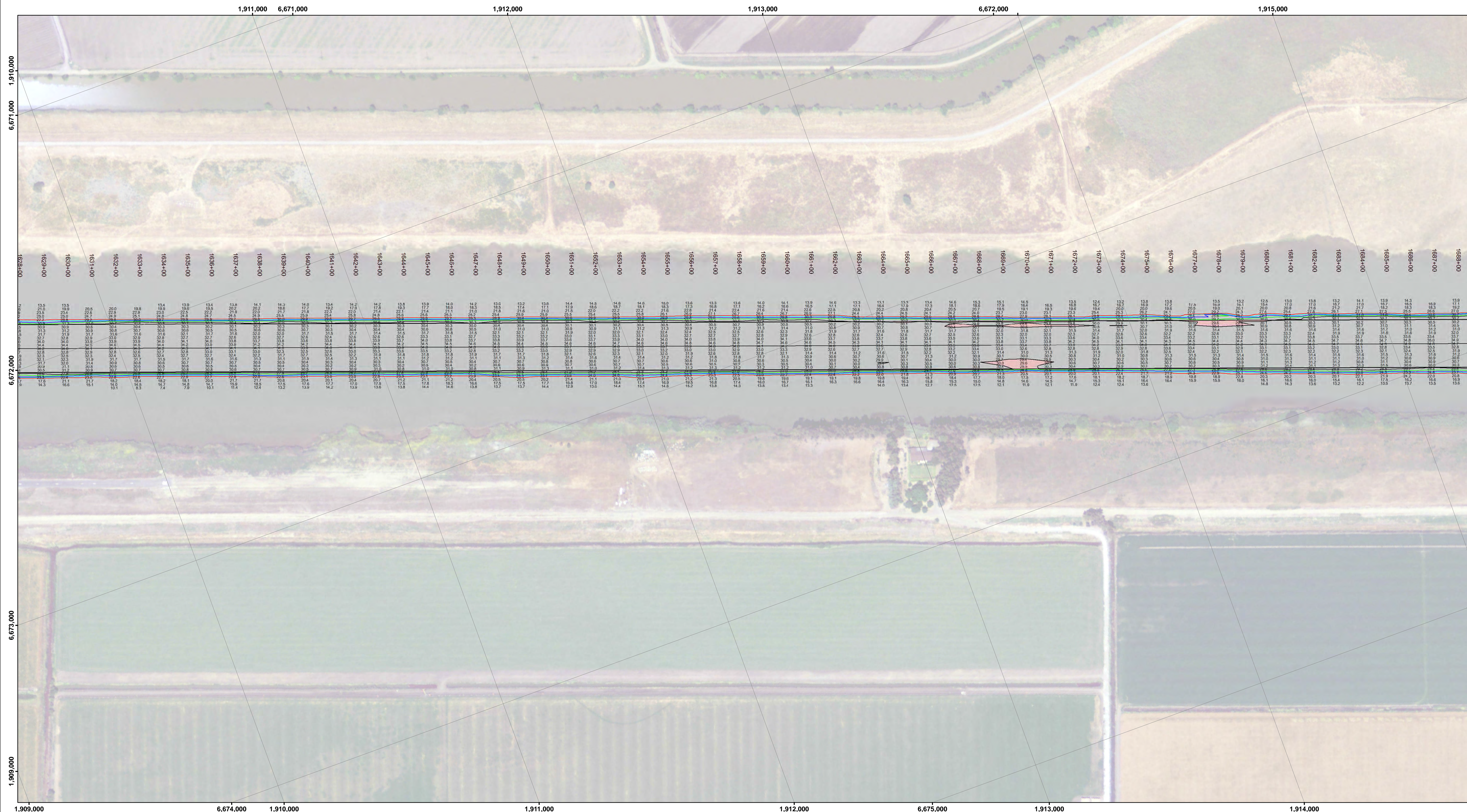
CALIFORNIA

SAN JOAQUIN COUNTY

**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

Sheet Reference Number  
**32 of 45**





Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**

Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane  
Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.

Vertical Datum:  
Soundings are shown in feet and indicate depths below MLLW Datum.

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existing at that time.

The location of navigation aids are based on and provided by the U.S. Coast Guard.

2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

Reference is N.O.A. Navigation Chart No. 18521.

Project Information:  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

CONTROLS:  
LOCATION: RIO VISTA  
NOAA STATION: 9416316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POW51 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were  
post-processed using public GPS reference stations in the area.

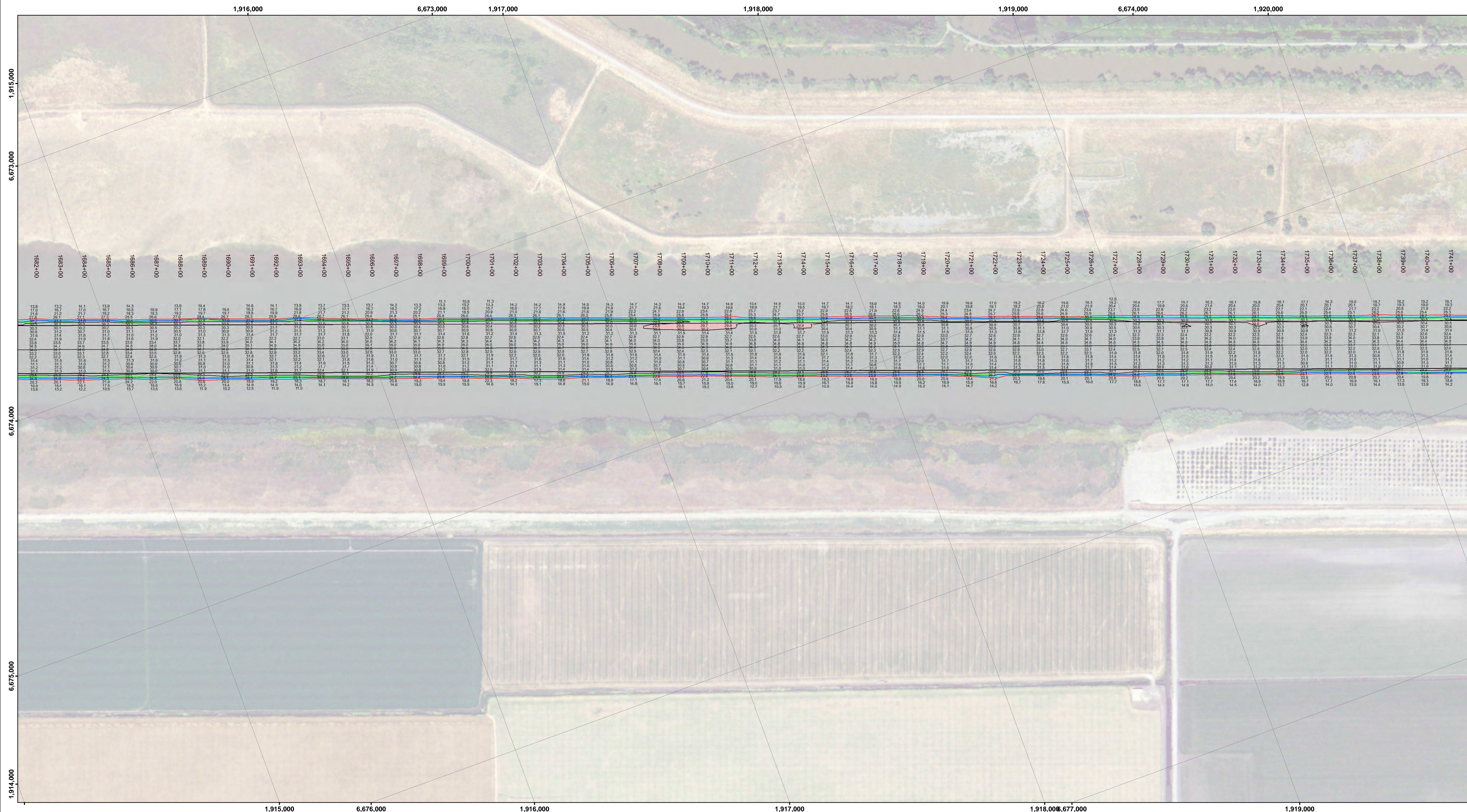


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Chart Date:	Sep 04, 2015
Designed by:	
Drawn by:	PDT
Surveyed By:	
Plotted By:	PDT
Checked By:	PDT

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER  
CONDITION SURVEY**  
7-9, 13-16 AND 30 APRIL 2015



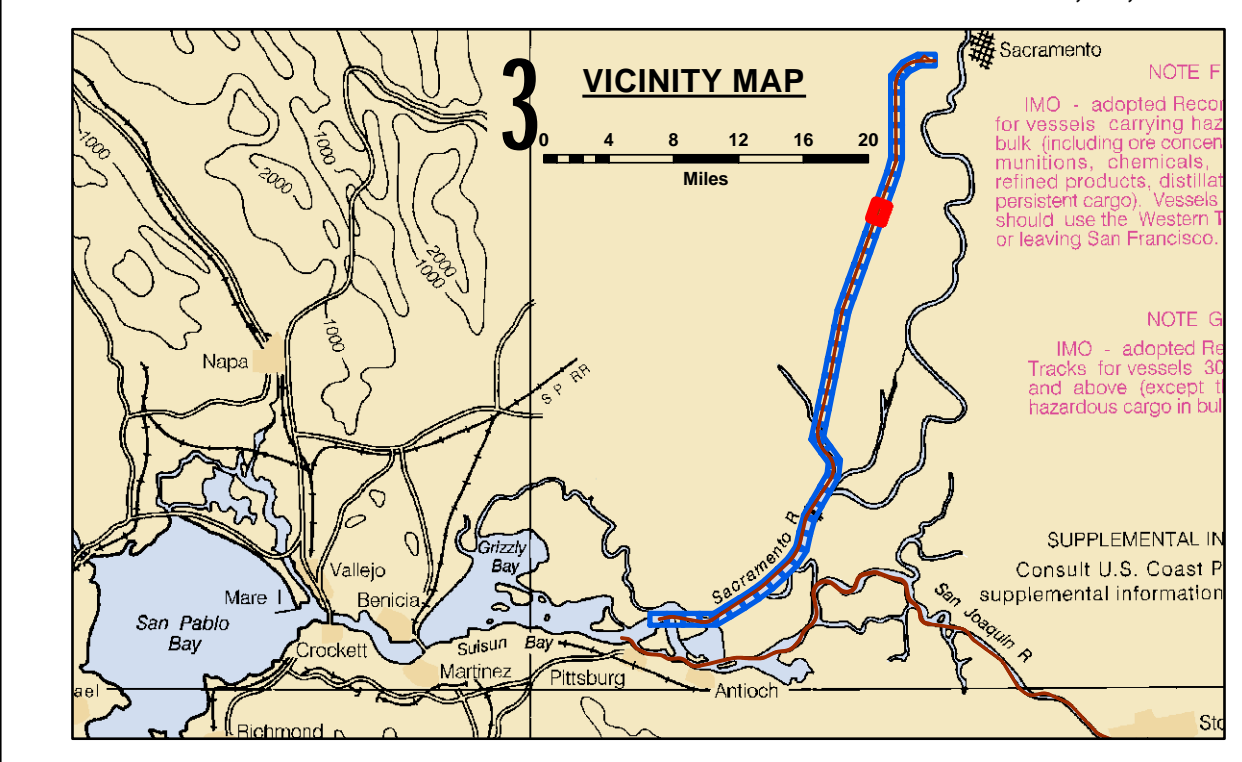
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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
34 of 45



