

RESEARCH TO APPLICATION

FIRO - INFLUENCING FISCAL CHANGE

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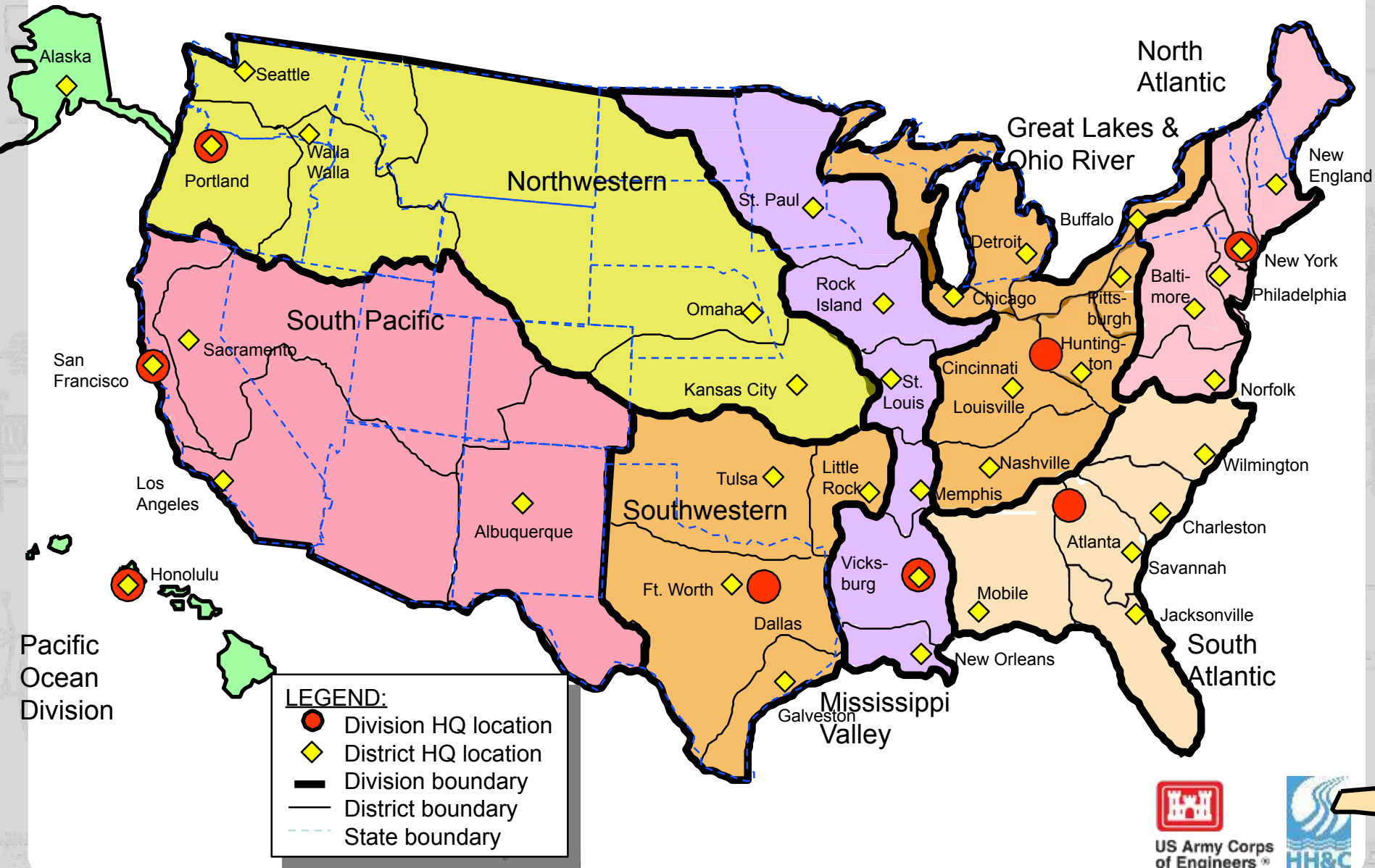
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CIVIL WORKS DIVISIONS & DISTRICTS



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Civil Works Program

Preserving the Strength of the Nation

Delivering enduring, comprehensive, sustainable, and integrated solutions to the Nation's water resources and related challenges through collaboration with our stakeholders

