

# GALVESTON DISTRICT ANNUAL DREDGING MEETING FISCAL YEAR 2023

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US Army Corps  
of Engineers®

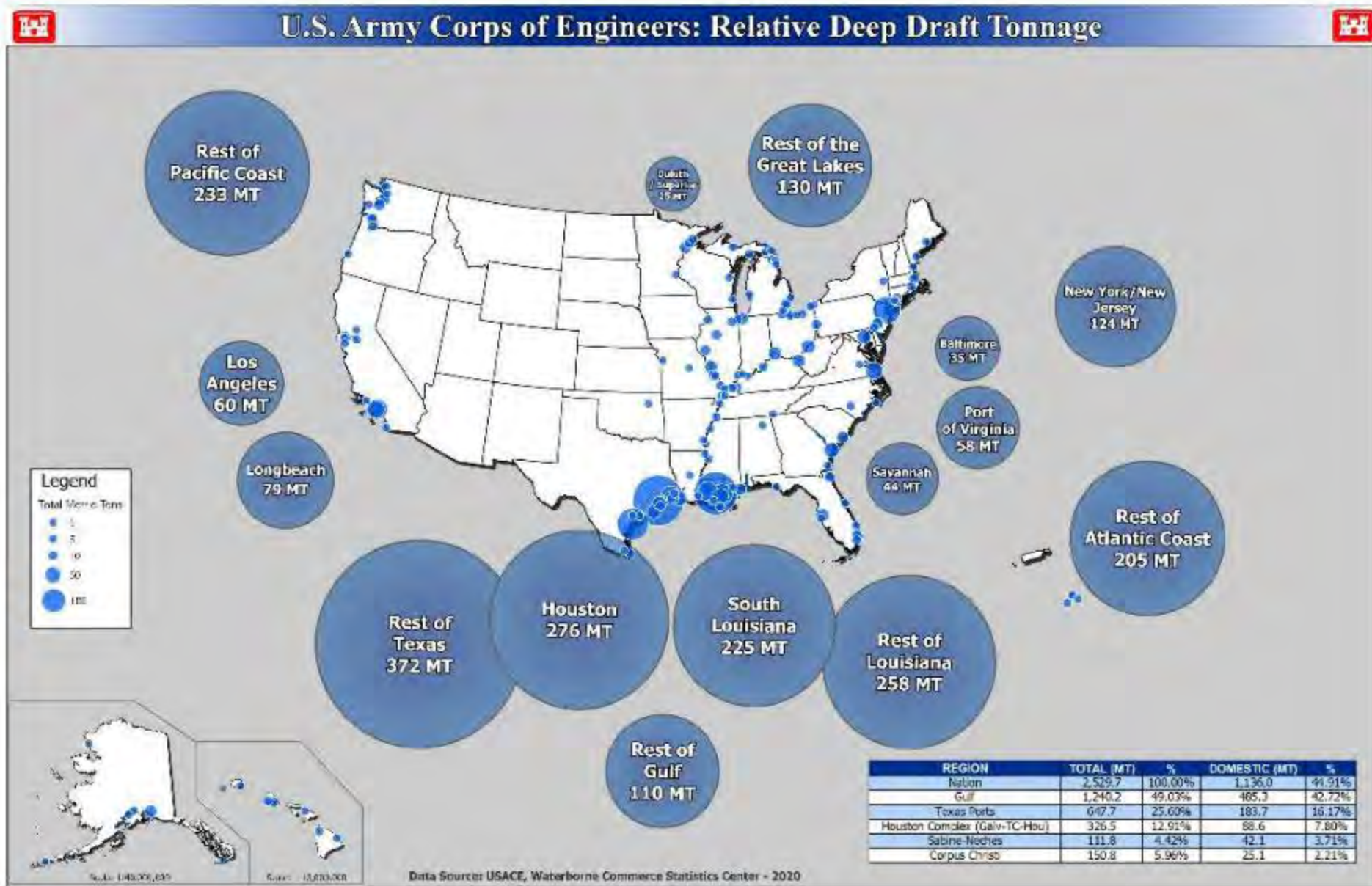


# NAVIGATION MISSION

Provide safe, reliable, efficient and environmentally sustainable waterborne transportation systems (channels, harbors, and waterways) for movement of commerce, national security needs, and recreation.



# MOVEMENT OF COMMERCE





# 2020 Waterborne Commerce Statistics



## Leading U.S. Ports in 2020

(Millions of Short Tons and Percent Change<sup>1</sup> from 2019)

Rank	Type <sup>3</sup>	Port	Domestic		Foreign		Total	
			Tons	%	Tons	%	Tons	%
1	C	Houston Port Authority, TX	79.2	5.3	196.8	-6.2	275.9	-3.2
2	C	South Louisiana, LA, Port of	112.4	-8.1	112.7	-2.5	225.1	-5.4
3	C	Corpus Christi, TX	25.1	-3.1	125.7	47.1	150.8	35.5
4	C	New York, NY & NJ	40.1	-11.6	83.6	-8.4	123.7	-9.4
5	C	New Orleans, LA	43.2	-10.3	37.8	-14.0	81.1	-12.1
6	C	Port of Long Beach, CA <sup>2</sup>	13.5	46.7	65.7	-7.7	79.2	-1.5
7	C	Port of Greater Baton Rouge, LA	43.4	0.1	28.3	-5.9	71.7	-2.3
8	C	Beaumont, TX <sup>2</sup>	24.8	-19.9	45.8	-26.5	70.6	-24.3
9	C	Port of Los Angeles, CA	4.5	-33.3	55.0	-2.3	59.5	-5.6
10	C	Virginia, VA, Port of	5.0	9.4	53.1	-7.1	58.0	-5.9
11	C	Mobile, AL	18.8	-4.6	34.4	-7.5	53.2	-6.5
12	C	Plaquemines Port District, LA	25.9	-10.6	20.9	-12.3	46.8	-11.4
13	C	Port of Savannah, GA	1.1	22.6	42.3	3.2	43.5	3.6
14	C	Lake Charles Harbor District, LA	20.3	-36.0	22.7	-13.5	43.1	-25.8
15	C	Port Arthur, TX <sup>2</sup>	17.3	11.2	23.9	-2.6	41.2	2.7
16	C	Port Freeport, TX	4.2	7.7	34.6	33.1	38.7	29.8
17	I	Mid-Ohio Valley Port, OH and WV <sup>2</sup>	35.9	-22.5	**	0.0	35.9	-22.5
18	C	Baltimore, MD	4.2	-36.3	31.0	-17.6	35.2	-20.4
19	I	Cincinnati-Northern KY, Ports of	34.5	-5.7	**	0.0	34.5	-5.7
20	C	Texas City, TX	12.5	-24.9	21.2	-14.0	33.7	-18.4
21	I	St. Louis Metro Port, IL and MO <sup>2</sup>	30.5	6.0	**	0.0	30.5	6.0
22	I	Huntington-Tristate, KY, OH, WV	29.7	-19.3	**	0.0	29.7	-19.3
23	C	Philadelphia Regional Port, PA <sup>2</sup>	11.6	-26.7	16.9	-10.4	28.5	-17.8
24	C	Tampa Port Authority, FL	15.9	-12.2	12.6	5.8	28.5	-5.0
25	C	Valdez, AK	23.0	-5.1	2.1	127.6	25.1	-0.3
26	L	Duluth-Superior, MN and WI	19.4	-26.6	5.7	-22.4	25.1	-25.7
27	C	Port of Charleston, SC	1.8	-8.6	23.1	2.3	24.9	1.4
28	L	Indiana (Northern District), IN <sup>4</sup>	24.1	**	0.6	**	24.7	**
29	C	Jackson County Port, MS	8.3	-6.0	14.8	-13.0	23.1	-10.6
30	C	Seattle, WA	4.8	-9.7	18.1	2.7	23.0	-0.2
31	C	Tacoma, WA	4.2	-3.0	17.4	1.2	21.6	0.4
32	C	Richmond, CA	6.3	-13.7	14.8	-30.3	21.1	-26.1
33	C	Port of Portland, OR	6.4	-10.3	14.3	17.1	20.7	7.0
34	C	Port Everglades, FL	11.2	-16.7	9.3	-12.4	20.4	-14.8
35	C	South Jersey Port District, NJ <sup>2</sup>	8.4	-6.9	11.9	-22.2	20.3	-16.5
36	C	Port of Oakland, CA	1.3	-25.1	18.1	3.0	19.4	0.5
37	C	Port of Kalama, WA	1.4	-15.8	16.7	9.0	18.1	6.6
38	C	Jacksonville, FL	7.9	2.3	8.8	-12.0	16.7	-5.8
39	I	Pittsburgh, PA Port of	15.5	-28.7	**	0.0	15.5	-28.7
40	I	New Bourbon Port Authority, MO <sup>2</sup>	15.5	24.7	**	0.0	15.5	24.7
41	I	Mid-America Port, IA, IL and MO	15.0	24.5	**	0.0	15.0	24.5
42	I	Illinois Waterway Ports, IL <sup>4</sup>	14.9	**	**	**	14.9	**
43	L	Two Harbors, MN	11.7	-12.4	1.8	-50.0	13.5	-20.2
44	C	Boston, MA	3.4	-33.7	9.9	-8.6	13.3	-16.7
45	C	Honolulu, O'ahu, HI	11.4	-10.4	0.8	-47.5	12.3	-14.5
46	C	Galveston, TX	5.2	7.3	6.7	10.4	11.9	9.0
47	C	Port of Longview, WA	1.1	1.3	9.9	16.2	11.1	14.5
48	C	Port of Vancouver USA, WA	2.6	18.0	7.6	-13.1	10.2	-6.9
49	L	Cleveland-Cuyahoga Port, OH	7.7	-24.4	1.8	2.1	9.4	-20.5
50	C	San Juan, PR <sup>2</sup>	4.6	-0.5	4.7	22.8	9.3	10.1

