

# INTRODUCTION TO THE CHANNEL PORTFOLIO TOOL

<https://cpt.usace.army.mil>

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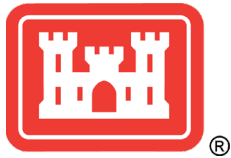
Navigation Software Training  
May 12, 2021



# CPT Non-disclosure Reminders

- Don't disclose anything that could be identified back to a single vessel or company
- Rule of thumb: less than 3, not to see
- CPT Non-disclosure agreements must be re-signed at the start of every calendar year per Census agreement.





# Waterborne Commerce Data

- The Corps' Waterborne Commerce Statistics Center (WCSC) collects and collates data from several sources concerning commercial use of US waterways. Shippers are required to report data to WCSC per the Rivers & Harbors Act of 1922.
- Dock-level, origin-to-destination routing (Corps-use-only)
- Includes tons, commodity types, vessel counts, drafts
- Aggregated statistical data **published** at project level
- Additional WCSC publications available at:  
<https://www.iwr.usace.army.mil/About/Technical-Centers/WCSC-Waterborne-Commerce-Statistics-Center-2/>



# PUBLIC Ports and Waterways Page

<http://cwbi-ndc-nav.s3-website-us-east-1.amazonaws.com/files/wcsc/webpub/#/>

- Public website allows users to browse project-level commodity summaries
- Project tonnage, project trips, 1-year, 5-year summaries



## Welcome to the Ports and Waterways Page

On this page you can:

- Select criteria for ports/waterways to display
- View the list of all ports/waterways meeting the selected criteria
- Read the project description relevant to a port/waterway
- Search for a specific port/waterway
- View port/waterway commodity tonnages and trips and drafts

Select a Year

Select a Region

Search:

Select calendar year and region to update port/waterway listing

# Ports and Waterways Page - Example



US Army Corps of Engineers



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Select a Year

2019



Select a Region

Region 2 - Gulf Coast, Mississippi River System, and Antilles



Search: Lake Charles

Use formal project name

## Select calendar year and region to update port/waterway listing

Lake Charles Deep Water Channel, LA - Section Included: Calcasieu River to Sabine River, following the Calcasieu-Sabine section of the Gulf Intracoastal Waterway, 24.9 miles. Maintained Depth: 12 feet. Tidal range to 3 feet at mean higher high water.

Lake Charles, LA - Section Included: Phillips Bluff, LA, to the 42-foot contour in Gulf of Mexico, 109.5 miles. Maintained Depth: Bar channel, 42 feet; jetty channel, 42 feet; to Lake Charles, 41-42 feet; miles 34 to 36, 36 feet; to mile 56, 12 feet; to mile 68, 7 feet. Tidal range to 3 feet at mean higher high water.



Select Different Criteria:

2019

Lake Charles Deep Water Channel, LA

## 2019 - Lake Charles Deep Water Channel, LA (WATERWAY)

Section Included: Calcasieu River to Sabine River, following the Calcasieu-Sabine section of the Gulf Intracoastal Waterway, 24.9 miles. Maintained Depth: 12 feet. Tidal range to 3 feet at mean higher high water.



### 1 Year Cargo Report

Search:

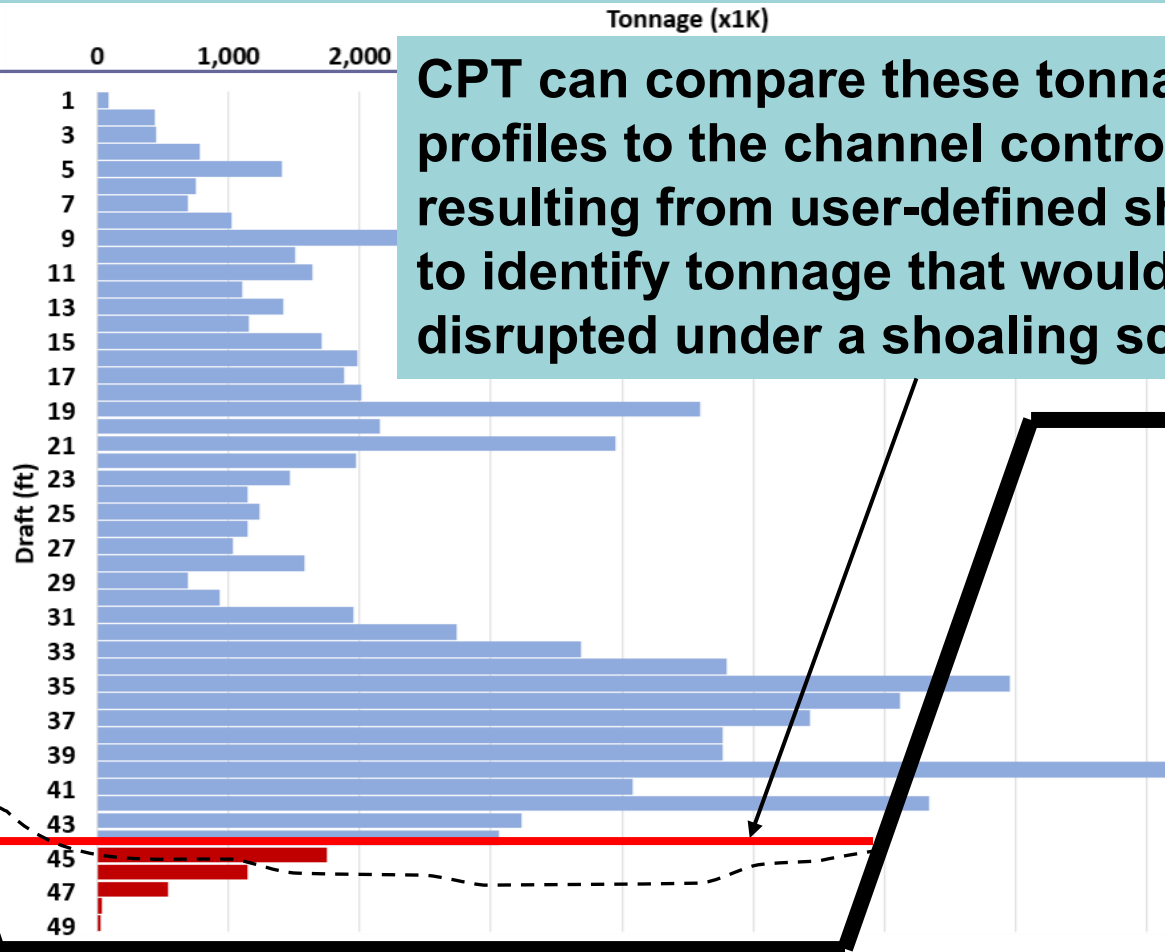
Grouping:  1 Digit Code  2 Digit Code  4 Digit Code

ID	All Traffic Types Domestic & Foreign					Domestic					All Traffic Directions	Intrawaterway
	All Traffic Directions	Intrawaterway	Receipts	Shipments	Through	All Traffic Directions	Intrawaterway	Receipts	Shipments	Through		
<b>All Commodities</b>	<b>55,142,894</b>	<b>0</b>	<b>600,329</b>	<b>1,198,078</b>	<b>53,344,487</b>	<b>55,142,894</b>	<b>0</b>	<b>600,329</b>	<b>1,198,078</b>	<b>53,344,487</b>	<b>0</b>	
1100 Coal & Lignite	1,493	0	0	0	1,493	1,493	0	0	0	1,493	0	
1200 Coal Coke	393,163	0	0	14,352	378,811	393,163	0	0	14,352	378,811	0	
2100 Crude Petroleum	10,445,489	0	36,929	1,127,580	9,280,980	10,445,489	0	36,929	1,127,580	9,280,980	0	
2211 Gasoline	2,582,775	0	0	0	2,582,775	2,582,775	0	0	0	2,582,775	0	
2221 Kerosene	932,706	0	0	0	932,706	932,706	0	0	0	932,706	0	
2330 Distillate Fuel Oil	9,682,496	0	28,966	0	9,653,530	9,682,496	0	28,966	0	9,653,530	0	
2340 Residual Fuel Oil	2,996,140	0	128,680	7,688	2,859,772	2,996,140	0	128,680	7,688	2,859,772	0	
2350 Lube Oil & Greases	2,276,586	0	0	0	2,276,586	2,276,586	0	0	0	2,276,586	0	
2410 Petro. Jelly & Waxes	15,987	0	0	0	15,987	15,987	0	0	0	15,987	0	



# Channel Portfolio Tool

Generate depth-utilization profiles showing the distribution of cargo across the range of depths for single, or multiple, navigation channels.