(Regions, States, localities, Tribes, other Federal agencies)

Navigation (39%)

**Flood Risk (28%)
Management**

**Ecosystem (14%)
Restoration & Stewardship**

Hydropower (4%)

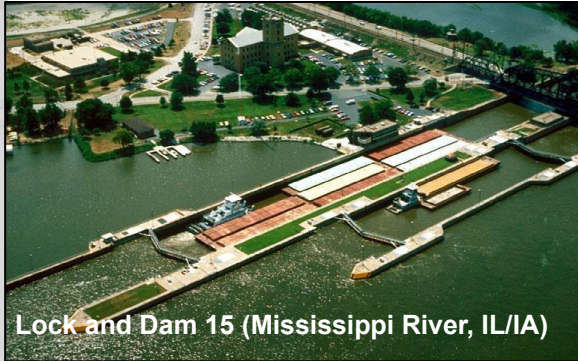
**Recreation & Natural (5%)
Resource Management**

**Regulatory Program: (4%)
Wetlands & Waterways**

Water Supply (1%)

Emergency Management (1%)

Expenses (4%)



Lock and Dam 15 (Mississippi River, IL/IA)



Flood Walk, Williamson, KY



Florida Everglades



Dredge ESSAYONS (Coos Bay, OR)



Greers Ferry Lake, AR



Bonneville II Powerhouse, WA

USACE INFRASTRUCTURE



-709 Dams and Reservoirs

-2500 Levee Systems

14,500 miles of levees

Primary Purposes

Flood Risk Management

Low Flow Augmentation

for Water Quality & Navigation

Aquatic Ecosystems

Secondary Purposes

Recreation

Fish & Wildlife Conservation

Water Supply

Hydropower



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Water Management Mission

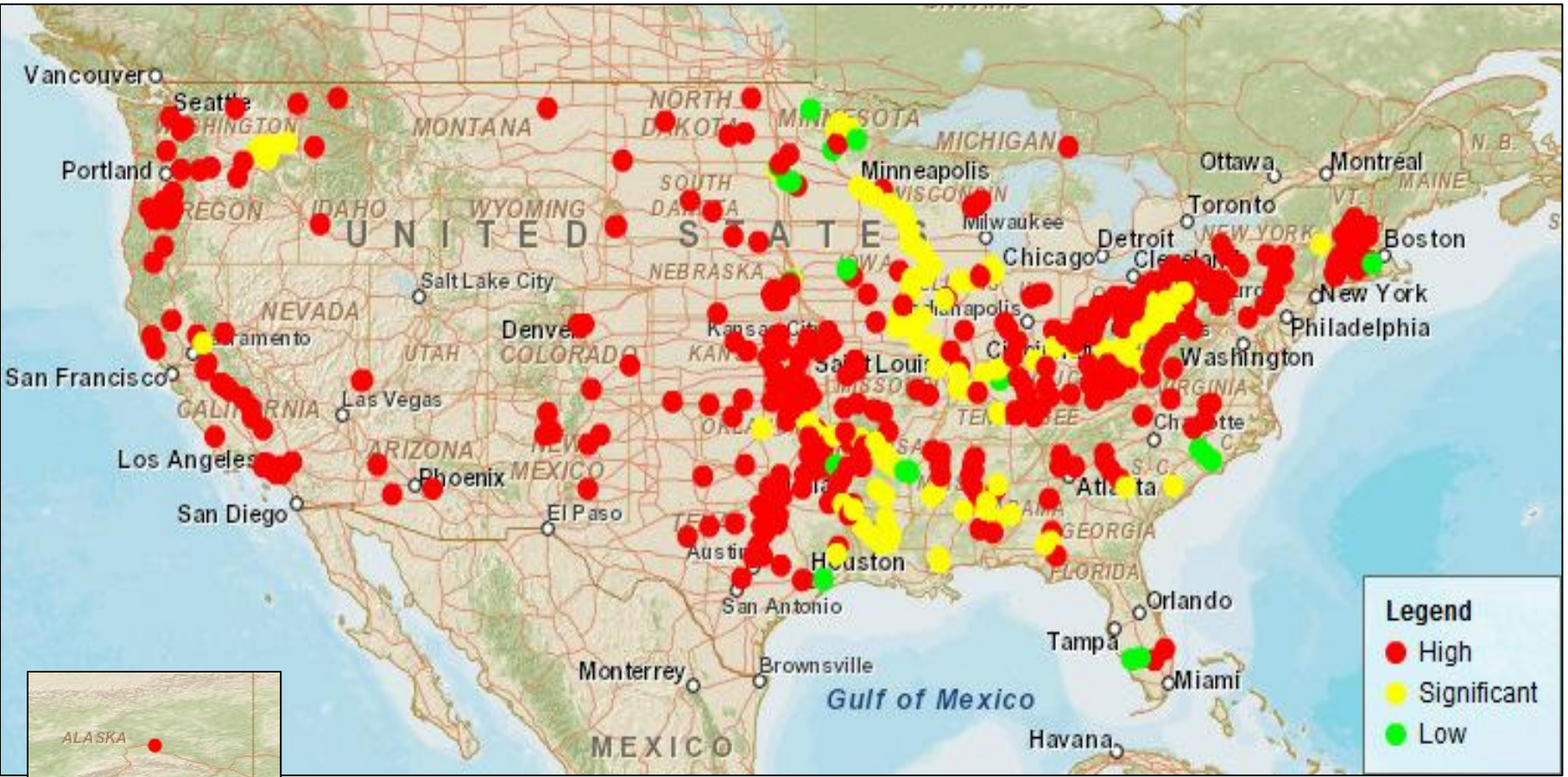
Regulate Reservoirs to Support Congressionally Authorized Purposes



