

# Rock Removal Information Brief Regulating Works Project (Civil Works)



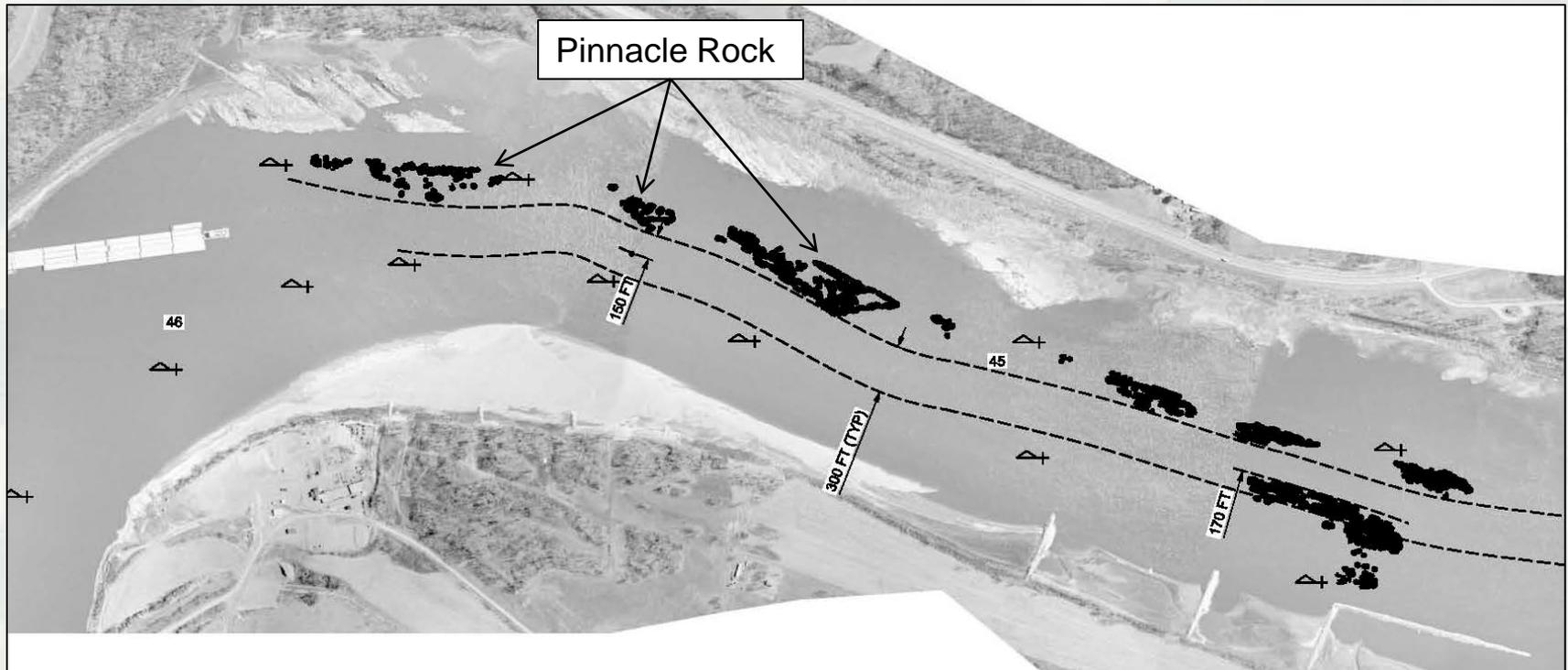
Information Brief  
20 November 2012



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# Problem Statement

Based on the current National Weather Service forecast, low Mississippi River stages will impact the St. Louis Districts' ability to maintain the navigation channel at authorized project dimensions, especially in the Thebes Reach (River Mile 46-41), in the mid-December 2012 timeframe.

