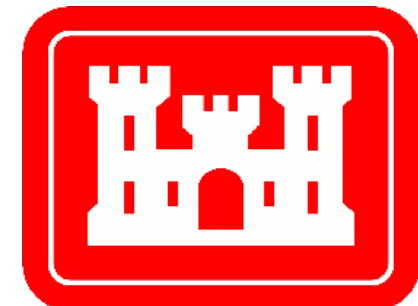


San Bernard River Channel: Mile 8 to Mile 20.5



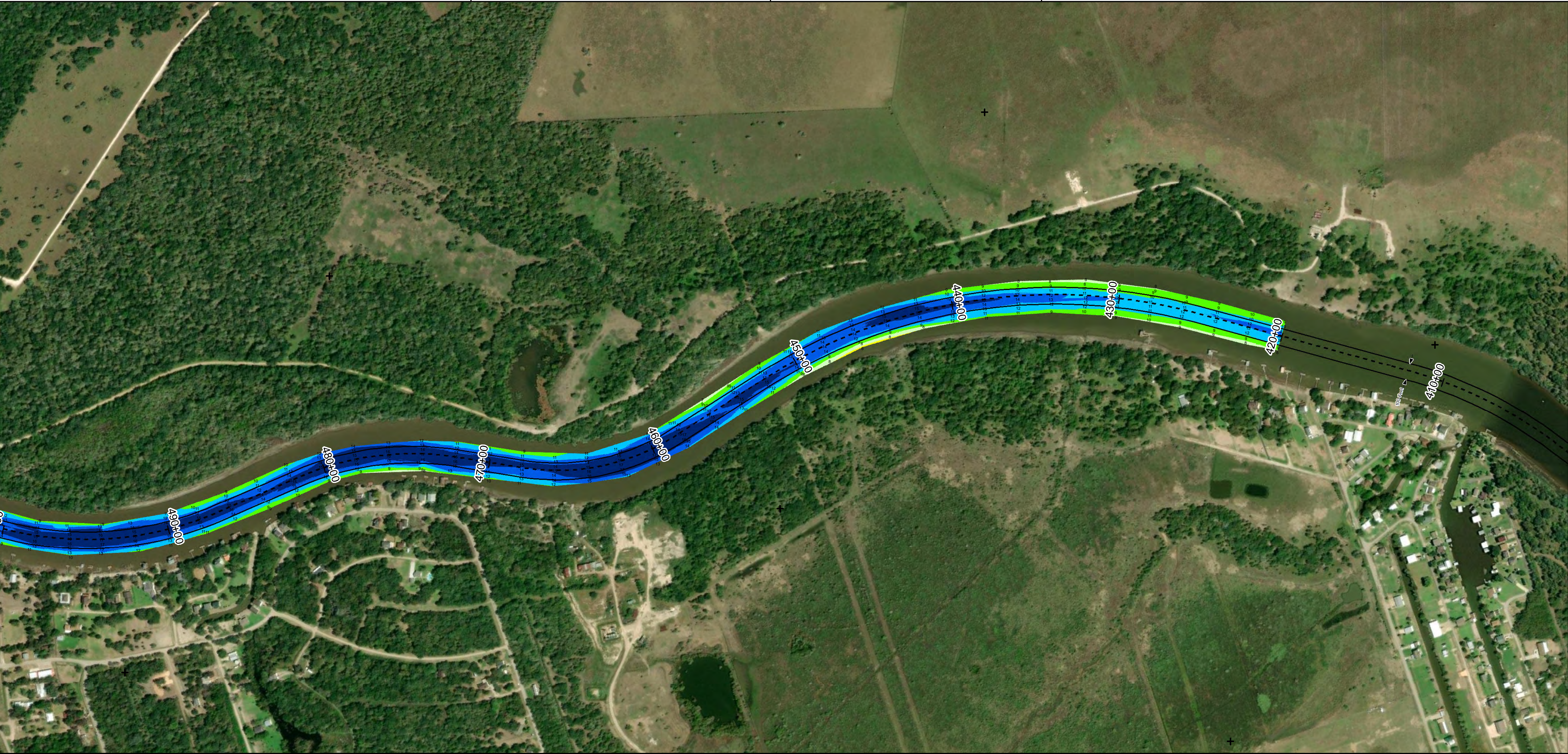
U.S. Army Corps of Engineers
Galveston District



Regional Extent



Dredging Reach Extent

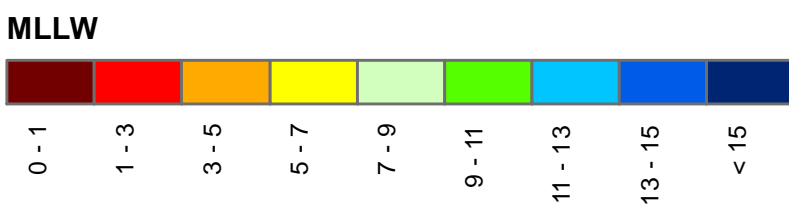


Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

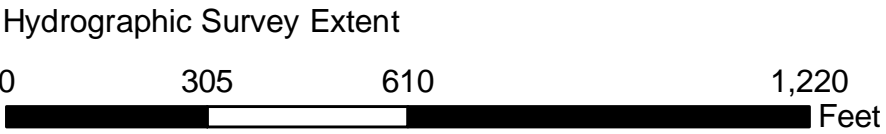
- Green Side Aids
- Red Side Aids
- Lights



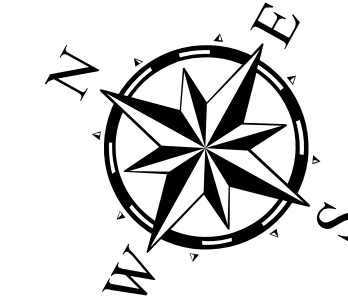
NOTES:
1. Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
2. Elevations are referenced to mean lower low tide (MLLT) datum.
3. This project was designed by the Galveston District of the U.S. Army Corps of Engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 47CFR 110.1-110.12.
4. The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should not rely exclusively on the information provided here. Required by 33 CFR 209.320.
5. For the most up to date information please check our website at: <http://www.usace.army.mil/Missions/Navigation/HydrographicSurveys/>
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA/NGDC, and other contributors

Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic/Datum: North American 1983



Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.	
Document Page: 1 of 8	Website Index Number: 8	Side Slope Ratio: (Rise : Run)	
Scale: 1:3,500		PDF Print Date: 5/26/2022	
Mapped by: M3AOXPAC			
Additional Imagery info:			



HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS
Station: 420+00 to 1080+00
SAN BERNARD RIVER CHANNEL
Mile 8 to Mile 20.5