CPT can compare these tonnage-draft profiles to the channel controlling depths resulting from user-defined shoaling levels to identify tonnage that would have been disrupted under a shoaling scenario.



Project RankingDetail - Traffic

Group by:  Draft  System  Vessel Type  Traffic

Order Grid By:  Trips  Tons  Dollars

Update

Export to Excel Export to PDF

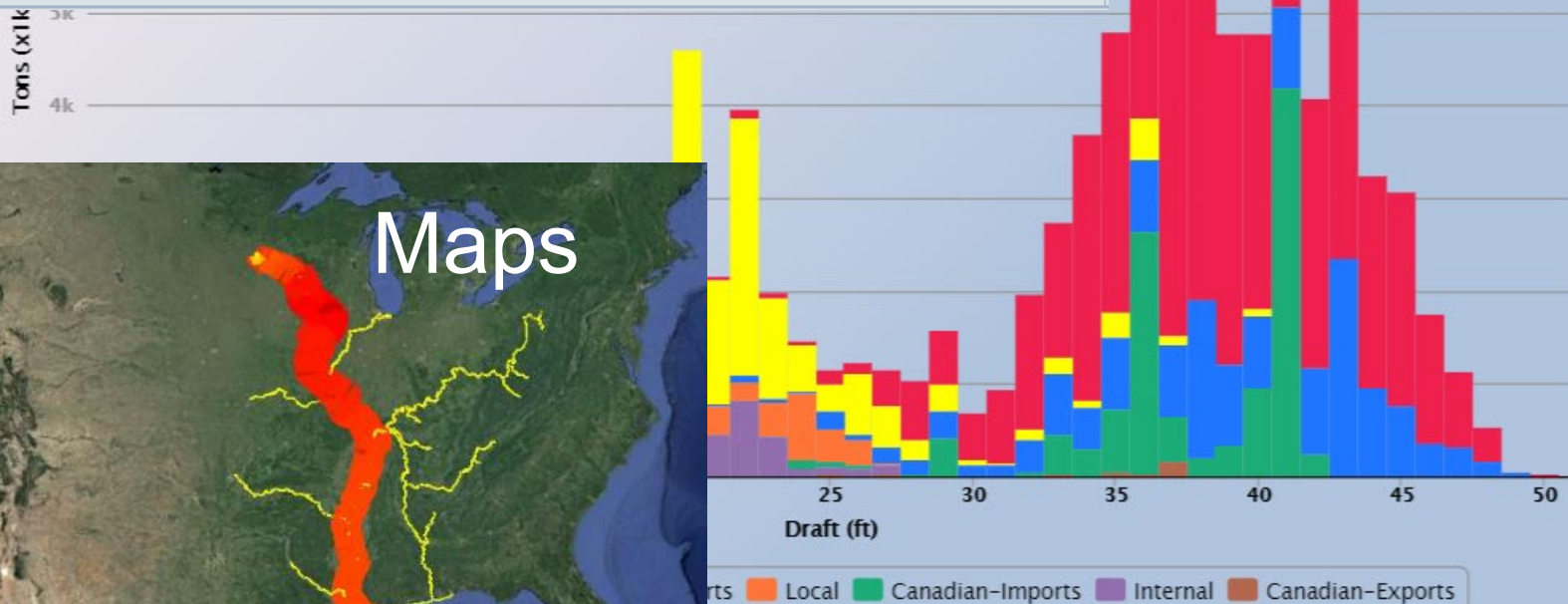
Drag a column header and drop it here to group by that column

