

The Fiscal Year 2011 Budget and An Alternative View of the Civil Works Mission

National Waterways Conference

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FY09 Accomplishments



• NAVIGATION

- Maintained 25,000 miles of navigation channels
- Transported 95% of Nation's overseas foreign commerce (2.2 B tons)
- Maintained 241 lock chambers at 196 sites
- Dredged and disposed of 211 M cubic yards
- Completed 6 L&D projects
- Funded 5 L&D major rehabs to completion

• FLOOD RISK MANAGEMENT

- Prevented \$18.5 billion in flood losses annually for past 5 years
- An average return of 6:1 on flood damage reduction projects
- Implemented Dam & Levee Safety Programs

• WATER SUPPLY

- Provided 11.1 mil acre-feet of water supply storage space at 132 projects in 26 states
- 18% of Nation's personal household needs
- Returned \$22 mil to U.S. Treasury

• ECOSYSTEM RESTORATION

- Assisted with recovery of 53 species at 133 projects
- Restored 10,000 acres of habitat
- 13% of habitat is nationally significant

• FUSRAP

- Excavated 115,600 cubic yards of contaminated material
- Returned 12 properties to communities



More FY09 Accomplishments

- **CONSTRUCTION COMPLETIONS**

- Placed 8 projects into service; 70 since 2001

- **REGULATORY**

- Processed 43,213 permits in average time under 60 days
- 6,074 individual permits in average 264 days
- 31,698 general permits in average of 35 days
- Replaced 18,800 acres of permanent impact with 36,000 acres of permittee responsible mitigation

- **RECREATION**

- Hosted 353 million visitor-days at Corps projects
- Supported 100 mil fishing, 9 mil hunting & 63 mil wildlife watching visits at Corps projects
- 1,885 recreation sites (42%) operated by others

- **EMERGENCY RESPONSE**

- Responded to 12 FEMA disasters in 20 States + Midwest Floods



- **HYDROPOWER**

- Operated 75 Corps plants
- 67 NonFed Plants on Corps sites
- 75 billion kilowatt-hours
- 14% of personal household energy requirements
- ~\$800 million repaid to Treasury
- Completed rehab of two powerhouses in Georgia & Alabama



FY 11 Civil Works Budget

Supports the President's Overall
Budget Priorities to:

- **Rebuild Infrastructure**
- **Energize the economy**
- **Enhance the Environment**
- **Respond to Natural Disasters**



FY11 CIVIL WORKS PROGRAM

By ACCOUNT (\$ Millions)

	<u>FY 10 Budget</u>	<u>FY 10 APPROPS</u>	<u>FY 11 BUDGET</u>
Investigations	100	160	104
O&M	2,504	2,400	2,361
Construction	1,718	2,031	1,690
MR&T	248	340	240
Regulatory	190	190	193
FCCE	41	0	30
FUSRAP	134	134	130
GE	184	185	185
ASA(CW)	6	5	6
TOTAL	5,125	5,445	4,939*

* \$52 million for Yazoo Pumps Cancellation to be taken out of MR&T carryover



FY11 CIVIL WORKS PROGRAM **By BUSINESS LINE (\$ Millions)**

	<u>FY 10 Budget</u>	<u>FY 10 APPROPS</u>	<u>FY 11 BUDGET</u>
Navigation	1,766	1,796	1,658
Flood	1,628	1,865	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
TOTAL	5,125	5,445*	4,939

*\$140 million for Environmental Infrastructure



PROGRAM COMPARISON

(\$ millions)

	<u>FY08 App</u>	<u>FY09 Bud</u>	<u>FY09 App</u>	<u>FY10 Bud</u>	<u>FY10 App</u>	<u>FY11 Bud</u>
Investigations	167	91	168	100	160	104
Operation & Maintenance	2,244	2,475	2,202	2,504	2,400	2,361
Construction	2,294	1,402	2,142	1,718	2,031	1,690
Miss. River & Tribs.	387	240	384	248	340	240
Regulatory Program	180	180	183	190	190	193
Flood Control & Coastal Em.	0	40	0	41	0	30
F.U.S.R.A.P.	140	130	140	134	134	130
Expenses	175	177	179	184	185	185
OASA(CW)	5	6	4.5	6	5	6
Total	5,592	4,741	5,403	5,125	5,445	4,939



