



**US Army Corps
of Engineers®**

**Rob Davinroy, P.E.
Chief, River Engineering**



St. Louis District

SAFE AND DEPENDABLE NAVIGATION ON THE MIDDLE MISSISSIPPI RIVER



Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®



St. Louis District



Relevant, Ready, Responsible, and Reliable



**US Army Corps
of Engineers®**



St. Louis District



**110 million tons per year,
3rd busiest port on IWS**



Relevant, Ready, Responsible, and Reliable







US Army Corps
of Engineers®

Navigation Growth



Till the late
1970s

Standard Barge

26 by 175 by 12'

Late 1970s to
2007

Jumbo Barge

35 by 200 by 12', 13', 14'

Source: ADM



Relevant, Ready, Responsible, and Reliable

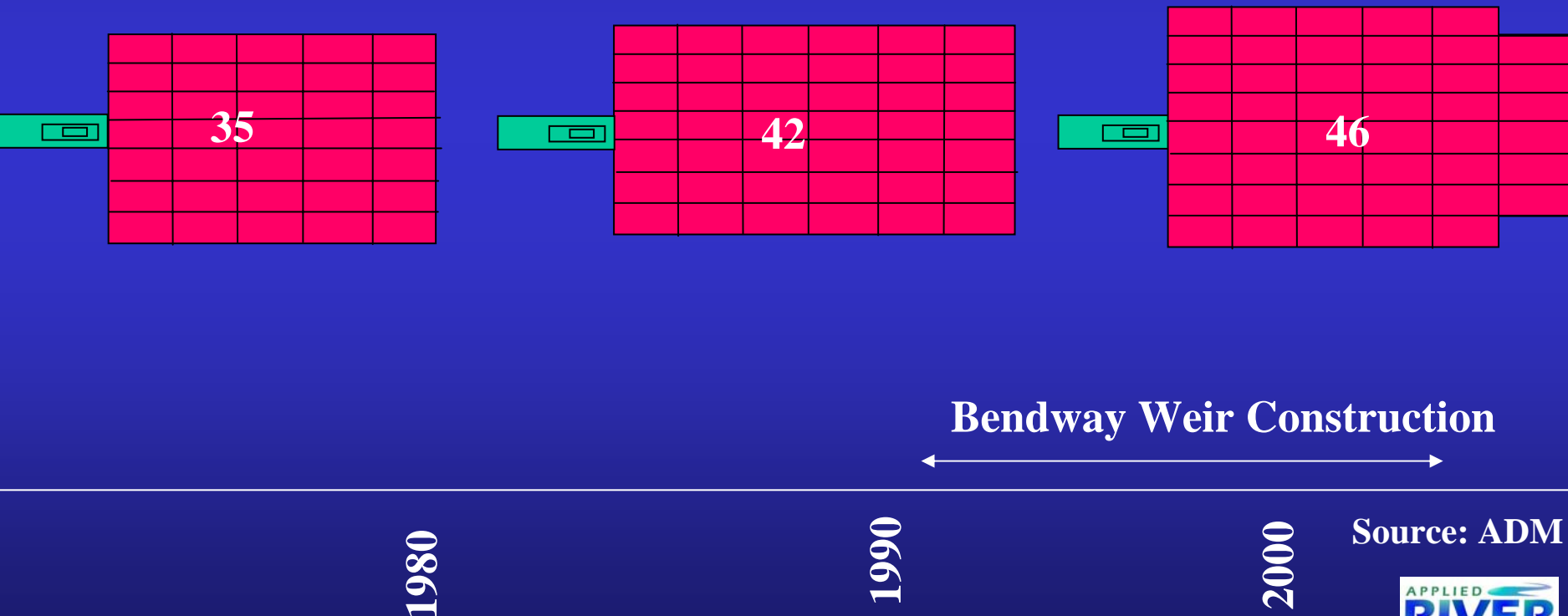


US Army Corps
of Engineers®

Navigation Growth



South bounds,
St. Louis to
Cairo



Relevant, Ready, Responsible, and Reliable

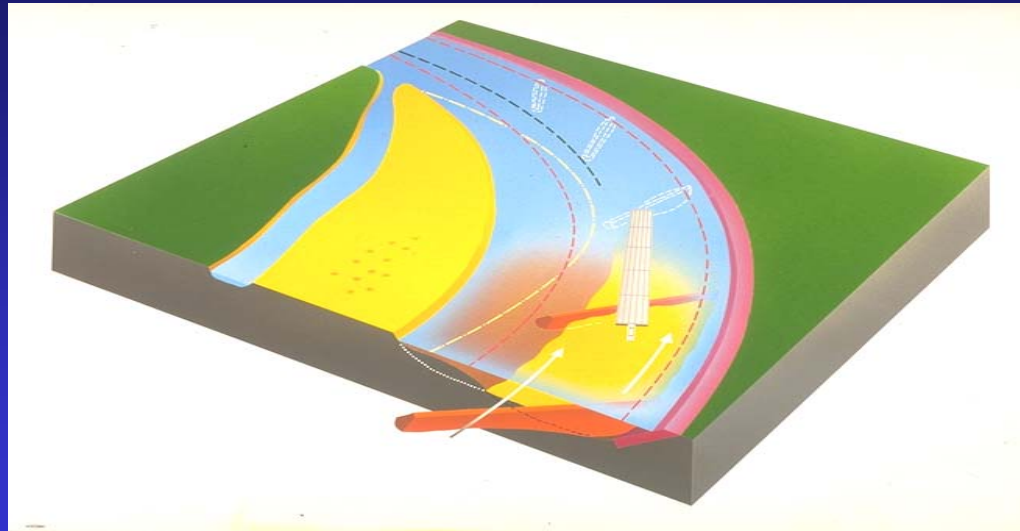




