

The Corps of Engineers Dredges on the West Coast

Presented To California Marine Affairs and Navigation Conference

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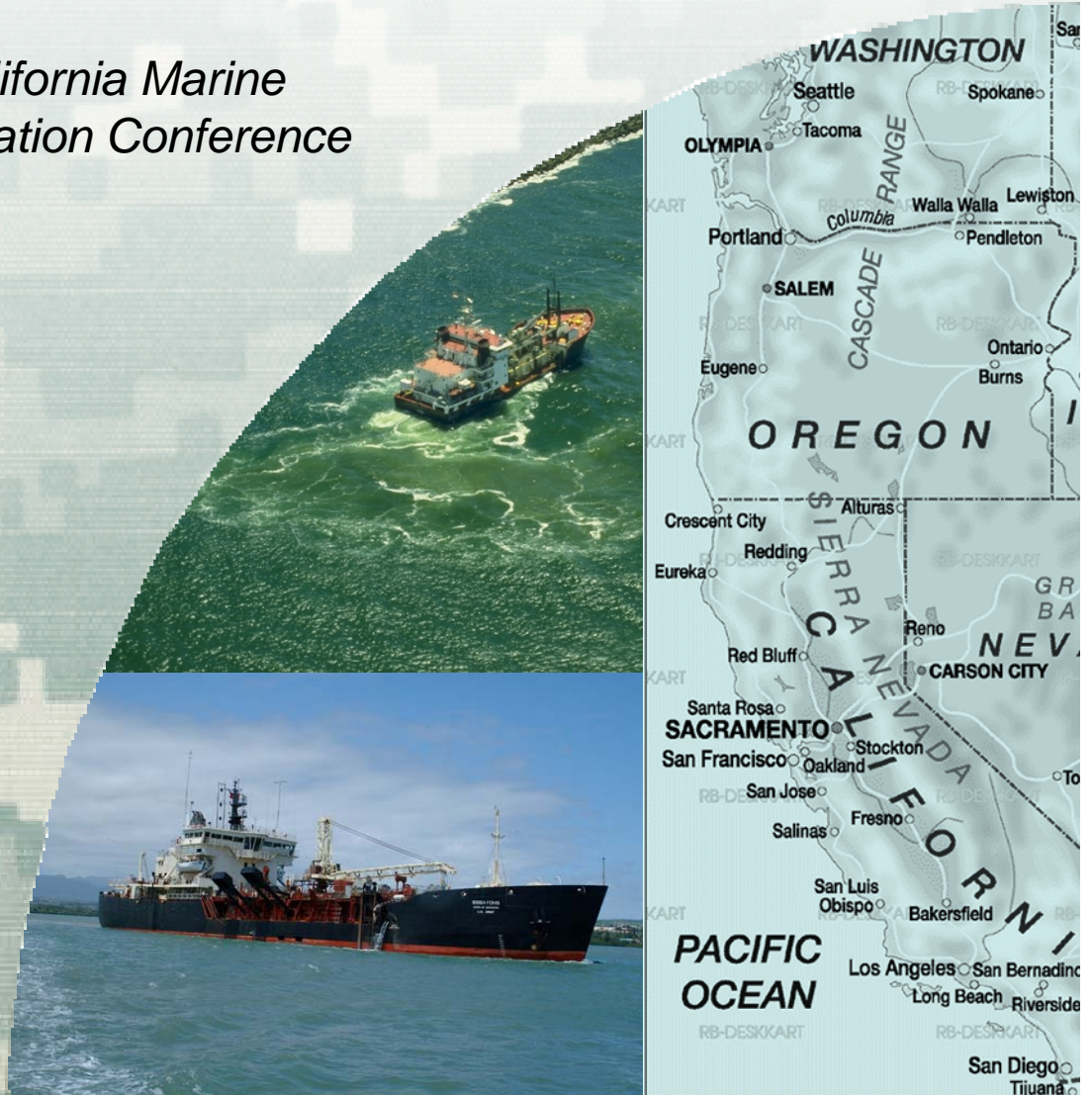
Operations Manager , Channels & Harbors

