# WATERWAYS COUNCIL INCORPORATED UPDATE

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12 FEB 2020

### World-Class Delivery... Real-World Impact!







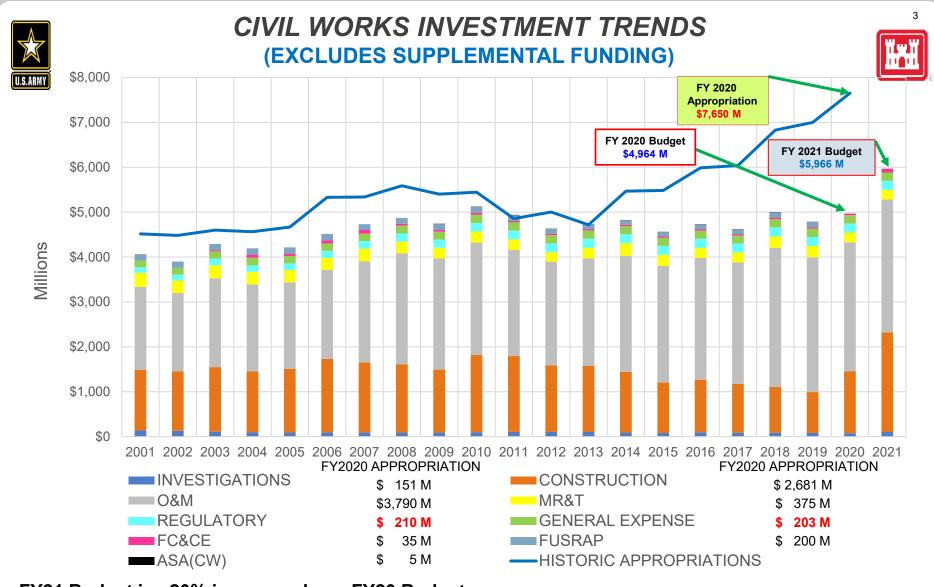
## CIVIL WORKS HIGHLIGHTS – FISCAL YEAR 2021 BUDGET

Mr. Edward E. Belk, Jr, PE, SES
Chief, Program Integration Division
12 February 2020

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."







FY21 Budget is ~20% increase above FY20 Budget FY20 Budget is ~6.4% nominal\* increase above the FY19 Budget FY20 Work Plan is ~54% increase above the FY20 Budget FY20 Work Plan is ~9.3% increase above FY19 Work Plan

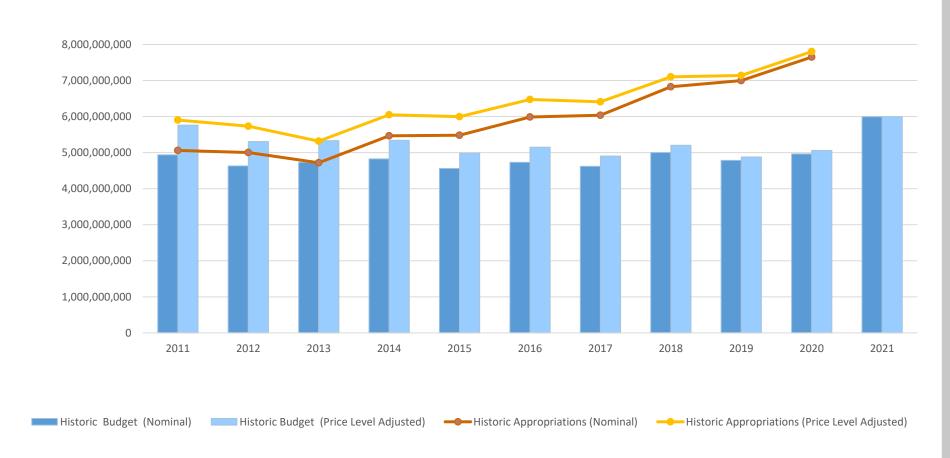
(\*FY20 Budget does not include FUSRAP funding. Therefore, the comparison is made by reducing the FY19 Budget (\$120M) for FUSRAP.)

