

## ***Fiscal Overview***

### ***USACE/DCA National Dredging Meeting***

### ***Dredging Contractors of America***

***Mike Pfenning  
Programs Integration  
Division  
Civil Works Directorate,  
HQUSACE***



***24 May 2011***



## ***Agenda***

- **Fiscal Year 2010 Accomplishments**
- **FY 2011 Appropriations**
- **FY 2012 Budget Highlights & Outcomes**
- **National Initiatives**
- **Discussion**



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# FY 2010 Accomplishments



- **NAVIGATION (\$1.8 billion)**

- Maintained 12,000 miles of commercial navigation channels serving 41 states
- Transported 95% of foreign commerce (2.2 B tons); 16% domestic commerce
- Maintained 238 lock chambers at 192 sites
- Dredged and disposed of 263 million cubic yards of material

- **FLOOD RISK MANAGEMENT (\$1.9 billion)**

- 557 dams and 11,750 miles levees prevented \$29.5 billion in flood losses
- An average return of 7:1 on flood damage reduction projects
- Implemented Dam & Levee Safety Programs

- **WATER SUPPLY (\$5 million)**

- Provided 9.8 mil acre-feet of water supply storage space at 136 projects in 25 states plus Puerto Rico
- Enough water to supply ~4.4 million households or ~7 Seattle-sized cities

- **ENVIRONMENT (\$984 million)**

- Assisted with recovery of 53 species at 133 projects
- Restored 10,000 acres of habitat
- 13% of habitat is nationally significant
- **FUSRAP**--Returned 12 properties to communities



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# FY 2010 Accomplishments



- **REGULATORY**

- Final action on 68,800 permits
  - 43,213 permits: avg < 60 days
- 6,074 individual permits: avg = 264 days
- 31,698 general permits: average = 35 days
- Replaced 18,800 acres of permanent impact with 36,000 acres of permittee responsible mitigation
- Permits denied = 275, modified = 3,100, withdrawn = 10,200

- **RECREATION**

- Hosted 370 million visitor-days at Corps projects at 422 projects and 4,254 sites
- 1,885 recreation sites (44%) operated by others
- Supported 100 mil fishing, 9 mil hunting & 63 mil wildlife watching visits at Corps projects
- 33% of all freshwater fishing in U.S.
- \$18 billion spent
- 54,917 volunteers worked 1.4 million hours worth \$28 million in volunteered time

- **EMERGENCY RESPONSE**

- Responded to 20 FEMA disasters
- Deployed 855 personnel

- **HYDROPOWER**

- 75 Corps plants w/350 units
- 90 Non-Fed plants on Corps sites
- 68 billion kilowatt-hours produced
- 14% of personal household energy requirements
- ~\$4 billion revenue; \$800 million repaid to Treasury



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# FY 2011 Appropriations



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## Budgets & Appropriations

	FY06	FY07	FY08	FY09	FY 10	FY11
	<u>\$ Millions</u>					
Investigations	95	94	90	91	100	104
Operations & Maintenance	1,979	2,258	2,471	2,475	2,504	2,361
Construction	1,637	1,555	1,523	1,402	1,718	1,690
Miss. River & Tributaries	270	278	260	240	248	240
Regulatory Program	160	173	180	180	190	193
Flood & Coastal Emergencies	70	81	40	40	41	30
F.U.S.R.A.P.	140	140	140	140	134	130
Expenses	162	164	177	177	184	185
ASA(CW)	0	0	0	6	6	6
<b>Total Budget Request</b>	<b>4,513</b>	<b>4,743</b>	<b>4,881</b>	<b>4,751</b>	<b>5,125</b>	<b>4,939</b>
Appropriation	5,329	5,340	5,592	5,403		
<b>Increase from Budget</b>	<b>816</b>	<b>597</b>	<b>711</b>	<b>652</b>	<b>320</b>	<b>374</b>

**87%**



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## FY 2011 Civil Works Program by Business Line (\$ Millions )

	<u>FY 10 Budget</u>	<u>FY 10 Appropriation</u>	<u>FY 11 Budget</u>
Navigation	1,766	1,796	1,658
Flood	1,628	1,865	77% - 1,543
Aquatic Restoration	546	568	582
FUSRAP	134	134	130
Stewardship	99	99	108
Hydropower	230	211	207
Recreation	283	284	280
Water Supply	4	5	4
Emergency Mgt	55	14	43
Regulatory	190	190	193
Exec Dir & Mgt	184	185	185
ASA(CW)	6	5	6
<b>TOTAL</b>	<b>5,125</b>	<b>5,445*</b>	<b>4,939</b>

