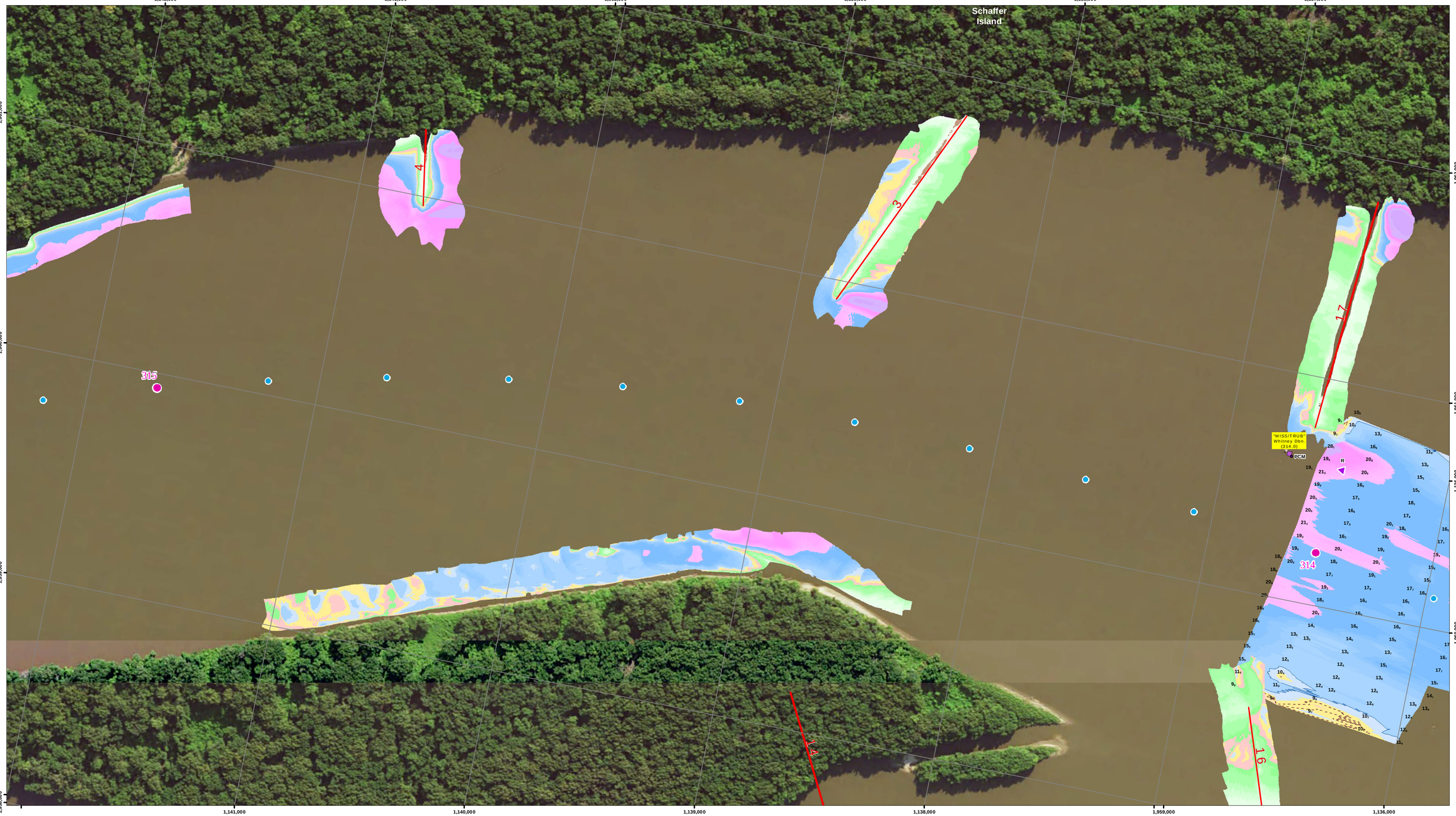
UPSTREAM



DOWNSTREAM

NOTES:

Survey Date: June 21, 2016

Conducted by: Kenny B, Cory B

Survey Vessel: Launch Coot

Flat Pool: 459.5

Water Surface: 465.9

Stage: +6.4

Upstream Gage: Lock 21 Tail RM 324.9

Downstream Gage: Hannibal RM 309.8

Processed in ArcGIS by: Missi B 6/22/2016

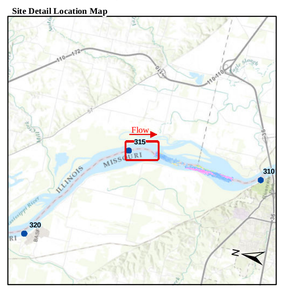
Document Name: UM_24_UMR_20160621_22_31103140_16A

Horizontal Projection: State Plane, NAD 1983 Illinois West - 1202, U.S. Survey Feet
Vertical Datum: MSL 1912 U.S. Survey Feet.

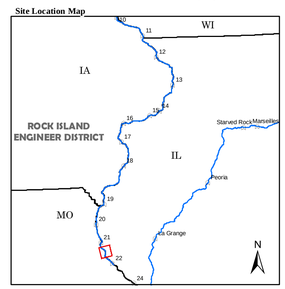
Imagery: 2015 USDA NAIP

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

Site Detail Location Map



Site Location Map



Depth (Ft)

-10', 0', 9', 10', 11', 20', 30', 50'

River Mile

- Mile
- Tenth

River Features

- Wing Dam Location

Lights

- Green
- Red
- White
- Yellow

Daybeacon

- NR: Rhombus, Red and White
- NG: Rhombus, Green and White
- SG: Square, Green
- TR: Triangle, Red

Lateral Buoys

- Green
- Red

Caution Areas

- Submerged Pipeline
- Submerged Pipe Area
- Submerged Cable
- Submerged Cable Area

N E S W

US ARMY CORPS OF ENGINEERS
ROCK ISLAND DISTRICT
CEMVR - OD-T
WATERWAY: UPPER MISSISSIPPI RIVER
POOL: 22
REACH: Whitney Upper
REACH MILES: 313.9 to 315.1
SURVEY TYPE: CONDITION

1 " = 200 '