## Leading U.S. Ports in 2020 - continued

(Millions of Short Tons and Percent Change<sup>1</sup> from 2019)

Rank	Type <sup>3</sup>	Port	Domestic		Foreign		Total	
			Tons	%	Tons	%	Tons	%
51	L	Illinois International Port, IL	7.2	-13.8	1.9	12.9	9.1	-9.4
52	L	Toledo-Lucas County Port, OH <sup>2</sup>	4.3	-21.0	4.7	26.6	9.0	-1.8
53	I	Memphis-Shelby County Port, TN	8.7	-2.6	**	0.0	8.7	-2.6
54	I	Joliet Regional Port, IL	8.6	-6.7	**	0.0	8.6	-6.7
55	C	PortMiami, FL	0.2	39.9	8.2	-5.5	8.4	-4.8
56	I	E Iowa and W Illinois, IA IL	8.4	56.6	**	0.0	8.4	56.6
57	L	Detroit-Wayne County Port, MI	5.7	-44.0	2.4	-19.5	8.2	-38.4
58	C	New Haven, CT	4.8	-17.5	3.3	-5.1	8.1	-12.9
59	I	Louisville-Jefferson Port, KY <sup>2</sup>	8.1	-27.8	**	0.0	8.1	-27.8
60	I	Nashville, TN	7.5	8.7	**	0.0	7.5	8.7
61	C	Kalaheo Barbers Point, HI	2.4	-26.8	5.1	-3.1	7.5	-12.3
62	C	Greater Lafourche Port, LA	7.2	-6.4	0.2	188.7	7.4	-4.7
63	C	Port of Providence, RI	2.9	-16.9	4.5	-5.1	7.4	-10.0
64	L	Conneaut, OH	5.3	41.7	2.1	**	7.4	87.7
65	C	Anacortes, WA <sup>2</sup>	5.7	-15.8	1.3	-31.7	7.0	-19.3
66	C	Brownsville, TX	2.8	3.2	4.0	1.6	6.8	2.3
67	C	Wilmington, NC <sup>2</sup>	0.5	83.8	5.8	-0.8	6.3	2.8
68	L	Rogers City, MI <sup>2</sup>	6.0	-24.1	0.1	-40.4	6.1	-24.4
69	I	Mount Vernon, IN	5.9	-36.4	**	0.0	5.9	-36.4
70	I	Kaskaskia Regional Port, IL	5.8	10.9	**	0.0	5.8	10.9
71	L	Marquette, MI	4.5	-27.5	1.2	-20.2	5.7	-26.0
72	C	Wilmington, DE	0.7	-22.5	4.8	-18.3	5.6	-18.8
73	C	Sabine Pass Port Authority, TX <sup>2</sup>	2.2	148.8	3.4	102.7	5.5	117.8
74	I	Southeast Missouri Port, MO <sup>2</sup>	5.1	13.4	**	0.0	5.1	13.4
75	I	Paducah-McCracken, KY	5.0	65.8	**	0.0	5.0	65.8
76	I	St. Paul Port Authority, MN	4.8	-4.8	**	0.0	4.8	-4.8
77	C	Calhoun Port Authority, TX	2.6	-13.1	2.1	-3.0	4.8	-8.8
78	C	Stockton, CA	**	-100.0	4.6	-15.3	4.6	-15.3
79	C	Albany Port District, NY <sup>2</sup>	3.5	-4.0	1.1	78.7	4.6	-7.7
80	C	Canaveral Port District, FL	1.1	-6.3	3.4	-19.4	4.5	-16.5
81	I	Tulsa-Rogers County Port, OK <sup>2</sup>	4.5	45.5	**	0.0	4.5	45.5
82	C	Portland, ME	0.6	-43.3	3.7	3.7	4.4	-7.1
83	L	Silver Bay, MN	4.0	-26.4	0.3	242.1	4.3	-21.9
84	C	Manatee County Port, FL	1.1	-21.8	3.2	-4.7	4.2	-9.8
85	I	Vicksburg, MS	4.1	36.1	**	0.0	4.1	36.1
86	C	Orange County Nav District, TX <sup>2</sup>	4.1	-14.9	**	39.1	4.1	-14.9
87	I	Massac-Metropolis Port, IL <sup>2</sup>	3.9	-27.2	**	0.0	3.9	-27.2
88	L	Presque Isle Township, MI	3.8	-11.4	0.1	-84.5	3.8	-17.8
89	L	AshTabula Port Authority, OH	3.2	-29.6	0.5	-14.1	3.7	-27.6
90	L	Mueller Township, MI	3.5	-22.3	0.1	-69.4	3.6	-26.3
91	C	Kahului, Maui, HI	3.1	-16.7	**	31.3	3.1	-16.3
92	C	Port of Alaska, AK	1.7	-0.3	1.3	19.6	3.0	7.6
93	C	Grays Harbor Port District, WA	0.1	-7.4	2.9	2.6	2.9	2.3
94	I	Greenville, MS	2.9	-6.4	**	0.0	2.9	-6.4
95	I	Central Louisiana Regional, LA	2.8	26.4	**	0.0	2.8	26.4
96	C	Nikiski, AK	2.5	-28.3	0.4	82.5	2.8	-22.3
97	I	Owensboro Riverport, KY	2.8	9.8	**	0.0	2.8	9.8
98	L	Milwaukee, WI	1.3	2.0	1.5	-3.4	2.8	-1.0
99	C	Portsmouth, NH	0.2	-53.8	2.5	15.8	2.7	4.1
100	L	Marblehead, OH	2.6	-0.1	**	-94.7	2.6	-9.6