\*\$140 million for Environmental Infrastructure



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## FY 2011 Appropriations

Account	FY 2010 Approps	FY 2011 Budget	FY 2011 BEFORE REDUCTION	FY 2011 AFTER 0.2% REDUCTION	FY 2012
<u>\$ Millions</u>					
Investigations	160	104	127	127	104
Construction	2,031	1,690	1,793	1,789	1,480
MR&T	340	240	264	264	210
O&M	2,400	2,361	2,371	2,366	2,314
FUSRAP	134	130	130	130	109
Regulatory	190	193	190	190	196
Expenses	185	185	185	185	185
FCCE	0	30	0	0	27
<u>ASACW</u>	<u>5</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>6</u>
<b>TOTAL</b>	<b>5,445</b>	<b>4,939</b>	<b>5,065</b>	<b>5,055</b>	<b>4,631</b>

Note: Does not include \$199 million rescissions  
(\$100M CAP, \$76M Construction <2008, \$23M Yazoo Backwater Pumps)



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# FY 2012 Civil Works Budget Highlights



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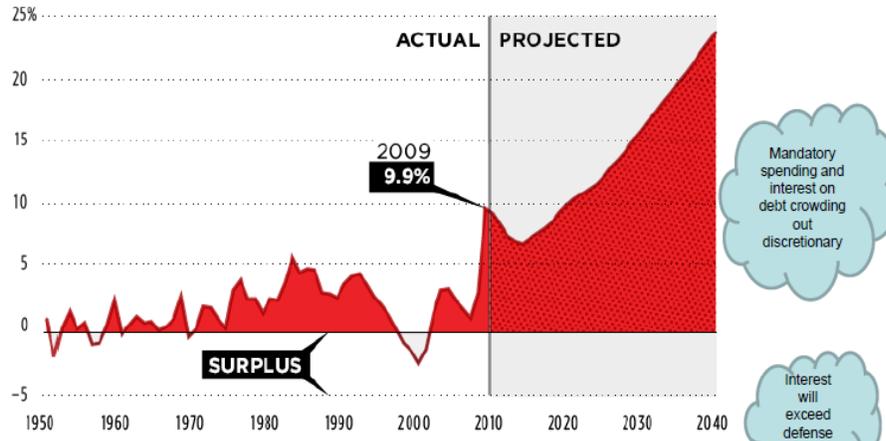
## *Presidential Budget Priorities*

- Reduce the Deficit
- Create Jobs and Restore the Economy
- Improve Infrastructure
- The Environment



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# Federal Deficits as Percentage of GDP



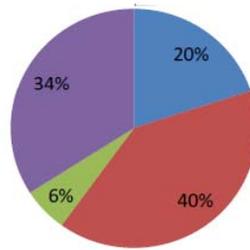
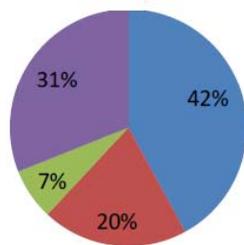
**SOURCES:** Data from the Office of Management and Budget, *A New Era of Responsibility: The 2011 Budget, Historical Tables* and the Government Accountability Office, *The Federal Government's Long-term Fiscal Outlook: January 2010 Update*, alternative simulation using Congressional Budget Office assumptions. Compiled by PGPF.

Source: Peterson Foundation *State of the Union's Finances – A Citizen's Guide* April 2010

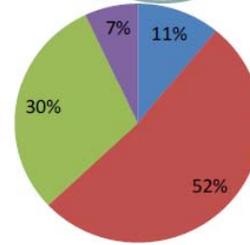
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# Discretionary and Mandatory Trends

Percent of Total in Constant 2009 \$



DoD's budget has an ever increased percentage of fixed obligations for personnel entitlements



**SOURCES:** Data derived from the Office of Management and Budget, *A New Era of Responsibility: The 2011 Budget, Historical Tables* and the Congressional Budget Office, *Preliminary Analysis of the President's Budget*: March 2010. Calculated by PGPF.

Source: Peterson Foundation *State of the Union's Finances – A Citizen's Guide* April 2010

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## Budget Arithmetic – FY 2012

**Civil Works Budget Ceiling** ~\$4,600 million

Allocate GE, Reg., FCCE, Rec., FUSRAP... - 800  
 Allocate Base O&M (~75% of required) - 1,600  
 Essential Dam Safety - 400  
 Aquatic Ecosystem Restoration - 500  
 Continuing Construction at Base Level - 1000  
 Planning Studies - 100  
**Minimum Essential Allocation = - \$4,400**



**Left for all other CW Projects & Programs** ~\$200 million

\*Use the \$200 million for project major maintenance.