0 100 200 400 600 800 1,000 1,200 Feet

SURVEYED RIVER MILES: 311.0-314.0

US Army Corps of Engineers
Rock Island District

Symbol	Description	Date	Approved

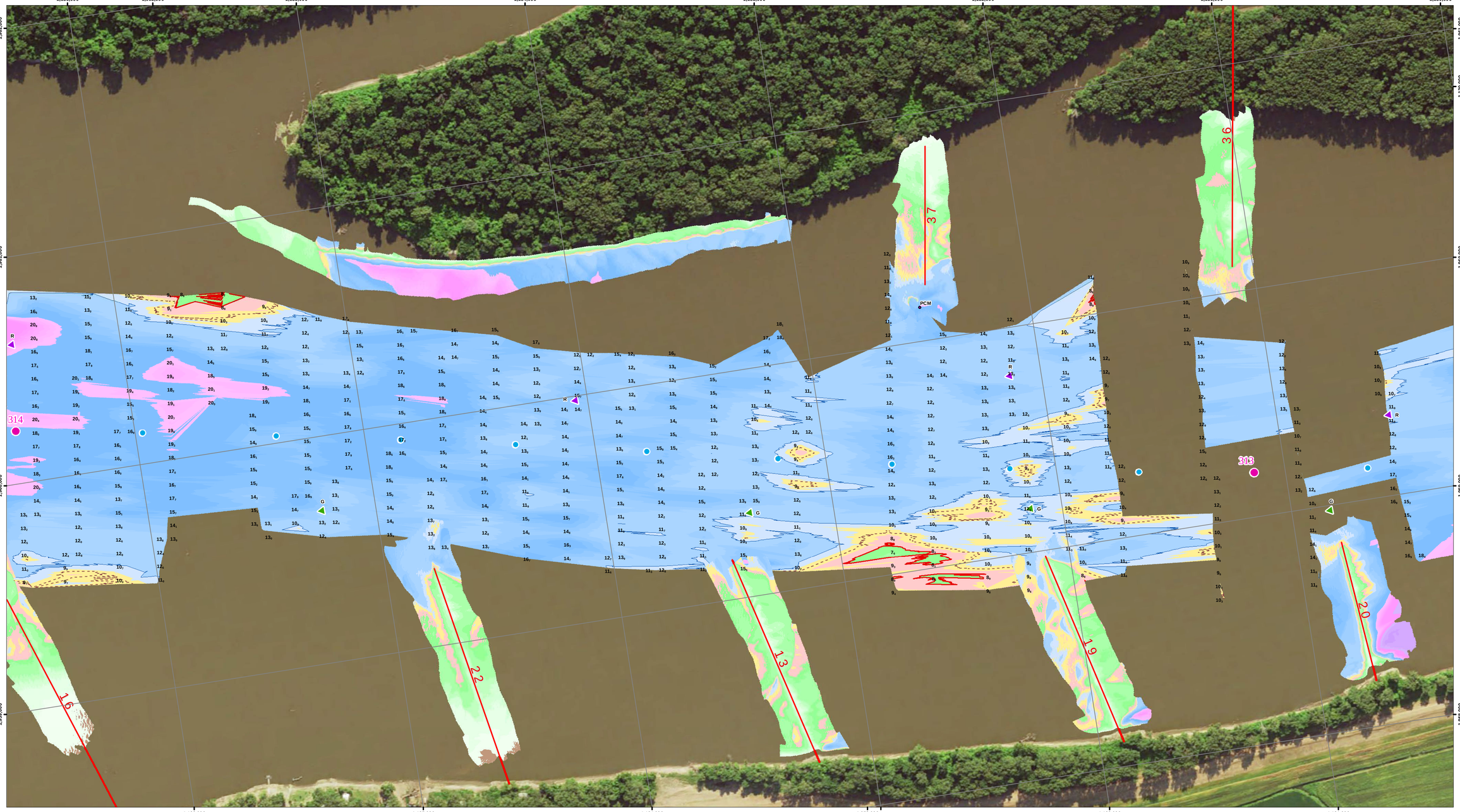
Points represent shallowest depth value derived from 6ft box grid.
Map Document Grid is 1000' x 1000'.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS

Designed By:
Drawn By:
Checked By:
Reviewed By:
Date: 6/22/2016
File No.
I.S.O. Sheet File Name:
Solicitation Number:

Sheet Reference Number
286 of 301

UPSTREAM



DOWNSTREAM

US Army Corps
of Engineers
Rock Island District

Symbol	Description	Date	Approved

Points represent shallowest depth value derived from 95% confidence grid.
Map Document Grid is 1000' x 1000'.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS

Designed By:	Date: 6/22/2016
Drawn By:	File No.
Checked By:	I.S.O. Sheet File Name:
Reviewed By:	Solicitation Number:

Sheet
Reference
Number
287 of 301

NOTES:

Survey Date: June 21, 2016
Conducted by: Kenny B, Cory B

Survey Vessel: Launch Coot
Flat Pool: 459.5
Water Surface: 465.9
Stage: +6.4
Upstream Gage: Lock 21 Tail RM 324.9
Downstream Gage: Hannibal RM 309.8

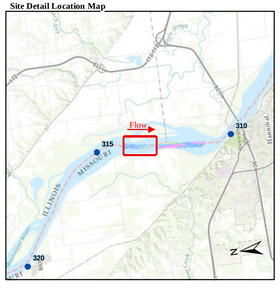
Processed in ArcGIS by: Missi B 6/22/2016
Document Name: UM_24_UMR_20160621_22_31103140_16A

Horizontal Projection: State Plane, NAD 1983
Illinois West - 1202, U.S. Survey Feet
Vertical Datum: MSL 1912 U.S. Survey Feet.

