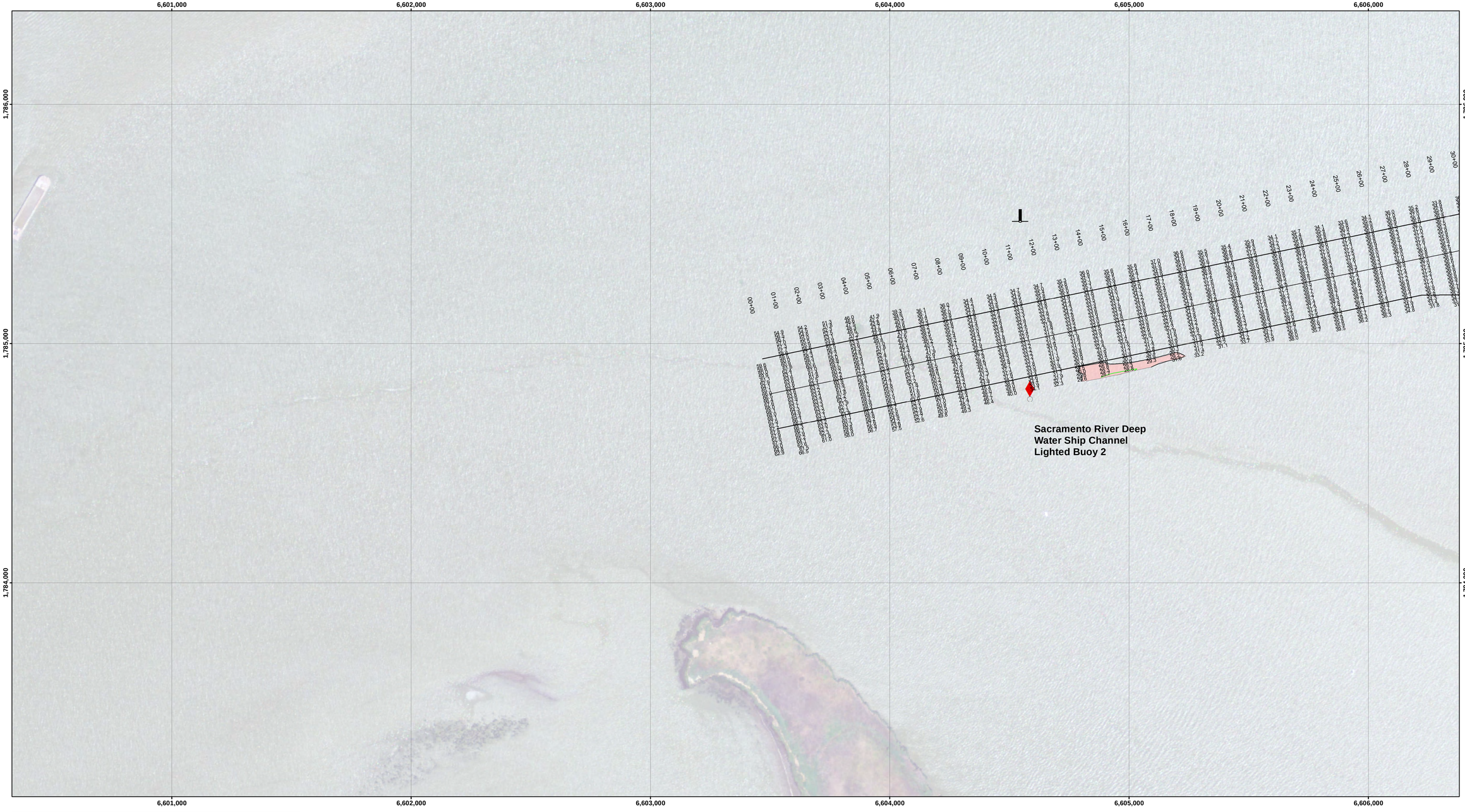

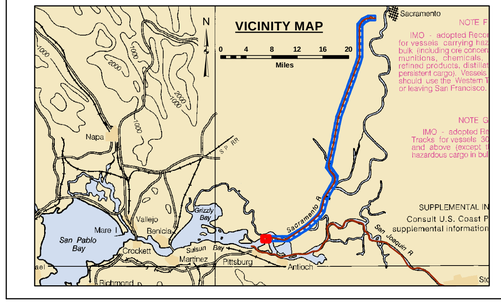

Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

N W E S

NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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.

US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		Drawn by: PDT
Plotted By: PDT	Checked By: PDT		

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

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

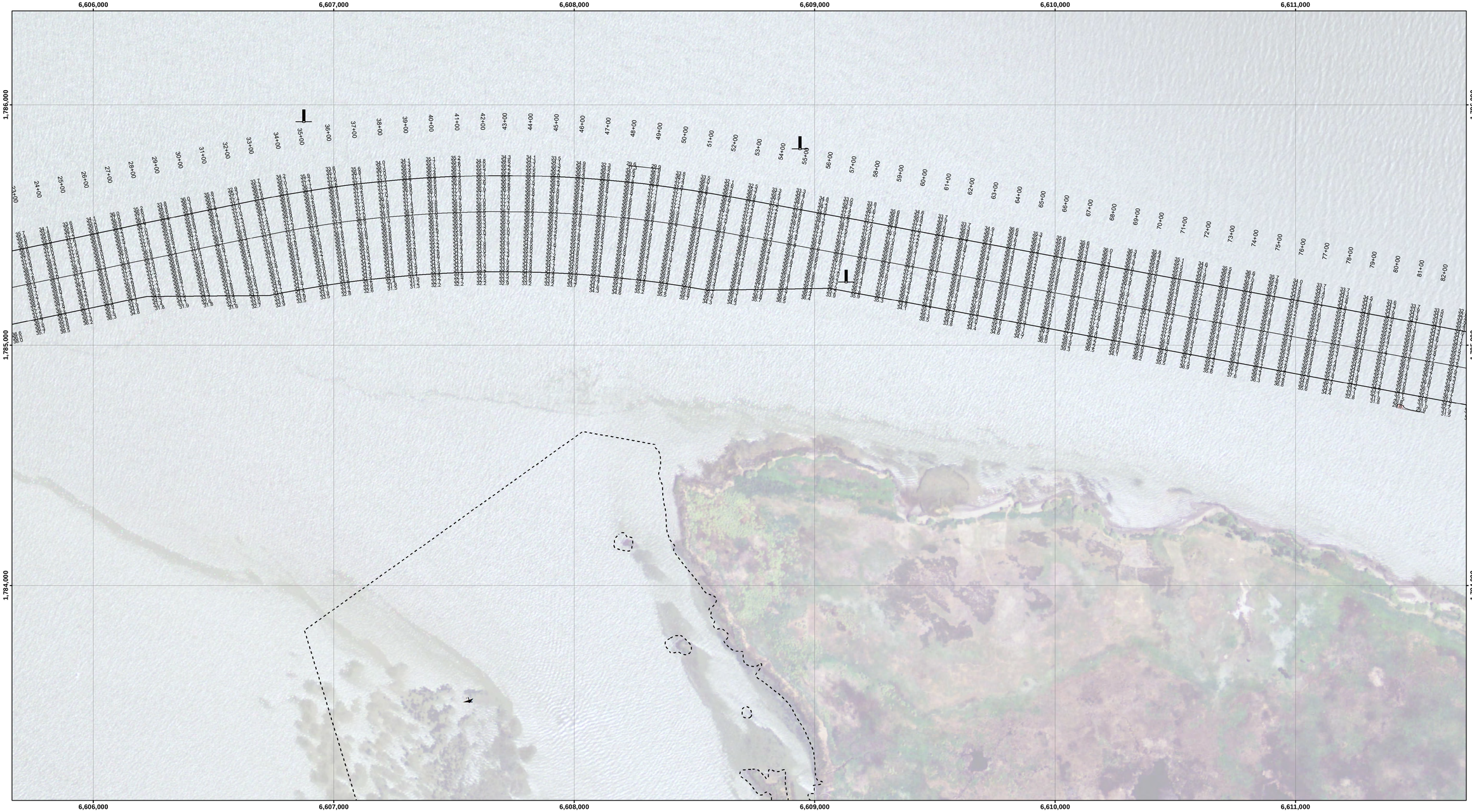
Approved:
Chief, Construction Branch

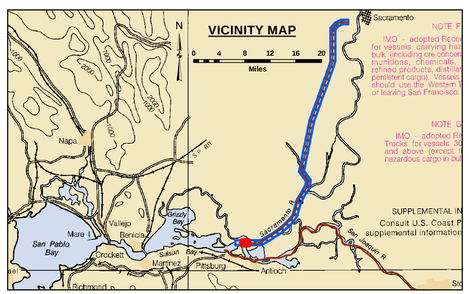
CALIFORNIA

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

SAN JOAQUIN COUNTY

Sheet Reference Number
1 of 45





Feet
0 400 800 1,200

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

Contours
-30
-29
-28
-27
-26

N W E S

NOTES:
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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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US Army Corps of Engineers
District: CESPK

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Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

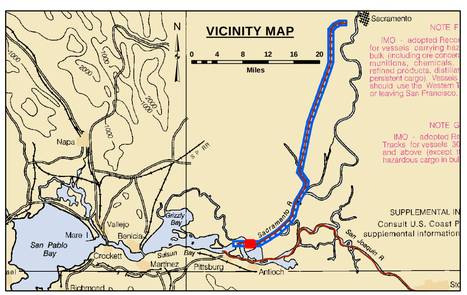
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
2 of 45



Feet
0 400 800 1,200

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

Contours
- -30
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N W E S

NOTES:
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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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US Army Corps of Engineers
District: CESPK

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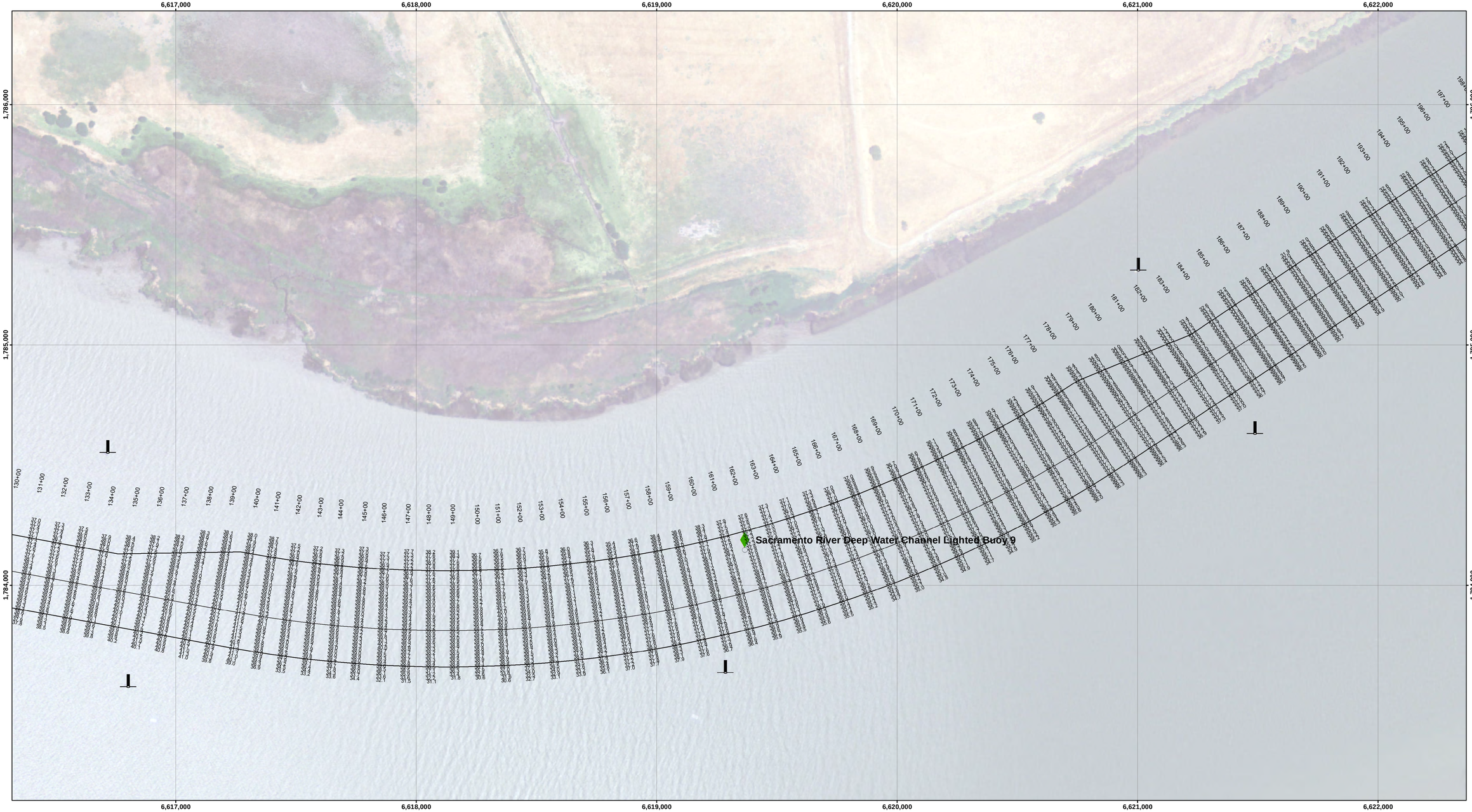
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

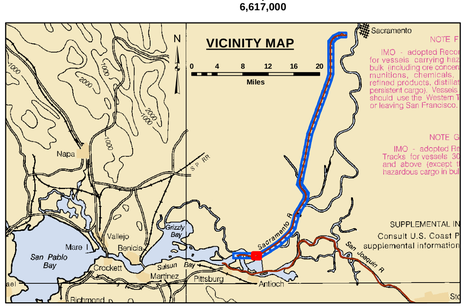
Surveyed By:		Chart Date:	Jul 07, 2020
Plotted By:	PDT	Designed by:	
Submitted: Hydro Survey Team Leader		Drawn by:	PDT
Recommended: Chief, Hydro Survey Section		Checked By:	PDT
Approved: Chief, Construction Branch			

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
3 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

N W E S

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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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US Army Corps of Engineers
District: CESPK

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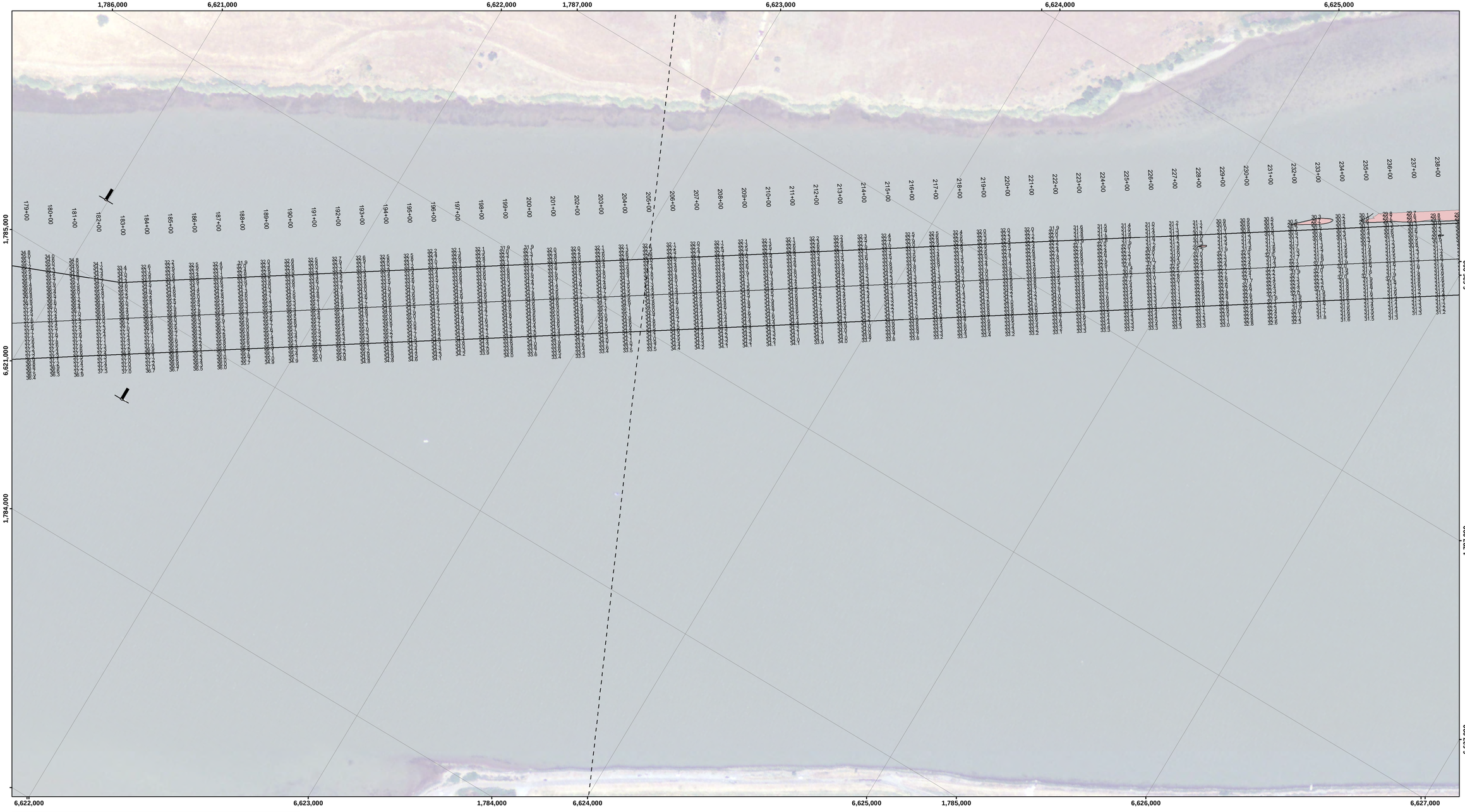
Surveyed By:	Chart Date: Jul 07, 2020		
Plotted By: PDT	Designed by:	Submitted: Hydro Survey Team Leader	
Checked By: PDT	Drawn by: PDT	Recommended: Chief, Hydro Survey Section	
		Approved: Chief, Construction Branch	

