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Scientific & Technical  
Advisory Committee  
(STAC)  
And Wastewater  
Treatment Work Group

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**PURPOSE:** This workshop is addressing 'cutting edge wastewater treatment technologies' - a critical topic in the Chesapeake Bay watershed. This topic is important to the local governments and utilities that operate wastewater plants in the Bay region, as well as to the state and federal agencies that regulate those plants. These plants will have to operate under strict nutrient load caps defined in the Bay Program's TMDL - now and into the future, even as the growth in the Bay watershed continues. It will be important to build these facilities with less infrastructure, operate them using less energy and fewer chemicals, all the while ensuring reliable operations and minimizing nitrogenous GHG emissions.

This workshop is aimed at identifying those cutting edge technologies (focused on Nitrogen) that appear to be viable options, and to begin a dialogue between practitioners, designers, and regulators on how these practices can be successfully implemented in the Bay watershed.

**OUTCOME:** A formal report that summarizes the key findings, provides links to the presentations, and makes recommendations to STAC and the Chesapeake Bay Program Partnership.

**INVITATION-ONLY**  
**RSVP BY MONDAY, APRIL 23<sup>RD</sup>**  
**TO: MATT JOHNSTON**  
**[JOHNSTONMA@SI.EDU](mailto:JOHNSTONMA@SI.EDU)**

*Note: There will also be some additional opportunities to participate via Webinar.*

## "Real World Wastewater Technologies Workshop"

*Advancing the World We  
Live In - Exploring Cutting  
Edge Wastewater  
Treatment Technologies*

**Wednesday, May 16, 2012**

**Westin Hotel**  
**6631 West Broad Street,**  
**Richmond, Virginia 23230**  
[Westin-Richmond-Hotel](#)



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DC Water  
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7:30 am Sign-in  
Breakfast/Coffee/Tea

8:00 Welcome, Introductions,  
Workshop Objectives & Process

8:15 Microbial Nitrogen  
Transformations -  
*Kartik Chandran,  
Columbia University*

9:00 Facilitated Discussion

10:00 Break

10:15 Nitrogen Removal: 1.0 to 3.0  
A. Overview—  
*Charles Bott, HRSD*

B. Review of Deammonification  
Projects & Key Results -

- District of Columbia (Blue  
Plains) -Sudhir Murthy,  
DC Water
- Austria/Switzerland (Strass)  
- *Bernhard Wett,  
ARAConsult*
- Virginia (HRSD) -  
*Charles Bott, HRSD*

11:30 Facilitated Discussion

12:15 - 1:15 pm Working Lunch &  
Discussion: A Survey  
of Global and National  
Nutrient Regulatory  
Approaches -  
*Dave Clark, HDR  
Engineering, Inc., and  
Peter Vanrolleghem,  
Université Laval*

1:15 Intersection of  
Nitrogen Removal and  
Trace Organics -  
*Nancy Love,  
University of Michigan*

2:00 Balancing Nutrient  
Limits with Net  
Environmental Benefits  
-*JB Neethling, HDR*

2:45 Facilitated Discussion

3:15 Break

3:30 pm Development of Algae-Based  
Nitrogen Removal  
Technologies —  
*Margie Molholland, ODU*

4:00 pm Summary Session

- Q&A for Technical Sessions
- Highlights of Technical  
Sessions
- Facilitated Open Discussion
- Next Steps and Wrap-up
- STAC Report

5:00 pm Adjourn