

Update on EPA's Ports Initiative

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MSTRS Meeting
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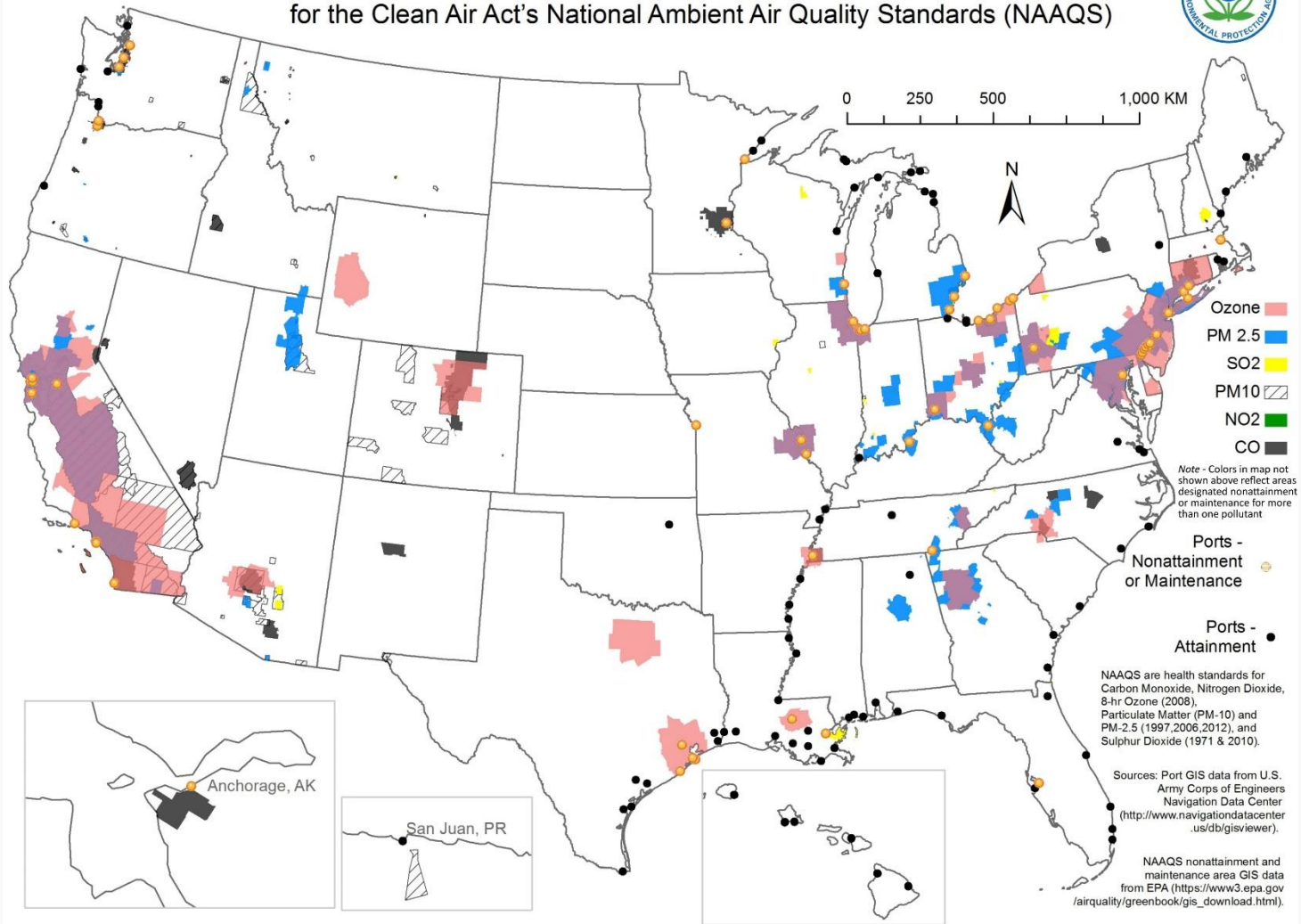
Overview

- Background on EPA's Ports Initiative
- Highlights of Recent Activities
 - DERA Grants
 - Community-Port Capacity Building
 - EPA-Port Everglades Partnership
 - National Port Strategy Assessment
 - Shore Power Assessment
 - Committee on Marine Transportation System
 - Communications



Background

Ports in Areas Designated Nonattainment or Maintenance for the Clean Air Act's National Ambient Air Quality Standards (NAAQS)





Background

The importance of addressing air pollution at ports

- We estimate that roughly 39 million people live in close proximity (5 km) to ports in the U.S.
- Port traffic is expected to grow in many areas, potentially exacerbating air pollution problems.
- Infrastructure updates and expansion are sorely needed at many ports.
- Opportunities exist to protect public health while also improving efficiency and saving costs for port operators and their customers.



