



US Army Corps  
of Engineers  
Wilmington District

## Philpott Lake, VA (O&M)

### FY 2015 Planned Actions:

- Operations and maintenance of dam and hydropower facility for flood risk management
- Operations and maintenance of recreation facilities
- Operations of the facilities for environmental stewardship



CONGRESSIONAL DISTRICT: VA 5, 9

DATE: 6 March 2014

1. **AUTHORIZATION:** Flood Control Act of 1944 (PL 78-534).
2. **LOCATION AND DESCRIPTION:** The project is located on the Smith River, Virginia, 44.3 miles above its junction with Dan River, and 35 miles upstream from the Virginia-North Carolina state line in Franklin and Henry Counties. The authorized project includes for a concrete gravity dam 892 feet long and with a maximum height of 220 feet. Philpott Lake is operated as a unit of a coordinated reservoir system for flood risk management in the Roanoke River basin, generation of hydroelectric power, regulation of river flow, and public recreation. The powerhouse has a total installed capacity of 14,000 kilowatts.
3. **FEDERAL FUNDING ALLOCATION FOR FY 2013:** \$4,810,000.
4. **FY 2014 FEDERAL ALLOCATION:** \$5,278,000. These funds are being used to continue operation and maintenance requirements for flood damage reduction, hydropower, recreation and environmental stewardship and to install a switch gear replacement.
5. **FY 2015 BUDGET AMOUNT:** \$6,442,000. Funds would be used for normal and necessary operations and maintenance of the project. Additional funds in the amount of \$25,994,000 could be used to reduce the maintenance backlog and provide for public safety, as follows:

PROJECT INFORMATION – Philpott Lake, VA (O&M) – Continued

• Perform major maintenance on head gates to include mitigation of severe concrete cracking	\$ 927,000
• Installation of the anchors in spillway cap (dam safety component of work for major concrete reinforcement and structural repairs of the dam)	\$ 1,380,000
• Stabilize the south drainage gallery entrance (dam safety component of work for major concrete reinforcement and structural repairs of the dam)	\$ 250,000
• Perform concrete reinforcement at the dam by replacement of the anchors (dam safety component work for major concrete reinforcement and structural repairs of the dam)	\$ 6,500,000
• Remove portions of concrete from spillway crest by diamond wire cutting to allow for expansion. (dam safety component of work for major concrete reinforcement and structural repairs of the dam)	\$ 2,750,000
• Perform critical dam safety activities including dynamic structural analysis	\$ 250,000
• Conduct critical inspections and analysis, including seismic safety review, and drain investigations	\$ 214,000
• Perform cultural resources management plan for Forest Invasive Species Management	\$ 100,000
• Paving of deteriorating roadways and parking lots	\$ 1,200,000
• Enhance safety by replacing bridge in Jamison Mill Recreation Area	\$ 615,000
• Update Roanoke River basin reservoir regulation manual, last updated in October 1965	\$ 300,000
• Complete the master plan update	\$ 294,000
• Replace outdated and substandard shower houses at Jamison Mill Park	\$ 276,000
• Upgrade Bowens Creek Park to the first fully Americans with Disabilities Act (ADA) compliant park in this region. Improvements needed for ADA compliance are: universal access picnic shelters, beach access, and fishing pier.	\$ 100,000
• Update inundation maps	\$ 150,000
• Upgrade recreational facilities throughout the project.	\$ 251,000
• Complete GIS including boundary line, contour/floodplain, aerial photography, land use/land classification, soils, vegetation classification, cultural resource sites and cemeteries	\$ 227,000
• Update boat handling docks at Salthouse Branch, Launch Ramp 1 and Goose Point.	\$ 210,000
• Powerhouse rehabilitation and upgrade.	\$ 10,000,000
<b>Total</b>	<b>\$ 25,994,000</b>

6. **OTHER INFORMATION:** In November of 2012 the dam's rating on the Dam Safety Action Classification System (DSAC) was reclassified from a DSAC IV (dams are inadequate with low risk such that the combination of life, economic, or environmental consequences with a probability

## PROJECT INFORMATION – Philpott Lake, VA (O&M) – Continued

of failure is low and the dam may not meet all essential USACE engineering guidelines) to a DSAC III (dams that have issues where the dam is significantly inadequate or the combination of life, economic, or environmental consequences with probability of failure is moderate to high). Current efforts are focused on building an Interim Risk Reduction Measures Plan (IRRMP), along with plans to reduce the long-term risk, are being considered simultaneously.

Backlog maintenance has been a serious issue for a considerable amount of time due to previous funding shortfalls. Many of the recreation facilities need to be repaired/ upgraded to ensure public safety and to meet the current regulations especially in regards with the Americans with Disabilities Act (ADA). Much of the support equipment used on a routine basis is reaching the end of its life cycle which is requiring a considerable amount of attention. The funding of these activities would help reduce operation and maintenance costs in the future as well making recreation areas a more safe and enjoyable environment for the visiting public.