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USACE INVENTORY OF DAMS:



72% of USACE dams are high hazard **potential** which means that failure would result in one or more direct loss of life



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MAY 2016 UPDATE TO ENGINEER REGULATION (ER) 1110-2-240 WATER CONTROL MANAGEMENT

Section 3.3 Evacuation of Impounded Water.

Consistent with the authorized purposes of a project and affected interests in the project area, any water impounded in the flood control space defined by the plan of regulation shall be evacuated as rapidly as can be accomplished without causing downstream flows to exceed the controlling rates and not releasing more than peak inflow or in accordance with reservoir regulation schedules. That is, releases from reservoirs shall be restricted insofar as practicable to quantities that, in conjunction with uncontrolled runoff downstream of the dam, will not cause water levels to exceed the controlling maximum non-damaging stages currently in effect. This implies making decisions based on the principle of water on the ground which is observed precipitation or observed snowpack.

Emphasis added

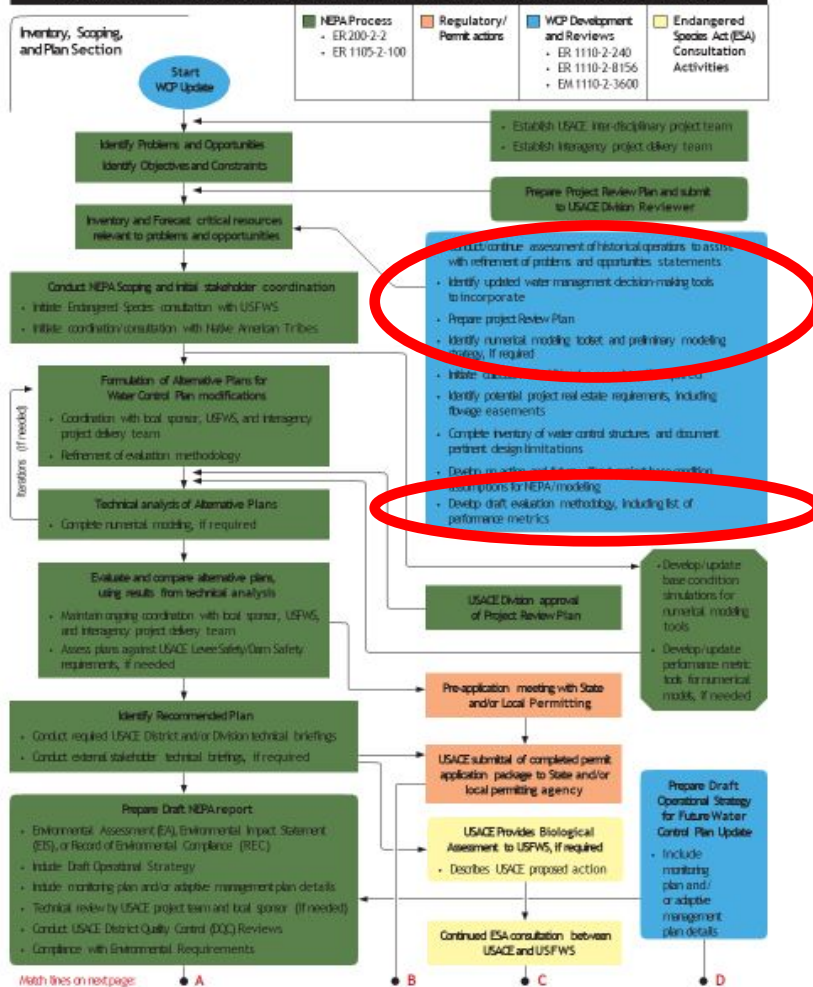


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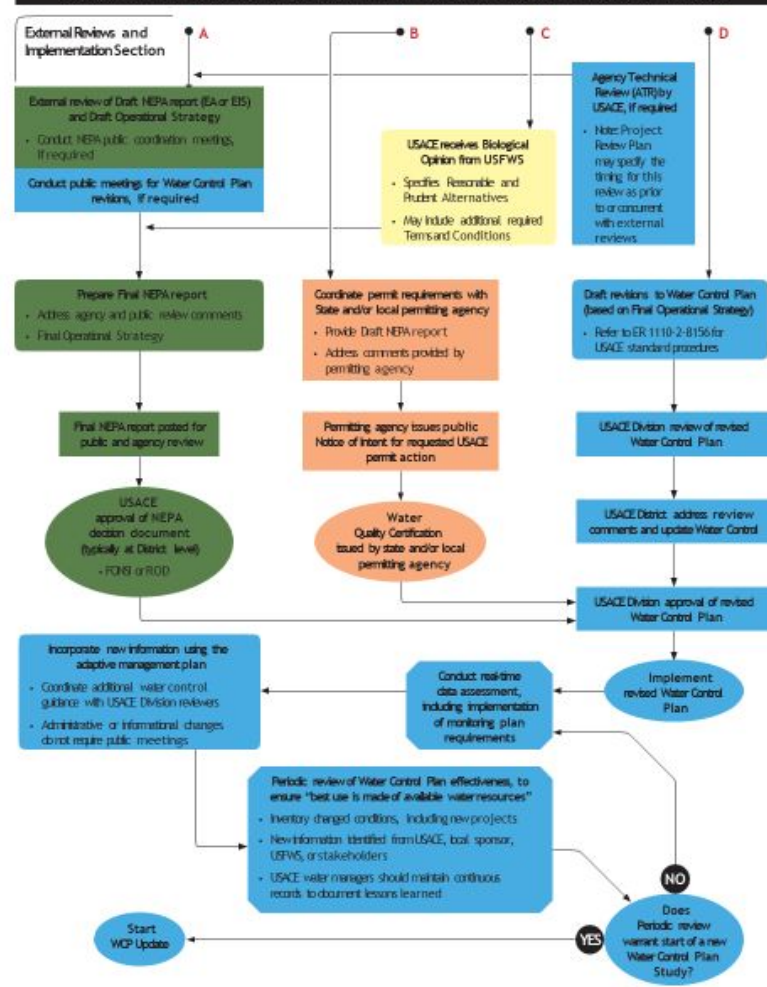