**THAT'S IT!**



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## FY 2012 CW Program by Account

(\$ Millions)

Account	FY 2011 Budget	FY 2012 Budget	FY11-12 Change
Construction	\$1690	\$1480	-210
Operation & Maintenance	\$2361	\$2314	-47
Mississippi River & Tributaries	\$240	\$210	-30
Regulatory	\$193	\$196	+3
FUSRAP	\$130	\$109	-21
Investigations	\$104	\$104	0
Flood Control/Coastal Emergencies	\$30	\$27	-3
Expenses	\$185	\$185	0
ASA(CW)	\$6	\$6	0
<b>Total*</b>	<b>\$4939</b>	<b>\$4631</b>	<b>-308</b>

\* FY12 Budget is \$308 million ( 6%) below FY11 Budget  
 FY12 Budget is \$913 million (17%) below FY10 Appropriation



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## FY 2012 CW Program by Business Line

(\$ Millions)

Business Line	FY 2011 Budget	FY 2012 Budget	FY11-12 Change
Navigation	1658	1575	-83
Flood Risk Management	1543	1447	-96
Aquatic Ecosystem Restoration	582	533	-49
Recreation	280	259	-21
Hydropower	207	182	-25
Regulatory	193	196	+3
Environmental Stewardship	108	100	-8
FUSRAP	130	109	-21
Emergency	43	34	-9
Water Supply	4	5	+1
Expenses	185	185	0
OASA (CW)	6	6	0
<b>Total</b>	<b>4939</b>	<b>4631</b>	<b>-308</b>

\* FY12 Budget is \$308 million ( 6%) below FY11 Budget

FY12 Budget is \$913 million (17%) below FY10 Appropriation



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## Budget Outcomes Studies

PROGRAM	NO PROJECTS	TOTAL \$ Millions
Flood Damage Reduction	19	\$ 18.8
Navigation	11	7.2
Environmental Restoration	49	28.6
Environmental Restoration-MR&T)	1	1.0
<b>Total</b>	<b>80</b>	<b>\$ 54.6</b>



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## Budget Outcomes

### Investigations –

- Continue highest performing studies and design
- Four new studies: Englebright and Daguerre Point Dams (Yuba River), California Fish Passage; Cano Martin Pena, Puerto Rico; the Chesapeake Bay Comprehensive Study; and the Louisiana Coastal Area Comprehensive Study
- No new PED's
- 6 PED completions: All in LA Coastal Area Ecosystem Restoration.
- No increase from 2011.
- PEDs with BCRs of 2.5 to 1 or higher are funded.



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## Budget Outcomes Construction

PROGRAM	NO PROJECTS	TOTAL \$ Millions
Dam Safety, Seepage, Static Instability	10	\$ 437
Substantial Life Saving Benefits	20	170
Environmental Restoration or Mitigation	15	225
High Performing Continuing (BCR/Environ)	36	416
Continuing Contracts	2	162
FY 2012 Completions	3	3
New Start High Performing	2	11
MR&T	4	78
<b>Total</b>	<b>92</b>	<b>\$1,502</b>



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## Budget Outcomes

### Construction –

- Continue 100% funding for legal requirements (mitigation & BIOPs) & Dam Safety.
- IWTF construction and rehabilitations constrained to anticipated revenues of \$77M.
- Two hydropower mitigation projects for \$5M.
- CAP - Funding at \$23M using unobligated balances from Sections 14, 103, 107 and 208
- 2 new construction starts: Hamilton City, CA and Raritan to Sandy Hook (Port Monmouth), NJ
- 2 continuing contracts: McCook and Thornton Reservoirs, IL (\$12M) and Olmsted Locks and Dam, IL & KY (\$150M).
- 3 construction completions: Crookston, MN; Dover Dam, OH; and Santa Paula Creek, CA.
- Environmental Restoration - Continues Everglades. Continues Columbia River Fish Mitigation and Missouri Restoration



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## Budget Outcomes Operations & Maintenance

PROGRAM	NO PROJECTS	TOTAL \$ Millions
Regular O&M	582	\$ 2,100
Regular O&M – MR&T	32	129
<b>Total</b>	<b>612</b>	<b>\$ 2,229</b>

\* Average amount ~ \$3.6 million O&M/project



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## ***Budget Outcomes***

### **Operations & Maintenance** –

- 3% decrease in bottom line.
- Water Supply - collections and operations + Upper Missouri study
- Low Use Commercial Navigation - reduced by ~50%.
- Recreation – funding reduced from \$282M to \$259M. Some impacts likely (closed parks, reduced services at some parks)
- Reimbursement to Fish & Wildlife Service for hatchery maintenance

**Regulatory Program** – Increased from \$193 million to \$196 million to implement new field level initiatives for Clean Water Act jurisdictional determination and rulemaking and inflation.

**FUSRAP** – Reduced to \$109 million for studies and ongoing remediation



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## ***Coastal Storm Damage Reduction Budget Decision Process***

- The Administration continues to support budgeting for “beach nourishment” and “periodic renourishment” construction projects.
- Coastal Storm Damage Reduction Projects (Including beach renourishment) are considered using the construction guidelines in the same manner as other “budgetable” construction projects.
- Budgeting decision follows construction funding guidelines:
  - Considered on the basis of their economic return ~ BCR 2.5 or higher
  - Considered on the basis of the project addressing significant risk to human life. Funded as “Life” projects (PAR, Warning time, depth, ...)
  - Fund continuing contracts to finance scheduled earnings, E&D and S&A.
  - Fund legal or regulatory environmental monitoring requirements.