Year	Traffic	Tons (x1k)	Dollars (x1k)	Trips
2015	Coastwise	18,681.567	\$6,501,844.936	7,841.000
2015	Local	3,096.747	\$2,275,581.000	59,933.000
2015	Overseas-Imports	714.041	\$1,193,835.965	126.000
2015	Canadian-Imports	620.247	\$20,145.135	18.000
2015	Overseas-Exports	279.199	\$1,930,293.068	134.000
2015	Internal	214.220	\$5,705.795	175.000
2015	Canadian-Exports	0.010	\$109.724	14.000
		<b>23,606.03</b>	<b>\$11,927,515.62</b>	<b>68,241.00</b>

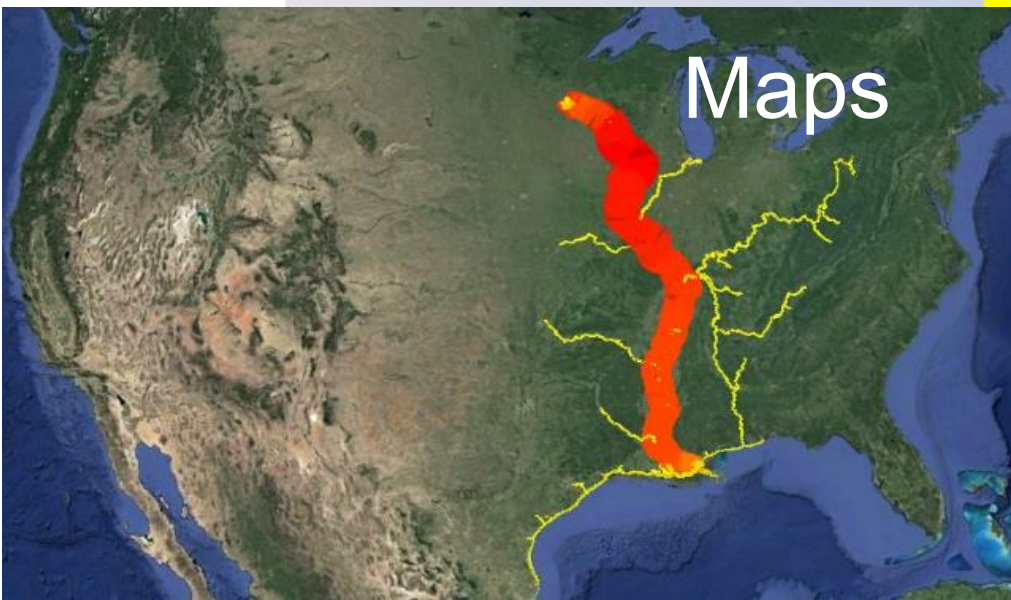
