

OPERATIONALIZING RISK INFORMED PLANNING

IMPROVING EFFICIENCY AND EFFECTIVENESS IN
USACE CIVIL WORKS PROJECT DELIVERY
(PLANNING PHASE AND PLANNING ACTIVITIES)

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BLUF

- Operationalizing risk informed decision making in Planning will improve USACE project delivery effectiveness and efficiency.
- USACE is using risk informed decision making to ensure transparency in our analysis and decisions.
- Risk informed decision making is not new. SMART Planning includes these principles. USACE is continuing to emphasis and improve our practice of the principles.
- Effective communication, between disciplines, across levels of the organization, internally and externally, is the key to successfully operationalizing risk informed decision making.



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INTENT: SUPPORT ENTERPRISE RISK MANAGEMENT

- *“As part of the Civil Works strategy, I intend to operationalize risk-informed decision making at all levels of the organization, and then I expect discipline in documenting the decisions at the appropriate level... We must change our behavior regarding risk management across Civil Works and in our policies, analytical approaches and models, priorities, and dialogue with sponsors and communities.”*
- *We must move from a culture and convention of risk aversion to one of innovation and risk acceptance or our partners will go elsewhere for services.*

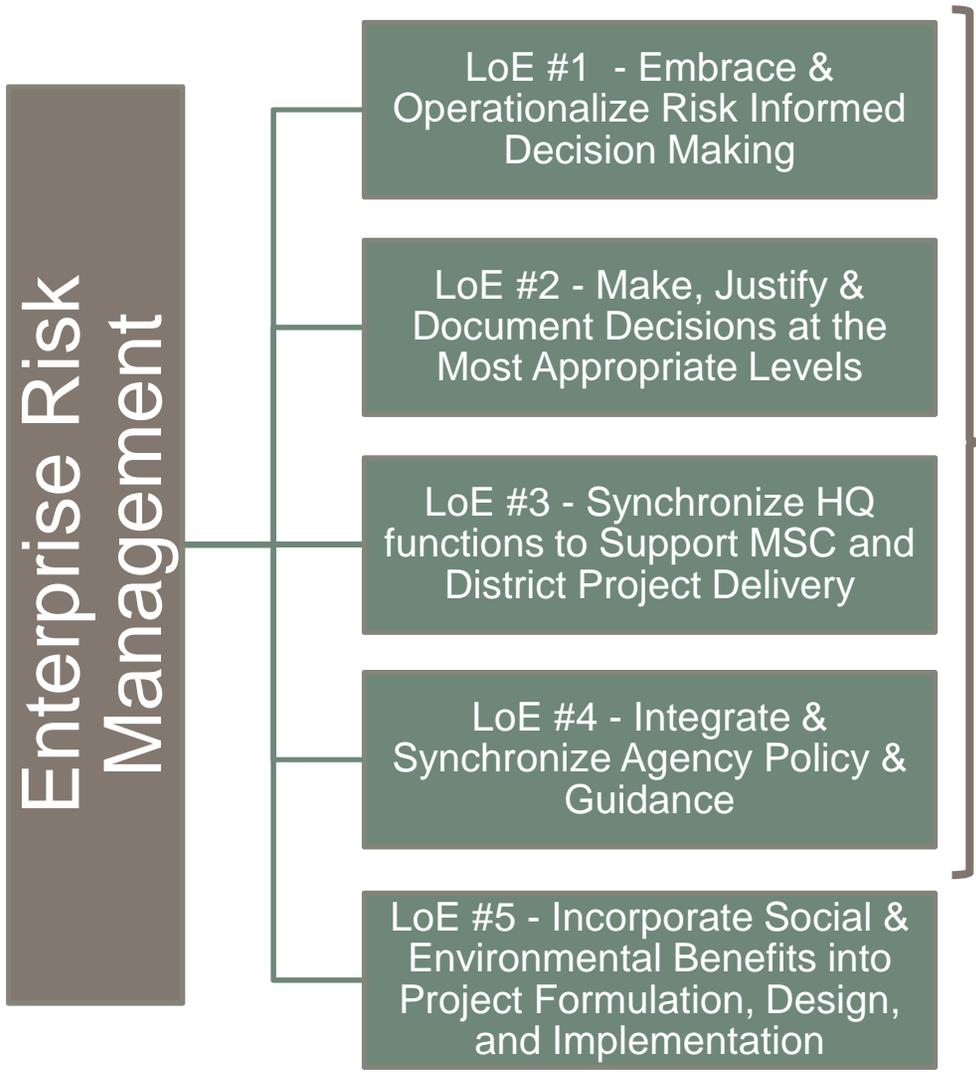
- Mr. James Dalton, PE, SES
Director of Civil Works



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ENTERPRISE RISK MANAGEMENT INITIATIVE: IMPLEMENTATION PLAN (AUG 2017)



Improving Efficiency and Effectiveness in USACE Civil Works Project Delivery (Planning Phase and Planning Activities) memo pushes forward on four of these “Lines of Effort.”