## ***Coastal Storm Damage Reduction FY 2012 Funding Outcomes***

- FY 2012 budget supports construction funding for 10 beach nourishment projects ~ (**22.5 million**)
  - Initial nourishment construction for two projects
  - Continued renourishment construction on seven projects
  - Required environmental monitoring on one project
- Eight projects are high performing construction projects with BCRs greater than 2.5 to 1.

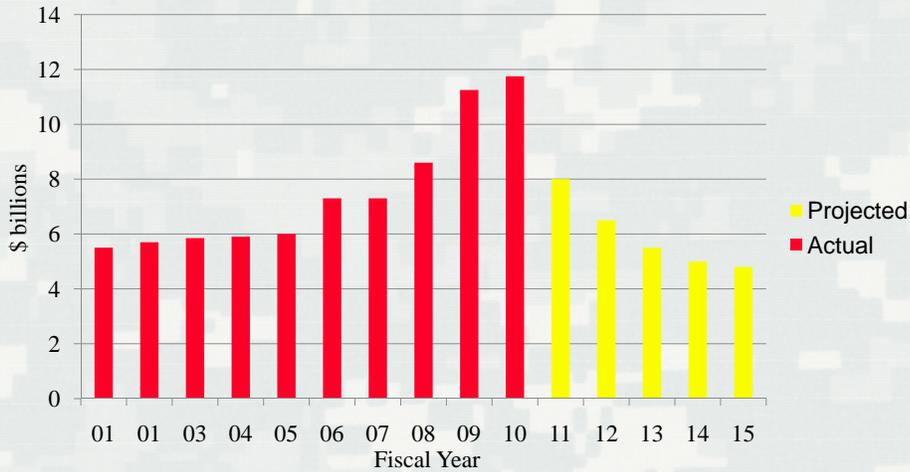


## ***Key Budgeting Metrics***

- **CONSTRUCTION**
  - Flood Risk Mgmt., Navigation, Hydropower – Benefit to Cost Ratio (BCR)
  - Flood Risk Mgmt., Navigation – Dam Safety & Seepage Stability (Continuing DSAC 1 & 2, continuing contracts (2))
  - Flood Risk Mgmt., – Risk to Life Index (Warning time, flow, depth, ...)
  - Environmental – Point values for loss prevention for significant natural resources
- **O & M**
  - Navigation, Flood Risk Mgmt., Hydropower– Risk & Consequences Assessment
  - Recreation – Park Capacity and Facility Condition Index, Visitation ...
  - Navigation – Tonnage movements (Harbors: tons; Waterways: ton-miles)
- **ALL ACCOUNTS**
  - Continuing/New/Completing/Years to Complete
  - Watershed Elements (Mainly studies w/BCR for PEDs)
  - Endangered Species Act & and Regulatory compliance
  - Health, Safety, Caretaker, Legal, Subsistence



## Historical & Projected Obligations



NOTE: ~\$18 billion in 9 Supplemental Appropriations from FY05-10



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## Future Appropriations Without Change?

Administration Budget Ceilings	Projected Appropriations	Inflation (3%) Adjusted
•FY 10 - \$5.1	•FY 10 - \$5.4	•FY 10 - \$5.4
•FY 11 - \$4.9	•FY 11 - \$5.0	•FY 11 - \$5.6
•FY 12 - \$4.6	•FY 12 - \$5.0	•FY 12 - \$5.7
•FY 13 - \$4.6	•FY 13 - \$5.0	•FY 13 - \$5.9
•FY 14 - \$4.6	•FY 14 - \$5.0	•FY 14 - \$6.1
•FY 15 - \$4.6	•FY 15 - \$5.0	•FY 15 - \$6.4
** ~\$4.7 billion cumulative loss to		inflation in 6 yrs



