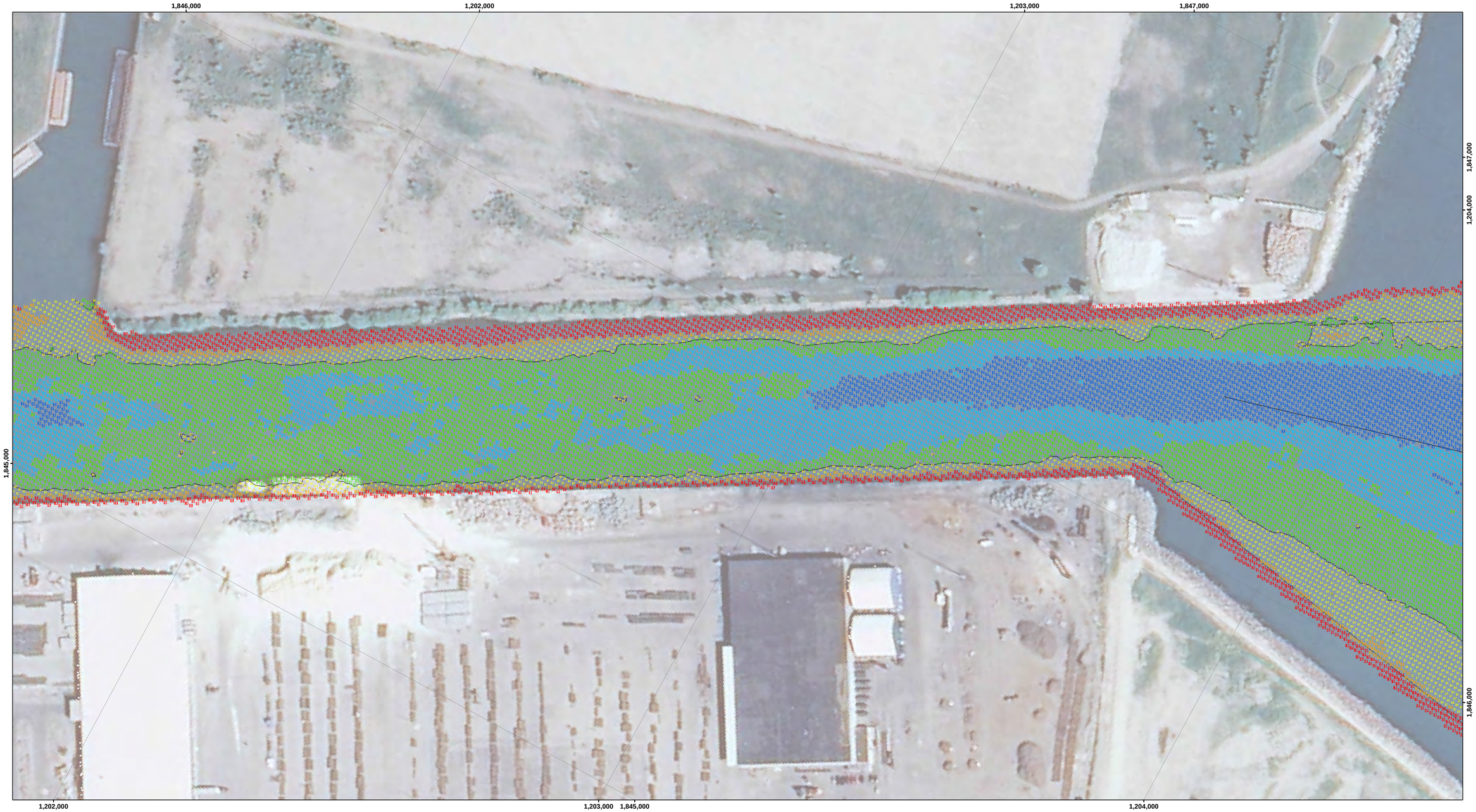
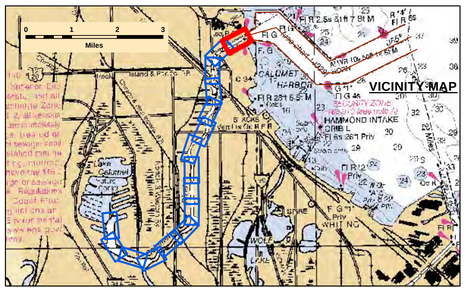




LEGEND

- 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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data on an "as is" basis and makes no warranties, express or implied concerning the accuracy, completeness, reliability, or suitability of this information for any purpose. The information and the data furnished. The United States shall be under no liability whatsoever to any person by reason of any use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to represent any product derived from these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission project under specific conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data, or for data not in its intended purpose.

Surveyed by:
Jim Mrozek, Detroit District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

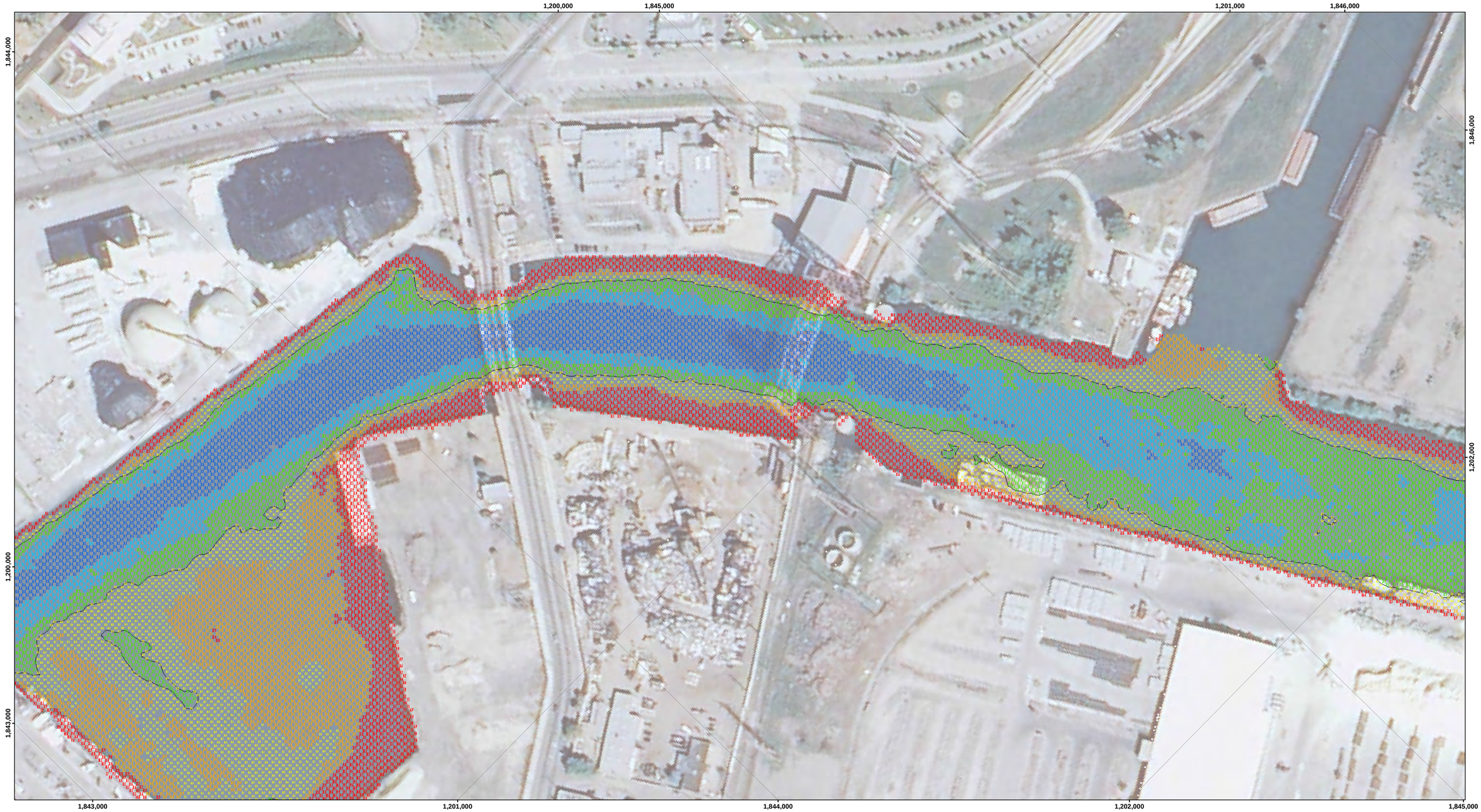
CALUMET RIVER

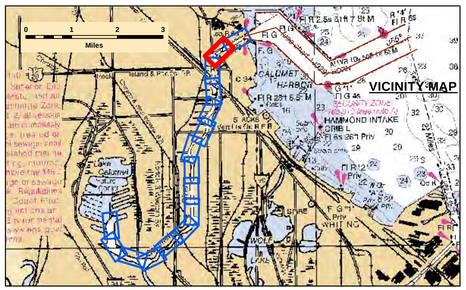
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
1 of 16

Revison Number:
3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data on an "as is" basis and makes no warranties, express or implied concerning the accuracy, completeness, reliability, or suitability of this information for any purpose. The user understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information for any purpose. The user is responsible for the reliable information and the data furnished. The United States shall be held harmless from any liability arising from any use of the data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data. The recipient agrees to place this notice on these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission project under specific conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the reliable information and the data furnished. The United States shall be held harmless from any liability arising from any use of the data for any other purpose.