This applies now!



APPLICATION OF RISK-INFORMED DECISION MAKING IS ADVANCING

- SMART Planning
- Levee Safety Program
- Dam Safety Program
- Asset Management Program

- Risk Management Center
- Mapping, Modeling & Consequences Center
- IWR Risk Analysis Gateway
 - “Principles of Risk Analysis for Water Resources”
(IWR, 2017)
 - “Planning Manual Part II: Risk-Informed Planning”
(IWR, 2017)



STRATEGY TO PROGRESS USACE PLANNING

Ways		Means	End State
Process	SMART Planning Principles Implementation and Progression	People <ul style="list-style-type: none"> • Develop Risk Champions/ Planning Mentors • Conduct Risk Informed Planning – Train the Trainer Workshop • Continue Water Resources Planning certification program • Update to all training venues (PA & PROSPECT) 	Highly proficient and effective planning workforce
	Planning Manual Part II: Risk Informed Planning Implementation		
	DCW Memo, 21 June 2017 to energizes enterprise Risk-Informed Decision Making through Risk-Informed Planning (SMART) Process	Projects <ul style="list-style-type: none"> • Continue goal of 3x3x3 • Deliver on study effectiveness and efficiency, but most importantly use risk-informed planning to assist decision makers • Execute – existing studies and Supplemental • Communicate and share lessons 	Delivering timely and cost-effective analysis and recommendations for authorization and implementation
	EC on Enterprise Risk Management, with follow-on ECs		
	DCW Memo on Risk-Informed Planning		
Update and Roll-Out PGN and other guidance (across disciplines)			
Program: Planning Regional Strategic Assessments & Action Plans inform the Budget process and workplan			Providing Solutions to the Nations' toughest Challenges



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THE “R” IN SMART PLANNING HAS ALWAYS BEEN ABOUT RISK!

Specific
Measurable
Attainable
Risk-Informed
Timely

Remember:

SMART Planning is a process...3x3x3 is the goal



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WHAT WE SAID THEN, IS STILL TRUE NOW

Process and outputs are **decision focused**

Risk and uncertainty is **acknowledged and managed**

- Only collect data needed to make the decision
- Make decision and move on to next decision
- Level of detail (of data / decision) grows over time
- Vertical Team agreement on “acceptable” level of uncertainty
- Report developed from the beginning of the study

*From SMART Planning Introduction
webinar, 2012*



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IN 2012 WE STATED THEN THAT THE SMART PLANNING PROCESS WOULD RESULT IN...

- Studies completed in a more reasonable amount of time
- Studies cost significantly less
- High quality and concise decision documents
- **Decisions informed by managing risk and acknowledging uncertainty**
- Strong, viable Civil Works Project portfolio developed

