



US Army Corps of Engineers



Regional Sediment Management

on the Missouri River Basin

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January 2009



RSM Key Concepts

- Recognize sediment as a resource
- System-based approach
- Understand and work with natural processes
- RSM applies to:
 - navigation channel maintenance
 - ecosystem restoration
 - flood control
 - hydrosystem operations
 - ESA species recovery actions
 - regulatory actions



RSM Key Concepts (cont'd)

- Develop regional strategies for both environmental and economic benefits
- Strategic alliances with stakeholders – agencies, local sponsors, interest groups
- Activities and solutions go beyond traditional project boundaries and time scales
- Implement more efficient solutions



Kansas City District Projects

- Missouri River Degradation Study
- Analysis of Missouri River Stage Trends on Shallow Water Habitat Availability
- Regional Sediment Management, RSM, Missouri River Degradation
- Missouri River Commercial Dredging Environmental Impact Study
- National Academy of Sciences Study
- Missouri River Sediment Sampling



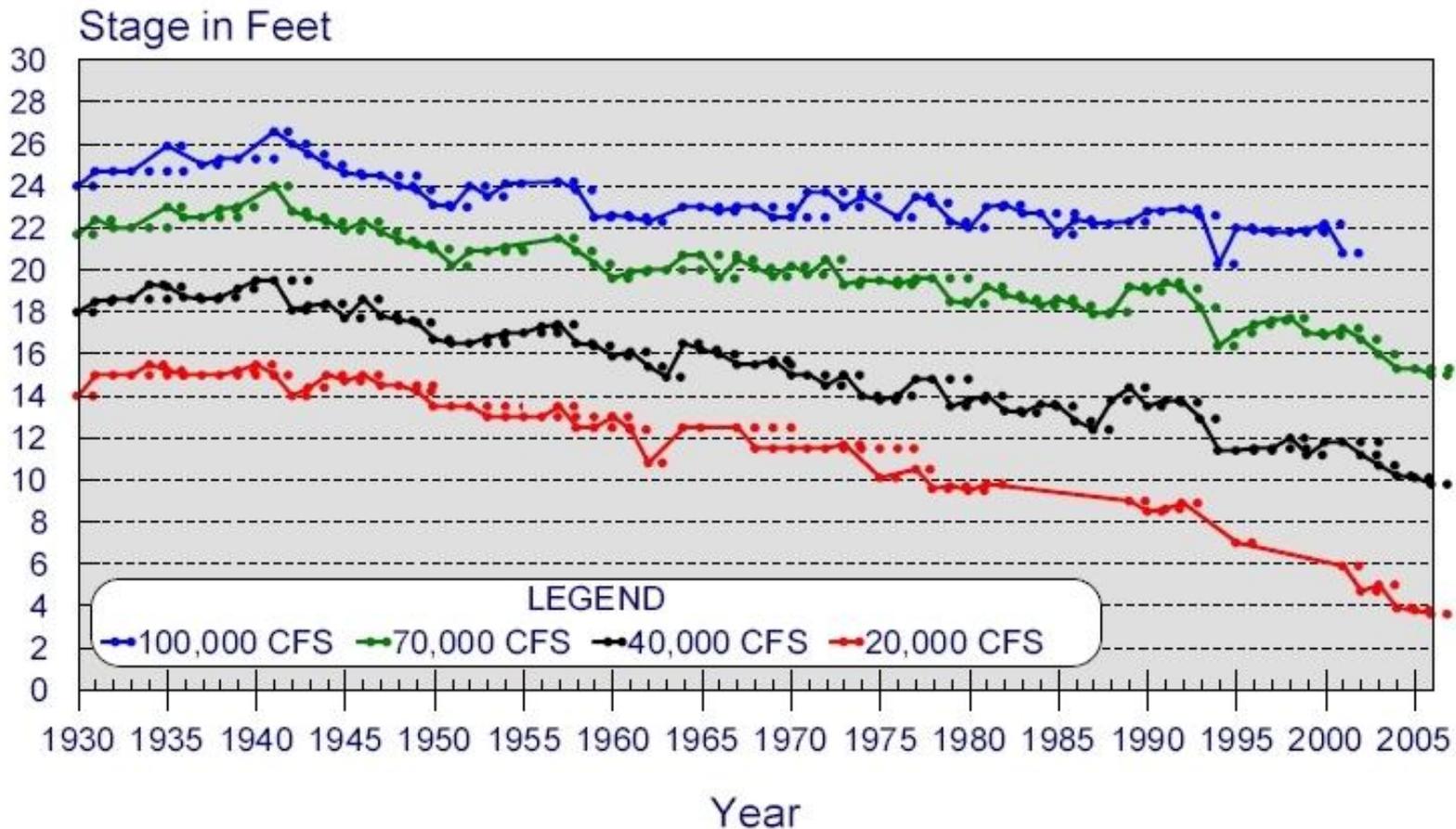
Missouri River Degradation Study





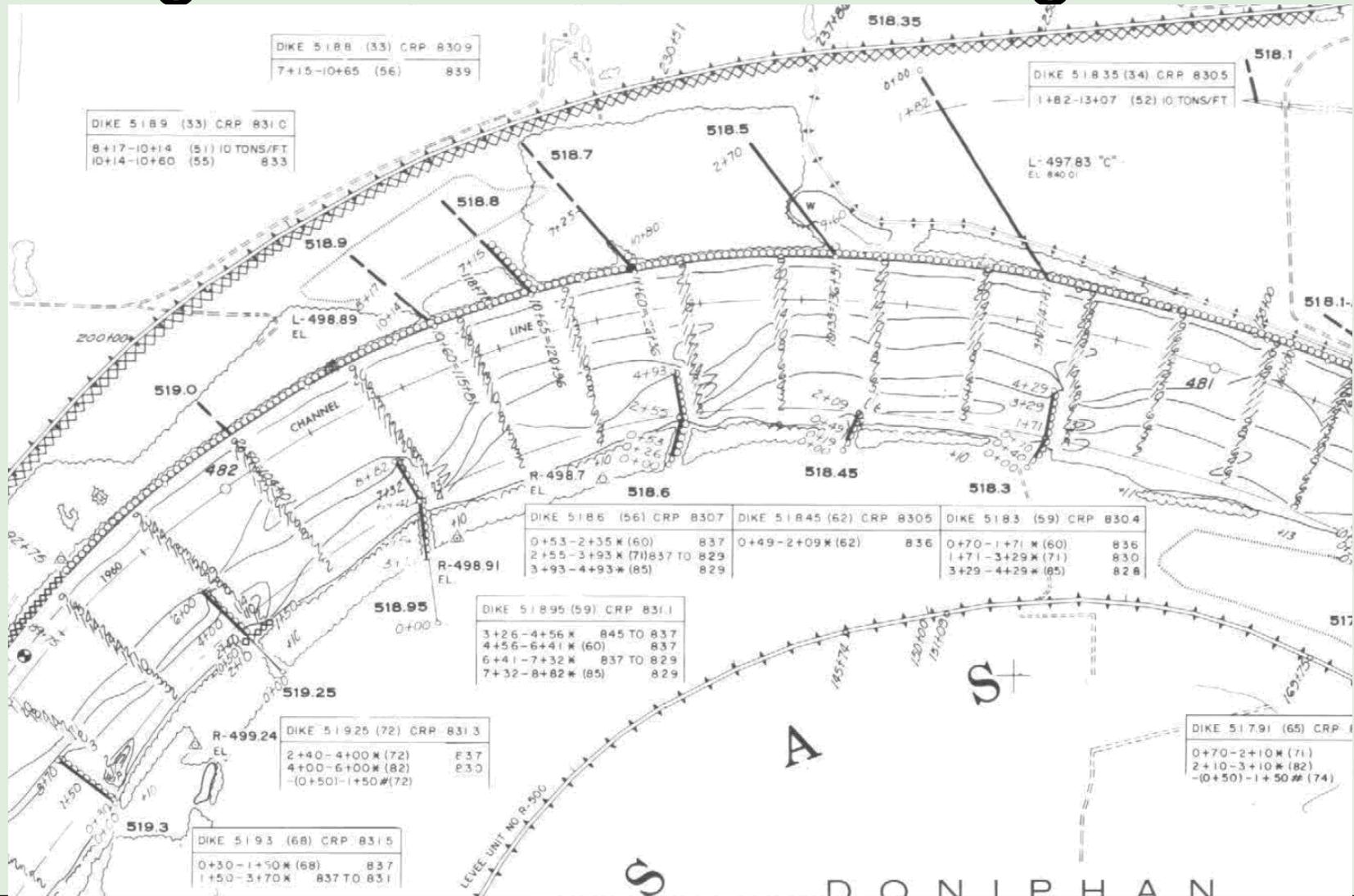
Missouri River Stage Trends

Missouri River Stage Trends
at Kansas City, Missouri





Regional Sediment Management





US Army Corps of Engineers



Missouri River Commercial Dredging Environmental Impact Study



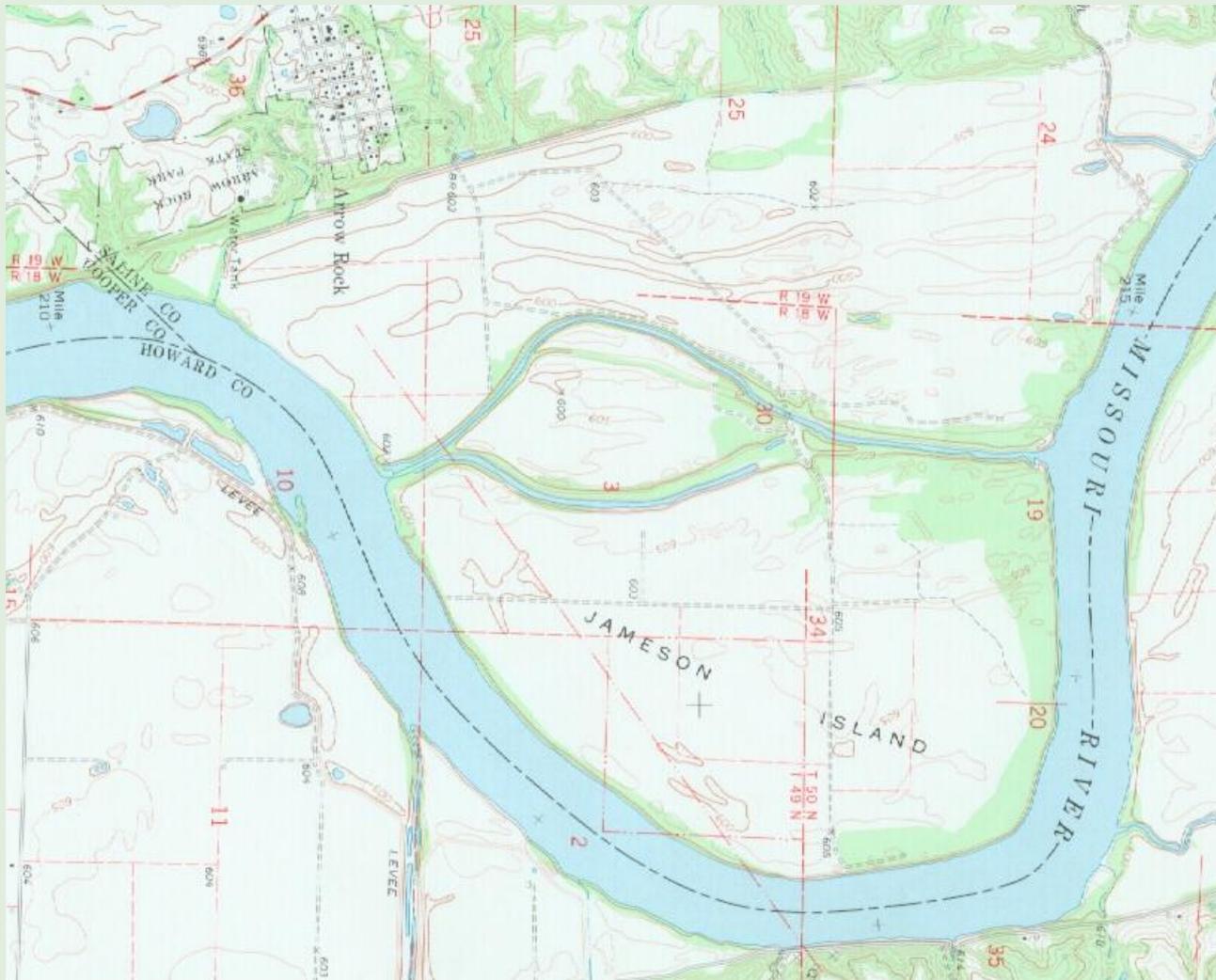
BUILDING STRONG

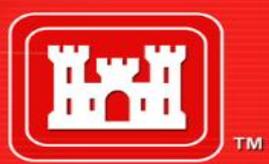


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National Academy of Sciences





