

Enter your email address...



The Civil Works Challenge. Water Resources Infrastructure

The Army Corps of Engineers undertakes transformation to meet 21st century water-resource demands.



Written by: **Jan Tegler** on June 2, 2013

Categories: **Army Corps of Engineers, Civil Works, Land Forces**

Tags: **Civil Works, US Army Corps of Engineers, Water Resources**

Comments: **No Comments**

Share this Story

+1 0

Tweet 0

Like 2



Available on the App Store

Available on Google play

ENJOY OUR HIGHLY INTERACTIVE DIGITAL MAGAZINES ON YOUR iPad® OR ANDROID® DEVICE.

U.S. Army Corps of Engineers Nashville District work crews from the Cumberland River Operations Center unwater Barkley Lock on the Cumberland River, near Kuttawa, Ky., to perform scheduled inspection and major maintenance repairs Aug. 12, 2011. The navigation lock is located on the left bank of the main dam structure and was opened to navigation in July 1964. it is 800 feet long and 110 feet wide. the gravity fill-and-empty system exchanges 37,500,000 gallons of water per lockage. The lock is operated 24 hours per day. U.S. Army Corps of



Need 24/7 remote site power?



Transforming the Civil Works Budget

“Planning is the first pillar of transformation and the second is how we budget,” said Stockton.

Transforming USACE’s budgeting process for meeting water resources demands is a work of reconciliation with a central question. How will USACE square a budget affected by decreased funding with the need to address critically aged and deteriorating infrastructure?

“*Focused on the construction, operation, maintenance, repair, and replacement of major navigation, flood risk management, and hydropower infrastructure, as well as on environmental mitigation and restoration of natural resources with infrastructure, USACE’s budget is already under severe strain. At stake is USACE’s ability to fully ensure the safety of the infrastructure, maintain it to meet performance goals, and efficiently provide the economic and environmental benefits for which projects were originally designed and constructed.*

Answering that central question dictates that USACE makes tough decisions about water resources infrastructure and what it can afford going forward. Likely funding scenarios also



Videos

Photos

Your System Status

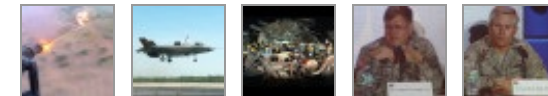
WE'RE SORRY!

You need to update your Flash Player.



IMPORTANT: After installing the required upgrade please reload this browser window to view the video player.

M134D Minigun Highlights



[View all Videos »](#)

mean that the organization will have to look for new avenues of investment.

To address this, the transformation plan calls for a new budget approach that establishes a systems-based, watershed approach to decision-making, as well as consideration of alternative financing vehicles. The plan acknowledges that effective use of funding will not be up to USACE alone. It will require input from and collaboration with stakeholders and other interested parties.

“Since we’re more in control of the budgeting process, we’re going to fund fewer projects at capability to complete them quicker so they can start delivering their output on a more efficient schedule,” Stockton emphasized. “But that also has implications. If we’re trying to do them quicker and cheaper at full capability, and if you assume the amount of money you have to work with is fixed, you’re going to be doing fewer of those kinds of projects.

“We’re trying to shape the budget so it aligns with national priorities. It’s a performance-based budget so there are metrics and outputs in terms of benefit/cost ratios or similar metrics for other business lines. We have to have metrics that show if an investment is made what benefits will accrue.”

“In tandem with the goal of ensuring that USACE’s budget supports projects that address national priorities is the objective of funding projects that make sense within the context of any watershed.”

“Our USACE program has been accused of being nothing more than a collection of projects, which is true,” Stockton admitted. “So we’re trying to ensure that if we’re making a budget recommendation for a project within a watershed that we have a common operating picture of what else is going on in that watershed. What other federal agency investments are being made? What’s the state doing? What projects are NGOs [non-governmental organizations] implementing?”