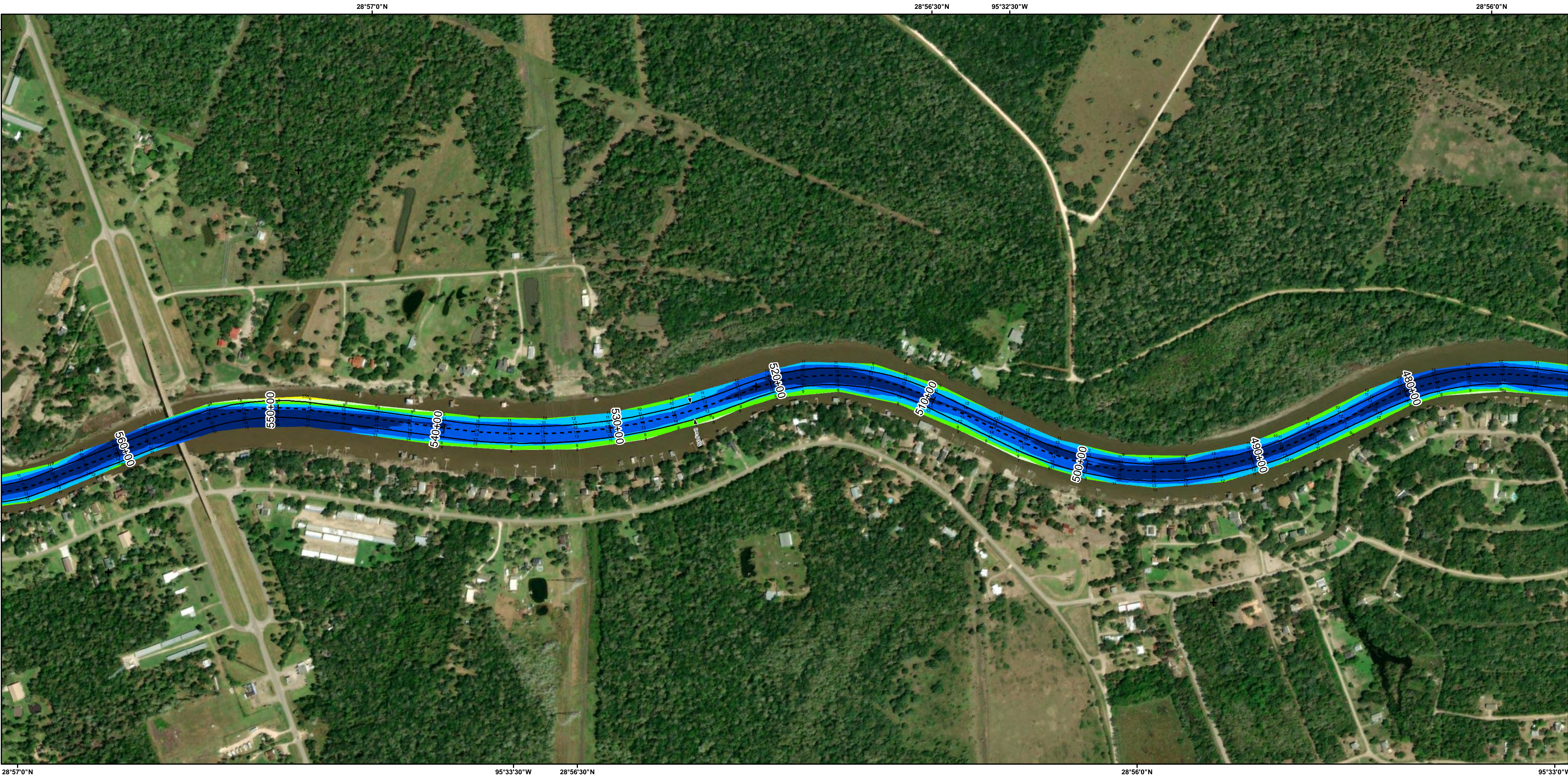
San Bernard River Channel: Mile 8 to Mile 20.5



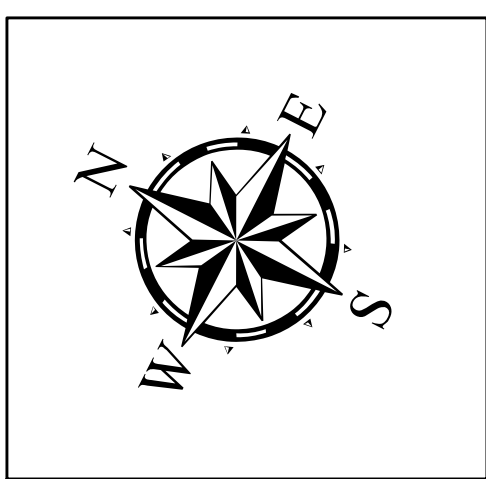
Dredging Reach Extent

Mile 8 to Mile 20.5

Mile 3.7 to Mile 8



Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.
Document Page: 2 of 8	Website Index Number: 9	Side Slope Ratio: (Rise : Run)
Scale: 1:3,500		PDF Print Date: 5/26/2022
Mapped by: M3AOXPAC		
Additional Imagery info:		



HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00

SAN BERNARD RIVER CHANNEL

Mile 8 to Mile 20.5

SAN BERNARD RIVER CHANNEL
 Mile 8 to Mile 20.5

Channel Features

- Channel Toe
- - - Channel Center Line
- Channel Station Lines
- ↔ Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

MLLW Range	Color
0 - 1	Dark Red
1 - 3	Red
3 - 5	Orange
5 - 7	Yellow
7 - 9	Light Green
9 - 11	Green
11 - 13	Light Blue
13 - 15	Blue
< 15	Dark Blue

NOTES:

1. Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
2. Elevations are referenced to mean lower low tide (MLLT) datum.
3. This project was designed by the galveston district of the u.s. army corps of engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by the federal acquisition regulation.
4. The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should rely not exclusively on the information provided here. Required by 33 CFR 209.235.
5. For the most up to date website at <http://www.svgs.usace.army.mil/EIS/Navigation/HydrographicSurveys/>

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

Sources: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Esri, Garmin, GEBCO, NOAA/GCNC, and other contributors

Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983



Hydrographic Survey Extent



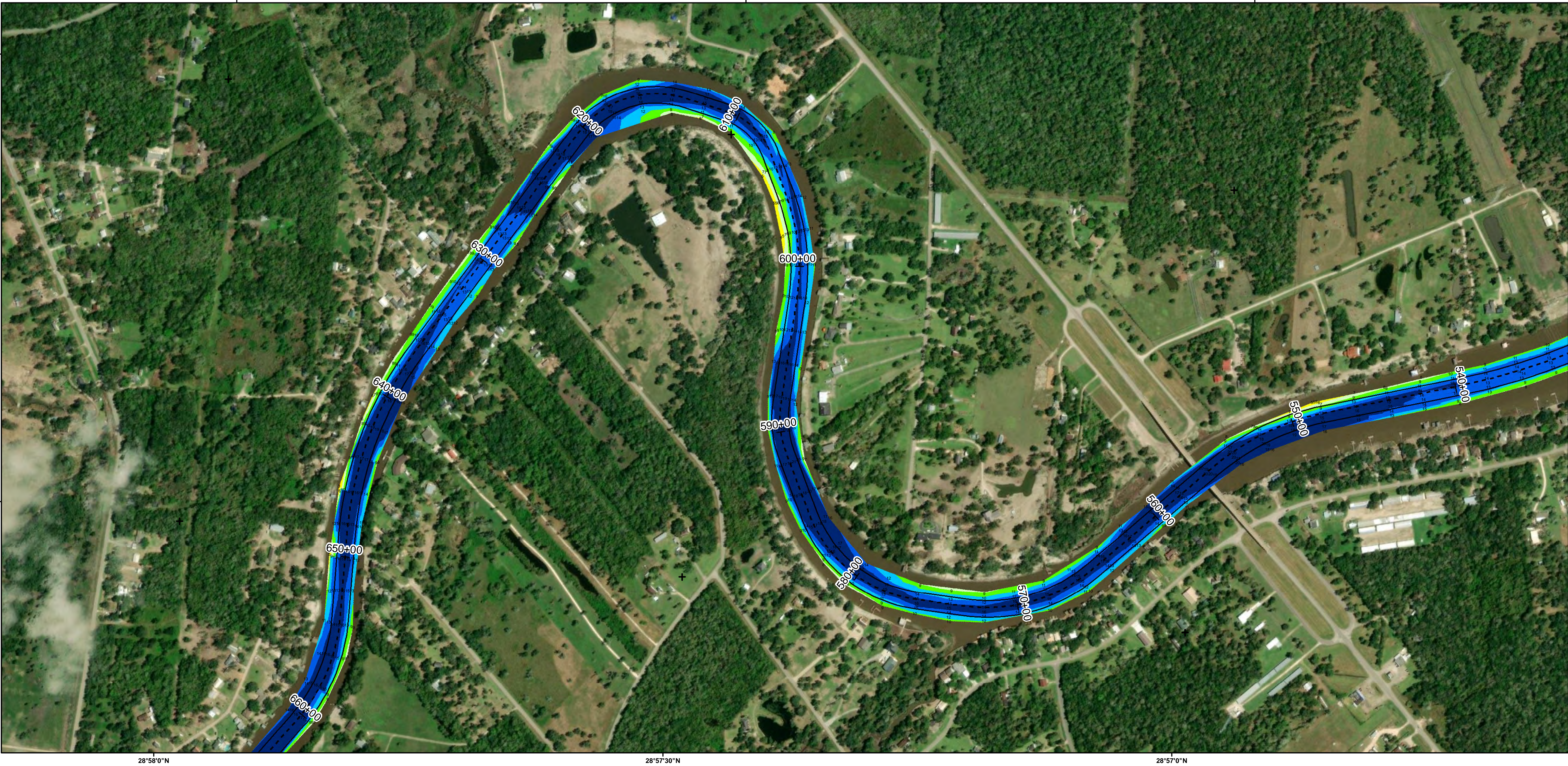
San Bernard River Channel: Mile 8 to Mile 20.5



Regional Extent

SAN BERNARD RIVER CHANNEL

Map showing the regional extent of the San Bernard River Channel. The map includes the city of Bixazetta, Highway 36, County Road 309, and the San Bernard River. A red rectangle highlights the specific area of the San Bernard River Channel. A north arrow is located in the bottom right corner.



Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

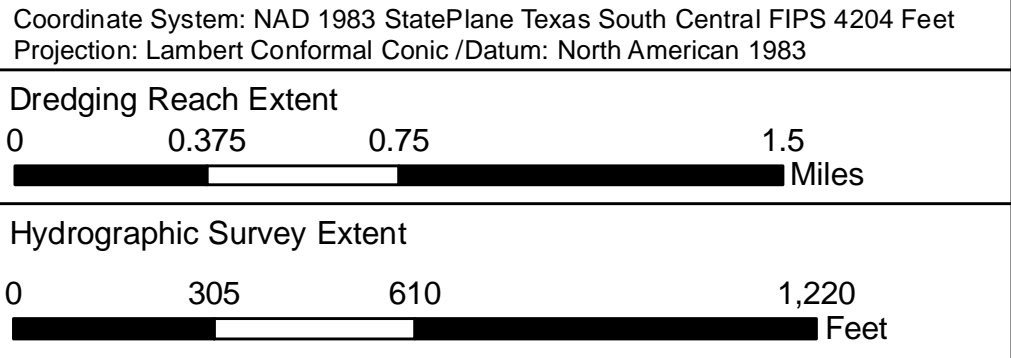
NOTES:

- 1 Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
- 2 Elevations are referenced to mean lower low tide (MLL) datum.
- 3 This project was designed by the galestin district of the u.s. army corps of engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 49CFR-1.162
- 4 The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner must rely not exclusively on the information provided here, REQUIRED BY 33 dfr 209.325
- 5 For the most up to date version of this map see: <http://www.usace.army.mil/Missions/Navigation/Hydrographic/Surveys/>

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

Source: Esri, Mapbox, DeLorme, GeoEye, (c) Swire, GEBCO, NOAA NGDC, and other contributors

Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE



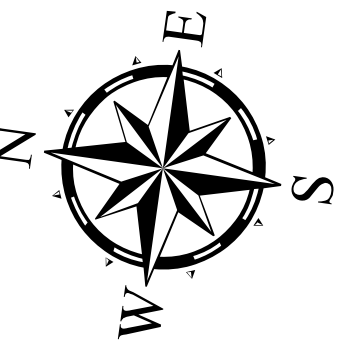
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00

SAN BERNARD RIVER CHANNEL

Mile 8 to Mile 20.5

Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.
Document Page: 3 of 8	Website Index Number: 10	Side Slope Ratio: (Rise : Run)
Scale: 1:3,500		PDF Print Date: 5/26/2022
Mapped by: M3AOXPAC		
Additional Imagery info:		



