

PLANNING OSArmy Corps of Engineers ®

WINTER 2017 - Issue 01





FROM THE CHIEF



Happy New Year fellow planners!

I'd like to take time to give you my sincere thanks for all the hard work you've done, and will do in the future, to drive Planning Modernization with your continued focus on our People, Processes, Projects, and Program.

I'd like to give you a few highlights of our accomplishments and progress on Planning Modernization over the last year.

PEOPLE: A great football coach once said "You win with people," and YOU are the heart and soul of Planning. We continue to invest in YOUR knowledge, experience and capability through training like the retooled Planning Core Curriculum, planning courses offered in PROSPECT, the Planning Associates program and bimonthly webinars on a multitude of topics. More than 275 planners have

MESSAGE FROM THE CHIEF OF PLANNING AND POLICY, TAB BROWN

been certified as Agency
Technical Reviewers in
their discipline, and we
launched the first national
Water Resources Certified
Planner program. I look
forward to announcing
the first group of certified
water resources planners
this spring.

PROCESS: Up-to-date guidance is essential to implementing our Planning Program. We continue to diligently update guidance to ensure it is clear and consistent, including implementation guidance for WRRDA 2014, conducting watershed studies and feasibility studies using SMART planning principles, and clarifying 3x3x3 exemption guidance. We are also finalizing the update to the Planning Guidance Notebook to incorporate SMART planning and lessons learned since 2012. To date, we've completed 86% of WRRDA 2014 Implementation Guidance.

PROGRAM: Because of our disciplined approach to SMART planning, including vertical team alignment throughout the study and completing a record number of studies, we have been successful in getting

new start studies and resumptions, including 23 feasibility and disposition studies in FY16. In April 2016, I met with the field Planning Chiefs to lay out a vision for the future and asked each MSC to develop a future focus vision.

PROJECTS: The Chief's focus is to deliver on our commitments (on schedule, within budget and with the quality expected of the Army Corps of Engineers) and this is the most strategic thing we do! In just two years since WRRDA 2014, we have completed 31 Chief's Reports and 8 Post **Authorization Change** Reports, compared to 36 Chief's Reports completed in the 7 years prior to that.

As we look ahead into 2017, I remain confident that we will continue to deliver valuable, quality solutions to the Nation and our partners. I look forward to the continued execution of our mission, and welcome your feedback on how it's going from where you sit. I am proud of the work you are doing and look forward to another year of growth and learning. Essayons!



BRONZE ORDER OF THE DE FLEURY AWARDED TO ST. LOUIS PLANNER



e are proud to recognize Kip Runyon, who was recently awarded the Bronze Order of the De Fleury by Col. Mitchell on behalf of the St. Louis District.

Kip has been a go-to person for the District and Division for many years on the tough assignments, most recently the Middle Mississippi River Regulating Works Supplementary **Environmental Impact** Statement (SEIS), but also on several regionally and nationally significant projects like the Louisiana Coastal Area - Atchafalaya River Feasibility Study and

COL. MITCHELL, MVS COMMANDER, PRESENTS KIP RUNYON THE BRONZE ORDER OF THE DE FLEURY

EIS, Plaquemines Parish EIS, and the Calcasieu Lock Replacement Study and EIS.

In his official citation. Kip was recognized for exceptionally meritorious service from 2004 to the present in positions of increasing technical complexities and responsibilities as a Senior Fisheries Biologist located in the St. Louis District, U.S. Army Corps of Engineers, Mississippi Valley Division. Kip displayed superior leadership, impeccable professionalism, and dedication to duty

throughout his career. His contribution and service to Soldiers, Civilians, Family members, and the citizens of the United States have had and will continue to have a broad and lasting impact for the years to come.

He is recognized not only for his technical contributions, but for his passion for sharing knowledge, encouraging an atmosphere of collaboration and cooperation, and fostering the development of technical skills with his team members.