# Tables

# CPT Products

# Graphs



# Maps



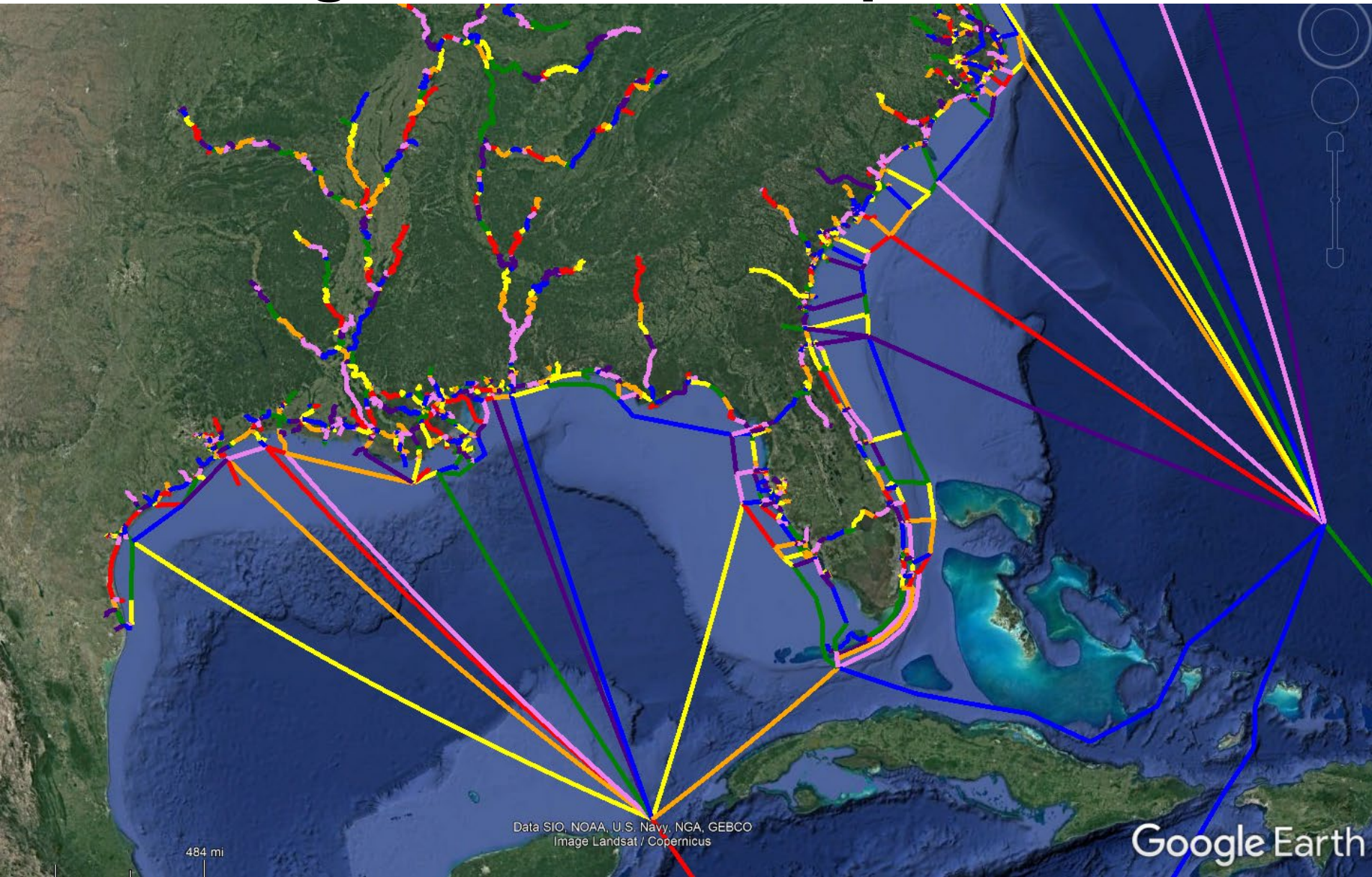


# CPT Routing Network

- National Waterway Network
  - ▶ Multiple development partners
- Master Docks Plus
  - ▶ Over 40,000 ports, waterway facilities, and navigational points of interest
- CPT uses this for origin-to-destination routing along the network path.
  - ▶ Tonnage is assigned to reaches between OD pairs
  - ▶ Does not show actual vessel track
  - ▶ Additional routing on extended network in harbors
- CPT uses historical data, not forward-looking