Budget Arithmetic – FY10

Civil Works Budget Ceiling **\$5,125 mil**

Allocate GE, Reg., FCCE, Rec., FUSRAP...	- 900
Allocate Base O&M (~75% of required)	- 1,900
Essential Dam Safety	- 500
Assign National Priorities	- 500
Continuing Construction at Base Level	- 700
Planning Studies	<u>- 100</u>
Minimum Essential Allocation =	<u>- \$4,600</u>



Left for all other CW Projects & Programs **~\$525 mil***

Use the \$525 mil to restore project O&M to prior year levels

THAT'S IT!



Budgets & Appropriations

FY06 FY07 FY08 FY09 FY 10

\$ Millions

Investigations	95	94	90	91	100
Operations & Maintenance	1,979	2,258	2,471	2,475	2,504
Construction	1,637	1,555	1,523	1,402	1,718
Miss. River & Tributaries	270	278	260	240	248
Regulatory Program	160	173	180	180	190
Flood & Coastal Emergencies	70	81	40	40	41
F.U.S.R.A.P.	140	140	140	140	134
Expenses	162	164	177	177	184
<u>ASA(CW)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>6</u>
<u>Total Budget Request</u>	<u>4,513</u>	<u>4,743</u>	<u>4,881</u>	<u>4,751</u>	<u>5,125</u>
Appropriation	5,329	5,340	5,592	5,403	5,445
Increase from Budget	816	597	711	652	320



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



Future Budgets Without Change?

Administration Budget Ceilings	Projected Appropriations	Inflation Adjusted (3%)
•FY 10 - \$5.1	•FY 10 - \$5.4	•FY 10 - \$5.4
•FY 11 - \$4.9	•FY 11 - \$5.4	•FY 11 - \$5.6
•FY 12 - \$4.7	•FY 12 - \$5.3	•FY 12 - \$5.7
•FY 13 - \$4.5	•FY 13 - \$5.3	•FY 13 - \$5.9
•FY 14 - \$4.7	•FY 14 - \$5.4	•FY 14 - \$6.1
•FY 15 - \$4.8	•FY 15 - \$5.4	•FY 15 - \$6.4
<p>** - \$2.9 billion lost to inflation in 5 yrs</p>		

