

# RISK INFORMED DECISION MAKING FOR USACE WATER SUPPLY AGREEMENTS

ICWP-NWSA-WSWC

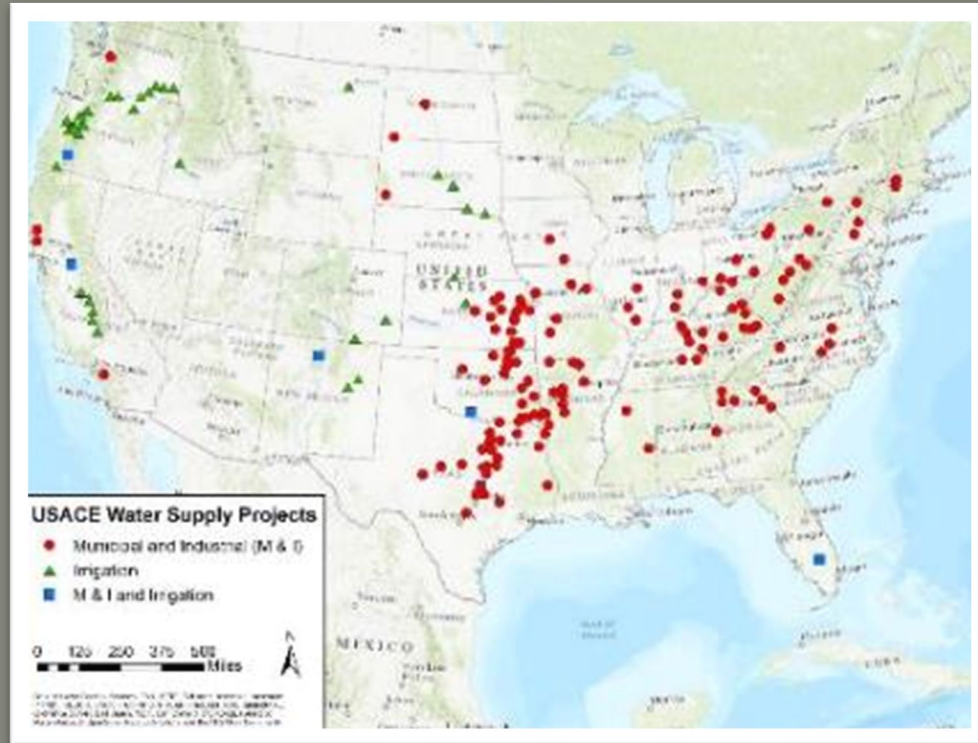
Joint Water Planner's Conference

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Brad Hudgens, PE, D.WRE

USACE Water Supply

Business Line Manager



US Army Corps  
of Engineers®



# WATER SUPPLY BUSINESS LINE UPDATE

- FY2023 President’s Budget
- FY2022 Supplemental & Congressionally-Directed Appropriations (+ \$3M O&M, + \$37M Construction)
- WRDA 2020, Section 221 Report to Congress

FY 2023 Budget Business Line/Account Cross-Walk (\$ Millions)																			
<i>Business Lines/Funding Categories: 1/</i>																			
	I	C	O&M 2/	MR&T				IWTF	HMTF				FUSRAP	REG	FCCE	E	ASA (CW)	WIFA	TOTAL
				I	C	O&M	TOTAL MRT	C	C	O&M	MRT O&M	TOTAL HMTF							
Flood and Coastal Storm Damage Reduction	83	396	893	9	65	63	137				5		5						1,514
	26		2								5		5						32
Coastal	58	396	891	9	65	63	137												1,482
Navigational	14	197	1,104		2	69	71	14	21	1,693	5	1,720							3,120
	8	159	19						21	1,693	5	1,720							1,908
Coastal	7	39	1,085		2	69	71	14											1,214
Hydropower			191																191
Aquatic Ecosystem Restoration	8	579	36	1					1				1						624
Innovative Funding Partnerships 3/		50																	50
Environmental Stewardship			137			4	4												141
FUSRAP													250						250
Recreation			228			12	12												240
Water Supply			5																5
WIFA																		10	10
Regulatory														210					210
Emergency Management			6												35				41
Expenses																200			200
Office of the Assistant Secretary of the Army for Civil Works																	5		5
<b>TOTAL</b>	<b>100</b>	<b>1,221</b>	<b>2,599</b>	<b>10</b>	<b>67</b>	<b>148</b>	<b>225</b>	<b>14</b>	<b>22</b>	<b>1,698</b>	<b>5</b>	<b>1,726</b>	<b>250</b>	<b>210</b>	<b>35</b>	<b>200</b>	<b>5</b>	<b>10</b>	<b>6,601</b>

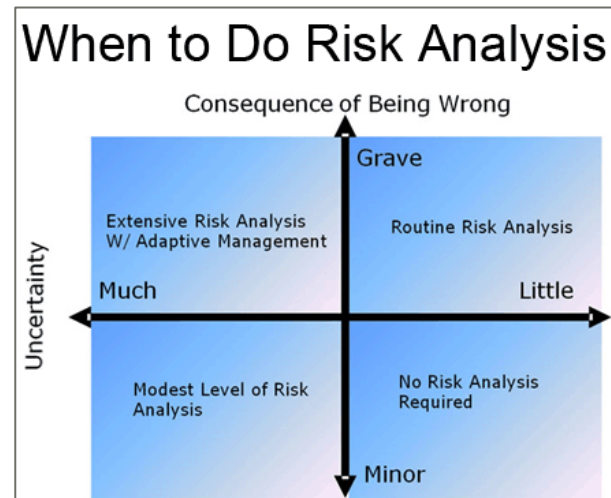


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# RISK-INFORMED DECISION MAKING

- USACE Campaign Plan calls for expanding application of RIDM across the enterprise
- Some risks associated with USACE water supply agreements?
  1. State or local interest has insufficient supply to meet needs leading to water shortages
  2. Different understandings and expectations for terms and implementation of water supply agreement leads to unexpected shortages or conflict in drought
    - See recent IWR report 2021-R-04 on storage accounting
  3. Reallocating storage space for a water supply user has unanticipated impacts on other authorized project purposes or resources



# APPROACHES TO RISK ASSESSMENT FOR WATER SHORTAGES?

- Assessing probability
  - ✓ Forecast scenarios for future demand
  - Indicator data and statistical analyses related to drought, streamflow or reservoir operations
  - Reservoir yield reliability assessments (ECB 2021-09)
  - Integrated probabilistic modeling of future demand and supplies
- Assessing consequences
  - Data sources?
  - Expert elicitation
- Quantitative risk assessments
  - Shortage index (EM 1110-2-1420)