



# **The Not So Merry** **Mummichog**

**A 4th grade, inquiry-based curriculum to increase geographic literacy, foster Elizabeth River and Chesapeake Bay stewardship and empower youth leaders to create a resilient Norfolk.**



Over four classroom and 1 outdoor activity, students take ownership of their own bottled river that is home to a mummichog fish (a fish bead), a native to the Elizabeth River and Chesapeake Bay. They soon discover humans, nature, sea level rise and flooding make this little fish not so merry. Then with a message of hope, they learn their choices and actions can help create a healthier Elizabeth River, Chesapeake Bay, mummichog and a resilient Norfolk. It's a fishy adventure!

**Please contact Sarah McBride: [smcbride@elizabethriver.org](mailto:smcbride@elizabethriver.org) to receive curriculum and supplies for this program.**



# Contents

	<u>PAGE</u>
Contact Information .....	2
Introduction .....	7
Summary of Activities .....	8
5 Activity Steps .....	9
Supply Box & Data Sheets .....	10
Student Data Sheet .....	11
<b>Classroom and Schoolyard Activities</b>	
Activity 1: CLASSROOM: <i>My Home River and My City</i> .....	13
Activity 2: SCHOOLYARD: <i>Mapping My Schoolyard</i> .....	15
Activity 3: CLASSROOM: <i>Estuaries, Mummichogs and Wetlands</i> ....	17
Activity 4: CLASSROOM: <i>River Climate, Resilient Norfolk</i> .....	19
Activity 5: CLASSROOM: <i>River Reflection, You are a River Star!</i> .....	21
Student Letter .....	23
<b>Background Information</b>	
Chesapeake Bay .....	24
Elizabeth River .....	25
Norfolk, VA .....	28
Norfolk's Rising Tide .....	30
Plastic Planet .....	31
Stewardship .....	32
Mummichog Fish.....	34
Native Wildlife & Plants.....	35
River Song .....	43
Elizabeth River Map .....	44
School of Fish Word Search & Words .....	45
Mapping My Schoolyard's Runoff Worksheet .....	48
Virginia Standards of Learning .....	50