



U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

NRC-014-R

**Combined License
Application Review
William States Lee III
Units 1 and 2
Environmental Panel
October 5, 2016**

Panelists

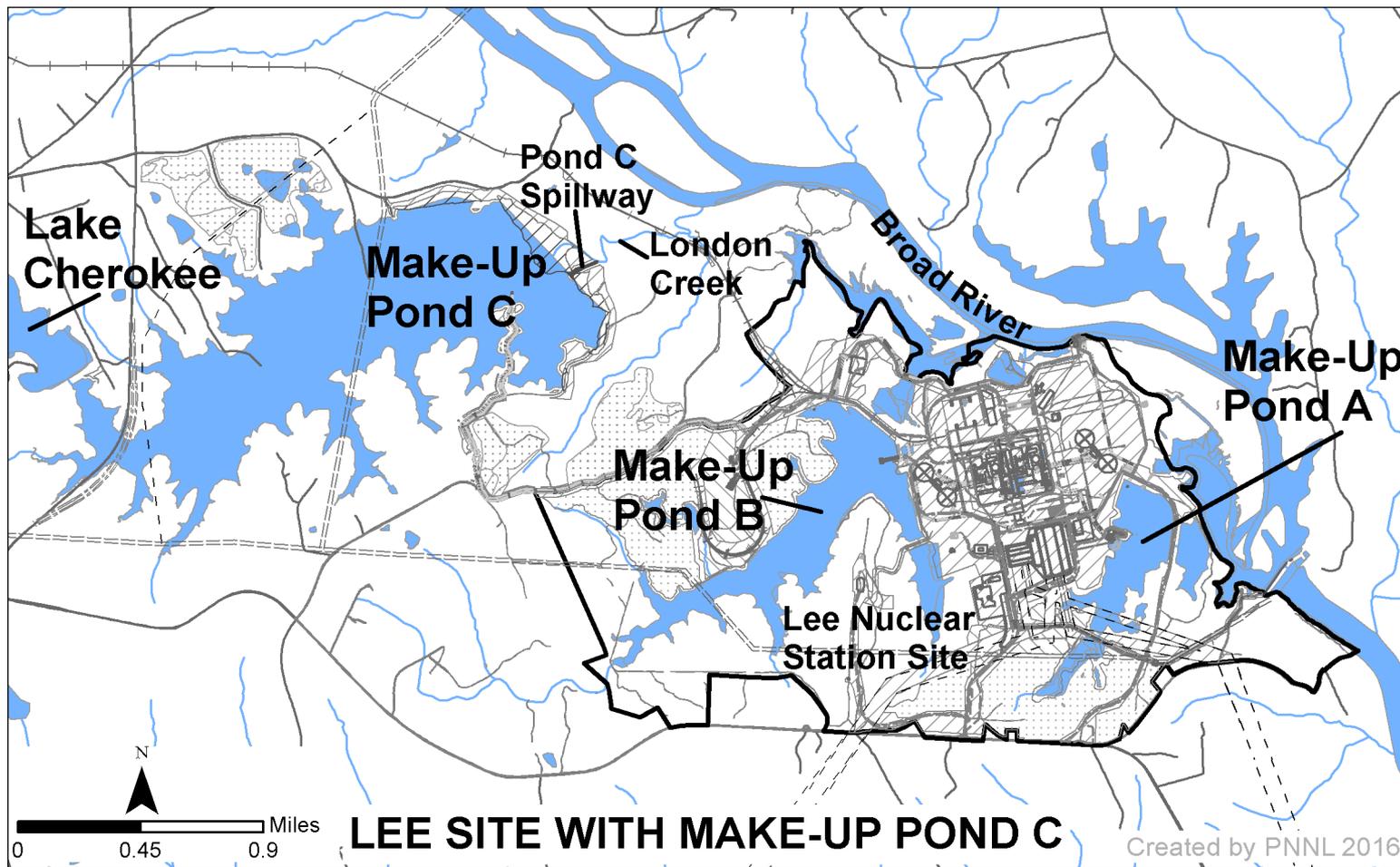
- **Patricia Vokoun, Lead Environmental Project Manager**
- **Lance Vail, Senior Research Engineer**

Background

- **Initially proposed a two-pond off-stream water storage system (existing Make-Up Ponds A and B)**
- **95% Operational water requirements met from Ninety-Nine Islands Reservoir through intake into Make-Up Pond A**

NRC Initial Review

- **EIS review team looked at the Lee Units 1 and 2 COLA water data**
- **Missing 2007-2008 drought years**
- **Low water flows at certain times would have resulted in impacts to aquatic biota and water users**