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	▭ Shoaling Area
— Federal Navigation Center Line	▭ Placement Area	( Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊥ Obstruction Point	✕ Red Navigation Buoy
— Contour Line	⊥ Wrecks-Submerged	✕ Green Navigation Buoy

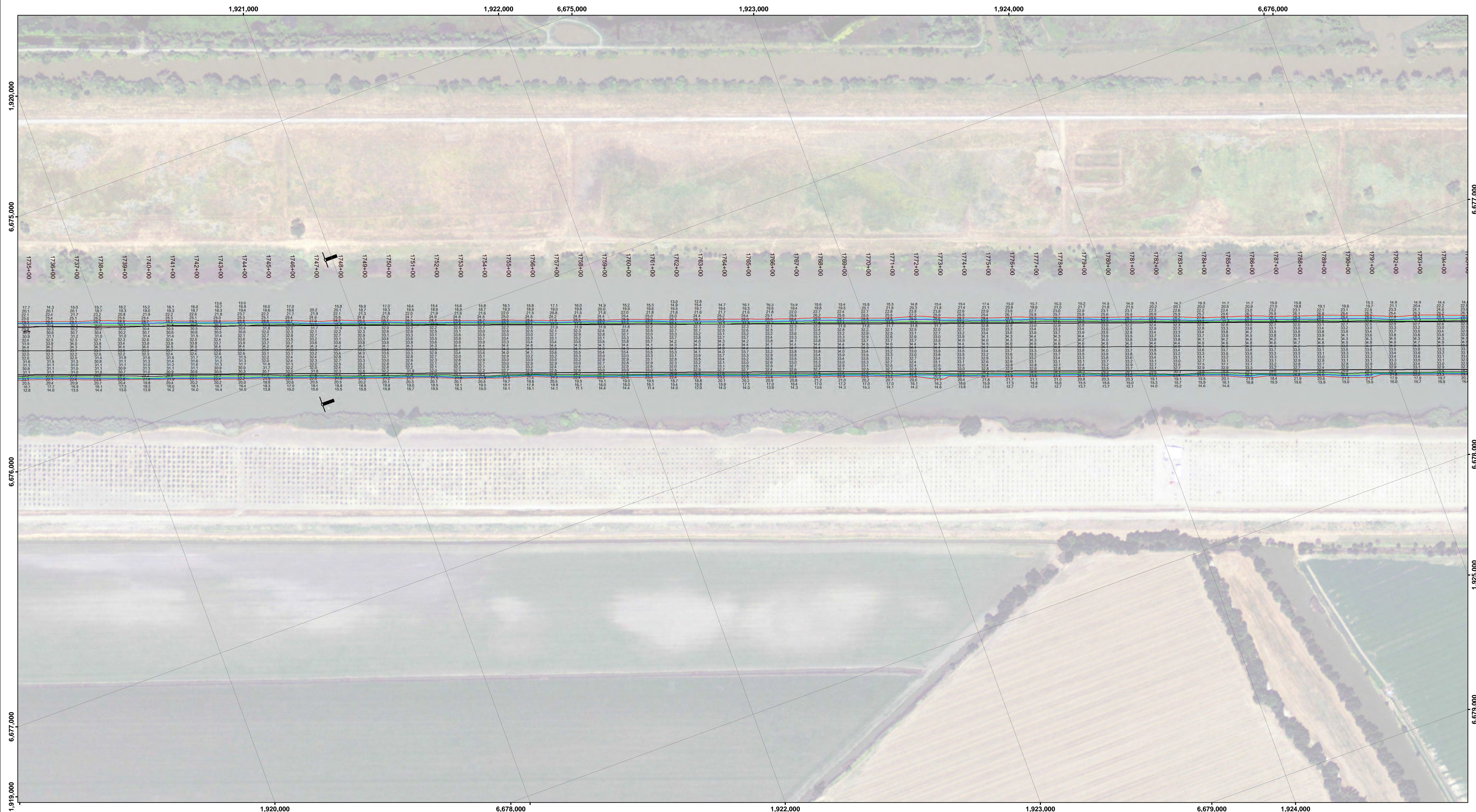
**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: Nail @ 8.2 ft MLLW  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



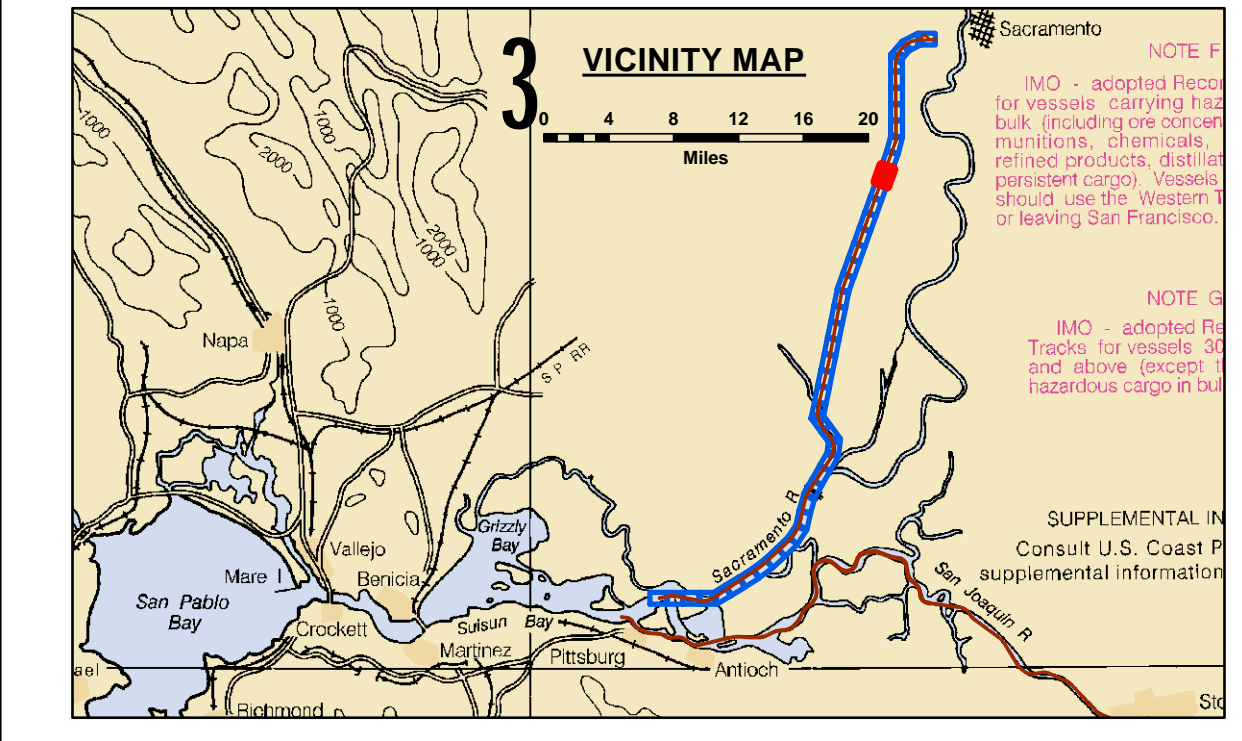
**DISCLAIMER:** The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the accuracy, completeness, and timeliness of the data. The user is responsible for the accuracy, completeness, and timeliness of the data.

**Access:** The United States Government furnishes this data and the results of its analysis for use in the public domain. The user is responsible for the accuracy, completeness, and timeliness of the data. The user is responsible for the accuracy, completeness, and timeliness of the data.

Prepared Under the Direction of <b>JOHN C. MORROW</b> LT Colonel, C.E. District Engineer	Chart Date: Sep 04, 2015
Surveyed By: _____	Designed by: _____
Plotted By: P.D.T.	Drawn by: P.D.T.
Recommended: _____	Checked by: P.D.T.
Approved: _____	Chief, Construction Branch

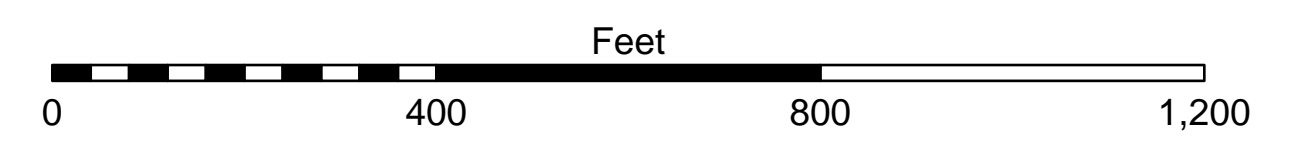
**CALIFORNIA**  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
**35 of 45**



**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	▭ Shoaling Area
— Federal Navigation Center Line	▭ Placement Area	⤵ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⬇ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy



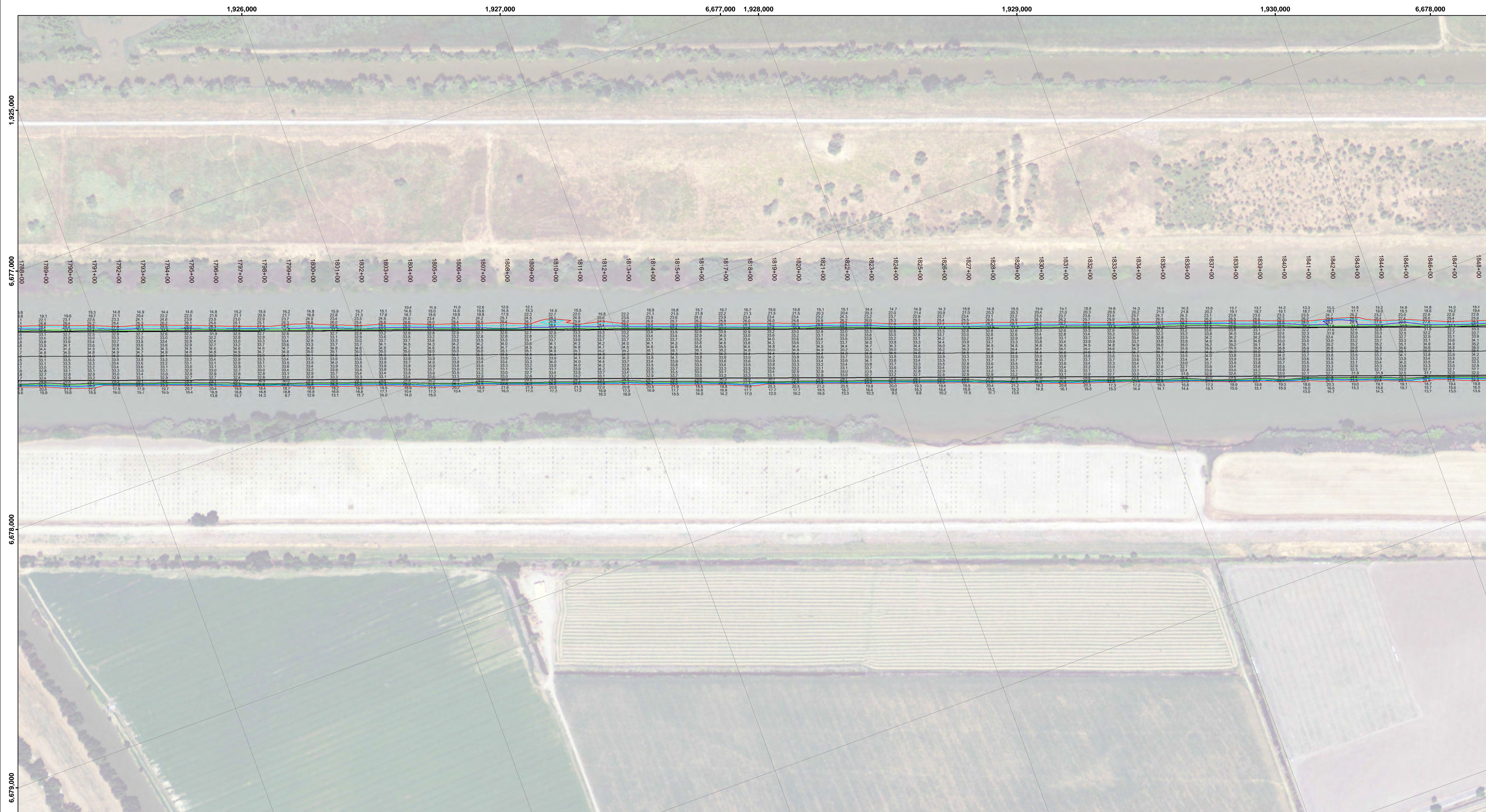
**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
The location of navigation aids are based on and provided by the U.S. Coast Guard.  
2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



