

# 2020 National Environmental Achievement Awards

## Public Information and Education Award: Education Program

### Education and Outreach Program Lesson Plan Updates



In 2018, the HRSD Communications Department set a goal to engage more middle school and high school students in the HRSD service area. To achieve this, the Environmental Education and Outreach program was restructured to include updated versions of lesson plans suitable for middle and high school students. Prior to these updates, the education and outreach program curriculum was most beneficial to elementary school students. Lessons for upgrade were chosen based on popularity among students, cost of materials, and ease of integration for teachers. The two lesson plans chosen for upgrade were *The Amazing Aquifer* and *Just Throw It Away*.

In *The Amazing Aquifer* lesson, students learn about groundwater, SWIFT, and the composition of the Potomac Aquifer. With the upgrade, the lesson includes:

- A timeline of HRSD including Virginia history, history of the Chesapeake Bay, and creation of the Bay Total Maximum Daily Load (TMDL)
- Review of the water cycle
- More emphasis on aquifer components
- More emphasis on sea-level rise in Hampton Roads
- More emphasis on SWIFT, including tours of the SWIFT Research Center



In *Just Throw It Away*, students learn what happens to the substances people “just throw away” in daily water use by making their own wastewater. The activity provides a hands-on way for students to create a connection between their actions, the wastewater treatment process and the Chesapeake Bay. With the upgrade, the lesson includes:

- A timeline of HRSD including Virginia history, history of the Chesapeake Bay, and creation of the Bay Total Maximum Daily Load (TMDL)
- Additional scenario cards
- More advanced measurements

Access to lesson plans is provided on the HRSD Classroom website, as well as on the WHRO Public Media [mediaVA.org](http://mediaVA.org) site via an Environmental Education partnership. To request a hands-on classroom experience, tour or guest speaker to supplement environmental education efforts, teachers complete an Outreach Request form found at [HRSD.com](http://HRSD.com).



# HRSD

HRSD Classroom, a network of  
and games for teachers and