The de Fleury awards recognize professional excellence in the Engineer Regiment, and is sponsored by the Army Engineer Association. The medal is named for a French Engineer Francois Louis Tesseidre de Fleury, who volunteered to serve with the American Army in its fight for independence from Britain during the American Revolutionary War. There are three orders of the medal - Bronze, Silver and Gold.

DISASTER RECOVERY IN SOUTH

CAROLINA

represented the Corps for South Carolina's recovery from the October 2015 Flood Environment as the **National Disaster Recovery** Framework (NDRF) -Infrastructure Assessment Field Coordinator. I was technically working for FEMA, but continuously looked for opportunities where the Corps could provide useful service to the State of South Carolina in the recovery.

Hurricane Joaquin was the second major hurricane of the 2015 season. The hurricane sat offshore of South Carolina and churned. Caught between this storm and a front approaching from the west, North and South Carolina experienced recordshattering rains and flooding from October 15, 2015. A major disaster declaration was made by the President

PLAN **PERSP** Colton Bowles, Plan Formulator at the Charleston District, was deployed as the Infrastructure Assessment Field Coordinator for South Carolina's Hurricane Joaquin recovery in October, 2015. He shares his experience in the recovery effort and some observations from his involvement.

> on October 5th and the emergency response quickly shifted to a recovery effort.

The storm dropped record rainfall reaching over 27 inches in Charleston County's town of Mt. Pleasant, nearly 24 inches on Clark Sound and James Island and more than 20 inches of rain reported in eight other counties. The extraordinary runoff resulted in damages that closed 365 State maintained roads and 166 bridges and caused breaching of 33 regulated impoundments. Some 40,000 people across the State went without potable water, and 26,000 had electrical services interrupted during the early

days of the disaster. Nineteen deaths were attributed to the storm.

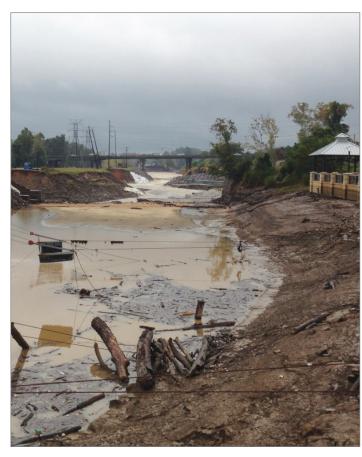
The NDRF for South Carolina focused on four recovery missions: housing, infrastructure, economic recovery, and community planning and capacity building. I leveraged Federal capabilities to support local, state, tribal governments and other entities in the longterm recovery of damaged infrastructure systems. I assessed impacts, cataloged recovery needs, identified opportunities to fill gaps in other recovery efforts and programs to develop the Recovery Support Strategy

(RSS), presented to the State in March 2016. The RSS identified short, intermediate and long term recovery goals and strategies, potential funding sources and was an opportunity to gather local perspectives of issues and infrastructure needs to inform future potential partnerships with cities, municipalities and counties.

Fulfilling the NDRF Mission distilled into three questions that we asked coastal county and state Emergency Managers: What happened? What are you doing right now? And, most importantly, what else do you need? Their answers highlighted

4





IMAGES OF THE COLUMBIA CANAL BREACH. DURING THE 2015 RAIN EVENT THE CANAL WAS FLOODED AS THE GATES TO THE BROAD RIVER (BUILT IN THE 1800S) COULD NOT BE CLOSED, RESULTING IN THE WATER TOPPING THE CANAL AND EATING THROUGH THE EMBANKMENT.

opportunities for the Corps to help and the Charleston District is now in discussion with three counties on potential Planning Assistance to States (PAS) and Continuing Authorities Program (CAP) 205 projects.

THE RSS IDENTIFIED THE FOLLOWING **INFRASTRUCTURE NEEDS** THAT THE STATE MAY **CHOOSE TO IMPLEMENT:**

■ Ensure that dams are built to modern standards through compliance and enforcement, provide technical assistance, agricultural pond improvements, dam safety

training, Hazard Mitigation **Grant Program eligibility** determination data collection effort, and funding resources for private dams.