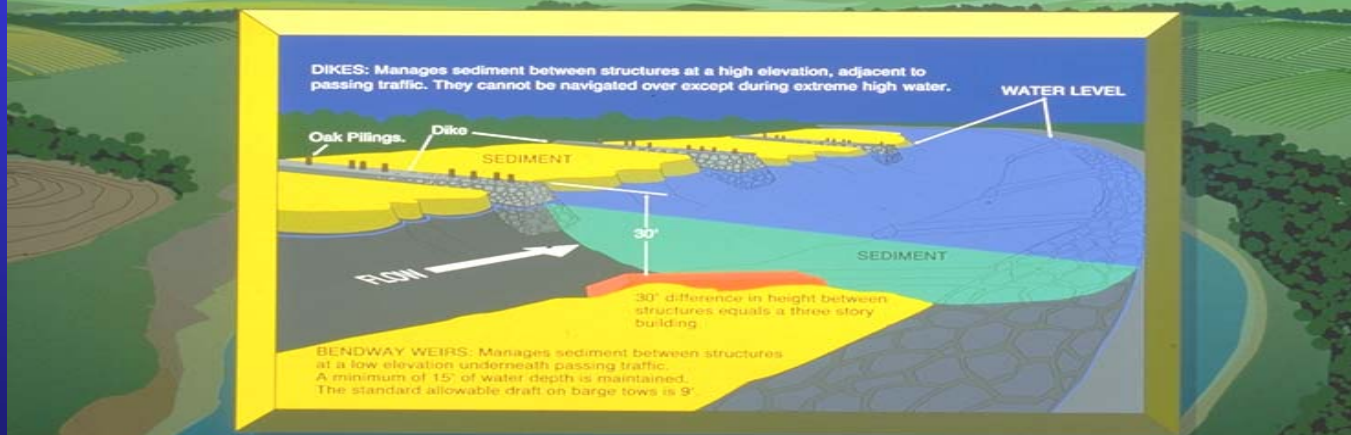
US Army Corps
of Engineers®



St. Louis District



New Sediment Management Systems: Bendway Weirs vs. Dikes



APPLIED
RIVER
ENGINEERING CENTER

Relevant, Ready, Responsible, and Reliable

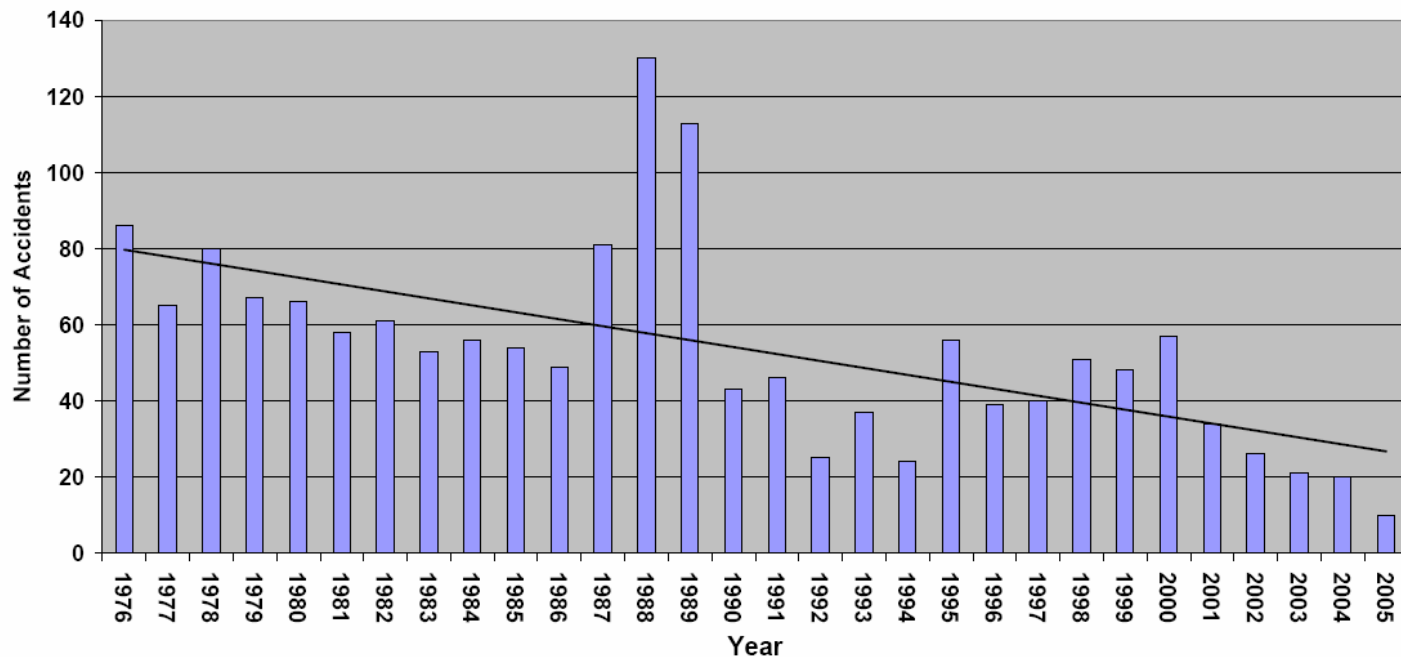


US Army Corps
of Engineers®



St. Louis District

Accidents as Reported by the U. S. Coast Guard
Upper Mississippi River Miles (0-200)
(1976-2005)





