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Preparing Norfolk Area Students for America's Second Highest Sea Level Rise

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Elizabeth River Project

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Preparing Norfolk Area Students for America's Second Highest Sea Level Rise



Chesterfield Academy Youth Leaders.

Made possible by an Environmental Literacy Grant from NOAA, as well as the Hampton Roads Community Foundation; & Batten Educational Achievement Fund, Hampton Roads Community Foundation & Dollar Tree Foundation

Project Partners: Elizabeth River Project, Chesterfield Academy, Old Dominion University, Virginia Sea Grant, Portsmouth Public Schools, University of Virginia, Chrysler Museum of Art, HRSD, Groundwork Hudson Valley, Wetlands Watch



3 YEAR AWARD to educate 21,000 K-12 students on our challenges with sea level rise, flooding, resiliency, stewardship



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NOAA 5 NATIONAL AWARDS – ENVIRONMENTAL LITERACY

Institution: Maritime Aquarium at Norwalk, Connecticut

Title: Sound Resilience-Get On Board!

Total Project Funding: \$484,955

Institution: Research Foundation of CUNY / Brooklyn College, NY

Title: Resilient Schools Consortium (RiSC) Program

Total Project Funding: \$498,570

Institution: Watershed Management Group, Arizona

Title: Recharge the Rain: Community Resilience through STEM Education

Total Project Funding: \$498,575

Institution: Elizabeth River Project, VA

Title: Preparing Norfolk Area Students for America's Second Highest Sea Level Rise

Total Project Funding: \$497,774

Institution: Museum of Science and Industry, Illinois

Title: Teen Advocates for Community and Environmental Sustainability

Total Project Funding: \$498,470

Norfolk's Resilience Strategy



Over 3 years we will **develop a Youth Resilience Strategy** to complement Norfolk's Resilience Strategy adding:

- **A Youth Voice** – “What do they want for their city?”
- **Education** – Meeting needs of schools
- **Environmental Literacy**
- **Safety & Preparedness**
- **Stewardship**

**Annually working with
12 Youth Leaders for Resilience
to find their voice** in helping prepare
Norfolk's youth for sea level rise.



Youth will:

- learn how to help clean the Elizabeth River
- gain leadership skills
- be the voice of youth for how Norfolk should adapt to sea level rise including plans for a \$100 million project in Chesterfield Heights
- create climate change art and
- help develop Norfolk's first Youth Resilience Strategy.



21,000 over 3 years

Year 1 – 7,000 Elementary

Year 2 – 7,000 Middle and High School

Year 3 – 7,000 K-12th grade



In addition, each year 12 students will serve as Youth Leaders for Resilience and participate in a year of Resilience Education.



Each year the Youth Leaders will work with a team of scientists, teachers, principals and people to learn about sea level rise impacts locally and globally and help develop the Youth Resilience Strategy.

The team members are from:

- **Chesterfield Academy and other public school systems**
- **Universities: Old Dominion University and University of Virginia**
- **Elizabeth River Project**
- **NOAA, National Oceanic Atmospheric Administration**
- **Wetlands Watch**
- **Chrysler Museum**
- **Hampton Roads Sanitation District**
- **City of Norfolk**
- **Groundwork Hudson Valley (Mentor)**





Phoebe Crisman

Crisman-Petrus

UVA Professor School of Arch.

