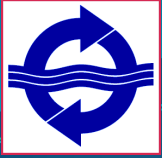


BENEFITS OF DREDGING

Delaware River Regional Ports Commerce and Navigational Safety

**Western Dredging Association
Eastern Chapter Annual Meeting
October 28-29, 2015**

Dennis Rochford, President
Maritime Exchange for the Delaware River and Bay



About the Maritime Exchange

- Membership based non-profit trade association incorporated in 1875
- Comprised of nearly 300 members: steamship companies, private & public terminals, tug operators, law enforcement, first responders, importers, etc.
- Mission: To Promote/Protect Commercial Maritime Operations throughout the Delaware River Port Complex
- Two primary areas of operation: Government Affairs/Public Policy & Operations/Maritime On-Line[®]



Government Affairs/Public Policy

The Maritime Exchange works with its regional tri-state Congressional delegation, comprised of 6 U.S. Senators and 10 U.S. House members, on a variety of trade, safety, environmental, and security issues.

- **U.S. Army Corps of Engineers** – Channel deepening, maintenance dredging
- **U.S. Coast Guard** – Waterways Management, Port Security
- **U.S. Customs and Border Protection** – Automated Commercial Environment (ACE), Electronic Reporting, Supply Chain
- **National Oceanic and Atmospheric Administration** – Physical Oceanographic Real-Time System (PORTS®)



Maritime On-Line[®] (MOL) Modules

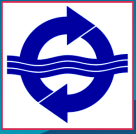
- **Ship Reporting:** Advance scheduling information on expected ship arrivals and departures as well as real-time and historical ship movement information
- **TRACS:** Cargo manifesting and release system certified on the U.S. Customs and Border Protection's (CBP) Automated Commercial Environment (ACE)
- **NOA/D On-Line:** Automated tool to submit advanced vessel arrival and departure notices, including crew list information, to CBP and the Coast Guard
- **Automatic Identification System (AIS):** Real-time positions of commercial cargo vessels and tugs/barges transiting the Delaware River and Bay and the C&D Canal



The Delaware River Port Complex

- 2300 Ship Calls Per Year
- 3 States, 5 Port Authorities
- 39 Regulated Marine Terminals





The Delaware River Port Complex

ECONOMIC IMPACT

- \$53 billion contribution to regional economy
- \$7.8 billion in wages and salaries
- \$781 million in state and local taxes
- 135,000 direct, indirect, and induced jobs





Delaware River Ship Calls



MARITIME EXCHANGE
for the Delaware River and Bay
Leading the Way to Port Progress

Cargo Report Ship Arrivals by Cargo

Cargo Discharged 09/2014 – 09/2015

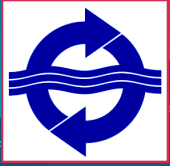
CARGO

FRUIT	466
CONTAINERS	448
PETROLEUM	433
STEEL	211
MINERALS	158
VEHICLES	130
CHEMICALS	105
PAPER	48
WOOD	33
MISCELLANEOUS	147
TOTAL	2179

Cargo Loaded 09/2014 – 09/2015

GAS	72
VEHICLES	38
PETROLEUM	30
MINERALS	15
MISCELLANEOUS	30
TOTAL	209

TOTAL VESSELS 2388



The World is Changing . . .

- **Larger ships require deeper water**
- **Panama Canal expansion to bring additional cargoes to the East Coast**
- **Far East manufacturing shifting towards India: utilization of the Suez Canal means more cargoes for the East Coast**



