USACE NASHVILLE DISTRICT BRIEF
THE SOCIETY OF AMERICAN ENGINEERS-
NASHVILLE POST
PROFESSIONAL DEVELOPMENT WORKSHOP

LTC Cullen Jones, P.E., PMP.
District Commander
Nashville District
Great Lakes and Ohio River Division

12 October 2017

"The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

BUILDING STRONG,
and Taking Care of People!
Agenda

• District Overview
• Business Lines
  Transportation
• Major District Projects
  Inland Navigation
• FY 18 Opportunities
Great Lakes & Ohio River Division
District Boundaries

DIVISION FACTS:

- The Great Lakes and Ohio River Division, located in Cincinnati, Ohio, operates as a regional business center with seven districts that covers 335,000 miles.
- The division has seven engineer districts totaling over 4800 people operating in a seventeen state area, and is charged with directing federal water resource development in the Great Lakes and Ohio River basins with infrastructure valued at over $80 billion.
- With an annual operating and construction budget exceeding $2 billion, missions include planning, construction and operations of navigation structures and flood damage reduction, hydropower, environmental restoration, water conservation, recreation and disaster assistance.
- The division also executes military construction in Ohio, Kentucky, Indiana, Illinois and Michigan with design and construction of barracks, hospitals, airfields and family housing on military installations.
The Nashville District’s area touches 7 states and covers 59,000 square miles represented by 14 Senators and 20 Congressmen.

The District has 719 team members located in 49 field offices. These employees are regional experts in Recreation, Hydropower and Regulatory.

The District’s annual workload budget exceeds $306M, the District’s main construction projects are Kentucky Lock and Chickamauga Lock.

The District operates and maintains 1,175 commercially navigable river miles, almost 10% of the total within the U.S. Army Corps of Engineers.

The District has the capacity to produce 914 megawatts of clean electricity from the hydropower plants on the Cumberland River.

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USACE / TVA Partnership (Tennessee River)

1962 Memorandum of Agreement – A two page document that works!

Responsibilities

- Main Channel Tennessee River (dredging, charts, survey)
- Navigation Lock Operation and Routine / Recurring Maintenance
- Hydropower on the Cumberland River
- Design / Construction of Kentucky & Chickamauga Locks*
- Chickamauga aggressive maintenance*

* Through Agreement

Responsibilities

- Secondary Channel Tennessee River
- Navigation Lock Capital Maintenance
- Hydropower on Tennessee River

Shared Responsibility

- Regulatory responsibility
- Water Management
- Engineering and Maintenance services

BUILDING STRONG® and Taking Care of People!
Mission and Business Lines

We serve the region, the Corps, and the Nation by providing
collaborative water resource engineering solutions, world class
public infrastructure management, and environmental stewardship
for the Cumberland and Tennessee River Systems.

- Flood Control
- Water Supply
- Hydropower
- Navigation
- Recreation
- Environmental Stewardship
- Emergency Management
- Regulatory
Hydropower Program
(Cumberland River Basin)

- Nine hydropower plants; 28 units; 914 MW
  - LRN is 5th in USACE in generation over the last 10 years*; average 3.4 Billion KW-Hrs annually; $287M retail value in 2014
  - LRN operates all LRD Hydropower plants
  - Enough power for 287,000 homes in 2014
- Forced outages are increasing, due to aging infrastructure in plants
  - Turbines and transformers are original equipment
  - Only 6 of 28 generators rewound
  - Rehabilitation costs are >$1B
  - Robust program to rehab all plants

* According to OMBIL
Hydropower Rehabilitation Program (Customer Funded)

- **Authority**: Water Resources Development Act 2000 (Section 212) allows customer funding for hydropower rehabilitation and modernization
- **Stakeholders**: SEPA, TVA, TVPPA, and Preference Customers
- **Long-Term MOA**: COE, SEPA, Preference Customers: ~$25M per year (20 years)
- **Short-Term MOA** – COE/SEPA/TVA/TVPPA: ~$25M per year (2+ years)
Hydropower Rehabilitation Program
(Customer Funded)

- Rehab Powerhouse Cranes
- Rewind Generators
- Replace Turbines
- Rehab Turbine Governors
- Rehab Switchyards
# Hydropower Rehabilitation Program

