

Assessing Risks in a Dynamic Environment –The TVA Kingston Ash Recovery Project

Assessing and managing potential risks to human health and the environment have been core components of the Kingston Ash Recovery Project since day one. The release of several million cubic yards of ash into the environment resulted in unstable conditions onsite and in the adjacent river system. The initial response included efforts to stabilize the ash in order to reduce risks of further release. As the recovery effort evolved over time, so did the risk assessment and management process.

The decision to dredge ash from the Emory River channel during the Phase 1 Time Critical Removal Action was supported by assessments of upstream flooding risks, downstream migration risks, and potential constituent dissolution risks. The Phase 2 Non-Time Critical Removal Action decision was supported by screening assessments of chemical risks to human and ecological receptors for direct contact to ash as soil. These assessments were commensurate in detail and complexity to their somewhat limited role in the overall decision-making process. The Phase 3 Non-Time Critical Removal Action will address approximately 20 miles of river/reservoir where residual ash may be present to varying degrees. This is a complex and dynamic system with numerous potential receptors of concern. The human health and ecological risk assessments are being tailored to support cleanup and long term stewardship goals for this multiuse river system.

This presentation and the complementing posters describe the human health and ecological risk assessment strategies for the various phases of the ash recovery project.

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