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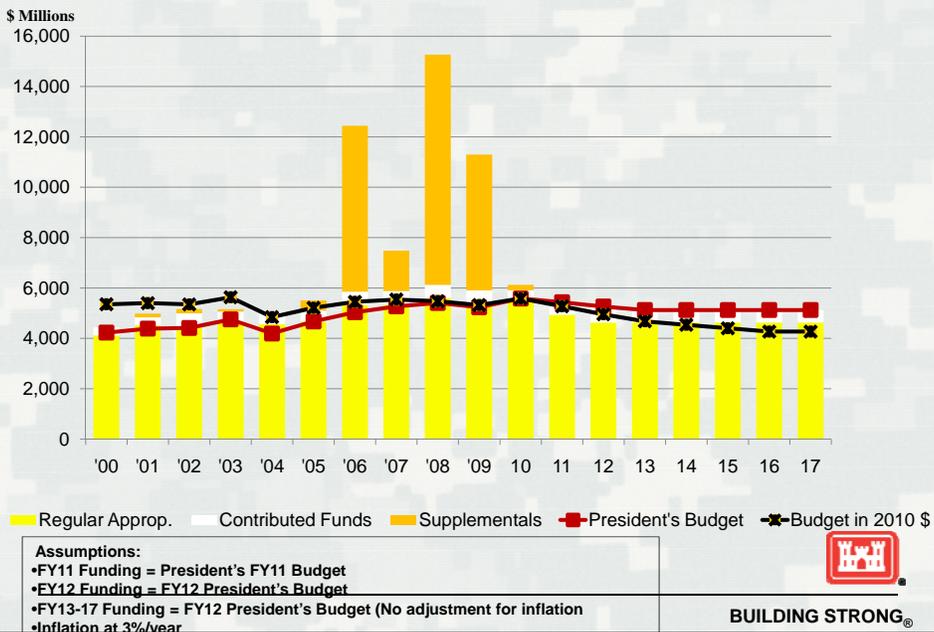
# About Earmarks The Future???



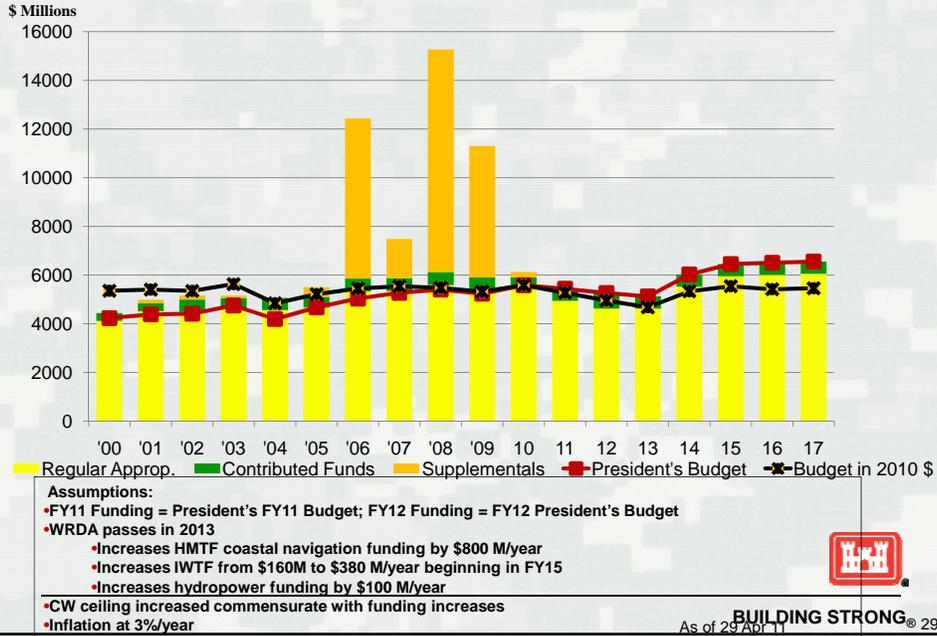
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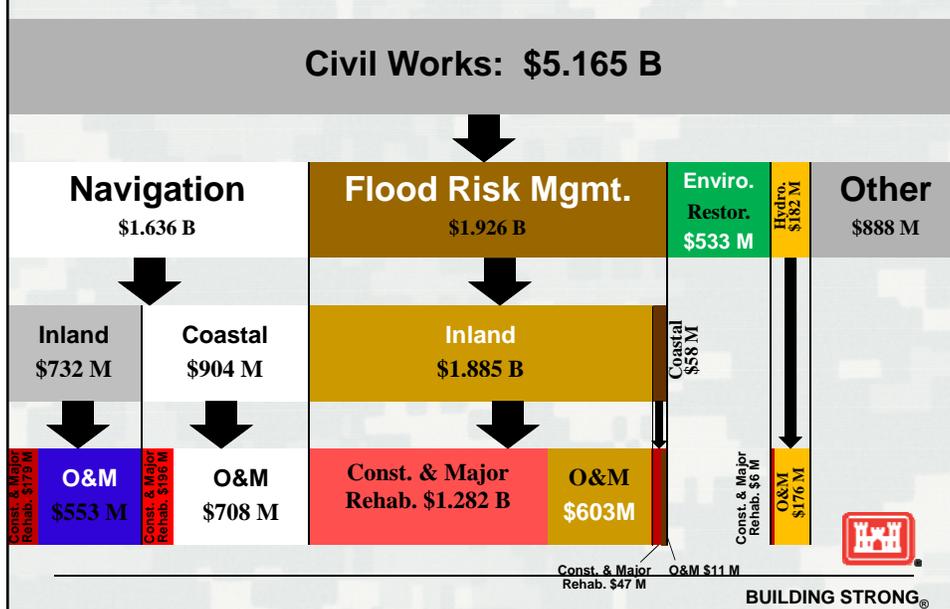
## Workload Scenario 1: Low Funding



