

Falls Lake Nutrient Management Study Research Symposium

Wednesday, April 19, 2023
North Carolina Botanical Garden
Chapel Hill, NC

The purpose of this symposium is to **share the breadth of research** happening as part of the Falls Lake Nutrient Management Study and the Upper Neuse River Basin Association's efforts to re-examine the Falls Lake Nutrient Management Strategy.

- 9:30 Welcome and NC Collaboratory Overview – Steve Wall
 Nutrient Management Study Background – Mike Piehler
 The UNRBA Pathway to a Re-Examination of the Falls Lake Nutrient Strategy – Forrest Westall
- 10:00 **Session 1 In-Lake Processes**
 In Situ Observational Study of Falls Lake Circulation – Rick Luetlich, Tony Whipple, Harvey Seim, and Crystal Fulcher
 Reservoir Sediment Nutrient Flux Analysis and Model – Anne Smiley, Suzanne Thompson, Mike Piehler
 Defining the Balance Between N₂ Fixation and Denitrification – Nathan Hall, Mike Piehler and Hans Paerl
 Cyanotoxin Dynamics in Falls Lake – Emily Pierce, Will McClure, Marco Valera, Joseph Mohn and Astrid Schnetzer
 Assessment of Zooplankton-Phytoplankton Relationships in Falls Lake – Nathan Hall and Mike Piehler
 Stakeholder Questions
 Table Discussion

11:20

Session 2 Watershed Processes

Estimating Nutrient Loads to Falls Lake from Streambank Erosion— Layla El-Khoury and Barbara Doll

Submerged Gravel Wetlands as an Effective Retrofit for an Ultra-Urban Watershed – Caleb Mitchell, Bill Hunt

Quantifying Nutrient Treatment by Onsite Wastewater Systems in Raleigh Belt Geological Settings in the Piedmont of North Carolina - Guy Iverson, Charles P. Humphrey Jr., Michael O'Driscoll, Natasha Bell, and John Hoben

Stakeholder Questions

Table Discussion

12:20

Break for Lunch

1:05

Session 3 Stakeholder Engagement, Financing, and Applying What We've Learned

Evaluating the Benefits of Land Conservation on Water Quality in the Falls Lake Watershed- Noa Meiri

Estimating and Projecting Internal Phosphorus Loading in Piedmont Reservoirs – Smitom Borah, Dan Obenour

Financing Falls Lake Nutrient Management: Year 4 – Megan Doherty, Anna Patterson

NC Water Quality Standards Attaining Chlorophyll-A In A Piedmont Reservoir: Is It The Impossible Dream? – Dan McLawhorn

UNRBA's Re-Examination: What We've Learned & What It Means For the Future of Falls Lake – Forrest Westall

Stakeholder Questions

Table Discussion

Closing Remarks - Mike Piehler

2:45

Adjourn