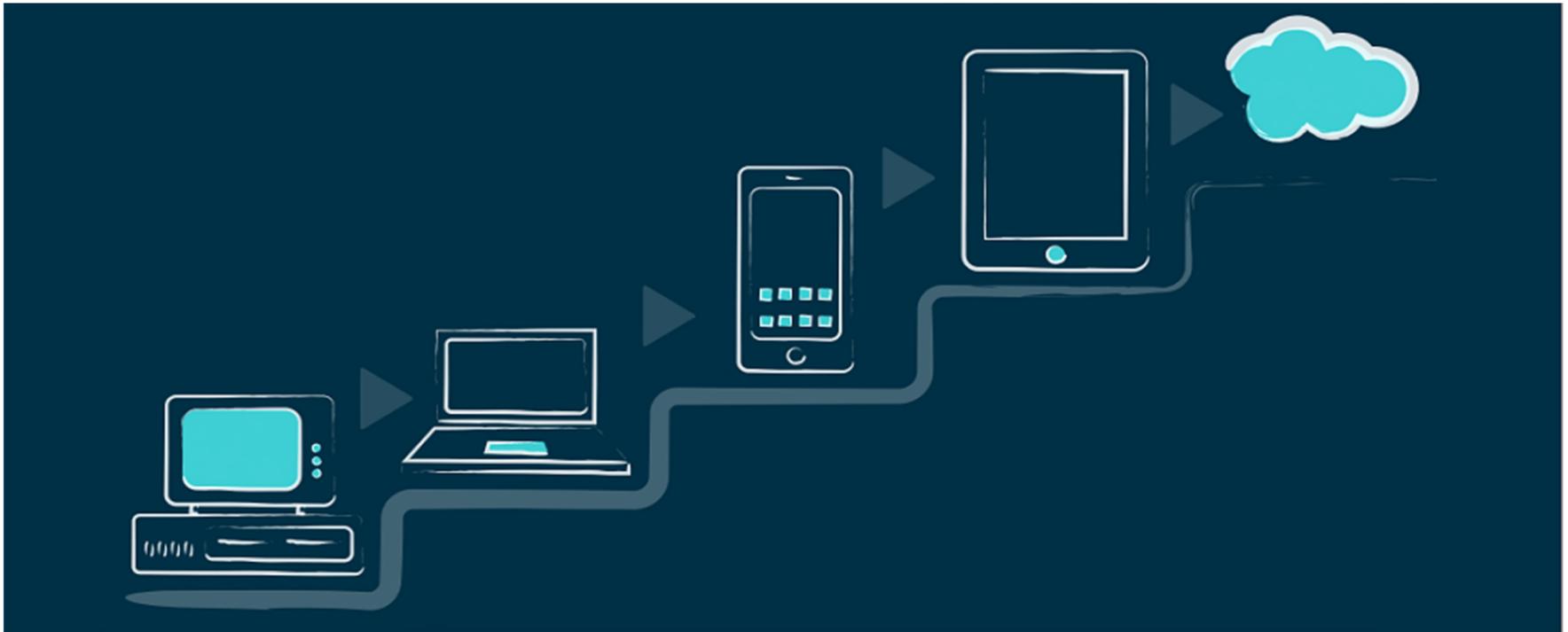
....and we have been seeing this in practice!



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IT'S AN EVOLUTION ... NOT A REVOLUTION

