Doing Less +with- Less

How the Corps is transforming its business model to meet today's fiscal challenges

by LaDonna Davis

There is an old saying that, for years, has resonated across companies, government organizations and households when money is tight: "do more with less." But, in fiscally challenging times where the U.S. government is looking for ways to decrease spending and reduce funding across many government agencies, that old saying is getting a new twist, "do less with less."

Doing less with less is the challenge that the U.S. Army Corps of Engineers is facing; and part of the solution is to come up with ways to transform its entire civil works program to suit lower budgets, less projects, less resources and a new way of doing business.

"The Corps' culture in the past has been to do more with less, but the reality is that we can't continue to do all the things we've always done," said Andrea Murdock-McDaniel, USACE Southwestern Division chief of operations. "We have to change the way we do business, we have to find ways to do less with less."

Currently the Corps is responsible for planning, maintaining, designing and constructing more than $250 billion of the Nation's civil works infrastructure. But, the budget for civil works projects in 2013 is projected to be equal to the budget in 2009.

In a memorandum from Maj. Gen. Michael Walsh, USACE Deputy Commanding General for Civil and Emergency Operations dated March 16, 2012, he says "we anticipate that our budget will remain flat for the next five years, thus, it encourages us to seek alternative and innovative funding strategies that can complement the Federal budget allocations and meet the high value needs of the Nation over the next 20 to 50 years."

Finding new ways to cut costs isn't an easy feat. That's why in August 2011, USACE put together a Senior Oversight Group comprised of civil works deputies from various USACE Districts, Divisions and major subordinate commands to develop strategies into a collaborative plan which suits the new economic climate and can be implemented at the MSC and District level.

The oversight group has come up with four key target areas to focus on in order to address the change in budget and reduce costs: modernize the project planning process, enhance the budget development process through a systems approach, improve methods of delivery to produce and deliver critical products and services through water infrastructure, and develop a smart infrastructure asset management strategy to deliver solutions to water resources problems. The changes are expected to be implemented in 2014.

The first area of transformation- modernizing planning- focuses on how the Corps plans for future projects. In some instances this may mean changing the way the Corps delivers products to its customers. "Right now we have a lot of planners out there that don't have a consistent workload," said Murdock-McDaniel. "We need to look at ways of regionalizing the work we do have in order to maintain our planning expertise. This may mean that not every District will maintain their full scope of planning competencies within their geographic

boundaries, but will utilize planners across the region to provide that expertise virtually instead."

The oversight group has also come up with a new approach to planning projects called "3x3x3." "Three- by- three- by- three means that our projects should take less than three years to complete, cost less than $3 million and undergo only three levels of review," said Murdock-McDaniel. The idea behind 3x3x3 is that it will ultimately reduce the time it takes the Corps to deliver the product to our stakeholders and will cut costs by limiting the review to just what is needed to make our decision and reduce the amount of reviews required for each step of the process."

Completing projects, that in years past might have taken five years or longer, in three years or less can be challenging; which is why the Corps is also looking at changing the way projects are executed, operated and maintained.

Using a systems approach to operating and maintaining projects versus breaking projects into sections could help save money in the long run. "We need to start looking at our projects as one big operating system versus individual projects that need to have separate contracts and be maintained in an a-la-carte fashion," said Murdock-McDaniel. "We also need to look at levels of service- does every project need to be built and maintained to such a high degree? The questions that the Corps is going to start asking is, 'what can we do for the public to still meet their needs and still keep the integrity of our project, but do it at a lesser level that focuses our limited resources on the highest priority work and on the most efficient method of delivery in terms of cost and time?'"

One example of this approach is the McClellan-Kerr Arkansas River Navigation System in Little Rock and Tulsa Districts. Currently, the MKARNS locks are run 24 hours a day 7 days a week. One thing that the Southwestern Division is studying is if it would beneficial to reduce the number of operating hours that the MKARNS stays open. "Do they need to have all that staff all the time," questions Murdock-McDaniel. "This is an example of the Corps looking at ways to operate with the money we have and still produce a service that the public wants."

