Planning Assistance to States Report

- Sediment Chapter Team Meeting –

Chapter Co-Leads: Jim Fischer and Steve Tapp

JANUARY 30, 2020

Introductions

Agenda

1. Introductions
2. Purpose and process for this meeting
3. ‘Keys to the River 2020’ report purpose and process
4. Problem Statement & Resilience as a Goal
5. The ideas generated so far for this chapter – Known Opportunities
6. The ideas generated so far for this chapter – Section 729 Study
7. How these ideas will be used in a broad survey
8. What will happen at the February 25-26, 2020 meeting
9. Next steps for the chapter team
10. Additional questions and perspectives
11. Final thoughts

Purpose and Process for this Meeting

Purpose

- Re-orient team members to the larger project
- Review ideas to-date for the sediment chapter
- Initial reactions, refinements, new ideas
- Discuss two upcoming surveys
- Discuss February meeting

Process

- Chapter lead presentation
- Discussion by team members

Big Picture Review

The Big Challenge

- Address interrelated challenges of flood, sediment, and drought
- How? By engaging a wide range of individuals and organizations

Timeline and Activities

- 2017 Summit, Dubuque
- 2019 UMRBA & USACE Planning Assistance to States Agreement
- Open Space Meetings, Summer 2019
- September 30, 2019 Summit with James Dalton, Bloomington
- October 1, 2019 Chapter Workshops, Bloomington
- Nov 1, Workshop notes to Sediment Writing Team
- Dec 27, 2019 Version 1.0 Sediment Chapter sent tor Writing Team
- Jan 30, 2019 Team review call
- Next week: Survey to follow-up on this call
- February: Broadly distributed survey related to all PAS elements
- Feb 25-26 In-person meeting with all Chapter Teams to refine priorities for the PAS Report

Proposed Problem Statement: Climate and land use changes have increased the frequency, intensity, and duration of river flows and associated sedimentation in Upper Mississippi River

- Symptoms of that problem can be observed in both the mainstem and backwaters, and include:
  - Increased main channel dredging needs
  - Shallowing backwaters (fine material settling)
  - Shoaling (deltaic splays) of coarse bedload from main channel breakouts
  - Dredge material placement site capacity

- Factors Intensifying the symptoms
  - Policy impediments (i.e., USACE Real Estate)
  - Planning (e.g., documents based on historical hydrologic conditions)
  - Limited placement options for dredged material
  - Increased costs for dredging and sediment placement