*Customer Funded*

<table>
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<tr>
<th>Project</th>
<th>Design</th>
<th>Const.</th>
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<tbody>
<tr>
<td>Center Hill Major Hydropower Rehab</td>
<td>Complete</td>
<td>2014-19</td>
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<tr>
<td>Wolf Creek Penstock/Water Passages</td>
<td>Complete</td>
<td>2017-18</td>
</tr>
<tr>
<td>Old Hickory Unit #4 Repair</td>
<td>Complete</td>
<td>2017-19</td>
</tr>
<tr>
<td>Barkley Medium Voltage Cables</td>
<td>Complete</td>
<td>2018-19</td>
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<td>Barkley Excitation Replacement</td>
<td>Complete</td>
<td>2017-19</td>
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<tr>
<td>Wolf Creek Sta. Service Power Rehab</td>
<td>Complete</td>
<td>2018-19</td>
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<tr>
<td>Old Hickory Turbine-Generator Rehab</td>
<td>Planning</td>
<td>2018-22</td>
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<tr>
<td>Wolf Creek Turbine-Generator Rehab</td>
<td>Planning</td>
<td>2020-26</td>
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</tbody>
</table>

**BUILDING STRONG®**

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Navigation Branch

- Operational Support for 1,175 navigable miles
- Major Maintenance – 18 Lock Chambers, 9 Multi-purpose Projects
- Navigation Charts & Notice to Navigation
- Navigation Project Asset Management Program
- Manages District’s Diving Program (~ 150 dives / yr)
Kentucky Lock Addition

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$1,254M
$438M Expenditure thru Sep 2017 = 35% complete

D/S Cofferdam - $67.1M Award – Sept 2016
D/S Excavation Award – Sept. 2018
D/S Lock Award – Sept. 2019
Upstream Cofferdam - $17M Completed Nov 2006
Bridges Superstructures - $104M Completed Jul 2014
Bridges Substructures - $44M Completed Mar 2006
U/S Miter Gate Fab. - $5.6M Completed Dec 2016
Upstream Lock - $110M Completed Feb 2017
Approach Walls Award – Sept. 2021
Site, Demolition, & Utilities Award – Dec 2017

Lock & Associated Facilities $1,044M
TVA Transmission Towers 13M
P & L Railroad 97M
Hwy 62 and other roadways 100M
Total $1,254M

$438M Expenditure thru Sep 2017 = 35% complete
Downstream Cofferdam Concrete Segments Lift-in Arrangement 3D Model
KY Lock Future Contract Work

- Project is well positioned to configure future construction contracts to funds available:
  - Site, Demolition, and Utilities construction ($1M to $5M)
  - D/S excavation construction ($25M to $100M)
  - D/S monoliths construction
  - D/S miter gates fabrication
  - Lock Backfill construction
  - Lock bridges construction
  - Lock Electrical and Mechanical components construction
  - Lock buildings and site construction
  - Approach Walls construction

- Small amount left in design efforts for approach walls and lock contract configurations.
CHICKAMAUGA LOCK REPLACEMENT PROJECT OVERVIEW

**Contract Legend**

- **Completed**
- **Current**
- **Future**

**Road & Bridges - $6M**
- Completed Feb 2007

**Cofferdam - $86M**
- Awarded Sep 2006, Comp 2012

**Lock Chamber - $240M**
- Awarded: Sep 2017
- Duration: 5-7 years

**Approach Walls**
- Award anticipated: ??Sep ‘21

**Lock Excavation - $33.4M**
- Awarded Sep 2016
- Estimated Comp Nov 2018

**Cofferdam Stabilization - $3.1M**
- Awarded Sep 2015, Comp 2016

**Approach Beam Fab - $14M**
- Awarded Apr 2010, Comp 2013

**Gates & Valves - $17M**
- Awarded Sep 2009, Comp 2012

**Bridge Fabrication - $400K**
- Completed June 2011

**Lock & Associated Facilities - $754M**
- Total: $760M

$199M Expended thru FY17 = 26% completed
Lock Chamber contract scope includes all lock features located inside cofferdam structure.

- Contract: $240M (Base with 13 Options)
- Contract Duration: 5-7 years
- Contractor: AECOM Energy and Construction, INC.
Chickamauga Lock Future Contract Work

- Lock Chamber contract options will efficiently utilize annual funding in the near term.

