Abstract

Hampton Roads Sanitation District (HRSD) has launched the Sustainable Water Initiative for Tomorrow (SWIFT), an innovative water purification initiative in eastern Virginia designed to ensure a sustainable source of groundwater while addressing environmental challenges such as Chesapeake Bay restoration, sea level rise and saltwater intrusion. The site was HRSD’s York River Treatment Plant in Seaford, Va., where pilot-scale advanced water treatment processes are producing purified water, a first for HRSD. SWIFT is now one step closer to the ultimate goal of replenishing the Potomac Aquifer with purified water to help stabilize groundwater supplies and achieve goals established to restore the Chesapeake Bay. This is a forward-looking solution to tackle today’s problems. Our water is too valuable to waste – and SWIFT allows us to recapture this important resource and use it to address our depleting groundwater supply while addressing multiple other water related environmental challenges.

The multi-year initiative will take already highly treated wastewater that would otherwise be discharged into the Elizabeth, James or York rivers and purify it through additional rounds of advanced water treatment to produce drinking-quality water. The purified water will then be treated to match the existing groundwater chemistry and added to the Potomac Aquifer, the primary source of groundwater throughout eastern Virginia. Preliminary results highlighted at today’s event demonstrate that this technology is safe and effective at a HRSD facility, as it has been in other locations across the country and throughout the world.

Biography

Dr. Charles B. Bott is the Director of Water Technology and Research at the Hampton Roads Sanitation District (HRSD) in southeast Virginia, where he currently is managing technology innovation for HRSD’s thirteen wastewater treatment plants (249 MGD combined capacity) and collection system. Charles is also an Adjunct Professor of Civil and Environmental Engineering at Virginia Tech and Old Dominion University. Charles was formerly an Associate Professor in the Department of Civil and Environmental Engineering at the Virginia Military Institute (VMI) and a consulting engineer with Parsons Engineering Science.

Light refreshments will be served.