US Army Corps
of Engineers®

Dredging in Bends Since Bendway Weirs



St. Louis District



Relevant, Ready, Responsible, and Reliable



**5 million
cubic yards
of sediment
per year
(\$12 MIL)**

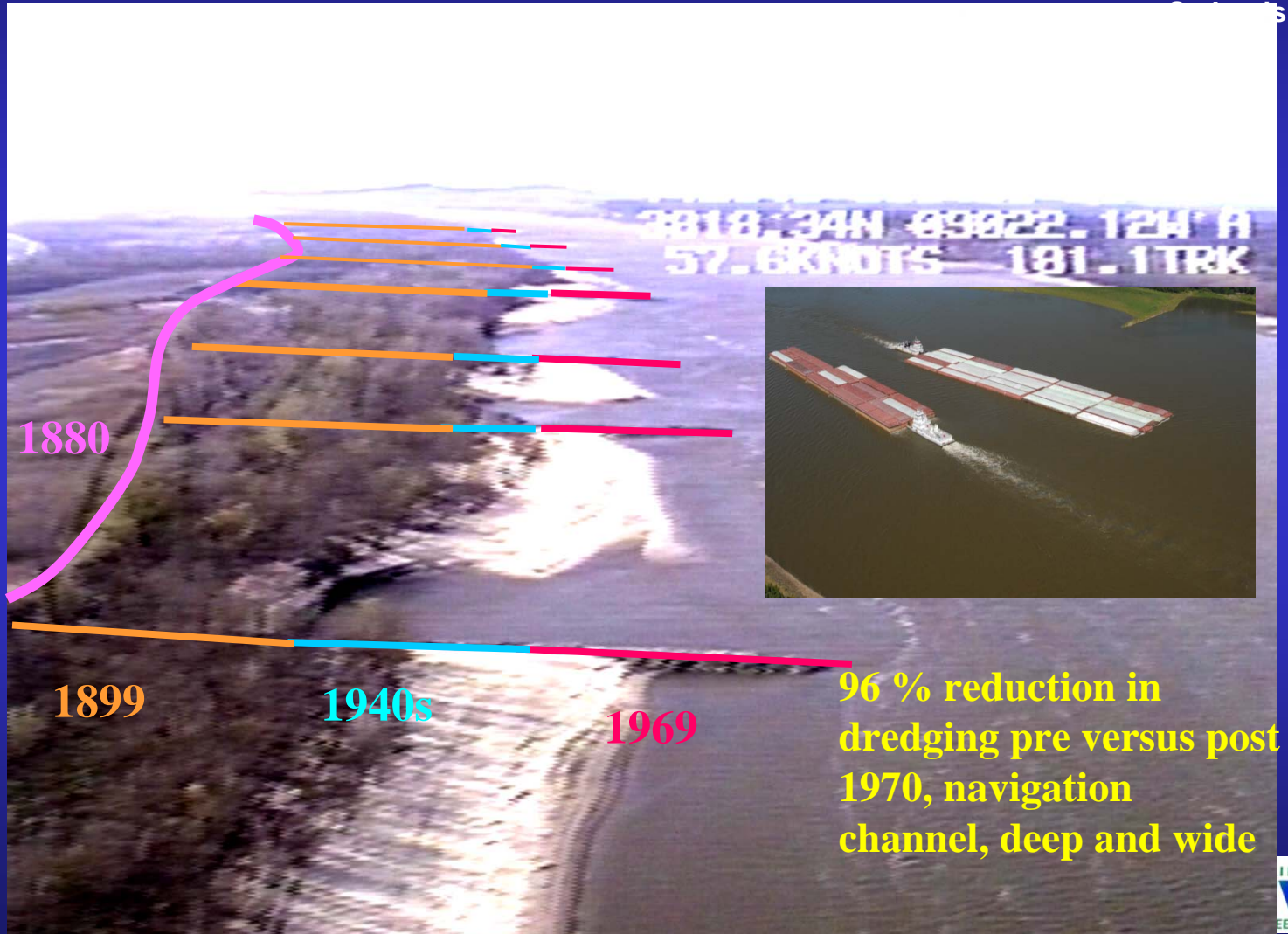




US Army Corps
of Engineers®



St. Louis District



Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®



St. Louis District

NO!!