A barge boat makes its way through the McKlellan-Kerr Arkansas River Navigation System lock and dam. Reducing the MKARNS hours of operations is just one of the ways the Southwestern Division is looking to reduce costs as part of the civil works transformation. Currently, the MKARNS runs 24 hours a day, seven days a week.(Photo by USACE Little Rock District PAO)

The third cost cutting measure the Corps will be implementing pertains to the management of Corps assets.

Currently, the Corps maintains millions of dollars worth of infrastructure, but with limited monies, it is getting more and more difficult to maintain each structure. To counter this problem, the Corps is surveying the condition of its infrastructures to determine which structures are considered most at risk and most critical in terms of the projects ability to provide its intended benefits.

"We're developing a risk informed prioritization process that utilizes Corps-wide criteria, metrics and decision support tools to focus our resources to those projects with the highest value or return on investment for the nation," said Murdock-McDaniel. Some of the determining factors could include the value of the asset, the economic value of the services provided, the number of people at risk, maintenance costs and the current operating conditions of the facility.

The Corps will have to make some tough decisions in the coming months to acclimate to the changing economical climate. But, while a tighter budget might result in less projects getting complete, the one thing the Corps is hoping it won't have to do is cut its employees. "USACE is trying to do this in the least harmful way to employees," said Murdock-McDaniel. A few of those ways include reducing the workforce through attrition and limiting the number of rehired annuitants. USACE will also look at ways to virtually restructure the organization where it places work where the people are or vise versa.

The full civil works transformation plan is expected to go into implementation in 2014, but Murdock-McDaniel says that the changes won't stop there. "Any good organization has to be able to transform to the current conditions," she said. "Just because we start the transformation process in 2014, doesn't mean that it will end there. We're changing the culture of the U.S. Army Corps of Engineers as a whole and also here at SWD. There will be some internal growing pains that we'll all be sharing as we work our way through this transformation, but we'll get through it and hopefully the Corps of Engineers will be better for it."

Springfield Flood Risk Management Project picked for pilot study

By Laurie Driver, Little Rock Public Affairs

The U.S. Army Corps of Engineers is modernizing its civil works planning process, and Little Rock District's Springfield Flood Risk Management Project was one of the first two planning projects selected to be part of the national pilot study.

"The goal of the new process is to complete the feasibility study in three years for under $3 million with three levels of vertical integration," Trish Anslow, chief of the Little Rock District's Planning and Environmental Division, said.

The vertical integration process has division and headquarters looking at issues and providing guidance simultaneously and earlier in the process.

"We are focusing our planning efforts on risk-based decision making," Anslow said. "We look at what information is critical to make our decisions as we move through the process. This allows us to focus our time and efforts on the most critical risk while accepting risk in the areas that are less critical for feasibility level decisions."

The new process allows the planning team to screen earlier in the process so it gathers greater detail and builds certainty as it moves through the study.

"Now we don't have to spend significant time on an alternative that we know wouldn't make it through the initial screening process," Anslow said. "This allows us to focus on the best possible alternatives available and move the project forward quicker."

Currently, the project team is refining its suggested fix for Springfield's flood problem.

"The project team has performed several iterations of developing and evaluating alternatives. It screened out numerous ones narrowing the current field to five plans," Anslow said.

The next step is to tentatively select the recommended plan.

"The team is also preparing the draft report, with all alternatives considered, in preparation for public review," Anslow said. "Once there is public and agency concurrence on a tentatively selected solution, the team will further refine the design in preparation for authorization and appropriation."

For the last 200 years, the town of Springfield, Mo. has been suffering from severe flooding along Jordan Creek. A new pilot study being conducted by the U.S. Army Corps of Engineers Little Rock District looks to help solve the flooding issues in an expedited manner. (Photo by USACE Little Rock District)

This process requires the team to work more closely with the sponsor throughout the entire study process.

"The sponsor is very involved in their study and piloting this new feasibility study process," Anslow said. "That feedback is important to our team and the development of national guidance."

The new process benefits the sponsor but also offers benefits to the district's planners.