Portland District

November 8, 2011



US Army Corps of Engineers
BUILDING STRONG



A ^{VERY} SHORT HISTORY OF THE CORPS MINIMUM DREDGE FLEET



Portland District Moorings, Circa 1937



Dredge BIDDLE – Retired 1983



Dredge McKENZIE – Sunk 1974



Dredge ROSSELL – Fitted for Military Service

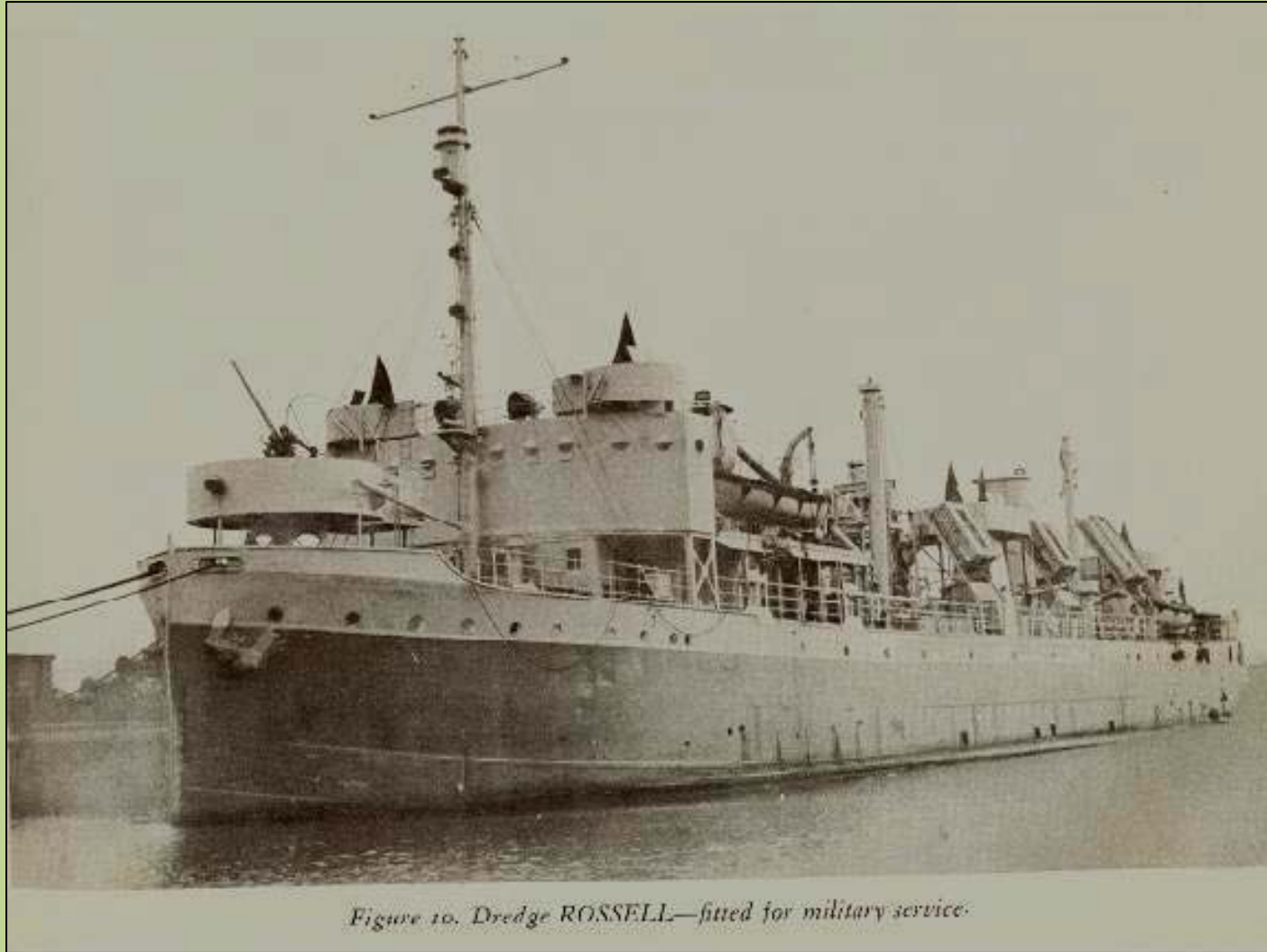


Figure 10. Dredge ROSSELL—fitted for military service.