- Develop a comprehensive watershed plan through improved regulations, enhanced hydraulic and hydrologic modeling, inundation mapping for high risk impoundments, improved Emergency Action Plan sharing, and exploring opportunities for partnership through Corps authorities and programs.
- Increase resilience of drinking water and

wastewater treatment facilities.

- Develop/implement flood reduction measures.
- Restore impacted shoreline (non-PL84-99) by identifying sand sources, and restoration to targeted berm height/width.
- Repair roads and bridges (non-FHWA emergency program).
- If private impoundments that damaged roads are not repaired by owners, plan for state support in reconnecting roadways and repair/maintain rural roads without that are not part of the Federal or state system.

SEVERAL KEY POINTS TO NOTE FROM MY **INVOLVEMENT THROUGH** THIS DISASTER AND **RECOVERY EFFORT:**

- Local sources are your best knowledge pools: County Emergency Managers, Public Work Directors, County Engineers, and Natural Resource Conservation Service-District Conservationists are usually the best sources of local impacts and needs. Reaching out to them should be a priority.
- Planners can play a role in mitigating future impacts: During recovery

- efforts, look for potential opportunities to partner with local entities to minimize impacts from future events through either the PAS or CAP program.
- Be cognizant of other efforts beyond Corps Authorities and Programs: During recovery, there will be instances where a project can be implemented through FEMA Public Assistance funds much more quickly than through the Corps Civil Works process. The Natural **Resource Conservation** Service also usually has **Emergency Watershed** Protection funds available after an event. Familiarize yourself with both programs and know when to direct local and county to them.
- The Corps is very good at responding to disasters, however we could do a better job at planning for them: We have the capability and expertise to help local government entities by developing products and projects to both enhance response and recovery and minimize threat to life and property.
- District disaster events can be viewed as learning opportunities: Assess the impacts in a disaster and try to reduce or eliminate them from recurring.



REGIONAL SEDIMENT MANAGEMENT:

NORTHEAST FLORIDA & MILE POINT NAVIGATION PROJECT

egional Sediment Management (RSM) is a systems approach to managing sediment that maximizes natural and economic efficiencies to support sustainable water resource projects, environments, and communities to create or maintain healthy systems. Key components of the RSM philosophy include recognition of sediment as a valuable resource, implementing regional strategies across multiple projects and business lines, and collaboration with sponsors and stakeholders. The Northeast (NE) Florida (FL) area and the Mile Point Navigation Project apply the RSM approach to support regional management of sediments and recognize the value of sediments to multiple USACE mission areas: Navigation (NAV), Flood Risk Management and Ecosystem Restoration. (Figure 1)

The Mile Point NAV Project is one of numerous RSM projects along the NE FL coast that provide nearly \$10 million in total annual value to USACE, sponsors, and stakeholders. Most RSM projects in NE FL focus on beneficial use of NAV Operation and Maintenance (O&M) material to support

resilient beaches and shorelines including Kings Bay-Fernandina Beach, Sawpit Creek-Atlantic Intracoastal Waterway (AIWW) and Amelia Island, Jacksonville Harbor-Duval County and St. Augustine Inlet/AIWW-St. Johns County. Initial analysis of Hurricane Matthew (October 2016) impacts in NE FL suggest that areas where there were shore protection projects experienced minimal damage to property and infrastructure. The majority of the beneficially-placed materials on NE FL beaches is a result of implementing RSM principles.