Water Storage Alternatives

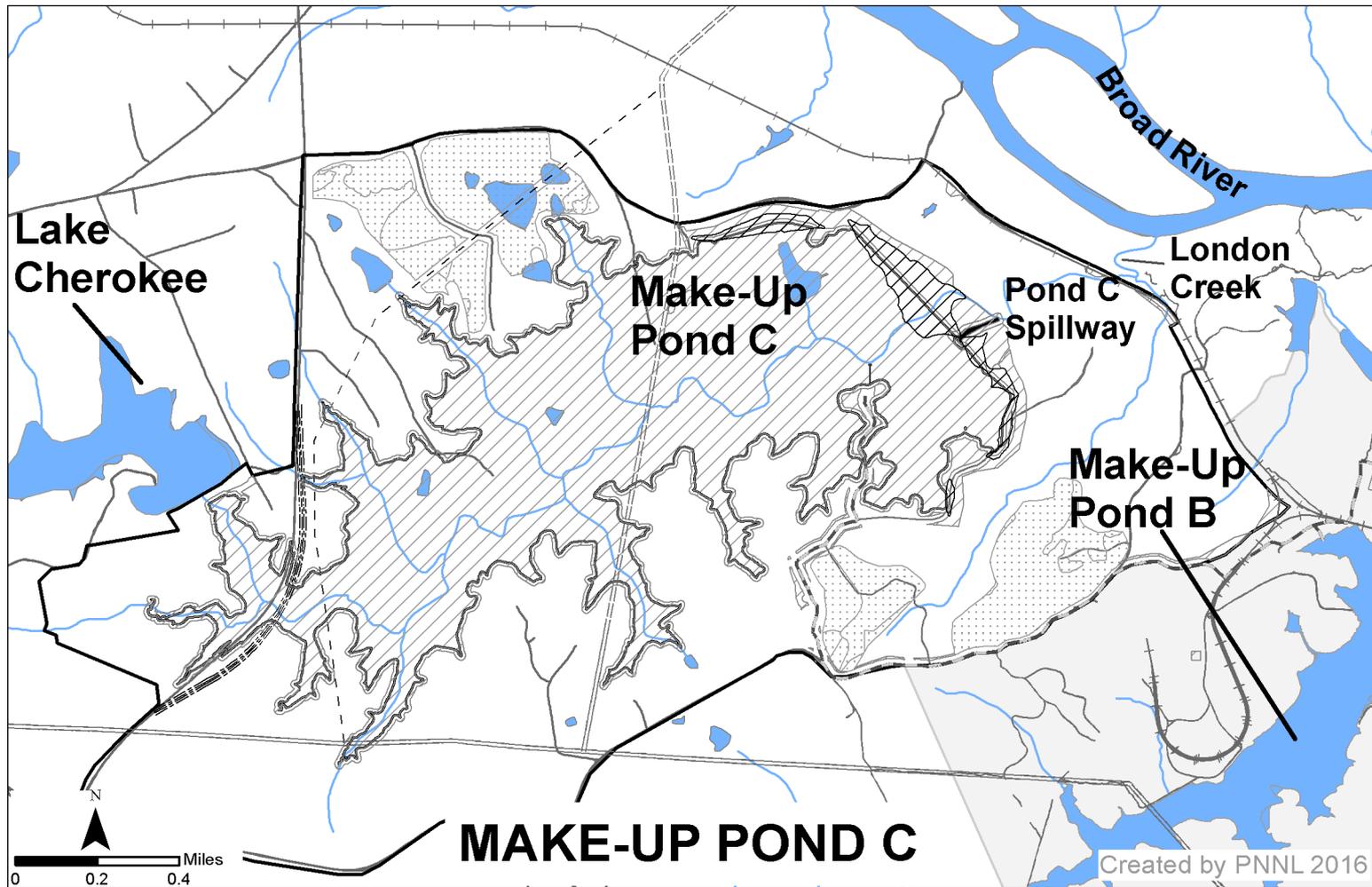
- **Developed daily water budget model to evaluate range of scenarios and design options**
- **Evaluated water storage options, other pond locations, and other cooling system designs**
- **Hybrid cooling merited further investigation**

Water Storage Options

- **Detailed Alternative Systems analysis completed to investigate other cooling technologies**
- **Supplemental audit of cooling system and energy alternatives**
- **Conclusion: Make-Up Pond C needed**

