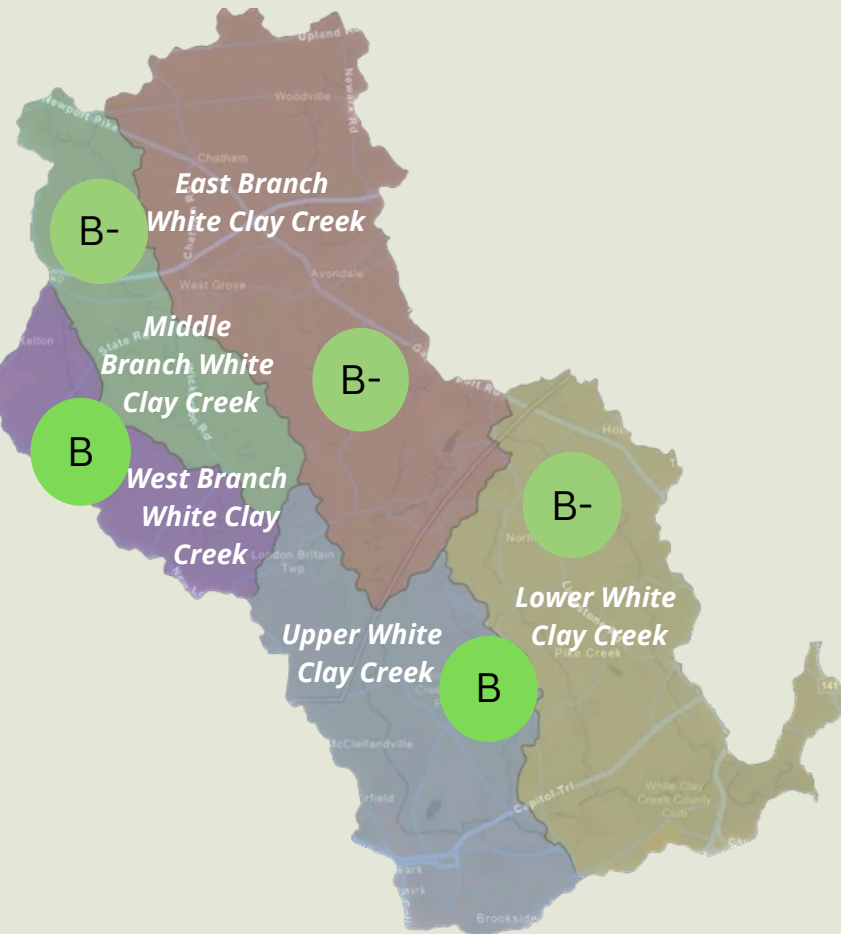


WATERSHED TECHNICAL REPORT

The 2023 White Clay Creek State of the Watershed technical report provides an assessment and corresponding grades for the White Clay Creek watershed and the five main drainage areas (subwatersheds).

The grades are based on available data and reflect a snapshot of watershed health based on 20 key indicators. The grades for each subwatershed culminate in an overall watershed grade of B- with subwatershed grades ranging from B to B-.



IT TAKES ALL OF US

Take Action



Voice your support for watershed protection and land preservation, volunteer or join us at one of our community events!

For More Information:
whiteclay.org/new-events

Discover Your Watershed



Hike, fish, and enjoy the views! The White Clay watershed has miles of recreational trails and historic landmarks.

For More Information:
whiteclay.org/watershed-maps

Catch the Rain



Improve water quality and habitat on your property.

Catch the Rain Program:
whiteclay.org/catchtherain

LEARN MORE AT WHITECLAY.ORG

The White Clay Creek watershed, was designated a National Wild and Scenic River in 2000. It was the first river in the nation to be designated on a watershed basis. Our mission is to promote and support the preservation, protection, restoration, and enhancement of natural and cultural resources, in addition to encouraging a balance of recreational enjoyment of the White Clay Creek watershed in Pennsylvania and Delaware. Founded in 1965, the White Clay Watershed Association is the nonprofit watershed organization for the White Clay Wild & Scenic River Program.

White Clay Creek State of the Watershed 2023



The 2023 White Clay Creek State of the Watershed is a technical report that provides an assessment of the health of the White Clay Creek Watershed.

Detailed methodology and data can be found in the full report on whiteclay.org/state-of-the-watershed or by scanning the QR code



WATERSHED HEALTH GRADES & INDICATORS

The 2023 White Clay Creek State of the Watershed defines watershed health in five key categories: Water Quality, Hydrology, Scenery, Habitat, and Recreation. Twenty indicators within each of the five categories were graded using scientifically-defined thresholds and are summarized below.

C

WATER QUALITY

Dissolved Oxygen (DO) levels in the watershed are excellent. Chloride and phosphorus levels, while within acceptable limits, surpass natural levels and require ongoing monitoring. Nitrates, Suspended Sediments, and Macroinvertebrates score poorly, indicating the effects of unregulated stormwater and more frequent and intense rain events. Water temperature, already variable, faces further challenges due to a changing climate.