The Mile Point NAV Project is an example of beneficial use of dredged material with environmental benefits in an estuarine environment in NE FL. The Mile Point **NAV** Project is located at the intersection of the Jacksonville Harbor NAV Project and the AIWW in Duval County, FL (Figure 1, 2A, 2B). The project is being constructed to reduce strong cross-currents during ebb tide that restrict navigation and impact the Mile Point shoreline. Reduction of navigation restrictions will help facilitate National **Economic Development by** allowing for more efficient

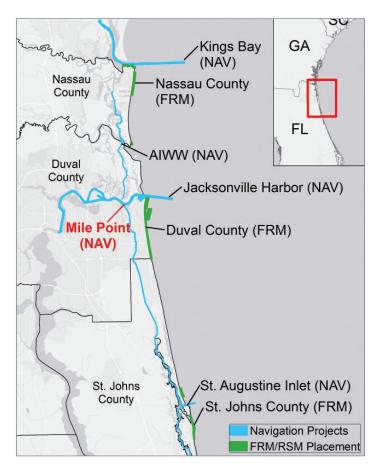


FIGURE 1: MAP OF NE FL HIGHLIGHTING LOCATIONS
OF RSM PROJECTS AND THE MILE POINT NAV PROJECT.
RSM PROJECTS IN NE FLORIDA INCLUDE KINGS BAY
AND NASSAU COUNTY, AIWW AND AMELIA ISLAND
STATE PARK, JACKSONVILLE HARBOR AND DUVAL
COUNTY, AND ST. AUGUSTINE INLET AND ST. JOHNS
COUNTY

use of the harbor by larger vessels as well as improving vessel safety. The original design of the project called for upland placement of all dredged material. When RSM strategies were incorporated into the Value Engineering study, this recommended beneficial use of dredged material to create

a salt marsh mitigation area to restore wetlands lost on Great Marsh Island. Implementation of the RSM strategy resulted in the restoration of 53 acres of salt marsh habitat (only 19 acres were required for mitigation) and savings of \$9 million in construction costs!



The project was authorized in WRRDA 2014 and initial construction (Phase 1) should be completed by March 2017. Phase 2, placing of marsh grasses and oyster reefs, will be completed in 2019 (Figure 3). A key component to the success of the project was incorporation of RSM principles by Jacksonville District Planning personnel during the initial phases of the project and districtwide support as the project advanced through Value Engineering; Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Certification; and construction.



FIGURE 2A: PRE-CONSTRUCTION CONDITIONS AT MILE POINT, LOCATED AT THE INTERSECTION OF THE ST. JOHNS RIVER AND ATLANTIC INTRACOASTAL WATERWAY IN DUVAL COUNTY, FL. NOTE EBB TIDAL CURRENTS INDICATED BY ORANGE ARROWS, PRE-CONSTRUCTION LOCATION OF MILE POINT TRAINING WALL, AND HABITAT LOSS AT GREAT MARSH ISLAND.

Planning Ahead is a quarterly publication of the Army Corps of **Engineers Planning Community of Practice.** Views and opinions expressed herein are not necessarily those of the **Army Corps of Engineers** or the Department of Defense.

Previous issues of Planning Ahead can be found on the Planning **Community Toolbox:** www.corpsplanning.us.



FIGURE 2B: MAP HIGHLIGHTING COMPONENTS (MODIFICATION OF EXISTING WALLS, CONSTRUCTION OF NEW WALLS, ENHANCEMENT OF GREAT MARSH ISLAND) OF THE MILE POINT NAVIGATION PROJECT.



FACES OF HEADQUARTERS: A CONVERSATION WITH THE NEW DIRECTOR OF CIVIL WORKS, MR. JAMES DALTON

Planning Community of Practice Deputy Sue Hughes recently sat down with Mr. James Dalton, who has served as the Director of Civil Works at USACE Headquarters since August, 2016 to discuss his vision for Civil Works, and the role of the Planning CoP going forward.

On his career path to becoming Director of **Civil Works:**

I didn't have an intentional pathway to become Director of Civil Works. All I wanted was to always contribute to the mission of the Corps, from early in my career as an office engineer to a project engineer, resident engineer, and through the organization, things fell in

place and

8

brought me here. I always asked myself "What can I do to contribute to the mission of the Corps of Engineers and make the Corps better?" I've just continued to build on the knowledge and the lessons learned from each of my previous positions. I have been the Chief of Engineering and Construction for the last several years and saw the full spectrum of what the

> Corps does, both in civil works and on the military side. I could see the entire process

from conceptualization through O&M, and that really helped prepare me for the position I'm in now.