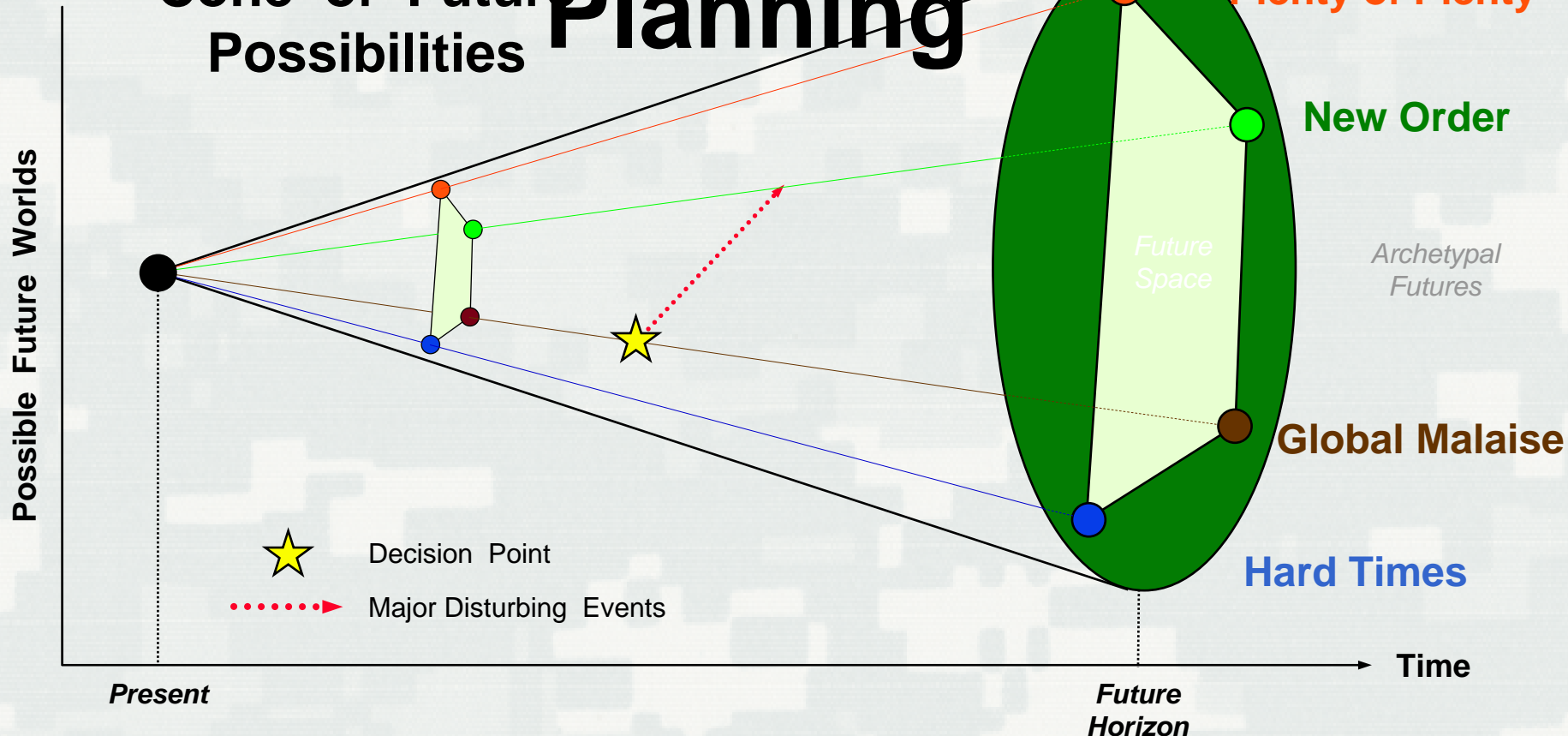




Scenario-Based Strategic Planning

Cone of Future Possibilities

Planning



Scenarios do not cover all eventualities, but discover the boundary zone of the future outcomes and expand management's thinking horizon.

And for the Out Years ...

- We expect a major debate on Federal funding priorities to commence with the FY 11 budget and continue beyond
- We will continue to place a high priority on execution of all that is appropriated
- We must seek to improve our budget ‘defense’ of the value to the nation of the water resources infrastructure for which we are responsible

THE CIVIL WORKS MISSION

--An Alternative View--

- **How Do WE View our Civil Works Mission?**
- **How do WE Communicate our Mission to Others?**
- **What's Not Working? Why Change?**
- **A Different View?**
- **The IMTS Model**
- **Lessons Learned from the IMTS**
- **A New Business Model**



THE CIVIL WORKS MISSION

--An Alternative View--

How do

“YOU”

View the Civil Works Mission?



--Program Development and Defense— Current Practice

ADMINISTRATION **Performance-Based/ Business Line**

- Flood Risk Management
- Navigation
- Environment
- Hydropower
- Regulation
- Recreation
- Water Supply
- FUSRAP
- Emergency Management
- Expenses

CONGRESS **Account & Project Based [Member-Based]**

- Investigations/Planning
- Construction
- Operations & Maintenance
- Miss River & Tributaries
- +
- Regulatory
- FCCE
- FUSRAP
- Expenses
- Misc



--Program Development and Defense— Other Views

By District and Division	Divisions/Districts
By Account	Congress
By Business Line	OMB
By Congressional District	Congress
By Project	Stakeholders Districts



THE CIVIL WORKS MISSION

--Program Development and Defense--

What's Not Working?

