

# Virtual Classroom Presents New Educational Opportunities at Hampton Roads

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How do you continue raising awareness and educating the communities you serve about your biggest, boldest, most innovative initiative and its many environmental benefits when in-person tours, presentations, and hands-on classroom learning activities are no longer an option?

That was the challenge the Hampton Roads Sanitation District (HRSD) communications team faced when COVID-19 restrictions sidelined all in-person tours and activities at its treatment plants and the SWIFT (Sustainable Water Initiative for Tomorrow) Research Center. The SWIFT Research Center was one of HRSD's most frequently toured facilities, especially for middle school students. It had been open and actively recharging the Potomac aquifer for less than two years when the Pandemic hit. The facility continued to operate, replenishing the aquifer with up to one million gallons of drinking water quality SWIFT Water™ daily as scientists and student researchers gathered critical information that would inform full-scale development, but tours and post-tour enrichment activities could no longer take place.

Somehow, fact sheets, videos and PowerPoint presentations fell short as alternatives when compared to the rich, immersive experience of actually being in the SWIFT Research Center and seeing firsthand how HRSD is taking highly treated wastewater (that would otherwise be discharged to local waterways), putting it through additional rounds of advanced water treatment to bring it to

drinking water quality and using it to replenish the overdrawn Potomac aquifer – eastern Virginia's primary groundwater source. While not a new concept nationally or internationally, indirect potable reuse is new to southeastern Virginia, so public education and awareness are especially important as the initiative shifts into full-scale development within the next year. By 2032, HRSD will be able to replenish the Potomac aquifer with up to 100 MGD of SWIFT Water™ daily, enhancing the sustainability of the region's long-term groundwater supply and significantly reducing the amount of nutrients like nitrogen and phosphorus it discharges into regional waterways.




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Under our new pandemic reality, HRSD's community education and outreach specialist immediately got to work modifying existing lesson plans in the HRSD Classroom, adapting them to work with common materials that can be found at home, and creating new lesson plans for teachers to use with their students who were now attending school virtually. (Ordinarily, HRSD would supply students with all the materials needed for activities like Washing Water or building their own Amazing Aquifer – either in the SWIFT Research Center multipurpose room following a tour, or during an in-class visit.)

When considering options for continuing our SWIFT Research Center tours through a virtual platform, we needed to look no further than our own SWIFT Program Management partners at AECOM.

AECOM had recently developed a robust virtual open house tool to duplicate the in-person open house experience at the click of a link. Using intuitive design, visitors can move through the virtual room, explore exhibits, and view videos and simulations at their own pace. The HRSD SWIFT Research Center Virtual Tour was developed using this technology and utilizing the exact layout and design of the actual facility, complete with interpretive kiosks providing detailed animations, explanations and interesting facts for each step of the advanced water treatment process.

Additional features of the SWIFT Virtual Tour include:

- Interpretive videos and animations across the two-story virtual facility highlighting the Potomac Aquifer, the Chesapeake Bay, and SWIFT's eight-step advanced water treatment process
- A life-like, self-guided virtual tour experience of the SWIFT Research Center, including close-up views of the SWIFT artifact wall and detailed illustrations of the SWIFT Recharge Well and how it works to replenish the Potomac aquifer

We look forward to resuming tours of the SWIFT Research Center, our lab and other treatment facilities in the near future, but until then, please enjoy a tour of SWIFT from the comforts of home.

To take a virtual tour of HRSD's SWIFT Research Center, please visit [SWIFTVA.com](http://SWIFTVA.com).

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