## U.S.ARMY

#### "BUYING POWER" TRENDS



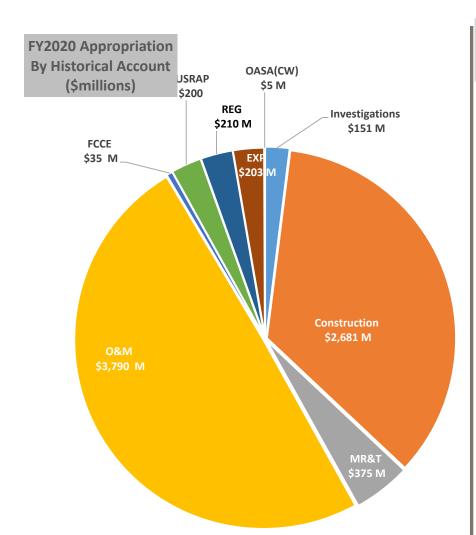
USACE Civil Works Historic Budget and Appropriations
(@ FY2021 Price Level)





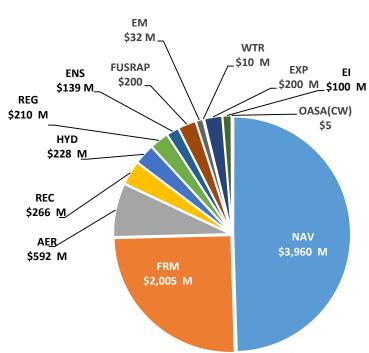
### FY20 CW PROGRAM SUMMARY AS APPROPRIATED\*





\*Both charts reflects study like activities and sand mitigation in the account and business line in which it has historically been appropriated.





\*\*These numbers are subject to change and represent an estimation of the business line distribution at this time. The analysis is still underway and final numbers are not yet available.



TOTAL

### FY20 CW PROGRAM **ADDITIONAL FUNDING = \$2,686,000,000**



**FUNDING POTS ONLY** = \$2,534,364,000

**NAVIGATION ONLY = \$1,536,509,000** 

\$1,486,268,000

INVESTIGATIONS	
FLOOD AND STORM DAMAGE REDUCTION	\$6,000,000
FLOOD CONTROL	\$4,000,000
SHORE PROTECTION	\$4,000,000
NAVIGATION	\$7,000,000
COASTAL AND DEEP-DRAFT	\$6,000,000
INLAND	\$9,750,000
OTHER AUTHORIZED PROJECT PURPOSES	\$6,000,000
ENVIRONMENTAL RESTORATION OR COMPLIANCE	\$17,600,000
TOTAL	\$60,350,000

TOTAL	\$60,350,000	D
		IN
CONSTRUCTION		S
FLOOD AND STORM DAMAGE REDUCTION	\$150,000,000	Ю
FLOOD CONTROL	\$170,000,000	T
SHORE PROTECTION	\$50,165,000	_
NAVIGATION	\$377,878,000	
INLAND WATERWAYS TRUST FUND REVENUES REGIONAL DREDGE DEMONSTRATION	\$75,575,000	_
PROGRAM(NEW)	\$377,650,000	
OTHER AUTHORIZED PROJECT PURPOSES	\$85,000,000	
ENVIRONMENTAL RESTORATION OR COMPLIANCE	\$100,000,000	
ENVIRONMENTAL INFRASTRUCTURE PROJECTS	\$100,000,000	

MISSISSIPPI RIVER AND TRIBUTARIES	
DREDGING	\$5,000,000
FLOOD CONTROL	\$105,090,000
OTHER AUTHORIZED PROJECT PURPOSES	\$50,000,000
TOTAL	\$160,090,000

OPERATION AND MAINTENANCE	
DONOR AND ENERGY PORTS	\$50,000,000
NAVIGATION MAINTENANCE	\$40,156,000
DEEP-DRAFT HARBOR AND CHANNEL	\$532,500,000
INLAND WATERWAYS	\$55,000,000
SMALL, REMOTE, OR SUBSISTENCE NAVIGATION	\$65,000,000
OTHER AUTHORIZED PROJECT PURPOSES	\$85,000,000
TOTAL	\$827,656,000

