



PORT OF LAKE CHARLES

LAKE CHARLES HARBOR & TERMINAL DISTRICT



Port of Lake Charles

A Strategic Energy Port of National Importance

- 12th largest U.S. port based on tonnage
- 56.5 million tons of cargo annually
- 85% of the Port's tonnage is energy cargo
- 2nd Largest U.S. Strategic Petroleum Reserve Facility
- 3 Refineries on the Ship Channel
- Located at the Center of the U.S. Pipeline Infrastructure and on the Colonial Pipeline serving the northeast U.S
- Approximately 1,000 deep draft vessels annually
- \$800 million annually in payments into the federal treasury (income tax, Customs collections, HMTF tax, etc.)



47 Companies

With \$4.7+ Billion in Annual Sales*

Currently Depend on the Calcasieu Ship Channel

| | | |
|---|---|-------------------------------------|
| Ace Marine | Firestone Polymers LLC | Phillips 66 Westlake |
| Air Liquide America Corp | GEO Specialty Chemicals | Port Aggregates |
| Air Products & Chemicals Inc | Grace | Port of Lake Charles |
| Alcoa Carbon Products | Gulf Harbor Shipping | Port of West Calcasieu |
| Axiall Corp | Harbor Docking & Towing | PPG Industries Inc |
| Basden Agencies Inc | Harbor Marine Transportation & Mooring | Rain CII |
| Biehl & Co LP | ISS Marine Services Inc | Seabulk Towing |
| Bio Lab Inc | JT Cade Maritime Ltd | Sonic Stevedores |
| Calcasieu Refining | Lake Charles LNG | Talon Marine |
| Cameron LNG | Lake Charles Stevedores Inc | Targa Resources |
| CITGO Petroleum Corp | Lake Charles Terminal Services | Thompson Shipping Agency LLC |
| Coastal Shipping & Logistics | Lonza Inc | Valls Ship Agencies LP |
| Devall Towing & Boat Service | Louisiana Pigment Co | Westlake Petrochemicals |
| Dunham Price Inc | Lyondell Basell Industries | Westlake Polymers |
| Excel Paralubes | Moran Towing Corp | Westlake Styrene |
| Federal Marine Terminals | Moran-Gulf Shipping Agency Inc | |

**Source: Louisiana Department of Economic Development*

Lake Charles, Center of US Natural Gas Industry



Port Of Lake Charles

A *Growing* Strategic Energy Port of National Importance

- **\$88.5+ Billion In Current (under construction) or Announced Channel Dependent Projects**
 - 25,100 construction jobs
 - 19,000 permanent jobs (Direct, Indirect and Induced)
 - Cameron LNG
 - Sasol
 - Lake Charles LNG
 - Lotte Westlake Chemical Complex
 - Big Lake Fuels/G2X
 - Magnolia LNG
 - Venture Global LNG
- **Expected to increase current annual federal revenue from \$800 million to nearly \$1.1 billion per year**
- **Approximately 2,000 deep draft vessels annually**