(Sunk in Coos Bay Collision – 1957)



Dredge CHESTER HARDING – Retired 1983



Public Law 95-269

April 26, 1978

“ The Secretary shall have dredging and related work done by contract if he determines private industry has the capability to do such work and it can be done at reasonable prices and in a timely manner”



Public Law 95-269

April 26, 1978

“ To carry out emergency and national defense work the Secretary shall retain only the minimum federally owned fleet capable of perform such work and he my exempt from the provisions of this section such amount of work as he determines to be reasonably necessary to keep such fleet fully operational ”



Government Minimum Fleet Composition 1983 to Present

Vessel	District	Homeport	Type
FRY	Wilmington	Wilmington, NC	Sidecaster
GOETZ	St. Paul	Fountain City, WS	Cutterhead
HURLEY	Memphis	Memphis, TN	Dustpan
JADWIN	Vicksburg	Vicksburg, MS	Dustpan
McFARLAND	Philadelphia	Philadelphia, PA	Medium Hopper
MERRITT*	Wilmington	Wilmington, NC	Sidecaster
POTTER	St. Louis	St. Louis, MO	Dustpan
WHEELER	New Orleans	New Orleans, LA	Large Hopper
ESSAYONS	Portland	Portland, OR	Medium Hopper
YAQUINA	Portland	Portland, OR	Small Hopper

* To be replace by MURDEN



Current Govt Minimum Fleet Hopper Dredges

McFARLAND – Philadelphia District

Built 1967

Capacity: 3140 CY

Crew Compliment: 50

Pump Ashore

Side Cast

Bottom Dump



In Ready Reserve since 2008

Current Govt Minimum Fleet Hopper Dredges

WHEELER – New Orleans District

Built: 1981

Capacity: 8256 CY

Crew Compliment: 38

(1 full crew; 1 skeleton)

Bottom Dump

In Ready Reserve since 1997



Current Govt Minimum Fleet Hopper Dredges

Dredge ESSAYONS – Portland District

Built: 1983

Capacity: 6000 CY

Crew Compliment : 44



Bottom Dump

Pump Ashore (deactivated)

Repowered 2007 - 2008

Current Govt Minimum Fleet Hopper Dredges

Dredge YAQUINA – Portland District

Built: 1981

Capacity: 1050 CY

Crew Compliment: 40

Bottom Dump

Side Cast (deactivated)