Env. Global Studies

Evaluator



Michelle Covi

ODU and NOAA Seagrant

Climate Change Scientist



School Liaison

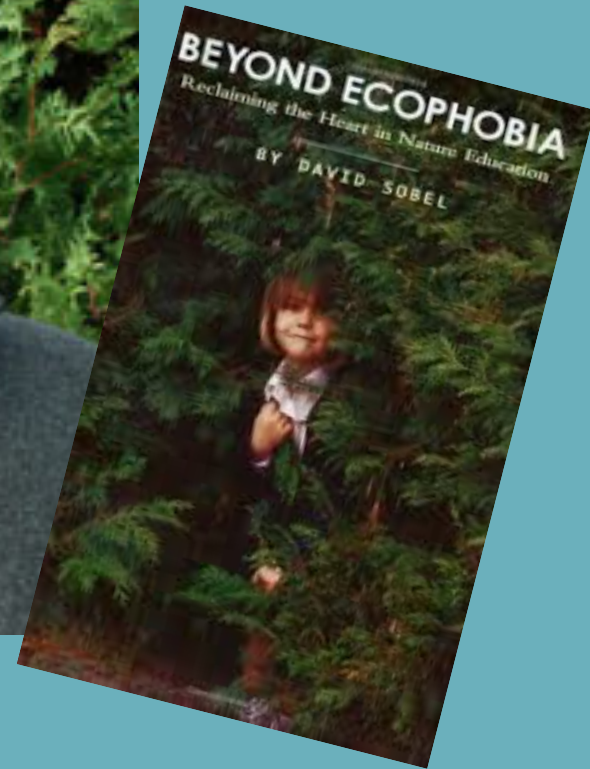
To help the Youth Leaders shine bright is **Shaanan Wade**, with Elizabeth River Project. Shaanan grew up here and is a Hampden-Sydney graduate.





Adrienne Sawyer, Curriculum Development
Chesapeake Public Schools, HRCF Grant





David T. Sobel, MEd

Department of Education

Antioch New England Institute

Curriculum Development - Ecophobia





YEAR 1 – ELEMENTARY
12 Youth Leaders ; 1st-5th grade;
Chesterfield Academy



FALL 2016

- STUDENTS CHOSEN
- INITIAL MEETING
- PREPARE FOR RIVERFEST
- RIVERFEST
- LEARNING BARGE



Standing Together for Our
River





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Trail
rake
TOE CHA

LEGO
Build a Bridge
Challenge

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SURVEY RESULTS –

RIVERFest

Sea Level Rise

Is sea level rise impacting the health of the Elizabeth River?

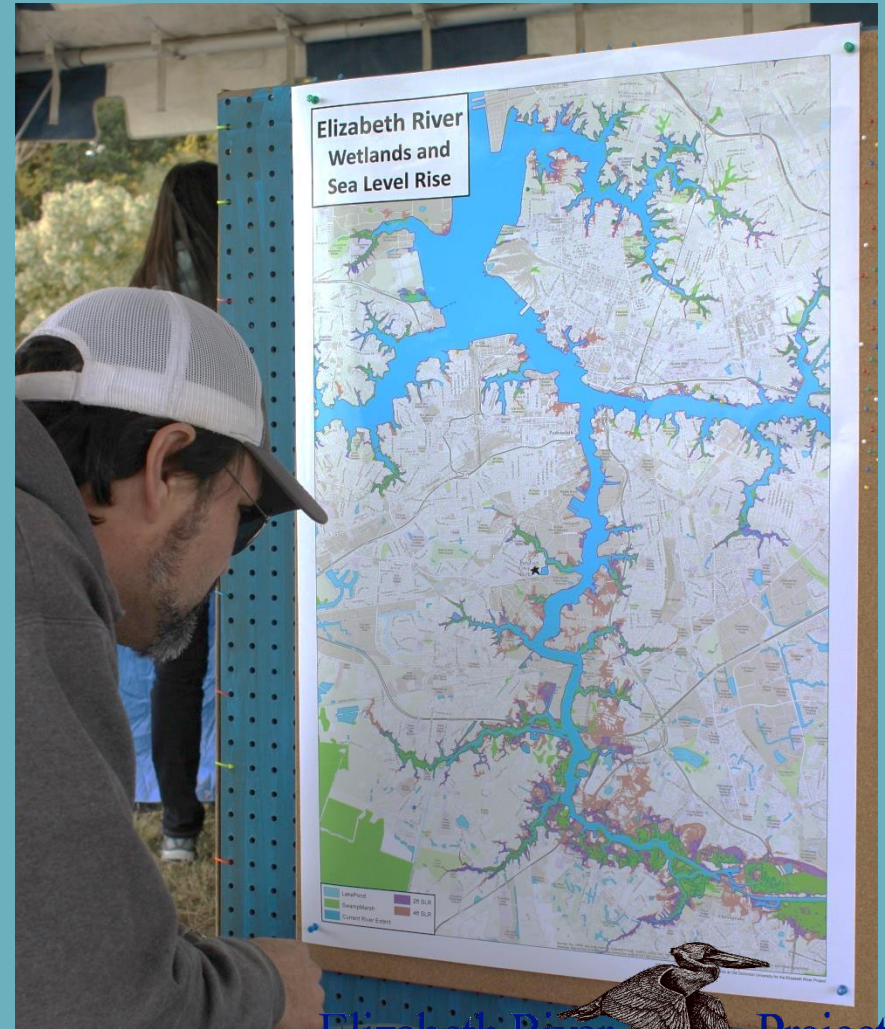
- I don't know: 29 (17%)
 - Yes : 105 (60%)
 - No: 40 (23%)
- TOTAL 174

Are you concerned with flooding?