Missouri River Sediment Sampling





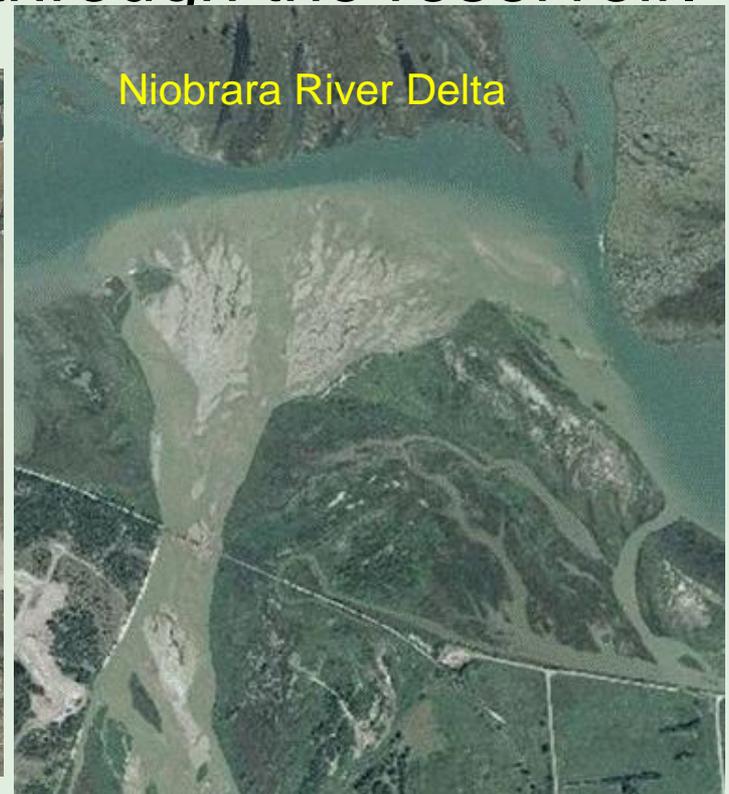
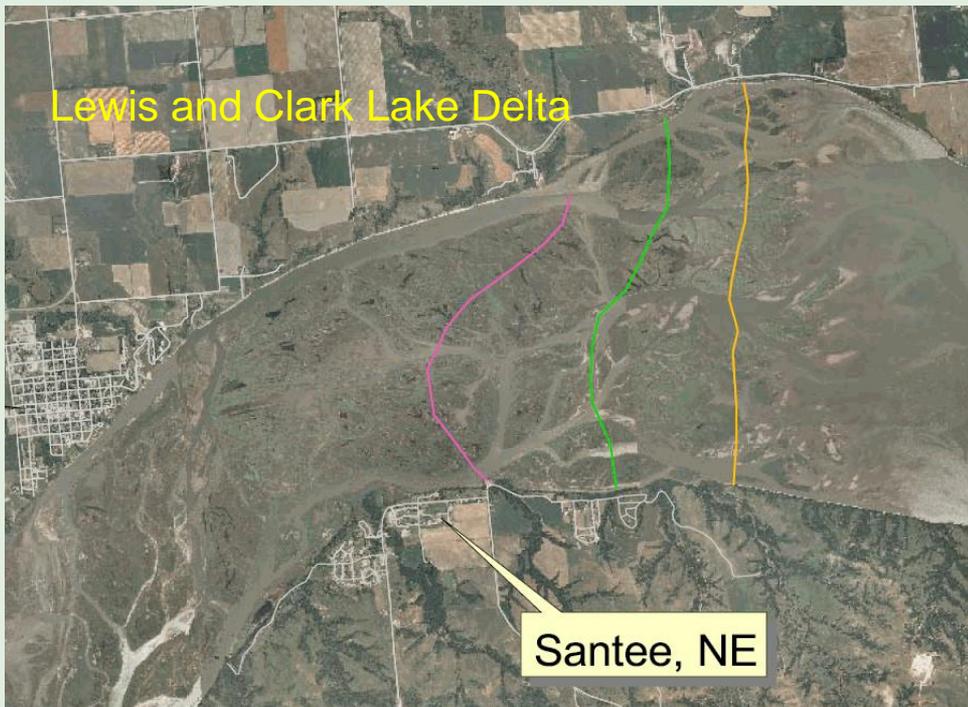
Omaha District Projects