**FUSRAP** \$200,000,000



### FY20 NAVIGATION FUNDING OUTCOMES



**SUMMARY**: The Appropriations provides \$1.5 billion in additional funding for Navigation follows:

- Investigations
  - Inland \$15.3 million to complete one and continue two ongoing PEDs; and, \$1.5 million to initiate one multi-purpose feasibility study (GIWW Coastal Resiliency Study, TX)
  - Coastal: \$6 million to complete one feasibility; initiate two new feasibilities; and initiate two new PEDs.
- □ Construction \$831 million of which \$75.6 million is IWTF funds and \$377.7 million is for a Gulf Region Dredge demonstration program.
  - Inland Olmsted L&D, OH (\$63 million-15% IWTF); Kentucky L&D, KY (\$61 million 50% IWTF);
     Chickamauga Lock, TN (\$101.7 million 35% IWTF); and fully funds remaining mitigation and recreation features of J.Bennett Johnston Waterway, LA (\$40.6 million)
  - Coastal Dredge Material Disposal and Sand Mitigation (\$43 million HMTF); New starts (\$48.1 million); initiates Mississippi River Ship Channel, LA deepening (\$85 million); initiates and completes Mobile Harbor, AL (\$274 million); completes Cedar Bayou, TX (\$32 million); and, continues Jacksonville Harbor, FL (\$57.4 million), Sault St. Marie (Replacement Lock), MI (\$50 million) and Sabine Neches Waterway, TX (\$16.6 million)
- OM \$742.7 million additional Navigation Operation and Maintenance funding
  - Inland \$80 million applied to 24 projects
  - Donor and Energy Transfer Ports \$50 million applied to 17 eligible projects
  - Small, Remote, or Subsistence Navigation \$65 million applied to 48 projects (HMTF)
  - Deep Draft \$546.5 million applied to 86 projects (HMTF)
  - Remaining Items \$1 million





## DISCUSSION

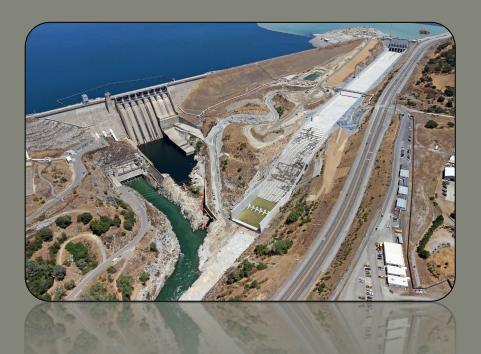
## State of the Infrastructure

A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers



**US Army Corps** of Engineers.









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A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers

#### **Executive Statement**

- Army Corps and Reclamation are committed to working with Tribal Governments, other Federal agencies, states, local governments, the private sector, and the public to manage, maintain, and enhance infrastructure.
- This report provides a high-level overview of the infrastructure asset portfolio and related asset management practices, collaboration efforts, and future strategies.



**US Army Corps** of Engineers®

The mission of the U.S. Army Corps of Engineers is to provide engineering services in collaboration with our partners to achieve technically thorough. environmentally sustainable, and economically-driven solutions to our nation's water resource needs.



The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.



**James Dalton** Director of Civil Works U.S. Army Corps of Engineers



Brenda Burman Commissioner Bureau of Reclamation







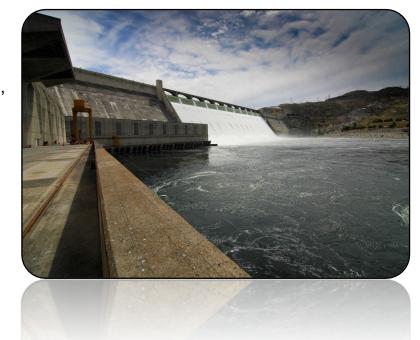
RECLAMATION

A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers



#### Water-Related Infrastructure

- Decades of Federal investment have yielded a robust national portfolio of water-related infrastructure which represents a diverse and vast inventory of mission-critical, legacy, and strategically-developed assets for the benefit of the American people.
- This enormous physical infrastructure is one of our Nation's most valuable assets









A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers



#### Navigation – Ports, Locks and Dredging (Army Corps)

- Provides safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems.
- Operates and maintains 25,000 miles of navigable waterways, channels and harbors, including 239 lock chambers at 193 sites and 1,067 harbors that directly serve 40 states.
- Many inland locks lack the capacity or redundancy for optimal industry barge traffic configuration
- Many U.S. coastal ports have limited ability to accept post-Panamax cargo vessel
- Cost of dredging has increased 12% in the last 10 years (adjusted for inflation)









A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers



#### **Inspection and Asset Management Programs**

- Army Corps and Reclamation operate, maintain, and manage more than \$343 billion of the Nation's waterrelated infrastructure assets, respectively.
  - Navigation locks
  - Hydropower plants
  - Dams
  - Recreation areas
- These assets are a vital part of the Nation's economy, safety, and security, and must be managed in an accountable and responsible manner.