- I don't know: 3 (2%)
 - Yes: 133 (90%)
 - No: 12 (8%)
- TOTAL 148

Flooding in Hampton Roads has _____.

- Increased: 106 (74%)
 - Decreased: 7 (4%)
 - Stayed the same: 10 (7%)
 - I don't know: 21 (15%)
- TOTAL 144



LEARNING BARGE FALL 2016

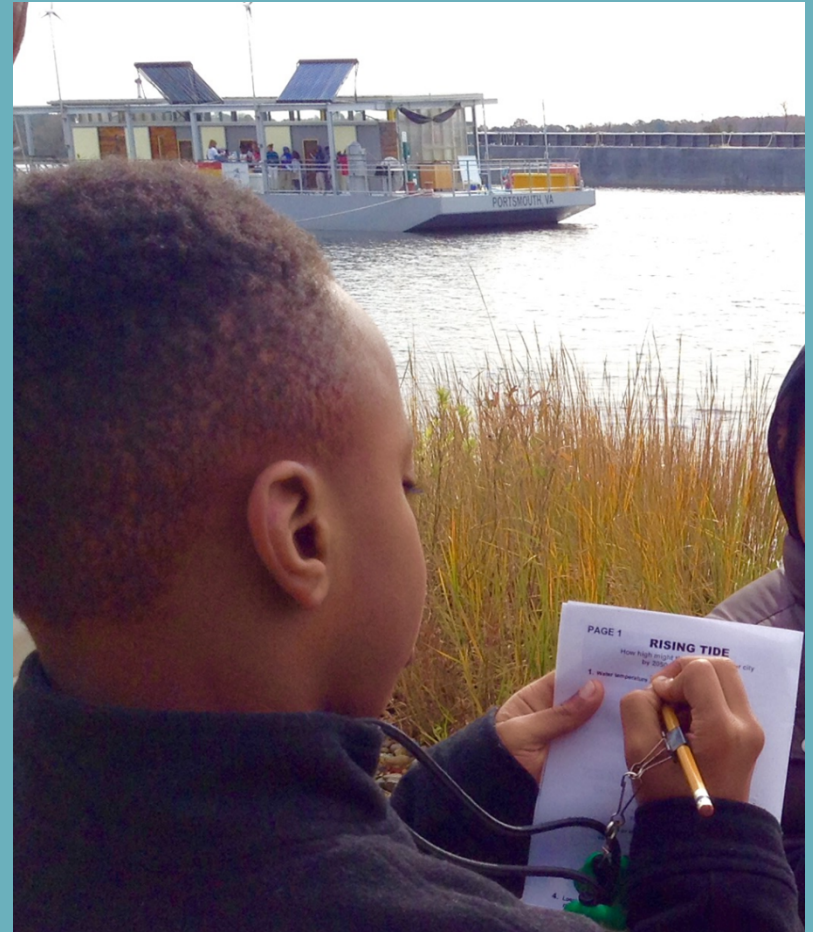
67 field trips

3,907 students

421 teachers and chaperones

2,172 Norfolk Public Schools 4th graders







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LEARNING BARGE

Pre/Post Results

Sept-November 2016

(Missing December's results)

36% increase in knowledge; All students

60% increase in knowledge; Youth Leaders

	<u>All Schools -2798 students</u>	<u>Chesterfield Youth Leaders</u>
Intro/Reflection	52%	68%
Rising Tide	50%	82%
River Otter	29%	73%
Flood Safety	7%	0%
Working River	41%	91%
Living Lab	31%	45%
Green Alley	45%	64%

* **Flood Safety** – Ended up students knew flood waters are not safe to play in.

