

DRAFT OUTLINE - SECTION 729 CHAPTER

NEEDS FOR CHANGE – REGIONAL TENETS

DEFINED – SECTION 729 WATERSHED STRATEGY

STRUCTURE AND FOCUS – DECISION TREE

MANAGEMENT AND LEADERSHIP – COLLABORATIVE PARTNERSHIP

MOVING FORWARD – DELIVER ON EXPECTATIONS

NEEDS FOR CHANGE - REGIONAL TENETS

Over the past three decades, the Upper Midwest /Upper Mississippi River Region has been in an almost continuous cycle of water resource induced disaster response and recovery. The concerns, concepts and questions presented in the preceding Chapters of this document are a reflection of this extended period of response/recovery and growing concern that the periodicity and magnitude of these disasters may be worsening and historic perspectives and approaches may need to be revolutionized. This revolutionary mindset can be characterized by commonly held regional principles, beliefs or truths referred to as Regional Tenets. These regional tenets highlight the common regional concerns and reasons why a Section 729 Watershed Strategy is the most likely mechanism to create a purposeful paradigm shift away from deeply rooted historic mindsets or stalemates in favor of forging innovative action oriented public-private solutions.

- (1) **Resilience** should be a primary focus to ensure environmental, industrial, agricultural and municipal interests are able to prepare, absorb, recover and adapt to recurrent water resource induced disasters.
- (2) **Actions Speak Louder than Words**, we must channel our efforts toward innovative, regionally acceptable and technically feasible ACTIONS over the seemingly endless quagmire of data collection, planning, reporting, reacting and talking.
- (3) **Status Quo is Untenable** on nearly every front and aspect of the UMR Water Resource Challenges allowing the region to remain highly susceptible to catastrophic economic, environmental and life-safety consequences.
- (4) **Integrated Water Resource Management Approach** must recognize and leverage the multidimensional nature of water resources and responsibilities through a risk informed decision-making construct.
- (5) **Collaboration and Shared Responsibility** approach to water resource planning and management engages multiple competing stakeholders in the development of watershed management plans and actions to fulfill these needs.

- (6) **Regional Consciousness** must prevail over highly prejudicial and often harmful self-interests if equitable and meaningful solutions are to be implemented to address complex legacy IWRM challenges and ensure risks are not exacerbated for other proximal or distal interests.
- (7) **“One Size does not Fit All”** recognizes that innovation and adaptive management will play a crucial role in right-sizing a variety of management actions across such a diverse and complex region.
- (8) **Risk Informed Decision-making** build upon and within many of the preceding tenets as it seeks to ensure decision makers are strongly influenced by the degree to which we purposely analyze and understand the nature of the risk, expected performance of our systems and the consequences of failed systems. An ideal risk informed decision is one that carefully considers and effectively balances assessment, management and communication considerations.

Taken individually each of these regional tenets resonates with ever increasing tension, frustration and call-to-action. Collectively they form an overwhelming catalytic will to redefine a future condition that builds highly collaborative coalitions of public-private interests intent on holistically and definitively implementing innovative solutions that serve to diminish risks associated with these UMR Water Resource stressors.

DEFINED – SECTION 729 WATERSHED STRATEGY

Section 729 of WRDA 1986, as amended, and other specifically authorized watershed planning authorities allows the Corps to work with non-federal partners to evaluate water resources and develop comprehensive watershed plans with an Integrated Water Resource Management focus. The purpose of a watershed study is to collaboratively work with partners, beyond the Corps traditional mission areas, to identify a broad range of solutions for multiple stakeholders. A key difference between watershed planning study and other Corps specifically authorized studies is that a watershed study does not specifically evaluate the feasibility of a federally-funded Corps action. Rather, the Corps, along with their non-federal partners, can evaluate a series of strategies, alternatives, and actions across a broad range of stakeholders’ authorities. Although a watershed study does not conduct a feasibility study for a new Corps project, the watershed study can be used to identify and justify the need for potential future studies and projects that the Corps may wish to pursue under separate authorities.