"As the organization becomes more comfortable with the new process we will realize more and more benefits," Anslow said. "I believe this process will be much more efficient and will empower our civil works planning teams to be more creative, to think more critically, and use professional judgment more often during the study process."

The multimillion dollar, 50-50 cost-shared feasibility study with the city of Springfield should be completed in 2013.

The flood control measures being considered include structure relocations, detention ponds, open channels, and in congested areas, underground culverts.

The City of Springfield plans to create an environmentally-sustainable beltway downtown along Jordan Creek that will provide flood damage reduction, and redevelopment. Portions of the creek flow through covered conduits in the city center.

During the flood of July 2000, $1.85 million in flood damage occurred and interrupted traffic on main city thoroughfares and rail lines. More recent flooding occurred in the spring of 2008.

"The new process is a win-win for everyone," Anslow said. "We produce a more cost effective study, in a timelier manner, with greater sponsor involvement while challenging our planners to meet those goals."

The Fort Worth District's Westside Creeks Project Delivery Team and members of the San Antonio River Authority conduct a site visit to the project area which is part of a pilot program to streamline the amount of time it takes to complete studies.

Making the transformation stride along the Westside Creeks

By Randy Cephus, SWF Deputy PAO

The Fort Worth District is making great strides with civil works transformation during the conduct of the Westside Creeks Pilot Study. Through this transformation, the Corps of Engineers established a new and modernized planning paradigm to streamline the project planning process.

Corps leaders envision this transformation, featuring a risk based decision process, will help produce a more concise Chief's Report that is completed faster and at a lower cost than in the past.

Westside Creeks is one of only five studies across the Nation currently in the Pilot Study program. But what makes this study unique is the fact that it is the only one to enter the program from the project's inception.

"A basic premise is to define a new paradigm that allows us to produce a more timely decision document without sacrificing quality, and to do so by developing planning processes that are efficient and effective," said Westside Creeks lead planner, Stacy Gray.

The study area includes four tributaries of the San Antonio River that run through San Antonio's west-side communities. These tributaries are the Alazan, Apache, Martinez, and San Pedro Creeks. All four creeks were straightened and channelized during the 1960s as part of the San Antonio Channel Improvement Program.

The study will examine how to restore the native riverine function to the Westside Creeks study area while at least, maintaining the current level of flood risk management. Recreation is also an authorized project purpose and will be considered as a study component.

The process requires that the team identify risks and uncertainties and establish a level of risk that is acceptable with consideration to life safety and health, and then design and implement a study to that appropriate level of effort.

"One of the most challenging; yet exciting things about this project is thinking outside the box and getting out of our comfort zone of doing things the traditional way," said Gray.

The new paradigm stresses making key decisions in a timely fashion. The first decision centered on whether or not there is a Federal interest. A key subset of this was to also see if there is also a Corps interest that is separate from the overall Federal interest.

"Under this paradigm, the goal is to make that decision in the first three to six months of the study, and if the determination is no Federal interest then we would move into a technical support role to assist the local community with implementing their vision within an existing Federal project," said Gray.

The next major milestone is DP2, which is the Tentatively Selected Plan," said Westside Creeks project manager, Nova Robbins. "We anticipate reaching this decision point around December of this year."

Often referred to as an 18-month study, the Westside Creeks' actual range is a 16-24 month study. The overall goal is to shorten the planning process, but to do so without sacrificing quality information needed for a decision.

A key component to the initial success of the project is due to the constant communication and collaboration with the project sponsor, the San Antonio River Authority. SARA is one of the Fort Worth District's oldest partners. They are full project delivery team members and are active participants throughout the planning process.

"SARA is providing much of the technical data, such as geomorphology and natural channel planning, to our H&H folks, and we could not execute this aggressive timeline without their technical support," added Robbins.

"Many of our sponsors seek special legislation to ensure the community's desires are not lost in the Corps planning process," says Robbins. "The WSC project comes to this process with a conceptual plan developed by the community and provides us an opportunity to plan a study that includes this vision using the concepts of the paradigm."

SARA's technical expertise makes the entire PDT stronger. This teamwork will become even more critical as the project makes further strides in reaching its final goal, the Chief's Report.