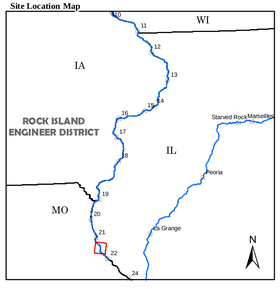
Imagery: 2015 USDA NAIP

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

Site Detail Location Map



Site Location Map



Depth (Ft)

-10', 0', 5', 10', 11', 12', 20', 30', 50'

River Mile
- Mile
- Tenth

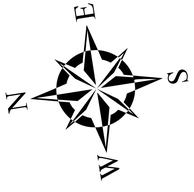
River Features
- Wing Dam Location

Lights
- Green
- Red
- White
- Yellow

Daybeacon
- NR: Rhombus, Red and White
- NG: Rhombus, Green and White
- SG: Square, Green
- TR: Triangle, Red

Lateral Buoys
- Green
- Red

Caution Areas
- Submerged Pipeline
- Submerged Pipe Area
- Submerged Cable
- Submerged Cable Area

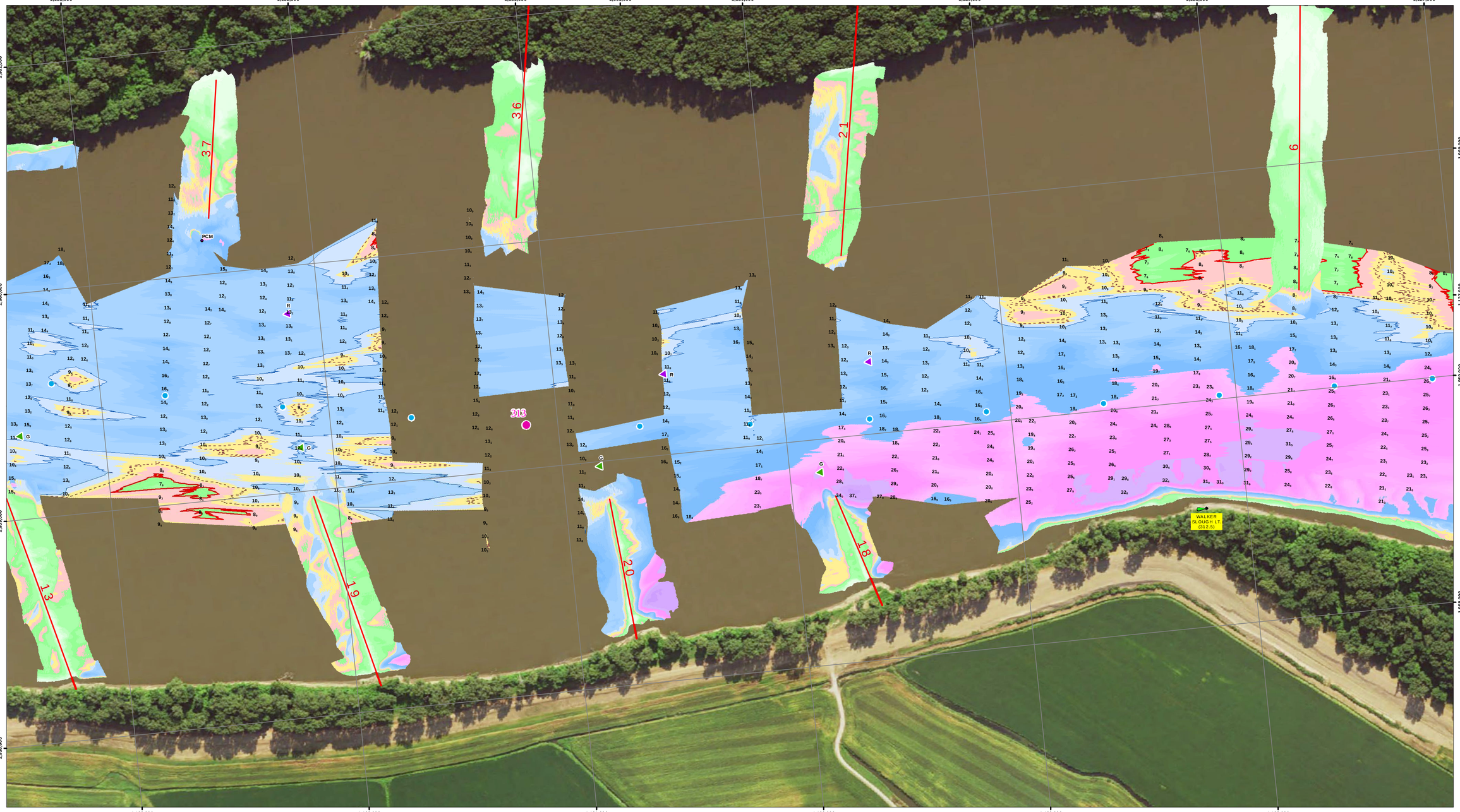


US ARMY CORPS OF ENGINEERS
ROCK ISLAND DISTRICT
CEMVR - OD-T