Background

The vision for our ports work

People living and working near ports across the country will breathe cleaner air and live better lives as a result of bold steps taken through a collaboration of industry, government, and communities to improve environmental performance and increase economic prosperity.





Background

MSTRS Ports Initiative Workgroup Members

Ports:	Maryland, Charleston, Long Beach, New Orleans, Virginia
Terminals:	Ports America
Shippers:	Cargill, Walmart, HP
Equipment:	Caterpillar, Manufacturers of Emission Controls Association
Marine:	Maersk Line
Rail:	Burlington Northern Santa Fe
Trucking:	Evans Delivery
Port Community Advocates:	East Yard Communities for Environmental Justice, Southeast CARE Coalition, Steps Coalition
Tribes:	Fond du Lac Air Program
NGOs:	Environmental Defense Fund, Natural Resources Defense Council
Research/analysis:	International Council on Clean Transportation
Government:	New Jersey DEP, South Carolina DHEC, MARAD, CMTS
Non-voting:	American Association of Port Authorities, StarCrest (B. Anderson)
EPA support:	Office of Transportation Air Quality , Office of Environmental Justice, 6 Office of Water, Region 1, Region 2, Region 6, Region 9



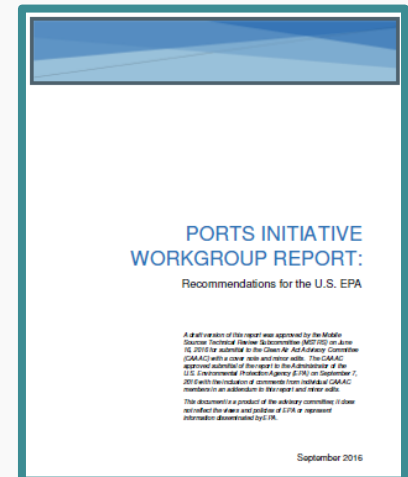
Background

Sept 2016 Recommendations from Ports Initiative Workgroup

Overarching recommendation: provide funding, technical resources, and expertise to enable and encourage environmental improvements.

Focal Areas

- Increasing and Targeting Funding
- Community-Port Engagement
- Guidance on Inventories and Metrics
- Guidance on Emission Reduction Strategies
- Coordinating Relevant Government Programs
- Information Clearinghouse and Communications