USFWS



Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®

Traditional, Far Field Sediment Management



St. Louis District



Relevant, Ready, Responsible, and Reliable



**US Army Corps
of Engineers®**



St. Louis District



Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®

Near Field Sediment Management



St. Louis District



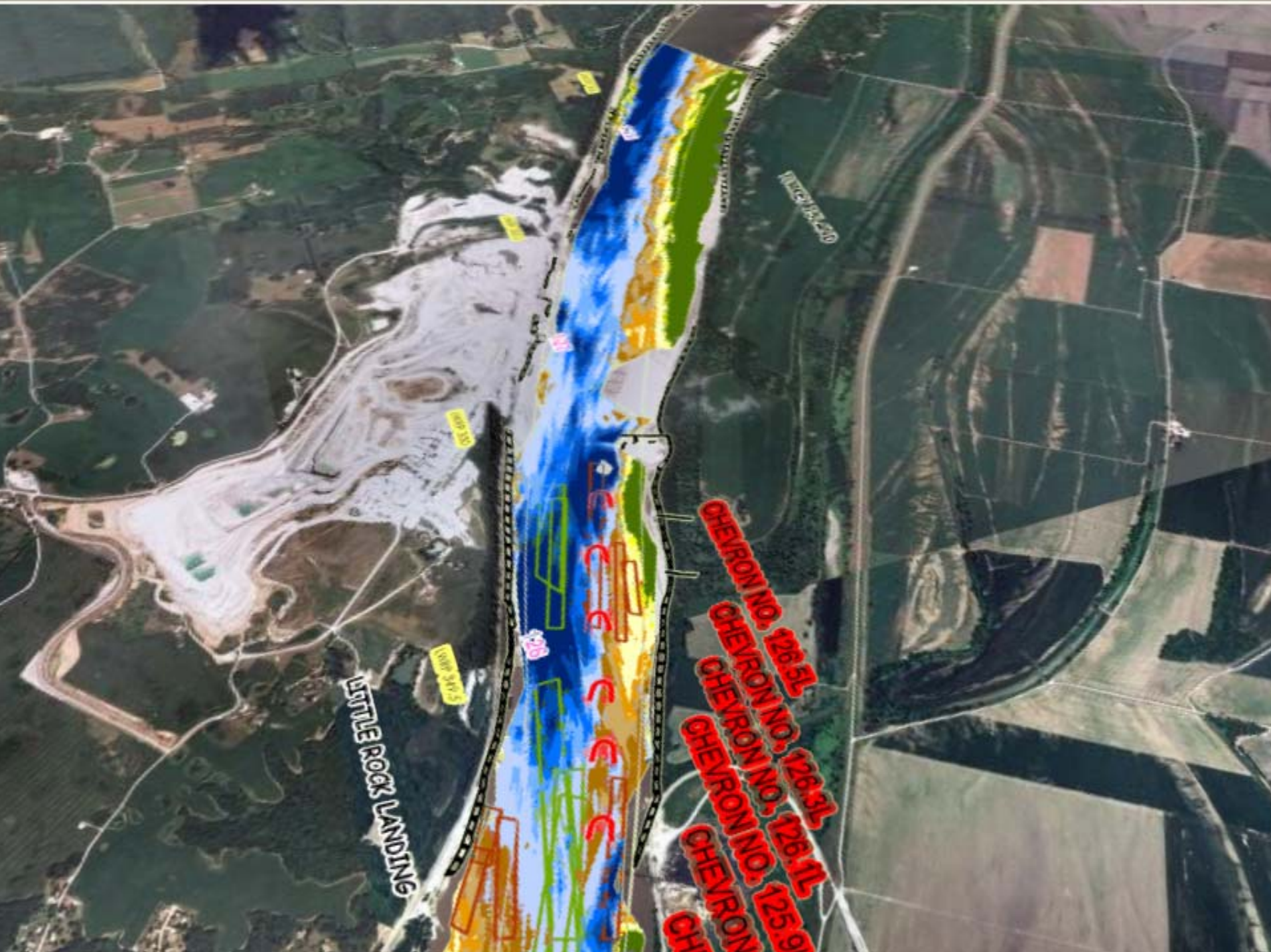
Relevant, Ready, Responsible, and Reliable