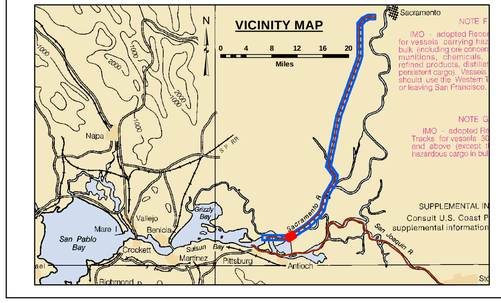
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
4 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

NOTES:
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NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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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US Army Corps of Engineers
District: CESPK

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Chart Date:	Jul 07, 2020
Surveyed By:	
Designed by:	
Plotted By:	PDT
Drawn by:	PDT
Checked By:	PDT

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

Submitted:
Hydro Survey Team Leader

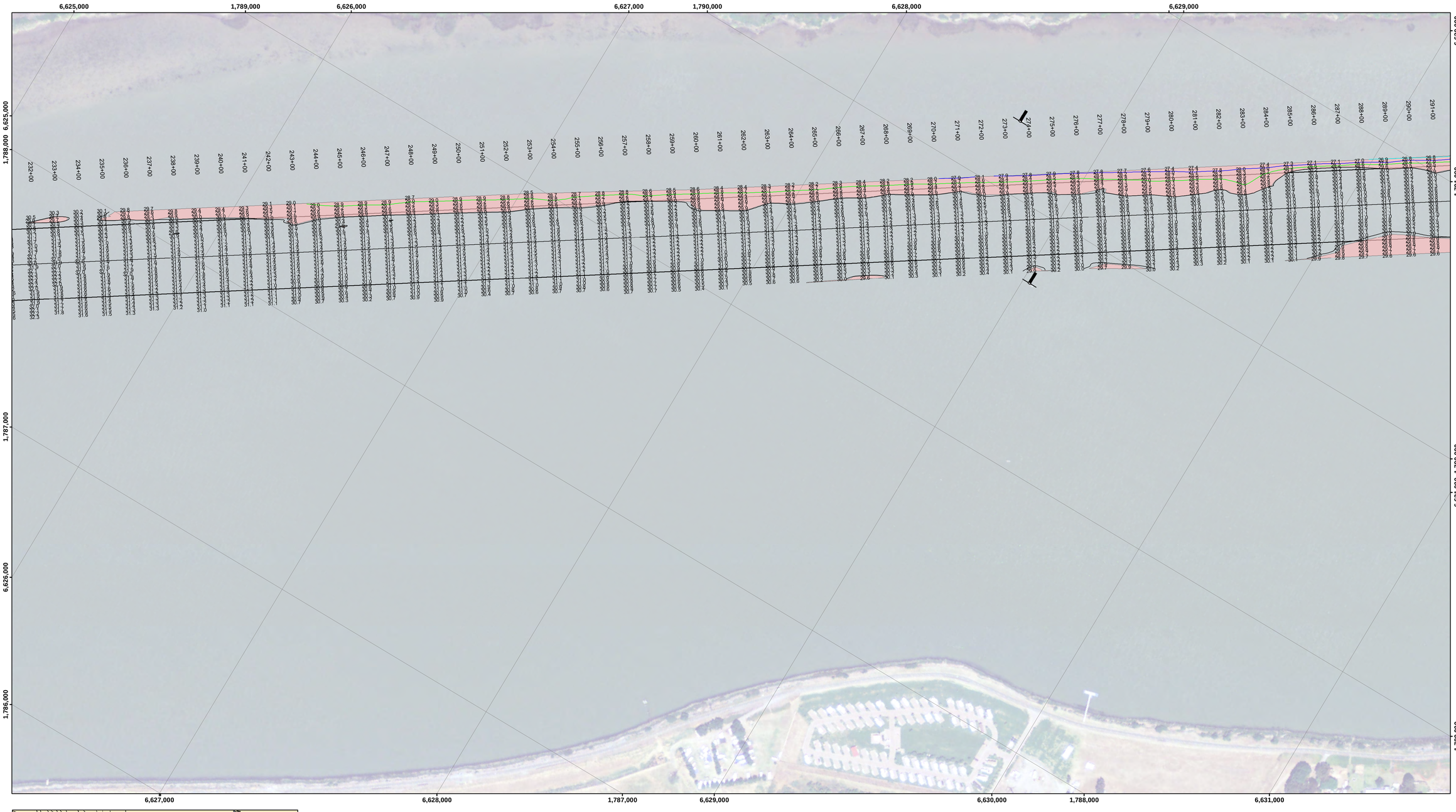
Recommended:
Chief, Hydro Survey Section

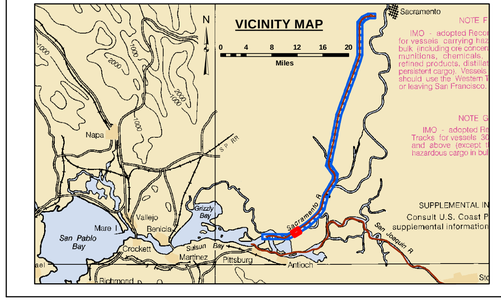
Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
5 of 45





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
- Cable Area
- Placement Area
- Anchorage Area
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- Wrecks-Submerged
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- Beacon, General
- Red Navigation Buoy
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Contours
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA STATION: 9415316
BENCHMARK: 5316 B 1996 (NO PID)
TIDE GAUGE: NAIL @ 8.2 FT MLLW
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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020
Surveyed By:
Designed by:
Plotted By: PDT
Drawn by: PDT
Checked By: PDT

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

Submitted:
Hydro Survey Team Leader

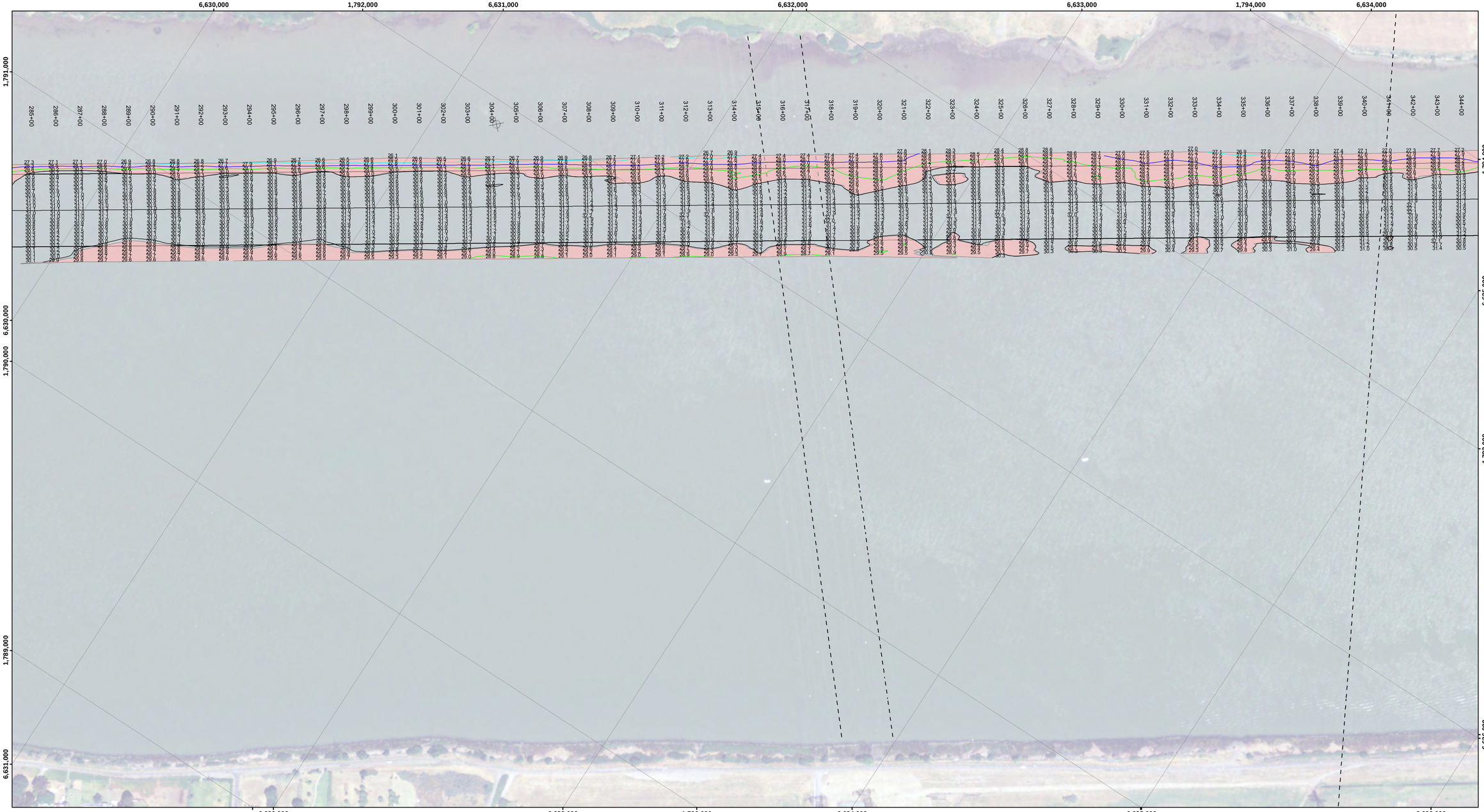
Recommended:
Chief, Hydro Survey Section

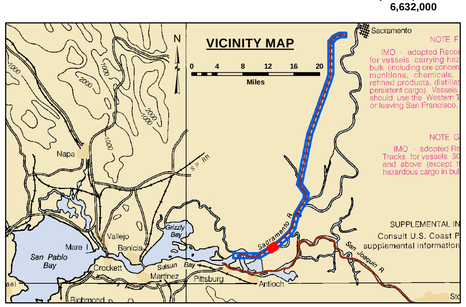
Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
6 of 45





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
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-30
-29
-28
-27
-26

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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.

US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		
Plotted By: PDT	Drawn by: PDT		
Checked By: PDT			

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

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

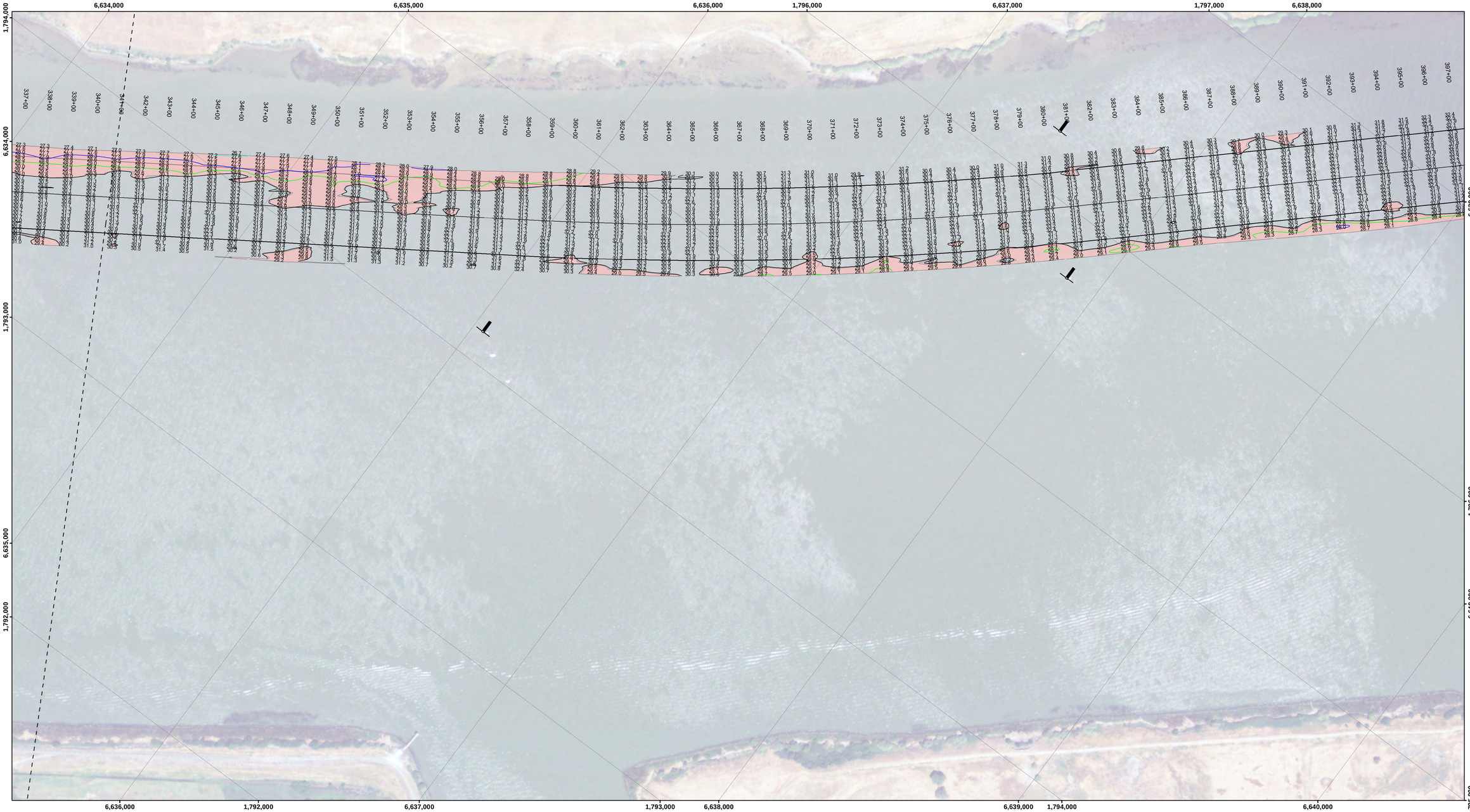
CALIFORNIA
SAN JOAQUIN COUNTY

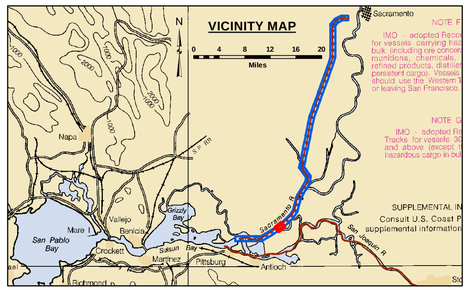
SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
7 of 45

CORPS OF ENGINEERS

U.S. ARMY





Feet

0 400 800 1,200

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
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Contours

- -30
- -29
- -28
- -27
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BENCHMARK: POWS1 (No PID)
TIDE GAUGE: NAIL @ 10.0 FT MLLW
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US Army Corps of Engineers
District: CESPK

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Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

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

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
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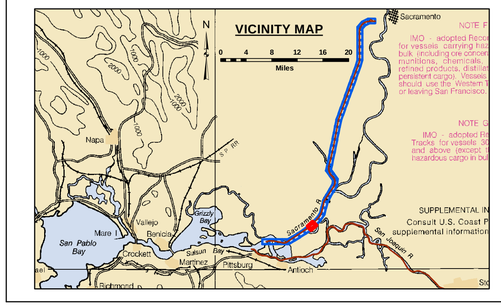

LEGEND

- 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**
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Contours

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Surveyed By:	Designed by:		Drawn by: PDT
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

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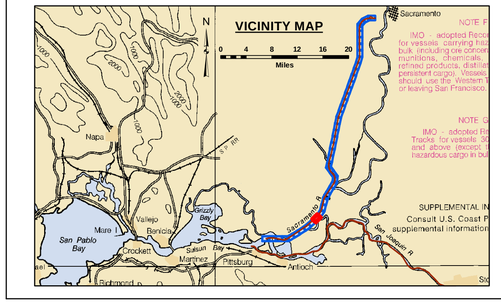

Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
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District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		Drawn by: PDT
	Plotted By: PDT		Checked By: PDT