East Coast Channel Depths Comparison



45' Channel Deepening Project

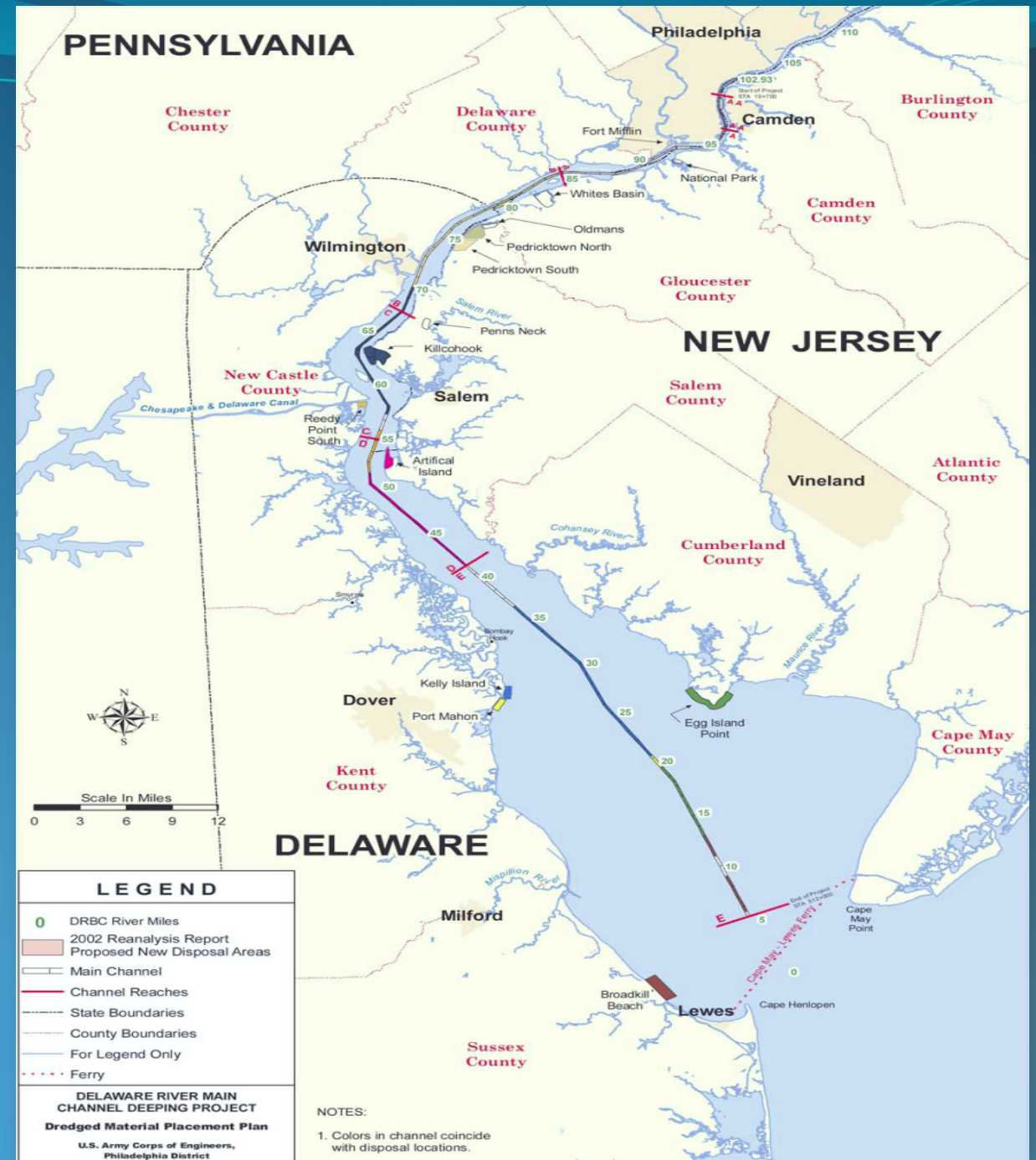
- Construction first authorized by Congress in 1992
- Scheduled for completion in 2017
- Approximately 80% complete
- Critical to regional economy
- Important economic development priority

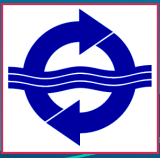




45' Channel Deepening Project

- Follows existing 40-foot channel alignment from Philadelphia/Camden to the sea
- Existing authorized channel widths (400-1,000 feet) will not change
- 12 channel bends widened for safer navigation of larger ships
- Marcus Hook Anchorage will be deepened to 45 feet





Dredge Material Disposal

- **16 million cubic-yards of material to be removed**
- **2 million cubic-yards of sand for Broadkill Beach replenishment in State of Delaware**
- **14 million cubic-yards of clay, silt, sand and gravel to be placed in existing federally-owned Confined Disposal Facilities**



Environmental Monitoring

During Dredging . . .

- **Monitoring of water quality at the dredge for total suspended solids**
- **Monitoring at Confined Disposal Facilities for water quality outfall**
- **Implementation of sturgeon protection plan with National Marine Fisheries Service**



45' Channel Project Funding

The federal government will pay 65% of the cost of the project, and the Commonwealth of Pennsylvania, the local sponsor, is responsible for funding the balance.

Funding to date:

- Federal funds - \$199.3 million
- Non-Federal funds - \$91.5 million



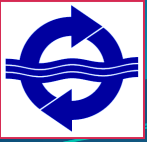
45' Channel Project Benefits

- **Deeper Water Impacts Investment**
- **This project has the potential to generate approximately \$1 billion in port infrastructure projects throughout the region.**



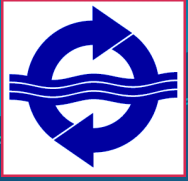
45' Channel Project Benefits

- **Southport: Philadelphia Regional Port Authority in process of development of over 190 acres**
- **Paulsboro: South Jersey Port Corporation completing construction of new port**
- **Port of Wilmington: Updating master plan to identify long-term expansion opportunities**



Maintenance Dredging Project Costs

PROJECT	Average Annual Budget	Typical Contract Cost	Cubic Yards
Delaware River, Philadelphia to the Sea 40' Project	\$23,000,000	\$12,000,000	2,500,000
Delaware River, Philadelphia to Trenton	\$5,000,000 - \$10,000,000	\$9,500,000	1,025,000
Wilmington Harbor	\$3,850,000	\$2,400,000	400,000



Questions?

Dennis Rochford, President

Maritime Exchange for the Delaware River and Bay

dennis.rochford@maritimedelriv.com

215-925-2615, ext. 205