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: Jim Mrozek, Detriot District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\hydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

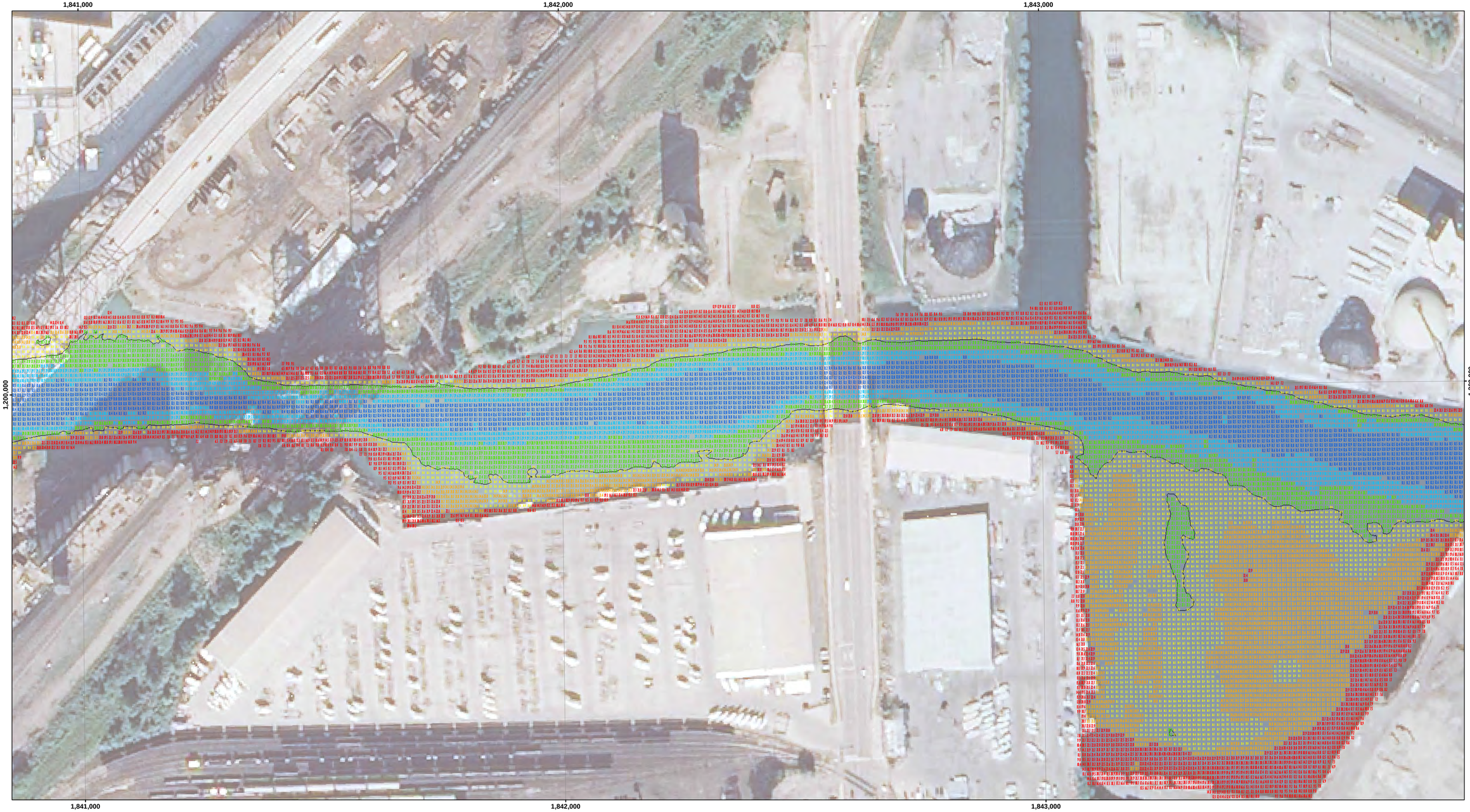
CALUMET RIVER

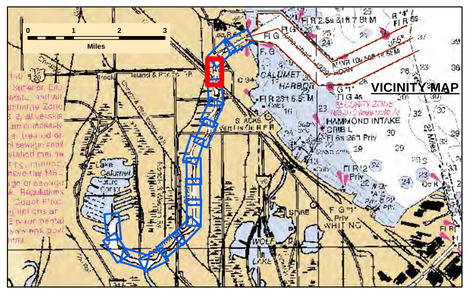
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
2 of 16

Revison Number:
3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

W S N E

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data without any express or implied warranties as to its fitness for a particular use or understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information, of any of the information and the data furnished. The United States shall be held harmless from any liability resulting from any use of the data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the reliable and safe operation of the data for other than its intended purpose.

Surveyed by: Jim Mrozek, Detriot District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

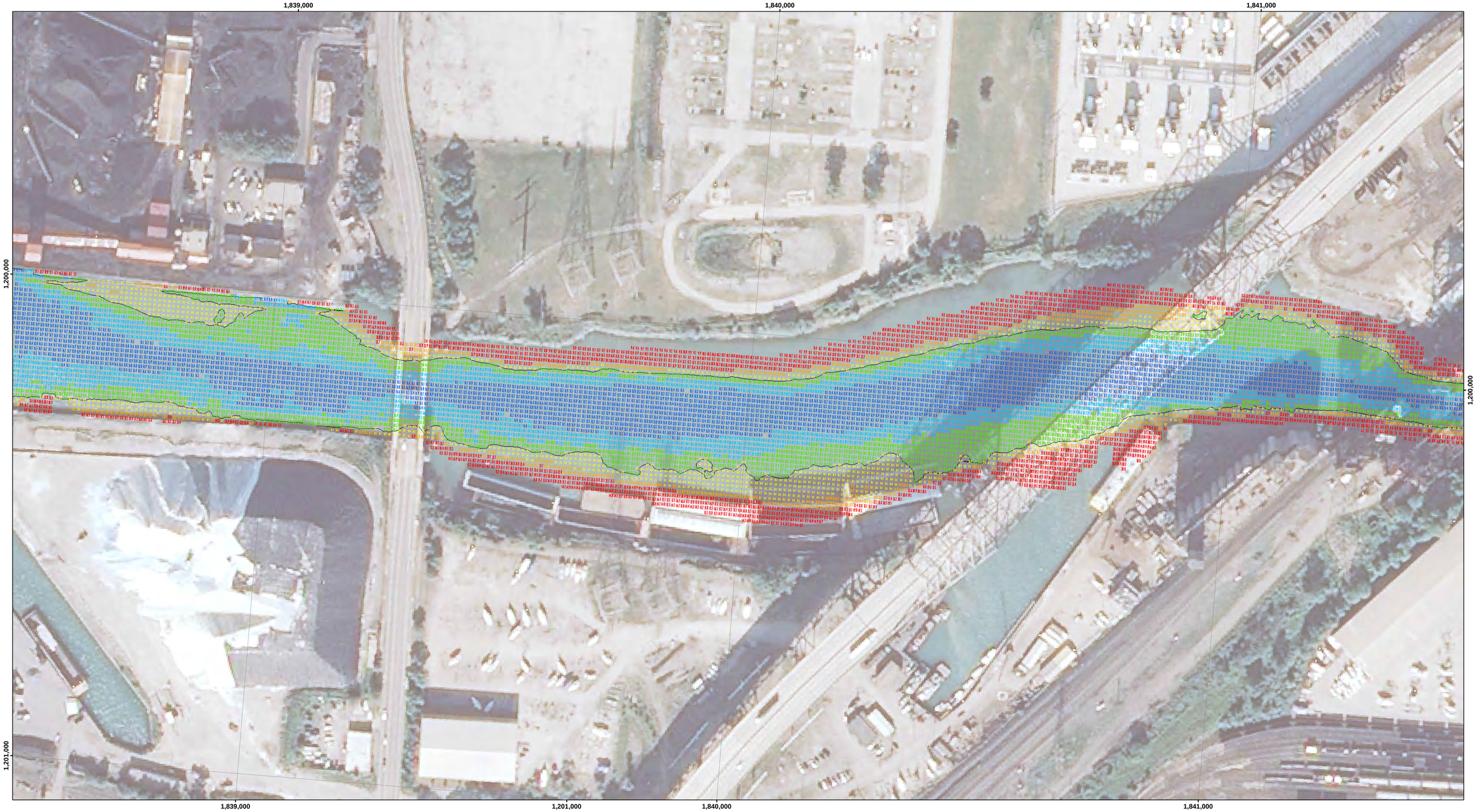
CALUMET RIVER

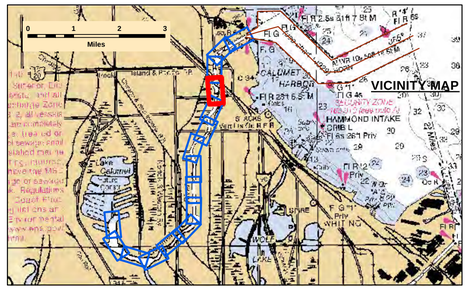
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
3 of 16

Revison Number: 3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

W S N E

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Use this data for its intended purpose.

