AAPA Facilities Engineering Seminar & Expo
La Quinta Channel Extension Project
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WHO WE ARE

- Public corporation and Texas political subdivision
- 5th Largest U.S. Port by tonnage
- 100,000,000 tons of cargo in 2014

Corpus Christi, TX
PORT POLITICAL STRUCTURE

Governed by
Appointed 7-Member Commission

City of Corpus Christi (3)
Nueces County (3)
San Patricio County (1)

PORT COMMISSIONERS

Judy Hawley
Chair

Charlie Zahn
Vice-Chair

Barbara Canales
Secretary

Richard Valls
David Engel
Richard Bowers
Wayne Squires
22,000 acres

35 Nautical Miles of Ship Channel

48 Docks & 528,800 Sq Ft of Warehouse Space

43 Miles of Railroads

60 Miles New Rail NRRY

138 Ft Vertical Clearance on Harbor Bridge

205 Ft New Bridge

$435,235,356 Total Assets
In the Last Decade

- Diversification of Cargo
- Operating Revenues from $28 to $77 Million
- Total Assets from $212 to $435 Million
- Capital Expenditures in Port Infrastructure $261 Million
- Environmental Investments $20 Million

THE PORT HAS EXPERIENCED SUBSTANTIAL GROWTH
INBOUND & OUTBOUND CRUDE OIL

Crude
Inbound - Outbound Barrels
2007 - 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Inbound</th>
<th>Outbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>213,940,491</td>
<td>213,781,428</td>
<td>159,063</td>
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<tr>
<td>2008</td>
<td>187,196,246</td>
<td>187,004,139</td>
<td>192,108</td>
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<tr>
<td>2009</td>
<td>170,992,210</td>
<td>170,654,320</td>
<td>337,889</td>
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<tr>
<td>2010</td>
<td>175,055,204</td>
<td>174,781,128</td>
<td>274,076</td>
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<td>2011</td>
<td>151,819,987</td>
<td>149,791,585</td>
<td>2,028,402</td>
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<tr>
<td>2012</td>
<td>151,786,318</td>
<td>106,065,777</td>
<td>43,720,541</td>
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<tr>
<td>2013</td>
<td>219,999,876</td>
<td>97,442,016</td>
<td>122,557,860</td>
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<tr>
<td>2014</td>
<td>283,606,473</td>
<td>96,569,693</td>
<td>185,036,780</td>
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Barrels
$40 BILLION NEW INVESTMENT

BALANCING EXPLOSIVE GROWTH WITH CLEAN AIR AND CLEAN WATER
GROWTH

<table>
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<tr>
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<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>TONNAGE</td>
<td>78,806,188</td>
<td>88,699,849</td>
<td>100,073,924</td>
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<tr>
<td>BARGE &amp; SHIP MOVEMENTS</td>
<td>6,082</td>
<td>6,870</td>
<td>8,528</td>
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</tbody>
</table>
TPCO America

Phase 1 COMPLETED
Summer 2014

Phase 2 Underway

600-800 New Jobs

$1+ Billion Investment
OXY INGLESDIE ETHYLENE LLC

• $1.5 billion investment
• 33% Complete
• 150+ Permanent/ 1,700 Construction Jobs
• Operations to Begin 1Q 2017
• High Quality Hot Briquetted Iron (HBI)

• Operational 1Q 2016

• 80% Plant Capacity Under Long-Term Contract

• Agreement with Altos Hornos de Mexico for shipment of HBI

• 150 Permanent Jobs

• 1900 Construction Jobs

• $740 Million Investment
• 250 Jobs

• Largest PET/PTA Plant in the World

• Operations Begin 2016

• 1,500-1,800 Rail Cars/Year

• Partners with M&G Polymers Mexico

• $1.1 Billion Investment
Cheniere

State & Federal Permitting Underway

4-5 Year Construction

350 Permanent Jobs

3,000 Construction Jobs

$14.5 Billion Investment

Operations to Begin by 2020
PHASE 1: Completion April 2015
$18 Million ($10M TIGER Grant)

PHASE 2: Est. Completion 2017
$28 Million ($22M TxDOT Grant)
PORT OF CORPUS CHRISTI
DEEP DRAFT CHANNEL SYSTEM

- Corpus Christi Ship Channel ≈ 29 miles
- La Quinta Ship Channel ≈ 6 miles
- Inner Harbor 7.3 miles
- Upper Bay Reach 9.6 miles
- La Quinta Channel 5.9 miles
- Entrance/Jetty Channel 3.9 miles
- Lower Bay Reach 8.6 miles
- 35 Nautical Miles of Federal Channel All Dredged to 45 Feet Operating Depth
BRINGING DEEP WATER TO CORPUS CHRISTI