Focus on the USACE Mission in your position:

Always do what you're assigned the best way you can, focus on what you're carrying out or solving for your supervisor or team and as you progress through your career, where your work fits in becomes clearer. Sometimes, looking at the big picture can be frustrating because you don't think what you're doing

is contributing, but it almost always is.

Planners should keep working on Civil Works **Transformation and Planning Modernization** efforts:

Transformation is the start of something, that I don't know you get to the end of. Planning modernization and 3x3x3 are a means to an end where we deliver quality products in the most costeffective and timely manner that we can, but we don't give you an inferior product. That "we" is Engineering, Planning, Programs, all of us. Now the opportunity, in Planning and with the Planning Associates, is to think about how we deliver products in a more efficient manner than we've done in the past. What have we learned? We need to take advantage of what we know and spend taxpayer money as effectively as we can.

When you have new leadership, you worry that these initiatives will be abandoned, but we should focus on thinking about what have we done right and what do we need to keep doing. Integrated water resource management





(IWRM) for instance, is a key part of everything that we do, there is no way to stop doing that. We coin these phrases, titles and tags, and those seem to come and go, but these are all about delivering quality products in the most cost-effective and timely manner that we can. SMART planning is going to stick around because of our interest in risk and uncertainty, it's the way to move forward.

There are many challenges and opportunities facing **Civil Works. Most of these** challenges are faced by **USACE** as a whole:

Work around stovepipes.

Even as we try to matrix our organization, we tend to still live and think within stovepipes. There is no silver bullet, but writing policy that's integrated across all these functional areas might help. We need to acknowledge that no functional area has a policy that strictly affects and impacts only them. This is especially challenging because it already takes a long time to get guidance finalized. Adding in collaboration makes the process difficult. Collaboration takes longer. Collaboration is not inexpensive. But it will be helpful. We must figure out how to more efficiently integrate policy across the functional areas and bring them together.

Improve record keeping and documenting the decisions we make. This happens in an e-mail chain or is someone's thought process, and then when there are

Putting a document out there is the first step, but it's not the only one.

Prioritize funds for training. We had an automated training will always be a challenge, and I hope it is, because that way we always are improving it.

I ALWAYS ASKED MYSELF "WHAT CAN I DO TO CONTRIBUTE TO THE MISSION OF THE **CORPS OF ENGINEERS AND MAKE** THE CORPS BETTER?"

new personnel, it is difficult to go back and see how we made the decision. We need to continue and build on our current knowledge management initiatives.

Agency-wide understanding of how to use risk and uncertainty.

USACE needs to learn to embrace uncertainty and use it as we move forward. As engineers, we tend to look for the one solution or way we're going to do something. Now we're realizing there is a full spectrum of solutions and it's misleading to present only one. We also need to ask ourselves "How we account for the uncertainties in our proposed solutions?"

Put as much focus on managing risks as on identification. We're just now focusing more on how to mitigate and manage risk. A joint EC on risk is a good start, but the field needs to be aware of the guidance.

management program (ATMP) that some embraced, some did not. Something like that allows the Corps to say what the biggest knowledge gap is and then address it. We can communicate that our training dollars for the next three years are focusing on risk and that we're serious about our workforce having this understanding. We need to be strategic about how we spend training dollars, and we would benefit from an enterprise approach to training and prioritizing the funding.

Remember our successes. If

we don't look to challenges and address those, then we become stagnant, but we've already progressed on a lot of our past weaknesses. For instance, for years I've been a champion of technical competence which has been a big factor in our success but also remains a challenge. It

Effectively communicate the value of investing in infrastructure. We're not talking to those non-engineers and noninfrastructure folks who use the infrastructure, but that is who needs to be convinced of its importance. The public doesn't want to invest in flood risk because they don't see the value in it. Now, repairing potholes on the highway, well they use that every day. But the dam or the levee has been there already, it still looks like it's doing its job, it's hard to say that is something that needs to be invested in. My extended family, when I was in Atlanta, had no idea what I, or the Corps of Engineers did. But while I was there, there was a drought, and Lake Lanier was at a low level, and after a couple of weeks all my relatives would ask about was my work and when water levels would return to normal. Until you get to that point, our work is not relatable to the public. That's our challenge as engineers: how do we get the average person out there that's a nonengineer or non-technical person to understand that we should invest now and avoid the expense of post-disaster response and recovery?