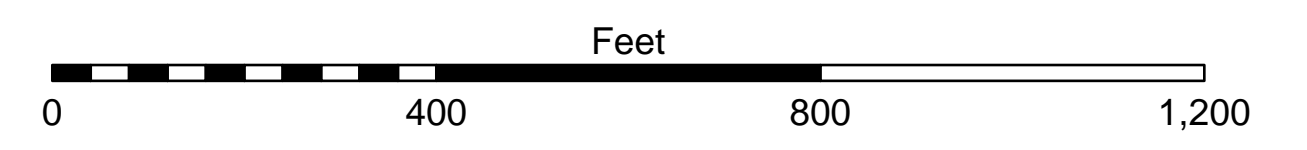
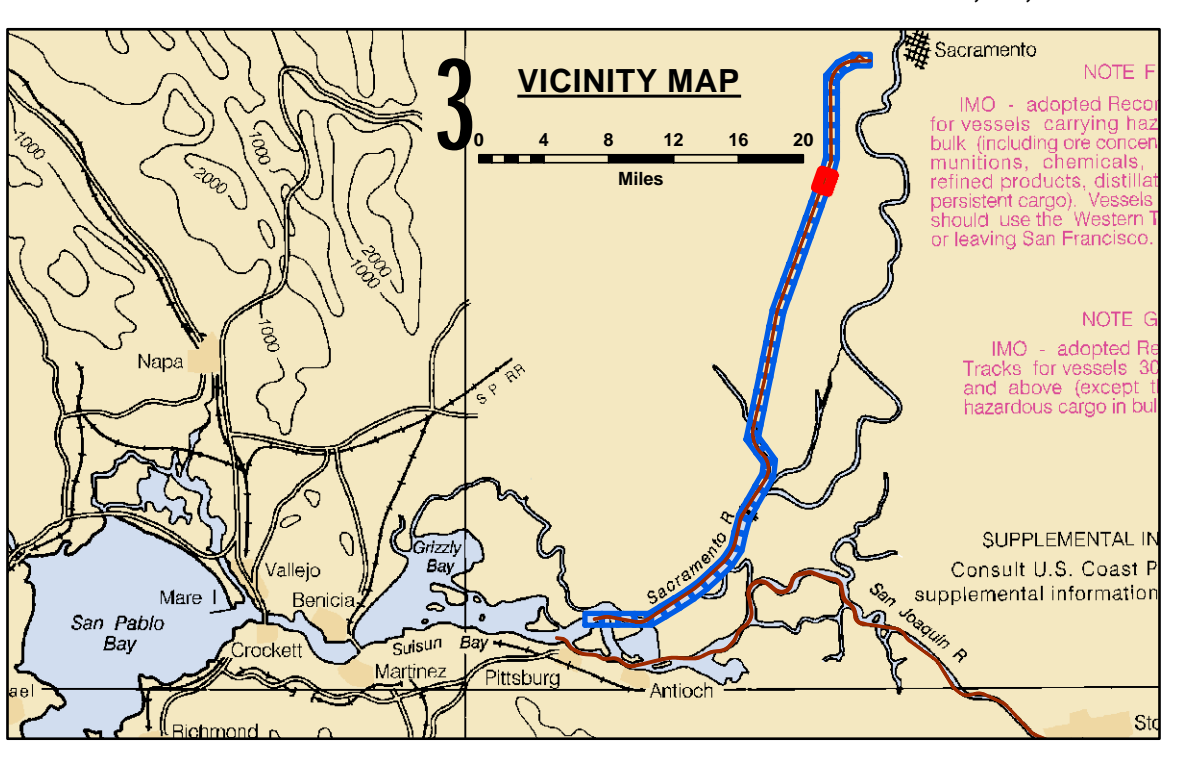
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Chart Date:	Sep 04, 2015
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Plotted By:	PDT
Designed by:	PDT
Checked By:	PDT
Drawn by:	PDT

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
36 of 45



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

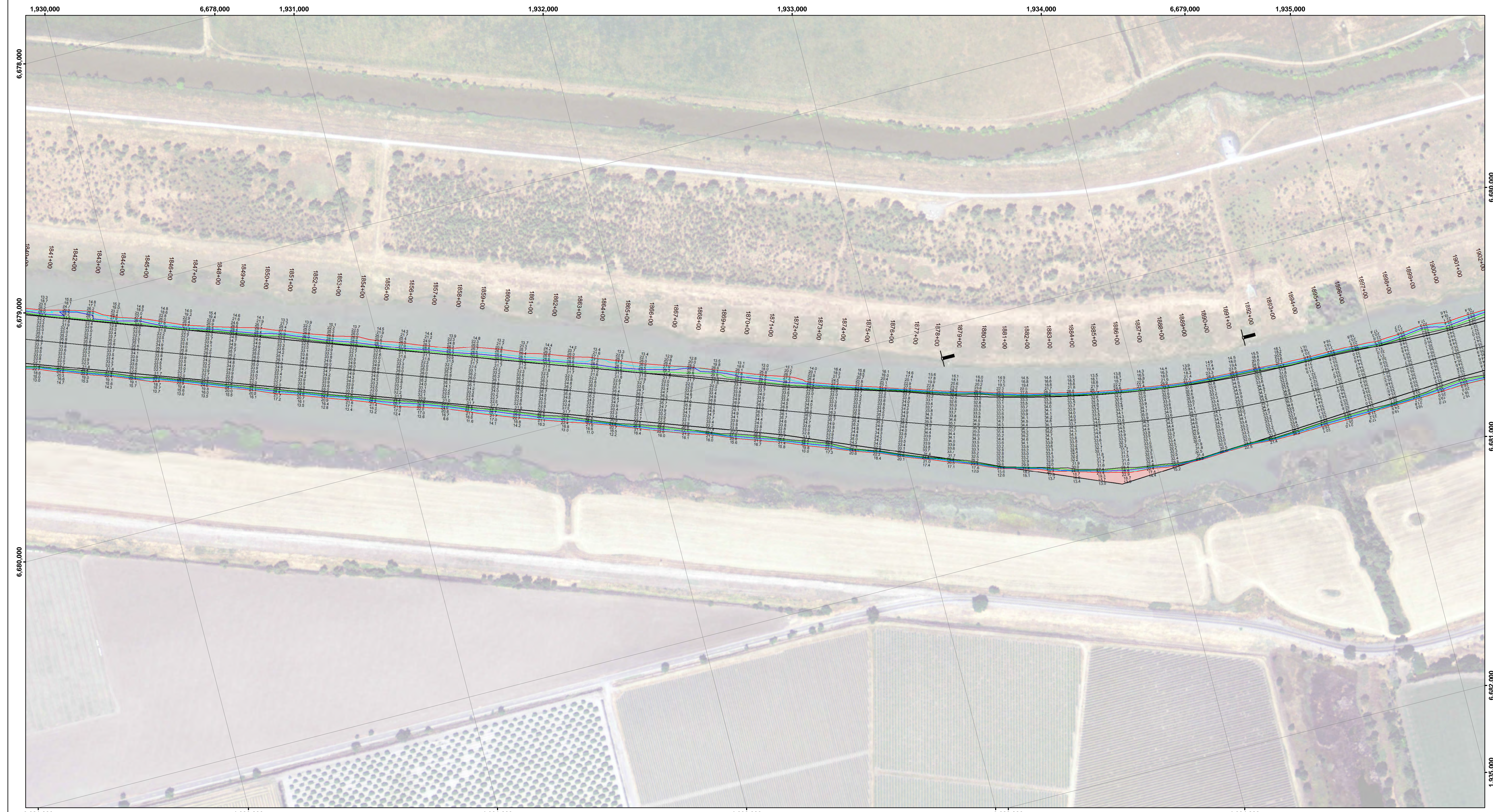
**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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The location of navigation aids are based on and provided by the U.S. Coast Guard.  
2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

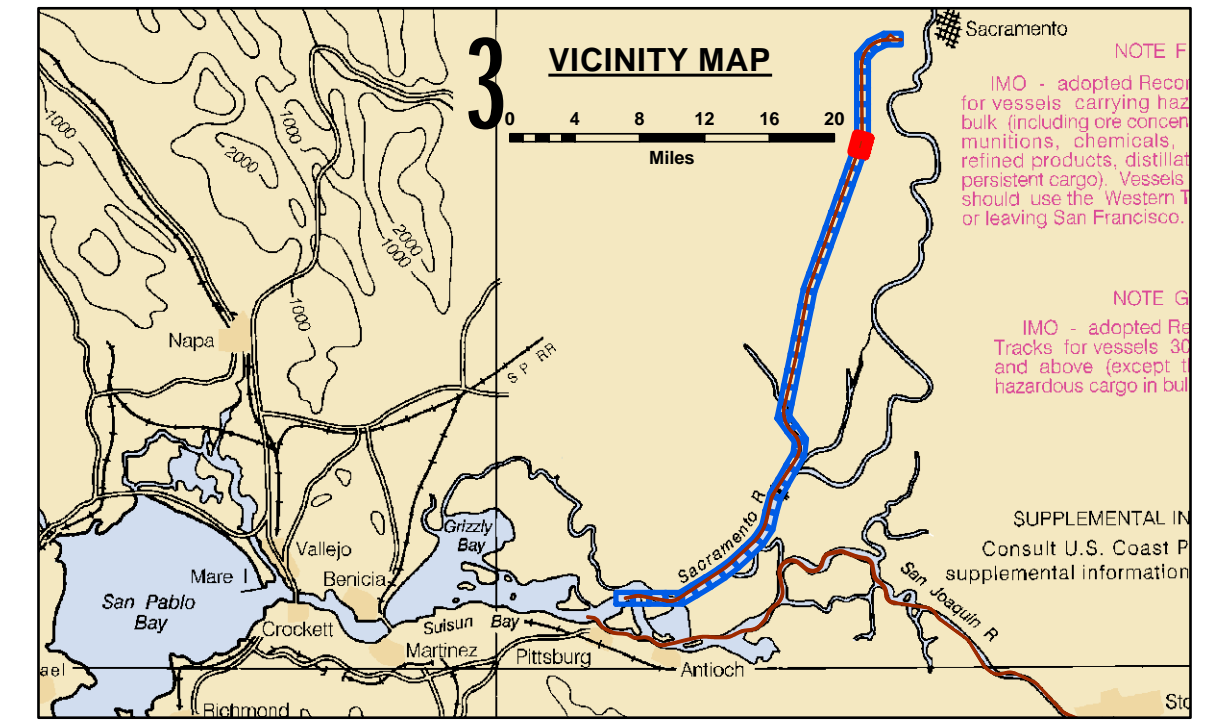
**LOCATION: PORT OF WEST SACRAMENTO**  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Plotted By:	Hydro Survey Team Leader
Checked By:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch



Feet  
0 400 800 1,200

LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊂ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
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2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

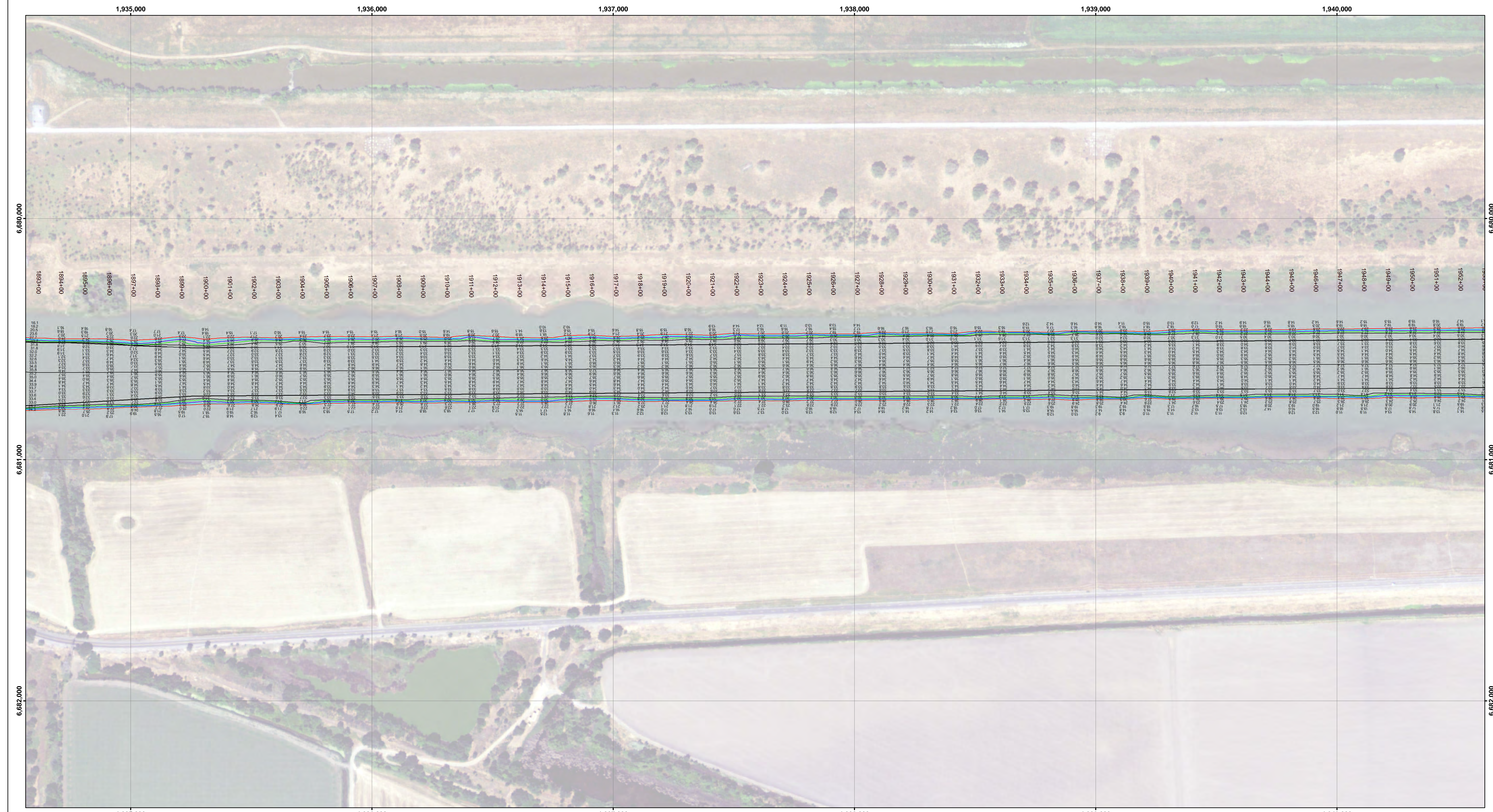
**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

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CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

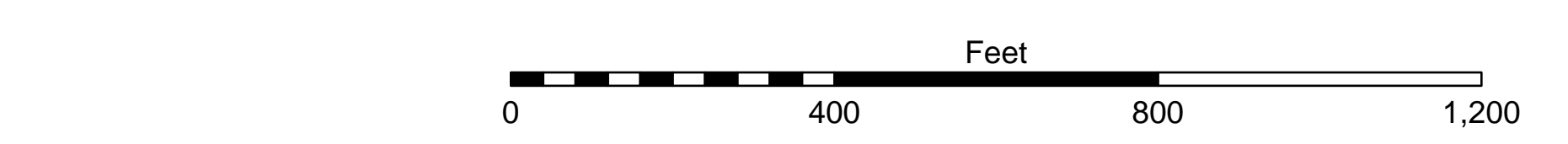
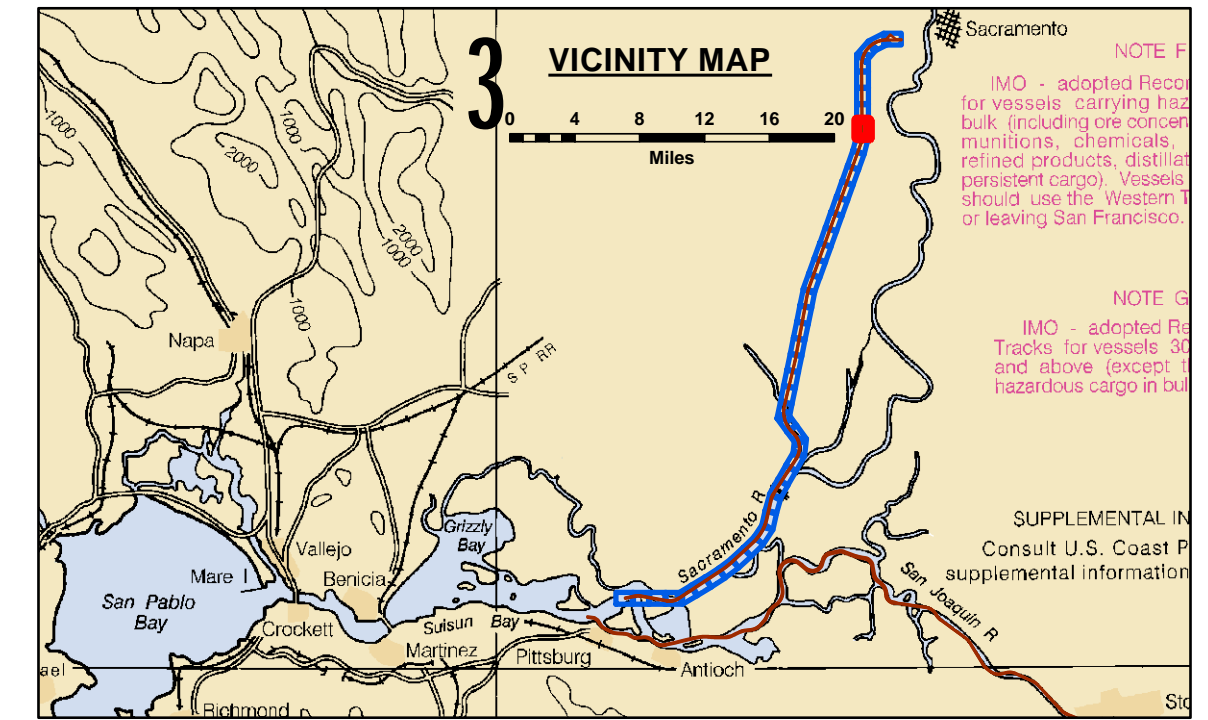
**Sheet Reference Number**  
37 of 45



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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch



LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	▭ Placement Area	( ) Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	✕ Red Navigation Buoy
— Contour Line	⊘ Wrecks-Submerged	✕ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

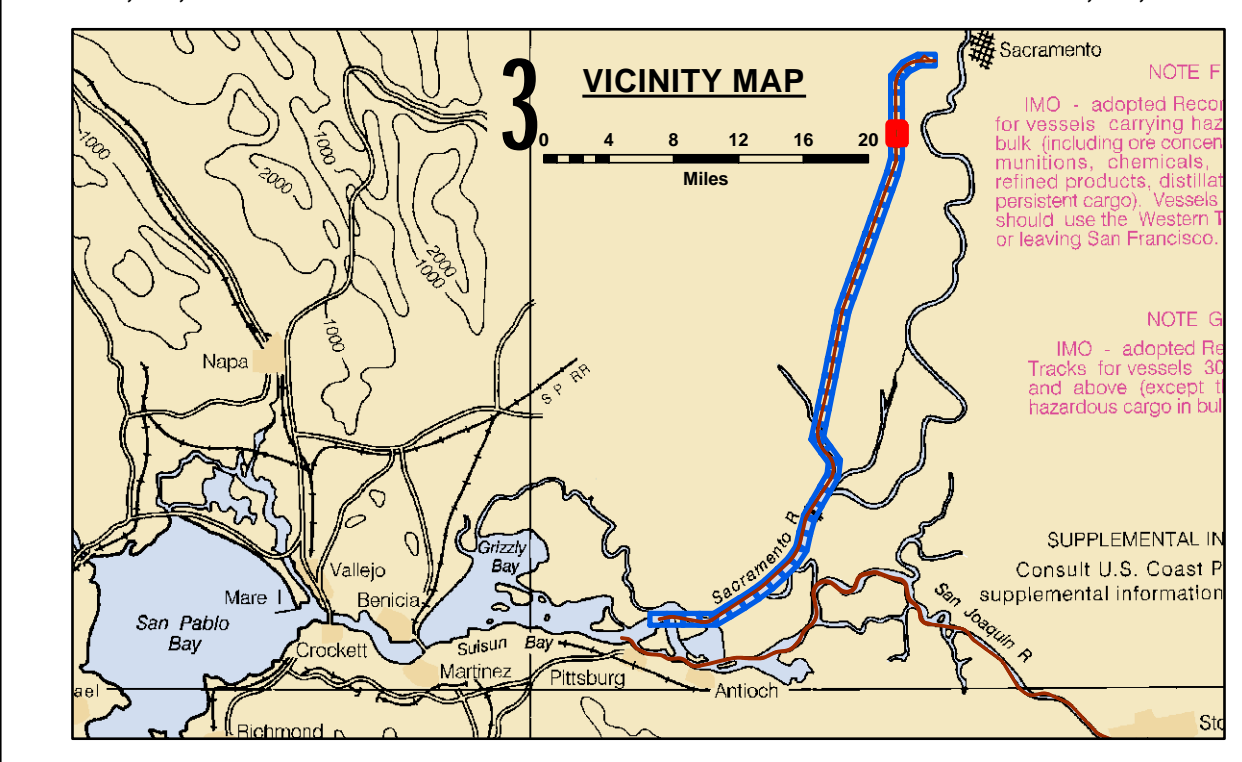
**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION:** PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015



Feet  
0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	○ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊙ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum:  
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 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