## Leading U.S. Ports in 2020 - continued

(Millions of Short Tons and Percent Change<sup>1</sup> from 2019)

Rank	Type <sup>3</sup>	Port	Domestic		Foreign		Total	
			Tons	%	Tons	%	Tons	%
101	C	Port of Brunswick, GA	0.2	76.6	2.4	7.5	2.6	10.0
102	I	New Madrid County Port, MO	2.4	7.9	**	0.0	2.4	7.9
103	L	Alpena, MI	2.3	7.7	0.1	-28.0	2.4	4.9
104	C	Port Jefferson, NY	2.3	-15.5	**	0.0	2.3	-15.5
105	L	Clark Township, MI	2.1	-17.7	0.1	-80.8	2.2	-27.0
106	C	San Francisco Port, CA	1.1	-29.5	1.1	27.6	2.2	-9.5
107	C	Port of Palm Beach District, FL	0.8	26.2	1.4	-9.6	2.2	0.5
108	C	Ponce Port Authority, PR <sup>2</sup>	**	0.0	2.1	-4.4	2.1	-4.4
109	C	Guaynabo, PR <sup>2</sup>	0.2	-5.8	1.8	7.3	2.0	5.8
110	C	Panama City Port Authority, FL	0.4	-14.6	1.6	-8.4	2.0	-9.8
111	C	Victoria, TX	2.0	-23.9	**	0.0	2.0	-23.9
112	L	Green Bay, WI	1.4	-12.6	0.6	-8.6	2.0	-11.4
113	I	Chattanooga, TN	2.0	1.2	**	0.0	2.0	1.2
114	C	Kawaihae, Hawai'i, HI	2.0	-3.5	**	0.0	2.0	-3.5
115	C	Redwood City, CA	**	-79.6	1.9	-14.2	1.9	-20.2
116	C	Hilo, Hawai'i, HI	1.9	-14.7	**	-34.1	1.9	-15.0
117	C	Terrebonne Parish Port, LA	1.9	-13.1	**	0.0	1.9	-13.1
118	C	Oxnard Harbor District, CA	**	11.7	1.8	-4.9	1.8	-4.8
119	C	Coos Bay, OR	**	80.5	1.8	-12.4	1.8	-11.3
120	I	Guntersville, AL	1.8	15.1	**	0.0	1.8	15.1
121	C	Yabucoa, PR	**	0.0	1.8	-22.6	1.8	-22.6
122	C	Nawiliwili, Kaua'i, HI	1.8	-9.6	**	-65.2	1.8	-10.6
123	C	Morehead City, NC	0.6	-42.1	1.2	-21.9	1.8	-29.9
124	I	Henderson County Riverport, KY	1.8	-2.6	**	0.0	1.8	-2.6
125	L	Sandusky, OH	0.6	-46.8	1.1	-14.2	1.8	-29.9
126	C	Port of Iberia District, LA	1.7	-17.7	**	0.0	1.7	-17.7
127	C	Port of Harlingen Authority, TX	1.7	55.2	**	0.0	1.7	55.2
128	C	Gulfport, MS	**	24.4	1.6	-16.9	1.6	-16.5
129	C	Searsport, ME	0.1	-26.3	1.5	18.9	1.6	14.8
130	C	Bridgeport, CT	1.6	-9.4	**	-76.2	1.6	-11.7
131	L	Grand Haven, MI	1.2	7.4	0.4	60.3	1.6	17.2
132	I	Kansas City Port Authority, MO	1.6	39.3	**	0.0	1.6	39.3
133	C	San Diego Unified Port, CA	0.3	82.5	1.2	-8.0	1.5	2.1
134	I	Alexandria-Cario Port, IL <sup>2</sup>	1.5	15.8	**	0.0	1.5	15.8
135	I	Port of Rosedale, MS <sup>2</sup>	1.5	6.8	**	0.0	1.5	6.8
136	I	Helena-West Helena Port, AR <sup>2</sup>	1.4	14.9	**	0.0	1.4	14.9
137	L	Monroe, MI	1.3	-16.4	0.1	-10.6	1.4	-16.2
138	I	Pemiscot County Port, MO	1.3	-18.1	**	0.0	1.3	-18.1
139	C	Everett, WA	1.0	52.8	0.3	-9.6	1.3	32.7
140	L	Marine City, MI	1.3	30.1	**	-100.0	1.3	22.6
141	C	Unalaska Island, AK	0.3	-29.2	1.0	-8.1	1.2	-13.6
142	L	Muskegon, MI	0.7	3.0	0.6	4.6	1.2	3.8
143	C	Sacramento-Yolo Port, CA	**	0.0	1.2	25.4	1.2	25.4
144	C	Kivalina, AK	1.1	-16.2	**	-98.9	1.1	-58.6
145	I	Hickman-Fulton County Port, KY	1.1	-1.3	**	0.0	1.1	-1.3
146	I	Lake Providence Port, LA	1.1	2.2	**	0.0	1.1	2.2
147	I</							



## U.S. Waterborne Traffic by State in 2020<sup>1</sup>

(Millions of Short Tons and Change from 2019)



Rank	State	Domestic		Foreign		Total <sup>2</sup>	
		Tons	%	Tons	%	Tons	%
1	Texas	143.58	-5.0	464.23	3.9	607.81	1.7
2	Louisiana	245.33	-9.5	240.11	-7.4	485.44	-8.5
3	California	30.68	2.8	184.24	-12.0	214.92	-10.1
4	New Jersey	43.76	-9.7	88.11	-6.5	131.88	-7.6
5	Washington	29.61	-6.8	80.09	-0.6	109.70	-2.4
6	Florida	41.36	-11.0	48.94	-6.5	90.30	-8.6
7	Kentucky	76.73	-6.5	0.00	0.0	76.73	-6.5
8	Illinois	73.24	-3.6	1.87	12.9	75.11	-3.2
9	Ohio	57.57	-18.8	10.95	33.2	68.51	-13.4
10	Alabama	29.57	-5.3	34.41	-7.5	63.98	-6.5
11	Virginia	7.72	14.4	53.84	-12.5	61.56	-9.8
12	Indiana	50.05	-19.4	0.56	-56.2	50.61	-20.1
13	Georgia	1.28	26.3	44.72	3.4	46.00	3.9
14	Missouri	45.01	19.3	0.00	0.0	45.01	19.3
15	Maryland	7.79	-22.5	36.13	-14.6	43.91	-16.1
16	West Virginia	43.78	-16.7	0.00	0.0	43.78	-16.7
17	Pennsylvania	27.57	-27.7	16.07	-22.2	43.65	-25.8
18	Minnesota	37.82	2.0	3.85	-33.0	41.67	-2.7
19	Michigan	34.18	-23.7	6.72	-28.4	40.90	-24.5
20	Mississippi	22.03	4.8	16.40	-13.4	38.43	-3.8
21	Alaska	29.58	-6.5	6.55	9.5	36.13	-4.0
22	New York	18.51	-15.9	13.59	-23.1	32.09	-19.1
23	Tennessee	29.30	-5.2	0.00	0.0	29.30	-5.2
24	Oregon	9.81	-9.5	16.75	10.3	26.56	2.0
25	South Carolina	1.85	-9.0	23.12	2.3	24.97	1.4
26	Wisconsin	16.19	-28.0	6.07	-19.0	22.27	-25.8
27	Hawaii	13.75	-13.2	5.99	-13.7	19.73	-13.4
28	Puerto Rico	6.43	6.5	13.26	-2.6	19.69	0.2
29	Delaware	7.60	-41.0	11.20	-25.0	18.80	-32.4
30	Arkansas	16.43	5.8	0.00	0.0	16.43	5.8
31	Massachusetts	3.53	-33.9	9.99	-8.5	13.53	-16.8
32	Iowa	11.33	39.7	0.00	0.0	11.33	39.7
33	Connecticut	7.06	-14.2	3.45	-11.3	10.51	-13.3
34	North Carolina	2.06	-6.9	7.13	-5.3	9.19	-5.7
35	Rhode Island	3.09	-14.9	5.02	-5.5	8.11	-9.3
36	Maine	0.77	-38.6	5.59	5.6	6.36	-2.9
37	Oklahoma	5.10	42.6	0.00	0.0	5.10	42.6
38	New Hampshire	0.20	-53.8	2.53	15.9	2.74	4.2
39	Virgin Islands	0.01	-91.0	2.44	-36.1	2.45	-37.0
40	Guam	0.37	8.6	0.00	0.0	0.37	8.6
41	District of Columbia	0.08	1.2	0.00	0.0	0.08	1.2
42	Kansas	0.06	-28.6	0.00	0.0	0.06	-28.6
43	Nebraska	0.06	437.4	0.00	0.0	0.06	437.4
44	Idaho	0.05	8.1	0.00	0.0	0.05	8.1
45	Pacific Islands	0.00	-92.4	0.00	0.0	0.00	-92.4