This interview was edited for length and clarity.

Feature News Items

PCOP NEWS FLASHES

PLANNING COMMUNITY NEWS

Feasibility Studies Moving Steadily Ahead

Congratulations to all the study teams that continue to move feasibility studies ahead; we have had a record number of Milestone meetings in 2017 and a number of draft reports are in circulation for public, technical, and policy review. These studies are an important contribution to meeting our commitment to deliver essential and enduring water resources solutions to the nation through partnerships and innovation. Essayons!

Feasibility Milestone Guidance Updated

The 1 December PCoP Webinar highlighted revisions to the Feasibility Study Milestones Planning Bulletin, signed on 10 January. This guidance applies to all studies where the USACE planning decision document could lead to a recommendation for project authorization, including feasibility studies, general re-evaluation studies, and review of completed projects studies (Section 216). Key changes in the Planning Bulletin include: clarifying readiness for milestone meetings; clear identification of decision-maker and lead presenter at each

milestone; and reduced read ahead requirements. Find the latest on the Planning Community Toolbox.

Online Study Risk Management Tools

IWR-APT is an online software tool developed by the Institute for Water Resources. APT, which stands for Assistance to Planning Teams, helps project delivery teams (PDTs) create, edit, analyze and manage their study materials. APT encourages collaboration, transparency, accountability, consistency, quality products, and sharing lessons learned. Modules currently available within APT include: Risk Register,

Decision Management Plan (DMP), Decision Log, Study Issue Checklist, and SMART Planning Deliverable Workflow. Please email planningonline@usace. army.mil if you would like to move your current study deliverables into APT or begin a new study there.

PCoP Hot Topics

Can't wait for the next edition of Planning Ahead? Get the scoop on People, Process, Projects, and Program key initiatives and information from Headquarters in the monthly Hot Topics. Find the latest in your email inbox or on the Planning and Policy SharePoint.

SIUDENT COLLABORATIVE

Planning Community Webinars

The Planning Community of Practice (PCoP) webinar series offers Planners and their colleagues an opportunity to share information and learn more about trending topics.

Recent topics include: lessons learned on incorporating nonstructural flood risk management and ecosystem restoration objectives in the Southwest Coastal Louisiana

Study; opportunities for planners to engage with the Civil Works Research & Development processes; updated guidance on feasibility study milestones; social vulnerability; lessons in risk communication from the Dutch Water Ministry, and more.

Webinars are held the first and third Thursday of each month from 2-3 pm Eastern. Presentations and the Question and Answer sessions from each webinar are archived on the Planning Community Toolbox.

If there is a webinar topic you believe the PCoP would benefit from, please email your ideas to hqplanning@usace.army.mil.

FIND MORE WEBINARS AT: http://planning.usace.army.mil/toolbox/resources

10



CONGRATULATIONS TO THE PLANNING ASSOCIATES

CLASS OF 2016

he Planning Associates (PAs) participated in an intense year of courses traveling to district offices across the country learning about the various civil works missions. For each of the courses, the PAs wrote a Sit Rep that was shared with the Division Planning Chiefs, the PA's supervisors, the PA course owners and the PA management team. The Sit Reps were intended to share what the course was about including the field trips and reflect on the hot topics in



THE 2017 PLANNING ASSOCIATES GET DOWN TO BUSINESS AT THE PLANNING FOUNDATIONS **CLASS IN GALVESTON** (JANUARY 2017)

each course. At the end of the year, each PA is required to develop and present a Critical Think Pieces (CTP) at the Awards Ceremony on 29-30 August 2016.