“We’re trying to be smarter in recognizing the needs in a watershed and find context, not just looking at one project with blinders on.”

Modernizing Management of the Water Resources Infrastructure Portfolio

Comprised of dams, locks, levees, hydroelectric power plants, and much more, the majority of USACE’s water resources infrastructure portfolio is more than five decades old. This critical infrastructure enables efficient transportation of goods and commodities; reduces risk to communities from floods, hurricanes, and droughts; provides clean, renewable hydroelectric power to homes and industry; restores significant aquatic ecosystems; and effectively supports millions of water-based recreation visits each year.

The simple fact is that much of the portfolio needs significant investment to remain viable and to meet future demands. The transformation plan also acknowledges that some infrastructure is no longer viable and should be divested or repurposed. To properly evaluate what should be kept, what should be stood down, and where there are opportunities to deliver services with new approaches, USACE will take four steps. It will:

- ▶ develop reliable methods of assessing the current value and levels of service of its infrastructure systems to determine where priority investments need to be applied;
- ▶ emphasize the interdependence and interrelationship of assets within a watershed or system to provide reliable, resilient, and adaptable infrastructure systems that deliver the required levels of service;
- ▶ evaluate assets in terms of their value to the nation; and
- ▶ systematically evaluate infrastructure based on current performance in meeting original authorized project purposes, and how demands within the watershed or system have evolved and changed over time.

“The first piece of our strategy is asset management based,” Stockton explained. “Know what you’ve got and know what condition it’s in. For every dollar you invest, you try to buy

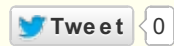
down risk – performance risk such as unscheduled outages of hydropower plants or locks, etc. We've spent a lot of energy developing an asset management program to do operational condition assessments and to do a smarter job of taking the scarce dollars we do get and make smarter investments, reducing risk as much as possible.

“An example of that is instead of doing rehabilitation on one lock and dam at a time, it's a smarter investment if you look at the criticality of certain components like gates. Maybe it makes more sense to replace all the lock gates at six locks and dams instead of completely rehabbing one lock and dam for the same amount of money.

“The other piece of the strategy deals with the fact that most of our infrastructure was built during the last century and it's getting old. Some of our locks are over 100 years old. The median age of our dams is about 60 years. So we need to start making decisions toward the end of the life cycle of infrastructure on what to keep, what to recapitalize, and what is no longer serving any useful purpose. Or perhaps things have changed over the last hundred years and maybe we need to repurpose a project that was originally designed for navigation but recreation or water supply has a higher priority.”

« Prev page 1 2 3 Next page »

Share this Story



Related Stories



Leave a Comment



A large, empty text area for entering a comment, with a small speech bubble icon on the left side.

Name *

Email *

Website

Notify me of followup comments via email

Submit Comment »

Our Newest Tweet



DefenseMediaNetwork
DefenseMediaNet

DefenseMediaNet Outgoing @MSCSealift commander, Rear Adm. Mark "Buz" Buzby, examines the future of sealift: dmn.cc/139G8Km
[about 1 hour ago](#) · [reply](#) · [retweet](#) · [favorite](#)



Join the conversation

Categories

- ▶ Defense-Wide
- ▶ Aerospace
- ▶ Land Forces
- ▶ Naval
- ▶ SpecOps
- ▶ Homeland Security
- ▶ VA/ MILMED
- ▶ Multimedia
- ▶ Press Releases
- ▶ Promotions
- ▶ Blog

Tag Cloud

Military News, Military History, US Navy, Issues, US Army, US Military, World War II: 70 Years, US Marine Corps, US Air Force, Research and Development, Programs, US Coast Guard, Fighter Aircraft, Surface Ships, Rotary-wing Aircraft, Foreign Military, Attack Aircraft, Commentary, Department of Homeland Security, Special Operations Forces, C4ISR, Armored Fighting Vehicles, US Army Corps of Engineers, Training and Simulation, Tactical Vehicles