WATERWAY: UPPER MISSISSIPPI RIVER
POOL: 22
REACH: Whitney Lower to Whitney Upper
REACH MILES: 312.8 to 314
SURVEY TYPE: CONDITION

1 " = 200 '
0 100 200 400 600 800 1,000 1,200 Feet

SURVEYED RIVER MILES: 311.0-314.0

UPSTREAM



DOWNSTREAM

NOTES:

Survey Date: June 21, 2016

Conducted by: Kenny B, Cory B

Survey Vessel: Launch Coot

Flat Pool: 459.5

Water Surface: 465.9

Stage: +6.4

Upstream Gage: Lock 21 Tail RM 324.9

Downstream Gage: Hannibal RM 309.8

Processed in ArcGIS by: Missi B 6/22/2016

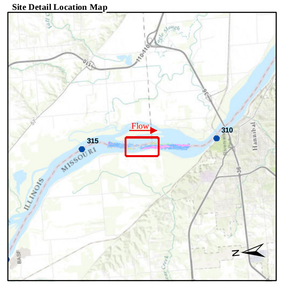
Document Name: UM_24_UMR_20160621_22_31103140_16A

Horizontal Projection: State Plane, NAD 1983
Illinois West - 1202, U.S. Survey Feet
Vertical Datum: MSL 1912 U.S. Survey Feet.