- Lewis and Clark Lake Sediment Management Study (MRRP)
- Niobrara River Basin Study (RSM)
- Emergent Sandbar Habitat (MRRP)
- National Academy of Sciences Study (MRRP)
- Missouri River Degradation Trends Update (O&M)
- Missouri River Sediment Sampling, Ft. Randall Dam to Rulo, NE (O&M/MRRP)
- Missouri River Bed Core Sampling, Ponca to Rulo, NE (O&M)



Lewis and Clark Lake Sediment Management Study

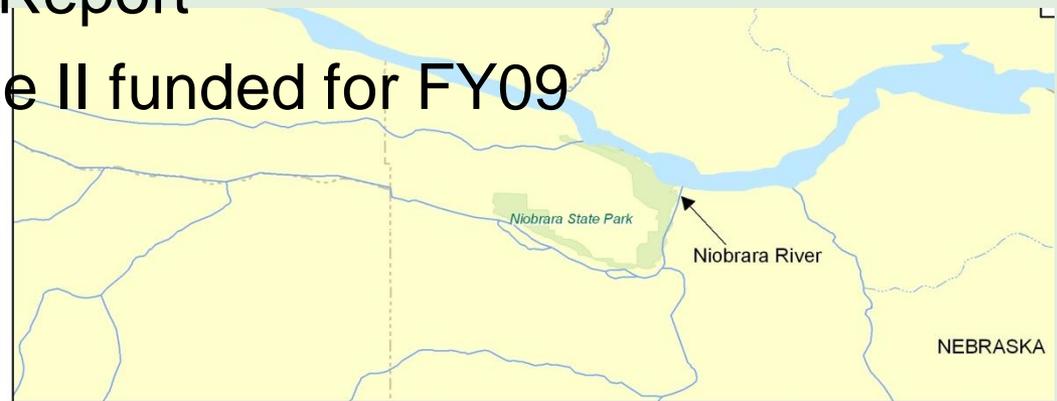
- Engineering Viability study to determine if flow solutions will move sediment through the reservoir.





Niobrara River Basin Study

- **Overall Goal:** Basin wide sediment yield analysis by determining sources, contributions, and management practices
- **Phase I** – a) Coordination with the NRCS and NRD's, b) Literature Search
- **Phase II** – a) Data collection, b) Data Analysis
- **Phase III** – Technical Report
- Phase I completed, Phase II funded for FY09





Emergent Sandbar Habitat

- Sioux City to Garrison Project
- Developed for Least Tern & Piping Plover
- Create new sandbars by mech. means
- Manage existing bars by de-vegetation