SWLA Projects Report

Updated 12-17-18

| Parish | Project | Cap EX \$\$\$ | Construction Jobs | Permanent Direct Jobs | Permanent Indirect Jobs | Permanent Induced Jobs |
|--|---|-----------------------|-------------------|------------------------------------|-------------------------|------------------------|
| Projects Under Construction | | | | | | |
| Calcasieu | ART | 135,000,000 | 190 | 30 | 48 | 40 |
| * | Big Lake Fuels (G2X) | 1,600,000,000 | 2500 | 150 | 465 | 470 |
| | Entergy Louisiana Transmission Project | 187,000,000 | | | | |
| | Entergy Generation Project for LC Power Station | 872,000,000 | 700 | 31 | 45 | 54 |
| | Indorama Ventures | 175,000,000 | 600 | 130 | 240 | 241 |
| | Juniper Specialty Products LLC | 135,000,000 | 125 | 29 | 57 | 55 |
| | Lotte Westlake Chemical Complex | 3,000,000,000 | 2000 | 215 | 1000 | 892 |
| | P66 Isomerization Unit | 200,000,000 | | | | |
| | Sasol - Ethane Cracker | 11,000,000,000 | 5000 | 500 | 925 | 904 |
| | Total | 17,304,000,000 | 11,115 | 1,085 | 2,780 | 2,656 |
| Cameron | Cameron LNG | 10,000,000,000 | 3000 | 190 | 204 | 199 |
| | Total | 10,000,000,000 | 3,000 | 190 | 204 | 199 |
| | Subtotal | 27,304,000,000 | 14,115 | 1,275 | 2,984 | 2,855 |
| Announced Projects Pending Final Approval | | | | | | |
| Calcasieu | Driftwood LNG | 15,000,000,000 | 3500 | 250 | 342 | 454 |
| | Gulf South Pipeline Company | 56,000,000 | | | | |
| | Lake Charles LNG/Shell | 10,000,000,000 | 4000 | 250 | 240 | 235 |
| | Lake Charles Methanol LLC | 3,800,000,000 | 1000 | 200 | 443 | 556 |
| | Magnolia LNG | 4,354,000,000 | 1000 | 70 | 100 | 75 |
| | Total | 33,210,000,000 | 9,500 | 770 | 1,125 | 1,320 |
| Cameron | Commonwealth LNG (formerly Waller Point) | 2,000,000,000 | 300 | 45 | 55 | 73 |
| | G2 LNG | 11,000,000,000 | 3500 | 250 | 304 | 404 |
| | Port Cameron , LLC | 1,500,000,000 | 8000 | 4000 | 1033 | 1296 |
| | Monkey Island LNG (Formerly SCT&E LNG) | 9,250,000,000 | 2000 | 200 | 310 | 303 |
| | Venture Global LNG- Calcasieu Pass | 4,250,000,000 | 1500 | 100 | 176 | 150 |
| | Total | 28,000,000,000 | 15,300 | 4,595 | 1,878 | 2,226 |
| | Subtotal | 61,210,000,000 | 24,800 | 5,365 | 3,003 | 3,546 |
| | Total | 88,514,000,000 | 25,100 | 6,640 | 5,987 | 6,401 |
| Temporary Construction Jobs | | 25,100 | | Direct | | 6,640 |
| Permanent Direct Jobs | | 6,640 | | Indirect | | 5,987 |
| Permanent Indirect Jobs | | 5,987 | | Induced | | 6,401 |
| Permanent Induced Jobs | | 6,401 | | Total Estimated New Permanent Jobs | | 19,028 |
| TOTAL ESTIMATED JOBS | | 44,128 | | | | |

Cameron LNG

- **\$10 billion capital investment.**
- **Permitted by FERC to export up to 14.95 mtpa of LNG.**
- **Train 1 began commercial operations in August, 2019.**
- **Trains 2 and 3 should be operational shortly.**
- **Cameron LNG has begun the approval process to add two liquefaction trains.**
- **If approved, Cameron LNG's export capacity will be 24.92 mtpa or 3.53 bcfd (billion cubic feet per day).**

Cameron LNG



Venture Global LNG

- **12.0 mtpa LNG export facility.**
- **Construction on the \$4.25 billion project has begun.**
- **130 permanent operations jobs.**
- **1,500 construction jobs.**

Venture Global LNG



Venture Global LNG



Lake Charles LNG

- **3 trains producing up to 16.45 mtpa.**
- **\$10 billion project is a joint venture of Shell and Energy Transfer.**
- **FERC authorization received 4th quarter of 2015.**
- **200 permanent jobs.**
- **5,000 construction jobs.**

Lake Charles LNG



Magnolia LNG

- **8 mtpa LNG facility**
- **\$3.35 billion capital investment**
- **Approximately 70 permanent employees**
- **Approximately 1,000 construction jobs**

Magnolia LNG



Driftwood LNG

- **27.6 mtpa LNG export facility.**
- **Approximately \$15-20 billion capital investment (based on the cost of other LNG facilities).**
- **250 permanent jobs.**
- **3,500 construction jobs.**

Driftwood LNG



Driftwood LNG



Westlake/Lotte Chemical

- **Joint Venture between Westlake Chemical and Lotte totaling \$3 billion.**
- **Ethane cracker and monoethylene glycol manufacturing facilities adjacent to one another.**
- **Will produce two billion pounds of ethylene per year.**
- **215 permanent jobs.**
- **2,000 construction jobs.**

Westlake/Lotte Chemical



Westlake/Lotte Chemical



Big Lake Fuels LLC

- **Natural gas to methanol plant.**
- **Will produce 1.4 million mtpa of methanol.**
- **\$1.6 billion capital investment**
- **150 permanent jobs**
- **2500 construction jobs**