2002 Construction -
\$1.5 mil

\$500 lb per week







LITTLE ROCK LANDING

- CHEVRON NO. 128.5L
- CHEVRON NO. 128.3L
- CHEVRON NO. 128.1L
- CHEVRON NO. 125.9L
- CHEVRON



**US Army Corps
of Engineers®**



Saverton LD 22

Operation and Maintenance

St. Louis

**Mississippi River Between
Missouri and Ohio Rivers
Regulating Works Project
195 to 0**

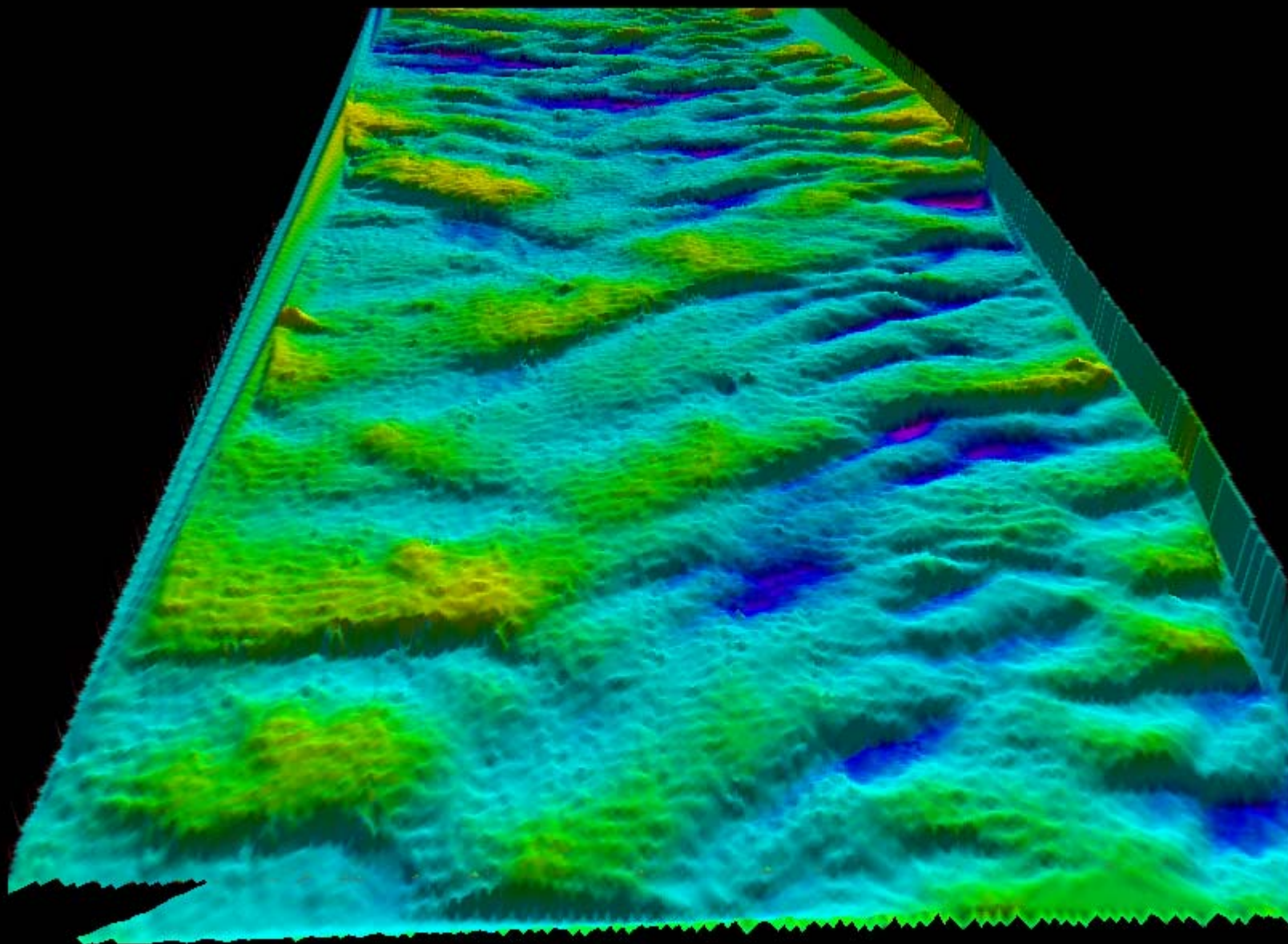