Sandbar created by dredge at RM 827



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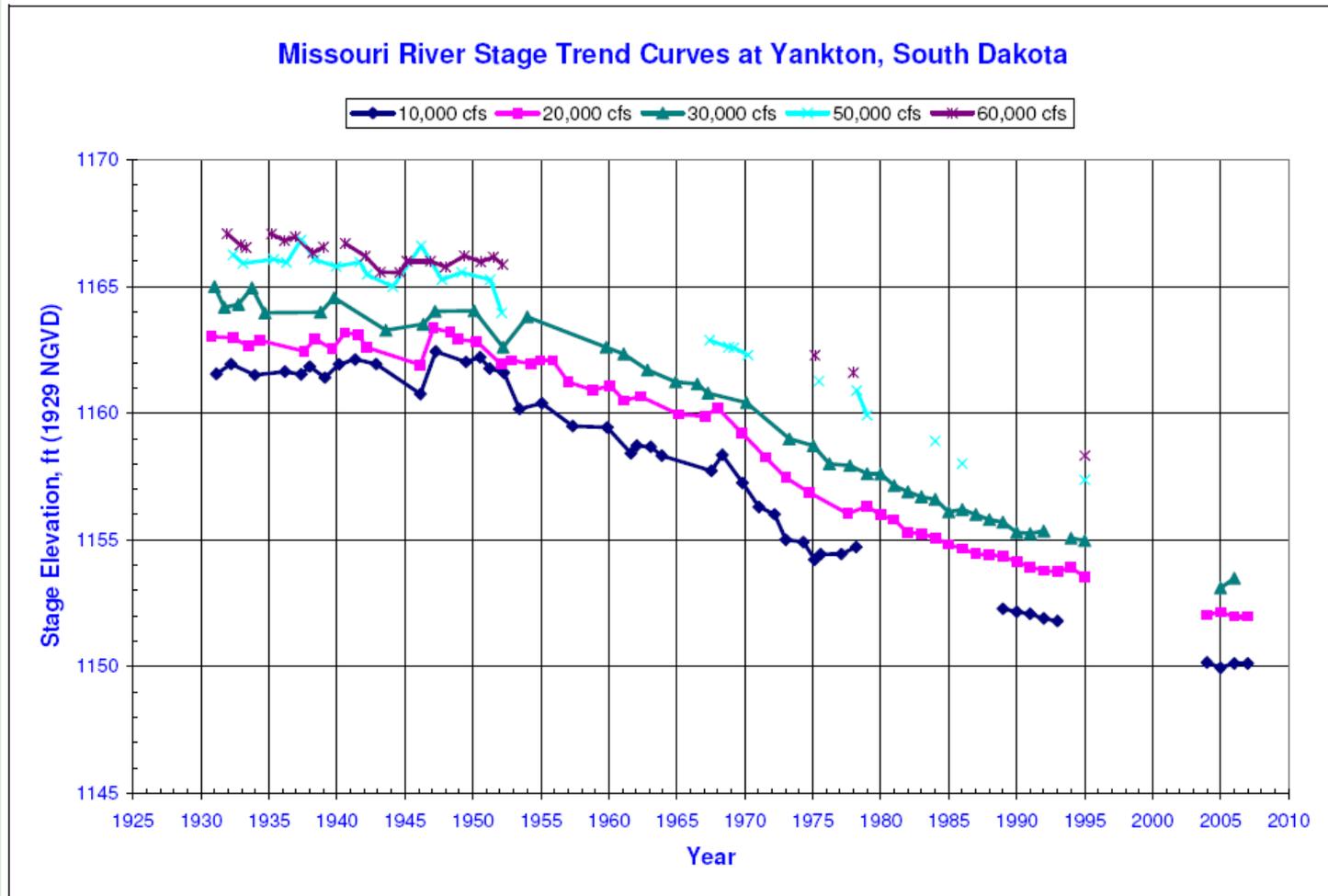
Mechanical reshaping of existing sandbar





Missouri River Degradation Trends Report

- Continued monitoring of bed elevation trends with the most current data





SEC. 2037, WRDA 2007 REGIONAL SEDIMENT MANAGEMENT

- Amends
 - Sec 204 of WRDA 92
 - Sec 207 of WRDA 96
 - Sec 145 of WRDA 76
- Authorizes Corps participation in developing “regional sediment management plans,” in cooperation with States.





Section 204 Program

- Beneficial Use of Sediment/Regional Sediment Management
- Authorization: Continuing Authorities Program
- Modified by WRDA 2007:
 - Beneficial Use Sediment Projects
 - For existing Federal water resources projects
 - Expanded beneficial use purposes
 - Cost shared according to purpose, generally 65/35
 - Max. \$5M Federal Total Cost (Feasibility & DI)
 - State and Regional Plans
 - Corps participation in State initiated Regional Sediment Management Studies
 - 100% Federally funded
 - \$5M National limit
- Omaha District Plan



The Old

Each Civil Works project goes it alone with its own budget; Corps Division sets priorities; sediment passed to next project

The New

Civil Works projects and stakeholders in a watershed work together with common goals to manage sediment as a natural resource for environmental sustainability and economic benefits



QUESTIONS?

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