Project Information:  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

CONTROLS:  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

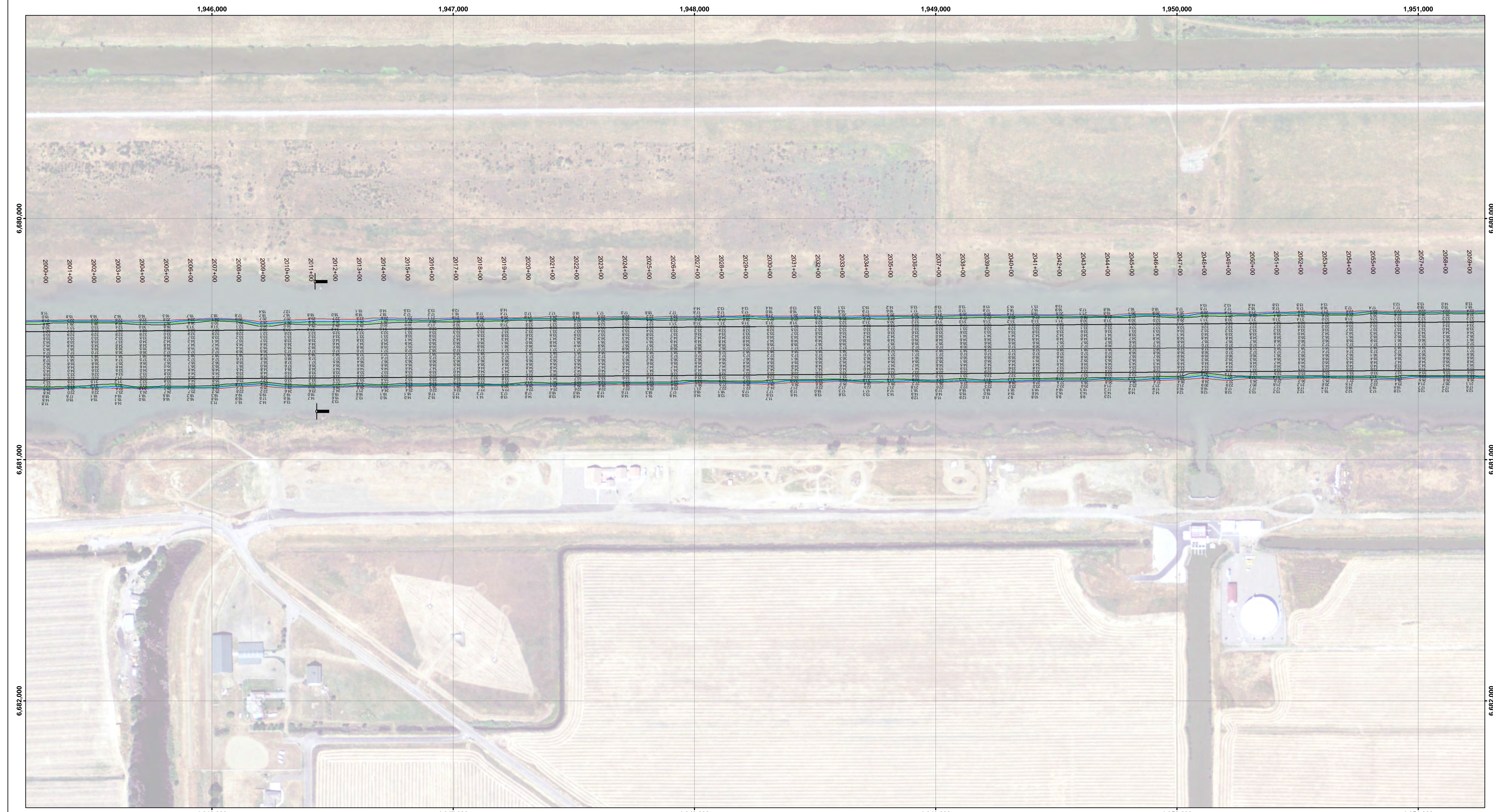


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015



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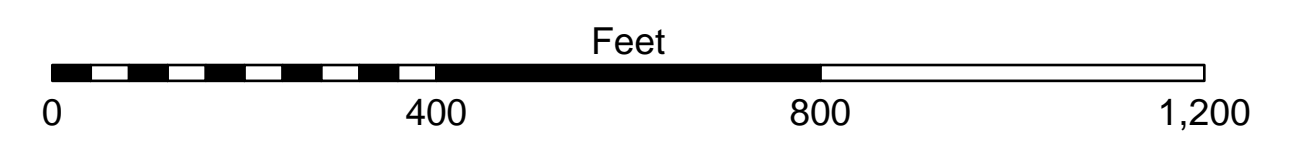
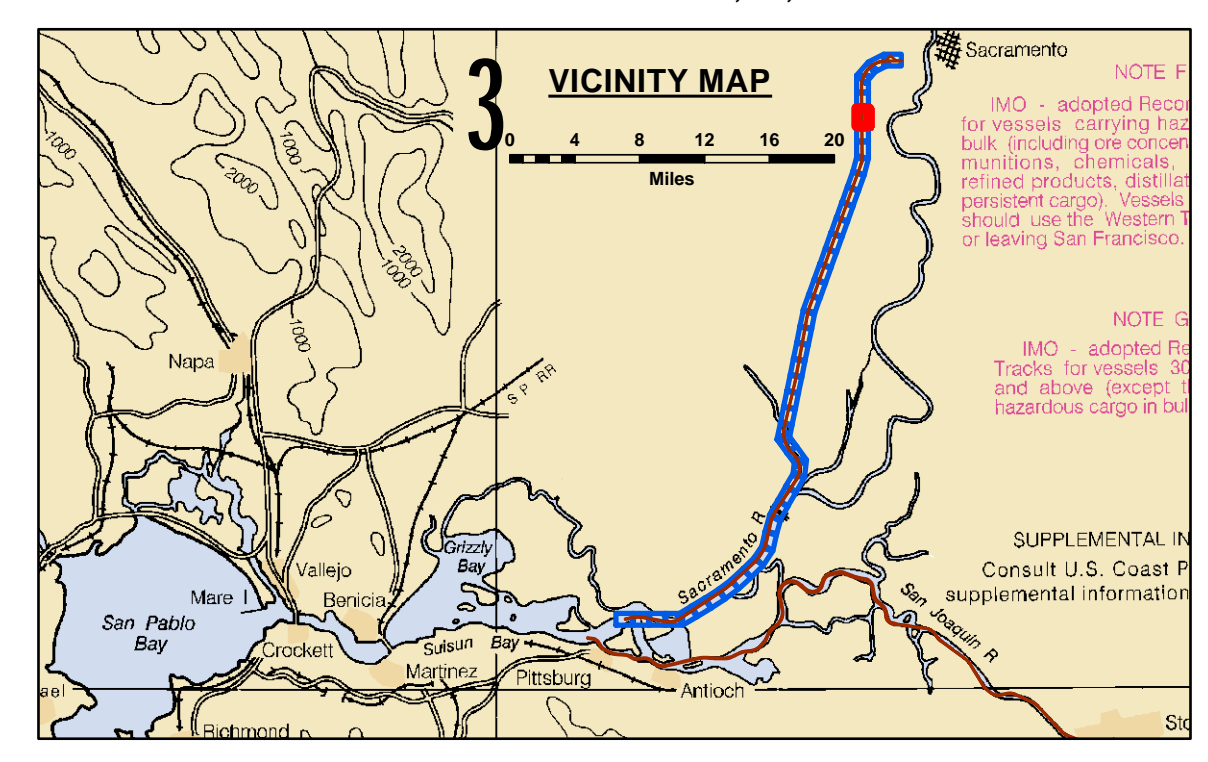
**Access Constraints:** The United States Government furnishes this data as a public service. It is not intended for use in any other project. Accuracy of the data is not guaranteed. The user is responsible for the results of any application of the data for other than its intended purpose.

**Under no circumstances shall the data be used for any purpose other than that for which it was provided. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.**

Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Printed By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

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

--- Federal Navigation Channel	Cable Area	Shoaling Area
— Federal Navigation Center Line	Placement Area	Shoalest Sounding**
..... Cable Submarine	Anchorage Area	Beacon, General
- - - Cable Overhead	Obstruction Point	Red Navigation Buoy
— Contour Line	Wrecks-Submerged	Green Navigation Buoy

**NOTES:**

Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.

Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.

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2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

Reference is N.O.A. Navigation Chart No. 18521.

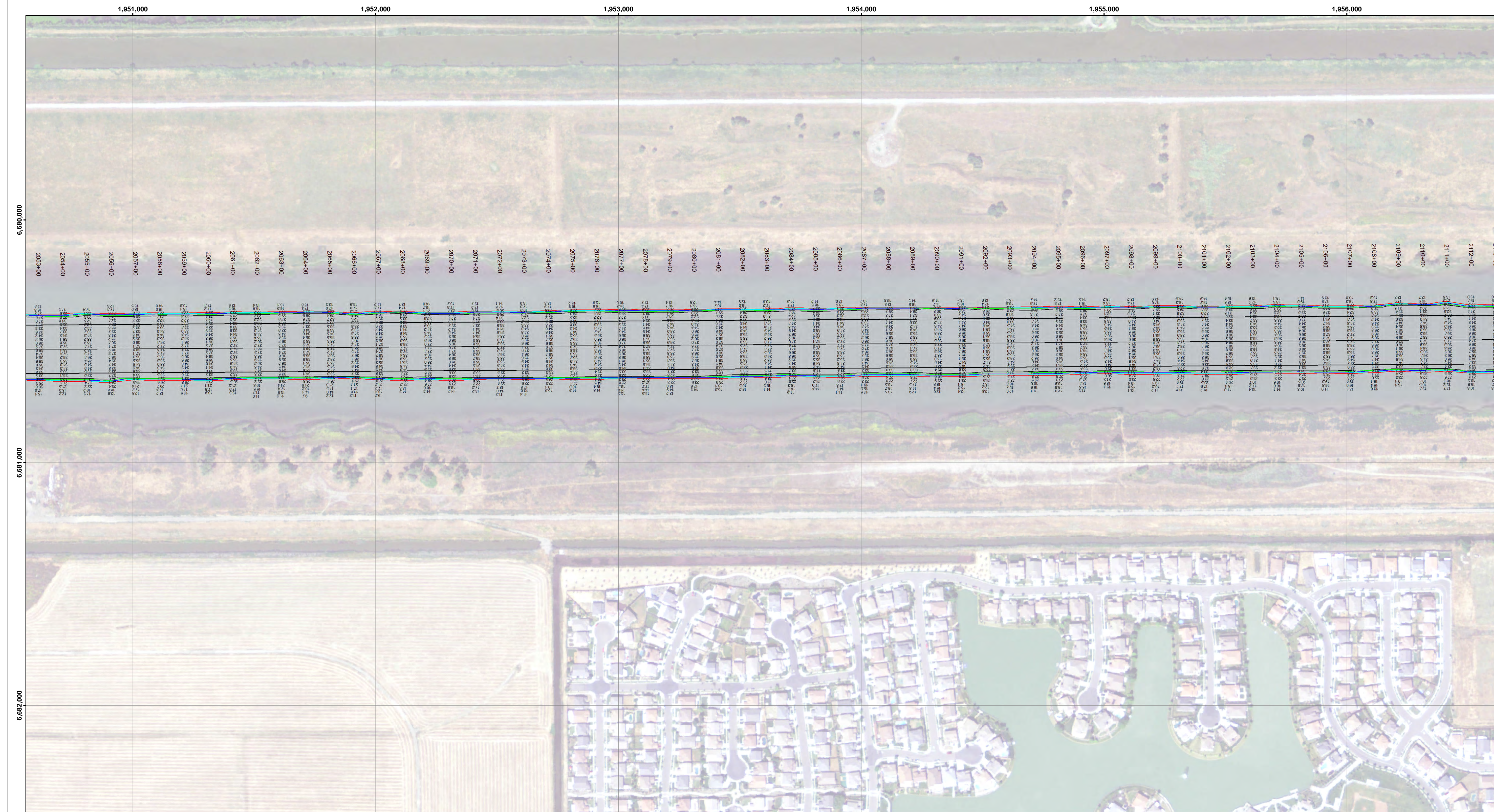
Project Information:  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