Repowered: 2008-20012



Govt Fleet Defense Design Considerations



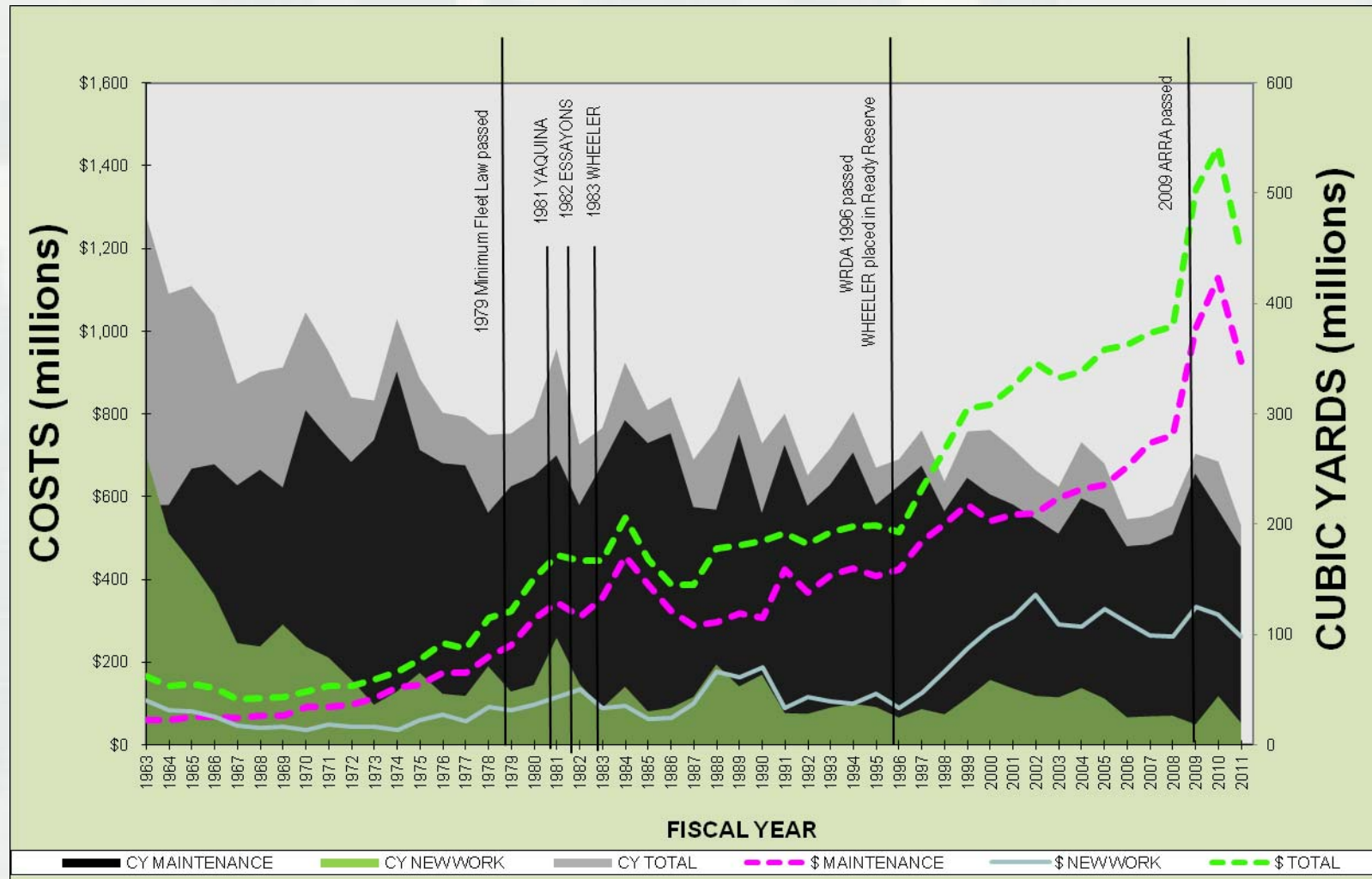
Public Law 95-269

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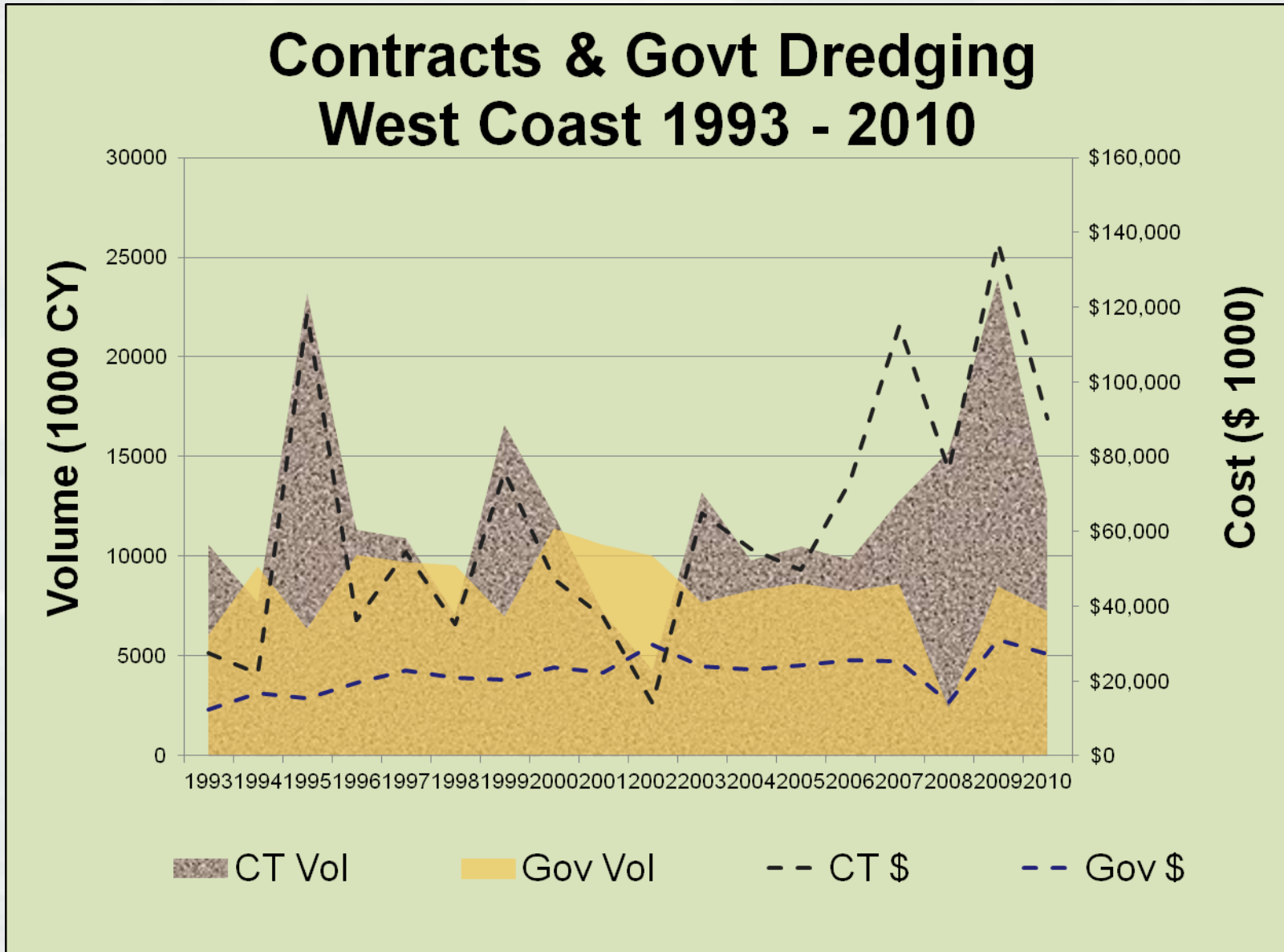
“ As private industry reasonably demonstrates its capability ... to perform the work done by the federally owned fleet, at reasonable prices and in a timely manner, the federally owned fleet shall be reduced in an orderly manner, as determined by the Secretary by retirement of plant ”