www.epa.gov/caaac



Background

Responding to Workgroup Recommendations

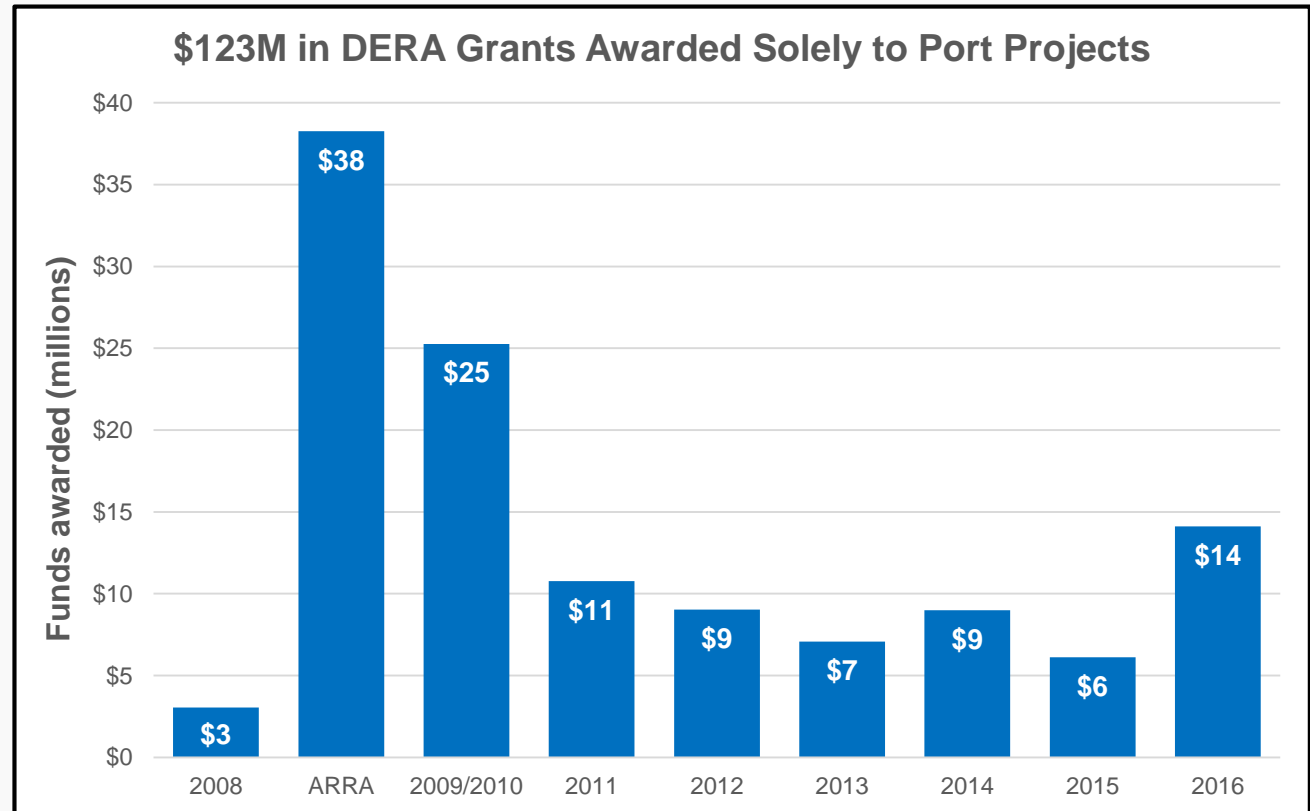
- Planning retreat with EPA's Ports Team in October 2016
- Identified near-term actions – and potential longer-term opportunities – within current work areas:
 1. **Funding** – Helping Ports Capitalize on Funding for Clean Technologies
 2. **Collaboration** – Promoting Port-Community Collaboration for Effective Planning
 3. **Technical Tools** – Providing Tools to Help Identify Smart Infrastructure Investments
 4. **Coordination** – Increasing Efficiency in Federal Government and Port Operations
 5. **Communications** – Creating a Knowledge Clearinghouse



Funding

DERA Grant Funds Awarded to Port Projects

- \$123 million in grants awarded to port projects
- Another \$55 million in grants awarded to multi-sector grants that involve ports
 - Not included in chart
- See www.epa.gov/clean_diesel





Collaboration

Community-Port Capacity Building

- Draft tools/resource materials promoting port/community decision-making available:
 1. Ports Primer for Communities
 2. Community Action Roadmap
 3. Environmental Justice Primer for Ports
- EPA piloting these tools, delivering technical assistance, and convening dialogues with local partners:
 - Savannah, GA; New Orleans, LA; and Seattle, WA
 - See www.epa.gov/ports-initiative/pilot-projects-port-and-near-port-community-collaboration



Technical Tools

EPA-Port Everglades Partnership





Technical Tools

EPA-Port Everglades Partnership

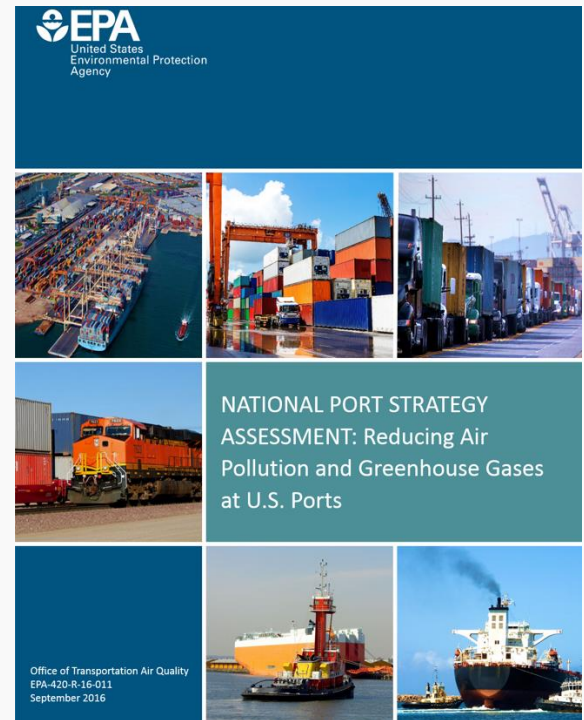
- EPA and Port Everglades are working together to develop:
 - ✓ An activity-based baseline inventory for Port Everglades' facilities and operations
 - Emission reduction scenarios and inventories for future analysis years; and
 - Methods, lessons learned, and practical examples that EPA can share with other ports, related agencies, and stakeholders to support and encourage sustainable development.
- Target for completion: Summer 2017
- The Port Everglades 2015 Baseline Air Emissions Inventory is available at: www.porteverglades.net/environment/air-quality/air-emissions-inventory
- Also see: www.epa.gov/ports-initiative/epa-partnership-agreement-broward-countys-port-everglades