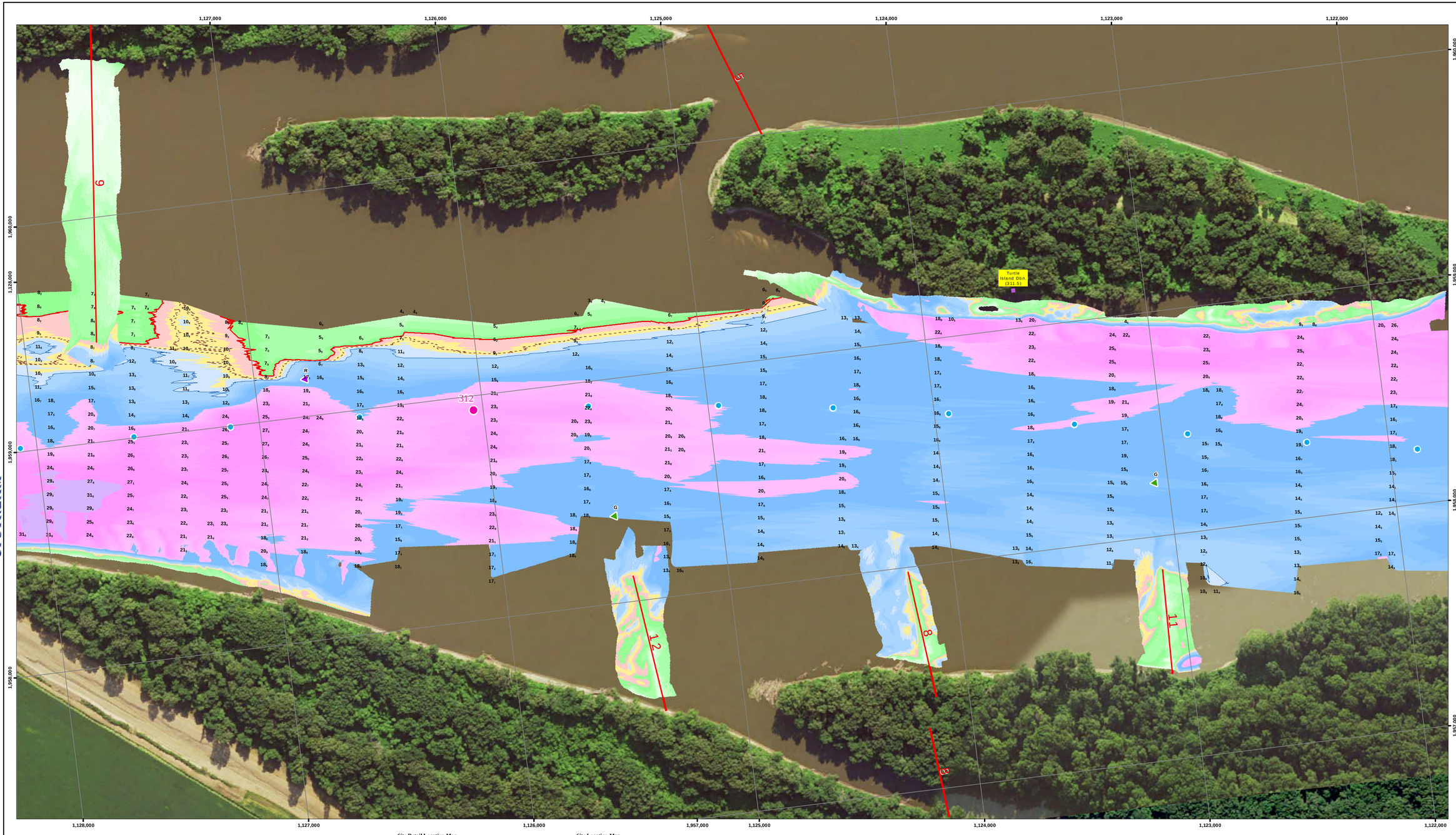
Imagery: 2015 USDA NAIP

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

Site Detail Location Map


Flow
315
310
Mississippi
Illinois
Hannibal
Quincy
Keokuk
Burlington
Fort Madison
Canton
Ely Creek
Salt Creek
Lake Pleasant
Lake Apollo
Lake Ellsworth
Lake Ellsworth
Lake Ellsworth

UPSTREAM



DOWNSTREAM

NOTES:

Survey Date: June 21, 2016

Conducted by: Kenny B, Cory B

Survey Vessel: Launch Coot

Flat Pool: 459.5

Water Surface: 465.9

Stage: +6.4

Upstream Gage: Lock 21 Tail RM 324.9

Downstream Gage: Hannibal RM 309.8

Processed in ArcGIS by: Missi B 6/22/2016

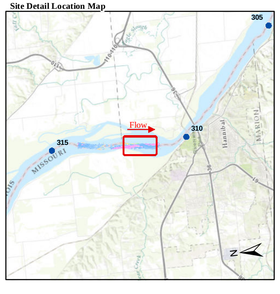
Document Name: UM_24_UMR_20160621_22_31103140_16A

Horizontal Projection: State Plane, NAD 1983 Illinois West - 1202, U.S. Survey Feet
Vertical Datum: MSL 1912 U.S. Survey Feet.