# GALVESTON DISTRICT NAVIGATION SYSTEM

## LEADING U.S. PORTS

(2020 tonnage)

**Houston #1 – 275.9 million tons**  
#1 Foreign Tonnage & Total Tonnage

**Corpus Christi #3 – 150.8 m.tons**  
America's Energy Gateway

**Beaumont #8 – 70.6 m.tons**  
#1 Military Port in World

**Port Arthur #15 – 41.2 m.tons**  
Vital Break-Bulk Port

**Freeport #16 – 38.7 m.tons**  
Connecting Global Services  
Via Caribbean Relay Port

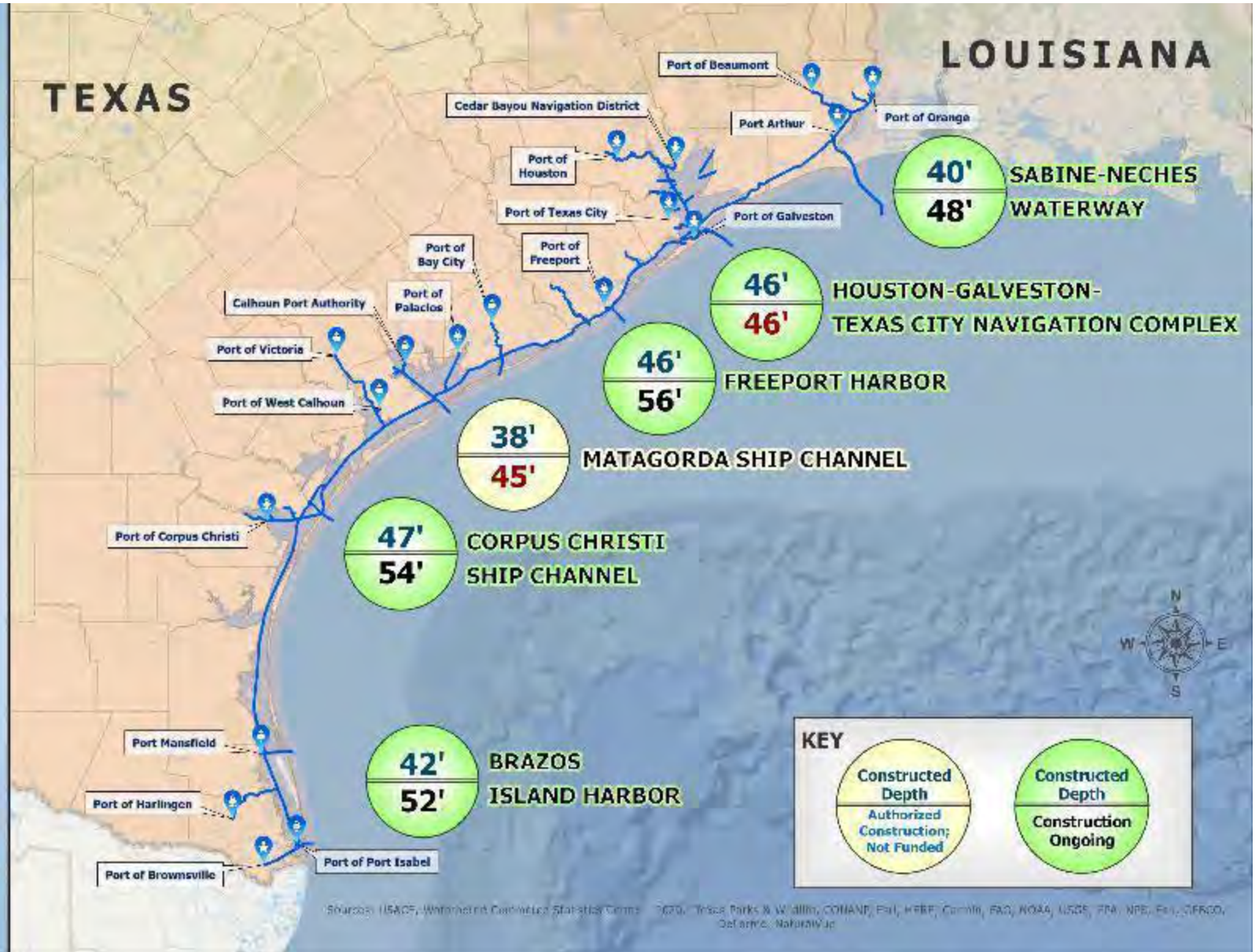
**Texas City #20 – 33.7 m.tons**  
Services Largest Petrochemical Complex

**Galveston #46 – 11.9 m.tons**  
#1 Cruise Ship Port in gulf

**Brownsville #66 – 6.8 m.tons**  
#1 Ship Recycling Port

**Sabine Pass Port #73 – 5.5 m.tons**  
First in the U.S. with crude oil imports.

**Calhoun County Port #77 - 4.8 m.tons**  
(Matagorda Ship Channel)



Sources: USACE, Waterborne Commerce Statistics Center, 2020; Texas Parks & Wildlife, COMAND, PAI, HBB, Correll, FAO, NOAA, USGS, FPA, NRE, PAI, OFRGO, Defense, NationalMap



# GALVESTON DISTRICT NAVIGATION SYSTEM



## LEADING U.S. PORTS

(2020 tonnage)