1910
12'

1926
25'

1910
12'
CHANNEL LENGTH DEVELOPED INCREMENTALLY

1910
1926
1935
1949
1952
1956
1960
2014
1910
CHANNEL DEPTH DEVELOPED INCREMENTALLY

Authorized to 52 Feet by WRDA in 2007
CORPORUS CHRISTI SHIP CHANNEL
CHANNEL IMPROVEMENT PROJECT (CCSC-CIP)

- Extend La Quinta Channel 7,400' at -39' MLT (Complete)
  Note: AOM Executed and Deepened to -45' MLT by PCCA
- Extend Entrance Channel Approx. 10,000 Feet & Deepen to -54' MLT
- Deepen Inner Harbor to -52' MLT
- Upper Bay Reach: Widen From 400' to 530' and Add Barge Shelves
- Lower Bay Reach: Widen From 500' to 530'
- Breakwater & Shore Protection (complete)
- Deepen From -45' to -52' MLT
- BU Site 6 (Complete - Photo Below)
CCSCCIP
THE PROCESS AND THE OUTCOME

• Strategic Goal
• DMM/BU Plan
• BU Construction
Secure Project Congressional Authorization and Construction Funding

• The Process necessary to achieve the strategic goal is multifaceted. The tactics implemented to achieve the goal are familiar yet unique to the project

• For the purposes of this seminar session topic I shall briefly focus on DMM/BU Plan process and its
DMM/BU PLAN DEVELOPMENT

• Was core to FFR/EIS success
• Knowledge/understanding of public interests and concerns about dredging and placement (historic and current) before heavy public involvement in FS, facilitated preparation of a public outreach strategy that would engage and secure public support for project and kept it. Ownership.
• The conduct of “pre-emptive” research, studies, and/or preparation of scientific evidence/synopses, and outlining in advance what was needed for FS decision making before heavy involvement of state and federal regulatory in FS process effectively focused the scope of agency review rather than turning the FS into science science project.
• Contaminants
• Shoreline Erosion
• Hydrodynamics and Salinity Modeling
• Mitigation (Benthic Recovery)
• Beneficial Uses
• Cumulative Assessment
• Regulatory Agency Coordination Team (RACT)
BENEFICIAL USE CONCEPTS
BENEFICIAL USE CONCEPT AT FOR LA QUINTA EXTENSION
LA QUINTA CHANNEL EXTENSION PROJECT – CHANNEL & BENEFICIAL USES

200 Acres of Shallow Water Habitat
BENEFICIAL USE AREA – HABITAT PLATFORM
ALLOWABLE GRADE TOLERANCES

Target Elevation: El. -1.00’ MLT

- 80% El. -0.25’ to El. -1.75’
- Remaining 20% El. +1.00’ to El. -3.00’

NO STEEPER THAN 5H:1V

HYDRAULIC FILL (SEE NOTE 6)

VARIES (-9’ TO -11’ M.L.T. TYP.)

W.S.
RESULT FOR LA QUINTA SITE GH/BUS 6 SITE & AND ALL CCSCCIP BU SITES
MULTI-BENEFICIAL USE OUTCOMES

• Provides nearly 200 acres of shallow water (Approx. El. -1 from El. -7’/-11’) for seagrass and wetland habitat
• Creates Offshore Breakwater to protect waterfront facilities and berthed vessels from waves and storms
• Provides Platform to perform Federal project Mitigation and other permitted non-federal project mitigation.
• Reduces Channel and Turning Basin Siltation – Reducing maintenance dredging costs and impacts to DMPAs
• Emergent Levee creates opportunities for native vegetation, wildlife habitat and supports recreational fishing
• Conserve DMPA Capacity
INITIATING ROCK SHORE PROTECTION CONSTRUCTION – CREATING TOE, INSTALLING FABRIC AND ARMOR
OFF-SHORE AND NEAR-SHORE LEVEES COMPLETE AND FILLING OF CELLS IN PROGRESS
BENEFICIAL USE AREA SURVEY – CREATING SHALLOW WATER HABITAT PLATFORM
LA QUINTA TERMINAL
MITIGATION AQUATIC HABITAT

General Location of Aquatic Habitat Mitigation Area

Under Construction  (July 2015)
INITIAL EMERGENT WETLAND PLANTING
ON-GOING ACTIVITIES

• Phase 1 Mitigation Underway Earthwork Complete October 16, 2015
• Initial Emergent Wetland Planting Complete November 1, 2015
• 60-day post plant survival survey and replant if needed
• Potential replant before June 2016
• Phase 2 Mitigation Under Design for Bid and Start Earthwork and Submergent Seagrass Planting Mid 2016.
• Initiate and continue staggered 5-year performance monitoring
Thank You!

Questions?