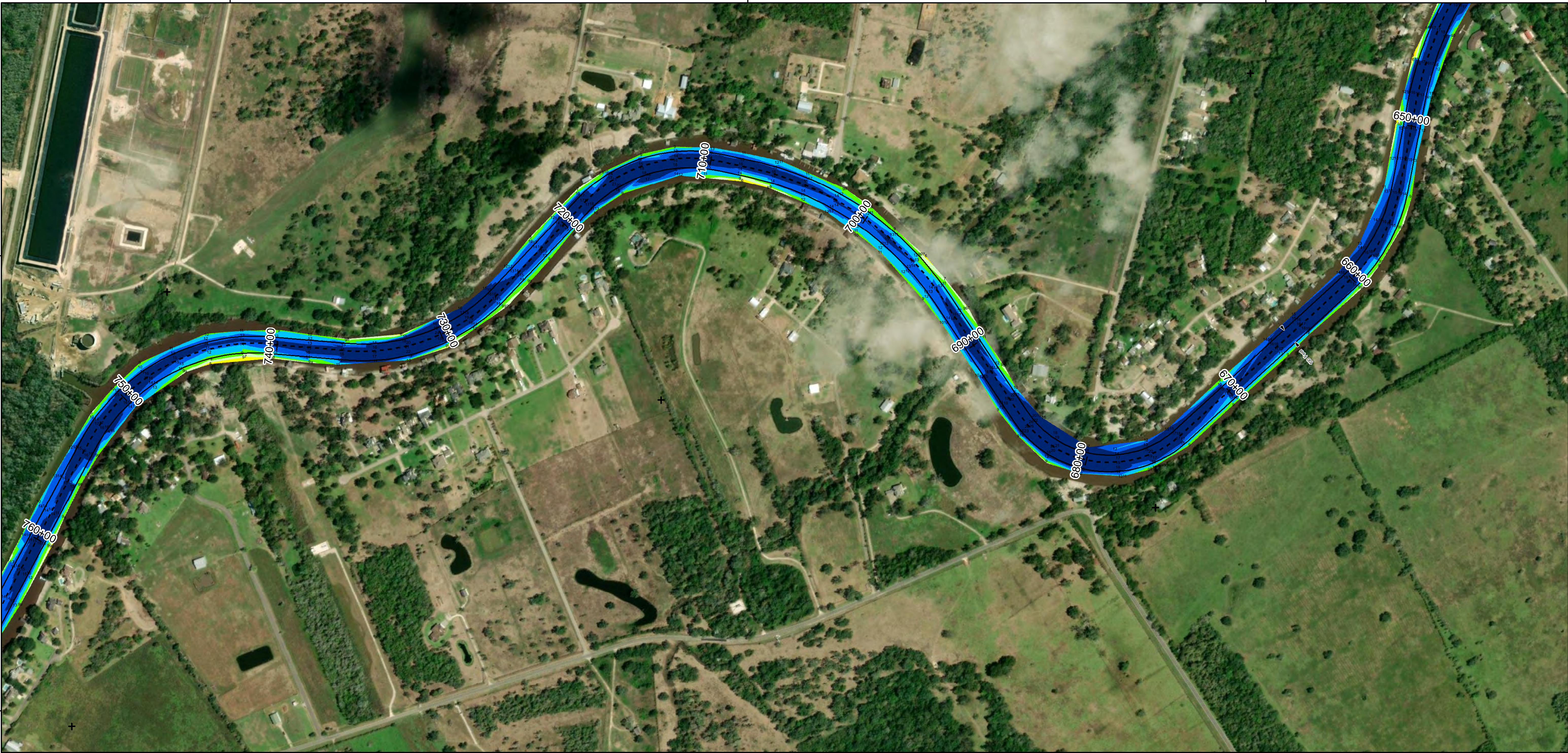
San Bernard River Channel: Mile 8 to Mile 20.5



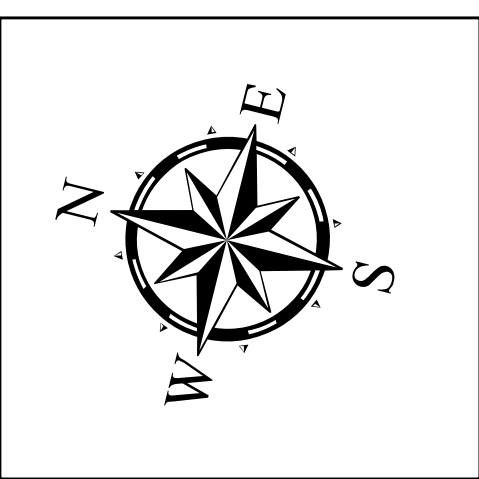
Regional Extent

SAN BERNARD RIVER CHANNEL

Map showing the regional extent of the San Bernard River Channel. The map includes the city of Brea, Highway 78, and the San Bernard River. A red box highlights the area shown in the previous map.



Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.
Document Page: 4 of 8	Website Index Number: 11	Side Slope Ratio: (Rise : Run)
Scale: 1:3,500		PDF Print Date: 5/26/2022
Mapped by: M3AOXPAC		
Additional Imagery info:		



HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00

SAN BERNARD RIVER CHANNEL

Mile 8 to Mile 20.5

Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

MLLW Range	Color
0 - 1	Dark Red
1 - 3	Red
3 - 5	Orange
5 - 7	Yellow
7 - 9	Light Green
9 - 11	Green
11 - 13	Cyan
13 - 15	Blue
< 15	Dark Blue

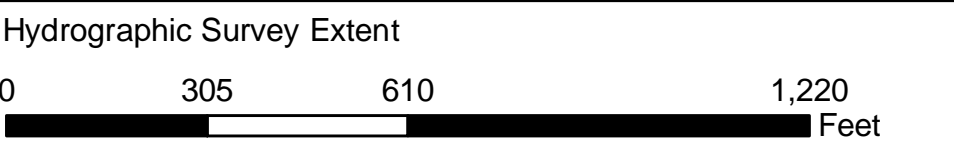
NOTES:

- Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
- Elevations are referenced to mean lower low tide (MLLW) datum.
- This project was designed by the galveston district of the U. S. army corps of engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by the Federal Acquisition Regulation.
- The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner must rely exclusively on the information provided hereon. Provided by 33 drc 209.302
- For the most up to date information visit <http://www.sfw.gov.us/arm/milestones/Navigation/Hydrographic/Surveys/>

