US Army Corps of Engineers
Wilmington District

John H. Kerr Dam and Reservoir, VA and NC
Island Creek Dam & Pumping Station (O&M)

- **Island Creek Dam portion of the project is experiencing underground seepage**
- **Temporary inverted weighted seepage filters have been constructed as an interim risk reduction measure**
- **If the Island Creek Dam fails, approximately 30 lives could be adversely impacted and the Tungsten Queen mine (hazardous waste site) could be inundated**

Seepage at the toe of Island Creek Dam

CONGRESSIONAL DISTRICT: VA 5 Date: 8 April 2013

1. **PROJECT NAME AND STATE:** John H. Kerr (JHK) Dam and Reservoir, Virginia and North Carolina

2. **LOCATION AND DESCRIPTION:** The project is located on the Roanoke River, 178.7 river miles above its mouth, in Mecklenburg County, Virginia, and 18 miles upstream of the North Carolina and Virginia line. The dam is located in Mecklenburg County, VA. The reservoir extends upstream on the Roanoke River for 56 miles and on the Dan River for 34 miles. The project consists of a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of 22,285 feet. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin for flood risk management, generation of hydroelectric power, regulation of low water flow, and for other purposes. Hydropower installed capacity is 204 megawatts; which increased to 268 megawatts in FY 2011.

The project also includes an auxiliary earth dam and pumping station on Island Creek. This dam is 2,100 feet long and 92 feet high. The station contains three pumps, each rated at 1750 HP, 89,000 gallons per minute at 48.5 foot dynamic head. This pumping station was constructed to prevent inundation of the Tungsten Queen mine which is located on government property. At the time of project construction, tungsten was a critical material needed for national defense.

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3. **ESTIMATED REPAIR COSTS:** Funds in the amount of $3,300,000 could be used to construct an inclined chimney drain and toe drain and stability berm system at the Island Creek Dam portion of the J. H. Kerr project.

4. **ISSUE AND INFORMATION:** Currently, Island Creek Dam is experiencing seepage problems and could potentially fail. It is an earthen dam located on a tributary of the J. H. Kerr Reservoir and is currently rated a DSAC III (High Priority - Conditionally Unsafe). This is a major safety concern as catastrophic failure of this dam could impact approximately thirty lives and could cause the inundation of the Tungsten Queen Mine site, which is now known to contain hazardous material.

A major concern for the Corps is that the Federal government has a potential liability associated with site assessment and clean up of the tungsten mine if it were flooded. The government owns property leased to various mining companies on which mine tailings have been placed. The site has been assessed and the Federal government has been requested by the North Carolina Department of Environment and Natural Resources (NCDENR) to enter into a voluntary agreement to place land use restrictions on the property by limiting its use to industrial purposes. The proposed agreement is currently being reviewed by the Corps.