WCM UPDATE PROCESS

USACE TEMPLATE FOR UPDATES TOWATER CONTROL MANUAL FOR RESERVOIR OPERATIONS



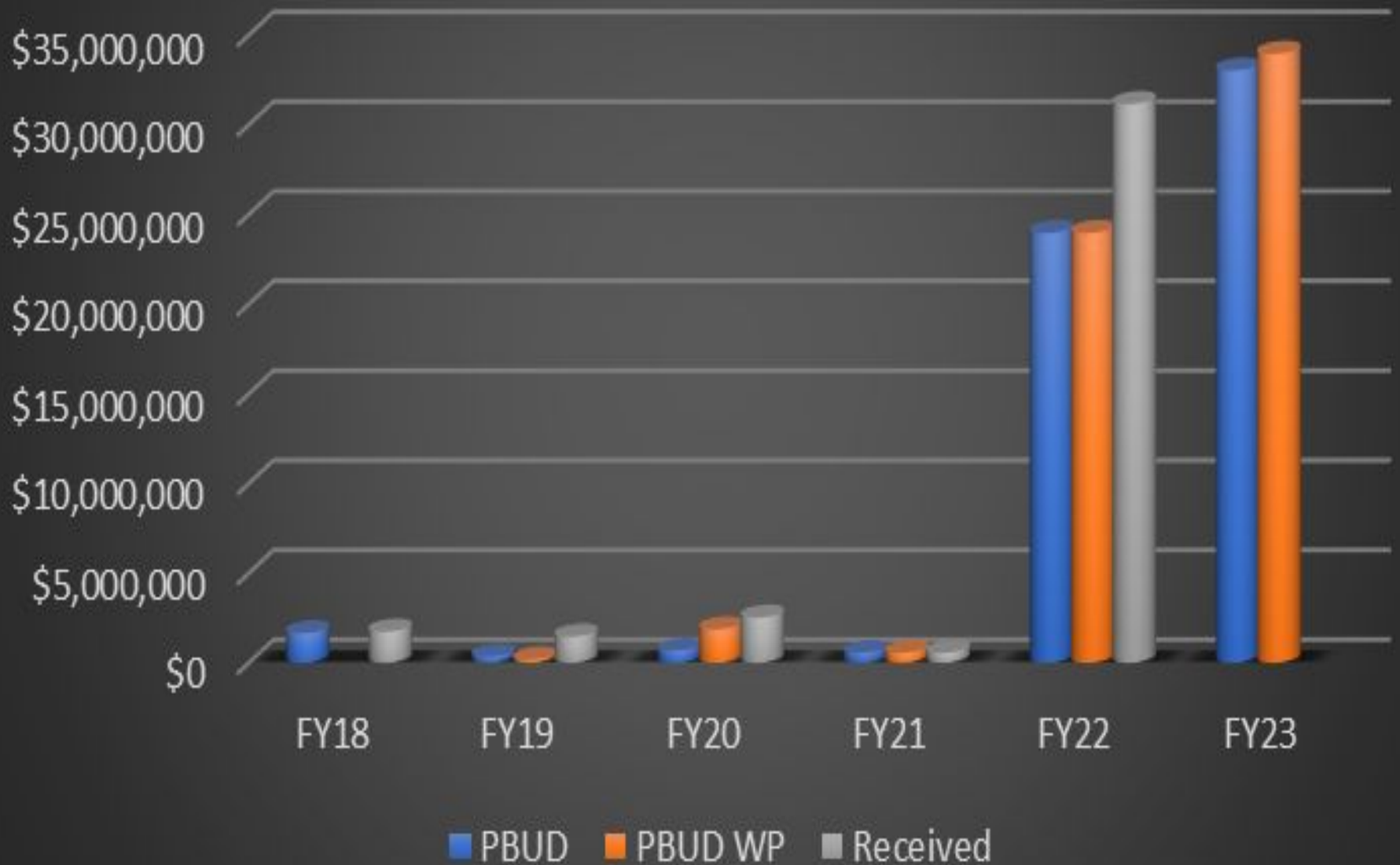
USACE TEMPLATE FOR UPDATES TOWATER CONTROL MANUAL FOR RESERVOIR OPERATIONS



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WCM Historical Funding



SO, WHAT IS OUR OUTLOOK.....

- ✓ Continue building the awareness – never being silent and always being vocal
- ✓ Forward thinking in our approach to the fundamental science
- ✓ Bolstering the research and investing in our tools
- ✓ Forward thinking from our varied agency perspectives
- ✓ Reaffirm the necessity for building the bench and educating others
- ✓ Prepare for and embrace change
- ✓ Expansion is already being asked of us – not just here but everywhere
- ✓ Results driven should be our collective goal.....



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