DISCLAIMER
Access Constraints: The United States Government furnishes this map/chart/publication/product/service "as is" without express or implied warranties. The United States Government makes no warranties, understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information, of any of the information and the data furnished. The United States shall be held harmless from any liability for any loss or damage resulting from the use of the information and the data furnished. The United States shall be made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer or convey these data to others without also transferring this Disclaimer.

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by:
Jim Mrozek, Detriot District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

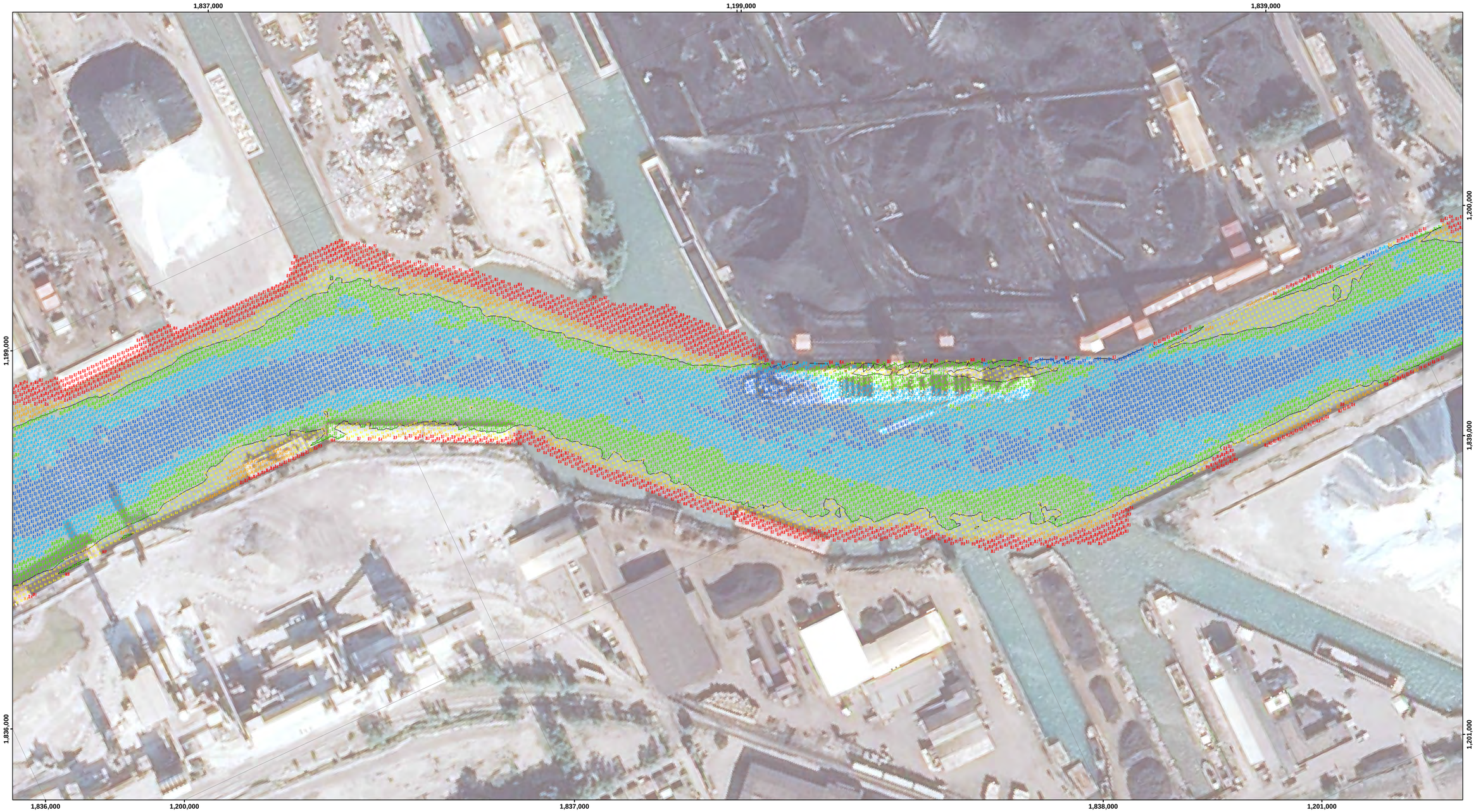
CALUMET RIVER

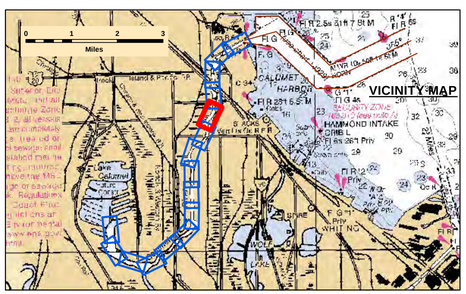
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
4 of 16

Revison Number:
3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data on an "as is" basis and makes no warranties, express or implied concerning the accuracy, completeness, reliability, or suitability of this information for any purpose. The user understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information and the data furnished. The United States shall be held harmless from any liability resulting from the use of this data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to represent any products derived from these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is intended for purpose.

Surveyed by:
Jim Mrozek, Detriot District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