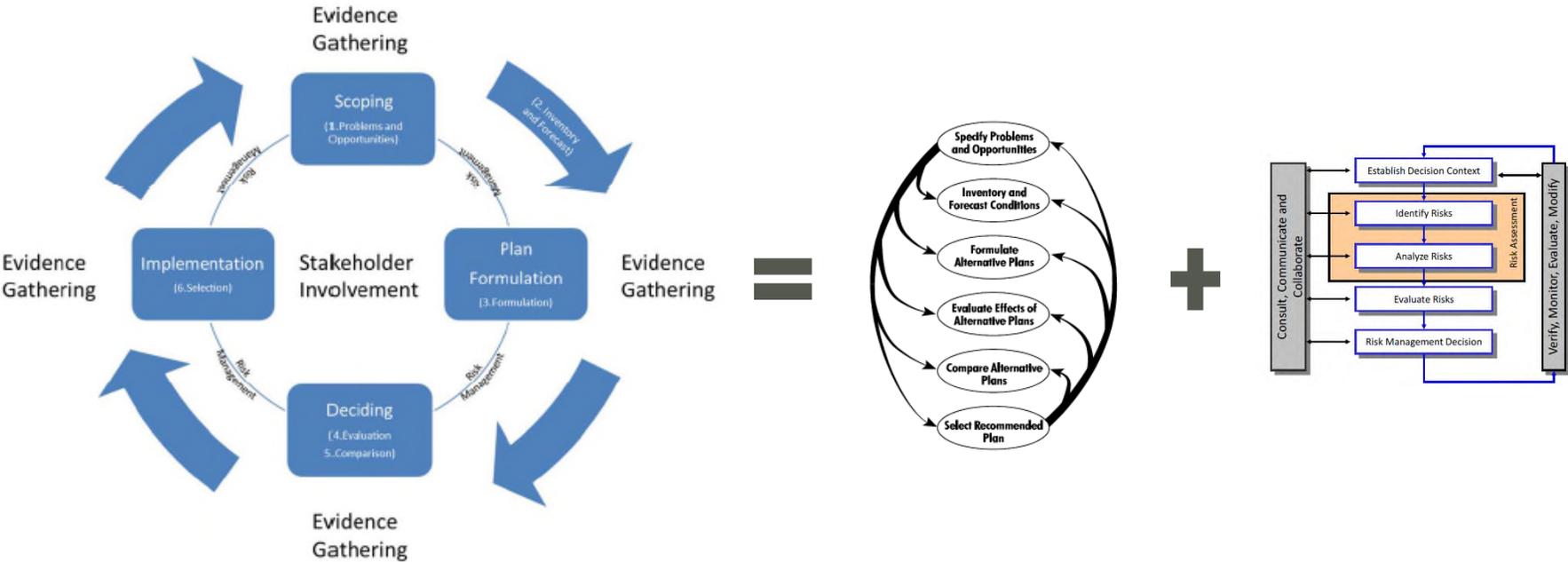


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RISK INFORMED PLANNING

SIX-STEP PROCESS (“THE BEEHIVE”) + RISK-INFORMED DECISION MAKING PROCESS



ITERATE THE SIX-STEP PLANNING PROCESS AND GATHER EVIDENCE TO REDUCE UNCERTAINTY AND MANAGE STUDY AND PROJECT RISK



FCSA Signed

Project Management Plan, including Review Plan
Updated throughout study as needed

Alternatives Milestone

Tentatively Selected Plan Milestone

Agency Decision Milestone

Draft Report Released for Concurrent Review

District Final Report Package Transmittal

Draft Chief's Report Released

Chief's Report Signed

Key

Project Management Requirements

Decision Milestone

Product Milestone



NEW DIRECTOR'S POLICY MEMORANDUM

- Subject: Improving Efficiency & Effectiveness in USACE CW Project Delivery (Planning Phase and Planning Activities)
- Mandates risk-informed decision making in planning phase of CW project development **and throughout project lifecycle**
- The memo:
 - Directs teams to apply Risk Informed Planning approaches and techniques
 - Reframes Decision Milestone Meetings around decision making under uncertainty
 - Delegates Authority for feasibility milestone decision making
 - All policy and legal compliance reviews delegated to MSC; One-Headquarters policy review approach
 - Provides guidelines in resource management and efficient allocation of personnel and funds
- Requires all USACE elements with role in planning to examine and update guidance



THE BOTTOM LINE: KEEP MOVING FORWARD!

1. Through entire CW project lifecycle, actively manage risk (study risk, project risk, implementation risk)
2. Applies to us all – not just planners, not just planning
3. Acknowledge and intentionally manage uncertainty – and communicate that
4. Use risk-informed planning tools, including rapid planning iterations to inform study scope and tasks
5. Supplemental is a Mission Critical opportunity



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USE DISCIPLINED INITIATIVE AND ACCEPT PRUDENT RISK

At every step think critically – Can we make a decision with what we know now? What risks would we face if we make decisions with what we know now? Do we need to address that risk and potential consequences now? Later?

- Engage early and often with vertical team and with SMEs across disciplines to gauge and manage risk
- Identify and elevate policy issues
- Communicate throughout process, not just at Milestones or during review
- Document and share decisions made



ACTIVE RISK MANAGEMENT IS PART OF EFFECTIVE PROJECT MANAGEMENT

- PMP is product of planning iterations for scope/schedule
 - Risk Register and Decision Management Plans are tools that must inform PMP
 - Discussions across functional areas are critical – how are you managing the study and project risk?
- Initial PMP is general with a great deal of uncertainty in the scope and as planning iterations are completed uncertainty is reduced
- Use resources wisely
 - Focused team within the PDT informs initial development of PMP based on iteration(s) of risk-informed planning process
 - Non-negotiable early engagement with non-federal sponsor, state and federal agencies
 - The active team will expand with essential members as study progresses



ENGAGE THE VERTICAL TEAM IDENTIFY AND COMMUNICATE STUDY AND PROJECT RISKS

<p>“For all feasibility studies, decision making authority for the milestones is delegated from HQUSACE to Major Subordinate Commands (MSCs). In all cases, submittals will go from the District to the milestone decision making authority without an intervening review. HQUSACE may delegate its milestone meeting decision making authority to the MSC.”</p>		<p>Decision Making Delegated to MSC</p> <p><i>Most new studies. All will begin as delegated, and will be elevated as needed.</i></p>	<p>Decision Making Resides at HQ</p> <ul style="list-style-type: none"> • Draft report already released • ASA(CW) policy waiver required • VT agrees it should be elevated
<p>VERTICAL TEAM ENGAGEMENT</p>	<p>Milestones</p>	<p>Decision Maker</p>	<p>Decision Maker</p>
	<p>Alternatives Milestone Meeting</p>	<p>MSC Planning & Policy Chief</p>	<p>MSC Planning & Policy Chief</p>
	<p>Tentatively Selected Plan Milestone</p>	<p>MSC Planning & Policy Chief</p>	<p>HQ Planning & Policy Chief</p>
	<p>Agency Decision Milestone</p>	<p>MSC Programs Directorate Chief (SES)</p>	<p>HQ Director of Civil Works</p>



REDUCE REDUNDANT REVIEW ROLES

- Districts control execution – and district quality control is critical.
- Operationalize “One Headquarters” policy and legal review from beginning of studies
 - Eliminates layer of policy review for draft and final documents (currently MSC & HQ)
 - Include Policy Review in Review Plan
 - Policy Review Team draws from MSC, HQ
- All parts of the team -- take advantage of flexibility and communicate what you’re doing and why. Seek waivers or exceptions to existing requirements, policies, or processes when it will improve execution.