Cairo



Relevant, Ready, Responsible, and Reliable



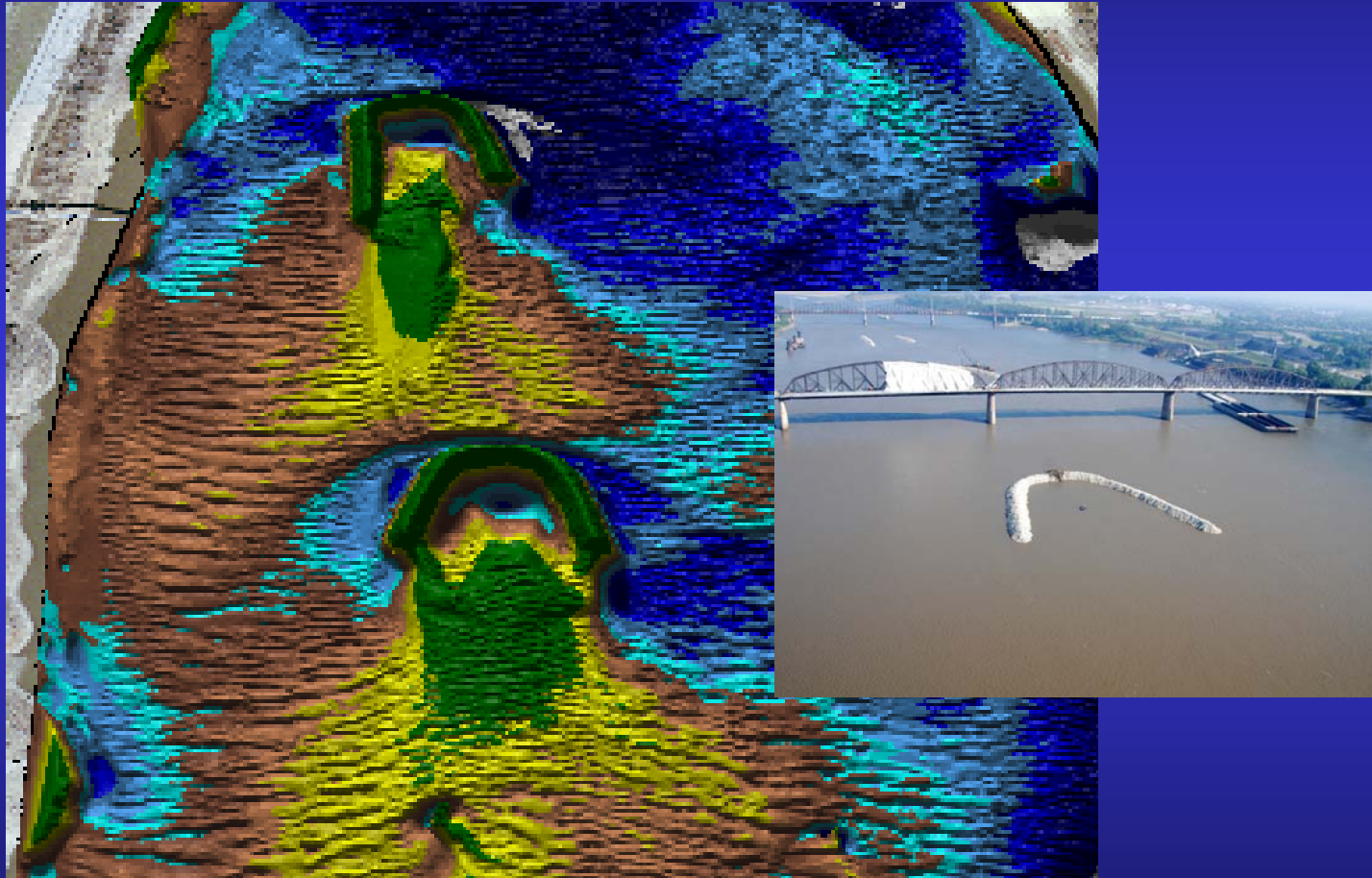




US Army Corps
of Engineers®



St. Louis District



Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®



St. Louis District



RIVER
ENGINEERING CENTER

Relevant, Ready, Responsible, and Reliable



**US Army Corps
of Engineers®**



St. Louis District