**Houston #1 – 275.9 million tons**

#1 Foreign Tonnage & Total Tonnage

**Corpus Christi #3 – 150.8 m.tons**

America's Energy Gateway

**Beaumont #8 – 70.6 m.tons**

#1 Military Port in World

**Port Arthur #15 – 41.2 m.tons**

Vital Break-Bulk Port

**Freeport #16 – 38.7 m.tons**

Connecting Global Services  
Via Caribbean Relay Port

**Texas City #20 – 33.7 m.tons**

Serves Largest Petrochemical Complex

**Galveston #46 – 11.9 m.tons**

#1 Cruise Ship Port in gulf

**Brownsville #66 – 6.8 m.tons**

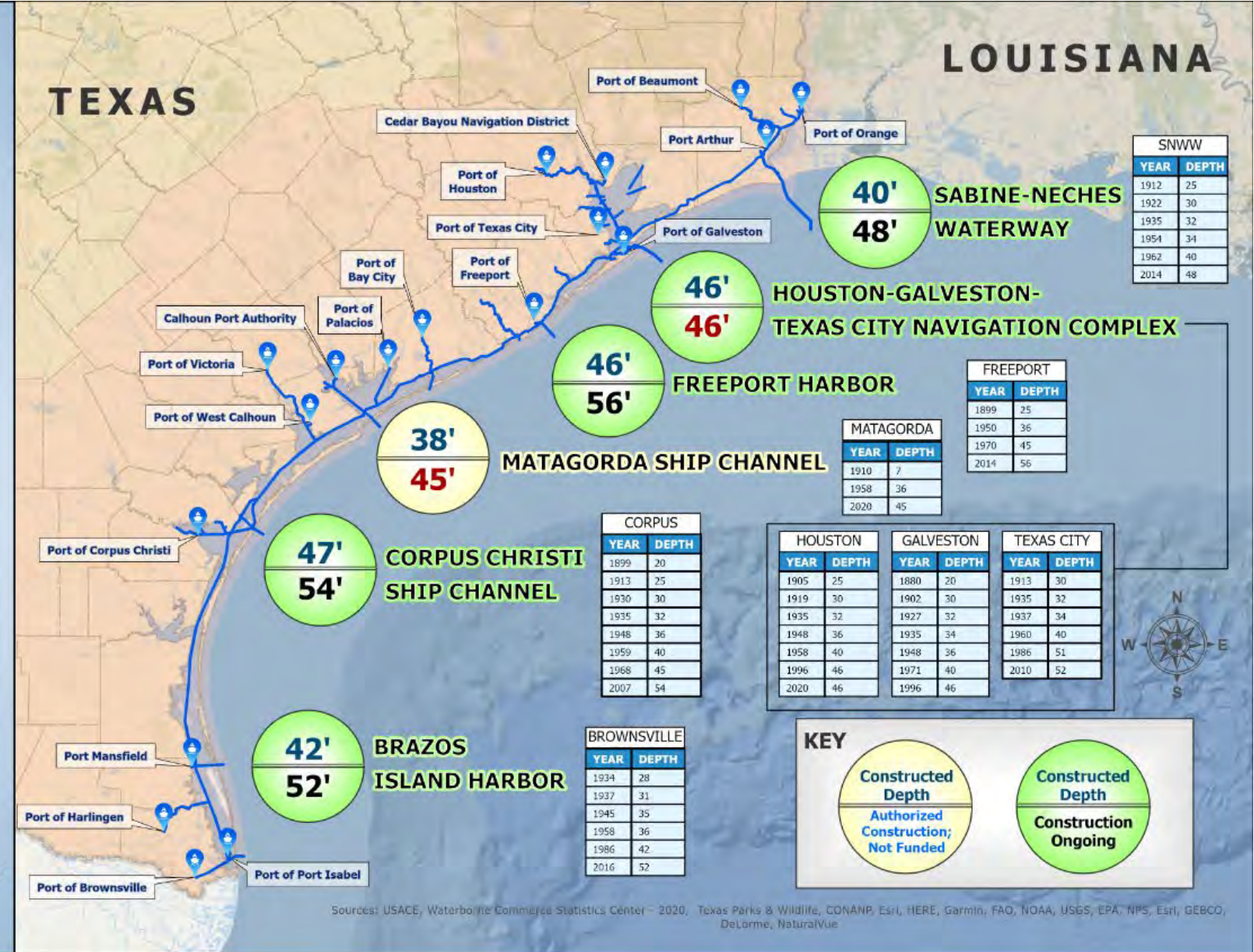
#1 Ship Recycling Port

**Sabine Pass Port #73 – 5.5 m.tons**

First in the U.S. with crude oil imports.

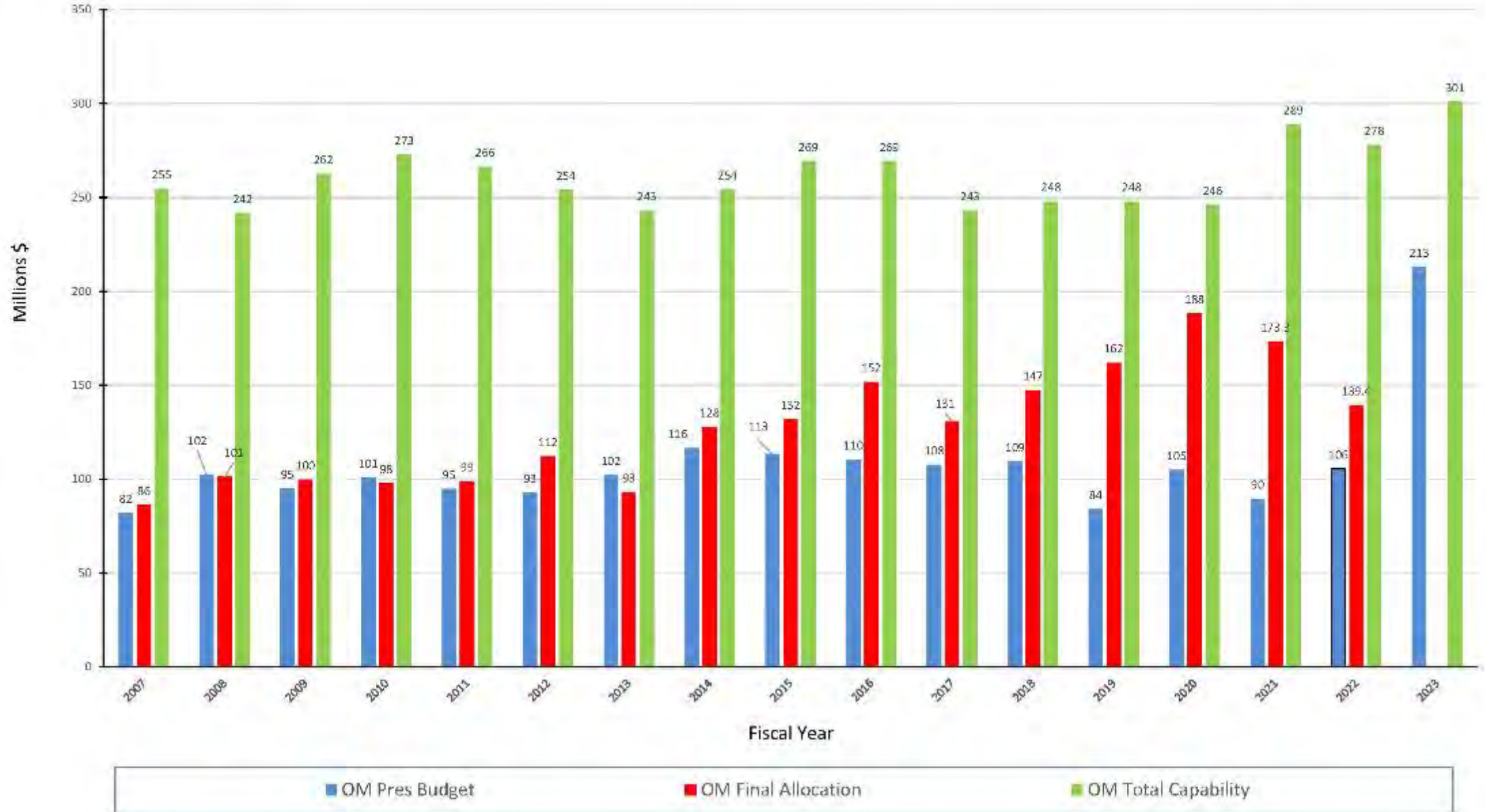
**Calhoun County Port #77 - 4.8 m.tons**

(Matagorda Ship Channel)





# GALVESTON DISTRICT – NAVIGATION – OPERATIONS AND MAINTENANCE FUNDING







# FY23 OPERATIONS AND MAINTENANCE FUNDING

## Navigation Only



### Regular Appropriation

FY22 Carry In	\$ 34,817,000
FY23 Pres Bud	\$213,100,000
FY23 Additional Capability	\$131,000,000