- It's about us: "The *Corps*' CW Budget"; it's not about who we serve.
- There is stakeholder *project ownership*; but not stakeholder program ownership
- We communicate the *cost, benefit and value of projects*; we don't communicate the value of our programs, products or services
- We don't communicate the value or purpose of *infrastructure systems* to the nation



What Future Can We Imagine Without Change?

- **Our budgets will decrease relative to our need if we don't do SOMETHING different.**
- **We cannot provide a quality, responsive service to the nation if we cannot create support for a budget that more closely matches systems requirements.**
- **We cannot improve if we are not funded for efficient project planning, design, construction.**



CW Program Development and Defense

AN ALTERNATIVE VIEW

USACE is the Nation's Steward for

Six Infrastructure Systems

- **Navigation**
 - Coastal
 - Inland
- **Flood Risk Management**
 - Coastal
 - Inland
- **Environment**
- **Hydropower**



THE CIVIL WORKS MISSION

--A Systems View--

The Inland Marine Transportation System (IMTS)

A Case Study



CASE Study--IMTS

Current Practice

A Performance-Based/Account Based Program Development

- We justify each project independently, based on performance metrics. Many are justified. Start too many projects because it is politically expedient. Fund many, esp large projects, inefficiently.
- IWTF and limit IMTS new construction and major maintenance to ~ \$170M /yr vs ~\$400 million required
- Few completions; few benefits
- **Compiled a history of poor programs mgmt, poor project mgmt, inefficient design, inefficient construction, time growth, cost growth**
- Very unhappy industry



CASE Study--IMTS

New Practice Systems-Based Program Development

- Developed total System requirements for 30 years (103 possible projects, ~\$18B)
- Reduced view to 20 years.
- Identified and prioritized ‘must have’ projects (25 projects; ~\$8B)
- Developed a Financing Plan
- Developed Strategic, Program Management and Project Management Plans
- Prepared a Legislative Strategy



Future Program with 'Future' Revenues

Illustrative Example \$500 M/YR Program - Projects completed with efficient schedule		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Project																						
OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY		█	█	█	█	█	█	█	█	█	█	█	█									
EMSWORTH LOCKS AND DAM, OHIO RIVER, PA (Dam Safety)		█	█	█	█	█	█	█	█	█	█	█	█									
LOCKS AND DAMS 2, 3 AND 4 - MONONGAHELA RIVER, PA		█	█	█	█	█	█	█	█	█	█	█	█									
MARKLAND LOCKS AND DAM, KY & IN (MAJOR REHAB)		█	█	█	█	█	█	█	█	█	█	█	█									
INNER HARBOR NAVIGATION CANAL LOCK, LA			█	█	█	█	█	█	█	█	█	█	█									
MARMET LOCK, KANAWHA RIVER, WV			█	█	█	█	█	█	█	█	█	█	█									
LOWER MONUMENTAL LOCK AND DAM, WA			█	█	█	█	█	█	█	█	█	█	█									
CANNELTON DAM (MAJOR REHAB)				█	█	█	█	█	█	█	█	█	█									
ALLEGHENY 2 & 3 (MAJOR REHAB)				█	█	█	█	█	█	█	█	█	█									
CANNELTON DAM (MAJOR REHAB)				█	█	█	█	█	█	█	█	█	█									
KENTUCKY LOCK ADDITION, TN RIVER, KY*		█	█	█	█	█	█	█	█	█	█	█	█									
CHICKAMAUGA LOCK, TN*		█	█	█	█	█	█	█	█	█	█	█	█									
GIWW, PORT O'CONNOR TO CORPUS CHRISTI BAY, TX*																						
NEW CUMBERLAND (MAJOR REHAB)*																						
JOHN T. MYERS DAM MAJOR REHAB*																						
SMITHLAND DAM (MAJOR REHAB)																						
UM Mel Price*																						
NEWBURGH MAIN LOCK (MAJOR REHAB)*																						
LD 25 UPPER MISSISSIPPI*																						
LD 22 UPPER MISSISSIPPI*																						
UM LD25*																						
LD 24 UPPER MISSISSIPPI*																						
NEWBURGH DAM (MAJOR REHAB)																						
UM LD24*																						
GREENUP LOCK, OHIO RIVER, KY & OH*																						
MCALPINE DAM (MAJOR REHAB)*																						
GIWW MODIFICATION, TX*																						
UM LD22*																						
UM LD21*																						
LD 21 UPPER MISSISSIPPI *																						
JOHN T. MYERS MAIN LOCK (MAJOR REHAB)*																						
UM LD20*																						
UM LD19*																						
JOHN T. MYERS MAIN LOCK (MAJOR REHAB)*																						
UM LD18*																						
NO. 2 LOCK, AR																						
TOTAL PROGRAM		144	355	473	497	499	497	491	500	500	460	496	498	495	425	478	427	422	457	492	499	