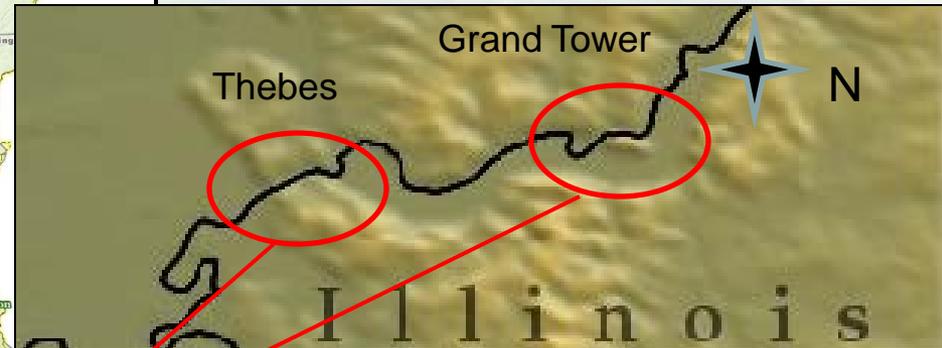
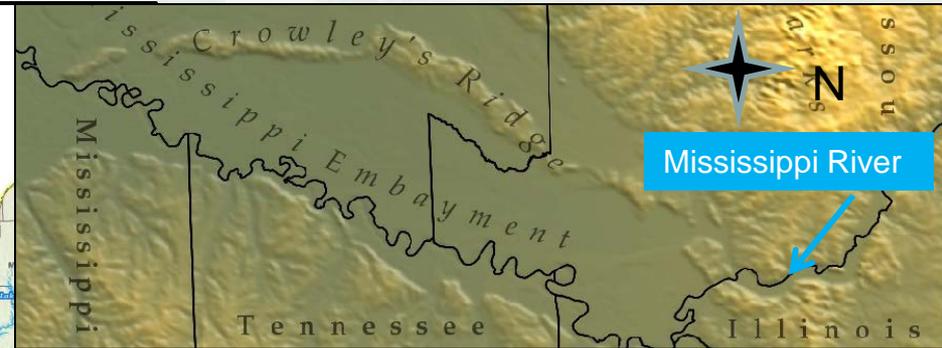


Thebes Reach



# Rock Removal

## What are we trying to remove?



Kentucky

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# How did we get to where we are today?



- 1988-1989 was the first Rock Removal contract
  - Drilling and Blasting methodology
  - Took advantage of low water (-4.2 STL gage)
  - USCG closed channel for 30 days at Thebes (low water / ice)
- 2006 some residual pinnacles were identified
  - Different survey technique used (multi beam survey)
  - 6,700 cyds identified for removal
  - High bid prevented contract award
- ARRA funds utilized in 2009 for removal of 6,700 cyds
  - Grinding methodology ineffective
  - Contract recently terminated for convenience, funds returned.