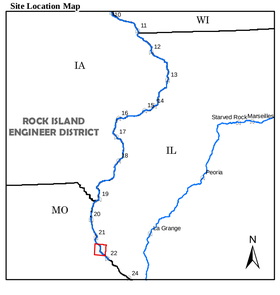
Imagery: 2015 USDA NAIP

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

Site Detail Location Map



Site Location Map



Depth (Ft)

-10', 0', 9', 10', 11', 12', 20', 30', 50'

River Mile
- Mile
- Tenth

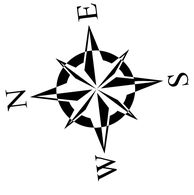
River Features
- Wing Dam Location

Lights
- Green
- Red
- White
- Yellow

Daybeacon
- NR: Rhombus, Red and White
- NG: Rhombus, Green and White
- SG: Square, Green
- TR: Triangle, Red

Lateral Buoys
- Green
- Red

Caution Areas
- Submerged Pipeline
- Submerged Pipe Area
- Submerged Cable
- Submerged Cable Area



US ARMY CORPS OF ENGINEERS
ROCK ISLAND DISTRICT
CEMVR - OD-T
WATERWAY: UPPER MISSISSIPPI RIVER
POOL: 22
REACH: Turtle Island
REACH MILES: 311.2 to 312.4
SURVEY TYPE: CONDITION

1 " = 200 '

0 100 200 400 600 800 1,000 1,200 Feet

SURVEYED RIVER MILES: 311.0-314.0

US Army Corps of Engineers
Rock Island District

Points represent shallowest depth value derived from 6ft/sec grid.
Map Document Grid is 1000' x 1000'.

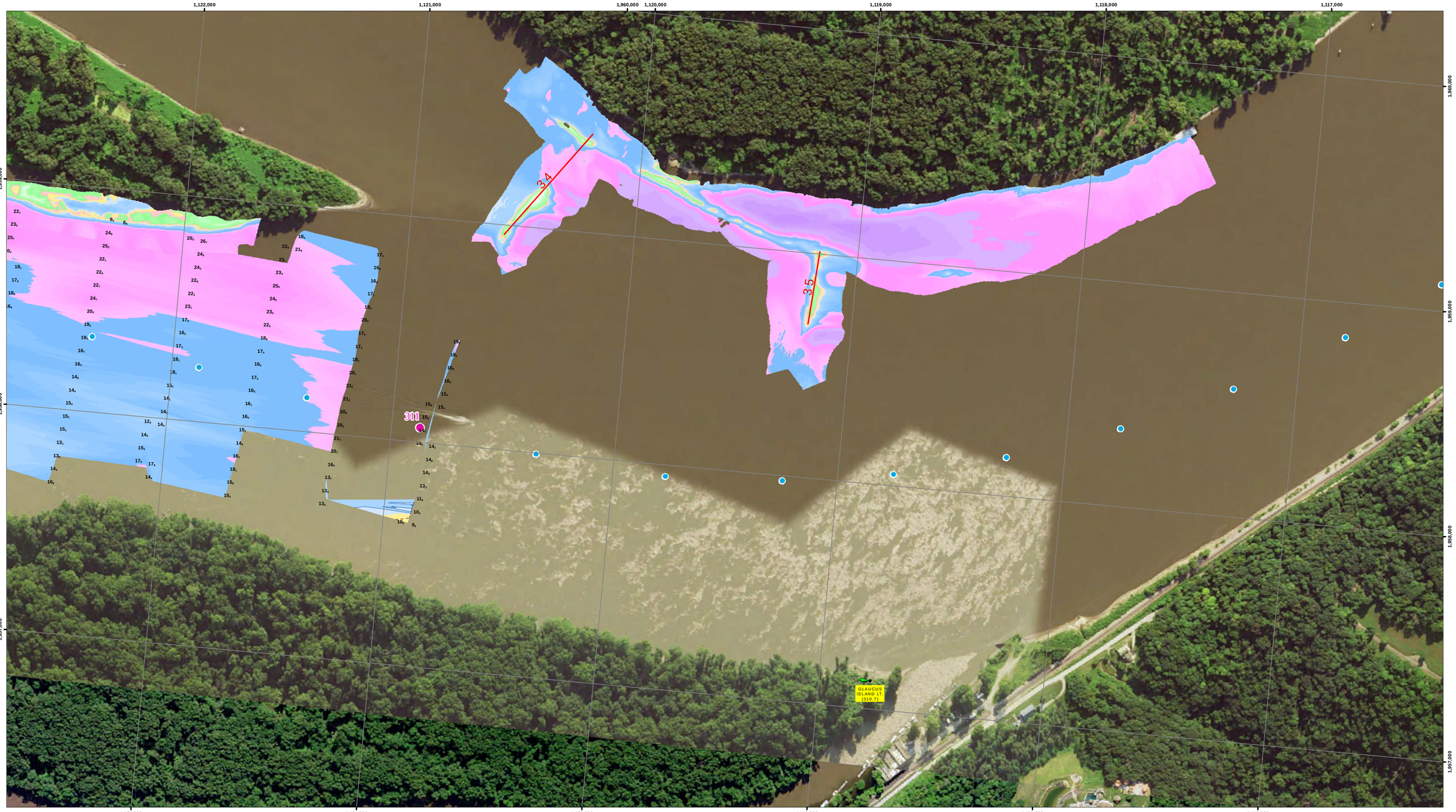
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS

Designed By:
Drawn By:
Checked By:
Reviewed By:
Date: 6/22/2016
File No.
I.S.O. Sheet File Name:
Solicitation Number:

Sheet Reference Number
289 of 301

UPSTREAM



DOWNSTREAM

US Army Corps of Engineers
Rock Island District

Symbol	Description	Date	Approved
	Points represent shallowest depth value derived from 6ft/sec grid. Map Document Grid is 1000' x 1000'.		

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS	Designed By:
	Drawn By:
	Checked By:
	Reviewed By:
	Date: 6/22/2016
	File No.
	I.S.O. Sheet File Name:
	Solicitation Number:

Sheet Reference Number
290 of 301

NOTES:

Survey Date: June 21, 2016

Conducted by: Kenny B, Cory B

Survey Vessel: Launch Coot

Flat Pool: 459.5

Water Surface: 465.9

Stage: +6.4

Upstream Gage: Lock 21 Tail RM 324.9

Downstream Gage: Hannibal RM 309.8

Processed in ArcGIS by: Missi B 6/22/2016

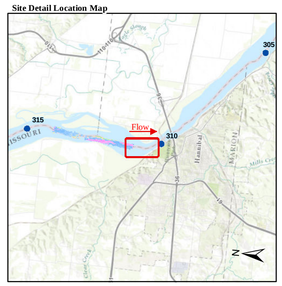
Document Name: UM_24_UMR_20160621_22_31103140_16A

Horizontal Projection: State Plane, NAD 1983 Illinois West - 1202, U.S. Survey Feet
Vertical Datum: MSL 1912 U.S. Survey Feet.

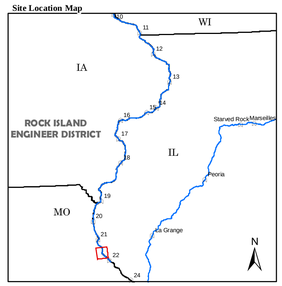
Imagery: 2015 USDA NAIP

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

Site Detail Location Map



Site Location Map



Depth (Ft)

-10', 0', 9', 10', 11', 20', 30', 50'

River Mile
- Mile
- Tenth

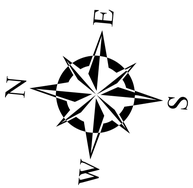
River Features
- Wing Dam Location

Lights
- Green
- Red
- White
- Yellow

Daybeacon
- NR: Rhombus, Red and White
- NG: Rhombus, Green and White
- SG: Square, Green
- TR: Triangle, Red

Lateral Buoys
- Green
- Red

Caution Areas
- Submerged Pipeline
- Submerged Pipe Area
- Submerged Cable
- Submerged Cable Area



US ARMY CORPS OF ENGINEERS
ROCK ISLAND DISTRICT
CEMVR - OD-T
WATERWAY: UPPER MISSISSIPPI RIVER
POOL: 22
REACH: Glaucus Island to Turtle Island
REACH MILES: 310.1 to 311.4
SURVEY TYPE: CONDITION

1 " = 200 '

0 100 200 400 600 800 1,000 1,200 Feet

SURVEYED RIVER MILES: 311.0-314.0