<b>TOTAL low</b>	<b>\$247,917,000</b>
TOTAL high	\$378,917,000

### Supplemental Appropriation

FY22 Carry In	\$ 29,024,000
FY23 Approved	\$ 10,900,000
FY23 Additional Capability	\$ 31,100,000

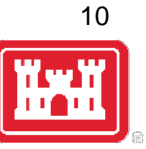
<b>TOTAL low</b>	<b>\$ 39,924,000</b>
TOTAL high	\$ 71,024,000

**TOTAL \$288M**



# FY23 CONSTRUCTION FUNDING

## Navigation Only



### Regular Appropriation

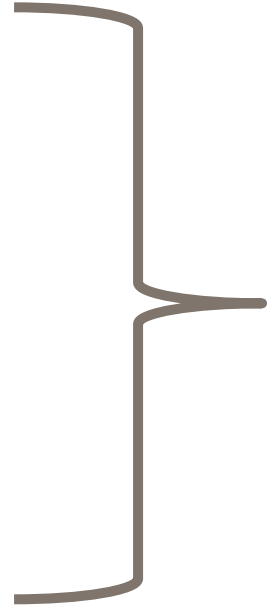
FY22 Carry In	\$207,700,000
FY23 Pres Bud	\$157,300,000
FY23 Add. Cap.	\$370,129,000 (does not include BRFG)

<b>TOTAL low</b>	<b>\$365,500,000</b>
TOTAL high	\$735,129,000

### Supplemental Appropriation

FY22 Carry In	\$ 11,600,000
FY23 Approved	\$210,000,000

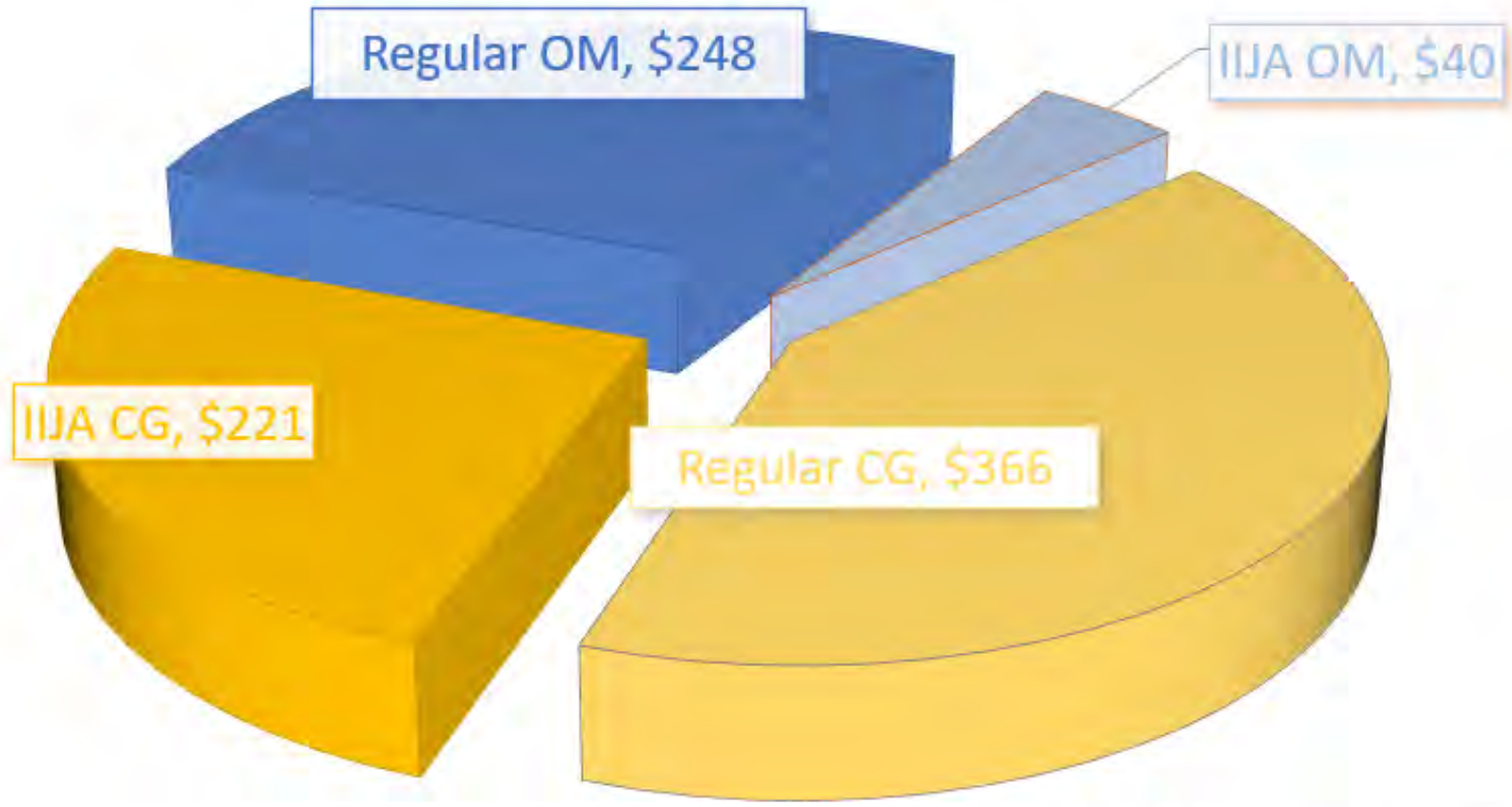
<b>TOTAL</b>	<b>\$221,600,000</b>
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**TOTAL \$587M**