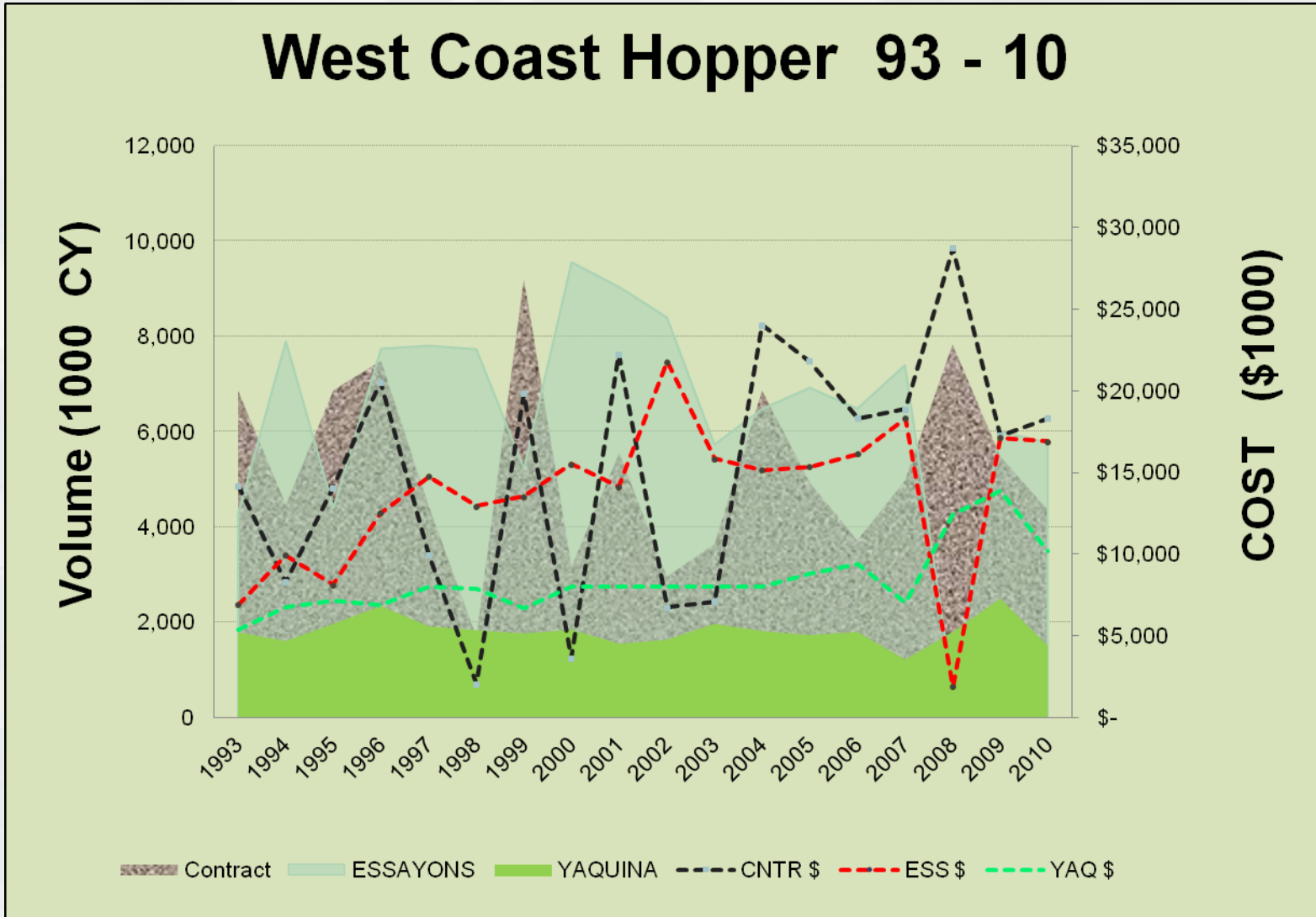
National USACE & Contract Dredging Totals 1963-2011



Contracts & Govt Dredging West Coast 1993 - 2010



West Coast Hopper 93 - 10



NORTH PACIFIC DREDGING CONDITIONS



NORTH PACIFIC DREDGING CONDITIONS



Dredge YAQUINA – August 2011



“Backing Down” in the Chetco River Entrance
Due to Tsunami Damage at the Port of Brookings Harbor



Dredge ESSAYONS



FY 2008 ESSAYONS REPOWER



Don't Try This At Home



FY 2008 ESSAYONS REPOWER



New Tier II CAT Engine being rigged into the engine room



Setting the Daily Rental Rate

Ownership Costs

- Depreciation (straight line)
- Insurance
- Plant Increment – CPI plus shipbuilders index
 - ▶ Original Cost of Assets
 - ▶ Additions and Betterments
- Ownership costs are paid to a national fund - PRIP

Operating Costs

- Labor (Full Time Employees)
- Benefits
- Fuel, Oil, Lubricants
- Subsistence and Supplies
- Repairs
- Distributed cost of Moorings, Warehouse, IT, Gen Overhead
- Crew Training, Licensing, Hiring Costs, etc



Daily Rate Calculations

$$\text{Daily Rental Rate} = \frac{\text{All known Ownership and Operating Costs + very small contingency}^1}{\text{The number of days we expect we will work (estimated with other districts during budget submission 2 years ago)}^2}$$