DECISION MAKERS ARE RISK MANAGERS

PDTS ARE RISK COMMUNICATORS

- Understand and manage decision risks. What will affect the decision or the outcomes of the decision?
 - What can go wrong?
 - How can it happen?
 - What are the consequences?
 - How likely are they?
- How does uncertainty affect the decision or the outcomes of the decision?
 - What is uncertain?
 - Why is it uncertain?
 - How uncertain is it?
 - Why is the uncertainty important?



WE ALL HAVE TO “WALK THE WALK”

- Decision Makers: Come prepared to decide
- PDT: Tell the risk story of the plan and the study
- MSC and District Planning Chiefs: Champion risk; engage and keep focus on managing the risks that affect the decision and the project outcomes
- Reviewers: Support study execution and delivery of quality products
- All: Milestone discussions need to go beyond review and compliance to include discussion of risk and uncertainty



ASSESS, COMMUNICATE, AND MANAGE RISKS

- **Understanding and communicating uncertainty and risk empowers PDTs and leads to better decisions**
- Storytelling is key – not just in the report, but in presentations, meetings, internal and external
- Risk register tools to assess and document risk and risk management strategies and engage full PDT
- Ensure vertical engagement via IPRs, decision meetings, milestone meetings



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WHAT WE NEED FROM YOU . . .

- Embrace risk management principles.
- Encourage innovative analysis.
- Continual focus on the value of the pending investment decision throughout the study process (why should USACE be advocating for this project?).
- Think about the next decision to be made and what analysis the decision-maker needs.
- Focus on the impact of the decision, including partners & external stakeholders partners.
- Acknowledge that you may not have, nor do all districts need to have, all of the risk management expertise in-house - rely on SMEs
- Prepare for milestone meetings **DIFFERENTLY**. The emphasis of the decision briefing at the milestone meeting should be on the risk story and the path ahead to the next milestone



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LEARNING MORE AND GETTING HELP



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PLANNING COMMUNITY TOOLBOX

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Planning Community Toolbox

Home | **Planner's Library** | SMART Guide | Project Delivery | People | Tools | Processes | Training | Search/Index | Contact Us

About Corps Planning

- About Us
- Work with Us
- Current Initiatives

Popular Topics

- Reports to Congress
- Chief's Reports
- Civil Works Review Board
- Corps Civil Works Project Planning
- Corps Planning Centers of Expertise (PCXs)
- Frequently Asked Questions (FAQ)
- Model Certification
- National Economic Development (NED) Manuals
- Planning and Policy SharePoint
- Planning Guidance
- Review
- SMART Planning

RSS Feeds

- Week in Review
- What's New this Month
- What is RSS? RSS allows users to create customized collections of updates delivered from websites via a RSS reader, eliminating need to check "What's New" postings.

Policy and Guidance Updates

- WRRDA 2014 Information
- Guidance Memo - Water Resources Development Act of 2016 (WRRDA 2016) Implementation (01/19/17)
- Planning Bulletin 2017-01: Feasibility Study Milestones (01/17/17)
- Engineer Regulation 1110-2-1302: Civil Works Cost Engineering (12/06/16)

Planning Community Webinars

- All Upcoming & Recent Webinars
- Dealing With Costs (03/02/17)
- Environmental Resource Significance in Civil Works Planning (02/03/17)
- Scheduling and Scoping a 3 Year Feasibility Study: Key Timelines and Decisions (01/23/17)
- Southwest Coastal Louisiana NED/NER Multi-Purpose Study: Lessons Learned (01/17/17)

Other News

- Webinar - 2017 Planning Workshop and Teleconference/ Web Meeting Tips (03/02/17)
- Planning Ahead January 2017 (01/30/17)
- Feasibility Study Milestones At A Glance (01/10/17)
- Type I Independent External Peer Review Process - Standard Operating Procedures (August 2016) (11/17/16)

Google the Planning Community Toolbox

Planning plays a vital role in supporting the Corps of Engineers Civil Works water resources development mission. Through planning activities, including feasibility studies, General and Limited Reevaluation Studies, Continuing Authorities Program studies, and Post Authorization Change studies, Corps planners help decision-makers identify water resources problems, conceive solutions to them and compare the importance of the inevitable conflicting values inherent in any solution.