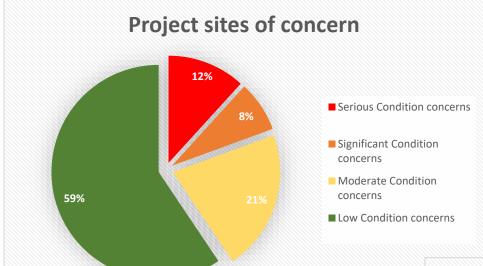


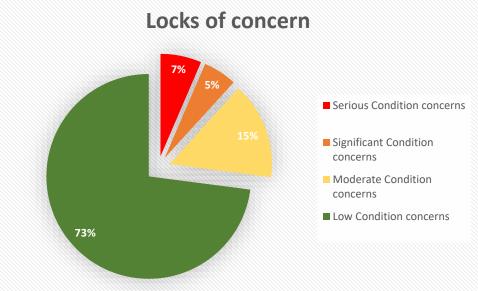




#### **ASSET MANAGEMENT FACILITY ROLL UP**



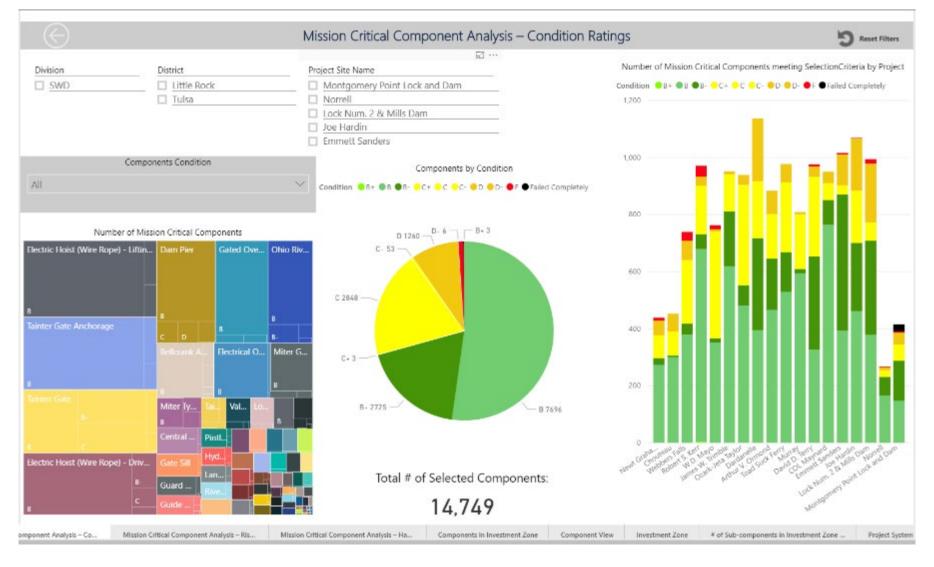






### **USACE ASSET MANAGEMENT PROGRAM**

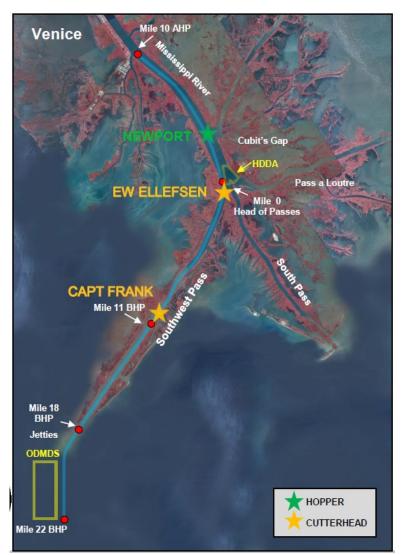




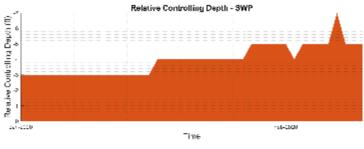


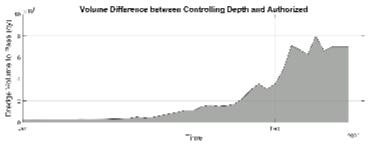
## MISSISSIPPI RIVER AND SOUTHWEST PASS













### **CAPITAL INVESTMENT STRATEGY**



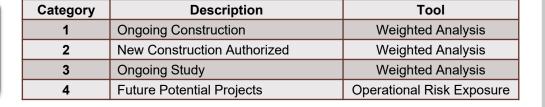




## **CAPITAL INVESTMENT STRATEGY – 2020 UPDATE METHODOLOGY**







Attri	hute	Defin	ition
	Dute		

Attribute	Sub-Attribute
1 Economic	
$\rightarrow$	1.1 RBRCR (Remaining Benefit to Remaining Cost
	Ratio)
(2)	1.2 BCR (Benefit Cost Ratio)
2 reli oil a	
Cond	
	2.1 Reliability
	2 Condition
3 Lock Utilization	
	3 Ry updancy
	3.2 De
	3.3 Lockages
4 National	Ť
Significance	