¹ Based on average dredging conditions, known anomalies

² Based on Project Needs, funding priorities, budget constraints



West Coast Govt Hopper Dredge Rates

Dredge ESSAYONS

Dredge YAQUINA

FY 2012: \$100K/ day

FY 2012: \$61K / day

FY 2013: \$ 113K/ day

FY 2013: \$ 85K/ day

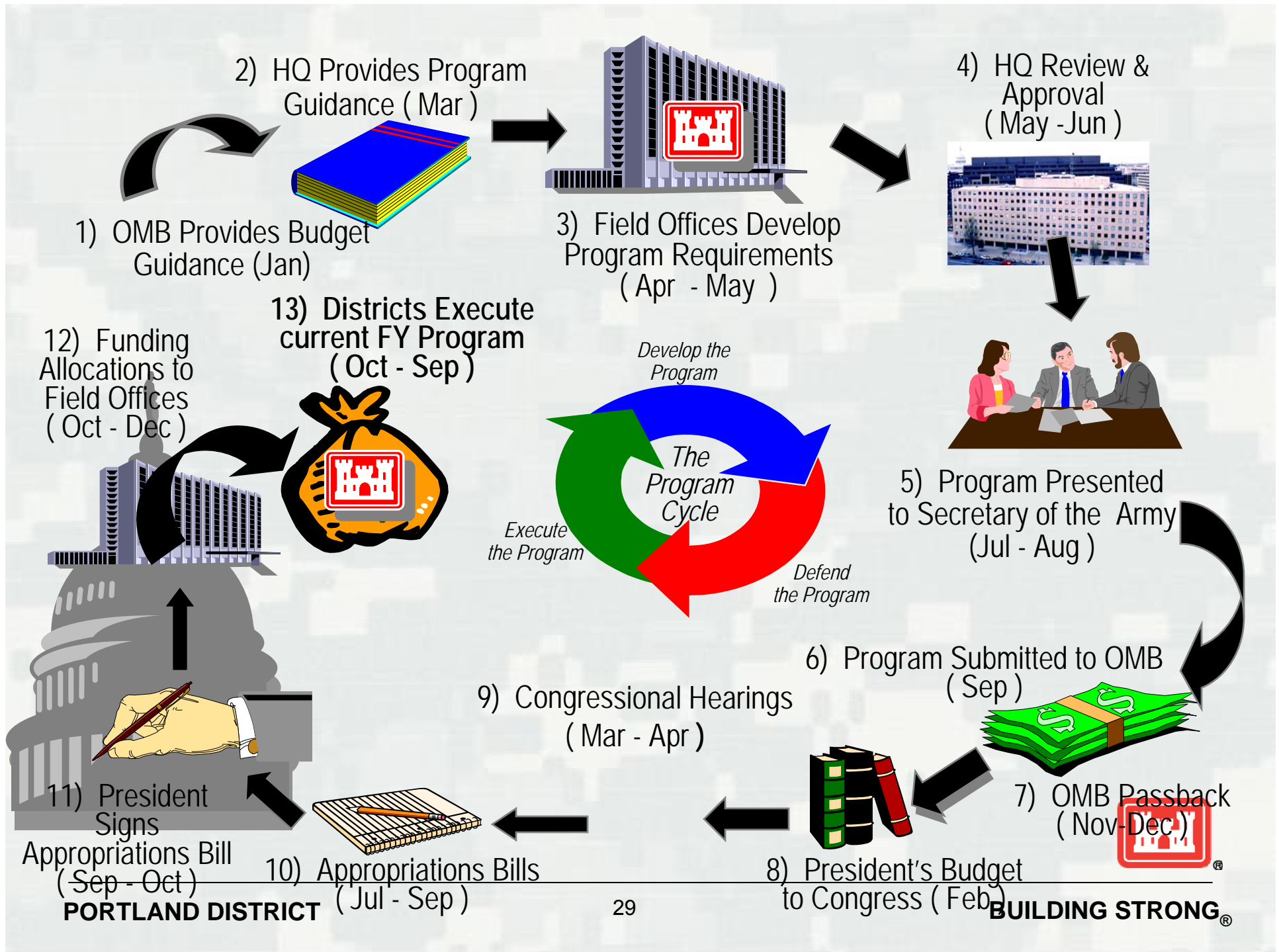


It's Even Worse than That ...

