

Recent Reports Highlight Local Water Quality and Needed Improvements

A recent article in the Philadelphia Inquirer highlighted the results of the most recent [PADEP DRAFT 2022 Integrated Pennsylvania Water Quality Report](#). The updated report noted that a significant number of new stream miles across the state have been added to PA DEP's impaired streams list, and that Philadelphia and its suburban counties have the highest concentration of impaired stream miles in the state. A subsequent article in VISTA Today characterized Chester County streams as "Unhealthy for Fishing, Drinking, and Recreation". While it is true that 72% of Chester County streams are listed as impaired for one or more categories in the most recent DEP report and that ongoing work is needed to address these impairments, it is important to note that this characterization of Chester County streams does not accurately reflect the health and recreational value of our local waterways and ignores the significant progress that has been made in protecting and restoring streams and water quality across Chester County.

DEP assesses stream health for the following four categories: Aquatic Life, Fish Consumption, Portable Water Supply and Recreation. Stream segments that meet assigned water quality or biotic community standards for a given use are listed as "attaining"; streams that do not meet assigned water quality or biotic community standards are listed as "impaired". It is important to recognize that a stream segment may be listed as impaired for one category while also listed as attaining for another category. For example, only 19 Chester County stream reaches were listed as "impaired" for potable water supply out of over 2,900 reaches listed. Unfortunately, 2,414 of those same stream reaches were listed as "impaired" for aquatic life.



It is important that we strive to achieve "attaining" status for all waterways by continuing to implement projects that



improve the health of our local streams and watersheds. However, it is also important to recognize that streams that are not meeting their full potential in one category can still provide habitat for sensitive species, offer valuable angling or recreational opportunities, or provide safe water supply. Characterizing an impaired stream as "unhealthy for fishing, drinking, and recreation" ignores the bevy of ecosystem services that are still provided by streams not meeting their full water quality potential. Ongoing efforts to improve water quality and protect sensitive aquatic and riparian habitat are making a difference. Local water quality in many streams has come a long way since the passage of the Clean Water Act. A few of the areas of progress over the past few decades are

noted in the [2020 Chester County Water Conditions Report](#), which concludes that “streams with poor conditions are improving and better able to support aquatic insect communities”. The report goes on to state that nitrogen and phosphorous levels remain fairly steady across the County, while above normal levels of rain fall have led to high levels of stormwater runoff that negatively affect our streams. A contaminant of rising concern is chloride, which largely come from winter snow and ice removal.



BRC has been working on improving water quality in the Brandywine and Red Clay Creek watersheds for over 75 years. In the early days, the focus was on addressing pollution coming from known point source polluters dumping raw sewage and hazardous pollutants directly in to streams. Reducing sediment loads into local streams has been an ongoing area of emphasis, as we have continued partnering with farmers to reduce sediment run-off from agricultural lands. As many of the direct sources of water pollution have been largely addressed, BRC has increased efforts to reduce nonpoint pollution largely from stormwater runoff, which is more difficult to remediate in built-out urban and suburban areas. In 2007, BRC launched the Red Streams Blue Program to address PADEP’s first Integrated Water Quality report that identified impaired streams. To date we’ve completed 24 major projects on over six miles of impaired streams, which have resulted in substantial stream and riparian improvements that are not fully captured through DEP sampling. BRC co-leads the Christina Watersheds Municipal Partnership (CWMP) with our conservation partners to help 36 municipalities address the impaired streams in their boundaries. This partnership leverages the expertise of a suite of local conservation partners to improve municipal

management of stormwater and to educate residents on the need for improved stormwater management. BRC is also a participant of the Delaware River Watershed Initiative funded by the William Penn Foundation since 2014. The Brandywine-Christina Cluster includes five other conservation organizations, all working together to improve the water quality in our watershed through land preservation, agricultural best practices, stream restoration and stormwater impacts.

Chester County’s landscape has been substantially altered by humans over the past 300 years, which has drastically impacted the state of our local streams. We must remember that centuries of degradations will take time to correct. However, through our efforts and the efforts of local conservation partners, we have seen and measured progress in the health of our local waterways. We will continue to work hard to accelerate the needed improvements through our Watershed Conservation programs and we will continue collaborating with our conservation partners and government agencies in Pennsylvania and Delaware to improve our local streams.



For more information about Watershed Conservation at Brandywine Red Clay Alliance visit <http://www.brandywineredclay.org/watershed-conservation/> or info@brandywineredclay.org