

## Water Quality in White Clay Creek

From 1991-2008, community volunteers with the assistance of the Stroud™ Water Research Center collected annual samples of aquatic macroinvertebrates (insects, worms, crayfish, etc.).

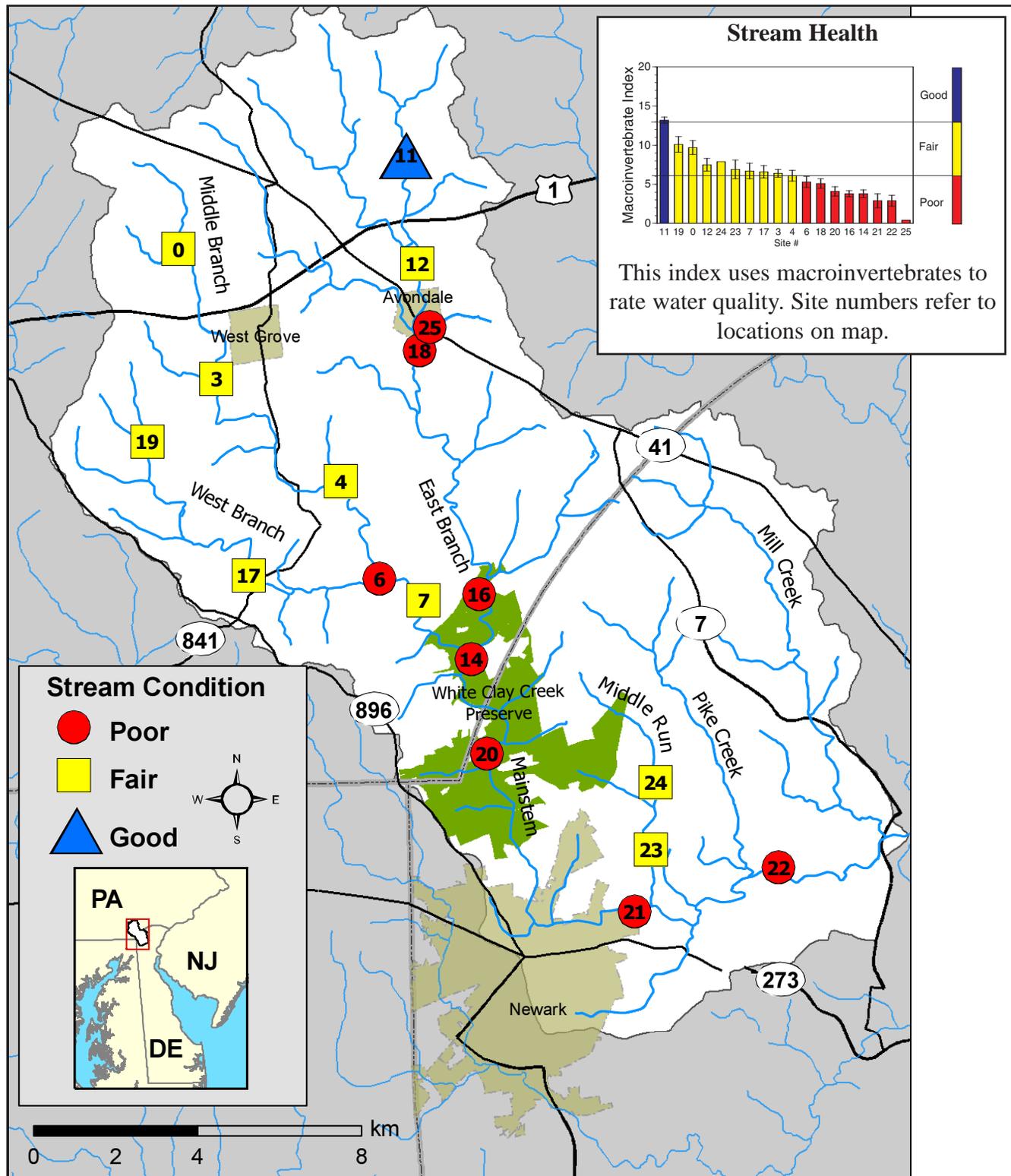
Scientists around the world use these animals to assess water quality because of their relative tolerance or intolerance to pollution.