PLANNING ASSOCIATES GRADUATING CLASS OF 2016

THE FOLLOWING ARE **THE 2016 PAS AND THEIR** CTPS:

Quana Higgins, SPL

"USACE Structured Decision Making Process"

Keith Keeney, LRL

"Bringing Out the Best Science, Products, and Planning: Opportunities for Certified Cultural Resources Agency Technical Reviewers"

Andrew MacInnes, MVN

"Lessons Learned: Improving the After-Action Review Process"

Michael Malsom, SAM

"Beneficial Use of Dredged Material and Achieving SMART Planning Milestones"

Valerie McCormack, LRN

"Cultural Resources Considerations and Compliance for Single Phase Studies"

Patrick Nowak, NWO

"Dam Safety: Planning of the Future"

Patrick O'Donnell, SAD

Guidance Update

Tatton Suter, POA

"USACE DQC and ATR Revitalization"

PLEASE WELCOME THE 2017 PLANNING ASSOCIATE CLASS:

Rachel Grandpre - IWR

Donald Kramer - NWS

Nicholas Lutz - LRL

Cherie Price - MVN

Matthew Schrader - SAJ

Karen Zelch - NWW



Dear PCoP - Will the updated guidance for feasibility study milestones — in the new Planning Bulletin or the upcoming revisions to the Planning Guidance Notebook — be explicit about the level of detail and analysis expected to be presented at each milestone?

The short answer is, no, that level of detail will never be in guidance to everyone's satisfaction.

The Planning Community of Practice recognizes that this continues to be a question for teams and decision makers as they prepare for milestone meetings. We are working with the Planning Centers of Expertise, the MSCs and field planners to develop guides by each business line to identify the level of detail relevant to decisions for each milestone decision, and we hope to have these ready for the Community this summer.

The highest degree of uncertainty is at the Alternatives milestone. Just by the nature

of where we are in the study, the level of detail is lowest and the risk is highest at that point. There will be a number of questions about the level of detail that the Planning Chief should be prepared to discuss. A team probably won't have Future Without Project Condition, for example, finalized at the Alternatives Milestone, but we will expect the team to know what it will be doing to firm up the Future Without, and that it will be well defined by the Tentatively Selected Plan (TSP) Milestone because you will need that to compare and select a TSP.

WE WANT TO HEAR FROM YOU

QUESTIONS, COMMENTS,
CONCERNS, ANXIETIES —
IF YOUR QUESTION CAN HELP
FELLOW PLANNERS, EMAIL US AT
HOPLANNING@USACE.ARMY.MIL
AND MAYBE YOU'LL SEE IT HERE.

▶ What's New on the Planning Community Toolbox

The Planning Community
Toolbox is the "go to" website
for current Planning policy
and guidance and links to
the tools that can support
planners and planning
decision making.

Recent national policy changes and updates published to the Toolbox include direction from the revised Cost Engineering Engineer Regulation (ER); interim guidance on decision making for Section 408 requests; Economic Guidance Memoranda (EGMs) for FY17; and Engineering & Construction Bulletins (ECB) on "mega-projects" and climate change adaptation engineering inputs for studies.

Learn from the Community

- webinars and white papers
on the Toolbox addressing a
variety of "Lessons Learned"
have been assembled as
a single collection in the
Planners Library. The latest
addition to the collection is

a white paper authored by OWPR and the Eco PCX on Recent Experiences with Cost Effectiveness and Incremental Cost Analyses (CE/ICA) for Ecosystem Restoration Projects.

The SMART Guide tab complements planning guidance, and includes tips, tools and techniques for planners. Here, you can find SMART Planning Feasibility Studies: A Guide to Coordination and Engagement

with the Services, or the recently added feasibility study milestone one-page overviews reflecting the latest guidance from Headquarters.

Looking to spread your wings? Job openings across Planning are frequently posted on the Toolbox's home page under Notices.

Visit the Toolbox online at www.corpsplanning.us.