The Planning Community Toolbox includes a wealth of information for planners and project delivery teams, including the policy, guidance, processes, and tools that are used every day in planning.

Hot Topics

- USACE Planner Database** - It is time for all Planners to update their profiles. The USACE Planner Database has updated functionality and flexibility for recording Planning CoP training, workforce planning, and staffing ATR teams.
- SMART Planning Feasibility Studies: A Guide to Coordination and Engagement with the Services** - This guide was developed through a collaboration between the Corps, USFWS and NMFS. The Guide provides an overview of the SMART Planning process and demonstrates how key environmental coordination and compliance activities fit into that process. The Guide highlights opportunities for engagement and coordination at all stages of a planning study, re-emphasizing the need for early coordination.
- Single Phase Feasibility Study Resources** - Resources for District Project Delivery Teams and non-Federal sponsors beginning single phase feasibility studies post WRRDA 2014. Materials such as fact sheets and memos can be customized by the teams as needed and reflect single phase feasibility studies (no reconnaissance phase), the 3x3 rule, and SMART Planning Milestones and Processes per WRRDA Sections 1001 and 1002. If you have questions or additions to this list of tools, please let us know at hqplanning@usace.army.mil

More News/What's New Postings

www.corpsplanning.us



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HOME > MISSIONS > RISK ANALYSIS > RISK ANALYSIS GATEWAY

Corps Risk Analysis Gateway

Risk Analysis Gateway

- Risk Gateway Home
- Risk Analysis
- Risk Communication
- Flood Risk Communication Toolbox
- Risk Assessment
- Risk Management
- Learning Center
- Contact Us

Related Sites

- Corps Risk Management Center
- National Flood Risk Management Program
- Silver Jackets
- Planning Community Toolbox
- Cost Engineering Branch & Directories of Expertise

Embrace Risk Informed Decision Making: Getting Started

This video describes a practical way to begin the needed changes in individual and collective behavior across USACE to better recognize, put in practice, and communicate risk management concepts and risk informed decision making. This is part of the effort by Mr. James Dalton, USACE Director of Civil Works, to embrace and operationalize risk informed decision making.

Risk-Informed Decision Making in USACE (mp4, 27 MB)

Risk Analysis Gateway

When and where will the next major flood occur? Will project bids come in under the government estimate? Will a built structure live up to its strength? How many work-related injuries can we expect on the job?

No matter where you work or what you are working on in the Corps, you face questions like these every day for which there are no easy answers. The reality is that we do not and cannot know the answers to many of the questions we run into during the performance of our jobs. What we can do, however, is to understand and manage the risks created by these uncertainties.



Risk analysis is the responsibility of every Corps employee. It is an effective way of thinking about and organizing to solve problems on the job and to address uncertainty.

This is your gateway to understanding the Corps model for risk analysis including, assessing, managing and communicating risk. We invite you to start by taking one of the one-hour online training courses and then to explore other parts of the site for additional information, guidance, applications and other resources.

IWR Publishes Two Manuals on Incorporating Risk in Corps Decision Making

The Institute for Water Resources recently published two new manuals for Corps staff and other stakeholders on how to consider risk in USACE activities. These documents, "Principles of Risk Analysis for Water Resources" (pdf, 4.8 MB) and "Planning Manual Part II: Risk-Informed Planning" (pdf, 4.2 MB) expand upon and update prior resources and provide fresh thinking on risk-informed practices at the Corps.

With these new documents available, Susan B. Hughes, Deputy, Planning Community of Practice, USACE Headquarters, said "In recent years the Corps' consideration and analysis of risk has evolved considerably, which leads to better analyses and smarter planning processes. These two manuals reflect our ongoing commitment to better understanding and incorporating risk in our work. I hope our colleagues and stakeholders will read and refer to these documents in planning and other activities."

[Read more...](#)

USACE Publishes Updated Regulation Regarding Risk Assessment for Flood Risk Management Studies

The U.S. Army Corps of Engineers (USACE) has recently published an updated version of ER 1105-2-101, "Risk Assessment for Flood Risk Management Studies" (pdf, 1.44 MB). The regulation provides guidance on risk assessment requirements for flood management studies, as well as information regarding the risk framework; updates to the regulation include a break down of the parts of risk, and policies and procedures regarding life safety.

See the [report](#) (pdf, 1.44 MB) for more details.

Spotlight on Risk Communication

Check out the [Flood Risk Communication Toolbox!](#) This toolbox provides resources that can help District personnel effectively communicate flood risk to the public.