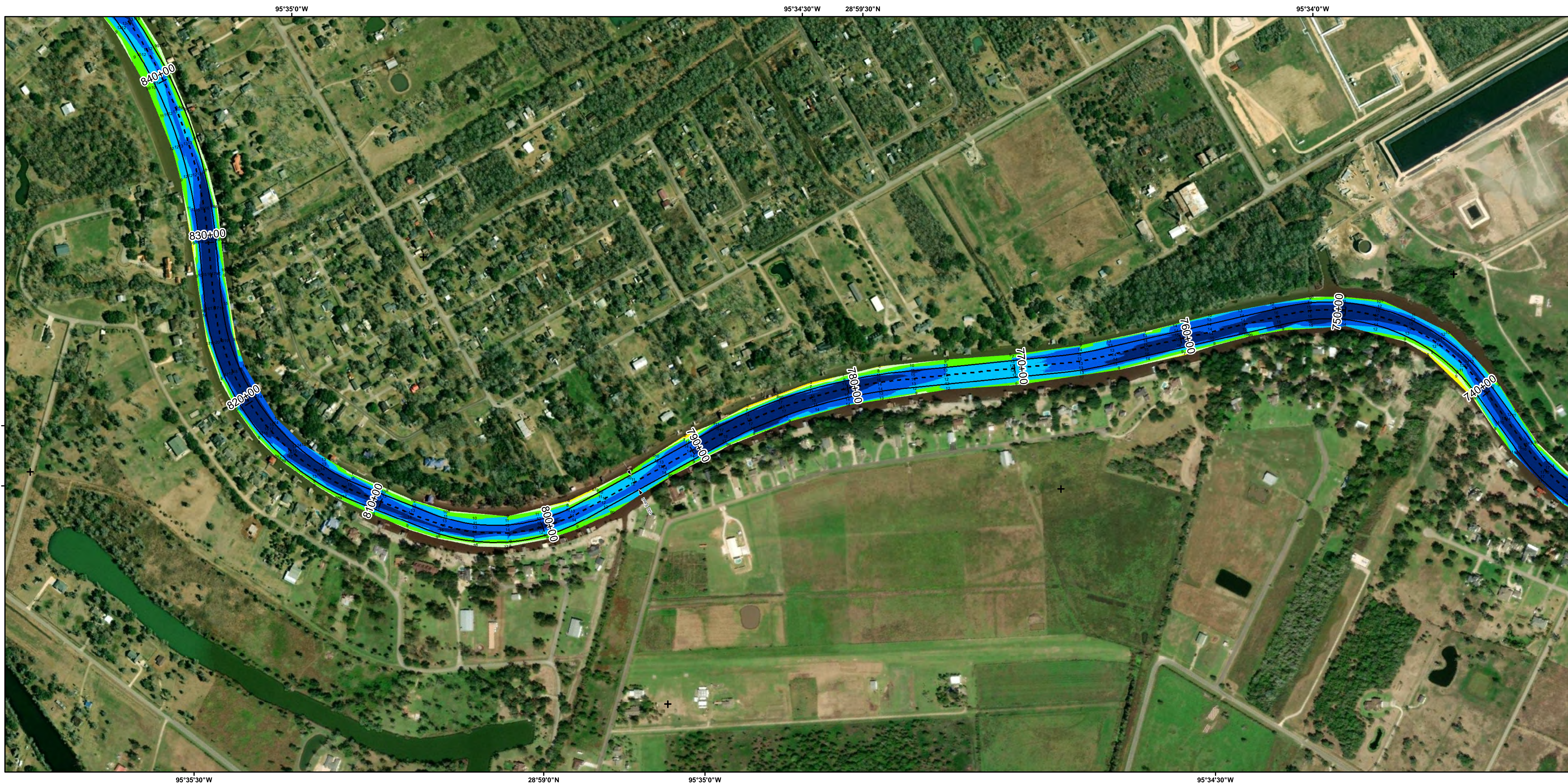
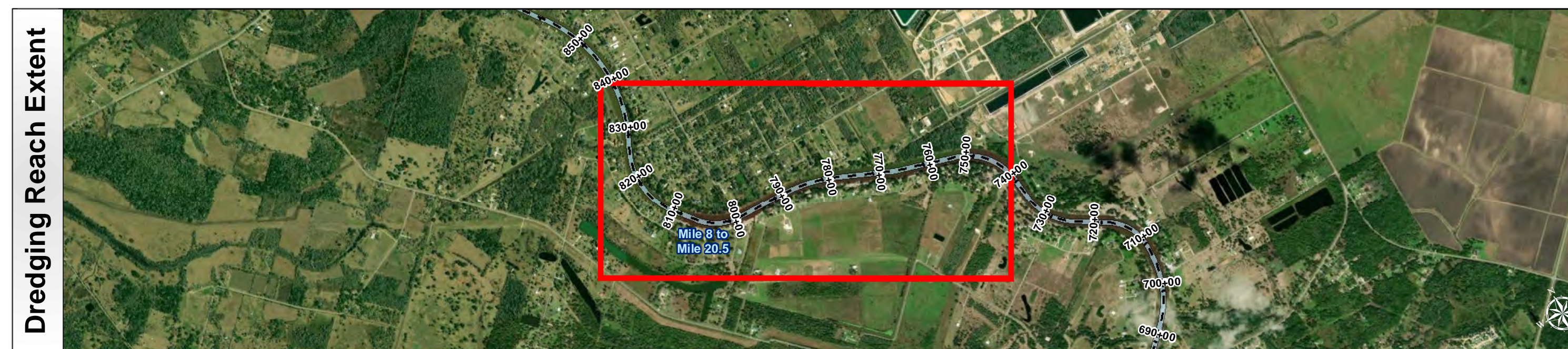
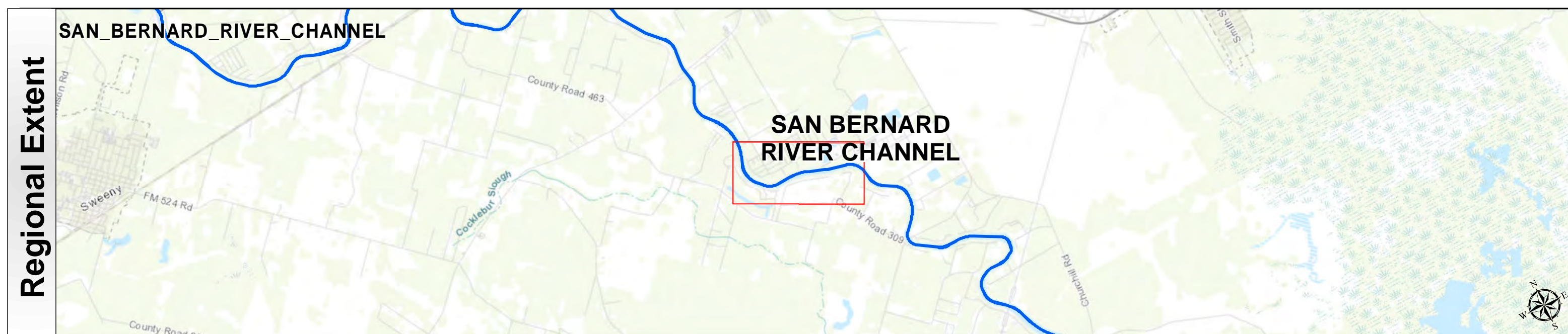
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, Incorpnet P Corp., GEBCO, USGS, FAO, NRCAN, Geoeast, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Sources: Esri, DeLorme, Benchmark Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