CONTROLS:  
LOCATION: RIO VISTA  
NOAA STATION: 9416316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

LOCATION: PORT OF WEST SACRAMENTO  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



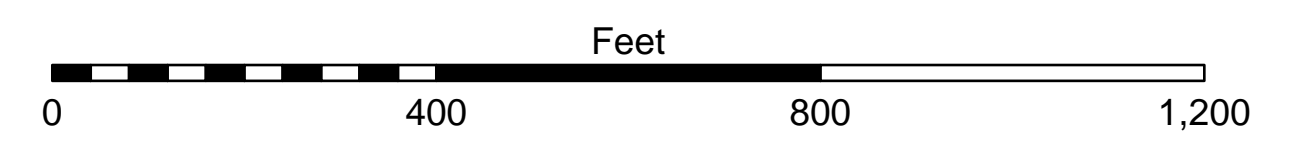
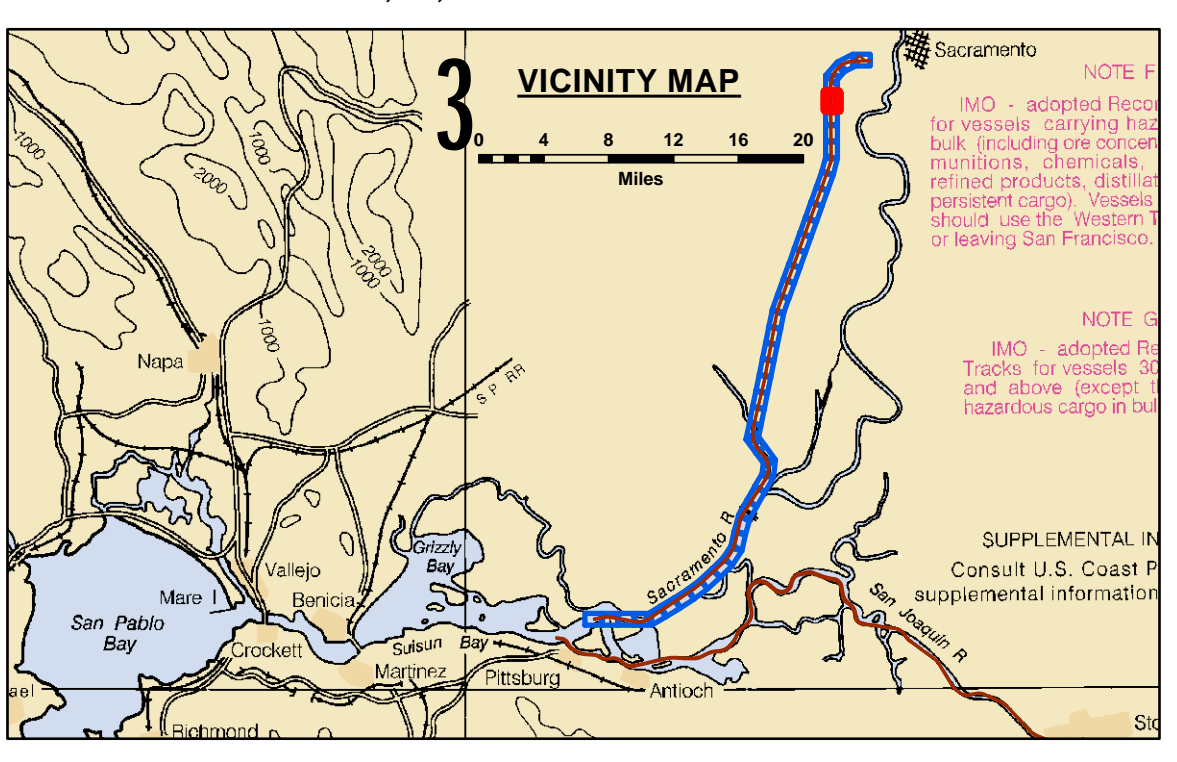


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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015



LEGEND	
--- Federal Navigation Channel	▨ Cable Area
— Federal Navigation Center Line	▭ Placement Area
..... Cable Submarine	▭ Anchorage Area
--- Cable Overhead	⊥ Obstruction Point
— Contour Line	⊥ Wrecks-Submerged
	■ Shoaling Area
	○ Shoalest Sounding**
	⊥ Beacon, General
	⊗ Red Navigation Buoy
	⊗ Green Navigation Buoy

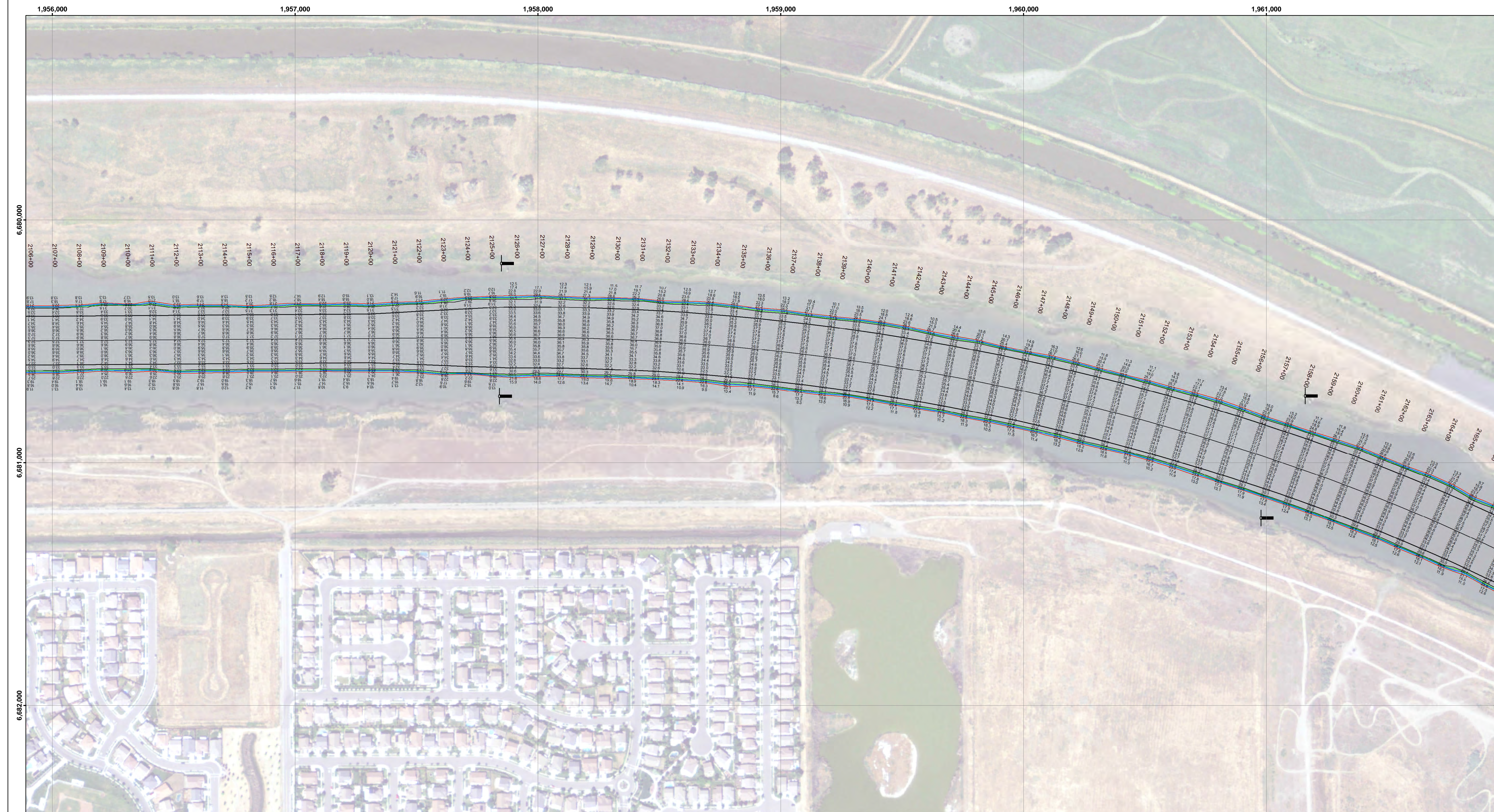
**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POW51 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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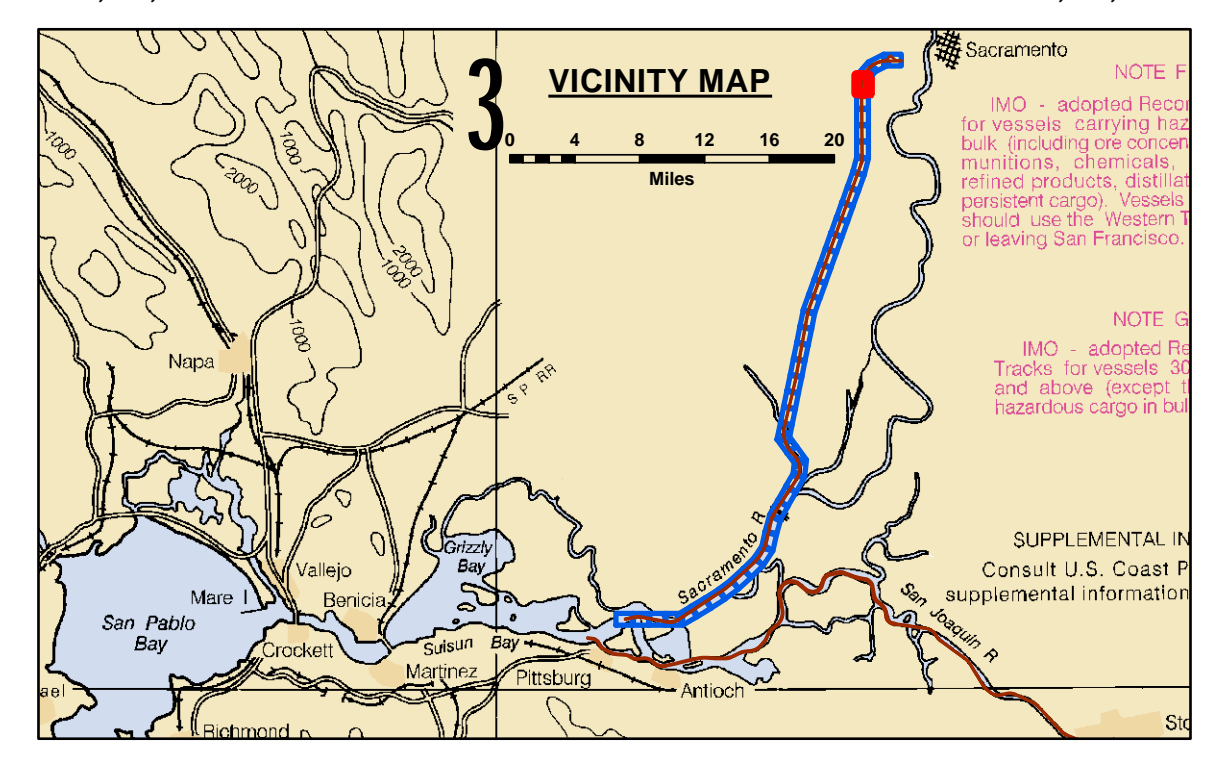
**Chart Date:** Sep 04, 2015  
**Designed by:** PDT  
**Drawn by:** PDT

**PREPARED UNDER THE DIRECTION OF**  
**JOHN C. MORROW**  
 LT. COLONEL, C.E., DISTRICT ENGINEER

**Surveyed By:** \_\_\_\_\_  
**Plotted By:** PDT  
**Checked By:** PDT  
**Approved:** \_\_\_\_\_  
 Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

**Sheet Reference Number**  
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Feet  
 0 400 800 1,200

**LEGEND**

--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	○ Shoalest Sounding**
..... Cable Submarine	▭ Anchorage Area	⊥ Beacon, General
--- Cable Overhead	⊘ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.