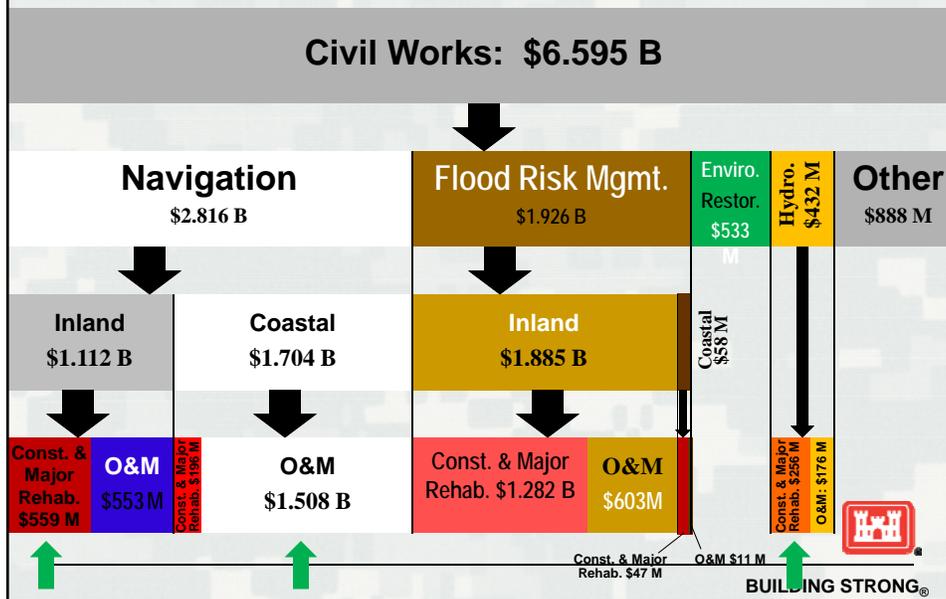
## Workload Scenario 2: High Funding



## Workload Distribution: Low Funding (FY12 Budget Request + \$540 Contributed Funds)



## Workload Distribution: High Funding (Assumed FY17 Budget Request + \$540 Contributed Funds)



## Path Forward: Program Management

- Manage “big” infrastructure programs as programs;
  - NOT as a collection of projects
  - The “big” infrastructure programs are: NAV, FRM, AER, HYDRO
  - Plan ‘big’ programs relative to national needs and each other
  - What is appropriate investment level for programs; for projects?
  - Prioritize 5 years/20 years
- Pursue additional federal and non-federal, direct funding sources
  - Inland Waterways recapitalization (IWTF)
  - Coastal federal channel maintenance (HMTF)
  - Hydropower recapitalization
  - Recapitalization of major flood control/multiple use projects?
- De-authorize projects that no longer serve their authorized purposes
- Develop a STRATCOM
- Open up Program Development to participation by major stakeholder groups
  - Obtain their views on criteria, priorities, concerns
- Incorporate risk-based cost and schedule analysis into all budget and program decision-making

## Why few Navigation Studies? Example: Strategic Failure??

- Navigation Studies – FY12 Budget
  - In Investigation Budget, Nav Business Line received \$11 million for Remaining Items and \$7.1 million for studies; or \$18 million of \$104 million (**17% of Investigations vs 32% of total program**)
    - Recons: Unfunded: 30 projects for \$3.9 million of which 28 were new starts
    - Feasibilities:
      - Funded: 9 budgeted (3 completions ;6 continuing) for \$4.5 million
      - **Unfunded: 34 projects for \$21.4 mil requested (12 new starts)**
    - PEDs
      - Funded: 2 budgeted for \$2.6 million
      - **Unfunded: 26 projects for \$37.4 million requested (14 new starts)**
  - Are we targeted to help nation prepare for post-Panamax Vessels? 
    - If we did fund more Nav studies....which ones?