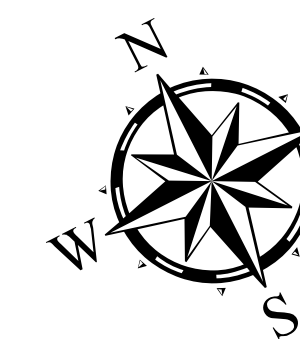
Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983



A map of Texas with the word "TEXAS" in large black letters. The Gulf of Mexico is to the east. A red arrow points to a location on the Texas coast. An inset in the bottom right shows the Texas State Seal.



Latest Survey Collection Date: 20 May 2022	Authorized Depth: ~11ft.
Document Page: 5 of 8	Website Index Number: 12
Scale: 1:3,500	Side Slope Ratio: (Rise : Run)
Mapped by: M3AOXPAC	PDF Print Date: 5/26/2022
Additional Information:	



HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00

SAN BERNARD RIVER CHANNEL

Mile 8 to Mile 20.5

Channel Features

— Channel Toe

- - - Channel Center Line

— Channel Station Lines

↔ Channel Dimensions

Aids to Navigation

Green Side Aids

Red Side Aids

Lights

MLLW

0 -1 1 -3 3 -5 5 -7 7 -9 9 -11 11 -13 13 -15 <15

NOTES:

- Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
- Elevations are referenced to mean lower low tide (MLLW) datum.
- This project was designed by the galveston district of the u.s. army corps of engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 47CFR110.1-18192.
- The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should not rely exclusively on the information provided here. Required by 33 CFR 209.325.
- For the most up to date information please check our website at: <http://www.uswg.usace.army.mil/Missions/Navigation/Hydrographic/Surveys/>

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Additional Combined Survey Dates and Stationing:

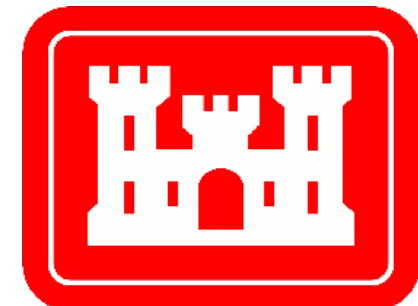
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983

Dredging Reach Extent			
0	0.375	0.75	1.5
Miles			

Hydrographic Survey Extent			
0	305	610	1,220
Feet			

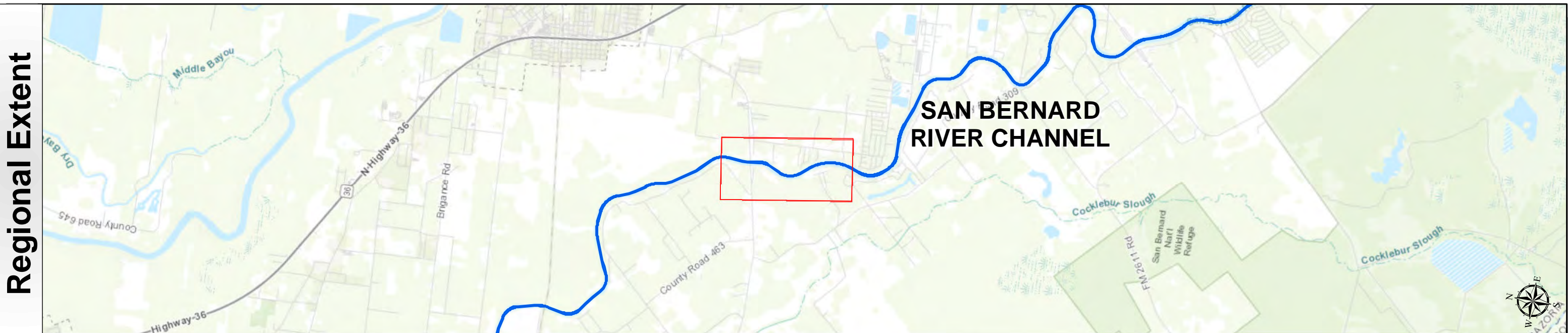
San Bernard River Channel: Mile 8 to Mile 20.5



U.S. Army Corps of Engineers
Galveston District



Regional Extent



Dredging Reach Extent

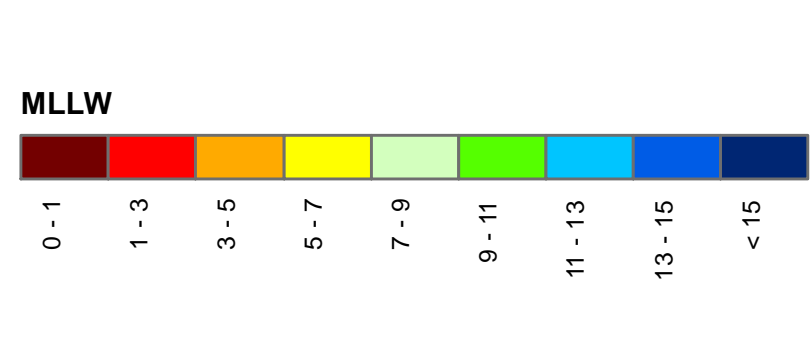


Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights



NOTES:
1. Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
2. Elevations are referenced to mean lower low tide (MLLT) datum.
3. This project was designed by the Galveston District of the U.S. Army Corps of Engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 47CFR 110.1-110.12.
4. The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should not rely exclusively on the information provided here. Required by 33 CFR 209.320.
5. For the most up to date information please check our website at: <http://www.usace.army.mil/Missions/Navigation/HydrographicSurveys/>
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA/NGDC, and other contributors

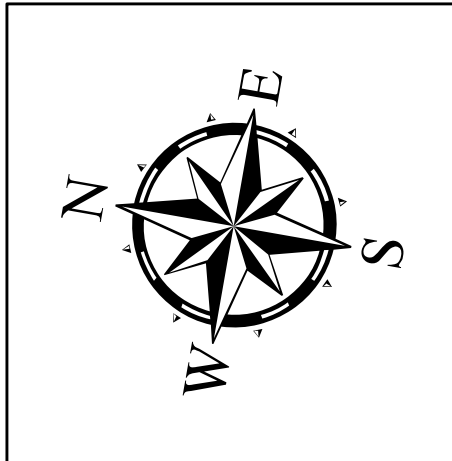
Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic/Datum: North American 1983