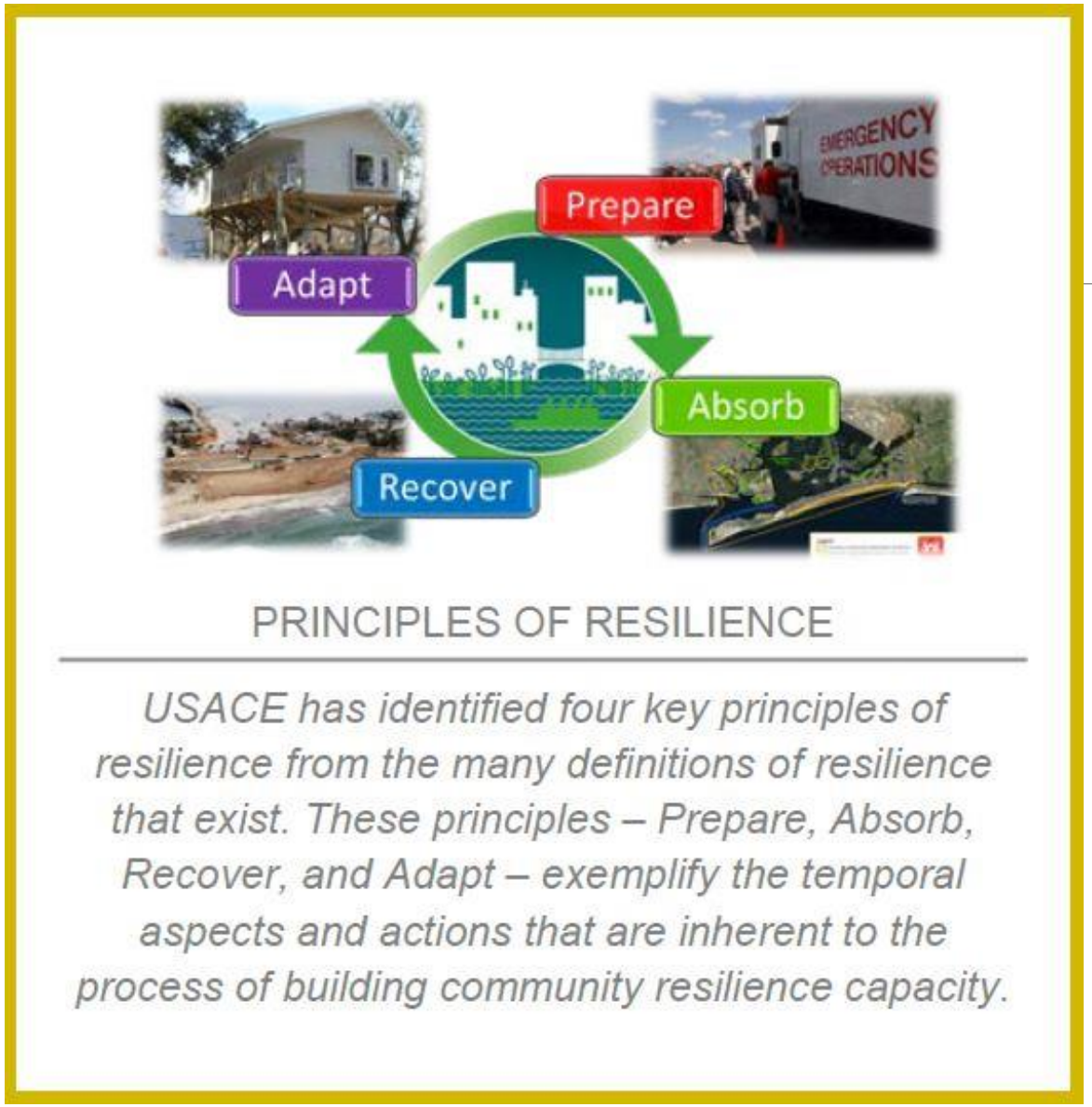
Ideas that have been generated thus far:

Resilience as a Goal

- USACE's approach in accordance with Executive Order, 13653 (Preparing the U.S. for the Impacts of Climate Change)
- A working definition from USACE Resilience initiative Roadmap 2016
- Definition: The ability to anticipate, prepare for and adapt to changing conditions and withstand and recover from disruptions.

Four Principals:

- Prepare
- Absorb
- Recover
- Adapt



Resilience as a Goal

Resilience is a criterion we want to use to select ideas to highlight in "Keys to the River 2020"

- High leverage actions with regional consent that will support resilience
- Important questions in a Section 729 Watershed Study that support resilience

"The ability to anticipate, prepare for and adapt to changing conditions and withstand and recover from disruptions."

Ripe Solutions or Known Opportunities – Identified in the Sept. 30 – Oct. 1, 2019 Summit in St. Paul	Impact	Regional Consensus
Establish a beneficial use working group in each USACE District then share and adopt regionally	4	4
Evaluate and identify real estate and Corps policy issues	3.5	4
Planning	3.5	4
Policy	3	3
Investigate merits of increased bankline placement to protect eroding shorelines	3	2

Known Opportunities

High leverage actions with regional consent identified in the V 1.0 December 27 **DRAFT Chapter**:

- Establish a beneficial use working group in each USACE District then share and adopt regionally
- Evaluate and identify real estate and Corps policy issues
- Evaluate and identify streamlined process for completing DMMPs
- Evaluate and identify streamlined State permitting processes for beneficial use of dredged material
- Collect and analyze data and policies to evaluate increased bankline placement to protect eroding shorelines

Review comments and new ideas

- Establish a beneficial use working group in each USACE District then share and adopt regionally
  - Comment - This once was a role the FWIC fulfilled
- Evaluate and identify real estate and Corps policy issues
  - Comment -- This is what the group came up with during our session on 1 October, but should this be limited to Corps policy issues? Are there other Federal and State policy issues? Are there other Federal and State Policy issues that restrict or limit beneficial use or management of dredged material?
- Evaluate and identify streamlined process for completing DMMPs
  - Comment – Moved to Corps policy section below
- Evaluate and identify streamlined State permitting processes for beneficial use of dredged material
  - Comment - Sediment management has been a known problem for a long time. Many other studies have been done. What can we reference and leverage to reduce redundancy. eg 519
- Collect and analyze data and policies to evaluate increased bankline placement to protect eroding shorelines
- Addition - Complete a literature review of sediment management and channel maintenance to summarize existing information (added)
- Addition - Achieve full utilization of dredged material as resource material in beneficial ways, providing environmental, economic, and social benefits – i.e. beneficial uses
- Addition - Create and maintain channel management plans and agreements between the Corps and states
- Addition - Support efforts to slow water and sediment movement through the watershed and into the UMR system