Chrysler Museum – Feb 8





“The Picasso”

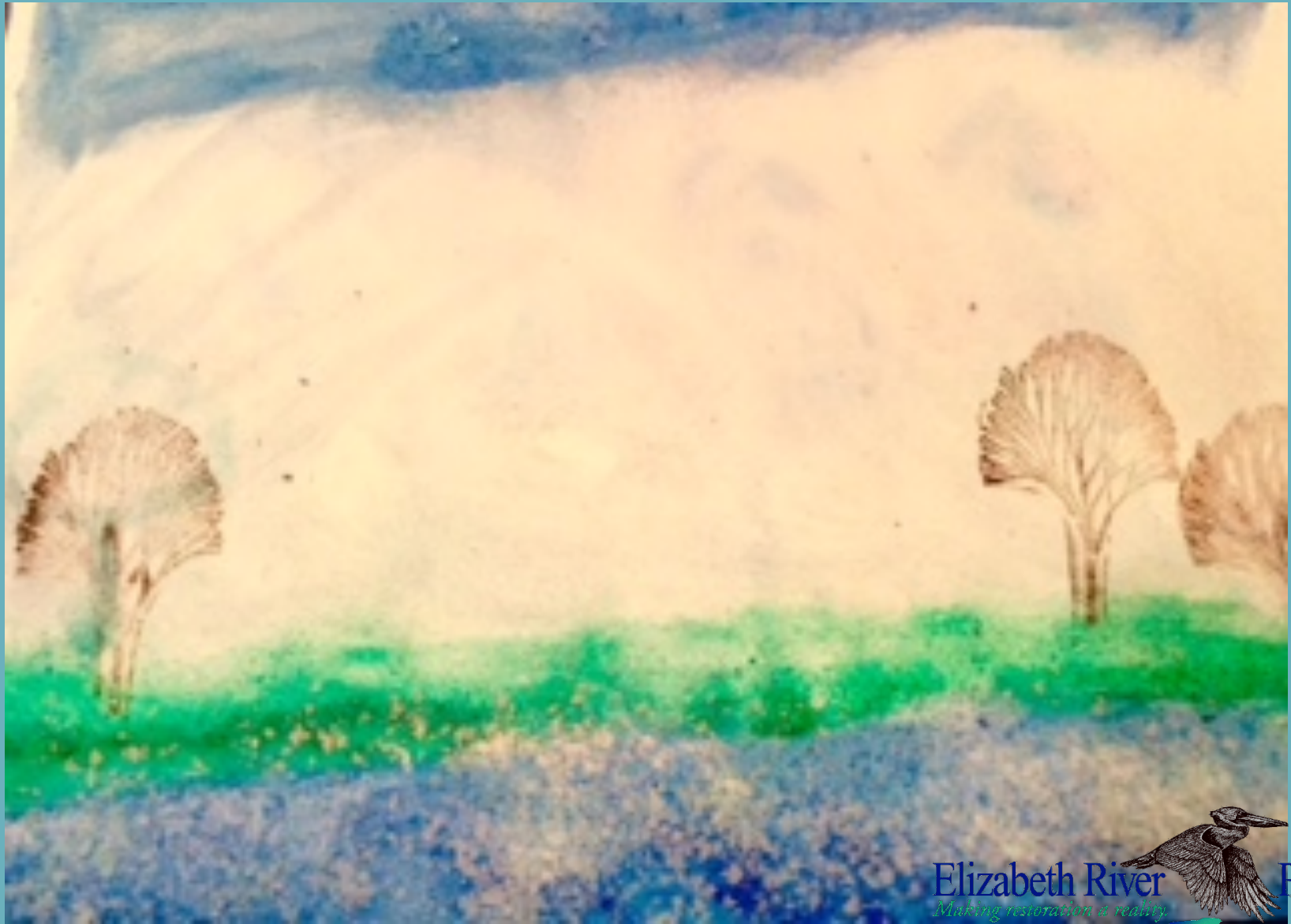




Purple and Blue River; Royal Hughes, 1st grade

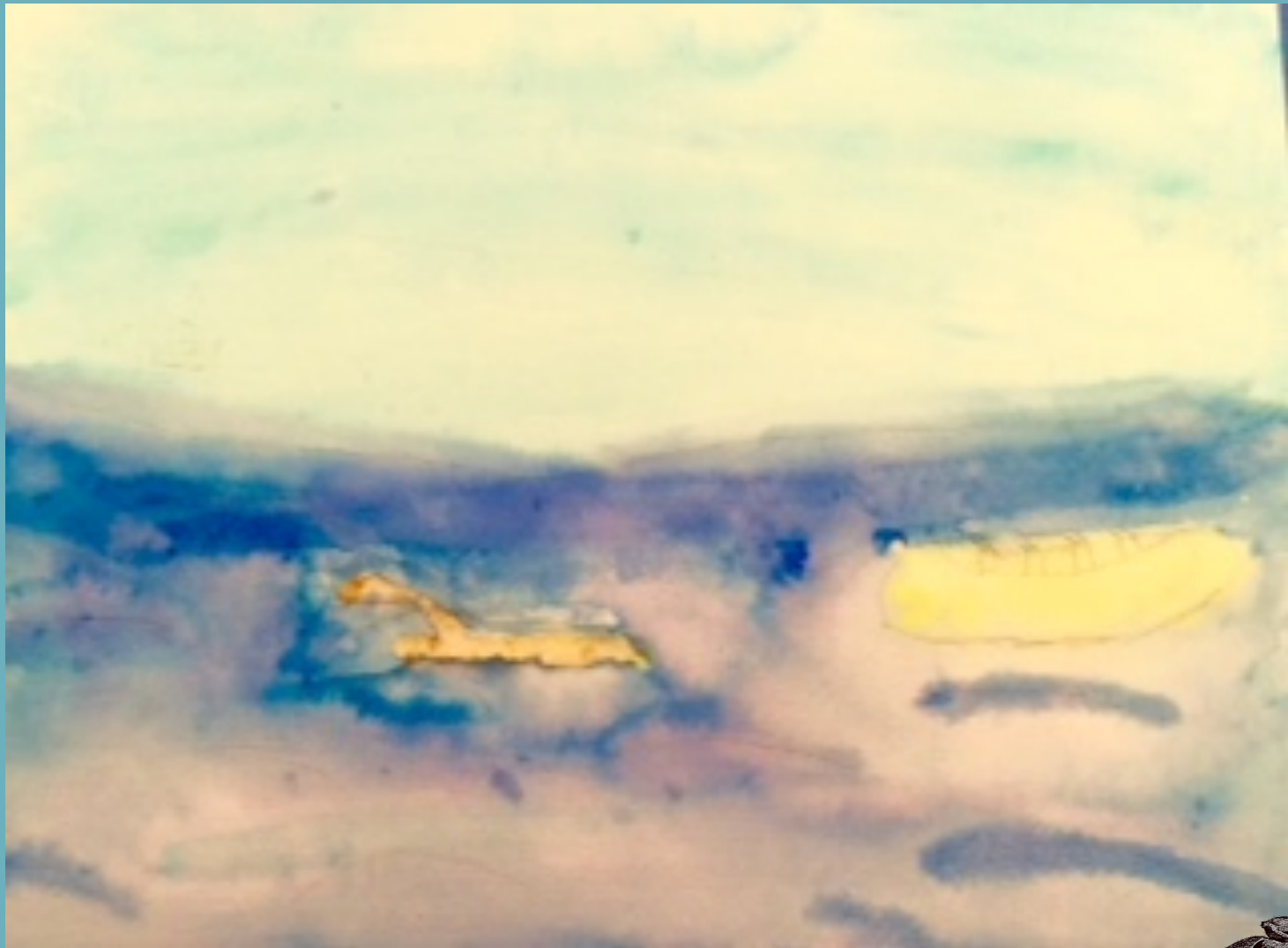


The Great Tribulation; Alijah Harris, 3rd grade



The Perfect Painting, Robert Hughes, 3rd grade





The Emotions, Nyna Brown, Grade 5



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The Branch Sea; Lauren Riddick, 4th grade



Coming to Sunset; Lamia, 5th grade



Wetlands in the Classroom

Youth Leaders will work with Wetlands Watch and decide what native plants would they recommend for Chesterfield Heights area to address flooding.

In addition 7,000 students will plant native plant at various Elizabeth River wetland sites.