**Water quality in most of the White Clay Creek watershed is moderately to severely degraded.**

- \* The best quality sites (11, 19, 0) in each Branch occur in the headwaters (small streams). These are also the areas with the fewest people.
- \* Water quality starts to degrade on the East Branch near the borough of Avondale and continues to be Poor in the mainstem through DE, including the State Parks.
- \* The exact cause(s) of degradation are not known. In PA, the watershed is mainly rural (agriculture) and in DE it is mostly suburbanized (homes and industry); both types of land use can contribute to degradation of water quality.
- \* Water quality has not improved or degraded since 1991, however, the majority of sites tested are in the fair or poor condition, leaving much room for improvement.
- \* Stream degradation and restoration are typically gradual processes - residents can become part of the solution to improve water quality.

For detailed results of the study, visit...

[www.stroudcenter.org/research/streamwatch](http://www.stroudcenter.org/research/streamwatch)



### About White Clay Creek

Over 120,000 citizens get their drinking water from the White Clay Creek and the Cockeysville aquifer that underlies portions of the watershed.

The White Clay Creek Watershed (107 square miles) includes parts of Chester County, PA and New Castle County, DE.

White Clay Creek was federally designated as Wild and Scenic by Congress in 2000.

### Special Features of White Clay Creek

- \* A variety of habitats provide a rich diversity of fish and wildlife
- \* Numerous cultural and historic resources
- \* Extensive recreational opportunities - almost 17% of the watershed is protected by the White Clay Creek Preserve and White Clay Creek State Park.



### Visit the Parks on the Web

Delaware

<http://www.destateparks.com/wccsp>

Pennsylvania

<http://www.dcnr.state.pa.us/stateparks/parks/whiteclaycreek.aspx>

### Be part of the Solution

#### Rethink Your Lawn Care

- \* Use organic alternatives in place of chemical herbicides, pesticides and fertilizers
- \* Use the minimum amount of fertilizer required
- \* Pick-up and dispose of pet waste properly
- \* Don't mow lawns to less than 2 inches
- \* Consider replacing some lawn with native landscaping

What goes on your lawn or down your drain has the potential to enter a stream and ultimately our drinking water.

#### Revise Your Home Care

- \* Pump septic systems at least every 3 years
- \* Properly dispose of paints, cleaners & other chemicals
- \* Limit the use of toxic products inside & outside your home

#### Reduce Runoff

- \* Plant native trees and shrubs
- \* Protect disturbed soils with plants or mulch
- \* Direct downspouts toward vegetated areas
- \* Use rain barrels to store water for gardening

#### Protect Your Drinking Water

- \* Learn how your property connects to the local stream, and how others are connected
- \* Be aware of potential problems associated with your property such as excessive or polluted runoff, septic tank leaks, or erosion
- \* Be involved in the local planning process and ask questions
  - \* Is the stream protected from stormwater runoff?
  - \* Are pollutants (nitrates and phosphates) in the stream at levels higher than is normal?
  - \* Is the stream protected from industrial, agricultural, and/or household waste?
  - \* Are there alternatives to the proposed plans that would provide better protection of the stream or groundwater?

#### Contributors:

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The White Clay Watershed Association [home.ccil.org/~wcwa/](http://home.ccil.org/~wcwa/)

White Clay Creek Wild and Scenic River Watershed Management Committee [www.whiteclay.org](http://www.whiteclay.org)

Delaware Nature Society [www.delawarenaturesociety.org](http://www.delawarenaturesociety.org)

# White Clay Creek

**Ours to Enjoy!  
Ours to Protect!**