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

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

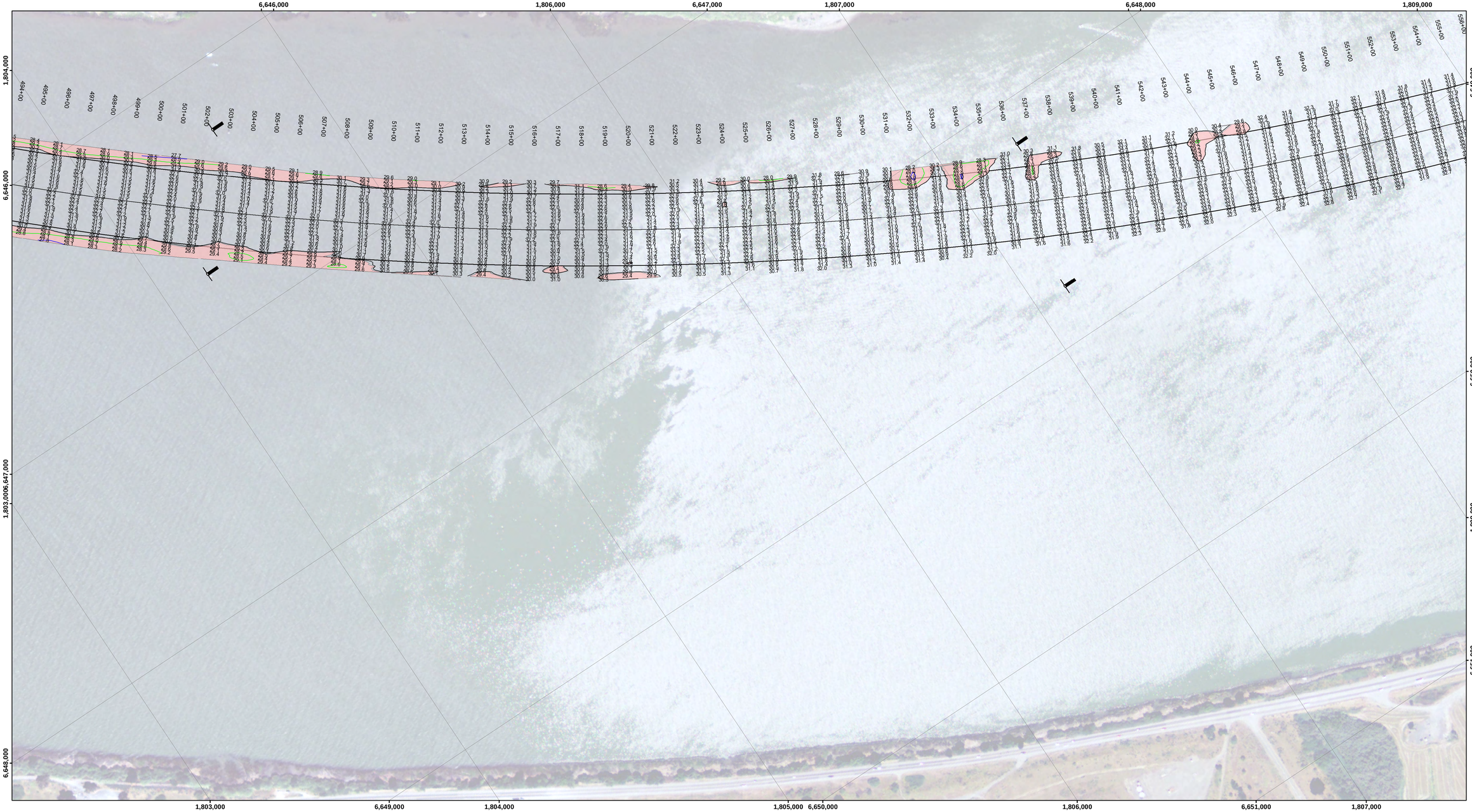
Approved:
Chief, Construction Branch

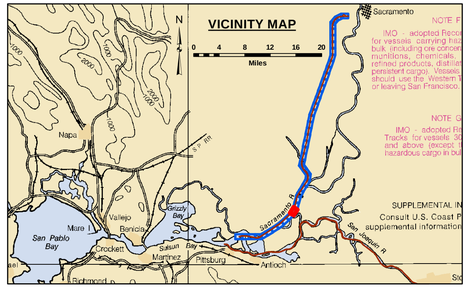
CALIFORNIA

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

SAN JOAQUIN COUNTY

Sheet Reference Number
10 of 45





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
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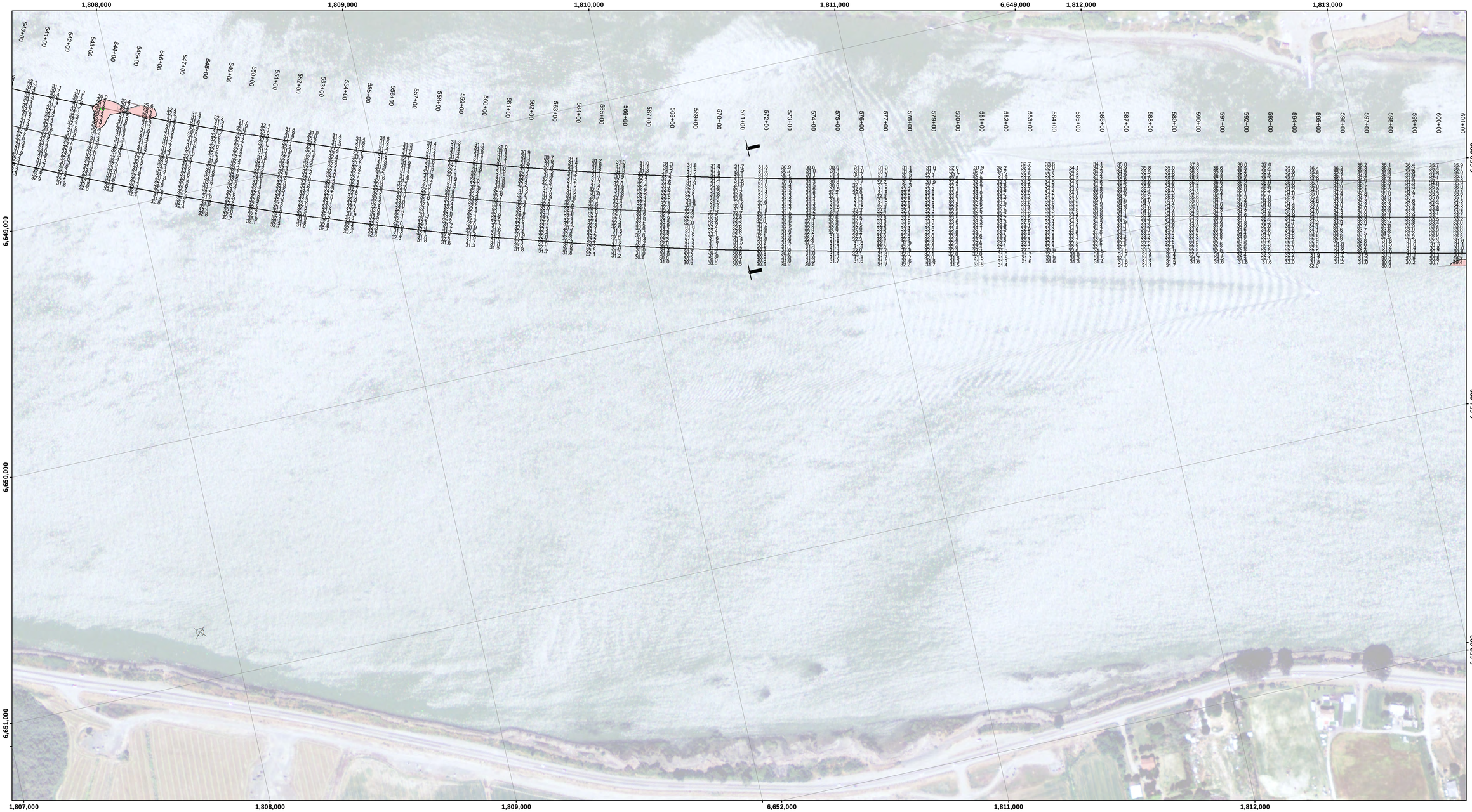
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

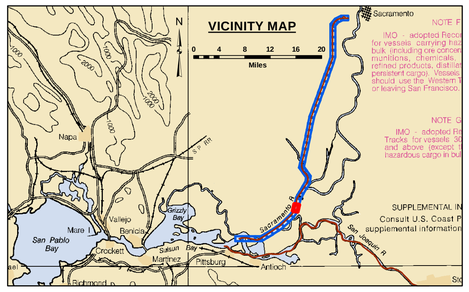
Surveyed By:		Chart Date:	Jul 07, 2020
Plotted By:	PDT	Designed by:	
Submitted: Hydro Survey Team Leader		Checked By:	PDT
Recommended: Chief, Hydro Survey Section		Drawn by:	PDT
Approved: Chief, Construction Branch			

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
11 of 45





Feet
0 400 800 1,200

LEGEND

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

Submitted: Hydro Survey Team Leader	Surveyed By:	Chart Date: Jul 07, 2020
Recommended: Chief, Hydro Survey Section	Plotted By: PDT	Designed by:
Approved: Chief, Construction Branch	Checked By: PDT	Drawn by: PDT

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
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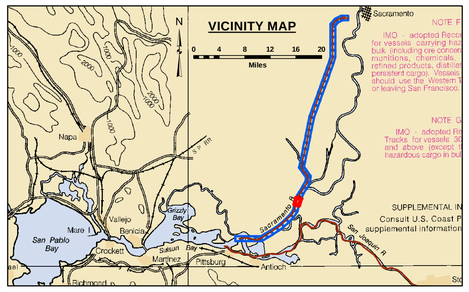

Feet
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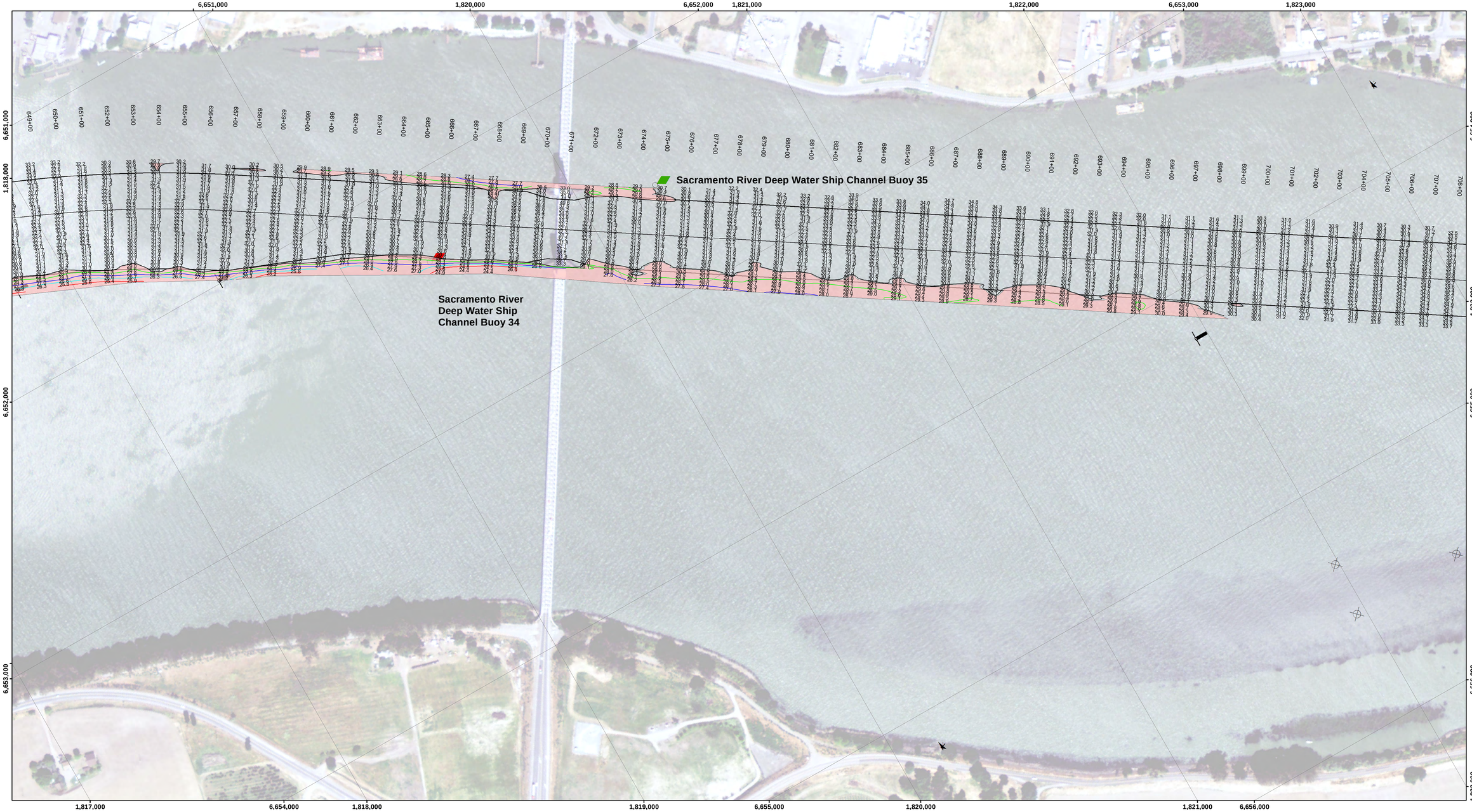
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

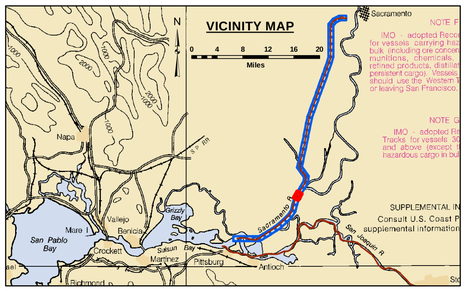
Surveyed By:		Chart Date:	Jul 07, 2020
Plotted By:	PDT	Designed by:	
Submitted: Hydro Survey Team Leader		Drawn by:	PDT
Recommended: Chief, Hydro Survey Section		Checked By:	PDT
Approved: Chief, Construction Branch			

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
13 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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.

US Army Corps of Engineers
District: CESPK

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Chart Date:	Jul 07, 2020
Surveyed By:	
Designed by:	
Plotted By:	PDT
Drawn by:	PDT
Checked By:	PDT

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

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

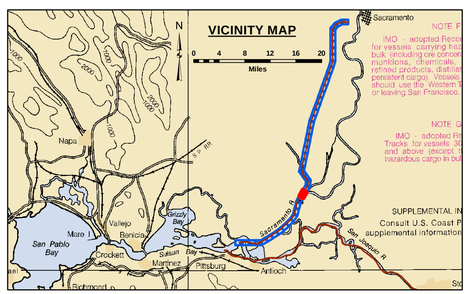
CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
14 of 45

CORPS OF ENGINEERS

U.S. ARMY



Feet

0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
- Cable Area
- Placement Area
- Anchorage Area
- Obstruction Point
- Wrecks-Submerged
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- Beacon, General
- Red Navigation Buoy
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Contours

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District: CESPK

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Chart Date:	Jul 07, 2020
Surveyed By:	
Designed by:	
Plotted By:	PDT
Drawn by:	PDT
Checked By:	PDT

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

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

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
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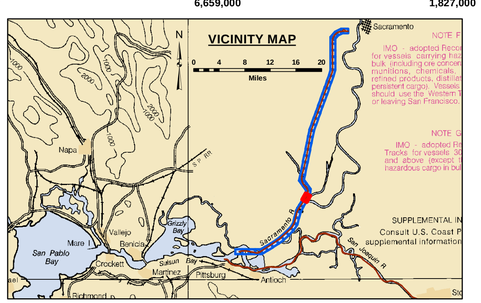

Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
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METADATA: NAIL SET BY USACE 8 APRIL, 2014

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US Army Corps of Engineers
District: CESPK