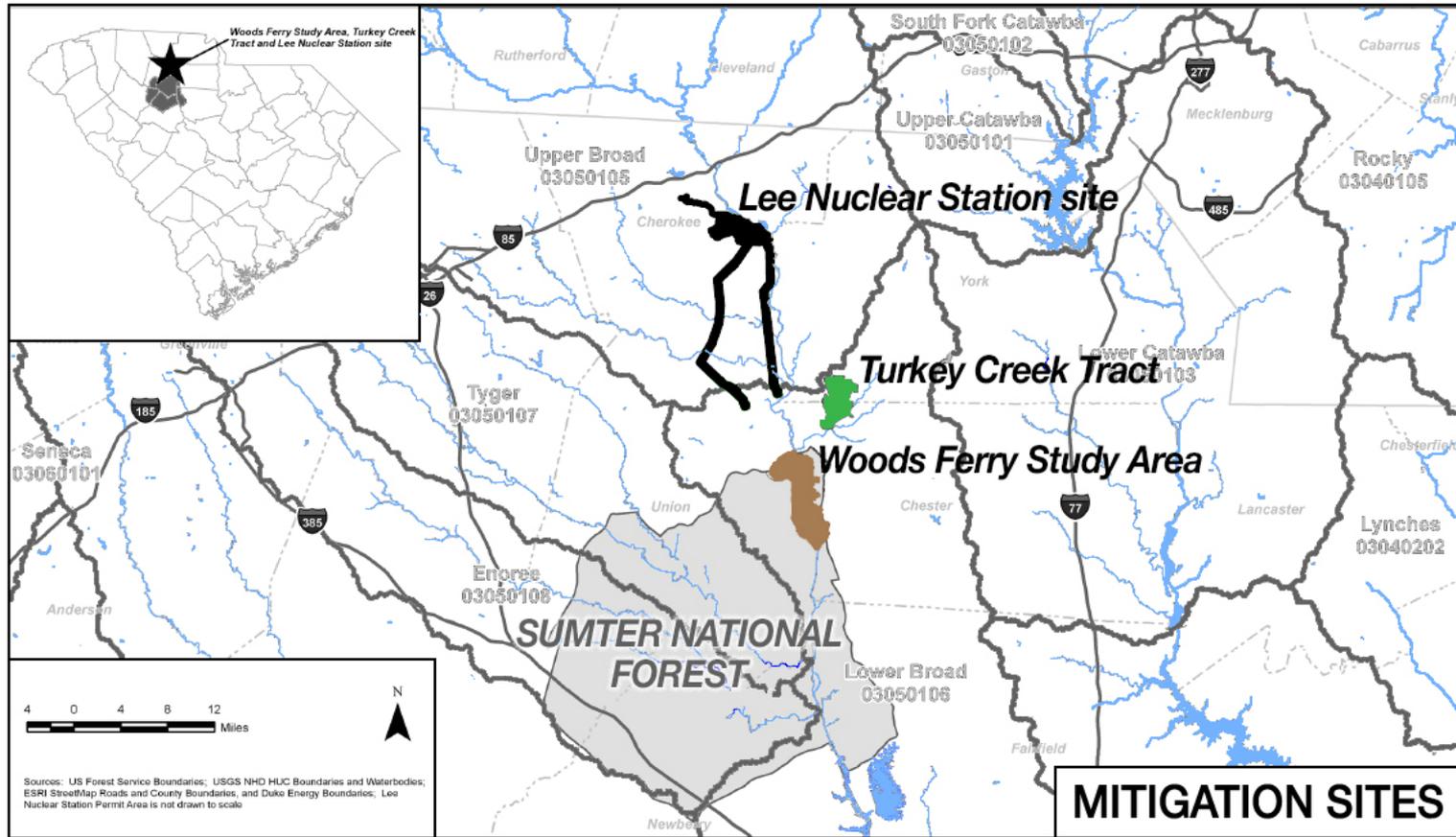
Impacts from Make-Up Pond C

- **Disturbance of ~1,100 acres to build the reservoir and buffer**
- **Alter terrestrial and aquatic habitats and wildlife resources**
- **Substantial habitat loss and wildlife mortality, disturbance, and displacement**



Details of Impacts

- **Alter the functionality of the London Creek corridor as a wildlife travel corridor**
- **Replace an existing creek system with a deep water lake habitat**
- **Construction of Make-Up Pond C would have MODERATE aquatic and terrestrial impacts**



Mitigation Partner processes

- **Corps collaborated with Forest Service**
- **Forest Service Special Use Permit issuance to DEC anticipated**
- **Department of the Army Permit issued to DEC**

Conclusions

- **NRC hard look included additional**
 - **Scoping process and site visit**
 - **Audit and information needs**
- **NRC and Corps worked effectively**
- **NRC EIS enhanced consistency and efficiency in decision making**