

Do you remember Report Card Day at school? Nervous?

Friends of the Bohemia is an all-volunteer, nonprofit watershed improvement association dedicated to bringing together everyone who lives, works or plays in our community.



Volunteers in action!

Do you ever wonder about the health of the waterways around you? Well, the results of our 2017 water quality sampling on the Bohemia River are in and we want to share our findings.

Everyone needs clean, healthy water and we can each do our part to make things better. Let's help each other with that and improve our grades! We have a lot

planned...stream clean ups, workshops, water quality sampling, paddle tours, educational programs, etc.

Whether you are in Maryland, in sight of the main part of the river, or are near the headwater streams and gullies in Middletown, Delaware, what **you** do matters to the Bohemia River and the Chesapeake Bay. Come join us!



How can you make a difference?



Don't Litter - Reduce, Reuse and Recycle.



Maintain your septic system and use Best Available Technology (BAT) if possible.



Minimize use of fertilizers, pesticides and other chemicals on your lawn or farm.



Take steps to **slow storm water runoff** by using native plants and rain barrels. Let the water soak into the ground instead of flowing into a gully or storm drain.



On your boat, never discharge sewage to the river – **use pump out stations.**



Maintain your vehicles and **avoid any spills of oil, gas or other hazardous products.**



Spread the word - talk to your family, friends, neighbors and co-workers about the importance of clean, healthy water.



Volunteer - be part of the solution!

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FRIENDS OF THE BOHEMIA, INC.

A Watershed Improvement Association

Bohemia River Water Quality Report Card 2018



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THE BOHEMIA GOT A “C+” BUT THERE IS GOOD NEWS TOO!

The river gets a grade? How does that work?



Tidal samplers at work

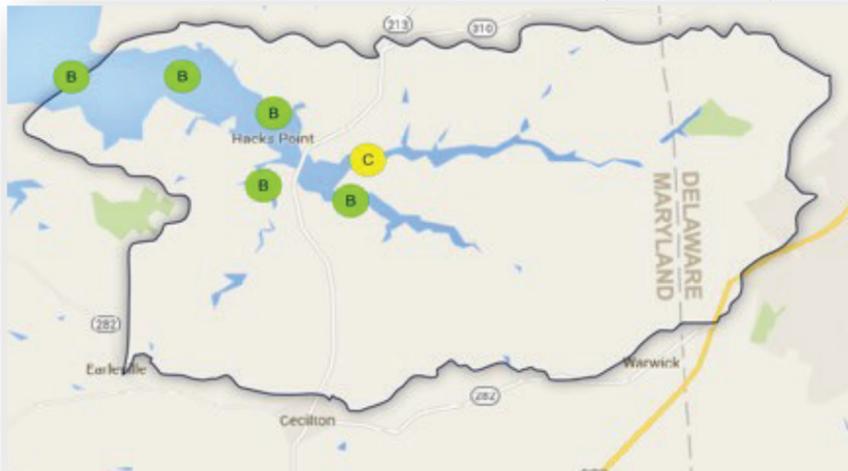
Friends of the Bohemia measured tidal water quality of the Bohemia River by boat twice a month between May and October of 2017 at each of our six sampling sites. We used the Mid-Atlantic Tributary Assessment Coalition methodology to calculate grades, from A thru F like a school report card, to represent the estuary's health. “A” is very healthy, “C” needs improvement, “F” indicates a problem. These grades can be used to compare surrounding watersheds. We measured

dissolved oxygen, nutrients (nitrogen and phosphorus), chlorophyll, water clarity, and submerged aquatic vegetation.



Overall we scored a “C+” (59%), down from a “B” (67%) last year. It is encouraging that dissolved oxygen and phosphorus results were fairly consistent with last year's readings. Nitrogen levels, chlorophyll, water clarity, and aquatic grass percentage scores all deteriorated. Water clarity and aquatic grasses remain our lowest scores and both parameters reflect a grade drop for 2017. SAV decline was a major factor in lowering the Bohemia's overall grade. As with the previous two years, the water quality parameters we measured were generally better at the mouth of our river than at our upstream sites.

Overall Grades by Site (No SAV)



What's up with Submerged Aquatic Vegetation (SAV)?

Have you ever been boating and gotten frustrated with vegetation tangled in your prop? As it turns out, those tangled grasses are a GOOD thing! Aquatic grasses, also called SAV, help to reduce sediment in the water and provide habitat for fish and crabs.

While grass coverage for the Chesapeake Bay as a whole expanded in 2017, unfortunately the Bohemia was part of a region-wide decline suffered in the upper Eastern Shore. SAV coverage in our watershed dropped from 129 hectares in 2016 to 59 hectares in 2017. While low, this number is still better than past recordings, and it is encouraging that the Bohemia continues to enjoy a very wide variety of species.



Checking out the aquatic plant life

The cause for decline remains under study and many variables come into play. Unusually high salinity was noted in our segment of the Bay over the winter. Pulses of saline water can slow the growth of freshwater species and it is possible that this was a contributing factor. These plants are also very sensitive to algal blooms that result from high nutrient levels, to strong wave action, and to cloudy water that blocks light from reaching their leaves. See the back flap for specific actions you can take that will reduce pollution, increase water clarity and help the grasses thrive.

Overall Grades by Parameter

A	B	C	D	F
80-100%	60-79%	40-59%	20-39%	<20%

	2015	2016	2017
DISSOLVED OXYGEN	80% = A	100% = A	100% = A
NITROGEN	90% = A	96% = A	87% = A
PHOSPHORUS	74% = B	59% = C	57% = C
CHLOROPHYLL	52% = C	74% = B	62% = B
WATER CLARITY	37% = D	42% = C	34% = D
AQUATIC GRASSES	36% = D	32% = D	16% = F
OVERALL	61% = B	67% = B	59% = C+

BE A BOHEMIAN!

We need your help and support! Everybody wants clean water. Join us as we come together in a spirit of fun and cooperation to make our community as healthy and vibrant as can be. Please consider making a membership donation and participating in our activities. Your ideas and input are important!

We want to hear about you and your interests. Fill out the information below, detach this flap and mail it with your check to: **Friends of the Bohemia, Inc., P.O. Box 506, Chesapeake City, MD 21915**

You can also donate online using your credit/debit card at our website: www.friendsofthebohemia.org

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