CASE Study--IMTS

What Changed with the Systems View?

- Created a single USACE-Industry Management Purpose: *System Recapitalization*
- Agreed on essential system requirements
- Prioritized Construction
- Developed a Funding Plan
- Together, Seeking Cost-Shared Legislation to ‘Right Size’ Funding for the long term (~\$380 million/yr)
- Agreed on a partnering plan to manage system recapitalization
- Agreed to seek a cost-shared solution to the funding shortage
- Identified a number of Program and Project Mgmt reforms



Some Lessons Learned

- **We have a history of poor programs and project mgmt; inefficient planning, design and construction; time and cost growth on IWTS projects**
- **Our Divisions, our Districts and our Stakeholders identify with ‘projects’ and not ‘programs’**
- **We view our mission as a collection of ‘projects’.**
- **We promote ‘projects’, not ‘programs’**
- **Many Stakeholders were not happy with USACE.**
- **We have not adjusted our budget process or our program STRATCOM to a changing world.**



Some Lessons Learned

- **Stakeholders will identify with a System that is essential to their livelihoods and community health**
 - They will pay their share.
 - They will control their lobbying of individual projects to optimize system performance at least cost
 - We must bring them in as full, equal partners and allow them participate fully in all aspects of budget development and program management.
- **WE [HQs, all Divisions, all Districts] must achieve the same systems view to program, design, build and operate and maintain the IWTS efficiently**