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

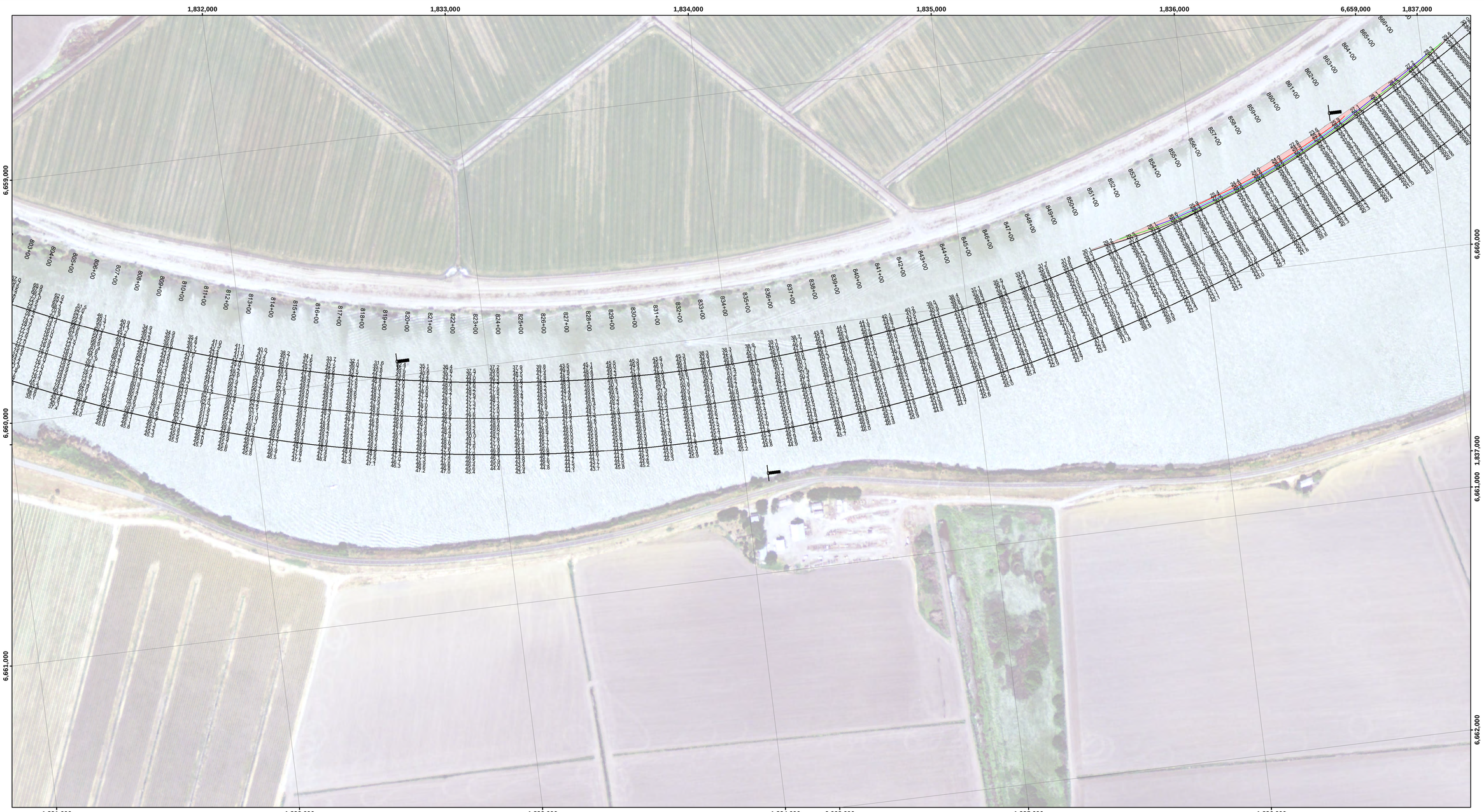
Submitted: Hydro Survey Team Leader		Surveyed By:	Chart Date: Jul 07, 2020
Recommended: Chief, Hydro Survey Section	Plotted By: PDT	Designed by:	
Approved: Chief, Construction Branch	Checked By: PDT	Drawn by:	PDT

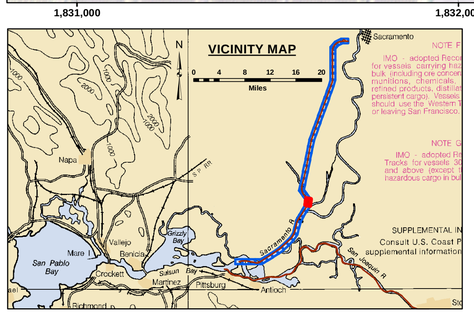
CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
16 of 45

CORPS OF ENGINEERS U.S. ARMY





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
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US Army Corps of Engineers
District: CESPK

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

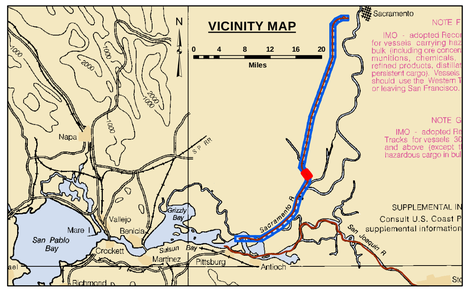
Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
17 of 45



Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
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US Army Corps of Engineers
District: CESPK

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Surveyed By:	Plotted By: PDT	Submitted Hydro Survey Team Leader	Chart Date: Jul 07, 2020
		Recommended Chief, Hydro Survey Section	Designed by:
	Checked By: PDT	Approved: Chief, Construction Branch	Drawn by: PDT

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

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
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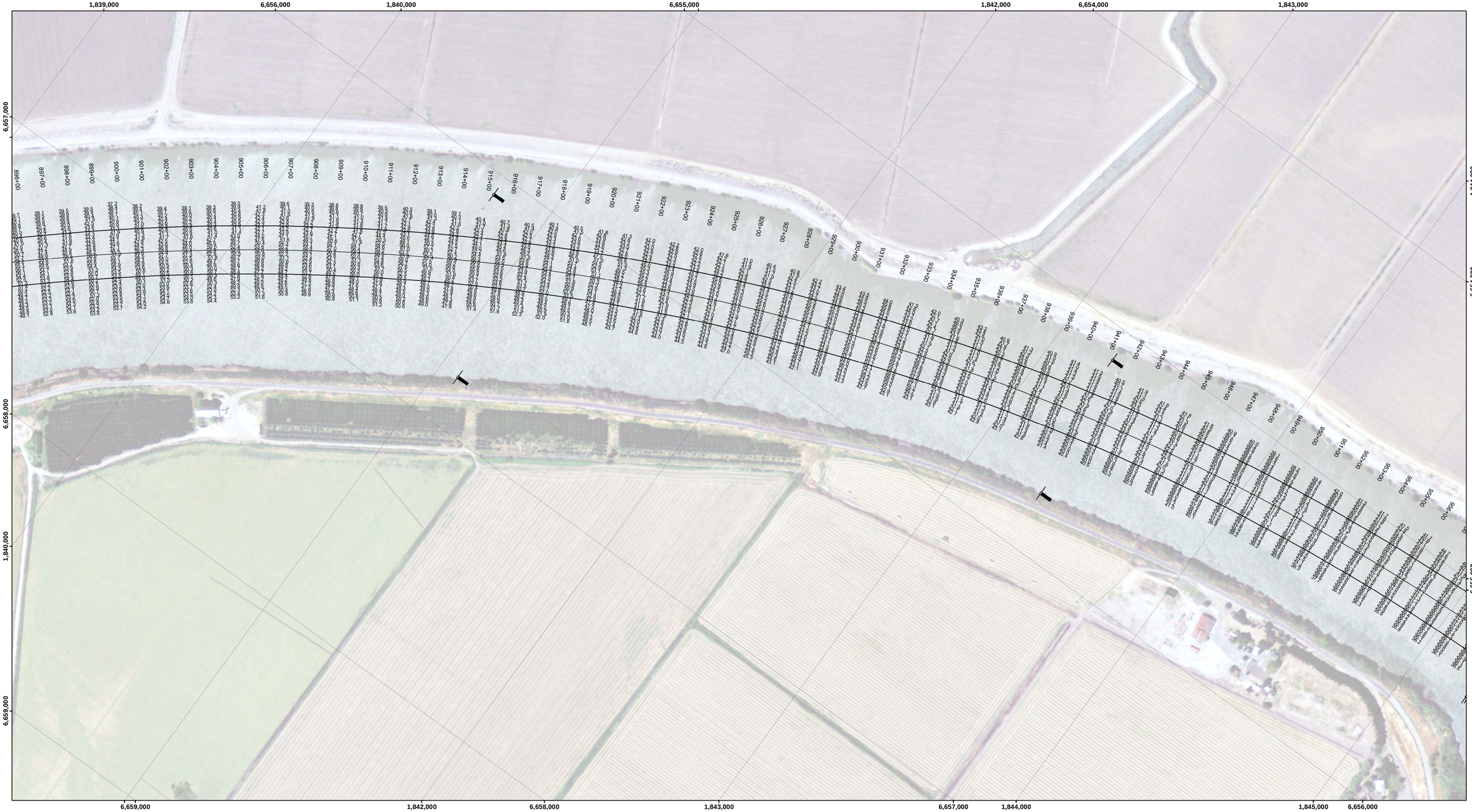

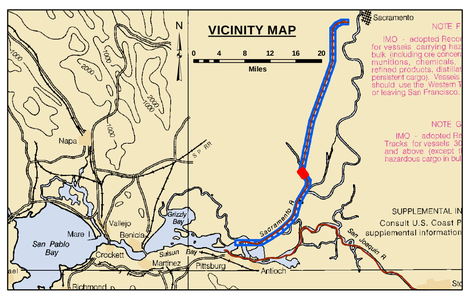

Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
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JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		Drawn by: PDT
	Plotted By: PDT	Checked By: PDT	

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

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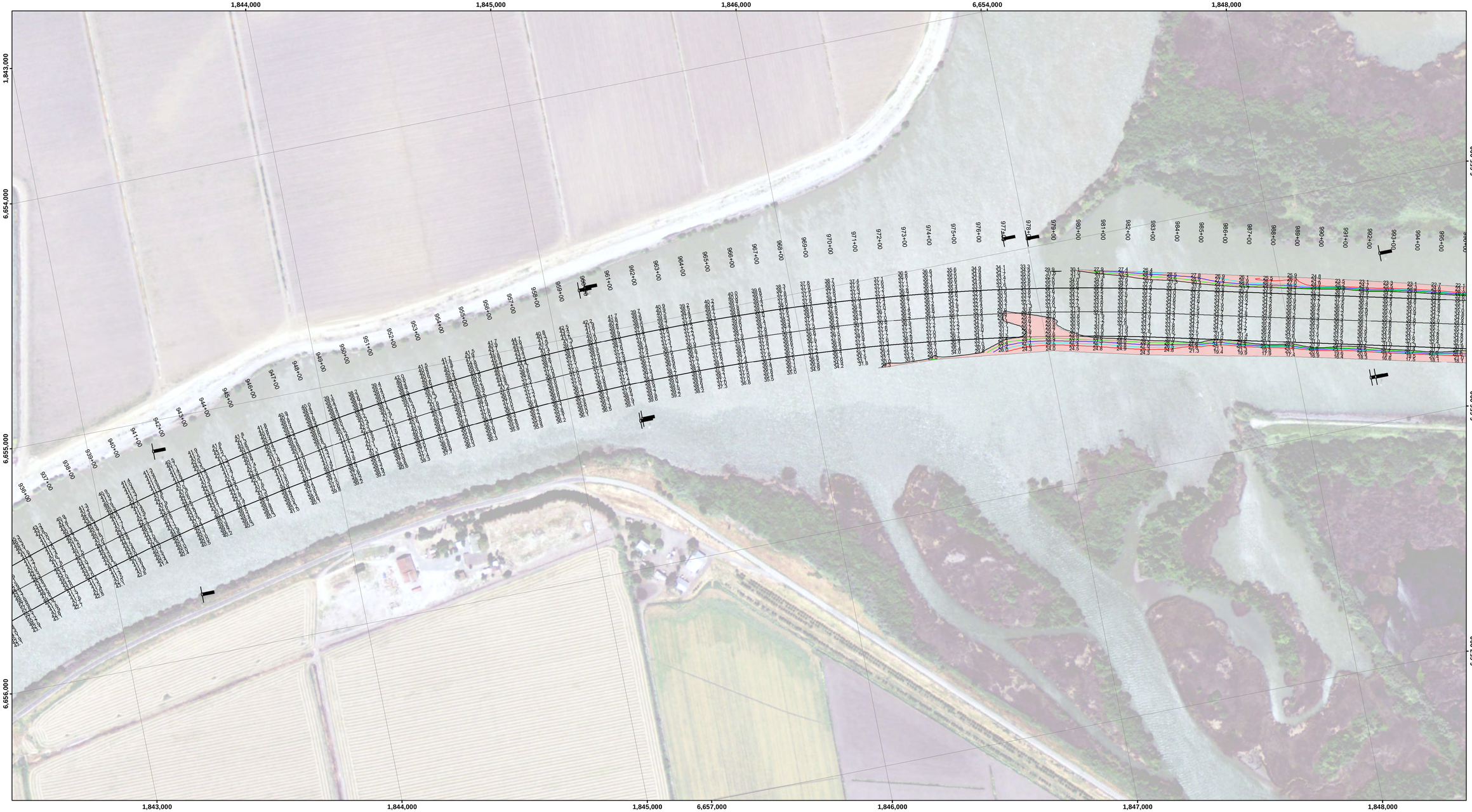

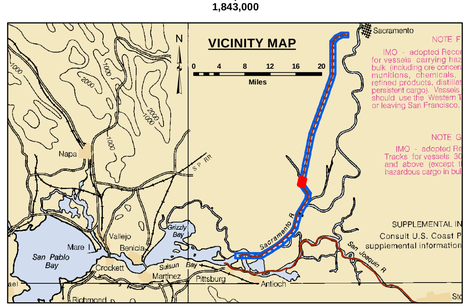

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LEGEND

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PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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.

US Army Corps of Engineers
District: CESPK

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Surveyed By:
Chart Date: Jul 07, 2020

Plotted By: PDT
Designed by:

Checked By: PDT
Drawn by: PDT

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

Submitted:
Hydro Survey Team Leader

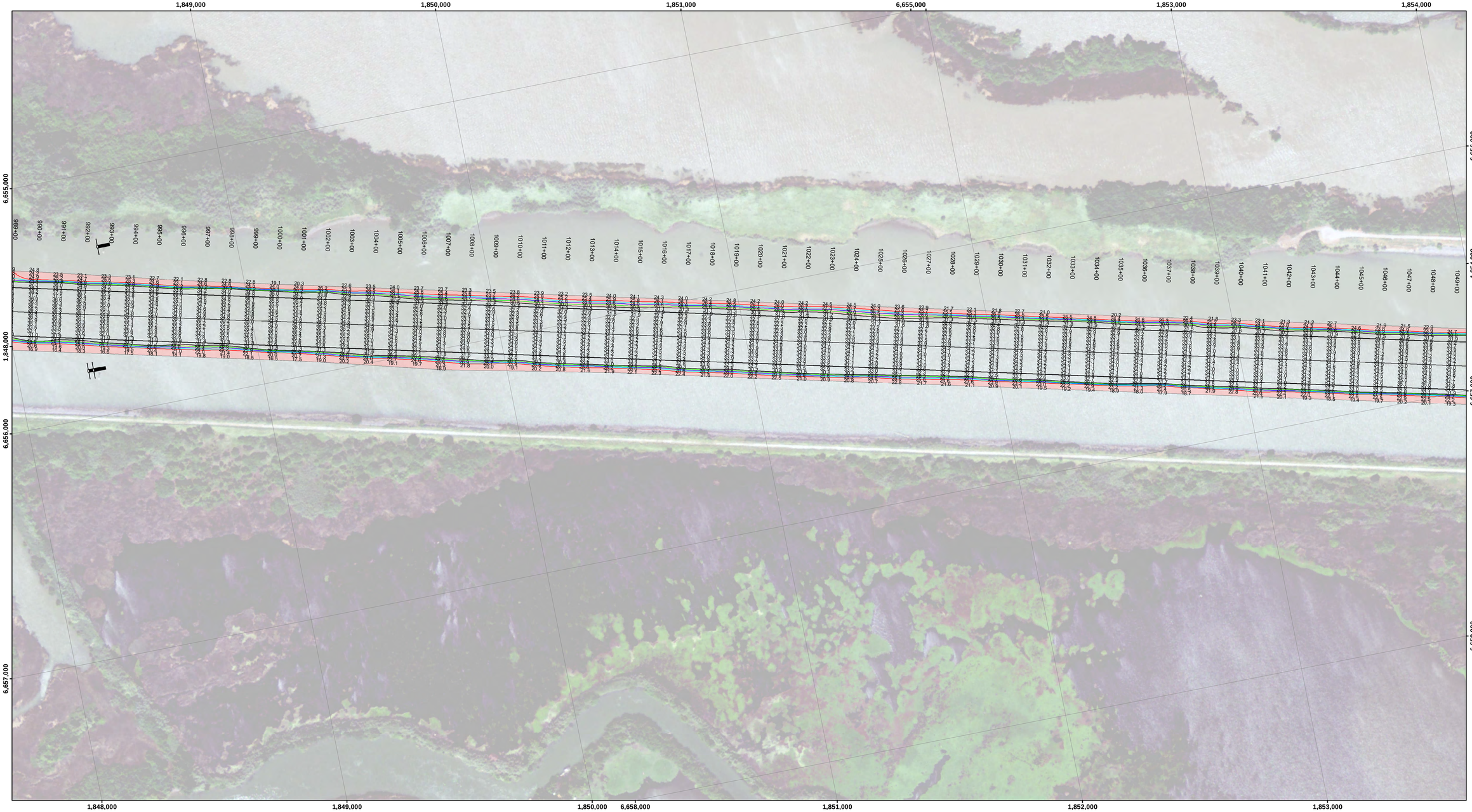
Recommended:
Chief, Hydro Survey Section

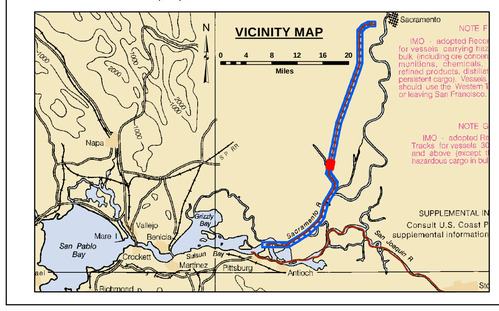
Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
20 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