<b>Attribute</b>	We	iah	tina
/ ttti ibatc	VVC	1911	11119

Attribute	Attribute Name	Weight
1	Economic	9%
2	Reliability and Condition	38%
3	Lock Utilization	17%
4	National Significance	36%

## CAPITAL INVESTMENT STRATEGY – 2020 UPDATE CATEGORY 1 AND 2 RESULTS



Category 1

<b>Priority</b>	Project Title	Project Location	<u>State</u>
1 Olmsted Locks and Dam Ohio F		Ohio River	IL
2	Locks and Dams 2, 3, and 4, Monongahela River Navigation Project	Monongahela River	PA
3	Kentucky Lock Addition	Tennessee River	KY
4	Chickamauga Lock	Tennessee River	TN

<u>Priority</u>	Project Title	Project Location	<u>State</u>
1	Upper Mississippi River Waterway System Navigation and	Lock & Dam 25 (Mississippi	MO / IL
	Ecosystem Sustainability P (NESP)	River)	
2	Three Rivers	MKARNS	
3	Upper Ohio Navigation Locks & Dam (mp) ements	Montgomery Locks and Dam	PA
4	Upper Mississippi River - Illinois Water S Navigation and	LaGrange Lock & Dam (Illinois	IL
	Ecosystem Sustainability Program (NESP)	Waterway)	
5	Calcasieu Lock	GIWW	
6	Upper Mississippi River - Illinois Waterway System Nav eti od	Lock & Dam 24 (Mississippi	MO / IL
	Ecosystem Sustainability Program (NESP)	River)	
7	Inner Harbor Navigation Canal Locks		LA
8	MKARNS 12 ft channel	2	
9	Upper Mississippi River - Illinois Waterway System Navigation and	k & Dam 22 (Mississippi	MO / IL
	Ecosystem Sustainability Program (NESP)	Rico)/	
10	Upper Ohio Navigation Locks & Dams Improvements	Emst orth cocks and Dam	PA
11	Upper Mississippi River - Illinois Waterway System Navigation and	Lock & Dam 21 (Mississippi	IL
	Ecosystem Sustainability Program (NESP)	River)	
12	Upper Mississippi River - Illinois Waterway System Navigation and	Peoria Lock & Dam (Illinois	MO
	Ecosystem Sustainability Program (NESP)	Waterway)	
13	Upper Ohio Navigation Locks & Dams Improvements	Dashields Locks and Dam	PA
14	Upper Mississippi River - Illinois Waterway System Navigation and	Lock & Dam 20 (Mississippi	MO
	Ecosystem Sustainability Program (NESP)	River)	
15	Thomas O'Brien Lock & Dam major rehabilitation	Illinois Waterway	IL
16	Bayou Sorrel Lock	GIWW	LA



## CAPITAL INVESTMENT STRATEGY – 2020 UPDATE CATEGORY 3 RESULTS



Project Title	Project Location	<u>Status</u>
The Dalles Major Rehabilitation Study		Ongoing MRR study
GIWW, High Island to Brazos River, TX	GIWW	Study ongoing, expected
		completion in 2020.
GIWW, Brazos River Floodgates	GIWW	Study completion. Awaiting
		WRDA construction
		authorization
GIWW, Port O'Connor to Corpus Christi Bay	GIWW	Inactive study; awaiting
Y 0 1/2		funding to restart.
GIWW, Colorado River Locks	GIWW	Study completion; awaiting
		WRDA construction
		authorization
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## CAPITAL INVESTMENT STRATEGY – 2020 UPDATE CATEGORY 4 RESULTS