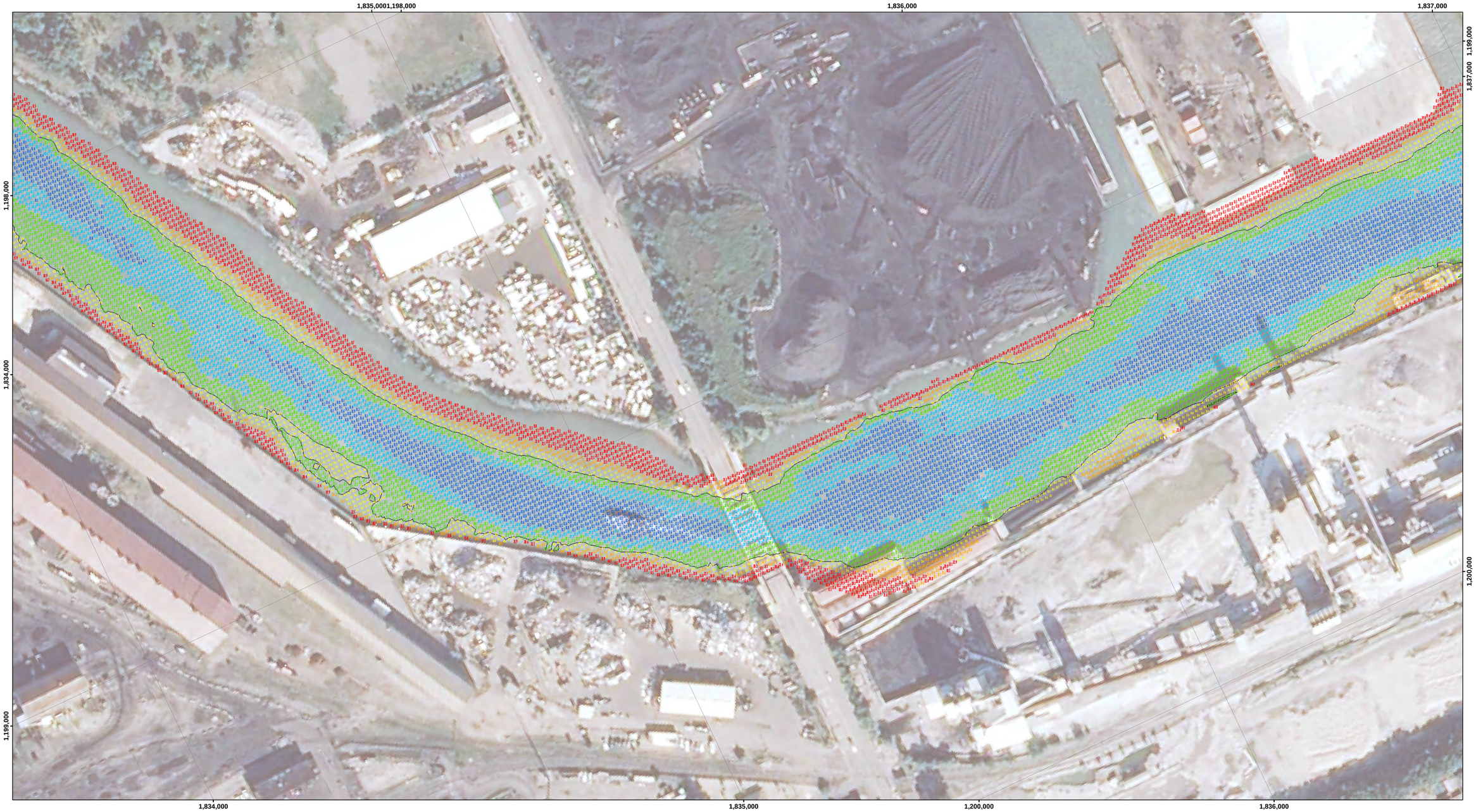
CALUMET RIVER

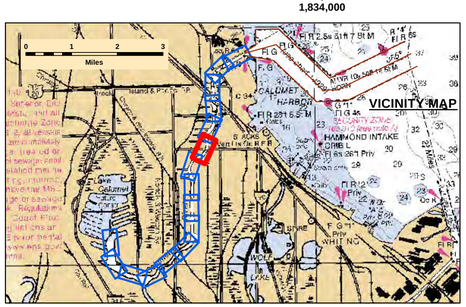
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
5 of 16

Revison Number:
3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N E S W

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data without warranty of any kind, either express or implied, and with the understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information for any purpose. The information and the data furnished. The United States shall be under no liability to the recipient or any other person for any loss or damage made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than the data furnished by the Government. Recipient shall not transfer these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission project under specified conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is valid for its intended purpose.

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: Jim Mrozek, Detroit District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

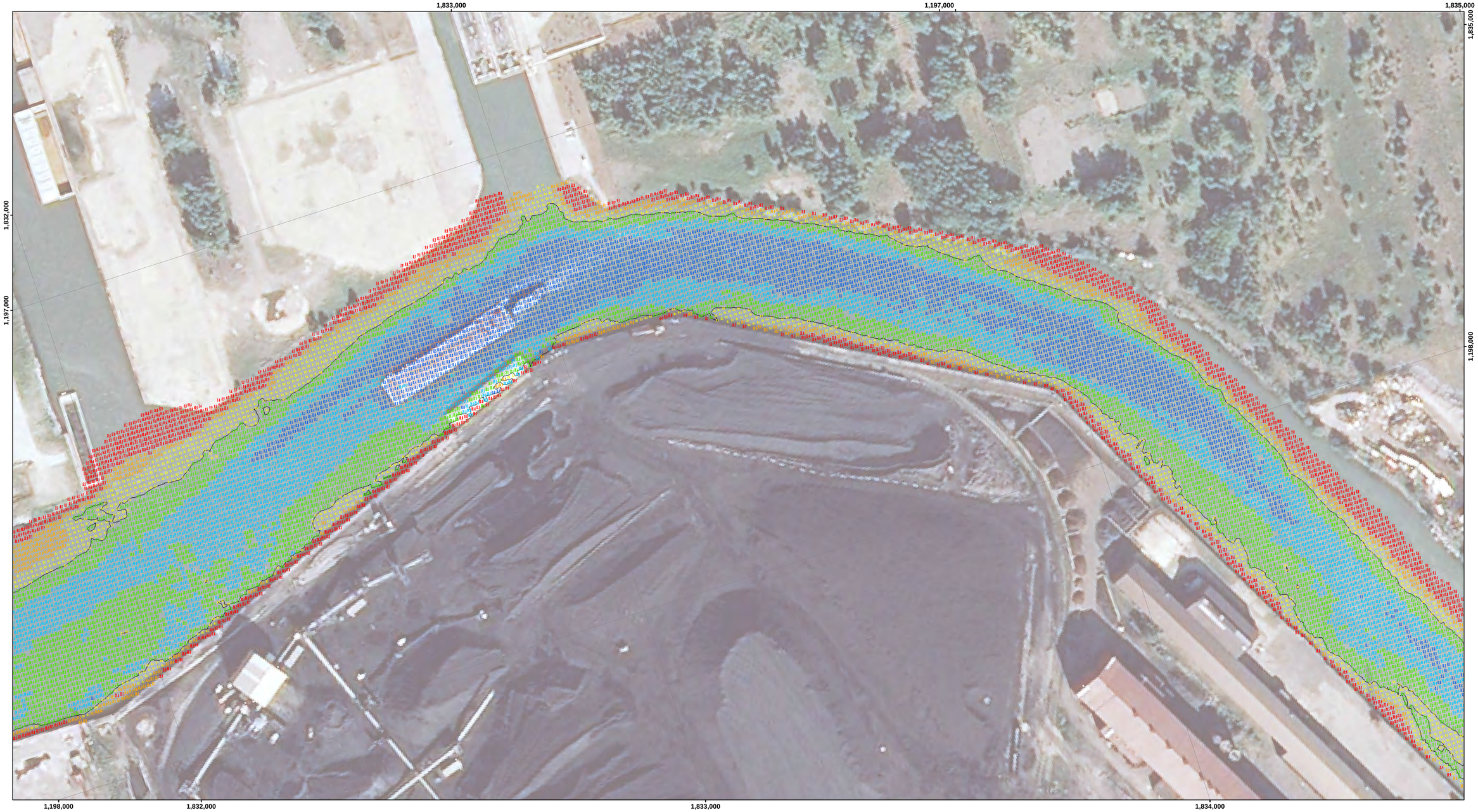
CALUMET RIVER

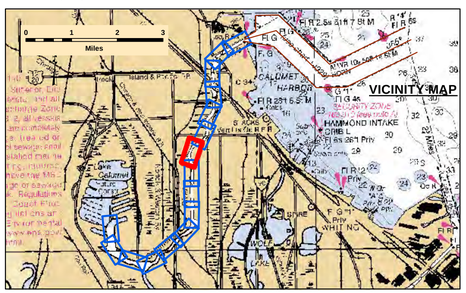
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
6 of 16

Revison Number:
3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N E S W

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data without any express or implied warrantyconcerning its accuracy, completeness, understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, suitability, or usefulness for any purpose of the information and the data furnished. The United States shall be held harmless from any liability for any errors in the data furnished or made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer or convey the ownership of these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is for intended purpose.

Surveyed by: Jim Mrozek, Detriot District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