Chesterfield Academy is an Achievement Level River Star and this year will strive to become a Model Level River Star School, the highest level. As a team they will choose projects that help reduce pollution, provide habitat for animals and protect the school from flood waters. They will also compete for special award for schools on the Eastern Branch – NFWF grant.



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Youth Resilience Strategy



The plan needs to be “kid friendly”, so kids can easily learn why Norfolk floods, how we can be safe and how each of us can make a better future. We will create activities kids can do to be prepared as Norfolk’s climate changes.



City of Norfolk Resilience-

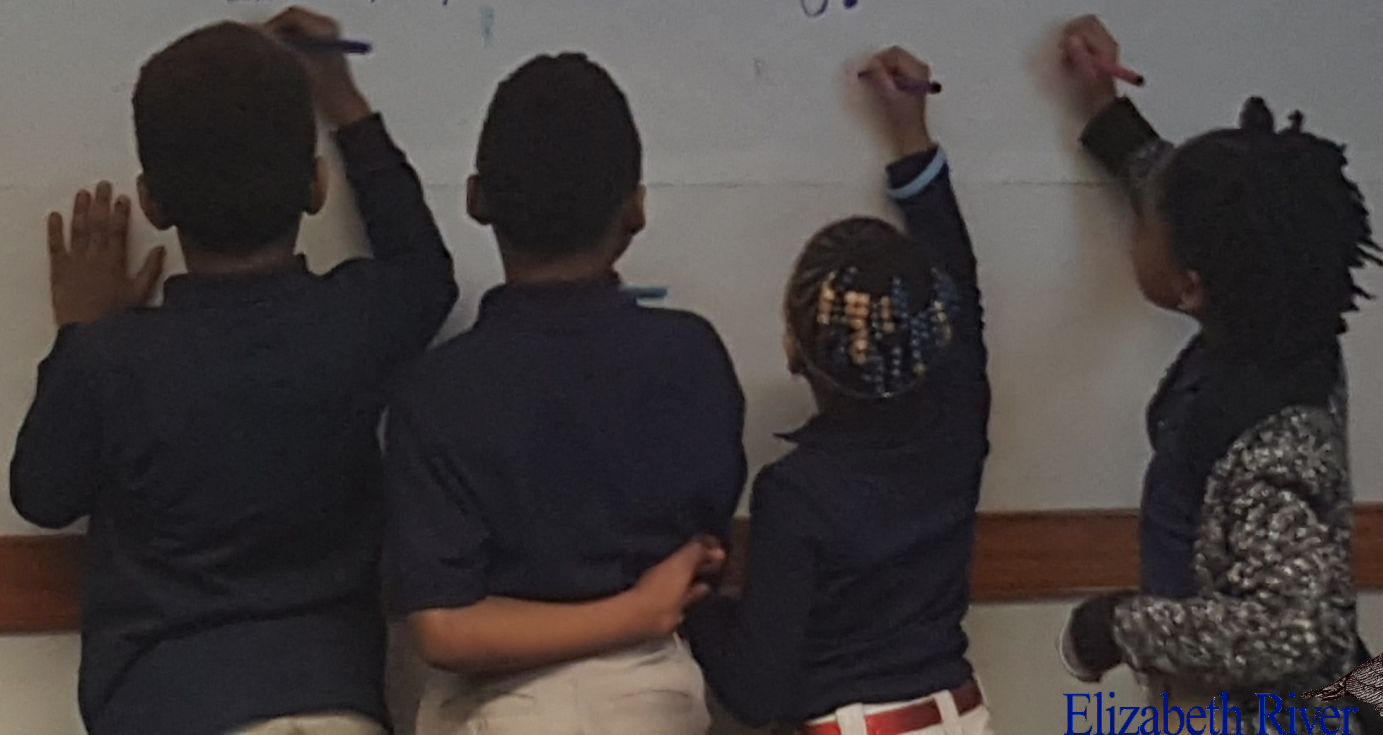
“How can we store/contain some of the water?”



City of Norfolk Resilience-

“What does too much water keep us from doing?”

What does too much water
keep you from doing?



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NOAA Research Vessel – Thomas Jefferson



Youth Resilience Strategy Roundtable

ODU Baron & Ellin Gordon Art Gallery

March 22, 10-1pm Roundtable

1-3:30pm Draft Youth Plan



CONTACT:

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