Did you know that effective risk communication can be the difference between a successful emergency planning event and one fraught with problems? Learn more about the 3 M's of [Risk Communication](#)...

IWR's Risk Analysis Gateway has many risk-related resources.



SHARE & DISCUSS LESSONS LEARNED WITH THE COMMUNITY



Communities of Practice

Civil Works Planning Policy

Sub-CoPs

PCXs

Workforce Development

CW Planning and Review

Others

Working Groups (formerly "Restricted Access")

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Updated Pages

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PCoP Discussion Boards

Economics Discussions

Ecosystem Restoration Discussions

Plan Formulation Discussions

PCoP SharePoint Resources

Shared Documents

PCoP Lessons Learned and Examples

Planning SOPs

Feasibility Tools and Frameworks

WRRDA 7001 Report to Congress on Future Water Resources Development

PCoP Slide Library

CW Planning Policy Image Library

Reference Lists

Acronyms and Abbreviations

IIS&CF Planninn Chief

Study Execution Lessons Learned



How do I use this page?

- **Browse** through submitted lessons learned by scrolling through the table below.
- **Sort** for lessons learned that may apply to your type of study -- sort by study type, study purpose, lesson learned category, or district by filtering across the top line <the line below that looks like: Edit Study Name District
- **Add** your lesson learned to share your observations and experiences with others.

Who can use this page?

Anyone involved in Civil Works Planning is welcome to use this page!

Is this limited to Feasibility Studies?

No! Planners across the Corps are involved in a number of different planning studies, not just GI/Feasibility. At the moment, though this form isn't set up to collect non-study lessons learned (e.g., IIS, FPMS, etc.).

What's the difference between an Observation and a Lesson Learned?

If you think your experience can help another planning team, share it! We are looking for examples of working across disciplines (getting on the same page with Engineering, Real Estate or Counsel), good read-ahead materials, effective uncertainty in a milestone meeting, using internal USACE processes effectively (model certification!) - we want to hear how you, in the field, are delivering effective and efficient planning products! If you found a way to make our intern. too!

How do I add my lesson learned?

Click "Add new item" from the top or bottom of this page. This will open a new form where you can share your observations, links, documents, etc. Please include your name For More Information so that others can follow up with you. story. You can also come back and edit your record as the story develops!

I found a document, memo, report, etc. that would be useful to other teams - should I post it here?

Yes - but also please email [Liz Rettenmaier](#) or [Jeremy LaDart](#) to post it to the Planning Community Toolbox so it's available to everybody.

Help! I can't get this site to work!

If SharePoint isn't cooperating, you can confirm you have access (everybody in the PCoP should, but you know how SharePoint is...) with [Liz Rettenmaier](#) or [Stuart McLean](#).

Study Execution Lessons Learned

Edit	Study Name	District	Study Type	Study Purpose	Lesson Learned Category	Issue Overview	Lesson Learned Summary	Advice to Other Studies	For More Information: Website	For More Information: Contact	Created
Edit	Study Name	District								All Studies	
	Meramec River/ St. Louis Waterfront	MVS								CECW-P	



IWR-APT: ONLINE PLANNING TOOLS

IWR-Assistance for Planning Teams(APT) : Welcome, Liz!

[Back to Your Home Page](#) [Risk Management Tools](#) [Project Tools](#) [Reference Tools](#) [Planning Links](#) [My Project Links](#)

Home / UPPER SUSQUEHANNA CO...

UPPER SUSQUEHANNA COMPREHENSIVE FLOOD DAMAGE REDUCTION, NY

Summary Project Information



DMPs

Decision	Last Updated	Preview
Alternatives	08/21/2017	Preview
Tentatively Selected Plan	08/22/2017	Preview