- Remaining construction contracts:
  - Decommission and Site Work (anticipated FY2020 award)
  - Approach Wall Construction (anticipated FY2021 award)
  - Watts Bar Site Restoration (anticipated FY2022 award)
  - Muscle Shoals Site Restoration (anticipated FY2022 award)

- 100% Consolidated Plans and Specifications complete as of 2010. Design efforts include repackaging into individual contracts.
USACE helping facilitate NNSA upgrade and consolidation of over 850,000 SF of existing, outdated process buildings for the Y-12 Nuclear Security Complex

The Uranium Processing Facility (UPF) Project:

• Replaces WWII era system and is key to NNSA future

• Projected to be largest construction project in TN history ($4.2B to $6.5B)

• Anticipated operational by 2025
DoE - National Nuclear Security Administration

Current Activities

Customer: Uranium Processing Facility (UPF) Project Office

Mechanical Electrical Building (MEB) Warehouse

USACE Scope:
- Design/Build two-phase procurement
- Construction management

Construction Support Building (CSB)

USACE Scope:
- Design/Build two-phase procurement
- Construction management

Customer: Nuclear Production Office (NPO)

Y-12 Emergency Operations Center (EOC)

USACE Scope:
- Design Bid Build Procurement
- Construction management

Y-12 Fire Station

USACE Scope:
- Design Bid Build Procurement
- Construction management

Energy Savings Performance Contract (ESPC)

Future Opportunities

- Other Non-Nuclear Construction
- NQA-1 Compliance
- Central Training Facility (Firing Range)
- UPF Process Support Facility (PSF)

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Anticipated % of Total Awards
FY17 USACE Business Lines

21% Horizontal Construction
13% Environmental
5% Architectural & Engineering
7% Cyber, Security, & IT
1% Energy
2% R&D/Technology
1% Vertical Construction >$50

50% Of Vertical Construction Is Less than $50M
USACE Top Ten Construction NAICS FY17

- 238990 (SPECIALTY TRADE CONTRACTORS)
- 238220 (PLUMBING, HEATING, AND AC)
- 238910 (SITE PREPARATION)
- 238210 (ELECTRICAL CONTRACTORS)
- 238160 (ROOFING CONTRACTORS)
- 238290 (OTHER BUILDING EQUIPMENT CONTRACTORS)
- 238320 (PAINTING AND WALL COVERING CONTRACTORS)
- 238190 (OTHER FOUNDATION, STRUCTURE)
- 238390 (OTHER BUILDING FINISHING CONTRACTORS)
- 238330 (FLOORING CONTRACTORS)
Success Story

Nashville District

Champion of Small Business

The Honorable Megan Berry who is the first woman to be elected as mayor of Nashville speaks to the group at a recent Outreach event.

Repeat attendee Aspen Construction took advantage of the time to promote the company and build relationships.

The Wolf Creek Dam Big South Fork ESA Compliance Contract was awarded to Aspen Construction a HUBZone firm of Hackensack, MN.

ASPEN
CONSTRUCTION CO.

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Top 5 Tips for Doing Business with USACE

- Read solicitation packages carefully and understand the requirements, terms and conditions

- Refer to the solicitation regarding the submission of questions and/or contact the POC listed

- Register with the System of Award Management

- Provide your best price/proposal the first time

- Be aware of the requirements of the USACE Safety Manual, EM 385-1-1 and be able to provide an acceptable accident prevention plan upon award
Barkley Lock, Replace Electrical Operating System for lock and emergency dam
Between $1-5M
SB Set-Aside (TBA)

Shepard Street Bridge Construction
Between $1-5M
SB Set-Aside (TBA)

Lee County Virginia Sewer Design - A & E (Brooks Act)
Above $150K (SAT)
SB Set-Aside (TBA)

Center Hill, Repair Spillway Gate Trunnion & Seal
Between $1-5M
SB Set-Aside (TBA)

Chickamauga Lock, Post Tension Anchor Installation
Between $1-5M
SB Set-Aside (TBA)

Wolf Creek Thrust Bearing High Pressure Lift System
Between $1-5M
SB Set-Aside (TBA)
### USACE Nashville FY18 Forecast W912P5

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Advertisement Date</th>
<th>Estimated Award Amount</th>
<th>Anticipated Contracting Method</th>
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</thead>
<tbody>
<tr>
<td>Chickamauga Lock, Post tension Anchor installation</td>
<td>1st Qtr FY 18</td>
<td>Between $1M- $5M</td>
<td>SB Set-Aside (TBA)</td>
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<tr>
<td>Center Hill, Repair Spillway Gate Trunnion &amp; Seal</td>
<td>1st Qtr FY 18</td>
<td>Between $1M-$5M</td>
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<td>Lee County Virginia Sewer Design A &amp; E (Brooks Act)</td>
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<td>Above $150K (SAT)</td>
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<td>Shepard Street Bridge Construction</td>
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<tr>
<td>Wolf Creek Thrust Bearing High Pressure Lift System (Section 212)</td>
<td>1st Qtr FY 18</td>
<td>Between $1M- $5M</td>
<td>SB Set-Aside (TBA)</td>
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<td>Barkley Lock, Replace Electrical Operating System for lock and emergency dam</td>
<td>1st Qtr FY 18</td>
<td>Between $1M- $5M</td>
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USACE Nashville 1st & 2nd Quarter FY18 Forecast