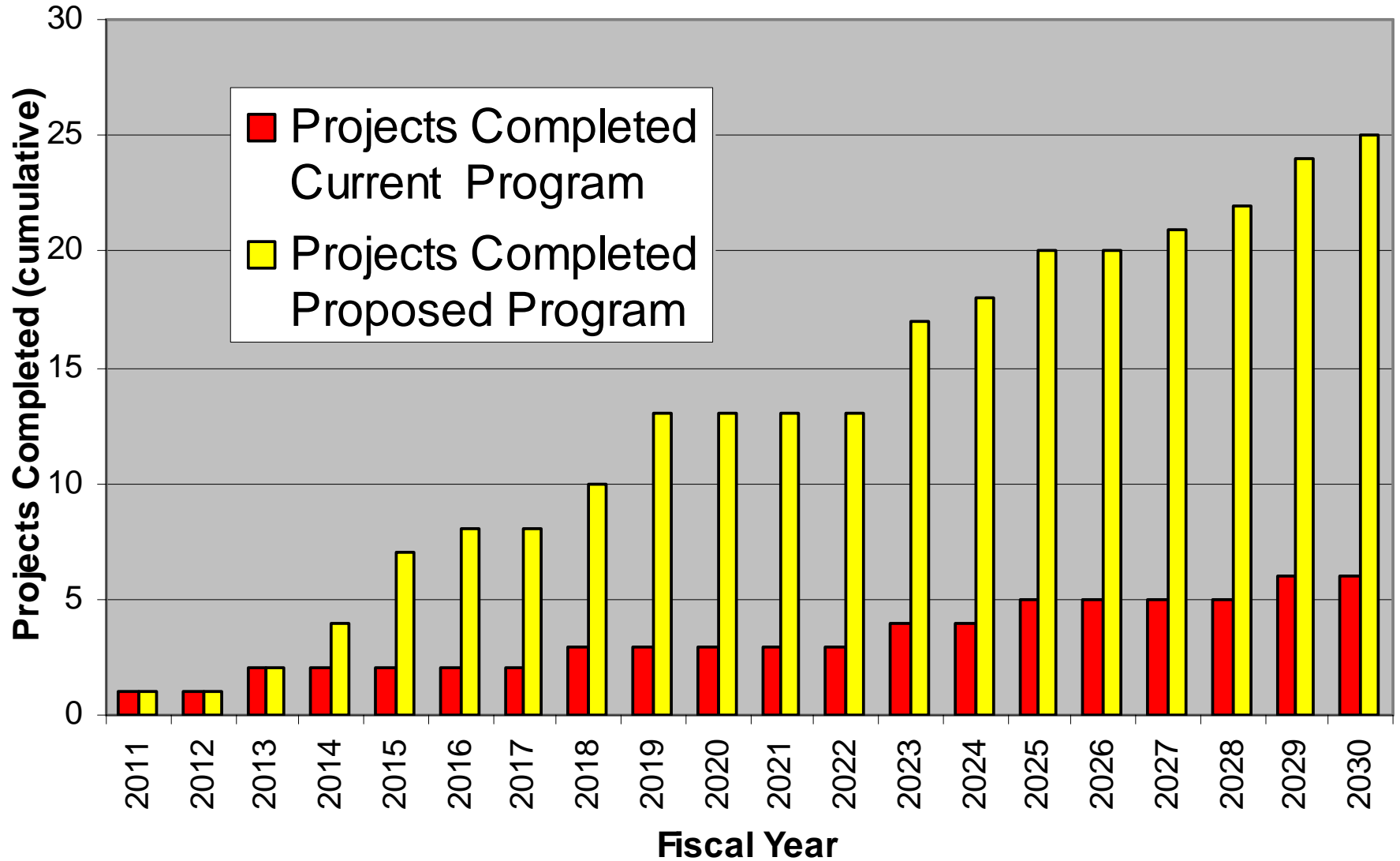


Some Lessons Learned

- **Viewing our work as a system causes us to reconsider how we approach budget development, project planning, design and construction.**
- **The savings are very real. For the IWTS, estimated 20-year savings over an approximate \$8B base is:**
 - **\$0.6 - \$2 billion design/construction cost savings**
 - **\$2.5 billion avoidance of benefits forgone (transportation efficiencies by realizing project benefits of completing projects on schedule)**