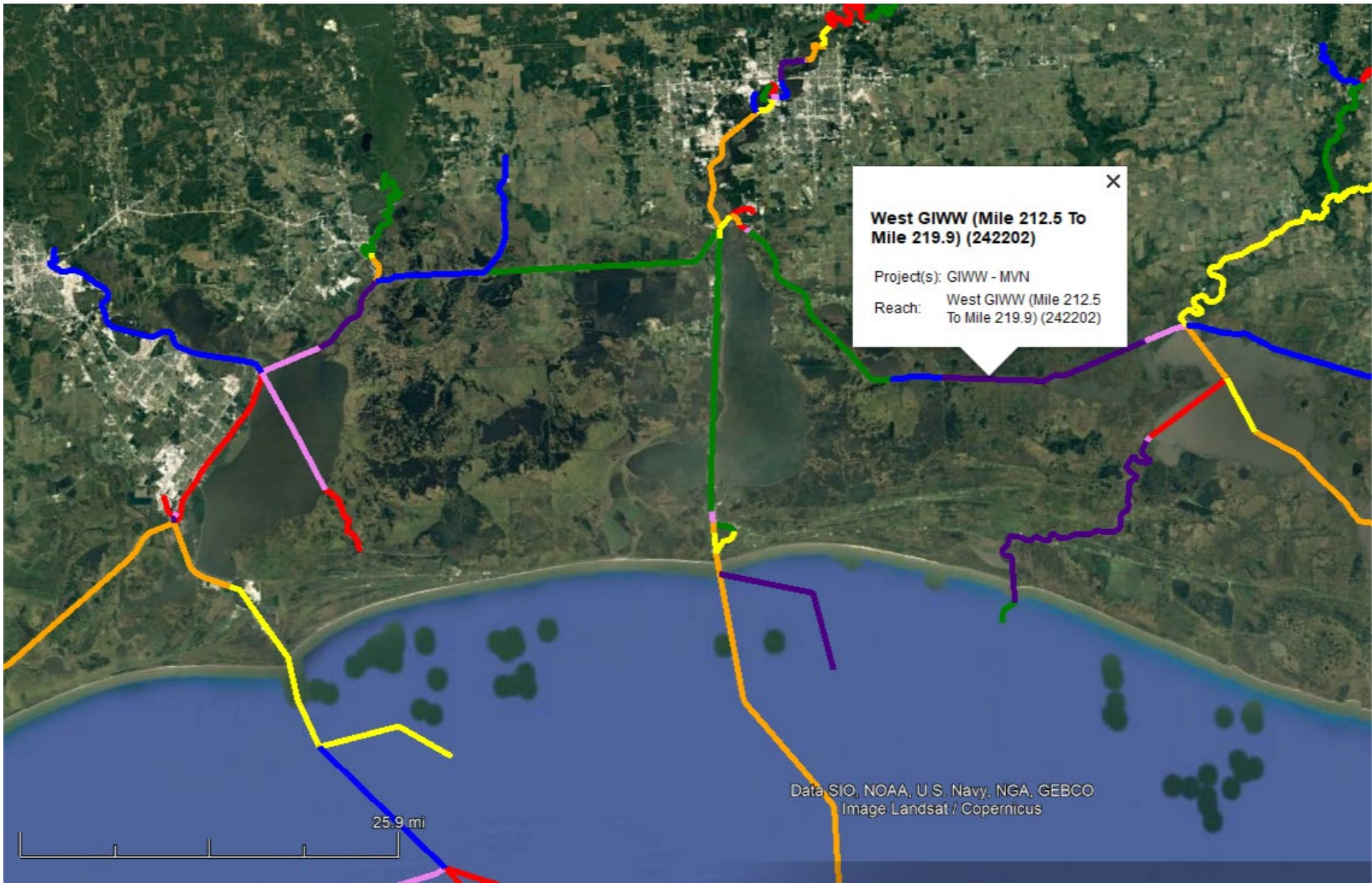


# Waterway Network – Each segment has a unique ID number

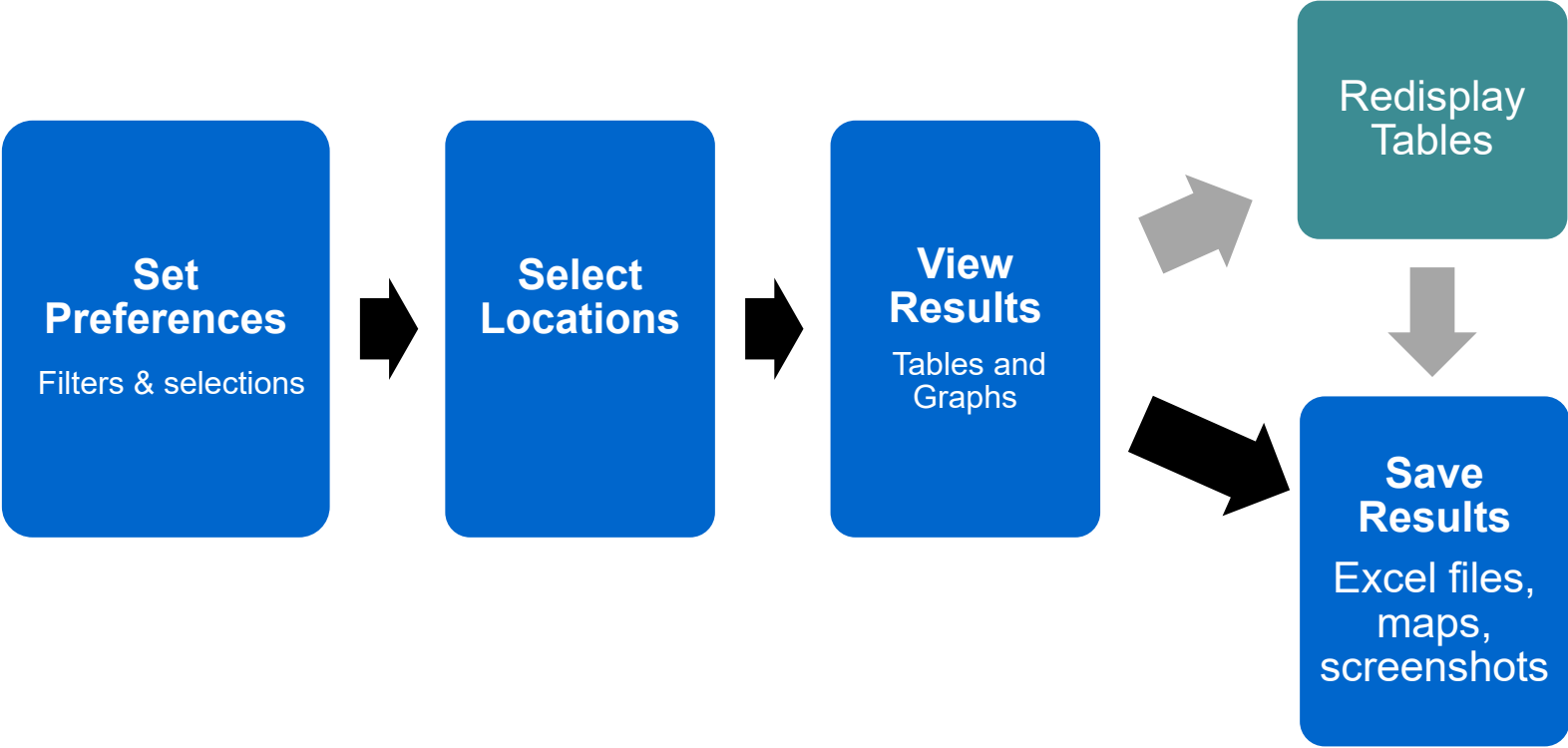




# Sequential list of reach IDs on shortest path from O→D makes up a route string for a shipment



# CPT Workflow



# 3 Key Capabilities within CPT

- Rankings – compare across reaches, projects, Districts, or Division
- Rollup – add up data across multiple locations without double-counting tonnage  
--“consolidated statement of commerce”
- Flow – insights into where cargo flows to/from based on origin-destination data routing







# Channel Portfolio Tool

<https://cpt.usace.army.mil>

Welcome: Marin Kress (marinkre)

Query Saver Preferences Locations Reports Admin CSMART Home Profile Log Off Help

Continue

## Filters and Selections

Network

Network:  Custom  Ombil

Docked:  Docked  Transit (Docked + Thru)

Flow Docked:  Docked  Transit (Docked + Thru)

Channel Conditions

System

Direction

Commodity Year

Vessel Type

Traffic

Commodity Draft

Commodity

Budget Years

Type Fund

## Grid, Charting, and GIS Calculation/Display

Commodity Details

Group By:  Draft  System  Vessel Type  Traffic

Order Grid By:  Trips  Tons  Dollars

Order Chart By:  Trips  Tons  Dollars  Chart Dependent

Year Rollup:  Details By Year  Years Summed  Years Averaged

Top N

Locations:

15

Top N

Commodities:

5

Show Columns:

Ton Miles  Dollar Miles  System Ton Miles   
System Dollar Miles

Work Package Details

Budget Details

X-Axis

Y-Axis

GIS