NOTES:
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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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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Plotted By: PDT	Checked By: PDT	Designed by:
			Drawn by: PDT

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

Submitted:
Hydro Survey Team Leader

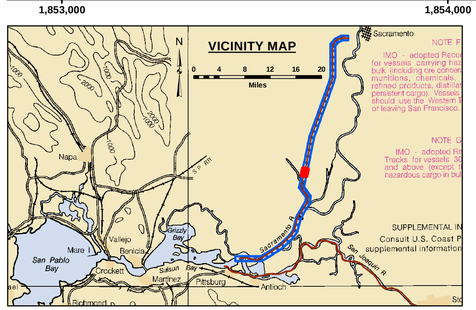
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
21 of 45



Feet
0 400 800 1,200

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
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Contours
-30
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NOOA STATION: 9416131
BENCHMARK: POWS1 (No PID)
TIDE GAUGE: NAIL @ 10.0 FT MLLW
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Surveyed By:	Plotted By: PDT	Designed by:	Drawn by: PDT
		Checked By: PDT	

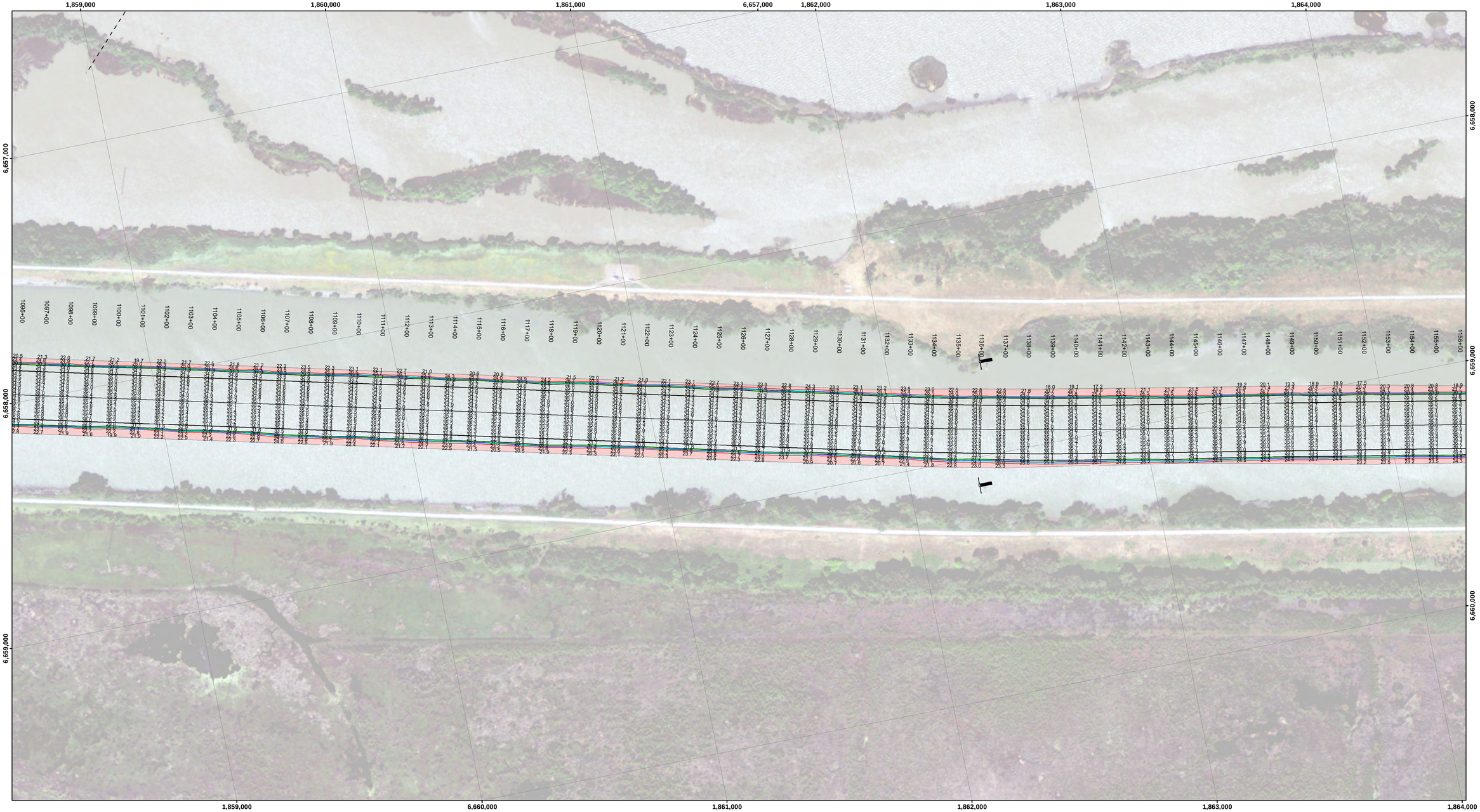
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

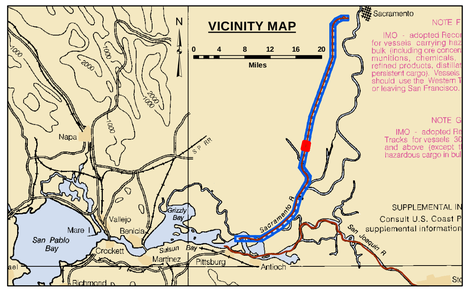
Submitted: Hydro Survey Team Leader	
Recommended: Chief, Hydro Survey Section	
Approved: Chief, Construction Branch	

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
22 of 45





Feet
0 400 800 1,200

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

Contours
- -30
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PROJECT DEPTH: -30'

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TIDE GAUGE: NAIL @ 8.2 FT MLLW
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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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US Army Corps of Engineers
District: CESPK

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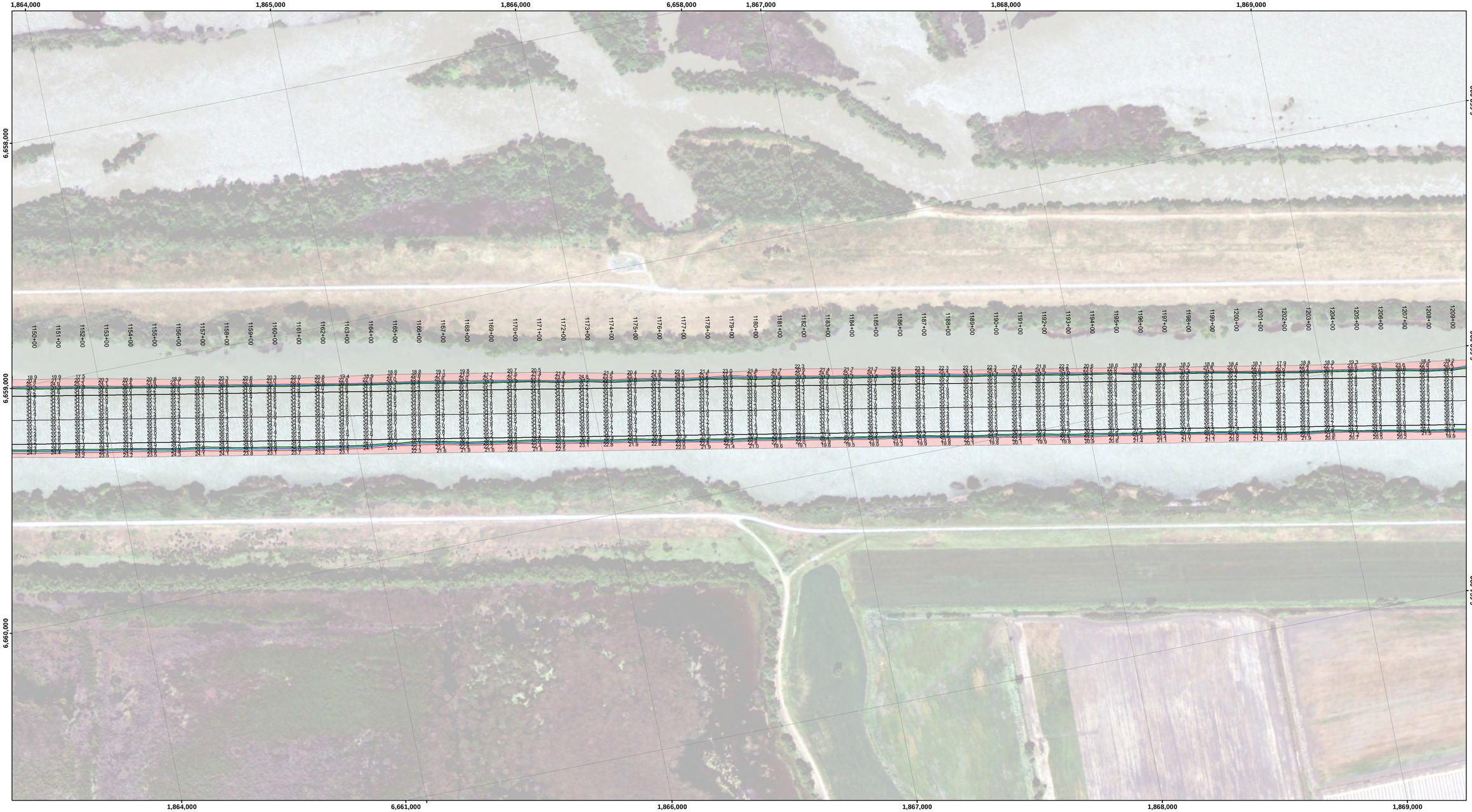
Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		
Plotted By: PDT	Drawn by: PDT		
Submitted: Hydro Survey Team Leader	Checked By: PDT		
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch			

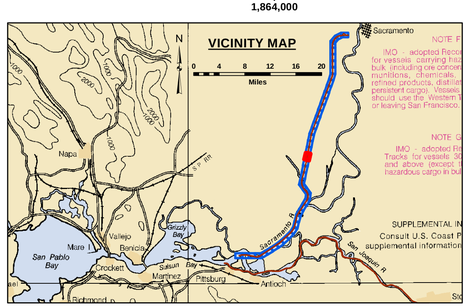
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E. DISTRICT ENGINEER

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
23 of 45





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
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- Contour Line
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TIDE GAUGE: NAIL @ 8.2 FT MLLW
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District: CESPK

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Chart Date:	Jul 07, 2020
Surveyed By:	
Designed by:	
Plotted By:	PDT
Drawn by:	PDT
Checked By:	PDT

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

Submitted:
Hydro Survey Team Leader

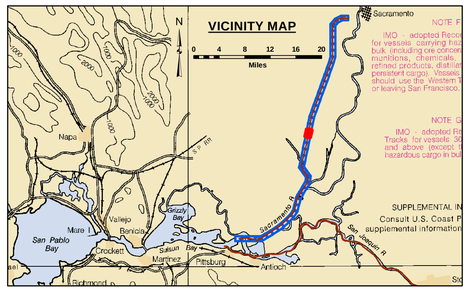
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
24 of 45



Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020		
Surveyed By:	Designed by:	Drawn by: PDT
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

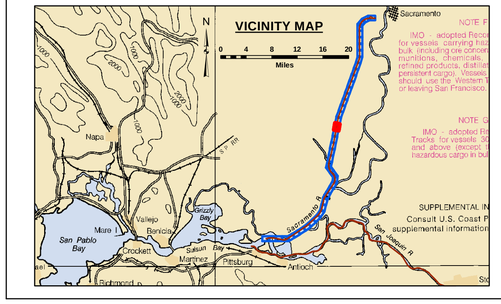
CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
25 of 45

CORPS OF ENGINEERS

U.S. ARMY



Feet

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LEGEND

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

Surveyed By:		Chart Date:	Jul 07, 2020
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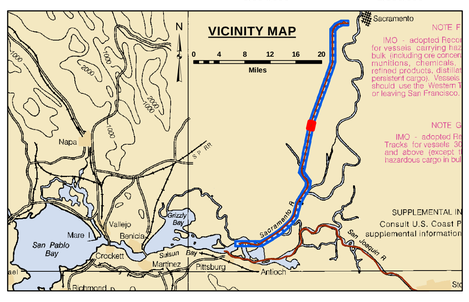
Submitted: Hydro Survey Team Leader		Drawn by:	PDT
Recommended: Chief, Hydro Survey Section		Checked By:	PDT
Approved: Chief, Construction Branch			

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
26 of 45



Feet
0 400 800 1,200

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

Contours
-30
-29
-28
-27
-26

NOTES:
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SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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.

US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Plotted By: PDT	Checked By: PDT	Designed by:
Drawn by: PDT			

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

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
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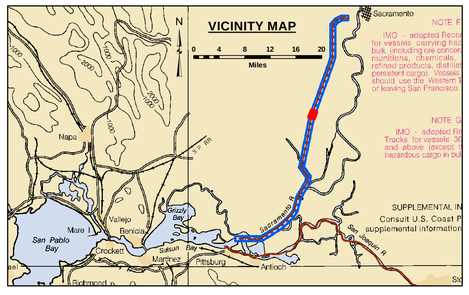

Feet
0 400 800 1,200

LEGEND

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

Surveyed By:		Chart Date:	Jul 07, 2020
Plotted By:	PDT	Designed by:	
Submitted: Hydro Survey Team Leader		Drawn by:	PDT
Recommended: Chief, Hydro Survey Section		Checked By:	PDT
Approved: Chief, Construction Branch			

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
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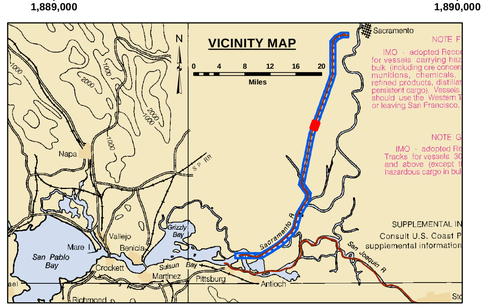

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District: CESPK

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

Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT
Submitted: Hydro Survey Team Leader		
Recommended: Chief, Hydro Survey Section		
Approved: Chief, Construction Branch		

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
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28 JUNE - 02 JULY 2020

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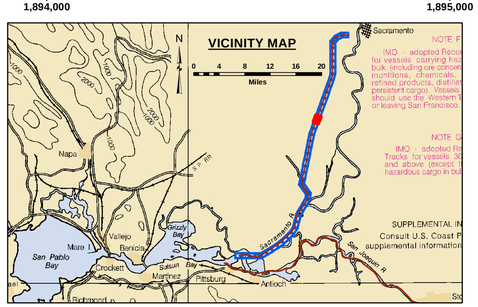

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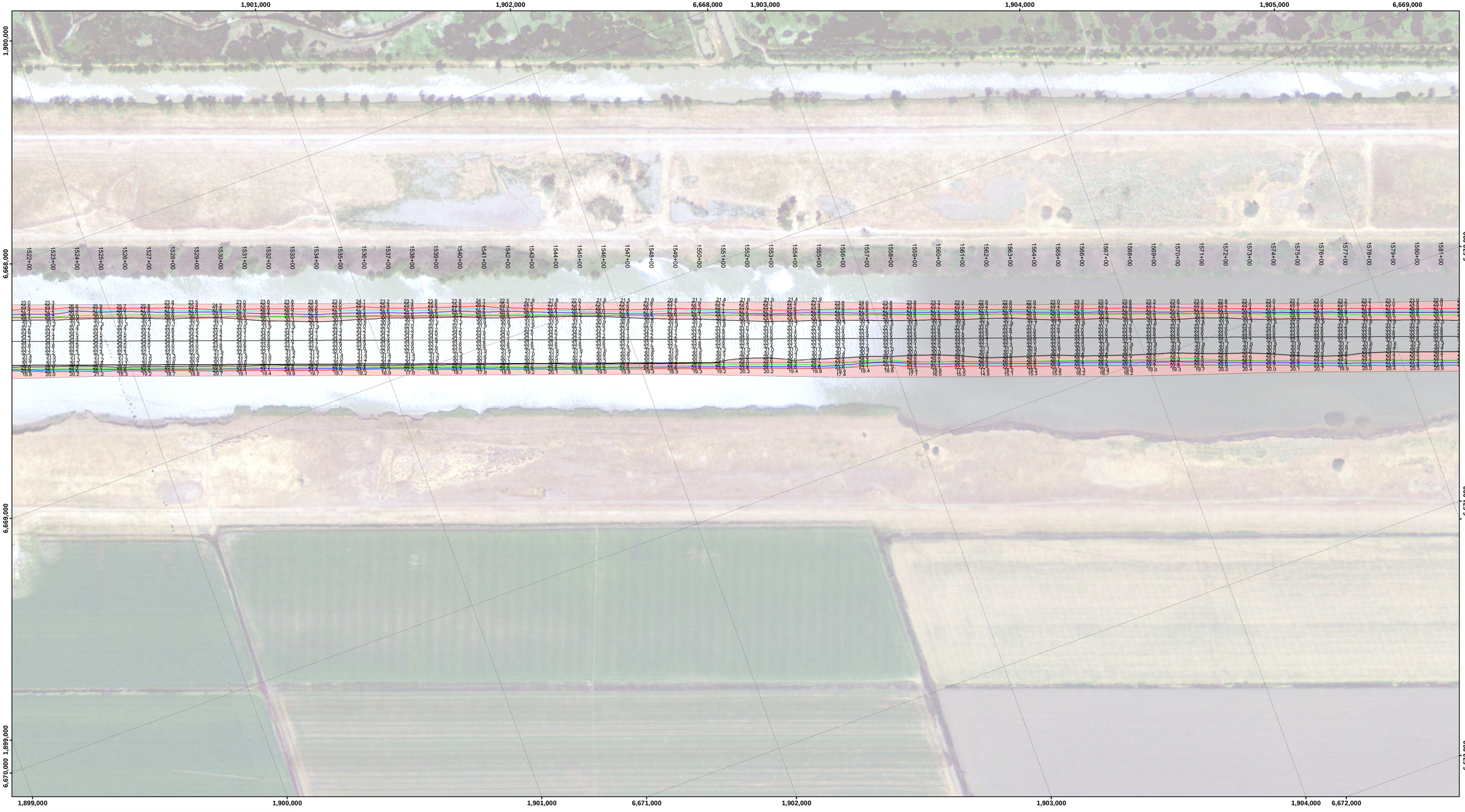
JOHN D. CUNNINGHAM
LT. COLONEL, C.E., DISTRICT ENGINEER