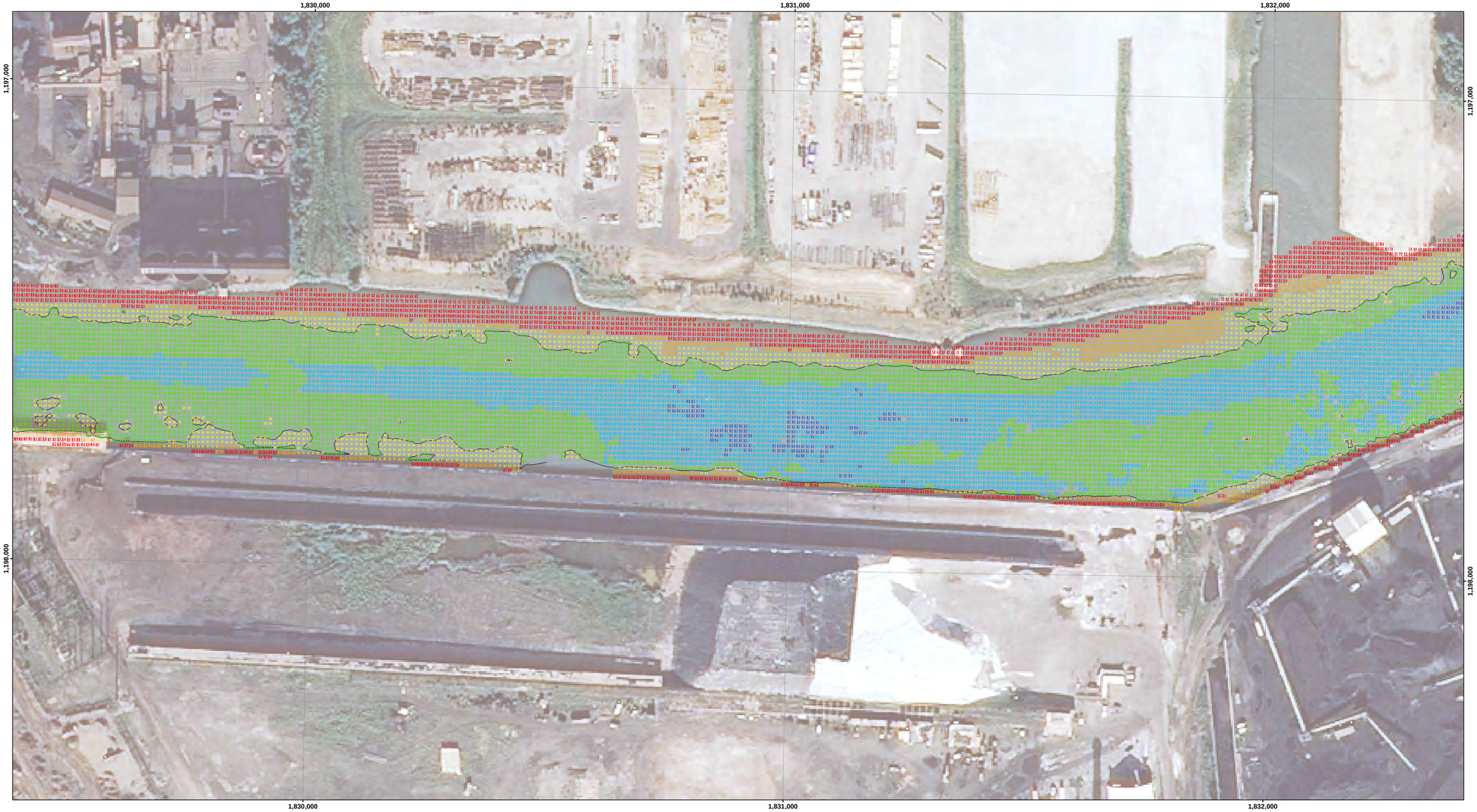
CALUMET RIVER

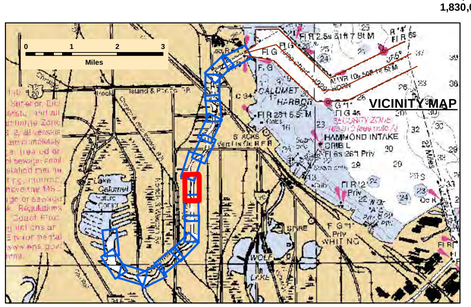
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
7 of 16

Revison Number:
3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

W S N E

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specified conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any of the applications of the data for other than its intended purpose.

DISCLAIMER
Access Constraints: The United States Government furnishes this information on an "as is" basis and makes no warranties, express or implied concerning the accuracy, completeness, reliability, or suitability of the information, of any portion of the information and the data furnished. The United States shall be held harmless from any liability resulting from the use of the data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer these data to others without also transferring this Disclaimer.

Surveyed by: Jim Mrozek, Detriot District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

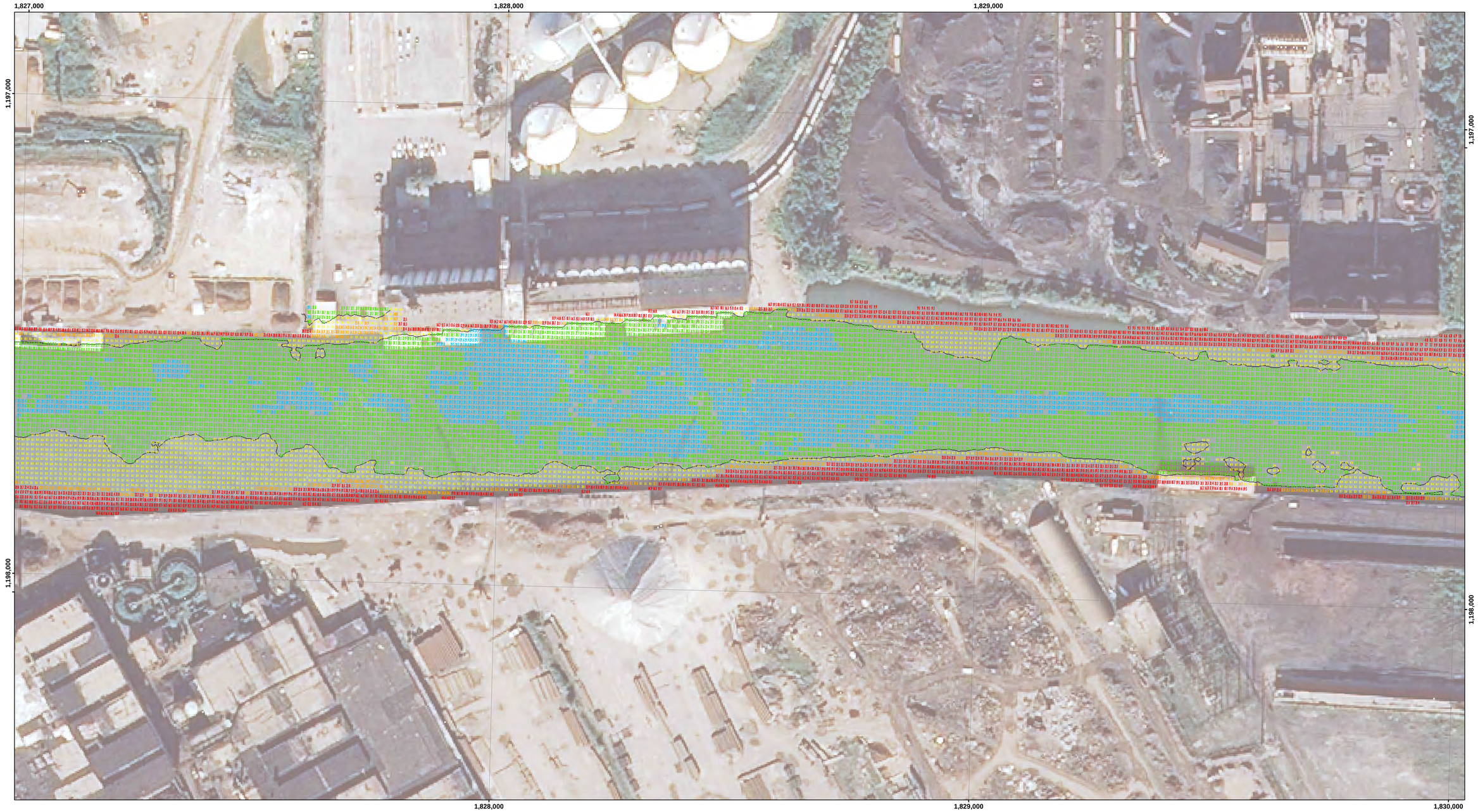
CALUMET RIVER

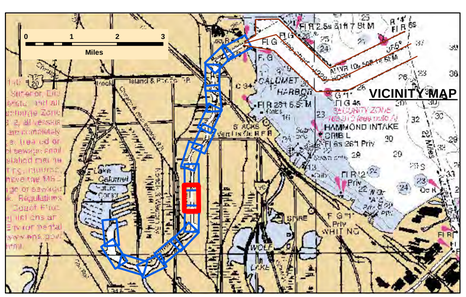
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
8 of 16

Revison Number: 3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

W S N E

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data without any express or implied warranties and with the understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information. Any use of the information and the data furnished. The United States shall be held harmless from any liability arising from any improper or illegal use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer these data without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is intended for purpose.

Surveyed by:
Jim Mrozek, Detroit District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