Vertical Datum:  
 Soundings are shown in feet and indicate depths below MLLW Datum.

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The location of navigation aids are based on and provided by the U.S. Coast Guard.

2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.

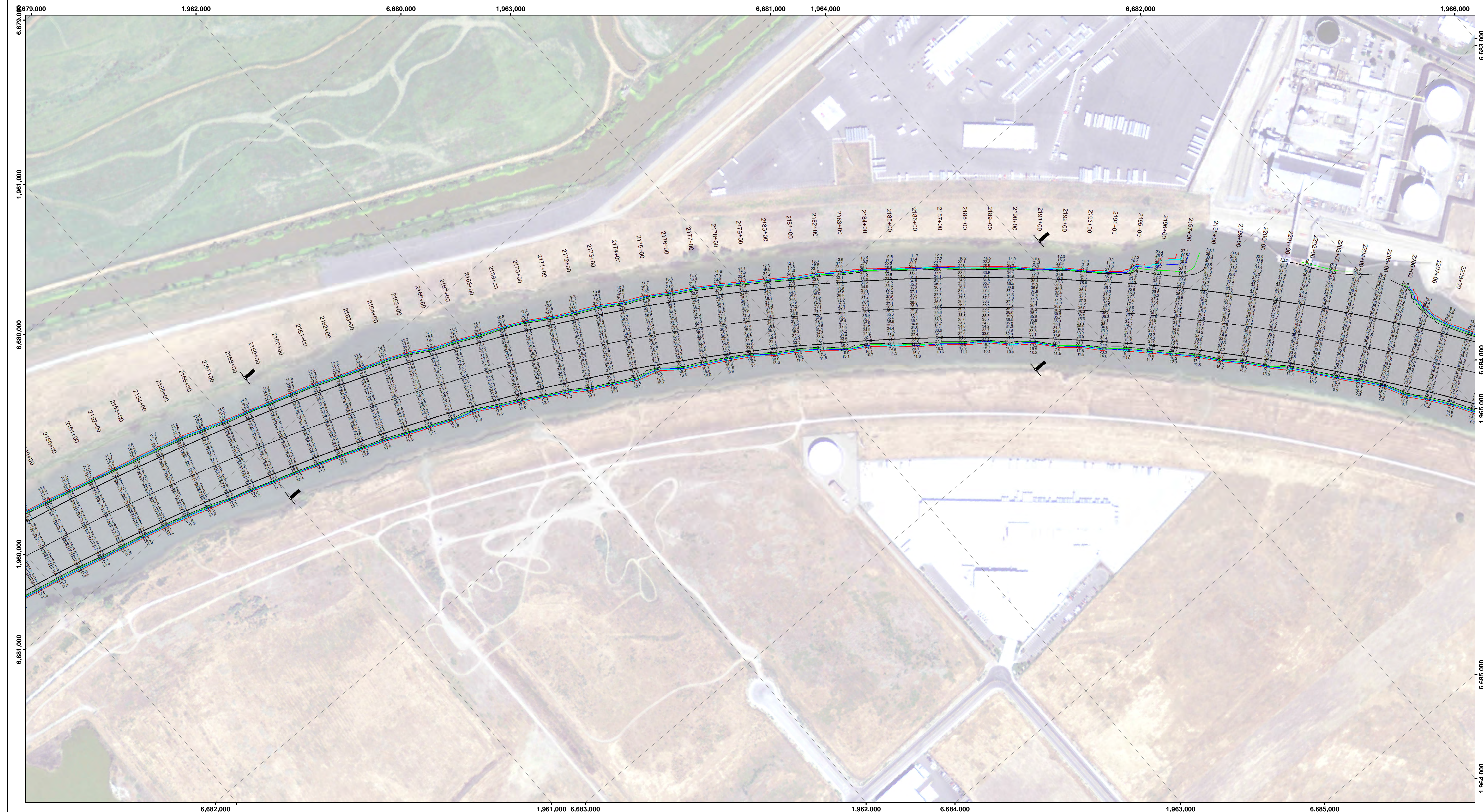
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

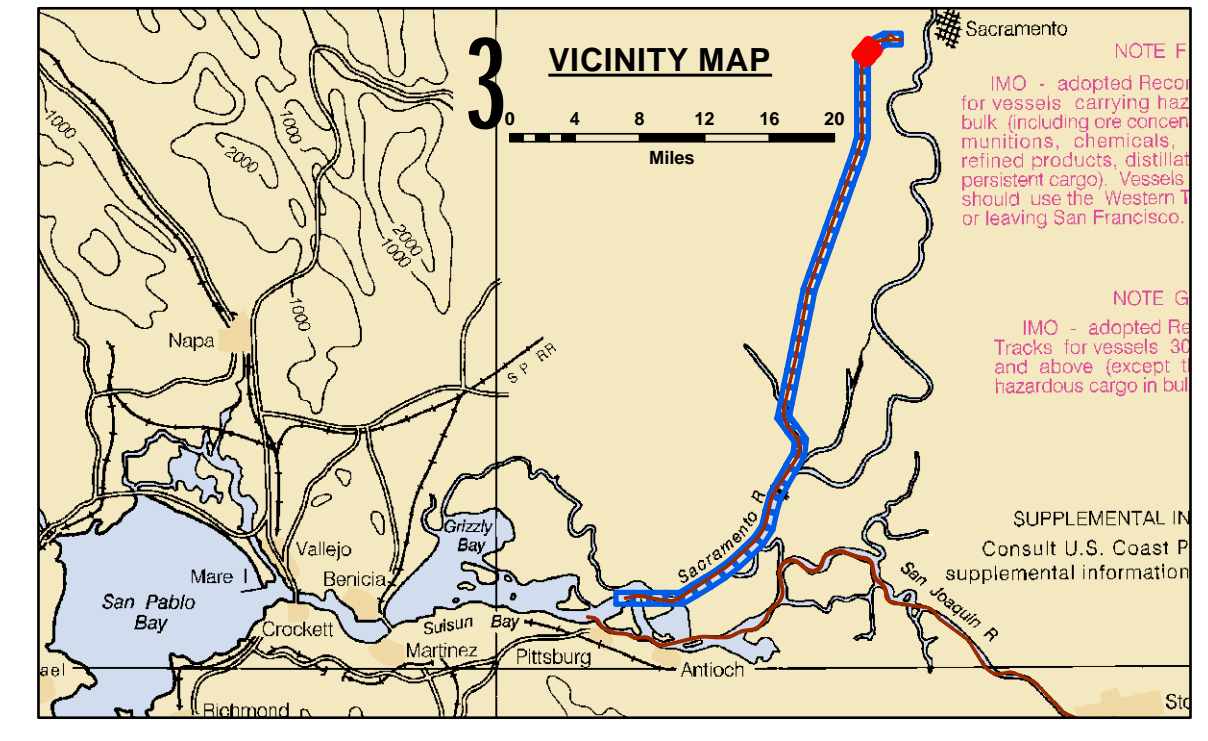


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**ACCESS:** The United States Government furnishes this data and the US Army Corps of Engineers does not accept any liability for the accuracy, completeness, or implied consequences of the data. The user is responsible for the accuracy, completeness, or implied consequences of the data. The user is responsible for the accuracy, completeness, or implied consequences of the data.

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Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Construction Branch



Feet  
0 400 800 1,200

LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	○ Shoalest Sounding**
..... Cable Submarine	▤ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊙ Obstruction Point	✕ Red Navigation Buoy
— Contour Line	⊙ Wrecks-Submerged	✕ Green Navigation Buoy

**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
The location of navigation aids are based on and provided by the U.S. Coast Guard.  
2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
Drawing not to be used for navigation.  
Project Depth -30'  
Tide gauge  
Equipment statement

