

2012 Chester River Report Card



Chester River Association

Our Mission . . .

The Chester River Association advocates for the health of the Chester River by promoting exemplary stewardship of land and water resources as well as an understanding of the river's place in the economic and cultural life of our communities.

A River Runs Through Us . . .

Each year the Chester River Association prepares an annual Report Card to assess and communicate to you the current health of our river, creeks, and streams. This is also an important opportunity to share information with you about the challenges we face as well as some of the programs we undertake to address them.



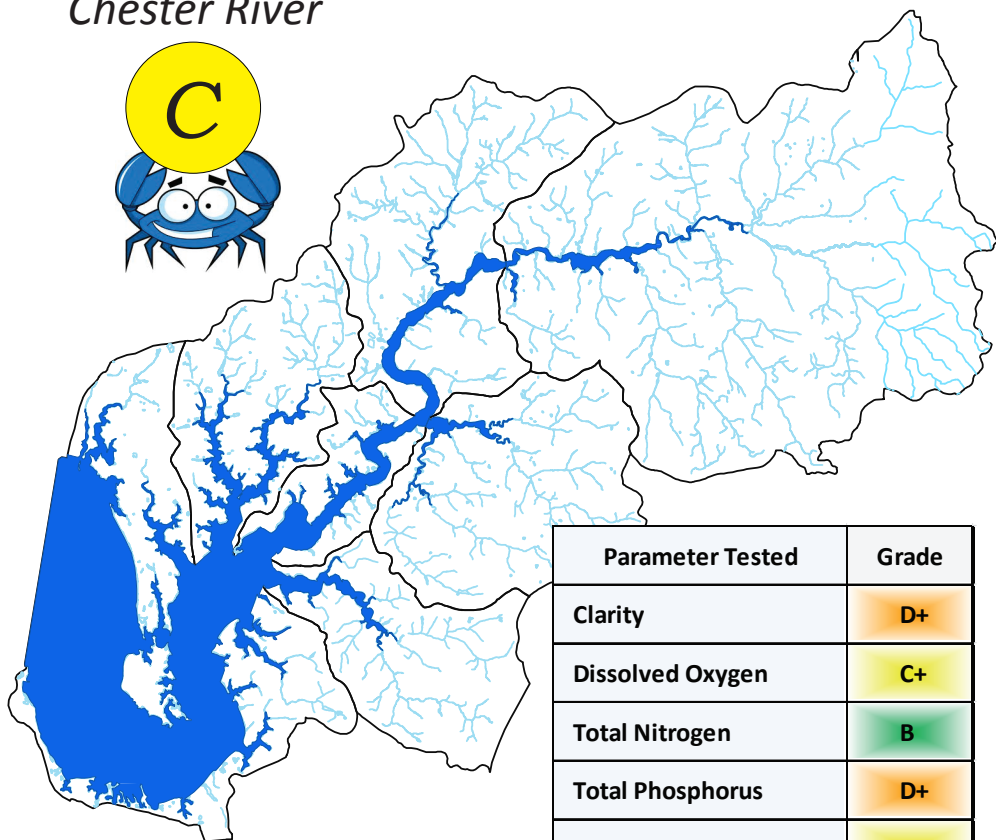
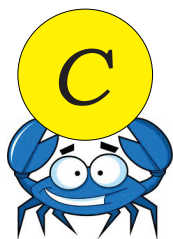
This year you may note the health of our river is a little better than in the year before, but we can only claim partial credit for that improvement. Most of the credit goes to the fact that we had no significant storms or droughts in 2012 so most of the fertilizer applied to our agricultural land went into producing healthy crops rather than washing into streams. Maryland waterways took many years to become degraded and they will take

many years of hard work to restore. The real test will be in coming years when adverse weather events re-occur. Hopefully even in those years, CRA members, farmers, and elected officials in our area will understand and continue to support good stewardship of our land and water resources so we can succeed in restoring our waterways for ourselves and future generations.