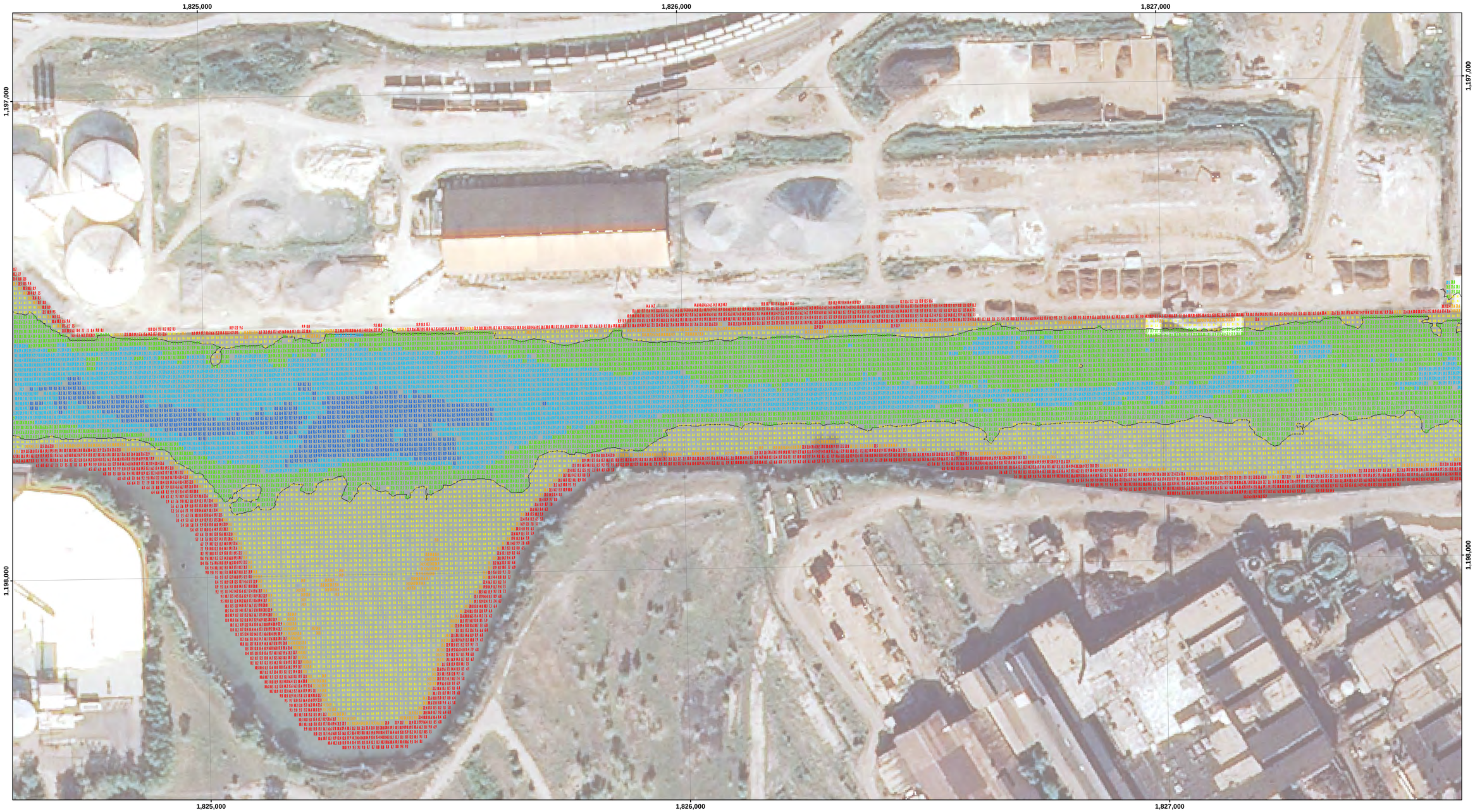
CALUMET RIVER

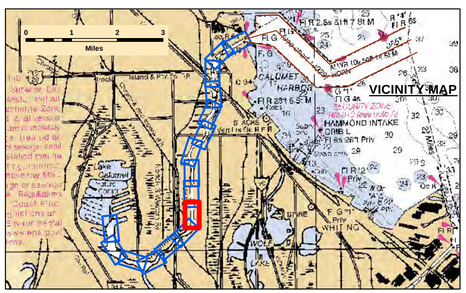
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
9 of 16

Revison Number:
3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

W S N E

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this map/data/information on an "as is" basis and makes no express or implied warranties concerning the accuracy, completeness, reliability, or suitability of the information contained on the map/data/information and the data furnished. The United States shall be held harmless from any liability resulting from the use of the data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or information and to pass on a copy of these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any of the application of the data to other than its intended purpose.

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: Jim Mrozek, Detriot District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\hydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

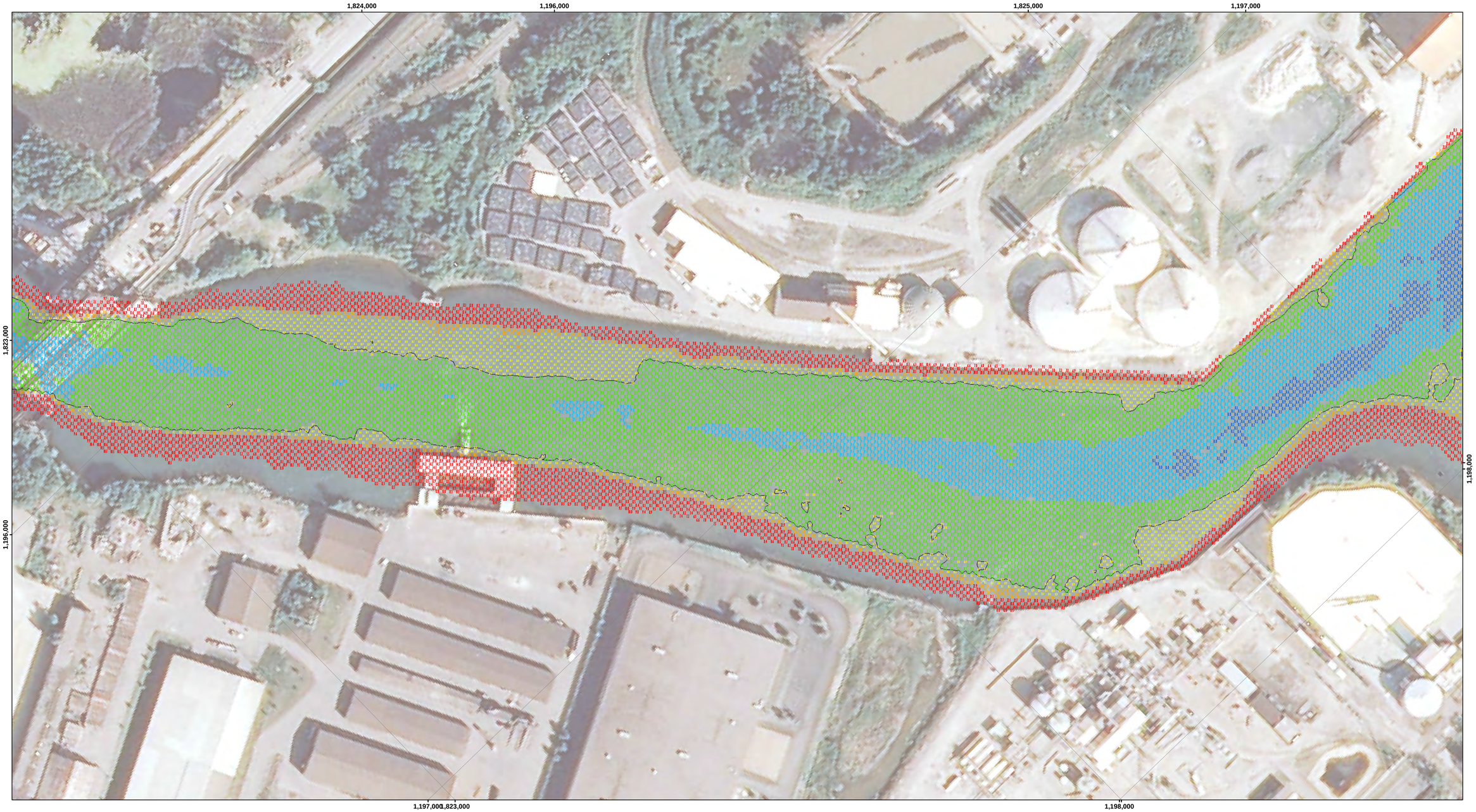
CALUMET RIVER

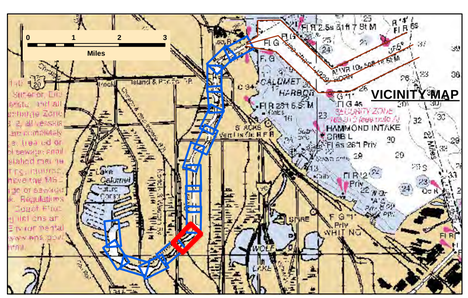
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
10 of 16

Revison Number:
3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers District: CELRC

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is not intended for purpose.

DISCLAIMER
Access Constraints: The United States Government furnishes this map/chart/publication/data/information "as is" and express understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this map/chart/publication/data/information and the data furnished. The United States shall be held harmless from any liability resulting from any use of the data made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than a product of the US Government. The recipient may not transfer these data to others without also transferring this Disclaimer.