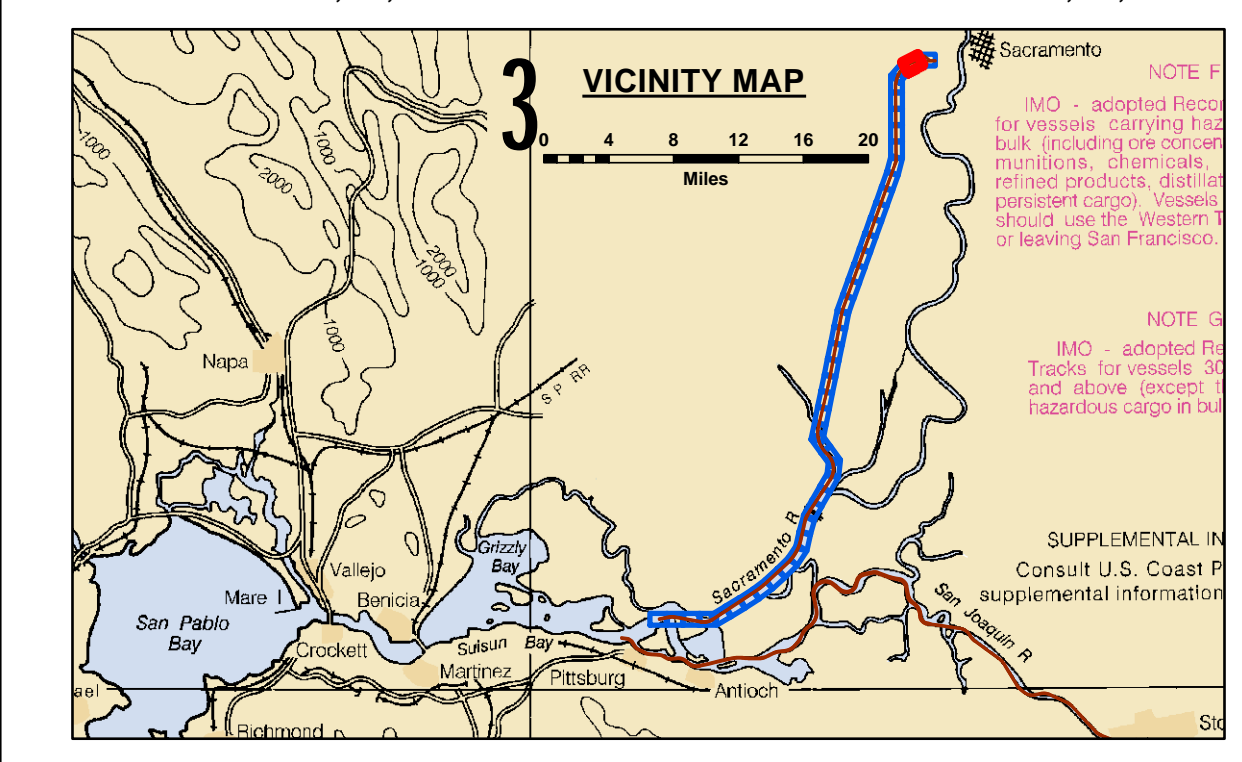
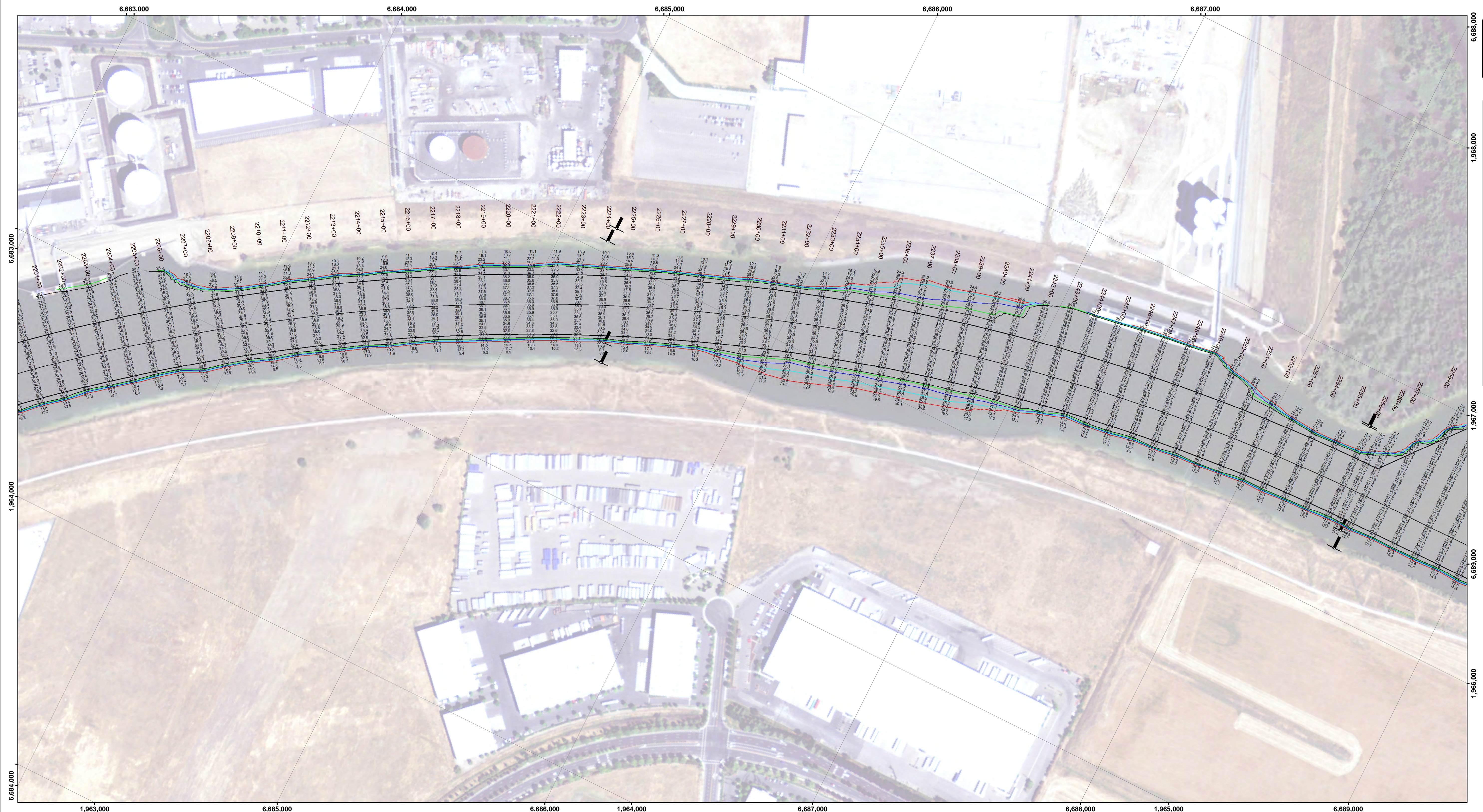
**CONTROLS:**  
LOCATION: RIO VISTA  
NOAA STATION: 9415316  
BENCHMARK: 5316 B 1996 (No PID)  
TIDE GAUGE: Nail @ 8.2 ft MLLW  
METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
NOAA STATION: 9416131  
BENCHMARK: POWS1 (No PID)  
TIDE GAUGE: Nail @ 10.0 ft MLLW  
METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.

CALIFORNIA  
SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
CONDITION SURVEY  
7-9, 13-16 AND 30 APRIL 2015

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Feet  
0 400 800 1,200

LEGEND		
--- Federal Navigation Channel	▨ Cable Area	■ Shoaling Area
— Federal Navigation Center Line	□ Placement Area	⊖ Shoalest Sounding**
⋯ Cable Submarine	⊞ Anchorage Area	⊥ Beacon, General
- - - Cable Overhead	⊚ Obstruction Point	⊗ Red Navigation Buoy
— Contour Line	⊚ Wrecks-Submerged	⊗ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (0402). Distance units in U.S. Survey Feet.  
 Vertical Datum: Soundings are shown in feet and indicate depths below MLLW Datum.  
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 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.

**Project Information:**  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement

**CONTROLS:**  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014

**LOCATION: PORT OF WEST SACRAMENTO**  
 NOAA STATION: 9416131  
 BENCHMARK: POWS1 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014

All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



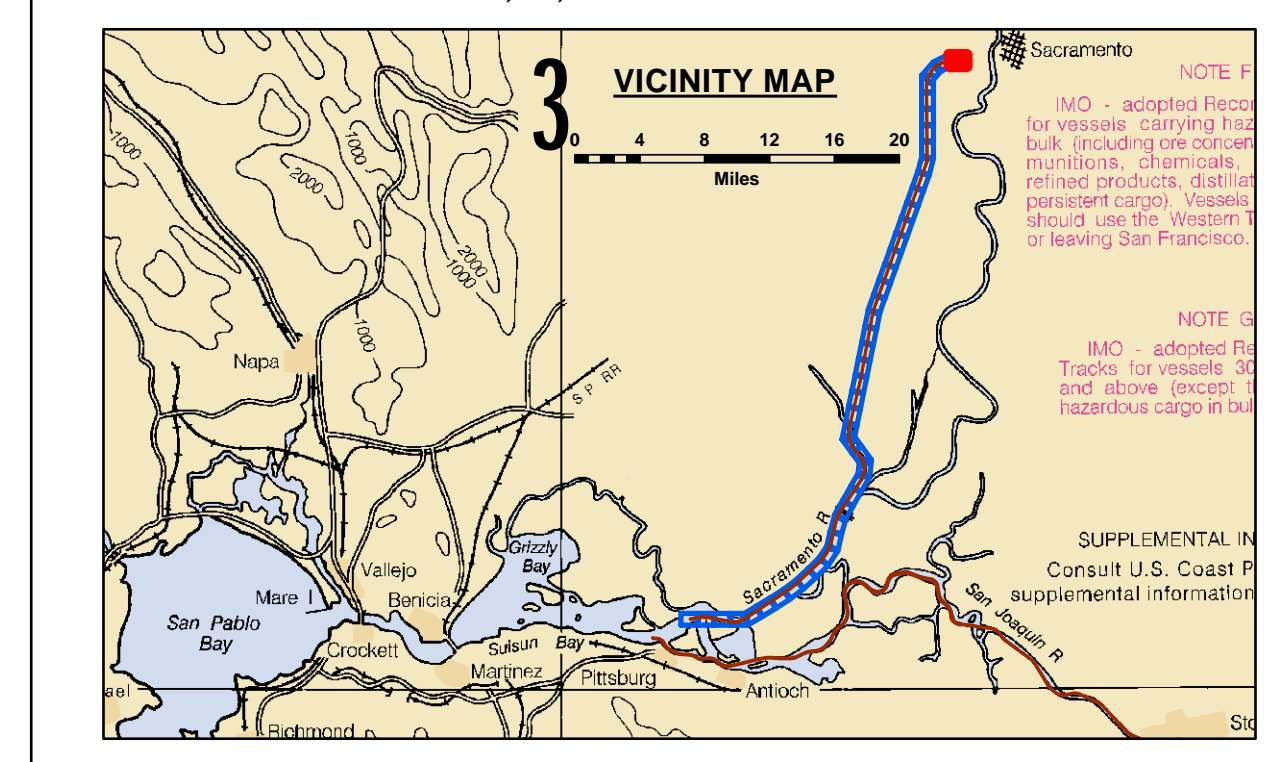
**DISCLAIMER:** The United States Government furnishes this data as a service to the public and does not warrant, express or implied, the accuracy, completeness, or timeliness of the data. The user is responsible for the results of any application of the data for other than its intended purpose.

**Accession:** The United States Government furnishes this data as a service to the public and does not warrant, express or implied, the accuracy, completeness, or timeliness of the data. The user is responsible for the results of any application of the data for other than its intended purpose.

Chart Date:	Sep 04, 2015
Designed by:	PDT
Drawn by:	PDT
Surveyed By:	JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER
Plotted By:	PDT
Checked By:	PDT
Approved:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch

CALIFORNIA  
 SAN JOAQUIN COUNTY  
**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015

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

- Federal Navigation Channel
- Federal Navigation Center Line
- ..... Cable Submarine
- Cable Overhead
- Contour Line
- ▨ Cable Area
- ▭ Placement Area
- ▭ Anchorage Area
- ⚓ Obstruction Point
- ⚓ Wrecks-Submerged
- ▭ Shoaling Area
- Ⓢ Shoalest Sounding\*\*
- ⚓ Beacon, General
- Ⓢ Red Navigation Buoy
- Ⓢ Green Navigation Buoy

**NOTES:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), CA Zone2 (402). Distance units in U.S. Survey Feet.  
 Vertical Datum:  
 Soundings are shown in feet and indicate depths below MLLW Datum.  
 The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard.  
 2009 Aerial Photography data source: U.S.D.A., Service Center Agencies.  
 Reference is N.O.A. Navigation Chart No. 18521.  
 Project Information:  
 Drawing not to be used for navigation.  
 Project Depth -30'  
 Tide gauge  
 Equipment statement  
 CONTROLS:  
 LOCATION: RIO VISTA  
 NOAA STATION: 9415316  
 BENCHMARK: 5316 B 1996 (No PID)  
 TIDE GAUGE: Nail @ 8.2 ft MLLW  
 METADATA: Nail set by USACE 31 March, 2014  
 LOCATION: PORT OF WEST SACRAMENTO  
 NOAA STATION: 9416131  
 BENCHMARK: POW51 (No PID)  
 TIDE GAUGE: Nail @ 10.0 ft MLLW  
 METADATA: Nail set by USACE 8 April, 2014  
 All horizontal positions and MLLW elevations were post-processed using public GPS reference stations in the area.



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Chart Date:	Sep 04, 2015
Surveyed By:	
Plotted By:	PDT
Checked By:	PDT
Designed by:	
Drawn by:	PDT

CALIFORNIA  
 SAN JOAQUIN COUNTY  
 PREPARED UNDER THE DIRECTION OF  
**JOHN C. MORROW**  
 LT. COLONEL, C.E. DISTRICT ENGINEER  
 Suggested: Hydro Survey Team Leader  
 Recommended: Chief, Hydro Survey Section  
 Approved: Chief, Construction Branch

**SACRAMENTO RIVER**  
 CONDITION SURVEY  
 7-9, 13-16 AND 30 APRIL 2015  
 Sheet Reference Number  
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