Big Lake Fuels LLC



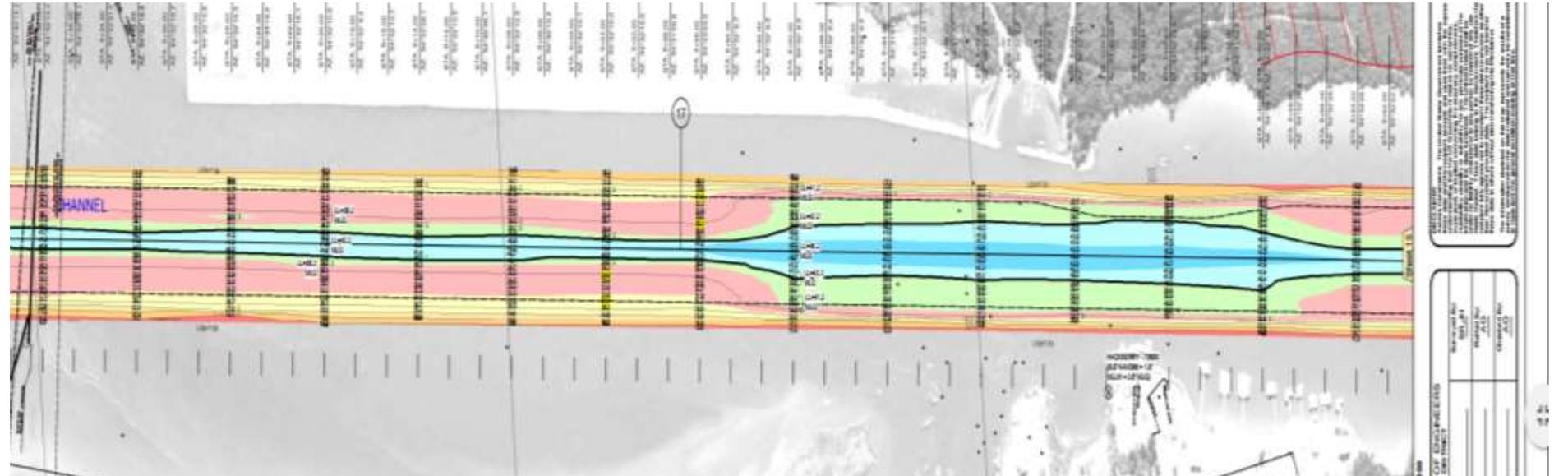
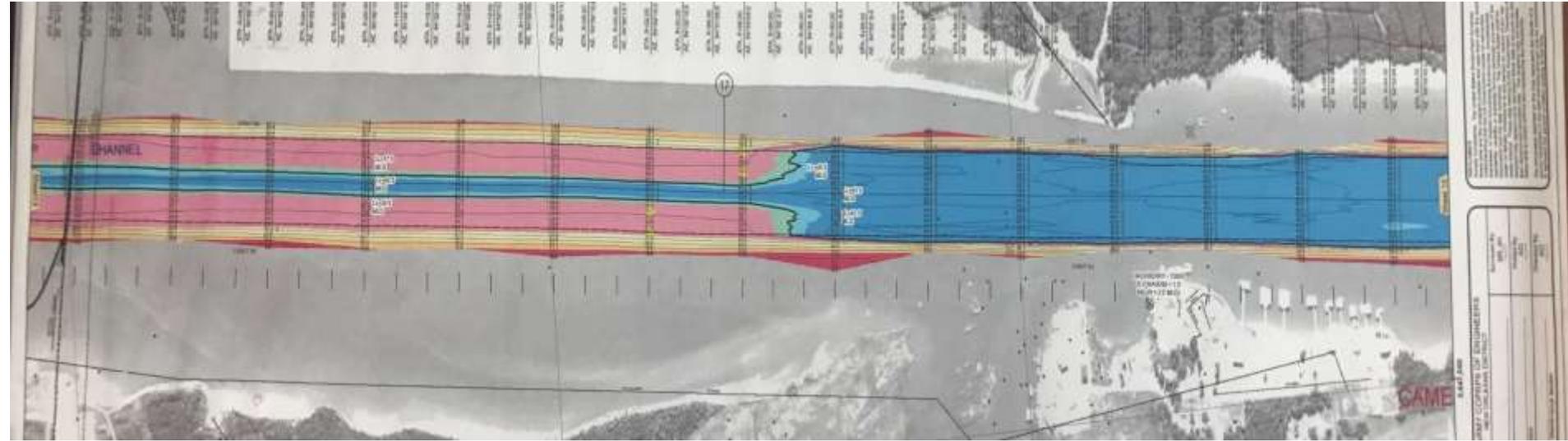
Current and Future Dredging on the Calcasieu Ship Channel



Keeping the Channel Open

- **Current Dredging**
 - Approximately half of the inner Channel is dredged every other year.
 - Dredged material is typically placed in upland disposal sites.
 - Bar channel is dredged every year (hopper dredge).
 - Typical O&M is \$30-40 million annually.
- **Future???**
 - Channel users would like to explore the possibility of dredging most of the channel every year.

April to September



Dredging the Channel Every Year

- **Increased Costs**
 - Corps' O&M budget would have to be increased to \$60-70 million/year.
- **Additional Disposal Capacity**
 - Disposal Capacity is limited already.
 - Port of Lake Charles bears 100% of the real estate costs and 25% of the construction cost.
- **Dredging Capacity**
 - Are there enough dredges available?

Thank You

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