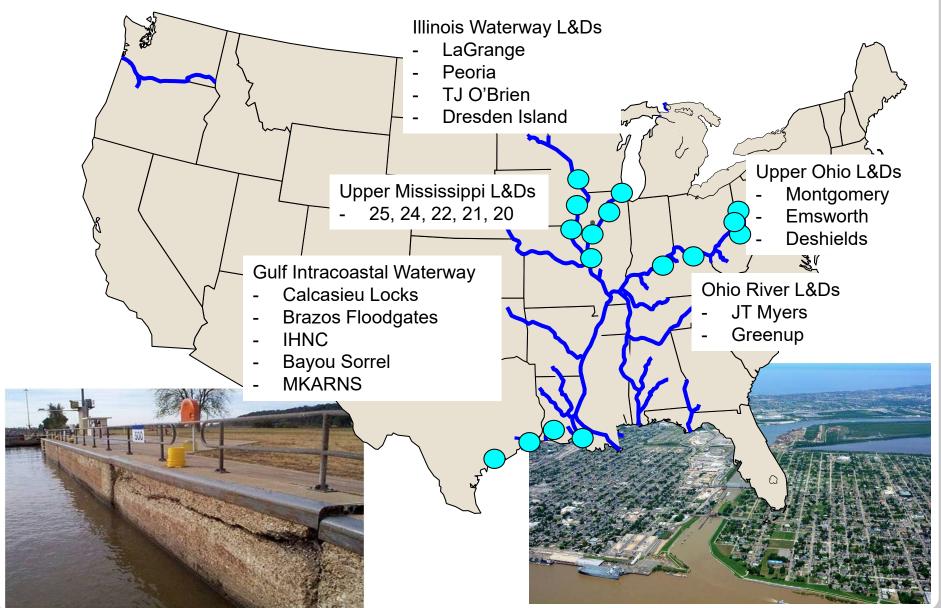


Program Name	Project Name	CIS Site Name
OHIO RIVER LOCKS AND DAMS, WV, KY & OH	GREENUP LOCK - OHIO RIVER LOCKS AND DAMS HUNTINGTON	Greenup
ILLINOIS WATERWAY, IL & IN	ILLINOIS WATERWAY IL AND IN	Starved Rock
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM	David D. Terry
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	LELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM	Ozark-Jeta Taylor
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	MCC LAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM	Webbers Falls
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	ONO P LOCKS AND DAMS H4	Pike Island
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS, IL	MISSISSH PLYVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS	Melvin Price
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	MCCLELLAN-K NSAS RIVER NAVIGATION SYSTEM	Lock Num. 2 & Mills Dam
NAVIGATION STSTEM, OK	MCCLELLAN-KERR AND SA RICER NAVIGATION SYSTEM	Robert S. Kerr
	OHIO RIVER LOCKS AND DAW TINGTON DISTRICT	Meldahl
ILLINOIS WATERWAY, IL & IN	DRESDEN ISLAND LOCK - ILLING & VATSKWAY IL AND IN (NDC)	Dresden Island
MONONGAHELA RIVER, PA	MONONGAHELA RIVER, PA	Braddock
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	OHIO RIVER LOCKS AND DAMS H4	New Cumberland
	RACINE LOCK - OHIO RIVER LOCKS AND DAY & H NTINGTON	Racine
	BELLEVILLE LOCK - OHIO RIVER LOCKS AND DATE TO TIMESTON	Belleville
	WILLOW ISLAND LOCK - OHIO RIVER LOCKS AND LOCK SHOULD SHOU	Willow Island
KANAWHA RIVER LOCKS AND DAMS, WV	LONDON LOCK - KANAWHA RIVER LOCKS AND DAMS	London
KANAWHA RIVER LOCKS AND DAMS, WV	MARMET LOCK - KANAWHA RIVER LOCKS AND DAMS	Marmet
KANAWHA RIVER LOCKS AND DAMS, WV	WINFIELD LOCK - KANAWHA RIVER LOCKS AND DAMS	Winfield
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	OHIO RIVER LOCKS AND DAMS H4	Hannibal
ILLINOIS WATERWAY, IL & IN	BRANDON ROAD LOCK - ILLINOIS WATERWAY IL AND IN (NDC)	Brandon Road
MISSISSIPPI RIVER (Add RIVER REACH)	MISSISSIPPI RIVER (Add RIVER REACH)	Lock No. 18



### **CAPITAL INVESTMENT OPPORTUNITIES**







### **CLOSING THOUGHTS**



- USACE Funding Continues to be Constrained and Addressing the Nation's Infrastructure Investment Gap must be a <u>Shared</u> Federal, State and Local Responsibility.
- The Corps Doesn't Deliver Anything by Itself... Critical that We Not Lose Focus on Our <u>Partners</u>, <u>Stakeholders</u>, and Our <u>Commitments</u>
- Navigation <u>Investment</u> is Essential for the Nation's Global Trade and International Competiveness
- America's Marine Transportation System infrastructure <u>Must</u> be a <u>National Priority</u> in Order to Secure Adequate Levels of Investment
- Navigation <u>Investment</u> is Key to National Economy, Jobs, and Exports!



### **THANK YOU**