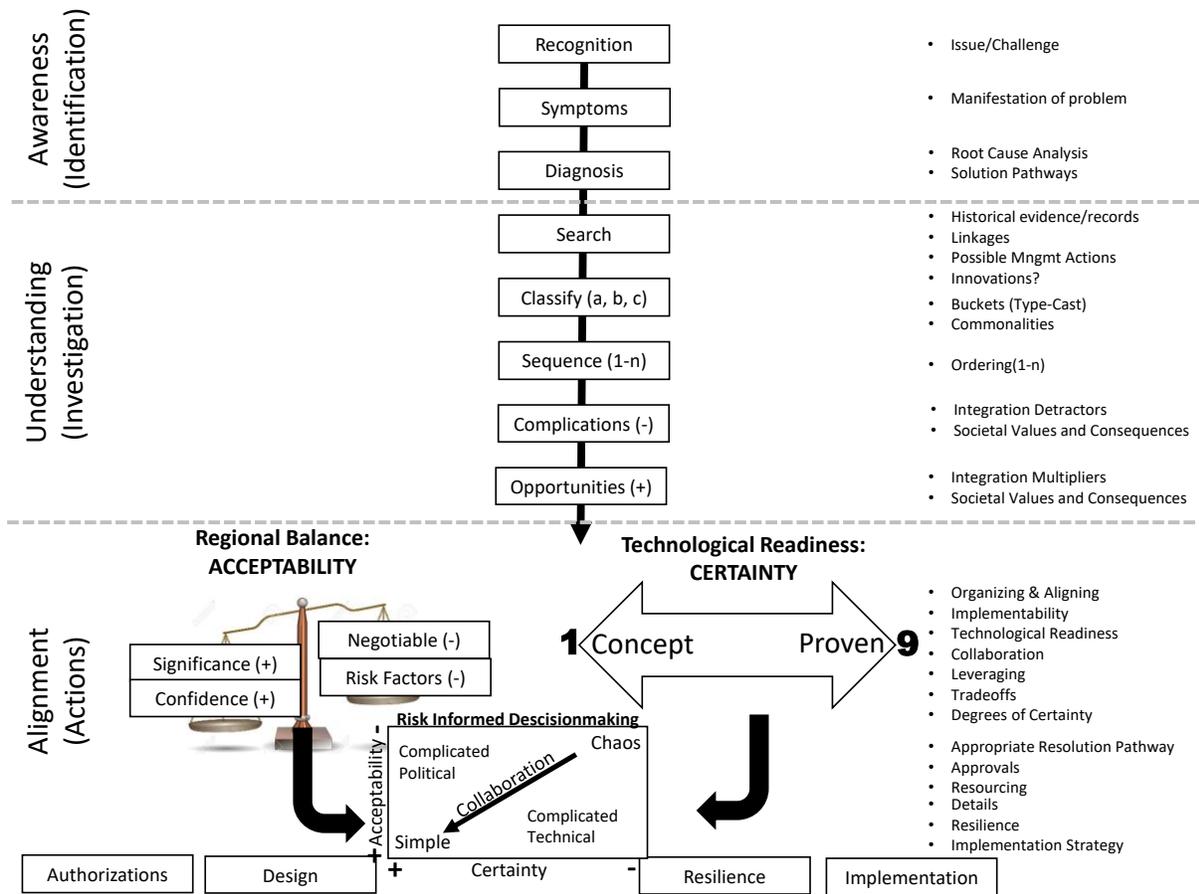
The primary documents describing the Corps’ watershed planning approach are CECW-P Planning Bulletin No. PB2016-03 and CECW-P Engineering Circular No. EC 1105-2-411. Corps studies follow the Corps six step planning process. The steps include: 1) Identify problems and opportunities, 2) Inventory existing resources and forecast future conditions, 3) Identify management measures and screen them for effectiveness, 4) Formulate an initial array of strategies for addressing problems and needs. 5) Refine the initial array of strategies and evaluate a focused array of strategies, and 6) Compare strategies and make a selection. For a watershed study, these steps can be simplified into three primary milestones: (a) creating a

collaborative and shared vision for the watershed, (b) conducting a holistic watershed assessment to identify specific strategies to be analyzed, and (c) developing a watershed strategy. The Shared Vision milestone is a critical first step because it will define the overall vision for the stakeholder group, presents the study scope/framework, and identifies how the framework and associated activities support the collaborative watershed vision. In order for these steps to be successfully executed the team must continually work to ensure the study area/watershed is clearly defined, the watershed is treated as a system, existing resources are being properly leveraged, and public involvement and collaboration is continuous throughout the project.

SCOPE, STRUCTURE AND FOCUS – DECISION TREE

Development of a successful watershed strategy will largely center on a clearly defined Scope of Work with necessary structure and focus to fulfill expectations within the confines of the prescribed budget and timeline. A project charter and project management plan will be the formal signed documents between the partners that clearly establish the vision and guide project execution and project control. In addition to these formal documents, it is imperative that the Watershed Strategy invest in the development and refinement of a Decision Tree flowchart that defines a roadmap of collaboratively established boundaries, priorities and ground rules to ensure holistic, equitable and transparent consideration of the diverse array of water resource management concepts expected. As part of this current effort our stakeholder group identified the Decision Tree as a priority to a fair and equitable decision process could be applied to evaluate and elevate concepts identified by the various component workgroups. The basic construct of the Decision Tree (Fig x.x) would follow a logical multi-tiered series of tests (lenses) and documentation to ensure (a) Awareness (Identification), (b) Understanding (Investigation) and (c) Alignment (Actions). In this manner, IWRM concepts would be properly categorized, prioritized, assigned and evaluated in a highly informative, collaborative and well documented manner to ensure the most regionally acceptable and technologically feasible concepts were pushed forward for implementation.

Figure x.x UMRS DRAFT Decision Tree for evaluation and documentation of Integrated Water Resource Management Concepts under the Section 729 Watershed Strategy.



Further describe stages and steps in this process.....

MANAGEMENT AND LEADERSHIP – COLLABORATIVE PARTNERSHIP

Cost Share Agreement
Decision Making Authority
Collaborative “Advisory” Forums
Charter
PMP
Change Management
Governance Structure

MOVING FORWARD – DELIVER ON EXPECTATIONS

Budget and Timeline
Implementation Off-ramps
Documenting and Measuring Success
Feedback Mechanisms from Stakeholders
Adaptive Management
Feasibility Studies
End Products of a Section 729

Why is integrated water resource management (IWRM) needed for the Upper Mississippi River and what can a Section 729 Watershed Study provide?

Integrated Water Resource Management (IWRM)

Integrated water resource management (IWRM) at the watershed scale requires a new type of collaboration and a change of practices beginning from the strategy and master-planning phase all the way to the realization phase.

The purpose of urban water management has become broader over time. While flood mitigation remains important, there are many other issues that water management influences. The tools for water management have changed from pipe-based drainage systems to multifunctional systems to meet diverse objectives, including social and ecological aspects.

In Europe, most stormwater management practices have traditionally only considered the design of separate and combined sewer systems. Considering urban flood risk management, the systems have been designed to receive the flood return period over a range of 5-10 years (Fratini et al 2012). However, it has lately been realized (and through reference cases learnt in practice) that this is insufficient. One of the solutions offered is to create a system in which the above-ground system has a stronger role – and in which the above-ground and below-ground systems are integrated.