Our suggestions for moving forward

Focus Area 1: Beneficial Use

- Establish a beneficial use working group in each USACE District
  - Identify and evaluate streamlined State permitting process for beneficial use
  - Determine where in bankline placement is an option

Focus Area 2: Planning

- Identify and evaluate streamlined process for completing DMMPs
- Complete and update Channel Management Plans
- Complete a literature review of sediment management and channel maintenance

Focus Area 3: Policy

- Identify and evaluate State and Corps policy issues
  - Real estate, in-water placement, bankline placement, etc.

Focus Area 4: Watershed

- Support efforts to protect and restore natural functions in watershed that slow water and sediment
  - Support the Water Quality Improvement Act (WQIA) Authorization
  - Support NRCS and other runoff management programs

Elements of a Section 729 Study

729 Study or Defining the Future – Identified in the Sept. 30 – Oct. 1, 2019 Summit in St. Paul	Impact	Regional Consensus
How can we keep water and sediment on the landscape	5	5
Identify best (cost-effective) approaches for moving sand down river to areas that are sediment starved	5	5
Comprehensive marketing effort to advertise “free” material given “proximity to source” issue	4	5
Identify policy changes to authorize Army Corp’s ability to reduce sediment loading from upland sources	5	3
Comprehensive sediment model	4	4
Identify funding and information gaps to develop sediment budget	4	4
What non-federal funding sources (subsidies) could expand beneficial use opportunities?	4	3
Establish better: Payments in Lieu of Taxes (PiLT) and Revenue Sharing	3	4

729 Study or Defining the Future

- Full cost matrices for beneficial use opportunities and channel maintenance, including a table identifying the triggers and procedures that take place when the Federal Standard may be reworked following a planning process
- Streamline permit processes that are known hindrances to beneficial use, such as solid waste permitting
- Clarify processes in each state for construction use of dredged material
- Assess opportunities for sediment deposition on flowage easement lands
- Develop a consistent funding and planning process for DMMPs and habitat-driven beneficial use projects
- Improve collaboration between Mississippi River partners and land- and watershed-management agencies on water and land stewardship
- Comprehensive sediment models that accurately depict current sediment transport dynamics and can be utilized to assess ecosystem impacts and test future scenarios
- Hydrologic study to better quantify climate condition and assess tributary inputs under a variety of scenarios and BMP implementation scales
- Utilize biological and physical data to identify environmentally- and gemorphically-sound bankline placement locations within channel border areas
- Assess increased infrastructure and dredging costs against future navigation scenarios and analyze whether there are locations with diminishing returns or alternative modes
- Estimate capture efficiencies and sediment-steady state conditions for each navigation dam under future hydrologic conditions
- Modify USACE accounting system to credit dredging program (missed opportunities)
- Develop standing plans for beneficial use for each high volume pool that incorporate habitat opportunities and leverage potential markets
- Construct policies that overcome the “color of money” silos that limit sharing across Mission areas, recognizing that expenditures for responsible management of sediment will avoid costs for restoration or unmitigated social or environmental impacts
- Conduct economic feasibility for a transload facility from river to rail, offering markets farther away from the river (or to sediment-starved locations)
- Broader scope CMS to address training structures & efficiencies to improve channel competency, decrease sediment delivery to backwaters
- Identify non-federal funding sources (subsidies) that could expand beneficial use opportunities
- Develop a comprehensive marketing effort to advertise “free” dredged material given “proximity to source” issue
- Identify sources and collaborate with stakeholders, including USDA and State farm programs, to keep more water and sediment on the landscape
- Identify programs that have the ability to affect watershed land use and stream stabilization practices
- Establish a better funding source for revenue sharing to counties to alleviate the problem of taking land off tax roles when purchased by the federal government
- Identify policy changes to authorize Corps’ to reduce sediment loading from upland sources
- Identify funding and information gaps to develop sediment budget
- Identify best (cost-effective) approaches for moving sand down river to areas that are sediment starved