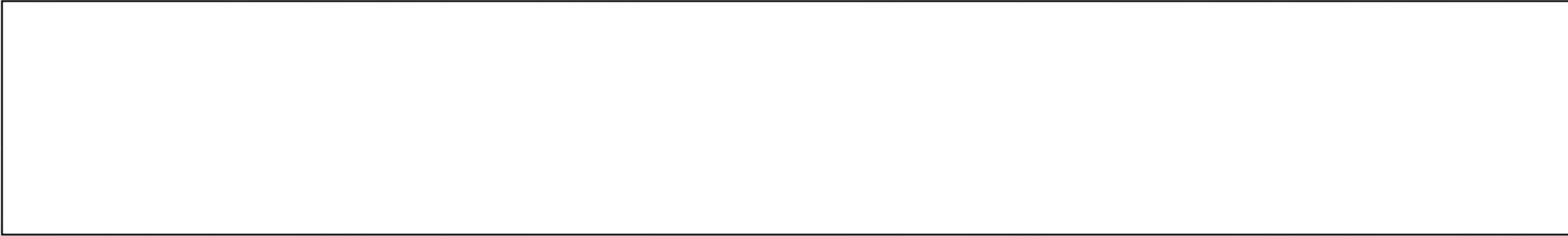


Comparison of Completed Projects



Addition IMTS Team Recommendations

- **Implemented PPM Recommendations**
 - Risk-based cost estimates
 - Independent External Peer Reviews
 - Project Management Certification
- **Proposed Strategic and Process Improvements**
 - IMTS Capital Investment Program Regulation
 - IWUB representative PDT members
 - Project Management Plan – IWUB Chairman and representative as signatories
 - Adopt applicable concepts of MILCON Model
 - Acquisition – Early Contractor Involvement
 - IWUB concurrence on new starts
 - IWUB status briefings
 - Measure and monitor results of recommended process improvements
- **Other Recommendations Forwarded for Consideration**
 - Design/Review Center(s) of Expertise
 - Standardized Designs
 - Continuing Contracts Clause
 - Emphasis on reduced O&M expenditures



**\$0000...
WHAT'S NEXT?**



IMAGINE

- **No GI, CG, O&M**
- **No Business Lines**
- **INSTEAD**
- **Six National Infrastructure Accounts**
 - **2 Nav, 2 Flood Risk Mgmt, Environ, Hydro**
 - **Planning, Design, Construction, O&M inclusive**
 - **We develop, defend 6 multi-year programs**
 - **We focus on delivering, maintaining 6 systems**
 - **Priorities, success measures for each**
 - **The Nation sees what is delivered, or not**



Six 20-Yr Infrastructure Budgets

CAMPAIGN PLAN

LIFE CYCLE

INFRASTRUCTURE

PLANNING & FUNDING

NAV → Coastal (\$)

NAV → Inland (\$)

FRM → Coastal

FRM → Inland

ENVIRONMENT

HYDROPOWER (\$)

R&D

Planning

Design

Construction

O&M



Six Infrastructure Systems

SYSTEM	FY10 BUDGET	FY10 APPROPS	OPTIMAL
Coastal Nav	971	989	2,800
Inland Nav	796	757	950
Coastal FRM	28	70	2,200
Inland FRM	1,600	1,800	?????
Environment	546	568	800
Hydropower	230	211	280
TOTAL	4,171	4,395	????



'SYSTEM' PROPONENTS

SYSTEM	STAKEHOLDER
Navigation-Coastal	Ports, NWA, ...
Navigation-Inland	IWUB, WCI,...
Flood Risk Mgmt-Coastal	ASBPA, Cities,...
Flood Risk Mgmt-Inland	ASFPM, ASCE States, Cities, NWC,
Environment	CEQ, TNC, ...
Hydropower	Power Marketing Agencies



Discussion



US Army Corps of Engineers
BUILDING STRONG®





THEODORE ROOSEVELT • CIRCA 1904

THE NATION BEHAVES WELL IF IT TREATS
THE NATURAL RESOURCES AS ASSETS
WHICH IT MUST TURN OVER
TO THE NEXT GENERATION
INCREASED AND NOT IMPAIRED IN VALUE
THEODORE ROOSEVELT 1910



U. S. Army Corps of Engineers

HQ

FY09 Military Program

\$ 27.1 BIL

10,000 personnel

Military Construction

Contingency Operations
Installation Support

International and
Interagency Support
(\$ 2.4 BIL)

9 Divisions

(Direct Funded)

45 Districts

(Project Funded)

Homeland Security

Environmental

Real Estate

**Private
Industry
Partners**

FY09 Civil Works Program

\$ 15.7 BIL

22,000 personnel

Navigation

Hydropower

Flood Damage Reduction

Shore Protection

Water Supply

Regulatory

Recreation

Engineer Research and Development Center

\$ 1.2 BIL @ Seven (7) diverse research laboratories

**Engineer
Commands**