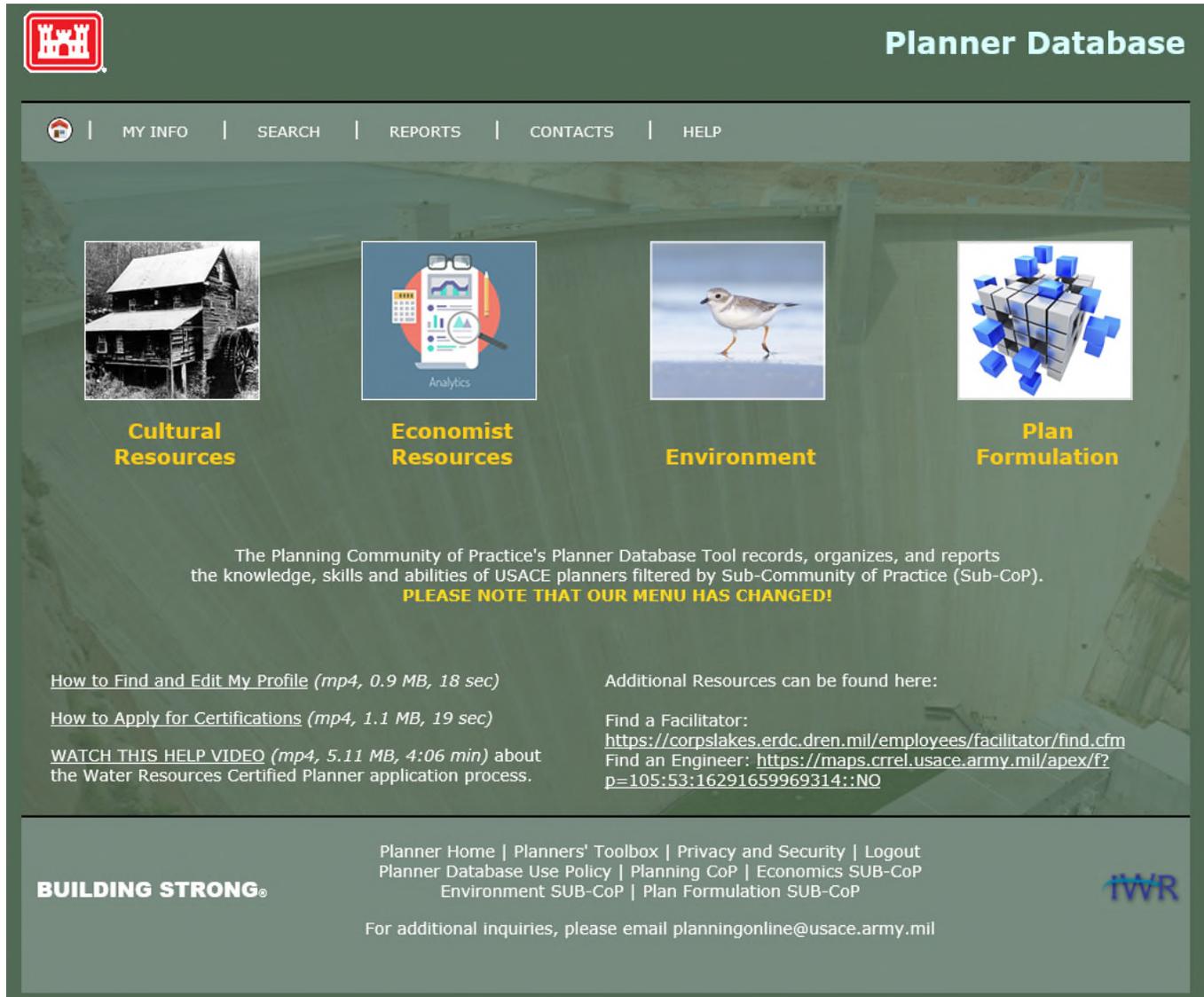
- Activity Log Summary
- Anastasiya Hernandez modified/added one or more decision log files on 09/20/2017
 - Anastasiya Hernandez modified/added one or more decision log entries on 09/20/2017

Comments

Date	Type	Name	Role	Comment	Actions
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USACE PLANNER DATABASE: FIND EXPERIENCE & EXPERTISE



Planner Database

MY INFO | SEARCH | REPORTS | CONTACTS | HELP

Cultural Resources

Economist Resources

Environment

Plan Formulation

The Planning Community of Practice's Planner Database Tool records, organizes, and reports the knowledge, skills and abilities of USACE planners filtered by Sub-Community of Practice (Sub-CoP).
PLEASE NOTE THAT OUR MENU HAS CHANGED!

[How to Find and Edit My Profile \(mp4, 0.9 MB, 18 sec\)](#)

[How to Apply for Certifications \(mp4, 1.1 MB, 19 sec\)](#)

[WATCH THIS HELP VIDEO \(mp4, 5.11 MB, 4:06 min\)](#) about the Water Resources Certified Planner application process.

Additional Resources can be found here:
Find a Facilitator: <https://corpslakes.erdc.dren.mil/employees/facilitator/find.cfm>
Find an Engineer: <https://maps.crrel.usace.army.mil/apex/f?p=105:53:16291659969314::NO>

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IWR

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For additional inquiries, please email planningonline@usace.army.mil

QUESTIONS?

Have a question not answered yet? We are collecting questions for FAQs – email hqplanning@usace.army.mil



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