W912P5

Barkley Main Power Transformers Replacement
Over $150K (SAT)
Full and Open Competition (FAOC) (TBA)

Kentucky Lock Site Stabilization and Demolition
Between $1-5M
SB Set-Aside (TBA)

Wolf Creek Station Service Rehabilitation
Between $1-5M
SB Set-Aside (TBA)

Center Hill Dam Wrap Around Site Stabilization
Between $1-5M
SB Set-Aside (TBA)

Dale Hollow Rehab Powerhouse Elevator
Between $250K-1M
SB Set-Aside (TBA)

Laurel Dam Office and Warehouse HVAC Replacement
Under $150K (SAT)
SB Set-Aside (TBA)

Replace Existing SCADA System (4 Master & 5 Remote Power plants)
Over $150K (SAT)
SB Set-Aside (TBA)
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<td>Wolf Creek Station Service Rehabilitation (Section 212)</td>
<td>1st Qtr FY 18</td>
<td>Between $1M-$5M</td>
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<td>Kentucky Lock Site Stabilization and Demolition</td>
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<td>Barkley Main Power Transformers Replacement</td>
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<td>Over $150K (SAT)</td>
<td>Full and Open Competition (FAOC) (TBA)</td>
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<td>Laurel Dam Office and Warehouse HVAC Replacement</td>
<td>2nd Qtr FY 18</td>
<td>Under $150K (SAT)</td>
<td>SB Set-Aside (TBA)</td>
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<td>Dale Hollow, Rehabilitation Powerhouse Elevator</td>
<td>2nd Qtr FY 18</td>
<td>Between $250K-$1M</td>
<td>SB Set-Aside (TBA)</td>
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<tr>
<td>Center Hill Dam Wrap Around Site Stabilization</td>
<td>2nd Qtr FY 18</td>
<td>Between $1M-$5M</td>
<td>SB Set-Aside (TBA)</td>
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<td>Replace Existing SCADA System at four master power plants and five remote power plants on the Cumberland River</td>
<td>2nd Qtr FY 18</td>
<td>Over $150K (SAT)</td>
<td>SB Set-Aside (TBA)</td>
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Kentucky Lock Excavation
$10M or more
Full and Open Competition (FAOC) (TBA)

Fort Campbell Woodlawn Landfill Monitoring
Under $150K (SAT)
SB Set-Aside (TBA)

Center Hill Dam Update Powerhouse Ventilation System
Between $1-5M
SB Set-Aside (TBA)

Barkley Major Hydropower Rehabilitation
More than $10M
Full and Open Competition (FAOC) (TBA)

Barkley Medium Voltage Cable Replacement
Between $1-5M
SB Set-Aside (TBA)

Fort Campbell Storm Water Program Support
Between $100-250K
SB Set-Aside (TBA)
## USACE Nashville FY18 Forecast W912P5

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<td>$10M or more</td>
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<td>Fort Campbell Woodlawn Landfill monitoring</td>
<td>3rd Qtr FY 18</td>
<td>Under $150K (SAT)</td>
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<td>Center Hill Dam, Upgrade Powerhouse Ventilation System</td>
<td>3rd Qtr FY 18</td>
<td>Between $1M-$5M</td>
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<td>Fort Campbell Storm Water Program Support</td>
<td>4th Qtr FY 18</td>
<td>Between $100K-$250K</td>
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<td>Barkley Major Hydropower Rehabilitation (Section212)</td>
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<td>More than $10M</td>
<td>Full and Open Competition (FAOC) (TBD)</td>
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<td>Barkley Medium Voltage Cables (Section 212)</td>
<td>4th Qtr FY 18</td>
<td>Between $1M-$5M</td>
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Contracting Links

Nashville District Web Page:
http://www.lrn.usace.army.mil/contracting/

Small Business Utilization:
www.lrn.usace.army.mil/

Federal Business Opportunity:
www.fedbizopps.gov

S.A.M.E. Activities:
http://www.same.org/
Nashville District Contacts

Small Business: Roy Rossignol  615-736-7569  
Roy.R.Rossignol@usace.army.mil

Contracting: Heather Turner  615-736-7939  
Herather.D.Turner@usace.army.mil

Deputy District Engineer  615-736-2342  
Patricia.L.Coffey@usace.army.mil

Engineering & Construction: Joanne Traicoff (Acting)  615-736-5674  Joanne E.Traicoff@usace.army.mil
Nashville District Homepage

www.lrn.usace.army.mil