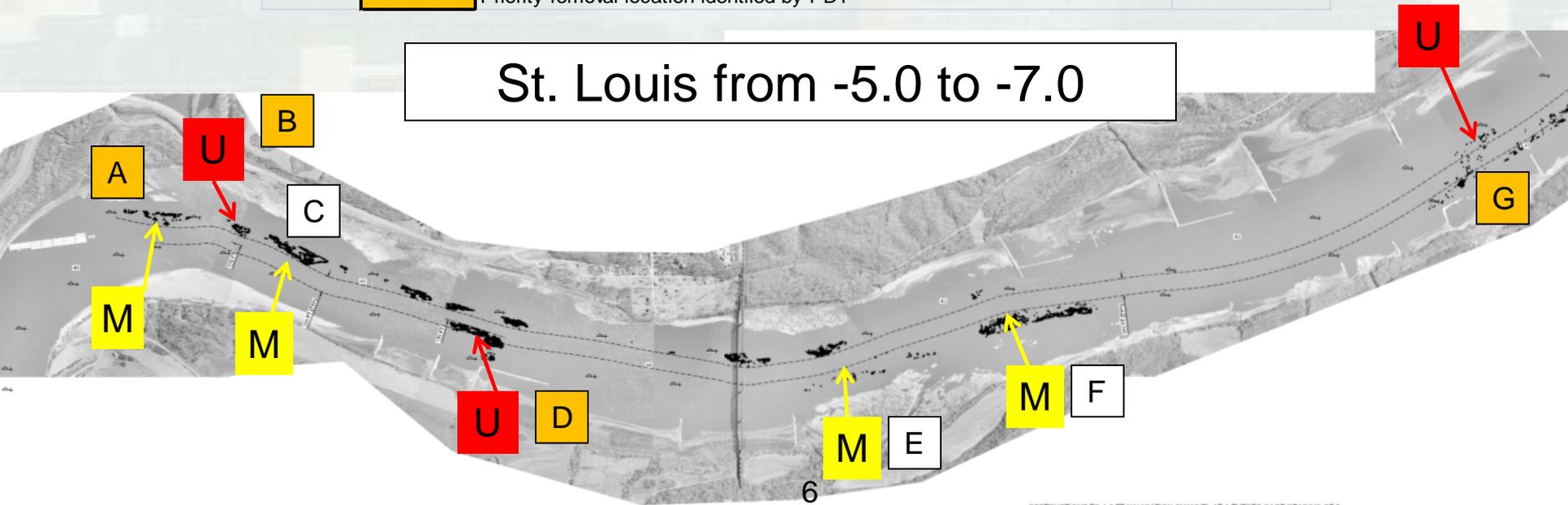


# Engineering Analysis

## Pinnacle Rock Impacts at Thebes Reach

		AREAS of CONCERN							
		A	B	C	D	E	F	G	Probability
ST. LOUIS GAGE	-3.0 - -4.0	300+	300+ ?	300+ ?	300+	300+	300+	300+	100%
	-4.0 - -5.0	300+ ?	300+ ?	300+ ?	300	300+ ?	300+ ?	300+	70%
	-5.0 - -6.0	300+ ?	300+ ?	300+ ?	190	300	300	NONE	60%
	-6.0 - -7.0	300+ ?	150	300+ ?	170	300	300	NONE	50%
		<b>A</b>	Acceptable Channel Condition for a 20 (4x5) Barge Tow (300+ ft wide channel)						
		<b>M</b>	Minimally Acceptable for a 20 (4x5) Barge Tow (300 ft maximum channel or questionable channel width to flank through bend or for alignment purposes.						
		<b>U</b>	Unacceptable Channel Conditions for a 15 (3x5) Barge Tow (channel should be closed to navigation)						
			Priority removal location identified by PDT						

St. Louis from -5.0 to -7.0



# Facts and Assumptions

- Towboat draft (Typically 9') is limiting factor
  - North bound vessels require an additional 1 foot of draft
- Waterway Action Plan updated with Stakeholders
  - Common Operating Picture with USACE, USCG, REITF, RIAC
- The full effect of Missouri River flow reductions will be realized by 15 December on the St. Louis gage
  - Coincides with completion of grain harvest
- Persistent drought will continue into next spring



# Pinnacle Removal Path Forward

- Regulating Works FY13 budget has funding to move forward with some P1 locations (subject to contract award amount).
  - PDT P1 priorities include 4 locations totaling approximately 850 cy.
  - Current coordination with RIAC have agreed to 12/12 work day. Is there any flexibility?
- Due to the low water and time of year, impacts to navigation will be minimized.
  - Coincides with scheduled closure at LD27 Main Lock for miter gate installation
  - All parties agree this is the right time to pursue
- The Environmental Assessment and Biological Assessment are complete and valid based off our 2009 project
- Efforts are focusing on the drill and blast method, a proven methodology.
  - The bedrock material strength is over 20,000 psi, ruling out other methods



# Pinnacle Removal Path Forward (Cont).

- Sources Sought Query completed 1 November
  - At least 2 contractors interested
  - Pre-solicitation notice sent 5 November.
- Tentative contract award date is late January/early February.
  - Allows 60 days for rock removal work
  - The current Biological Opinion does not allow us to blast outside this window
    - Pallid Sturgeon spawning season
    - PDT is working with USFW for a potential variance
- If all P1 locations have been removed and resources still available, high priority P2 locations will be addressed subject to the availability of funds.



# Questions/Comments