The Chester River is important to our community's economy, recreation, and culture. Whether lifelong residents or newcomers, this body of water plays a vital role in how we work, play, and choose where to live. By raising awareness of our river's current health and understanding the sources of pollution that affect it, we can all become better advocates for improving its health. Please review the report card to learn what we can do as individuals and as a community to repair and restore the Chester. - David Foster, Riverkeeper

Chester River Grade

Chester River

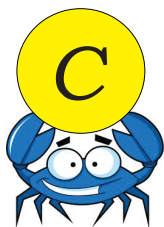


Parameter Tested	Grade
Clarity	D+
Dissolved Oxygen	C+
Total Nitrogen	B
Total Phosphorus	D+
Chlorophyll-a	C-
Overall Total	C

From April through October, CRA staff and volunteers collect water samples from the main channel of the Chester River between Crumpton and Langford Bay. During the 2012 sampling season we expanded our testing to include total nitrogen, total phosphorous, and chlorophyll-a measurements in addition to the dissolved oxygen, clarity, and salinity levels previously analyzed. Test results are compiled and graded using a multi-threshold grading system for each parameter. The individual parameter grades are then averaged to obtain the overall river grade. For more information about our testing protocols, please visit our website at www.chesterriverassociation.org and click the Programs/Water Quality Monitoring tab.

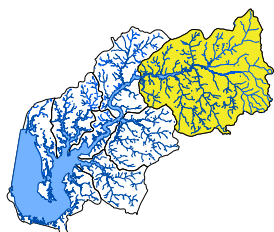
A clean river is not only possible, it is essential to a healthy future.

Creeks & Streams



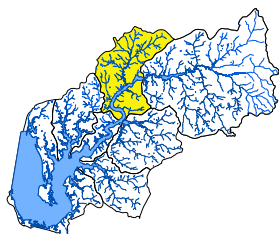
Final Grade for all Creeks & Streams

Upper Creeks



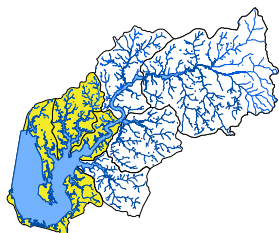
Harmony Woods Creek	C
Chesterville Branch	B+
Mills Branch	C
Cypress Branch	B-
Andover Branch	D+
Unicorn Branch	C
Red Lion Branch	C
Foreman Branch	C

Middle Creeks



Radcliffe Creek	C
Morgan Creek	C-
Rileys Mill Branch	D+
Urieville Lake Branch	C+
Perkins Hill Branch	C

Lower Creeks

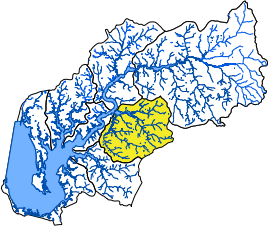


Sandy Bottom Creek	C-
Brices Mill Pond Creek	C+
Airy Hill Creek	C-
Reed Creek	B
Greys Inn Creek	D
Shipyard Creek	D

A watershed is the land area that drains to a specific body of water.

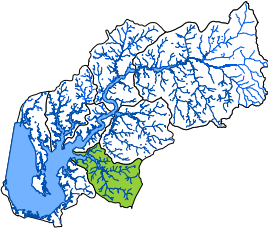
Creeks & Streams

South East Creeks



Johnny Powell Branch	B-
Browns Branch	C+
Church Hill Branch	D+
Granny Finley Branch	C+
Island Creek Branch	C

Corsica Creeks



Three Bridges Branch	B
Old Mill Stream Branch	B-



The grades of individual creeks and streams are derived from water quality test results submitted by the Chester River Association's team of Chester Tester volunteers. Twice each month throughout the year, Chester Testers collect water samples from their assigned test sites and complete a series of water quality tests. Results are sent to CRA's Watershed Coordinator, who reviews and maintains the

data in our Bio-Monitoring Database. Testers attend quality assurance education and training, and receive logistical support provided by our partners at LaMotte Company of Chestertown. Currently, 52 Chester Testers donate over 2000 volunteer hours each year! For more information about the Chester Tester program or to view our water quality data, please visit our web site at www.chesterriverassociation.org, or contact our Watershed Coordinator at 410-810-7556.

