UMRBA/USACE Flood, Sediment, Drought Management Summit
Channel and Sediment Management Team Notes

September 30, 2019 – October 1, 2019
Bloomington, Minnesota

"Ripe Solutions"

[Notes: 1) Ripe solutions means actions or ideas that do not need further evaluation or study and that have general regional consent.

2) I = Impact, C = Regional Consensus

3) Alpha bullets represent individual post-its]

— **Investigate merits of increased bankline placement to protect eroding shorelines (I=3; C=2)**

a) Investigate merits of increased bankline placement to protect eroding shorelines
b) Identify opportunities and obstacles for/to bankline placement where losing shoreline and trees
c) Push for in-water placement
d) Establish a pilot comprehensive management group for one pool. Tasks identify 1) visual mosaic of habitat needs; 2) policy impediments to beneficial use; and 3) new approaches to combine funds
e) Bankline placement in specific locations
f) Integrate UMRR shoreline protection project
g) Utilization of dredge material for large floodplain restoration projects (program needed)
h) Restore bankline dimensions to historic elevations
i) Minimize sediment resuspension and shoreline erosion via no wake policy during high water events

— **Establish a beneficial use working group in each USACE District then share and adopt regionally (I=4; C=4)**

- **Engineer with nature**
- **Identify barriers to use**
- **Explore new uses**
- **Marketing**
- **Sand traps/mining/harvest**

a) Beneficial use of dredged material
b) Modify Corps of Engineers river engineering process to enable opportunistic beneficial use
c) Harvest sand stockpiles for engineered soil applications
d) Sediment traps at key locations
e) Use engineering with nature – place material in areas and let the river move the material where it wants
f) Engineering with nature – e.g., seed islands
g) Provide tax incentives to those willing to provide land for disposal or to use material for beneficial use

h) Put sand mining company at the sand trap at the Chippewa
i) Using materials on roadways to treat slippery roads in NOT a good use
j) Broadening DOT specs for beneficial use across states
k) Identify barriers to beneficial use
l) Identify barriers to beneficial use (e.g., cost, need, policies, quality)
m) Develop a public-private planning team to explore beneficial use opportunities and cost-sharing
n) Establish a beneficial use working group
o) Scope a marketing study for various sand fractions in dredged material
p) Beneficial use opportunities
q) Coordinated marketing effort for available dredged material

— **Evaluate and identify real estate and Corps policy issues (I=3.5; C=4)**
  - **Beneficial use (real estate)**
  - **Federal standard definition**
  - **Compensation for flowage**

a) Flowage easement – acquire new lands for flood and sediment in leveed areas.
b) Streamline real estate
c) Ease restrictions on Corps standard if it results in beneficial use
d) Evaluate and identify real estate and Corps policy issues
e) Revisit federal standard definition to provide clarity
f) Change river engineering policy for UMR dredging due to clean nature of material

— **Policy (I=3; C=3)**
  - **Streamline permit process**
  - **Establish MOUs when needed**

— **Planning (proactive) (I=3.5; C=4)**
  - **Streamline process for DMMPs**
  - **Complete integrated channel and environmental pool plans for proactive placement approach**

a) Modify USACE accounting system to credit dredging program – missed opportunities
b) Identify cost barriers (i.e., trucking, landfill without reuse)
c) Streamline process for MVP, MVR, MVS: DMMPS, Corps planning process, proactive approach
d) Streamline/clarify process for construction use of dredged material
e) Complete plans for using dredged material for habitat benefit in areas with recurring channel issues
f) High dredge pools should have a standing plan to use dredge material onsite for habitat projects – i.e., cut the red tape of NEPA to allow quick placement, channel and environmental pools pre-ID

729 Study

[Notes: 1) I = Impact, C = Regional Consensus

2) Alpha bullets represent individual post-its]

— **Establish better: Payments in Lieu of Taxes (PiLT) and Revenue Sharing (I=3; C=4)**

a) Establish better funding source for revenue sharing from Feds to counties to alleviate the problem of taking land off the tax roles when purchased by feds.

— **How can we keep water and sediment on the landscape (I=5; C=5)**

- **Identify sources**
- **Incentive payments to keep water and soil its place**
- **Bring USDA and state farm programs into the conversation**

a) Expand cost-sharing opportunities for movement/placement of dredged material

b) How can we keep more water on the landscape?

c) Develop programs/incentives to promote conservation practices

d) Sediment credit training system. Encourage incentive system to promote sediment BMPs on the landscape.

e) Basin-scale water and sediment management. Keep sediment on landscape. Target worst regional contributors.

f) How to leverage state and federal resources (combined) to implement targeted upland practices for reduced sediment loading?

g) Keep the sediment on the landscape (USDA farm bill exploration and possible reprogramming to pay to keep soil and water in its place of origin)

h) What are sediment sources in the watershed – e.g., urban, agriculture, "natural?"

i) Partner with USDA-NRCS for reducing erosion and targeting most at risk areas

j) Tiling practices/sediment transport. Stop sediment before it reaches the river

k) Identify sediment sources and try to keep sediment from getting into the river

l) Identify and promote funding for federal programs that have the ability to affect watershed land use practices and stream stabilization practices

— **Comprehensive Sediment Model (I=4; C=4)**

- **Understanding sediment transport**
- **Ecosystem impacts**
- **Future scenarios: "what if?"**
- **Data mining: what data do we have?**
- **Model costs**

a) Develop comprehensive sediment budget/model

b) Future projections of when navigation pools are essentially full of sediment and what that means for channel maintenance

c) Can we refine models to improve predictive capability at habitat-relevant scales?

d) Intensity duration study to prove new condition and attempt to look at erosion control BMP to respond to new normal

e) Basin approach. Collaborate with public to identify sources and quantities of sediment.

f) Increase sediment transport via training structure and other tools

g) Need to identify effects of too much/too little sediment on areas such as ecosystem, navigation, or recreation

h) What does future of cost/benefit ratio look like for full/limited/no commercial navigation for each Corps of Engineers district

i) Is there a tipping point (and what is it) that permanently degrades ecosystem and navigation channel?

— **Identify policy changes to authorize Army Corp's ability to reduce sediment loading from upland sources (I=5; C=3)**

— **Identify funding and information gaps to develop sediment budget. (I=4; C=4)**

— **Identify best (cost-effective) approaches for moving sand down river to areas that are sediment starved (I=5; C=5)**

a) How do we overcome policy issues related to "color of money?"

b) Create interagency, private, public work group to have a shared approach to channel maintenance

c) What beneficial use information will help to maximize ability to leverage private resources?

d) Sustainable material management through mission integration

e) Identify lead (expert) agencies/entities for each topical area or focus

f) How do we overcome the issue of proximity to source when finding alternative markets/uses for dredge material?

— **What non-federal funding sources (subsidies) could expand beneficial use opportunities? (I=4; C=3)**

— **Comprehensive marketing effort to advertise "free" material given "proximity to source" issue (I=4; C=5)**

a) Is current Corps budget appropriated to balance short-term and long-term needs?

b) Pool planning to identify habitat projects (e.g., island construction, bank stabilization) that can be completed at the same time as dredging

c) Using a transload facility to load material on rail and find markets away from the river

d) Marketing plan for beneficial use and find where there is need

e) Develop model/template/policy/plan for states (counties, cities) for allowing and encouraging beneficial use of dredged material

f) Streamline permitting process for temporary placement of material under operations and maintenance (Floodplain 401, 404)

g) Evaluate/modify laws/regulations around the use of sand for projects – i.e., "roundness"

h) Consistent policy/policy handbook

i) Increase the efficiency of permitting the process; decrease "emergency" needs