Surveyed by: Jim Mrozek, Detroit District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MX\DILC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

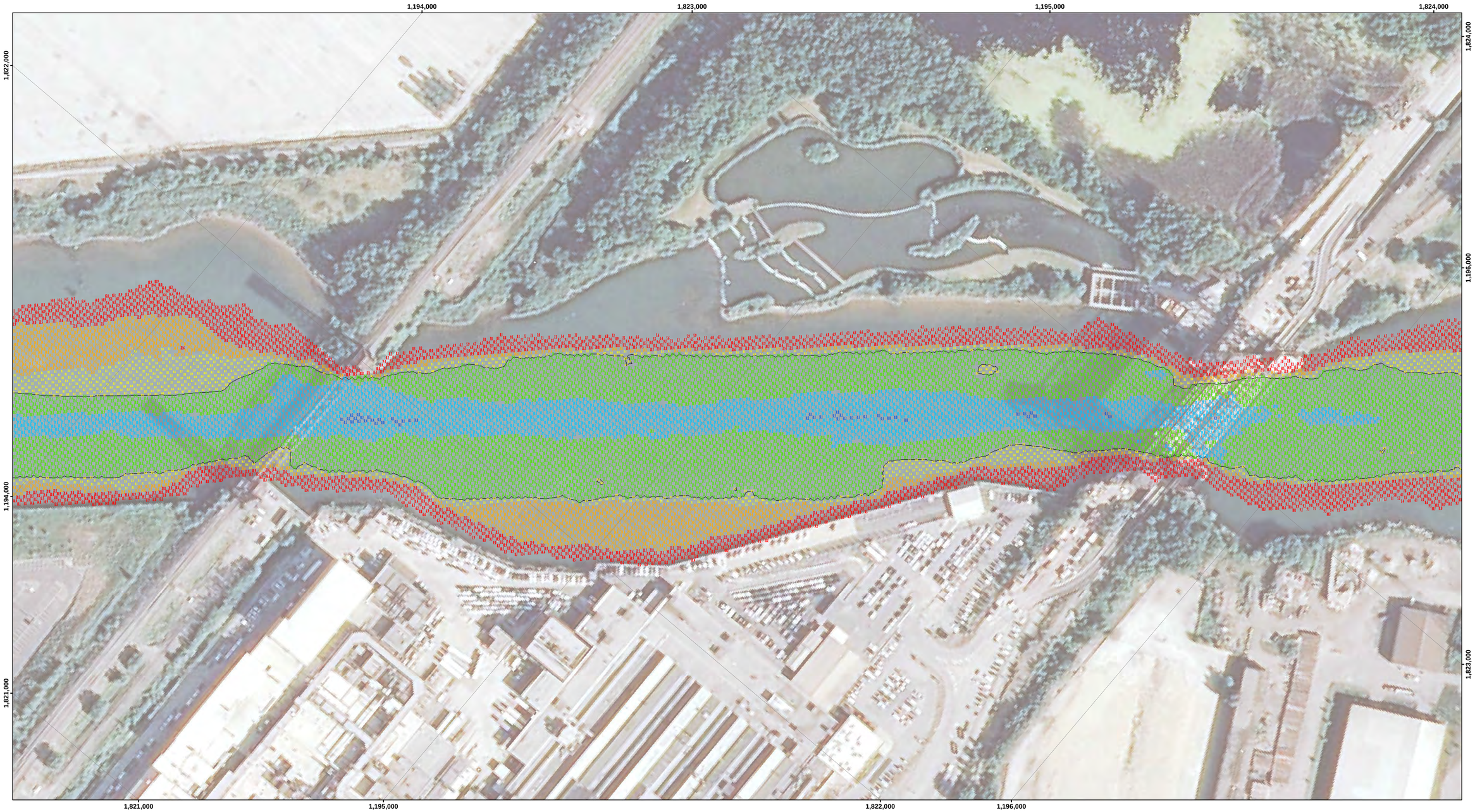
CALUMET RIVER

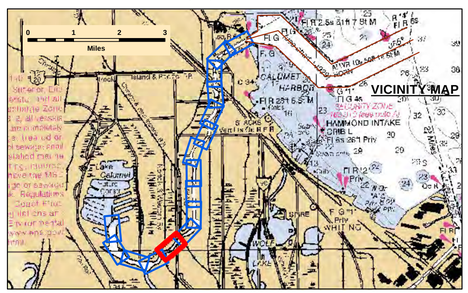
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
11 of 16

Revison Number: 3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Distribution of the data to other than its intended purpose.

DISCLAIMER
Access Constraints: The United States Government furnishes this map/chart/data/information on an "as is" basis. The United States Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this map/chart/data/information and the data furnished. The United States shall be held harmless from any liability for any loss or damage resulting from use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or information and to include this Disclaimer with these data to others without also transferring this Disclaimer.

Surveyed by:
Jim Mrozek, Detroit District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\ehydro\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

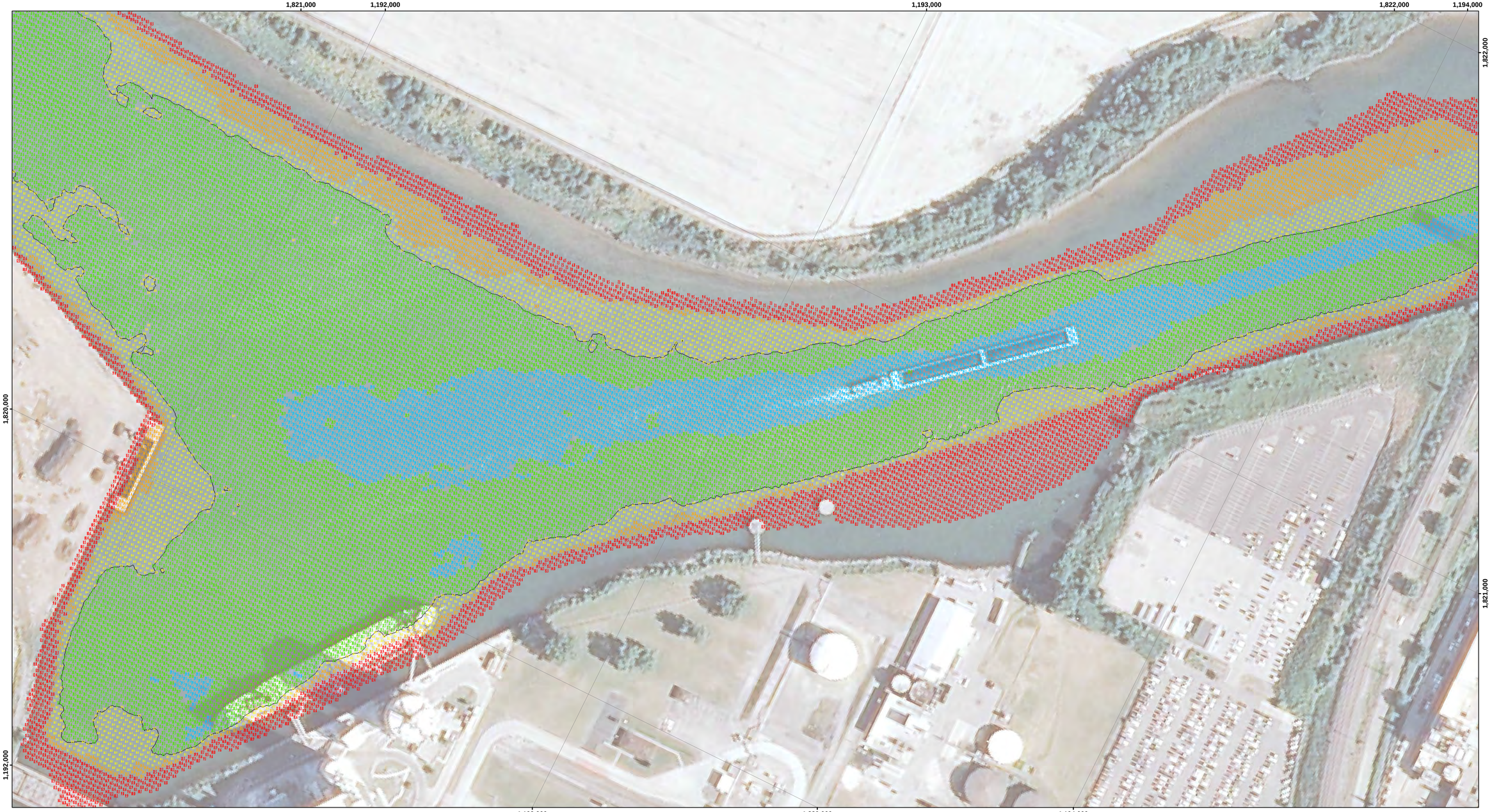
CALUMET RIVER

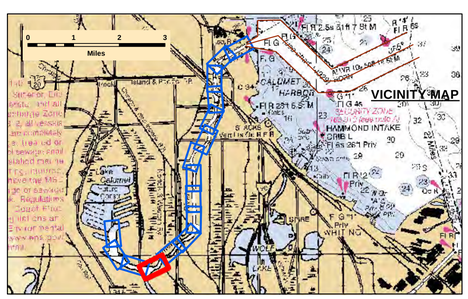
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
12 of 16

Revison Number:
3.14-20170731





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

4+ Feet Above Authorized Channel Depth
2-4 Feet Above Authorized Channel Depth
0-2 Feet Above Authorized Channel Depth
0-2 Feet Below Authorized Channel Depth
2-4 Feet Below Authorized Channel Depth
4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N W E S

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers
District: CELRC

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Do not use this data for any other purpose.