B

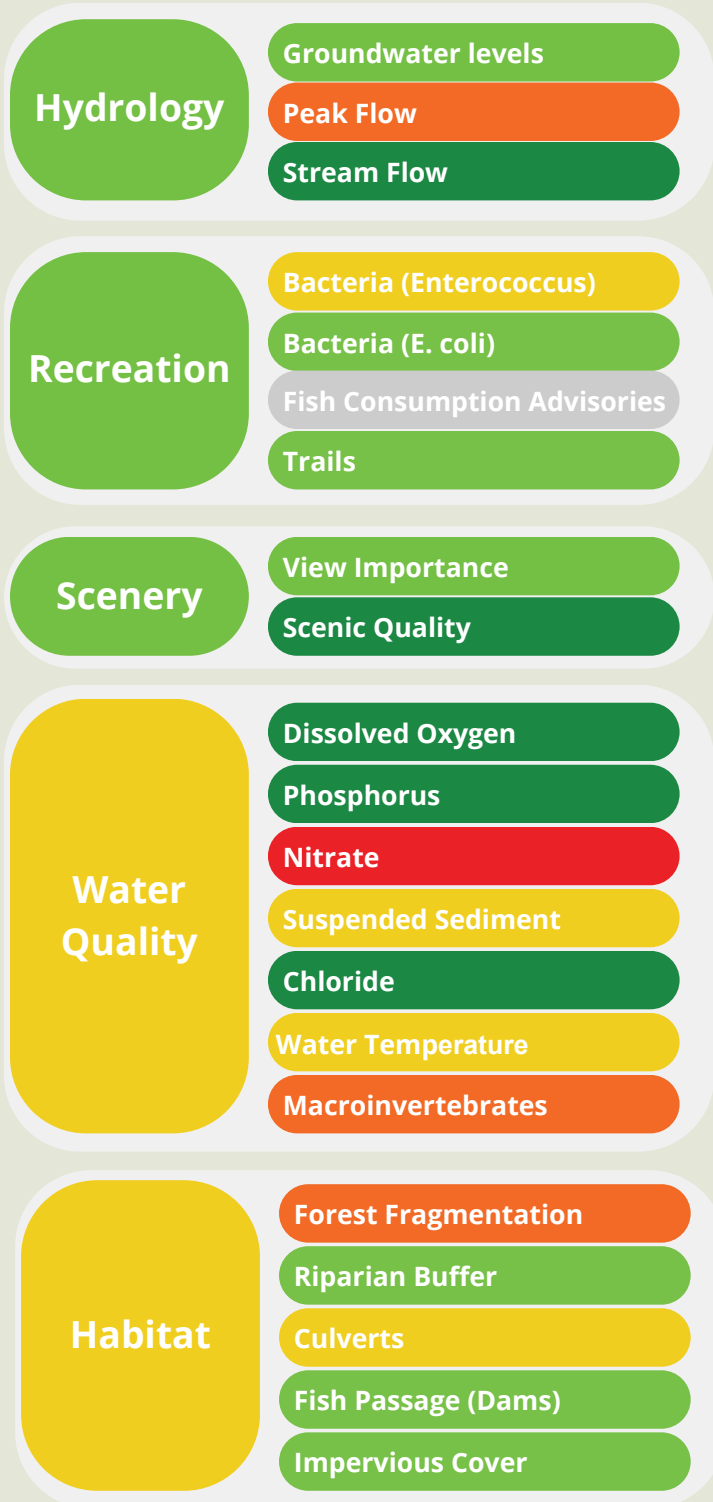
HYDROLOGY

Peak flow, which often leads to flooding, is a threat to the White Clay Creek. Flooding will continue to be compounded by climate change. Stream flow is good overall, but the Middle Branch scores notably lower than all other subwatersheds. Groundwater levels have remained stable.

B

SCENERY

As a nationally designated Wild and Scenic River, the White Clay Creek naturally excels in the Scenery category. Its visual appeal elevates the value of its resources, making them desirable places for both recreation and conservation. Notably, areas that have both high visual interest and cultural significance, predominantly located within the Bi-State Preserve, hold the greatest value.



C+

HABITAT

Watershed development, reflected by impervious cover, varies. In the Upper and Lower Main Stem, heightened imperviousness signals threats to aquatic life. In the East, West, and Middle Branches, impervious cover is below the 10% threshold yet the anticipation of increased development raises a growing concern. Culverts and dams, markers of progress and population density, present hurdles to aquatic passage. Forest fragmentation limits terrestrial connectivity, and riparian buffers are inadequate in the Lower East Branch and Lower White Clay. One notable exception is the Upper Main Stem, where state-preserved lands stand out.

B

RECREATION

The White Clay Creek provides vital recreational opportunities such as hiking, swimming, and fishing. Trails near streams span several miles, enhancing the recreational experiences. Preserved municipal lands offer additional recreational options even in subwatersheds without extensive state parkland. However, fecal bacteria in the creek, particularly post-rain events, suggests caution for swimmers. Moreover, lingering consumption advisories underscore the need for caution when recreational fishing.

