



Fact Sheet

April 2005

CHESAPEAKE BAY FOUNDATION

The Mighty Susquehanna River: *Pollution degrades our streams, the River, and the Chesapeake Bay.*

Called by Robert Louis Stevenson in 1879 “a shining river,” the Susquehanna River winds 444 miles south from Otsego Lake near Cooperstown, New York, through the northern and central ranges of the Appalachian Mountains in Pennsylvania, into Maryland and the Chesapeake Bay.

The Susquehanna and the streams that feed it deliver 50 percent of the freshwater – on average 25 billion gallons of water each day – and half of the pollution to the Chesapeake Bay. As a result, the Susquehanna’s health directly affects the health and productivity of the Chesapeake Bay.

Today, the Susquehanna is severely degraded by nitrogen and phosphorus pollution and other contaminants. Excess animal manure, agricultural runoff, improperly treated sewage discharges, and urban and suburban stormwater create local water quality problems and pollute the Bay. Additionally, abandoned mine drainage, failing septic systems, vehicle exhaust, and coal fired power plant emissions, and, in some parts of the River, toxins like PCBs and mercury have severely contaminated the River’s once pristine waters. Throughout the Commonwealth, over 12,000 miles of streams and rivers, including much of the Susquehanna and its streams, are on the Environmental Protection Agency’s (EPA) notorious “dirty waters list.”

The most significant pollutants degrading water quality in the Chesapeake Bay are nitrogen, phosphorus, and sediment pollution. In 2003, 44 percent of the total nitrogen pollution in the Bay came from the Susquehanna River (EPA, Chesapeake Bay Program 2003). Additionally, the River contributed 21 percent each of the Bay’s phosphorus and sediment loadings. These proportions are typical each year.

| Overall Pollution Contribution of the Susquehanna River to the Chesapeake Bay (2003) | | |
|-----------------------------------------------------------------------------------------|----------------------|--------------------------|
| | Pounds (in millions) | Percent of total loading |
| Nitrogen | 120.9 | 44 |
| Phosphorus | 4.1 | 21 |
| Sediment | 2,120.8 | 21 |

The majority – over 60 percent – of the Susquehanna River’s pollution is attributable to excess manure, agricultural runoff, and urban and suburban stormwater. Additionally, inadequately treated human sewage is a source of pollution. These principal sources of pollution in the Susquehanna River also present the most immediate and affordable opportunities for environmental restoration that will benefit local streams in the Commonwealth.

- In Pennsylvania, livestock – cows, chickens, hogs, and other farmed animals – outnumber humans and produce 30 million tons of manure annually, containing 171,000 tons of nitrogen and 81,000 tons of phosphorus.
- Every time it rains, agriculture loses nutrient-rich top soil and all the pollutants it holds to local streams, the Susquehanna River, and ultimately the Chesapeake. During the first week in April 2005, an average 254 million pounds (four times the normal average) washed into the Bay each day. A healthy river system would accommodate seasonal weather events such as spring storms.
- One hundred and forty-two major wastewater treatment facilities discharge treated human sewage into the Susquehanna River and its tributaries. Of these facilities, only a handful effectively limits nitrogen pollution discharges.
- Every day, approximately 350 acres of open space are converted to commercial, residential, and industrial development. While known stormwater technologies could minimize pollution from new development, the vast majority of conversion projects in Pennsylvania utilize archaic and inadequate stormwater control techniques.
- There are over 400 combined sewer overflows illegally dumping raw sewage laden with disease-causing pathogens, toxins, hygiene products, and pharmaceuticals into the Susquehanna River and its tributaries.
- Over 4,000 stream miles are polluted by acid mine drainage in the state, many of which lie within the Susquehanna River basin.

Cleaning up the Susquehanna is achievable, affordable, and important.

- Reduce the impacts of excess manure by reducing the nitrogen content in feed and developing alternative uses for manure.
- Decrease agricultural runoff by adopting and enforcing nutrient management plans, planting winter cover crops to reduce runoff from fallow fields, planting and fencing streamside buffers, and providing fair-share incentives for farmers to implement these and other conservation programs.
- Upgrade sewage treatment facilities with currently available, affordable technology.
- Require governments to adopt, fund, and implement effective stormwater control techniques.

Our Vision

The Susquehanna River, portions of which have been designated as an American Heritage River, has a rich history. With the development of the timber and anthracite industries in the 1800s and 1900s, the River helped set forth the growth of our nation. American Shad were once so prolific that their spawning runs rivaled those of salmon in the Pacific Northwest.

Today, millions of people call the River's 27,500 square-mile watershed home. Parts of New York, Pennsylvania, and Maryland lie within its basin. Hundreds of industries rely on the River for their operations, and millions of residents get their drinking water from it. The River flows through some of the most pristine parts of the region, annually drawing thousands of visitors from across the nation to camp, hike, hunt, and fish and to spend millions of dollars.

The Susquehanna River and the Chesapeake Bay are among the most studied bodies of water anywhere. Science has provided a blueprint of solutions. Our region's leaders committed in 1987 and again in 2000 to restore water quality, and the region is under court order to do so by 2010. In Pennsylvania, much has been done already. Thousands of concerned citizens are working in local watershed groups to implement solutions. Together, they have planted more than a thousand miles of wooded buffers to reduce runoff into local streams, and they have helped farmers to implement sustainable farming practices.

Now is the time to build on past successes by implementing the simple solutions science has provided. A healthy Susquehanna River system will enhance the quality of life of Pennsylvanians, and it will dramatically improve the health of the Chesapeake Bay.

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The Chesapeake Bay Foundation is the largest conservation organization dedicated solely to saving the Chesapeake Bay and its rivers and streams. Its motto, Save the Bay, defines the organization's mission and commitment. With headquarters in Annapolis, Md., state offices in Maryland, Virginia and Pennsylvania, and a varied group of educational centers and programs, CBF works throughout the Chesapeake's 64,000-square-mile watershed. Founded in 1967, CBF is a 501(c)(3) not-for-profit organization. CBF is supported by more than 116,000 active members and has a staff of 150 full-time employees. Approximately 95 percent of CBF's \$17.5 million annual budget is privately raised.