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## Project Authorization Trends

Projects Being Considered for Authorization by the End of FY 2014



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## **Observations & Conclusions**

### **Low Scenario**

- Leads to proportionally more O&M, less construction
- Appropriations could be lower. Recent CBO Memo to Budget Committees recommends a 1% reduction each year through 2021 for all Domestic Discretionary Agencies
- Major “core” workload concentrated in 8 programs

### **High Scenario**

- Would provide permanent, adequate financing for 3 major programs (~\$1 Billion)
  - Coastal navigation maintenance
  - Inland navigation rehabilitation
  - Hydropower recapitalization
- Major “core” workload is concentrated in the same 8 programs

### **Program Trends**

- Most recent completed Feasibility Studies are ecosystem restoration projects
- Few regular inland FRM projects; even fewer navigation projects
- FRM, Nav studies are taking the longest, costing the most
- We have not been strategically managing Study or Construction New Starts



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## **CW Methods of Delivery Path Forward**

CW OFFICE	UNDERWAY	PROPOSED
<b>PROGRAMS</b>	<ul style="list-style-type: none"> <li>• Budget/Defend/Manage the Big Programs as Strategic, Multi-Yr Major National Programs</li> <li>• Consider Other Funding Sources                             <ul style="list-style-type: none"> <li>- Nav—Coastal &amp; Inland</li> <li>- Hydro</li> </ul> </li> <li>• Annual CW Budget STRATCOM</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize w/in Pgm 5/20 Years</li> <li>• Link Png, PED, Construction starts to Strategic Goals</li> <li>• Recapitalization of FRM projects</li> <li>• Risk-based C &amp; S</li> </ul>
<b>POLICY &amp; PLANNING</b>	<ul style="list-style-type: none"> <li>• Centers of Expertise</li> <li>• Planning Pilot Studies</li> </ul>	<ul style="list-style-type: none"> <li>• See Above</li> <li>• Risk-based BCR</li> </ul>
<b>ENG &amp; CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>• Risk Management Center</li> <li>• Dam Safety Eng/Construction Cntr</li> <li>• Inland L&amp;D Eng/Construction Cntr</li> </ul>	<ul style="list-style-type: none"> <li>• Link Acquisition Strategy to Design &amp; Construction</li> </ul>
<b>OPNS &amp; MAINTENANCE</b>	<ul style="list-style-type: none"> <li>• Asset Management</li> </ul>	<ul style="list-style-type: none"> <li>• Deauthorize Projects</li> </ul>
<b>R&amp;D</b>	<ul style="list-style-type: none"> <li>• Strategic Plan</li> <li>• Portfolio Management</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic Focus on saving \$ in big pgms</li> </ul>



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## Path Forward: WRDA

- **WRDA 2007**—Implementation is essentially complete
  - ~ 800 provisions: 95% implemented; remainder not needed
  - Link to USACE website with links to completed implementation guidance:  
<http://www.usace.army.mil/CECW/PlanningCOP/Pages/legislinks.aspx>
- **WRDA 20012/13**
  - Both Committees state they are working on a WRDA
  - Finding floor time among other legislative priorities is a problem
  - Possible “Thematic” or “Policy” WRDA might be attractive
    - List of Projects to be Deauthorized
    - Deauthorization Process for Constructed Projects that no longer serve purpose
    - Private Sector/Non-Fed Funding Authorizations
      - HMTF
      - IWTF
      - Hydropower
      - Other FRM Recapitalization Cost Sharing
    - Planning Program Efficiencies
      - Technical Review
      - Risk-based Cost Benefit Analysis
    - Leveraged Agency Activities or Programs
    - Authority to Leverage Activities or Programs with the Private Sector
    - Other???



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**DISCUSSION**



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# BACK UP SLIDES



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## ***Path Forward: Policy & Planning***

- Continue to evaluate and develop regional and national Planning Centers of Expertise.
  - Include business case analysis for every regionally or nationally centralized organization.
  - Ensure there is future project funding to support the organization.
  - Consider delivery organization and structure. If you were an AE Firm bidding on the next 5 years' work, what delivery organization would you create?
- Continue efforts to improve timeliness and cost of planning studies
  - Planning demonstration studies
- Size Planning Program to better reflect future construction capability
- Consider linkage of planning to engineering to construction
- Incorporate risk-based cost, schedule and benefit analysis into all Feasibility Cost Estimates.



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## Path Forward: Other

### Engineering and Construction

- Continue consideration of National Engineering Centers
- Include business case analysis for every regionally or nationally centralized organization. Ensure there is future project funding to support organization.
- Focus 'Hedgehog' and Methods Of Delivery analysis to improve delivery in major cost programs; not everything
- Consider how Contracting plays in each major program.
  - Acquisition methods of delivery best suited to different areas of work
  - In-house vs. contracted;
  - Small business opportunities

### Operations and Maintenance

- Continue with Asset Management
- Begin regular long-term disposal of projects that no longer perform their authorized functions.