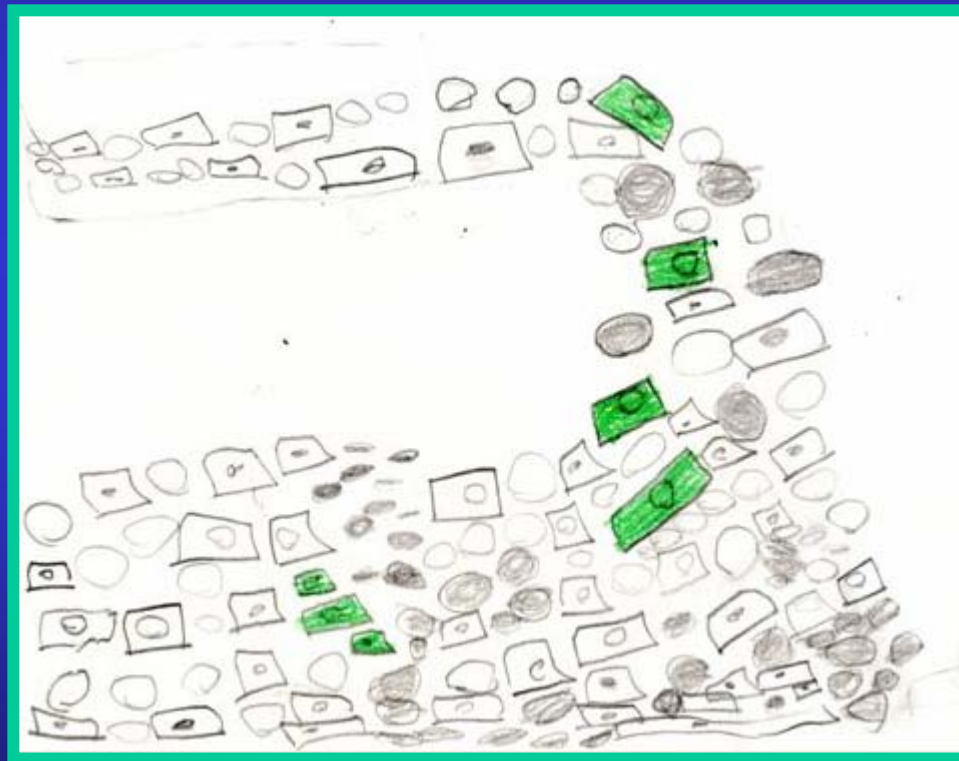


Relevant, Ready, Responsible, and Reliable



US Army Corps
of Engineers®

CASH FLOW and Present Worth Analysis



Relevant, Ready, Responsible, and Reliable

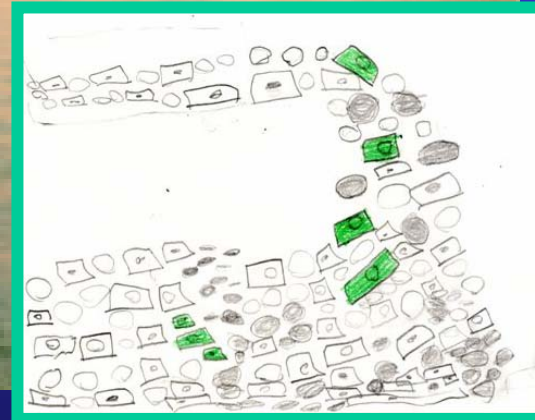


US Army Corps
of Engineers®

Questions?



St. Louis District



APPLIED
RIVER
ENGINEERING CENTER

Relevant, Ready, Responsible, and Reliable