Technical Tools

National Port Strategy Assessment

- *National Port Strategy Assessment: Reducing Air Pollution and Greenhouse Gases at U.S. Ports*
- Released September 22, 2016
- Available at: www.epa.gov/ports-initiative/national-port-strategy-assessment





Technical Tools

National Port Strategy Assessment:

Reducing emissions with effective strategies available today

Sector	Scenario Description
Drayage Trucks	Replace older diesel trucks with trucks that meet cleaner EPA standards and plug-in hybrid electric vehicles.
Rail	Replace older line-haul locomotive engines with cleaner technologies, including electric locomotives.
	Improve fuel economy.
	Replace older switcher locomotive engines with cleaner technologies and Generator Set (GenSet) technology.
Cargo Handling Equipment	Replace older yard truck, crane, and container handling equipment with cleaner technologies, including electric technologies.
Harbor Craft	Replace or repower older tugs and ferries with cleaner technologies, including hybrid electric vessels.
Ocean-going Vessels	Switch to lower sulfur fuel levels that are below EPA's regulatory standards, and liquified natural gas for certain vessel types.
	Utilize shore power to reduce hoteling of container, passenger, and reefer vessels.
	Apply Advanced Marine Emission Control Systems for container and tanker vessels.



Technical Tools

National Port Strategy Assessment:

Replace older, dirtier diesel vehicles and equipment first

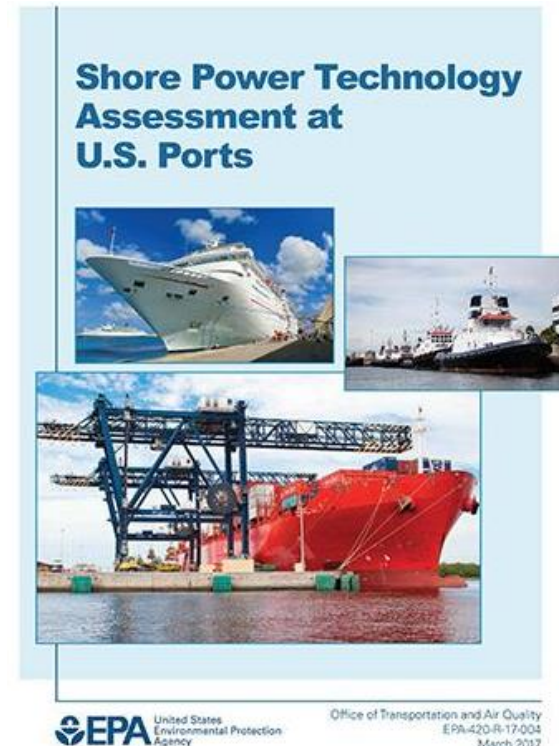
Strategy Scenario	Percent reduction from BAU			
	NOx		PM _{2.5}	
	2020	2030	2020	2030
Replace older drayage trucks	19–48%	48–60%	43–62%	34–52%
Replace older switcher locomotives	16–34%	17–43%	22–44%	24–47%
Replace older CHE	17–39%	13–25%	18–37%	12–25%
Replace or repower harbor craft	10–24%	25–38%	13–41%	28–37%
Reduce OGV hoteling emissions with shore power	4–9%	7–16%	3–8%	7–16%



Technical Tools

Shore Power Assessment

- Characterizes shore power systems at U.S. ports
- Includes a new methodology for calculating emission reduction of shore power systems
- Released April 4, 2017
- Available at: www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports





Coordination

Committee on the Marine Transportation System (CMTS)



- Presidential Directive in 2005, authorized in law by Congress in 2012.
- Coordinates maritime transportation policy between 25 Federal agencies and organizations, including the DOT, DOD, DOE and EPA.
- CMTS is called upon to assess the U.S. marine transportation system and report its findings to Congress regularly.
- *The right venue for addressing recommendation to improve federal coordination.*



Communications

EPA's Ports Initiative website, including newsletter sign-up:

www.epa.gov/ports-initiative