729 Study or Defining the Future V 0.5

1. **Improve Planning: (Planning)**
   - Full cost matrices for beneficial use opportunities and channel maintenance, including a table identifying the triggers and procedures that take place when the Federal Standard may be reworked following a planning process
   - Develop a consistent funding and planning process for DMMPs and habitat-driven beneficial use projects in order to have a proactive approach
   - Develop standing plans for beneficial use for each high volume pool that incorporate habitat opportunities and leverage potential markets
   - Broader scope CMS to address training structures & efficiencies to improve channel competency, decrease sediment delivery to backwaters
2. **Streamline Process: (Policy)**
   - Streamline permit processes that are known hindrances to beneficial use, such as solid waste and floodplain permitting
   - Clarify processes in each state for the use of dredged material in construction and strive for consistent policies
3. **Align Opportunities: (New Focus Area?)**
   - Assess opportunities for sediment deposition on flowage easement lands
   - Improve collaboration between Mississippi River partners and land- and watershed-management agencies on water and land stewardship
   - Leverage biological and physical data to identify environmentally- and geomorphically-sound bankline placement locations within channel border areas
   - Construct policies that overcome the “color of money” silos that limit sharing across Mission areas, recognizing that expenditures for responsible management of sediment will avoid costs for restoration or unmitigated social or environmental impacts
   - Modify USACE accounting system to credit dredging program (missed opportunities) –
   - Identify best (cost-effective) approaches for moving sand down river to areas that are sediment starved

729 Study or Defining the Future – Continued

4. **Information Gathering (Modeling and Analysis – New Focus Area or lump with Planning?):**
   - Comprehensive sediment models that accurately depict current sediment transport dynamics and can be utilized to assess ecosystem impacts and test future scenarios
   - Hydrologic study to better quantify climate condition and assess tributary inputs under a variety of scenarios and BMP implementation scales
   - Assess increased infrastructure and dredging costs against future navigation scenarios and analyze whether there are locations with diminishing returns or alternative modes
   - Estimate capture efficiencies and sediment-steady state conditions for each navigation dam under future hydrologic conditions
   - Conduct economic feasibility for a transload facility from river to rail, offering markets farther away from the river (or to sediment-starved locations)
5. **Improve Beneficial Use: (Beneficial Use)**
   - Identify non-federal funding sources (subsidies) that could expand beneficial use opportunities
   - Develop a comprehensive marketing effort to advertise "free" dredged material given "proximity to source" issue
6. **Champion Upland Improvements: (Watershed)**
   - Identify sources and collaborate with stakeholders, including USDA and State farm programs, to keep more water and sediment on the landscape
   - Identify policy changes to allow the Corps' to more effectively partner with agencies like the USDA-NRCS reduce sediment loading from upland sources
   - Identify programs that have the ability to affect watershed land use and stream stabilization practices
7. **Consistent Funding: (New?)**
   - Provide consistent funding across agencies and business lines to address sediment issues in the UMRS
   - Establish a better funding source for revenue sharing to counties to alleviate the problem of taking land off tax roles when purchased by the federal government
   - Identify funding and information gaps to develop sediment budget

Discussion of 729 “Defining the Future” Ideas

1. **Improve Planning: (Planning)**
2. **Streamline Process: (Policy)**
3. **Align Opportunities: (New Focus Area?)**
4. **Information Gathering (Modeling and Analysis) (New Focus Area or lump with Planning?)**
5. **Improve Beneficial Use: (Beneficial Use)**
6. **Champion Upland Improvements: (Watershed)**
7. **Consistent Funding: (New?)**

Next Steps

How will these ideas be used in the February survey?

What will happen at the February meeting?

Next Steps for the Chapter Team

- **Next week: Take the Jan 30 meeting follow-up poll**
- **Mid-February: Take the larger poll for all areas/participants**
- **Feb 25-26: Join the face-to-face meeting**

Additional Questions and perspectives

Final Thoughts

Sediment Chapter Questions

Jim Fischer, Wisconsin DNR jamesr.fischer@Wisconsin.gov

Steve Tapp, U.S. Army Corps of Engineers steven.d.tapp@usace.army.mil

PAS Report Questions

Kirsten Wallace, UMRBA kwallace@umbra.org

Paul St. Louis, U.S. Army Corps of Engineers paul.f.stlouis@usace.army.mil