Dredging Reach Extent
0 0.375 0.75 1.5 Miles

Hydrographic Survey Extent
0 305 610 1,220 Feet

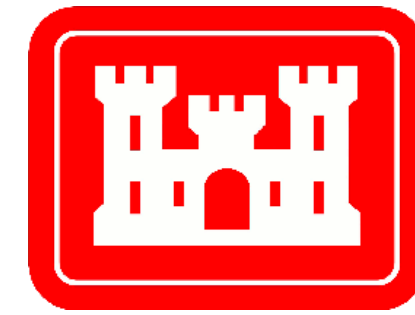
Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.	
Document Page: 6 of 8	Website Index Number: 13	Side Slope Ratio: (Rise : Run)	
Scale: 1:3,500		PDF Print Date: 5/26/2022	
Mapped by: M3AOXPAC			
Additional Imagery info:			



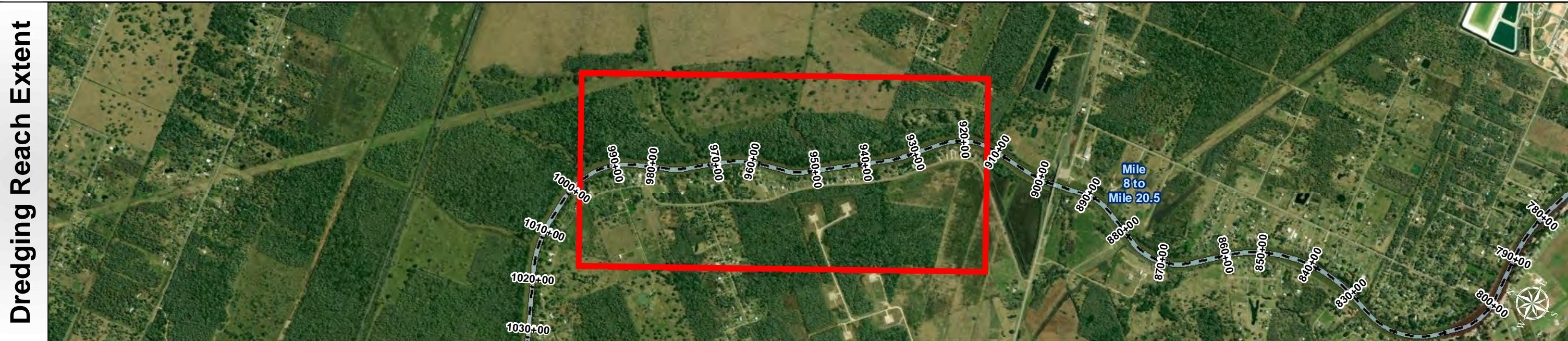
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00
SAN BERNARD RIVER CHANNEL
Mile 8 to Mile 20.5

San Bernard River Channel: Mile 8 to Mile 20.5



U.S. Army Corps of Engineers
Galveston District



Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

0 - 1	1 - 3	3 - 5	5 - 7	7 - 9	9 - 11	11 - 13	13 - 15	< 15
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NOTES:
1. Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
2. Elevations are referenced to mean lower low tide (MLLW) datum.
3. This project was designed by the Galveston District of the U.S. Army Corps of Engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 47 CFR 110.1-110.12.
4. The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should not rely exclusively on the information provided here. Required by 33 CFR 209.320.
5. For the most up to date information please check our website at: <http://www.swp.usace.army.mil/Missions/Navigation/HydrographicSurveys/>

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA/NGDC, and other contributors

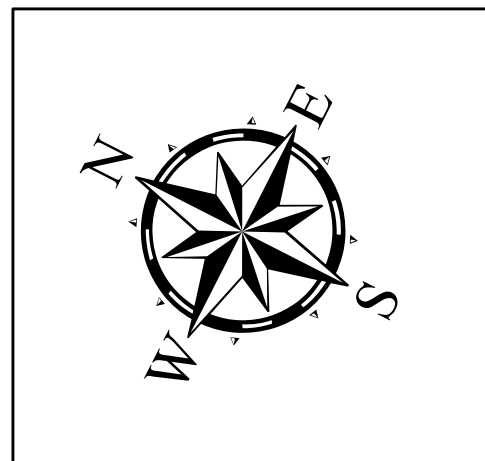
Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983

Dredging Reach Extent
0 0.375 0.75 1.5 Miles

Hydrographic Survey Extent
0 305 610 1,220 Feet

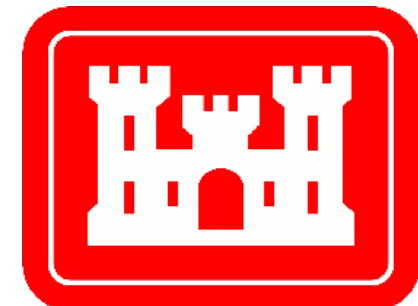
Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.
Document Page: 7 of 8	Website Index Number: 14	Side Slope Ratio: (Rise : Run)
Scale: 1:3,500		PDF Print Date: 5/26/2022
Mapped by: M3AOXPAC		
Additional Imagery info:		