# FISCAL YEAR 2023 NAVIGATION FUNDING

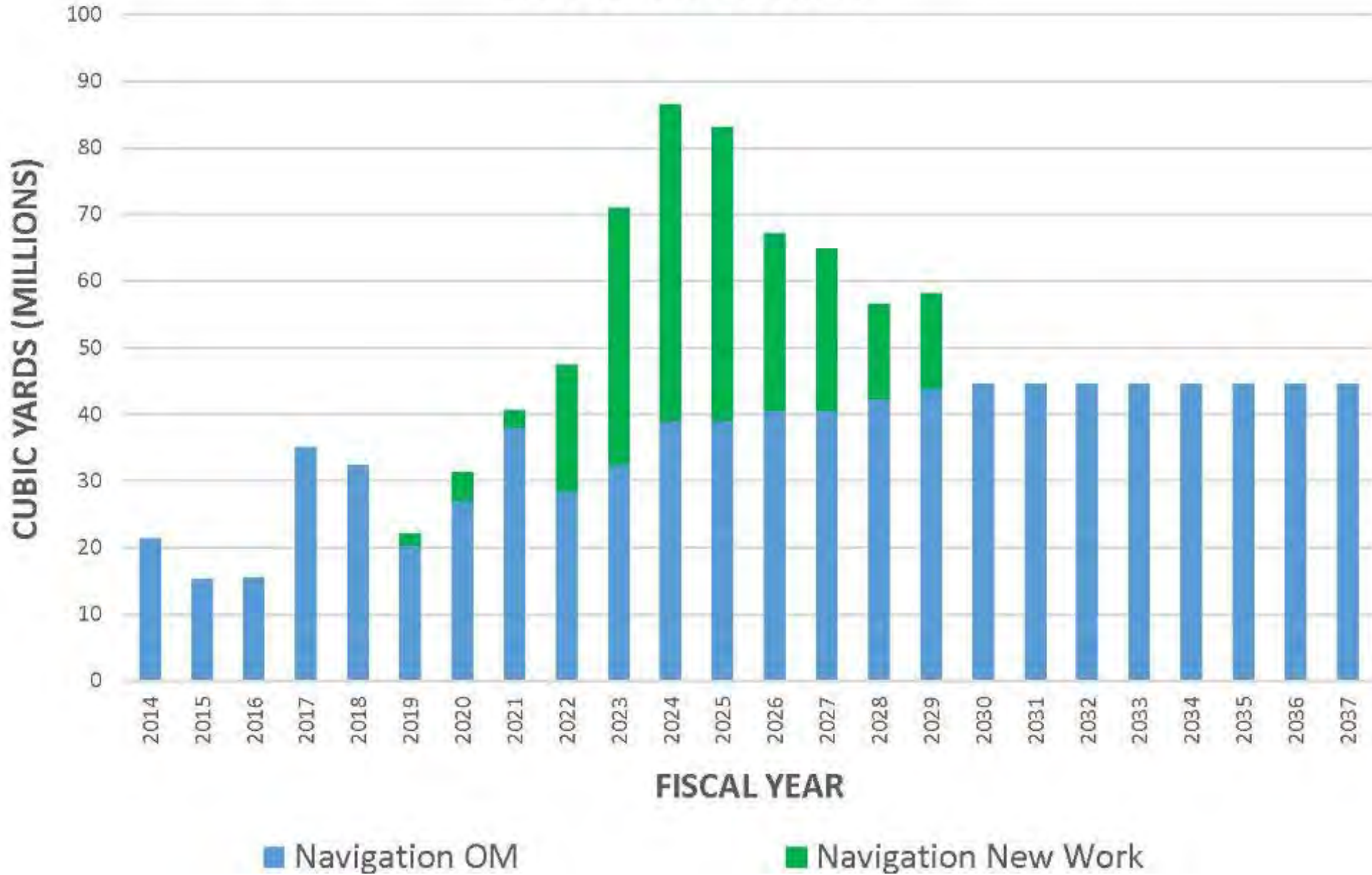


<b>FY23 TOTAL</b>	<b>\$875M</b>
O&M	\$288M
Construction	\$587M



# ACTUAL AND PROJECTED DREDGING QUANTITIES - THRU 2037

## GALVESTON DISTRICT





# COASTAL TEXAS – GALVESTON BAY STORM SURGE BARRIER SYSTEM



### Gulf Defenses

**Bolivar and West Galveston Beach & Dunes**

**Bolivar Roads Gate System**

Galveston Island, Bolivar Peninsula



### Bay Defenses

**Galveston Ring Barrier**

**Clear Lake**

**Dickinson**

**Legend**

- Drainage Structure
- Access Gate
- Road Closure
- Road Closure
- Control Wall
- Circulation Gate
- Navigation Gate
- Channel Realignment
- Seawall
- Seawall
- Breakwaters