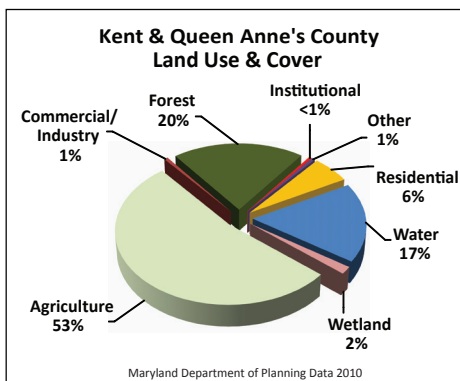


A journey along our river ...

Why is the health of the river not improving more quickly?

The Chester River and its creeks and streams have been affected by excess pollutants such as nitrogen and phosphorous, and sedimentation caused by erosion from fields and storm water runoff. Although these elements do occur naturally and are essential for a healthy river, excess levels have extremely adverse impacts on both plant and marine life.

Since the early 1600's when European settlers first arrived, land has been continually cleared for it's forest products and agricultural resources. Today, agriculture accounts for 53% of the total land use in Kent and Queen Anne's counties within the Chester River watershed. Residential, commercial, industry, and private institutions account for an additional 8%. As you journey down the Chester, you will see areas where fields and lawns have been cleared to the shorelines. Without adequate vegetative buffers at the waters edge, excess sediments and pollutants are carried directly into creeks, streams, and the river. As better management practices of land and water resources are developed and put in place, water quality will improve. What we see in the river today is the result of practices put in place 30 or 40 -- or more -- years ago; conversely, what we do today will eventually repair the river. Not tomorrow, not next week, but for our children's Chester Testers, the stewardship of today will be reflected in improved water quality and a healthier river.



What are sources of excess nutrients?

Common sources of excess pollutants such as nitrogen and phosphorous include fertilizers applied to lawns and farm fields, effluent from waste water treatment plants, septic systems, and animal waste. Erosion from fields and storm water runoff from our towns and roadside stormwater ditches are sources of sediment pollution. Excess pollutants cause algae blooms, particularly as water temperatures rise during the summer months. Both algae blooms and sedimentation reduce water clarity, limiting sunlight penetration necessary for aquatic plants and animals to survive.

... and into the future.

How do we promote a healthier Chester River?

The Chester River Association, through the support of our members, actively engages in many projects to repair the health of the river. Listed below are a few of our current projects:

- Participation in local, county, and state teams applying the Watershed Implementation Plans (WIPs)
- Agricultural programs including switchgrass, cover crops, advanced agricultural technologies, and promotion of best management & conservation practices
- Wetland restoration
- Living shoreline restoration
- Tree planting and installation of rain gardens and rain barrels
- Water quality monitoring reports
- Coordination of Marylanders Grow Oysters program on the Chester River
- Community events to raise awareness
- For more information about our programs, current projects and events, please visit www.chesterriver-association.org



How can you make a difference?

Problem	Solution
Excess Pollutants	<ul style="list-style-type: none">* Reduce use of fertilizers* Maintain/upgrade septic systems* Increase vegetative buffers at waters edge
Stormwater Runoff	<ul style="list-style-type: none">* Install rain barrels and rain gardens* Plant trees* Build retention ponds and bio-swales
Shoreline/Stream Erosion	<ul style="list-style-type: none">* Plant living shorelines* Increase vegetative buffers at waters edge* Plant native grasses and trees

Visit our website to sign up for the Chester Notebook, our monthly e-newsletter.

Our Partners



Pictures courtesy of:

Tyler Campbell
Michael Hardesty
Jenn Hicks
Paul Spies
Ron Melcer

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Please visit us on Facebook

Our work is also made possible by the generous support of our River Guardians.