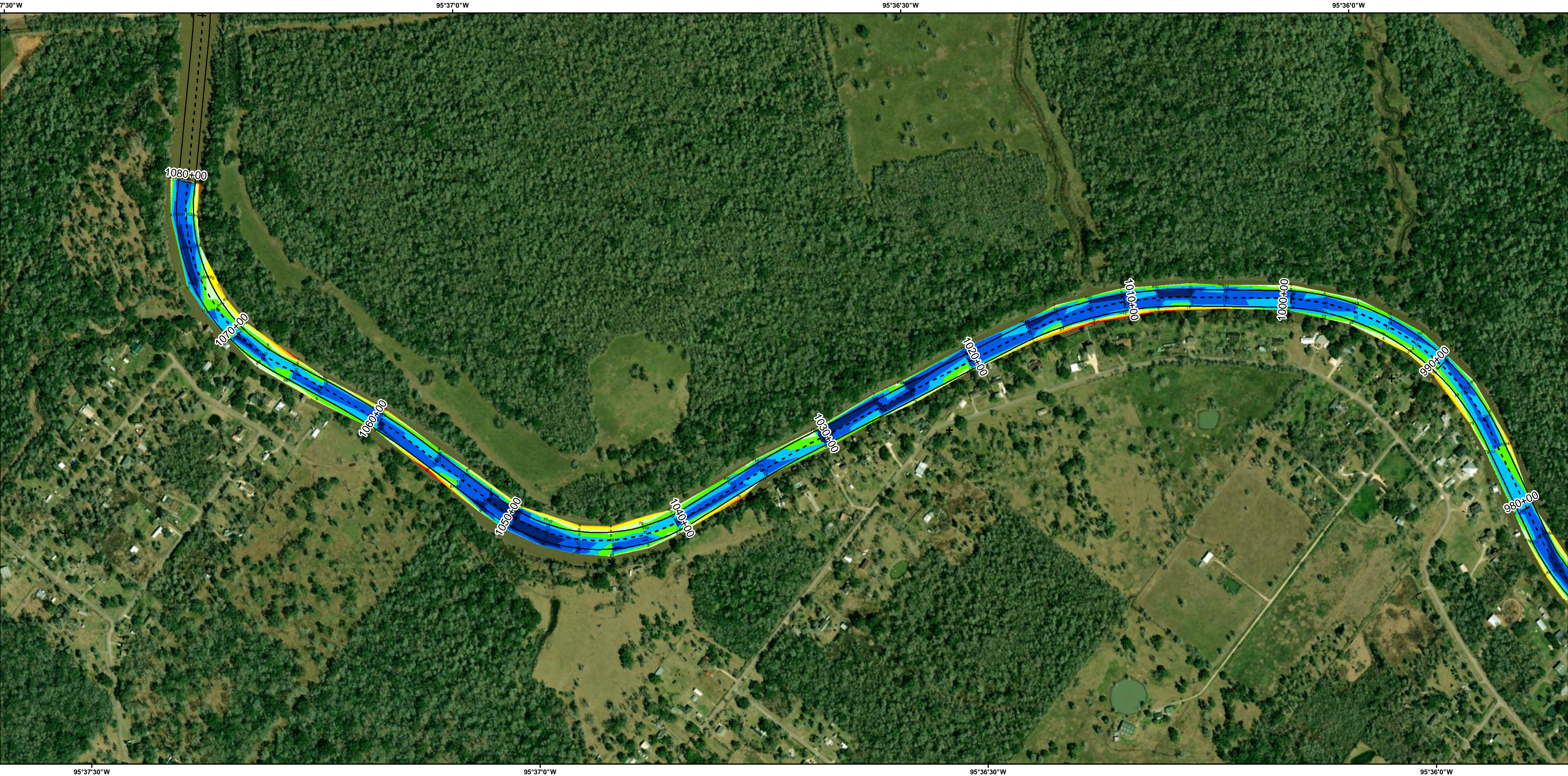
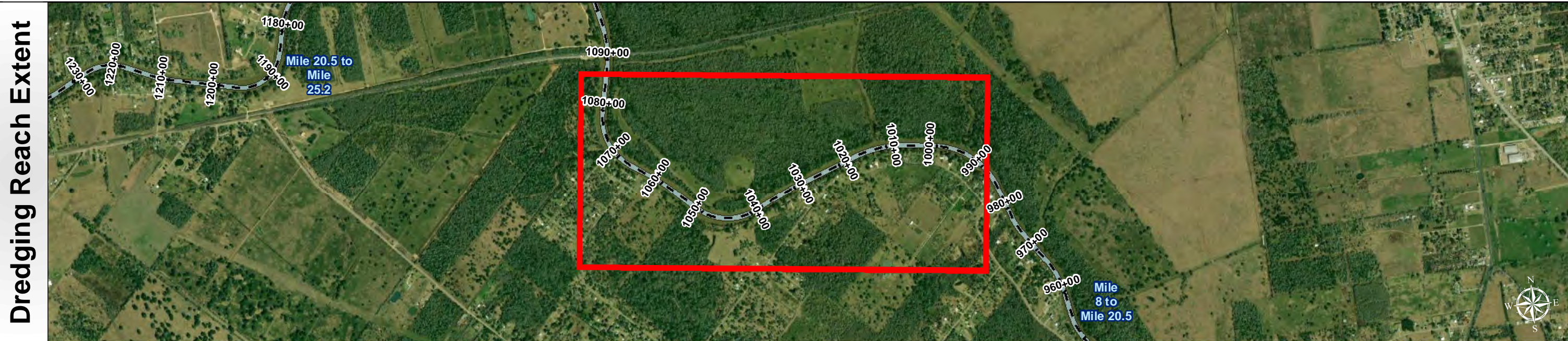
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00
SAN BERNARD RIVER CHANNEL
Mile 8 to Mile 20.5

San Bernard River Channel: Mile 8 to Mile 20.5



U.S. Army Corps of Engineers
Galveston District



Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

NOTES:

- Horizontal coordinates are referenced to Texas state plane coordinate system, south central zone nad83 us survey feet.
- Elevations are referenced to mean lower low tide (MLLT) datum.
- This project was designed by the Galveston District of the U.S. Army Corps of Engineers. The initials and signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by 47CFR 110.1-110.12.
- The information depicted on this survey map represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time. These conditions are subject to rapid change due to shoaling events. A prudent mariner should not rely exclusively on the information provided here. Required by 33 CFR 209.320.
- For the most up to date information please check our website at: <http://www.usace.army.mil/Missions/Navigation/HydrographicSurveys/>

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Esri, Garmin, GEBCO, NOAA/NGDC, and other contributors

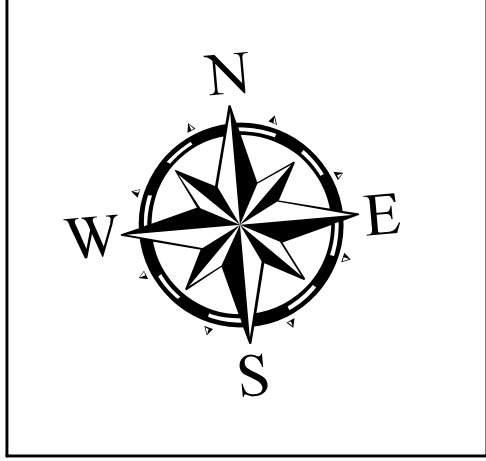
Additional Combined Survey Dates and Stationing:
COMB_SURV_INFO_HERE

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic/Datum: North American 1983

Dredging Reach Extent

Hydrographic Survey Extent

Latest Survey Collection Date: 20 May 2022		Authorized Depth: -11ft.
Document Page: 8 of 8	Website Index Number: 15	Side Slope Ratio: (Rise : Run)
Scale: 1:3,500		PDF Print Date: 5/26/2022
Mapped by: M3AOXPAC		
Additional Imagery info:		



HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 420+00 to 1080+00
SAN BERNARD RIVER CHANNEL
Mile 8 to Mile 20.5