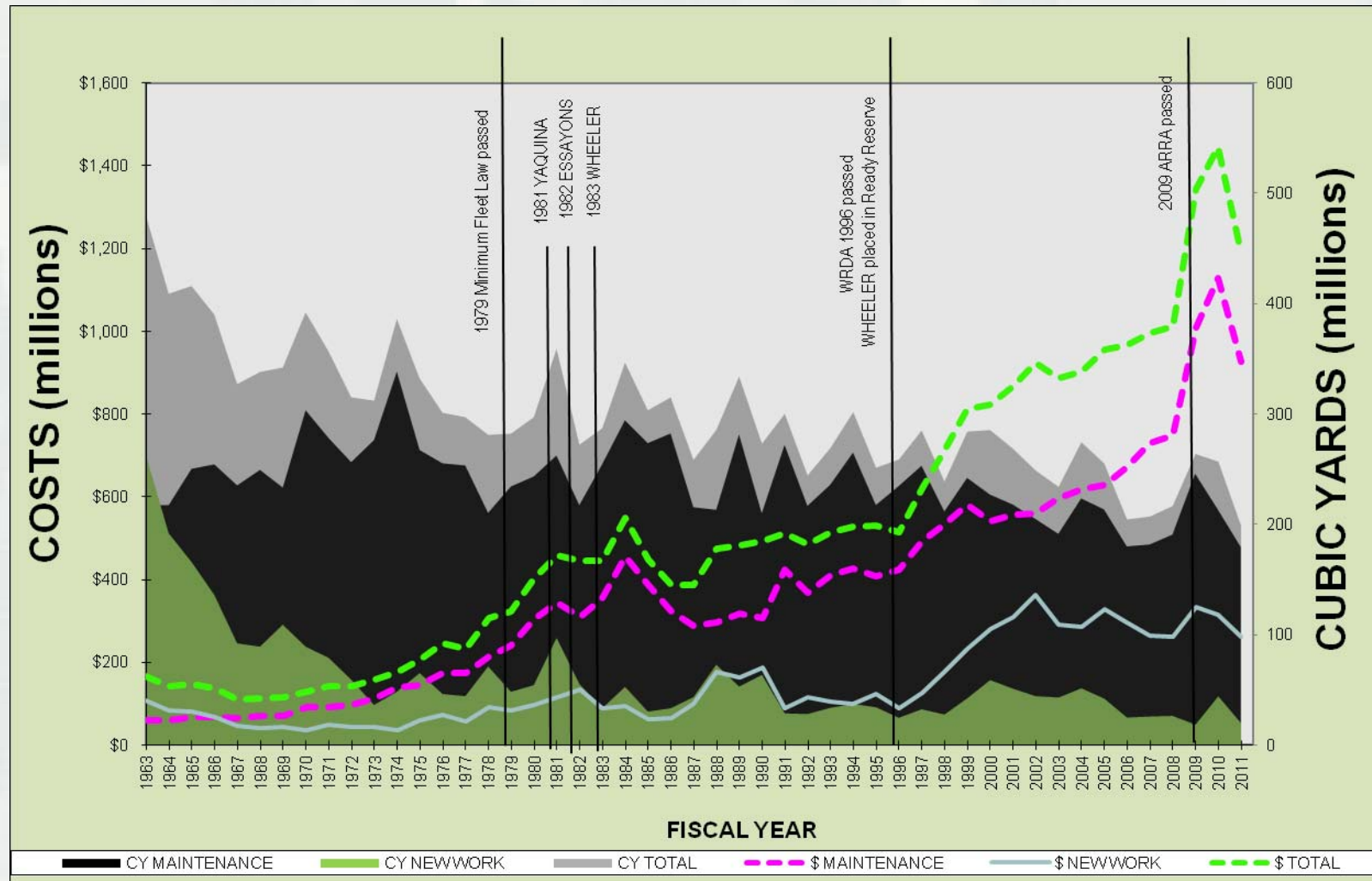


We're All in the SAME BOAT





National USACE & Contract Dredging Totals 1963-2011



Navigation Funding – Pres Bud (\$million)

Pres Bud	Coastal	Inland	Nav	CW total	% Nav
FY 12	\$832	\$743	\$1,575	\$4,631	34
FY 11	\$878	\$780	\$1,658	\$4,939	34
FY 10	\$971	\$796	\$1,767	\$5,125	35
FY 09	\$969	\$931	\$1,900	\$4,741	40
FY 08	\$957	\$1,052	\$2,009	\$4,871	41

Trend is declining funds

Navigation down 22% since FY 08.

Reductions masked by ARRA funding in FY09 and FY10

Flood Risk Management increasing due to Dam Safety

Environmental Restoration increasing



Questions?



Dredge YAQUINA at Morro Bay California