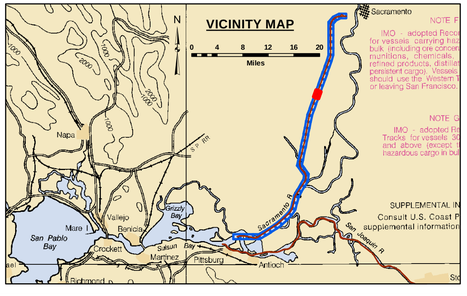
Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT
Submitted: Hydro Survey Team Leader		
Recommended: Chief, Hydro Survey Section		
Approved: Chief, Construction Branch		

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
30 of 45





Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
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- Placement Area
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US Army Corps of Engineers
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E. DISTRICT ENGINEER

Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Submitted: Hydro Survey Team Leader	Drawn by:	PDT
Recommended: Chief, Hydro Survey Section	Checked By:	PDT
Approved: Chief, Construction Branch		

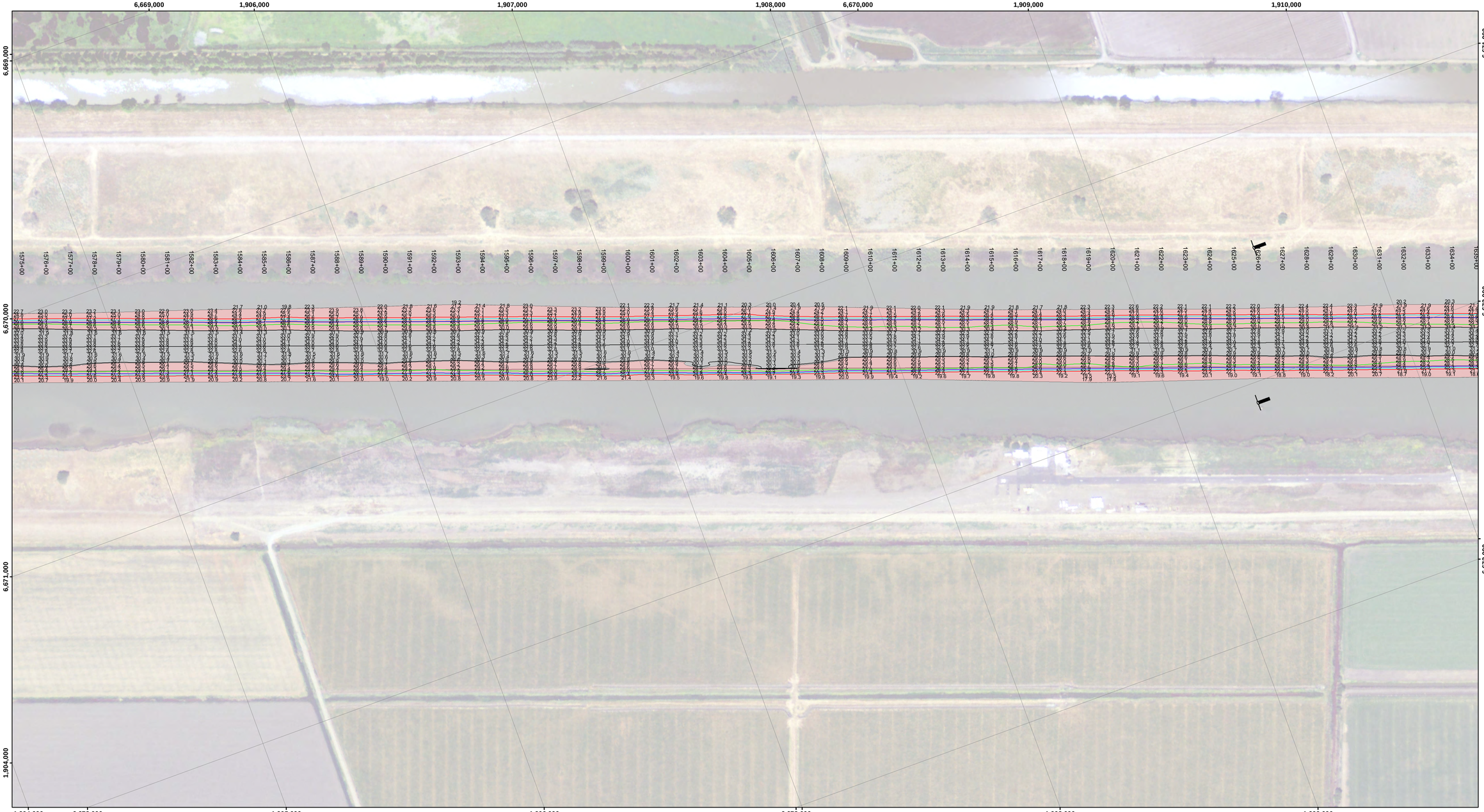
CALIFORNIA
SAN JOAQUIN COUNTY

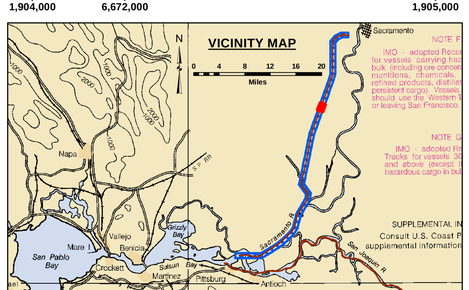
SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
31 of 45

CORPS OF ENGINEERS

U.S. ARMY





Feet

0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

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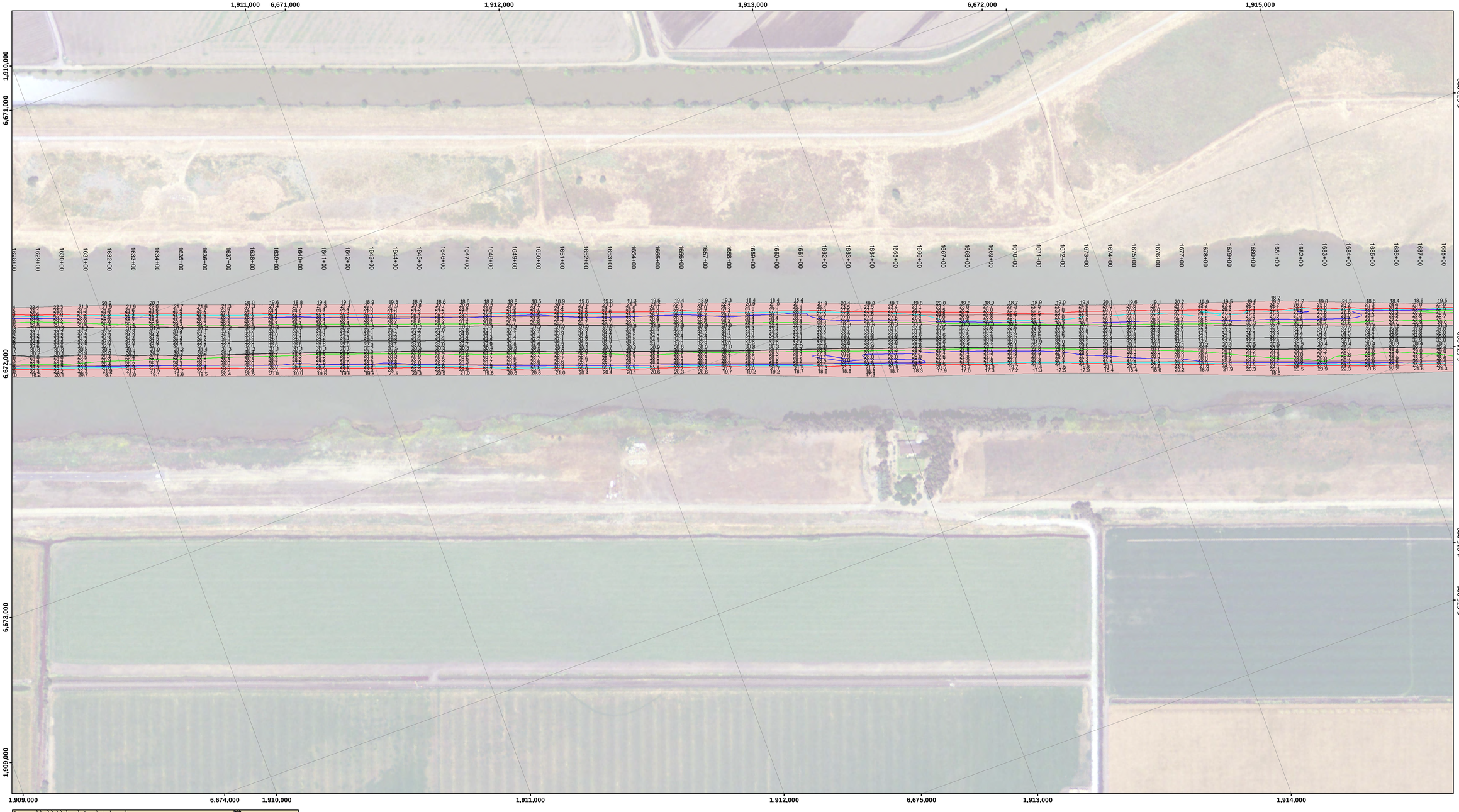

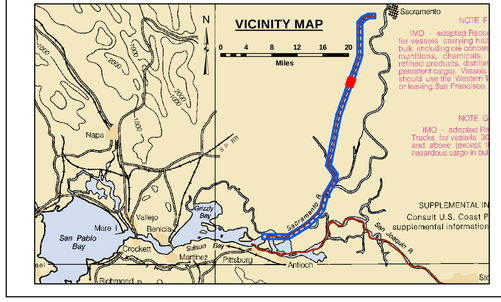

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ALL HORIZONTAL POSITIONS AND MLLW ELEVATIONS WERE POST-PROCESSED USING PUBLIC GPS REFERENCE STATIONS IN THE AREA.

US Army Corps of Engineers
District: CESPK

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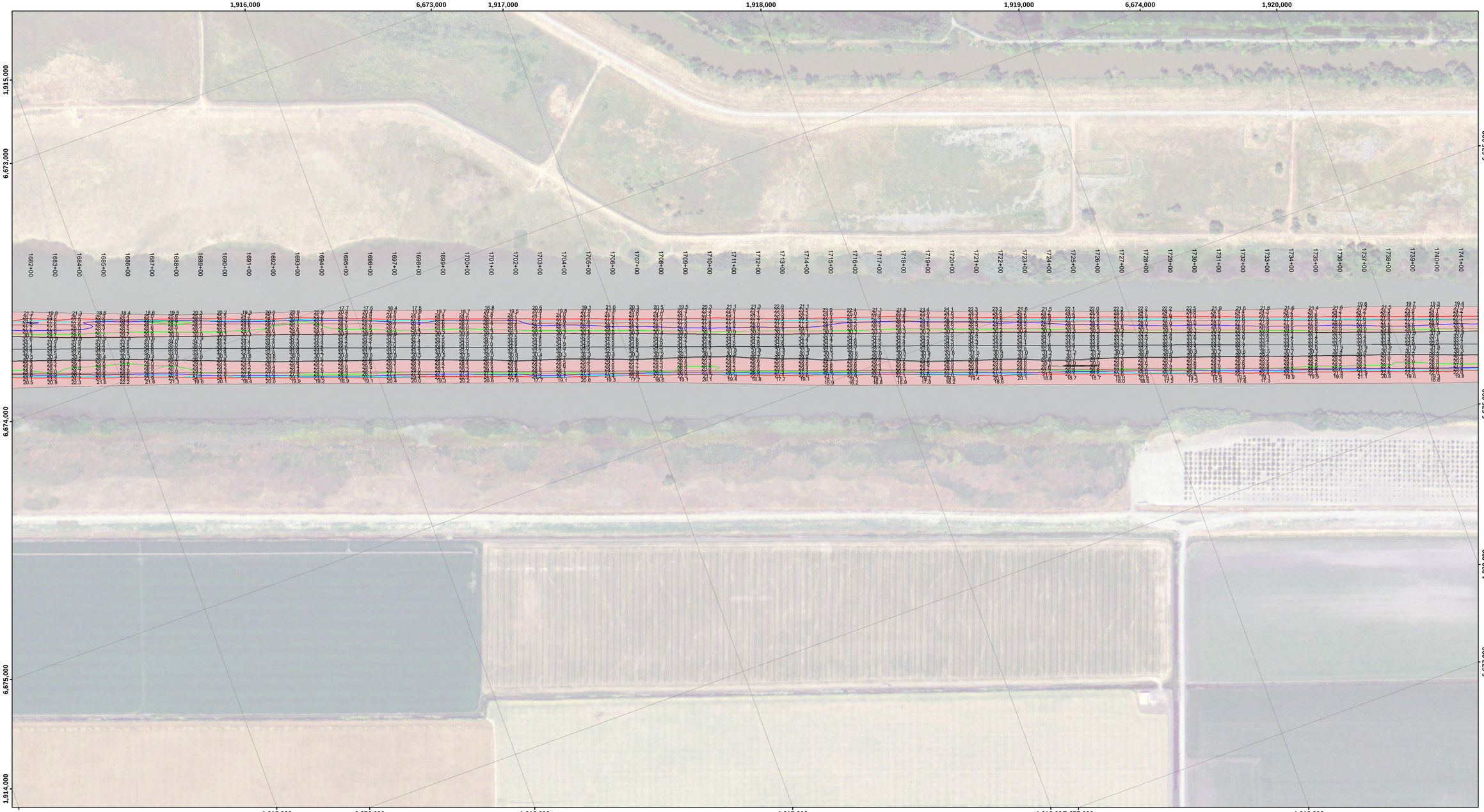
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT. COLONEL, U.S. DISTRICT ENGINEER

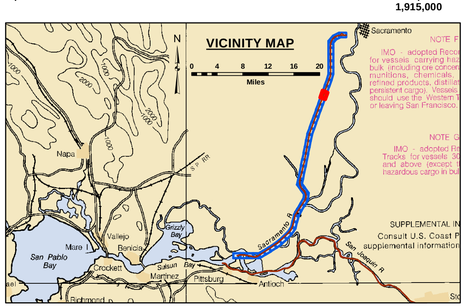
Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		
Plotted By: PDT	Drawn by: PDT		
Submitted: Hydro Survey Team Leader			
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch	Checked By: PDT		

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
33 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Designed by:		Drawn by: PDT
	Plotted By: PDT		Checked By: PDT

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

Submitted:
Hydro Survey Team Leader

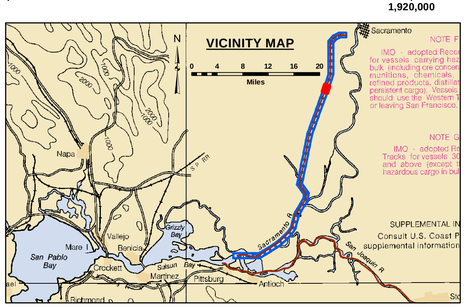
Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
34 of 45



Feet

0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
- Cable Area
- Placement Area
- Anchorage Area
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- Shoaling Area
- Shoalest Sounding**
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- Red Navigation Buoy
- Green Navigation Buoy

Contours

- -30
- -29
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BENCHMARK: POWS1 (No PID)
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US Army Corps of Engineers
District: CESPK

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Surveyed By:
Chart Date: Jul 07, 2020

Plotted By: PDT
Designed by:

Submitted: Hydro Survey Team Leader
Drawn by: PDT

Recommended: Chief, Hydro Survey Section
Checked By: PDT

Approved: Chief, Construction Branch

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

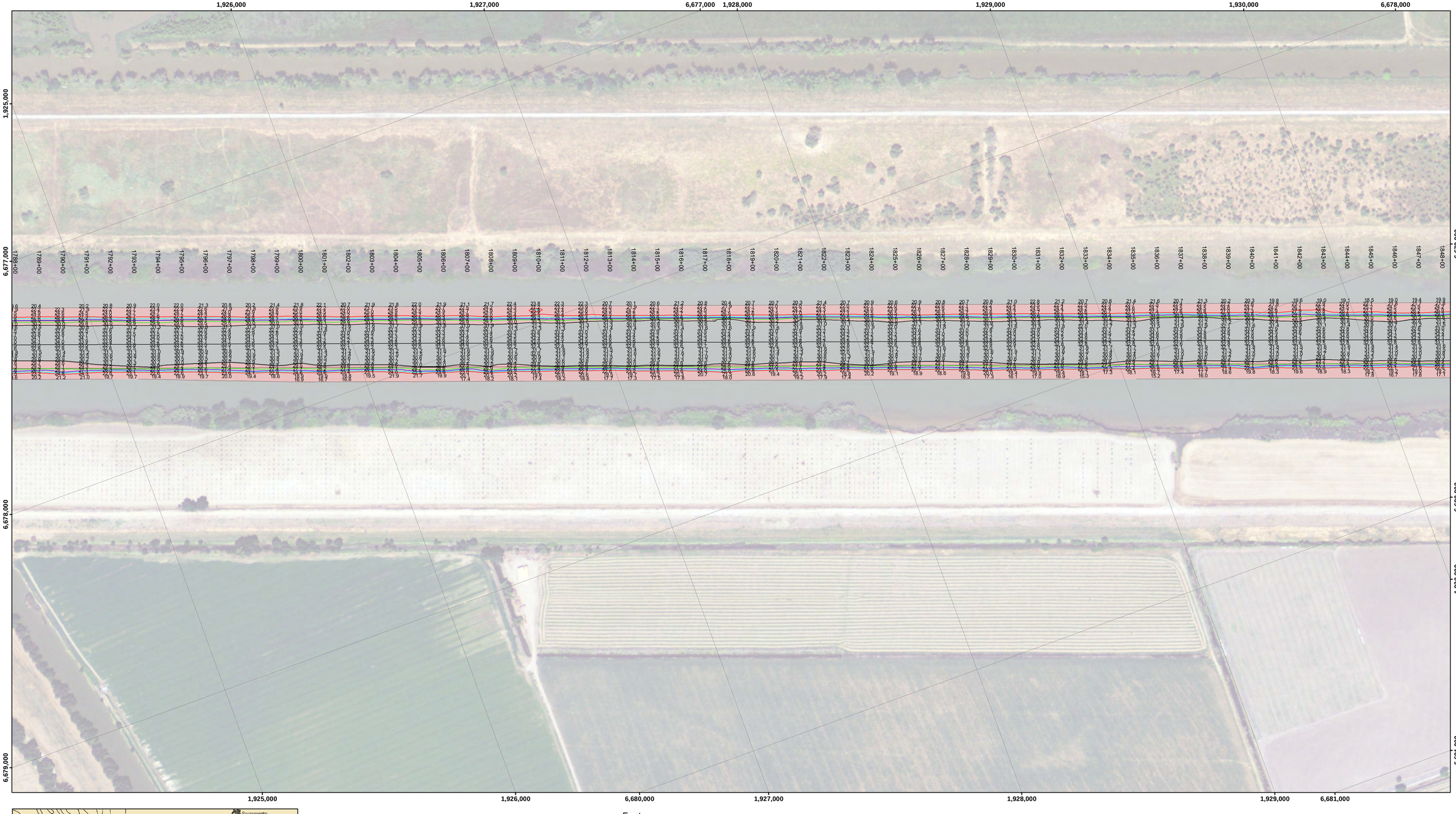
CALIFORNIA

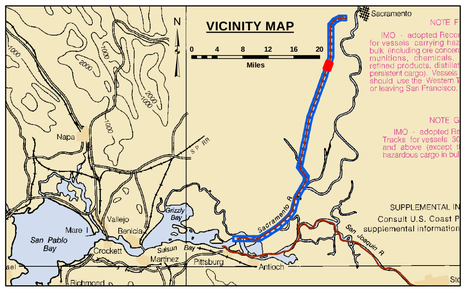
SACRAMENTO RIVER

CONDITION SURVEY
28 JUNE - 02 JULY 2020

SAN JOAQUIN COUNTY

Sheet Reference Number
35 of 45





Feet
0 400 800 1,200

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

Contours
-30
-29
-28
-27
-26

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOOA 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
NOOA 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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US Army Corps of Engineers
District: CESPK

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

Submitted: Hydro Survey Team Leader		Surveyed By:	Chart Date: Jul 07, 2020
Recommended: Chief, Hydro Survey Section	Plotted By: PDT	Designed by:	
Approved: Chief, Construction Branch	Checked By: PDT	Drawn by:	PDT

CALIFORNIA

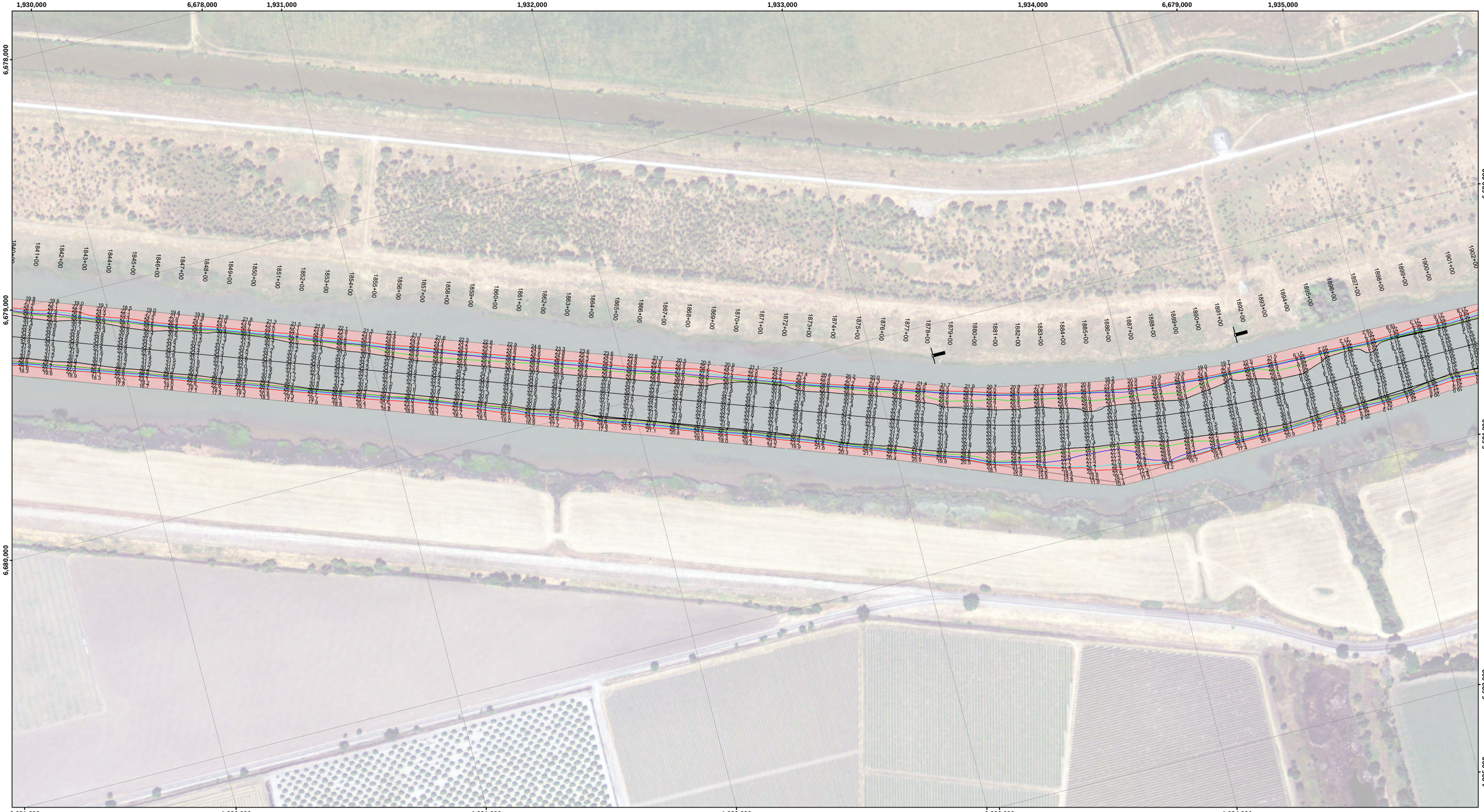
SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

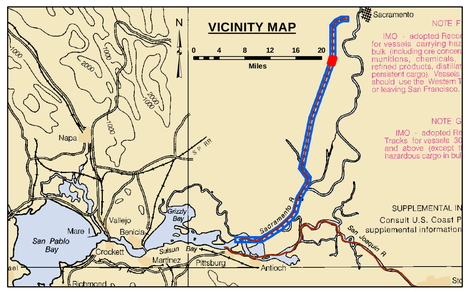
SAN JOAQUIN COUNTY

Sheet Reference Number
36 of 45

CORPS OF ENGINEERS

U.S. ARMY





Feet

0 400 800 1,200

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
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Contours

- -30
- -29
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NOTES:
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NORTH AMERICAN DATUM OF 1983 (NAD83). PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020			
Surveyed By:	Plotted By: PDT	Checked By: PDT	Drawn by: PDT
Designed by:			

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

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

CALIFORNIA

SAN JOAQUIN COUNTY

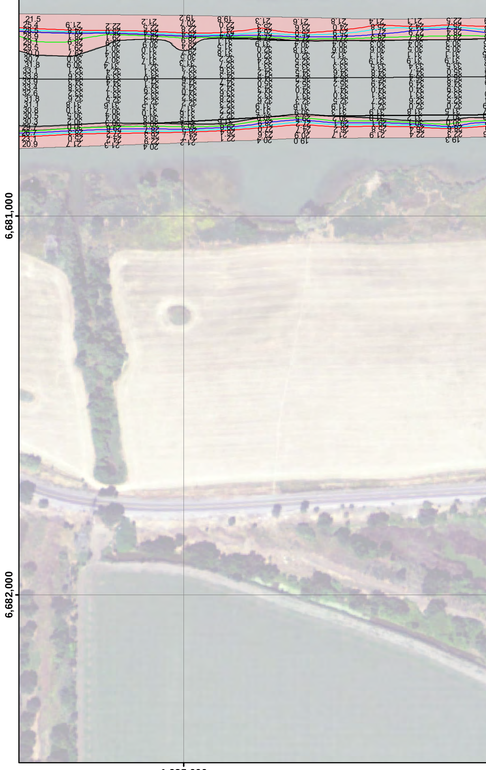
SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
37 of 45

1,935,000 1,936,000 1,937,000 1,938,000 1,939,000 1,940,000

6,680,000 6,681,000 6,682,000

1893+00 1894+00 1895+00 1896+00 1897+00 1898+00 1899+00 1900+00 1901+00 1902+00 1903+00 1904+00 1905+00 1906+00 1907+00 1908+00 1909+00 1910+00 1911+00 1912+00 1913+00 1914+00 1915+00 1916+00 1917+00 1918+00 1919+00 1920+00 1921+00 1922+00 1923+00 1924+00 1925+00 1926+00 1927+00 1928+00 1929+00 1930+00 1931+00 1932+00 1933+00 1934+00 1935+00 1936+00 1937+00 1938+00 1939+00 1940+00 1941+00 1942+00 1943+00 1944+00 1945+00 1946+00 1947+00 1948+00 1949+00 1950+00 1951+00 1952+00 1953+00



Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
- Cable Area
- Placement Area
- Anchorage Area
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- Beacon, General
- Red Navigation Buoy
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Contours
- -30
- -29
- -28
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

CONTROLS:
LOCATION: RIO VISTA
NOAA STATION: 9415316
BENCHMARK: 5316 B 1996 (NO PID)
TIDE GAUGE: NAIL @ 8.2 FT MLLW
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LOCATION: PORT OF WEST SACRAMENTO
NOAA STATION: 9416131
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US Army Corps of Engineers
District: CESPK

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Chart Date: Jul 07, 2020		
Surveyed By:	Plotted By: PDT	Checked By: PDT
Designed by:		Drawn by: PDT

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

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
38 of 45

1,940,000 1,941,000 1,942,000 1,943,000 1,944,000 1,945,000

6,680,000 6,681,000 6,682,000

1946+00 1947+00 1948+00 1949+00 1950+00 1951+00 1952+00 1953+00 1954+00 1955+00 1956+00 1957+00 1958+00 1959+00 1960+00 1961+00 1962+00 1963+00 1964+00 1965+00 1966+00 1967+00 1968+00 1969+00 1970+00 1971+00 1972+00 1973+00 1974+00 1975+00 1976+00 1977+00 1978+00 1979+00 1980+00 1981+00 1982+00 1983+00 1984+00 1985+00 1986+00 1987+00 1988+00 1989+00 1990+00 1991+00 1992+00 1993+00 1994+00 1995+00 1996+00 1997+00 1998+00 1999+00 2000+00 2001+00 2002+00 2003+00 2004+00 2005+00 2006+00

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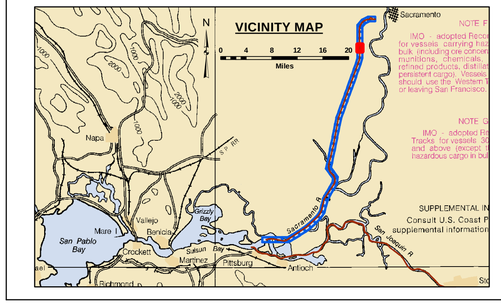

Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
- Contour Line
- Cable Area
- Placement Area
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- Shoalest Sounding**
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- Red Navigation Buoy
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Contours
-30 -29 -28 -27 -26

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

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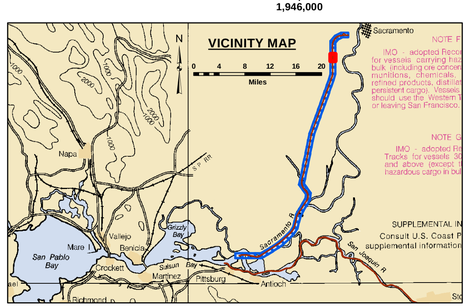
Chart Date: Jul 07, 2020			
Surveyed By:	Plotted By: PDT	Designed by:	Drawn by: PDT
PREPARED UNDER THE DIRECTION OF JOHN D. CUNNINGHAM LT COLONEL, C.E. DISTRICT ENGINEER	Submitted: Hydro Survey Team Leader	Recommended: Chief, Hydro Survey Section	Approved: Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
39 of 45



Feet
0 400 800 1,200

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

Contours
-30
-29
-28
-27
-26

NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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

NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CA ZONE II (0402). DISTANCE UNITS IN U.S. SURVEY FEET.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE II CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

THE LOCATION OF NAVIGATION AIDS ARE BASED ON AND PROVIDED BY THE U.S. COAST GUARD

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.