DISCLAIMER
Access Constraints: The United States Government furnishes this map/data/information on an "as is" basis. The user agrees to understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this map/data/information for any purpose. The information and the data furnished: The United States shall be under no liability to any party for any loss, cost, or damage arising from or made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or information. The recipient shall not transfer these data to others without also transferring this Disclaimer.

U.S. ARMY ENGINEER
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by:
Jim Mrozek, Detriot District
Mapping:
JD Ennis, Chicago District
Reviewed by:
Phil Horstman, Chicago District
Path:
G:\eliyo\projects\MXD\LC_10_CAR_20170330_CS_10.mxd

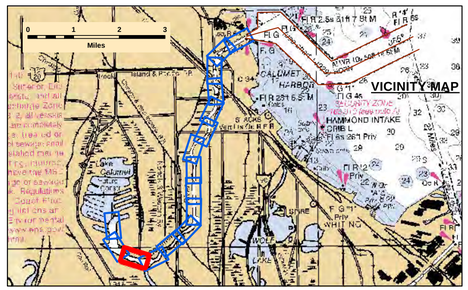
CALUMET RIVER

LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
13 of 16

Revison Number:
3.14-20170731



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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N E S W

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data and information "as is" without warranty of any kind, express or implied. Users shall understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, usability, or suitability for any purpose of the data and information and the data furnished. The United States shall be held harmless from any liability arising from any inaccuracy in the data furnished, regardless of any representation that may have been made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or information. The recipient agrees to place this disclaimer on all copies of these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Before using the data for any other purpose, the user should contact the US Army Corps of Engineers to determine the suitability of the data for the intended purpose.

Surveyed by: Jim Mrozek, Detroit District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\ILC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

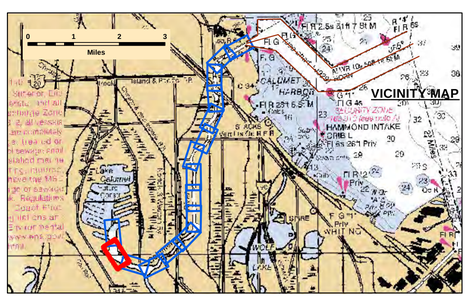
CALUMET RIVER

LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
14 of 16

Revison Number: 3.14-20170731



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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N E S W

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data/information on an "as is" basis and makes no express or implied warranties regarding the accuracy, completeness, usefulness, or suitability for any particular purpose of the information and the data furnished. The United States shall be under no liability whatsoever to any person by reason of any use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or information. The recipient agrees to place these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Do not use this data for other than its intended purpose.

Surveyed by: Jim Mrozek, Detroit District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\entry\projects\products\MXD\LC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

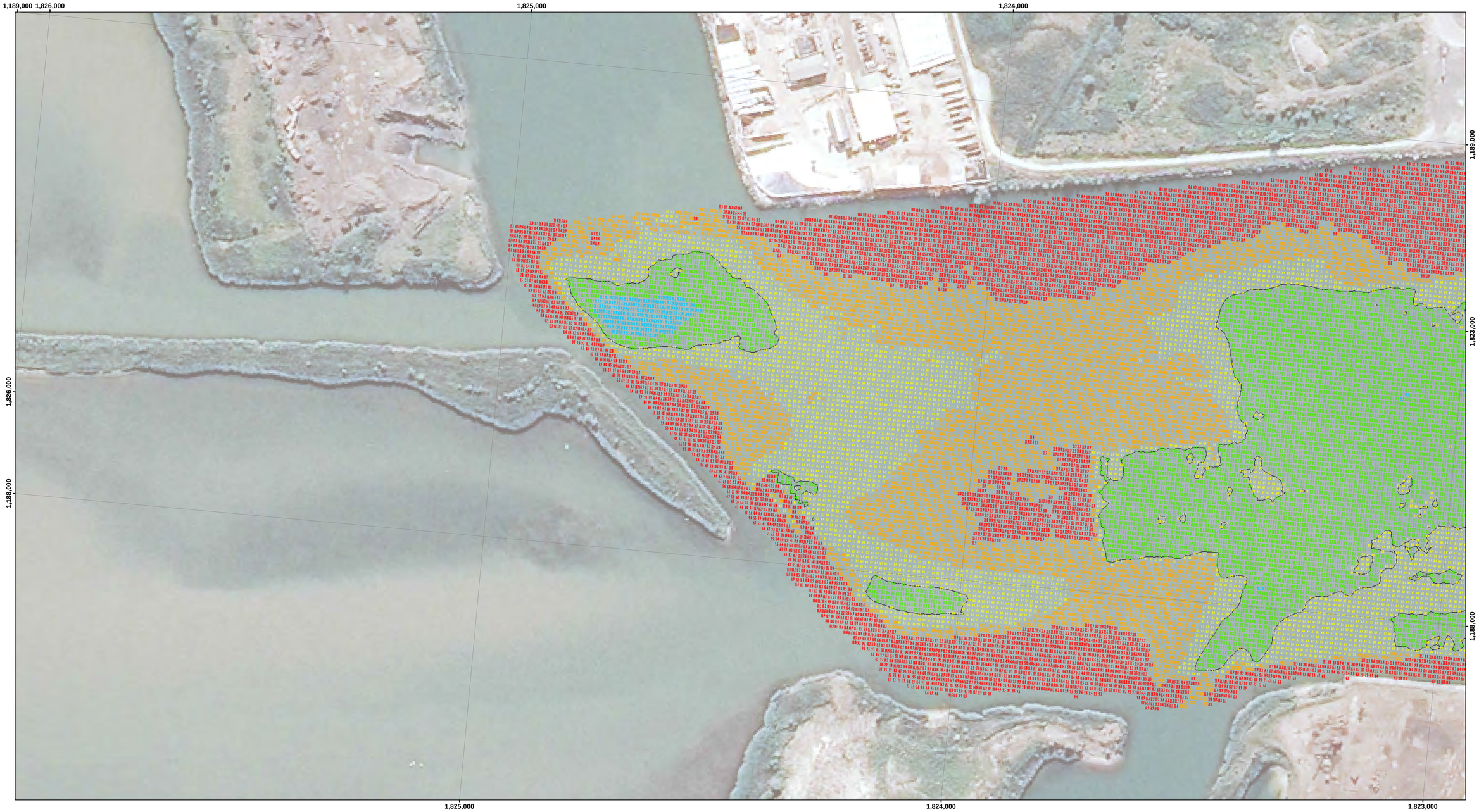
CALUMET RIVER

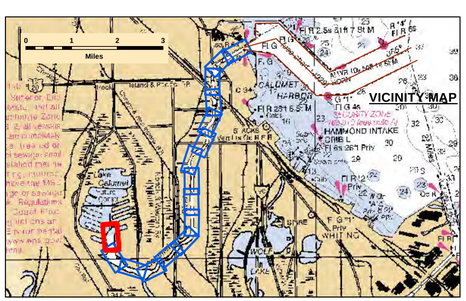
LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
15 of 16

Revison Number: 3.14-20170731





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

- 4+ Feet Above Authorized Channel Depth
- 2-4 Feet Above Authorized Channel Depth
- 0-2 Feet Above Authorized Channel Depth
- 0-2 Feet Below Authorized Channel Depth
- 2-4 Feet Below Authorized Channel Depth
- 4+ Feet Below Authorized Channel Depth

UNLESS OTHERWISE NOTED PROJECT DEPTH IS:
29.0' APPROACH CHANNEL
28.0' OUTER HARBOR
21.0' INNER HARBOR
21.0' RIVER
DEPTH BELOW LOW WATER DATUM (LWD)

N E S W

Feet
0 100 200

NOTES:

THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH SOUNDING THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT WAUKEGAN HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON DATE SHOWN AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

US Army Corps of Engineers District: CELRC

DISCLAIMER
Access Constraints: The United States Government furnishes this data without any express or implied warranty as to its fitness for any particular use, understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, reliability, or suitability of this information for any particular use. The information and the data furnished: The United States shall be indemnified against any claim of any kind or nature arising from the use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government data or to transfer or convey the ownership of these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers mission under specific environmental conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any other application of the data. Data is intended for purpose.

Surveyed by: Jim Mrozek, Detroit District
Mapping: JD Ennis, Chicago District
Reviewed by: Phil Horstman, Chicago District
Path: G:\ehydro\products\MXD\ILC_10_CAR_20170330_CS_10.mxd

U.S. ARMY ENGINEER CORPS OF ENGINEERS CHICAGO, ILLINOIS

CALUMET RIVER

LC_10_CAR_20170330_CS_10

30 March 2017

Sheet Reference Number
16 of 16

Revison Number: 3.14-20170731