### Research and Development

- Strategically focus R&D proportional to planned program expenditures
- Strategic focus on new construction, major rehab, O&M
- Create portfolio aimed at reducing future costs relative to opportunities



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## Budget & Appropriations Trends

<u>Fiscal Year</u>	<u>Budget Request</u>	<u>Appropriations</u>	<u>Increase above Budget</u>
2006	4,513	5,329	816
2007	4,743	5,340	597
2008	4,881	5,592	711
2009	4,751	5,403	652
2010	5,125	5,445	320
2011	4,940	5,055	114
2012	4,485		
2013	4,485		
2014	4,485		
2015			



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## The Budget Message of the President

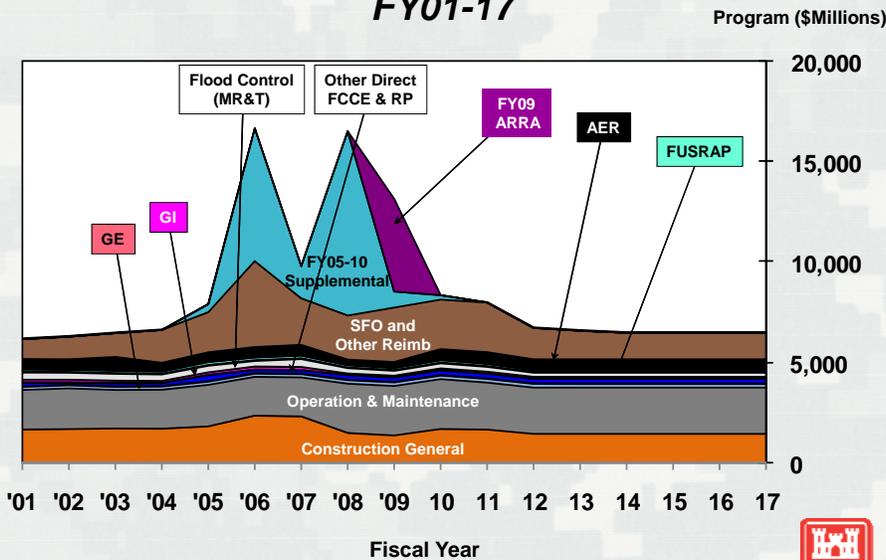
“But in an increasingly competitive world in which jobs and businesses are mobile, we also have a responsibility to invest in those things that are absolutely critical to preparing our people and our Nation for the economic competition of our time ....

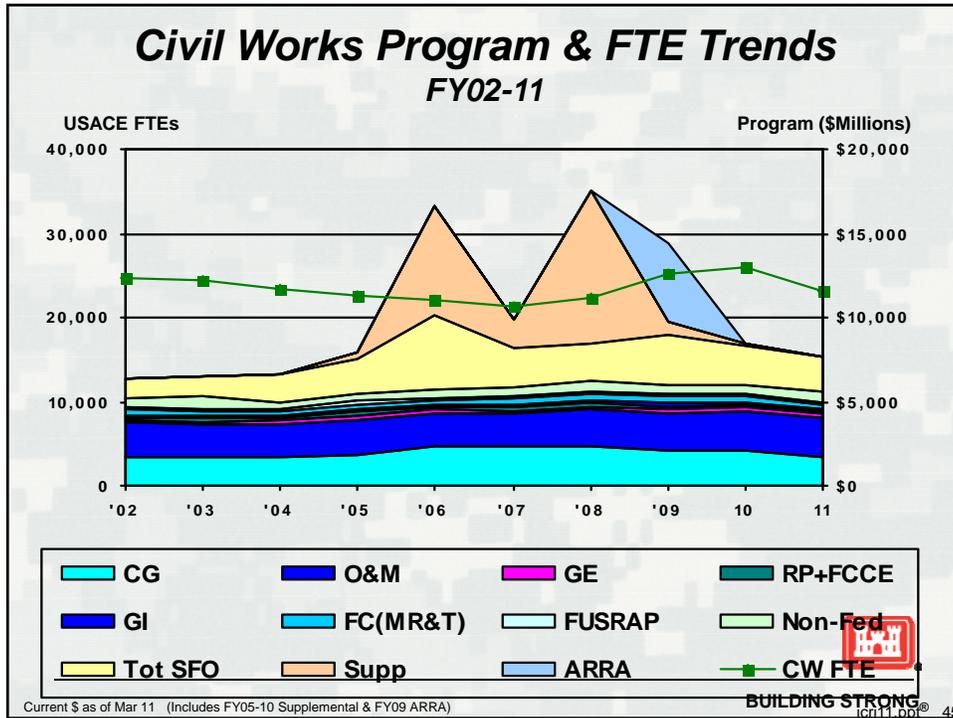
We do this by rebuilding America’s infrastructure so that U.S. companies can ship their products and ideas from every corner in America to anywhere in the world.”



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## Civil Works Program Trends FY01-17





## External Trends To Watch

- **Continuing Pressure on Budget**
  - Entitlement Programs (Medicare, Medicaid, Social Security)
  - Interest on the National Debt
- **Cost of Infrastructure Recapitalization**
  - Improved Inspection Techniques
  - Modern Design Standards
  - Cost of meeting ESA and other legal requirements
- **Cost of Construction Inflating Faster than CPI**
  - Fuel, Steel, Concrete
  - Expanding worldwide demand