### Ecosystem Restoration

Breakwaters

Marshes

Beaches

Oyster Reefs

# COASTAL TEXAS – GALVESTON BAY STORM SURGE BARRIER SYSTEM



### Gulf Defenses

Conceptual rendering of a proposed beach and dune field system

#### Bolivar Roads Gate System

Galveston Island, Bolivar Peninsula

**Bolivar and West Galveston Beach & Dunes**



### Bay Defenses

#### Galveston Ring Barrier

**Clear Lake**

**Dickinson**

### Ecosystem Restoration



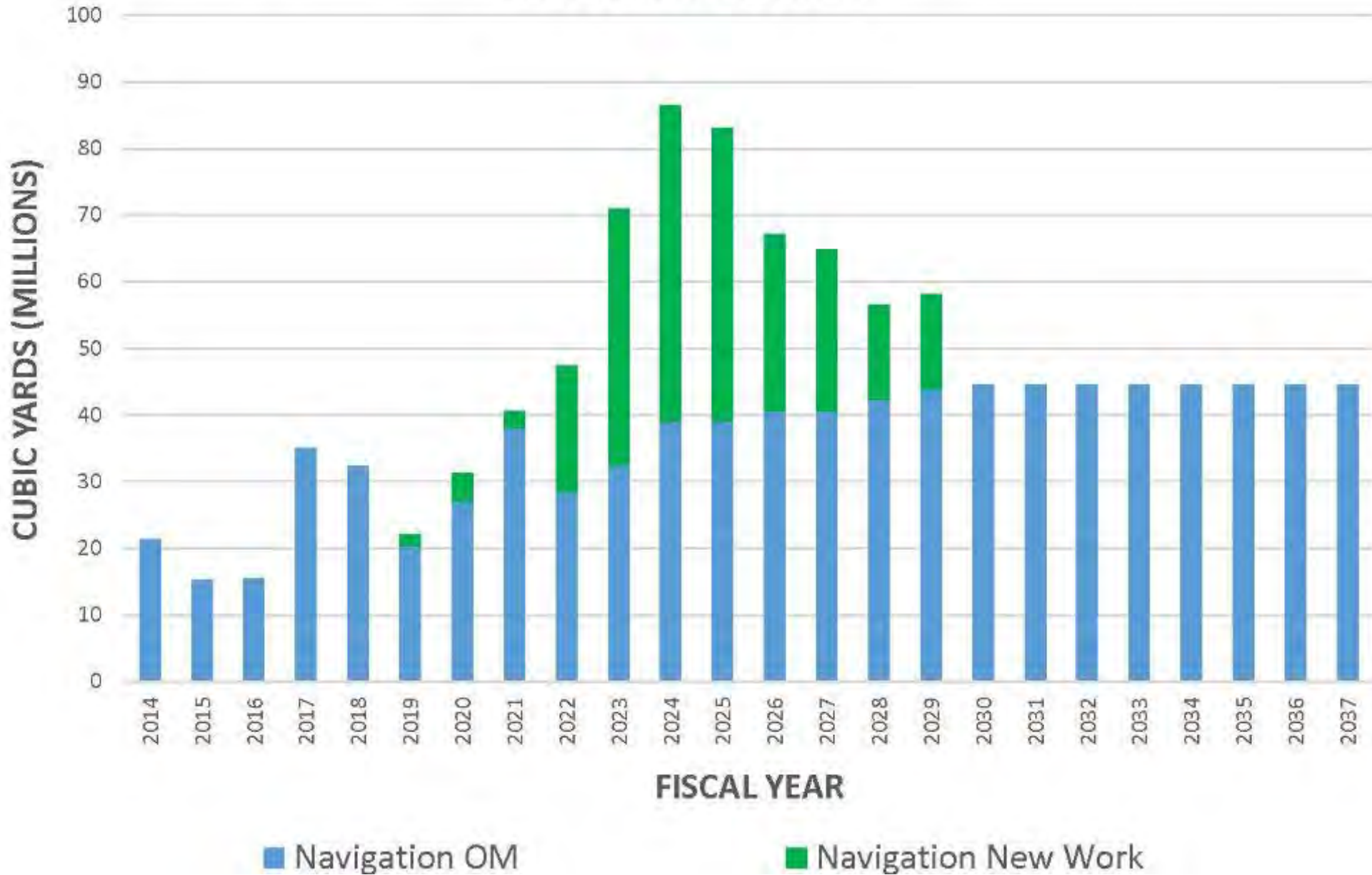
# COASTAL TEXAS – DOUBLE DUNE STRUCTURE





# ACTUAL AND PROJECTED DREDGING QUANTITIES - THRU 2037

## GALVESTON DISTRICT

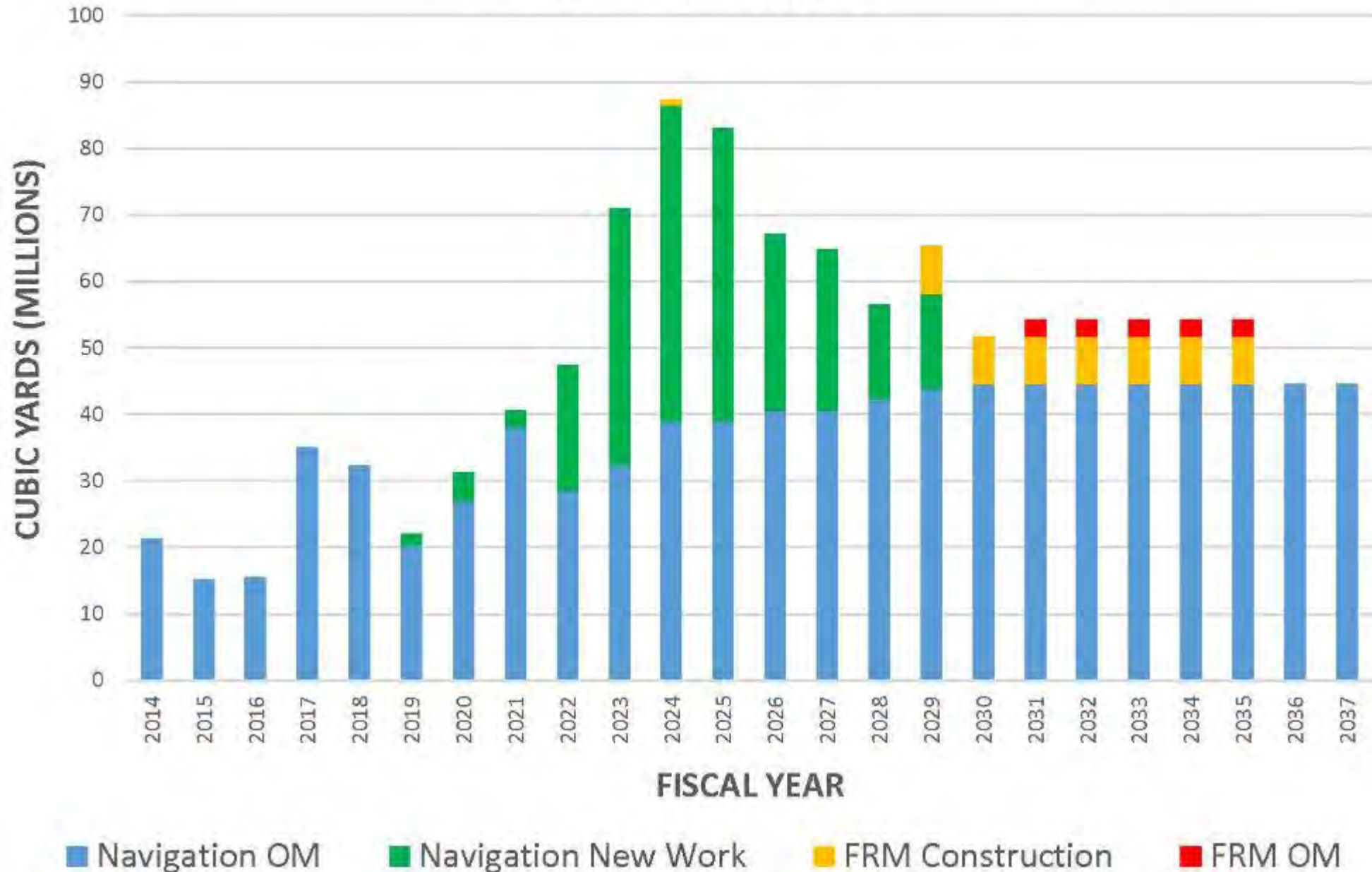






# ACTUAL AND PROJECTED DREDGING QUANTITIES - THRU 2037

## GALVESTON DISTRICT





**GALVESTON DISTRICT**  
INFORMATION FOR **NAVIGATION** AND  
**FLOOD RISK MANAGEMENT** DREDGING SCHEDULES

**1. OPERATIONS DASHBOARD:**

[HTTPS://WWW.SWG.USACE.ARMY.MIL/MISSIONS/NAVIGATION/NAVIGATION-PROJECTS-CONTRACTS/](https://www.swg.usace.army.mil/missions/navigation/navigation-projects-contracts/)

**2. GALVESTON DISTRICT ANNUAL DREDGING MEETING:**

**NOV 1, 2022**

GALVESTON DISTRICT, JADWIN BUILDING  
2000 FORT POINT ROAD, GALVESTON TEXAS

**3. WEDA - GULF COAST CHAPTER ANNUAL CONFERENCE:**

**NOV 7 – 9, 2022**

LOWES NEW ORLEANS  
300 POYDAS STREET, NEW ORLEANS, LOUISIANA

**4. STAKEHOLDER PARTNERING FORUM:**

**SPRING 2023**



## NAVIGATION RESTORATION

The dashboard communicates channel conditions to the Gulf Coast Inland Waterways Joint Hurricane Team (JHT) during navigation restoration efforts. Critical information shared during navigation restoration calls includes:

- ✓ **SWG Survey Assets**
- ✓ **SWG Dredging Assets**
- ✓ **Draft Restrictions**
- ✓ **Hydrographic Surveys**





# OPERATIONS DASHBOARD: COMMUNICATION



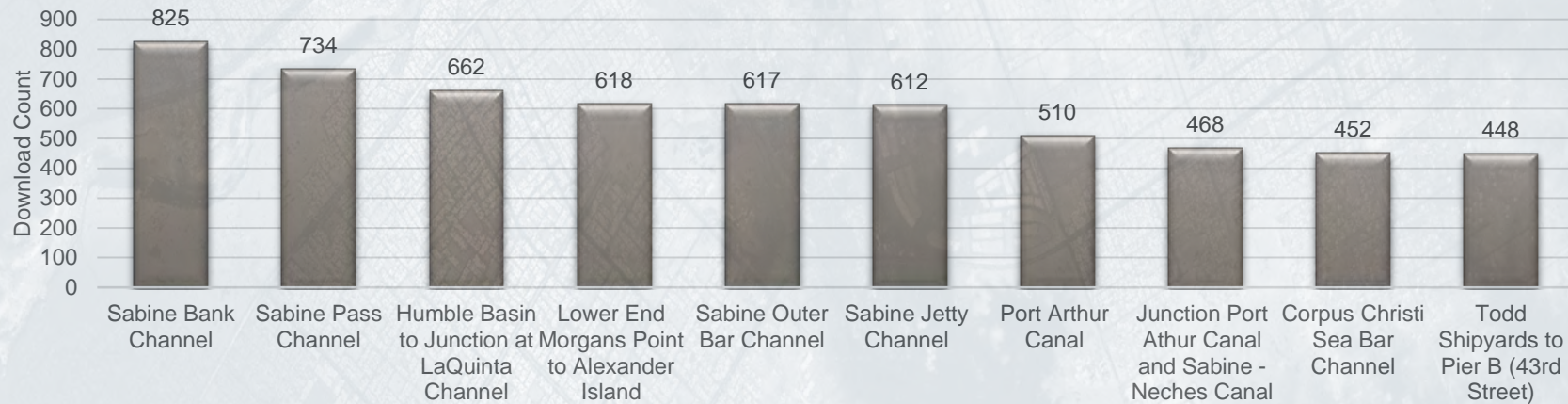
## FY22 WEB TRAFFIC

The Galveston District provides stakeholders access to the latest hydrographic surveys and contract information via the Galveston District Website & the Operations Division GIS Dashboard

- Total Operations Dashboard Visits: **90,495**
- Total Survey PDFs Downloaded: **28,481**
- Total XYZ Survey Data Downloaded: **4,480**



### Top 10 Downloaded PDF Surveys





# ¿QUESTIONS?



US Army Corps  
of Engineers.