US Army Corps of Engineers
District: CESPK

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

Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
40 of 45

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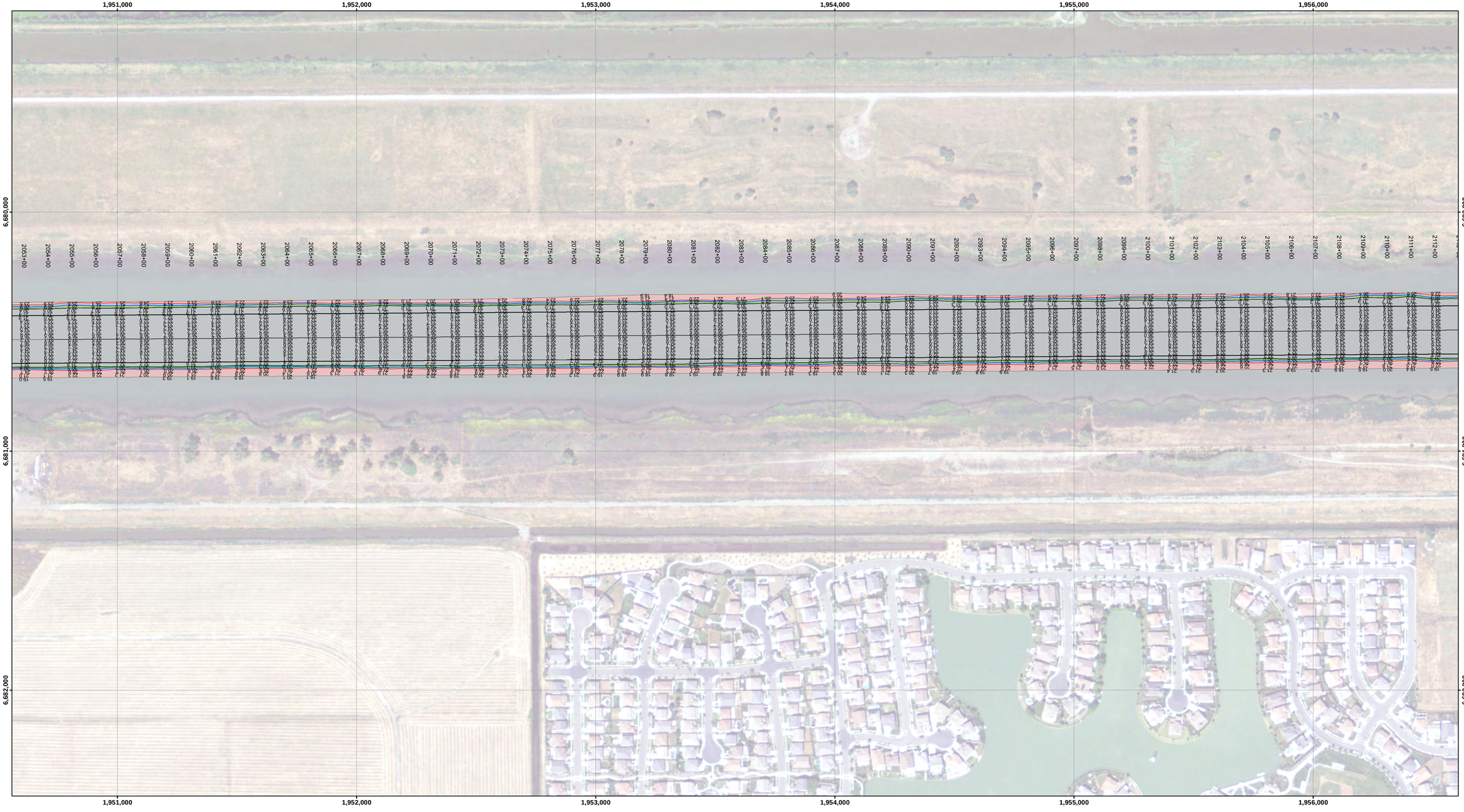
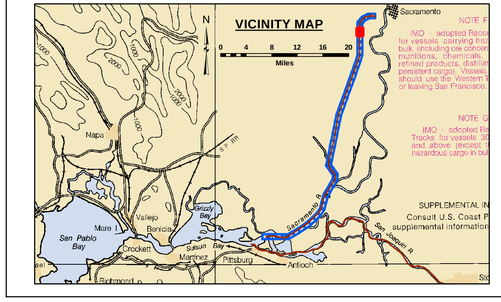
6,683,000 6,682,000





Feet
0 400 800 1,200

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

Contours
-30
-29
-28
-27
-26

W S N E

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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

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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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US Army Corps of Engineers
District: CESPK

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

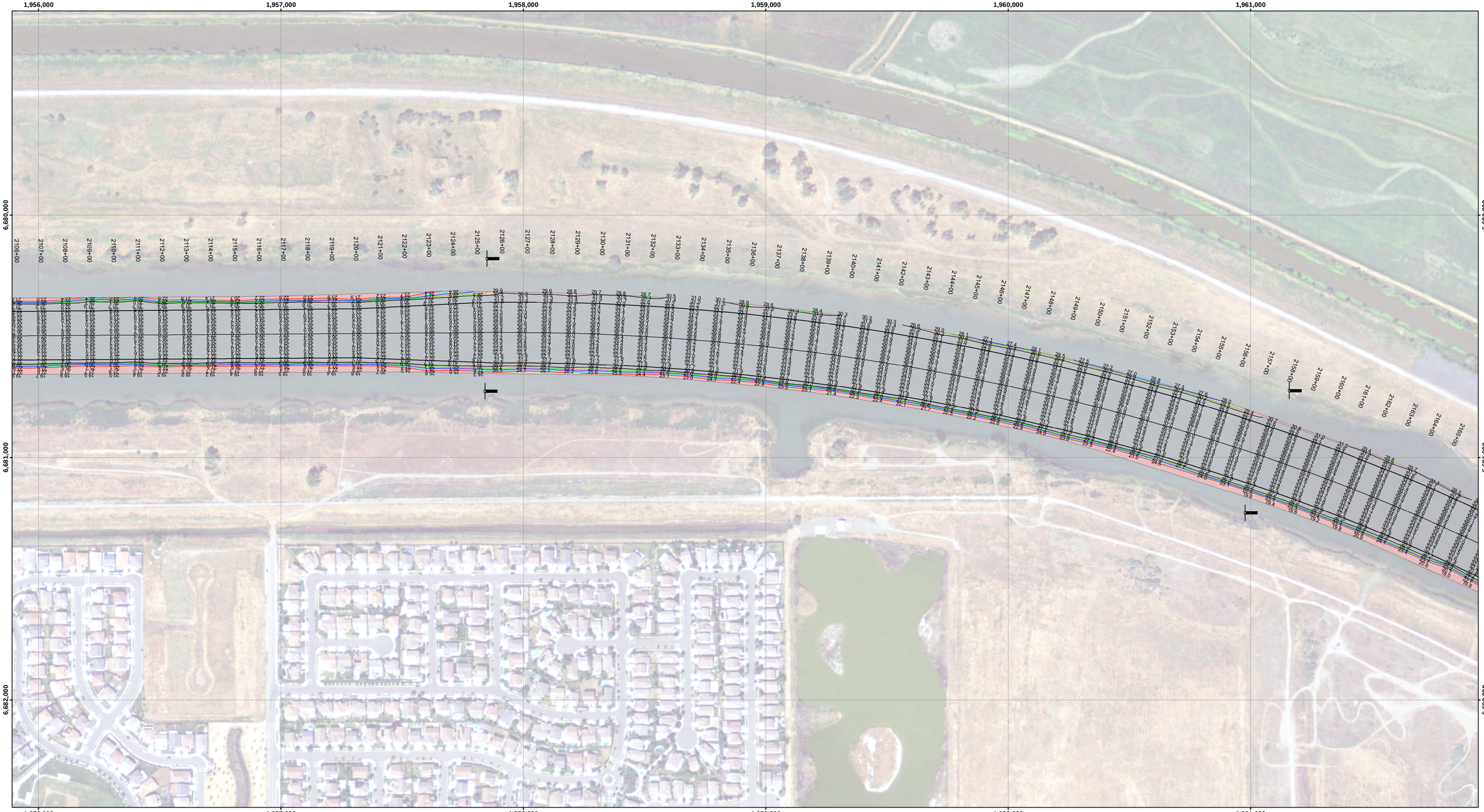
Surveyed By:	Plotted By: PDT	Checked By: PDT
Submitted: Hydro Survey Team Leader		
Recommended: Chief, Hydro Survey Section		
Approved: Chief, Construction Branch		

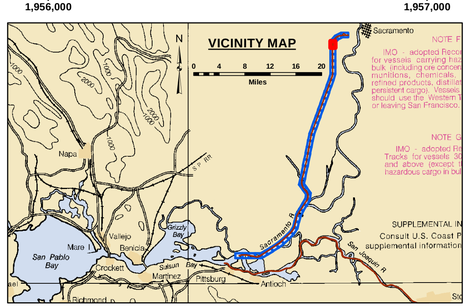
Chart Date: Jul 07, 2020
Designed by:
Drawn by: PDT

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
41 of 45





Feet
0 400 800 1,200

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

Contours
- -30
- -29
- -28
- -27
- -26

NOTES:
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

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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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US Army Corps of Engineers
District: CESPK

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

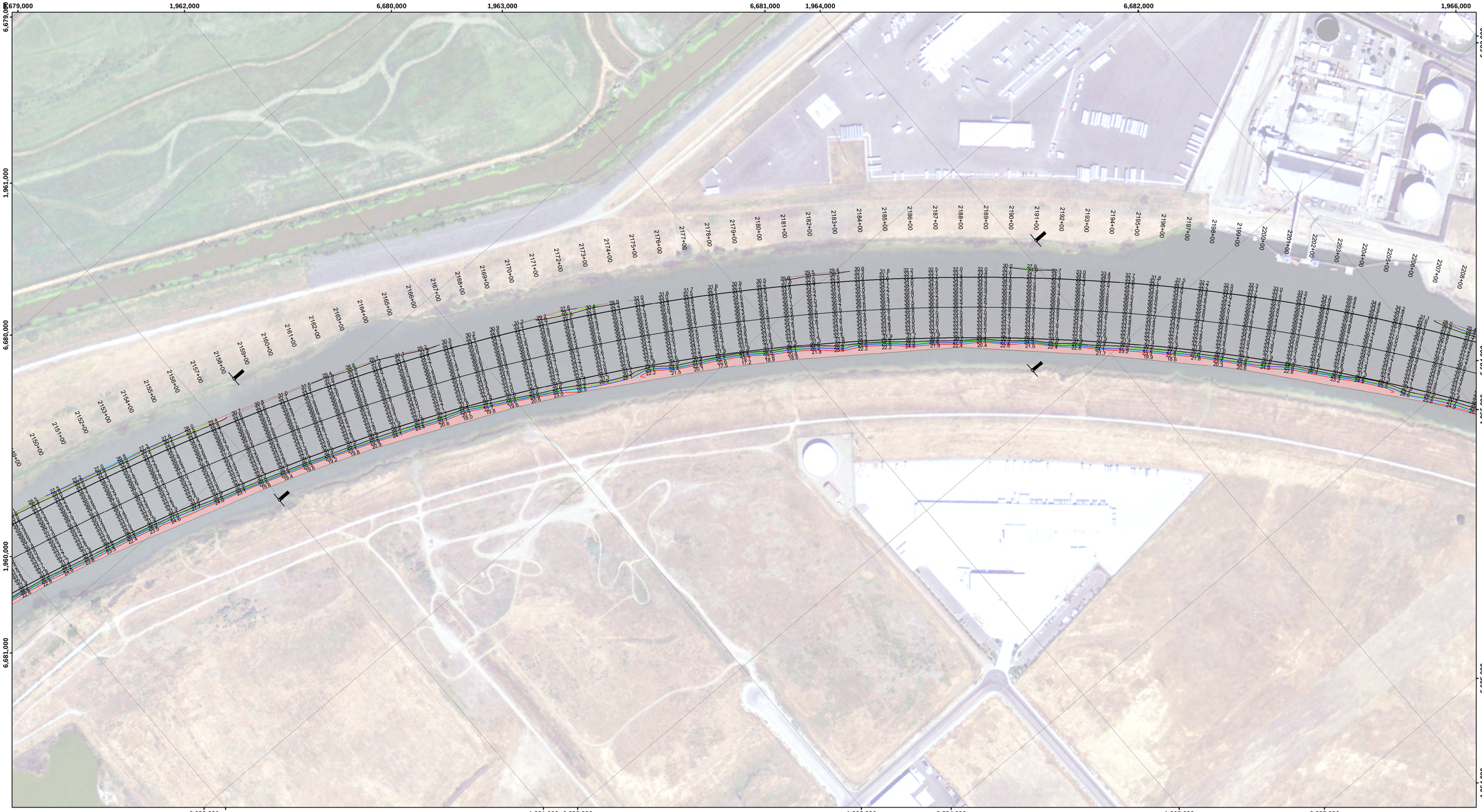
Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

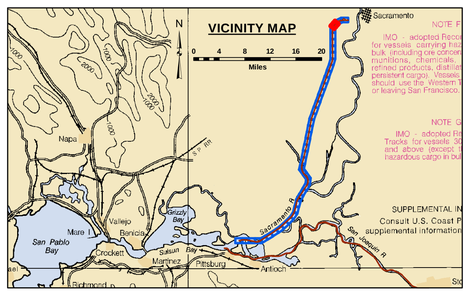
Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
42 of 45





Feet
0 400 800 1,200

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
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- Green Navigation Buoy

Contours
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PROJECT DEPTH: -30'

VERTICAL DATUM: MLLW

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CONTROLS:
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NOAA STATION: 9415316
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TIDE GAUGE: NAIL @ 8.2 FT MLLW
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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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Surveyed By:		Chart Date:	Jul 07, 2020
Plotted By:	PDT	Designed by:	
Checked By:	PDT	Drawn by:	PDT

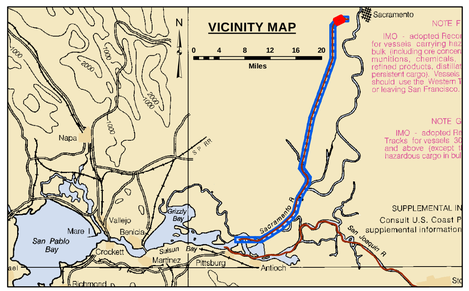
PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
43 of 45



Feet
0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
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- Placement Area
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Contours
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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Surveyed By:	Chart Date:	Jul 07, 2020
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by:	PDT

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

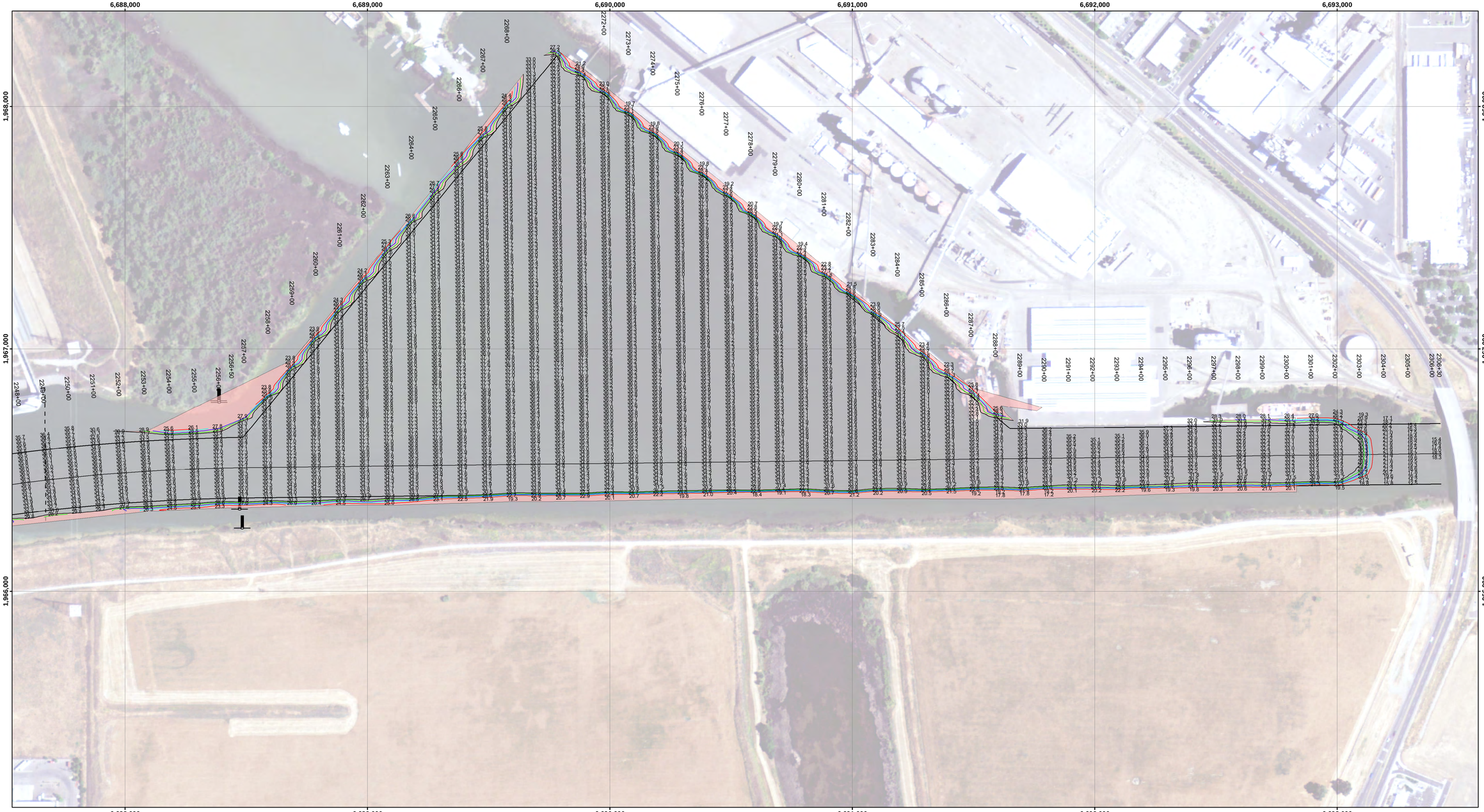
CALIFORNIA
SAN JOAQUIN COUNTY

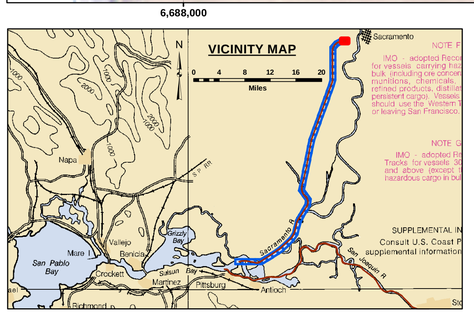
SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
44 of 45

CORPS OF ENGINEERS

U.S. ARMY





Feet

0 400 800 1,200

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- Cable Submarine
- Cable Overhead
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- Red Navigation Buoy
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Contours

- -30
- -29
- -28
- -27
- -26

N W E S

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Surveyed By:	Chart Date: Jul 07, 2020
Plotted By: PDT	Designed by:
Checked By: PDT	Drawn by: PDT

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

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

CALIFORNIA

SAN JOAQUIN COUNTY

SACRAMENTO RIVER
CONDITION SURVEY
28 JUNE - 02 JULY 2020

Sheet Reference Number
45 of 45