Cumberland County's Water Resources

All of Cumberland County's water resources flow to the Susquehanna River which then flows to the Chesapeake Bay. In other words, nutrient and sediment pollution in Cumberland County contributes to the pollution occurring in the Chesapeake Bay Watershed. Two major stream corridors flow through Cumberland County: the Yellow Breeches Creek to the South and the Conodoguinet Creek to the North.

The Yellow Breeches Creek

Fed by cold mountain springs, the headwaters of the Yellow Breeches begin in the South Mountains of Cumberland County. The stream is recognizable as the Yellow Breeches Creek near Walnut Bottom in South Newton Township. The Yellow Breeches then meanders through the limestone soils in the southern side of the County from Walnut Bottom to Williams Grove where it flows into York County.

History shows that the stream was once a source of power for settlers. The Yellow Breeches was alive with mills, providing settlers with lumber for their homes and a method of grinding their grains. Today, the stream is primarily valued for its recreational splendor. From the source to Locust Point Road near Williams Grove, the stream is classified as a High Quality Cold Water Fishery. Between Locust Point Road and the mouth it is classified as a Cold Water Fishery. Renowned for its trout fishing, the cool limestone waters of the Yellow Breeches draws anglers from well beyond the County. Maintaining a good mix of stocked, wild, and carry-over trout, it is not uncommon for anglers to land trophy trout. Additionally, the limestone nature of the stream is conducive to excellent fly hatches and rising trout, a fly fisherman's paradise.

The Conodoguinet Creek

The Conodoguinet Creek flows 101 miles through the Cumberland Valley to its destination at the Susquehanna River near Harrisburg. The nearly pristine head waters of the Conodoguinet begin on the Kittatiny Mountain in Franklin County. The upper reaches of the Conodoguinet offer anglers great trout fishing opportunities. From the source to the Letterkenny Reservoir Dam (Franklin County), this section of the stream is classified as a High Quality Cold Water Fishery. From there, the Conodoguinet leaves the forested section of the upland basin and begins to meander through the agricultural lands of the valley below. As the Conodoguinet moves downstream through the Cumberland Valley, pollution to the stream begins to increase. The portion of the stream flowing through Cumberland County is classified as a Warm Water Fishery. Eventually the downstream reaches of the stream flow through the suburban west shore of Harrisburg before reaching the Susquehanna River.

Much like the Yellow Breeches Creek, early settlers lined the banks of the Conodoguinet with mills; by utilizing the abundant water resource early pioneers produced many products vital to their way of life. Early settlers envisioned the Conodoguinet as a navigable method of commerce linking the Susquehanna and Potomac rivers. However, plans for connecting the Conodoguinet and the Conococheague (a tributary to the Potomac) never materialized.

Today, Cumberland County's citizens still depend on the Conodoguinet to support their way of life. Although most of the mills are no longer standing, the Conodoguinet is utilized for drinking water, recreation, and a means of waste removal

The eastern part of the County removes 8 million gallons of water per day from the stream in order to meet the area's water demands. Much of the water is returned to the stream, but not before passing through wastewater treatment plant designed to remove the "added" pollution

from the water. Although the wastewater plants generally do a good job, removal of all the water's pollutants is not possible.

With the ever increasing population of this area and the subsequent demands on the Creek, both the quality and quantity of water in the Creek is in jeopardy. Increasing demands on the stream result in increased nutrient loading, often compounded by low flows. Additionally, as the urbanization of this area continues, stormwater runoff from residential lawns and paved parking lots results in increased pollutants reaching the creek.

Ultimately, the problems associated with pollution in the Conodoguinet Creek and Yellow Breeches Creek watersheds are transposed to the Susquehanna River and the Chesapeake Bay. Increasing nutrient loads result in algae blooms, lower dissolved oxygen levels, and a general decrease in the health of the organisms and resources that depend on these bodies of water, including the populations of people that depend on these waters for their way of life.

Other County Water Resources

Many of the cool mountain streams feeding the Yellow Breeches and the Conodoguinet are classified as High Quality Cold Water Fisheries. Additionally, two county streams located in the valley below have reaches which are classified as Exceptional Value streams: the Letort Spring Run from the PA 34 Bridge to the Railroad Bridge at Letort Park and the Big Spring Creek from the Source to SR3007.

As the name implies, the Letort Spring Run is spring fed. The Letort begins South of Carlisle and then flows through Carlisle and enters the Conodoguinet in Middlesex Township. Stormwater runoff from paved development and residential runoff are the primary concerns in this watershed. Recently, many citizens and organizations were concerned over the construction of large retail businesses in the watershed. Development in the Letort Basin receives a lot of attention from the public eye and conservation organizations alike.

The Big Spring Creek begins southwest of Newville at the site of the PA Fish Commission Fish Hatchery and flows through Newville serving as the boundary line between North Newton and West Pennsboro townships before dumping into the Conodoguinet. The Big Spring Creek offers anglers excellent trout fishing, specifically in the upper reaches where Special Regulation trout fishing only is allowed. In June of 2001, the PA Department of Environmental Protection ordered the Big Spring Fish Hatchery to stop discharging fish waste into the Big Spring Creek. As a result, the Fish Commission closed the hatchery. Since that time period, local fishing guides claim the water quality is improving. Eventually, as the insects and the fish populations come back, they hope trout fishing on the Big Spring as good as ever.

In addition to the many streams in Cumberland County, many private ponds and public lakes exist in the County. Private ponds and wetlands are often a source of family recreation, livestock watering and provide habitat for populations of waterfowl, reptiles and other organisms dependent upon the local water resource. Several lakes are maintained in the County for the recreational use of the general public. These lakes include Laurel Lake, Fuller Lake, and Opossum Lake which are maintained by the PA DCNR and the PA Fish and Boat Commission.

Impaired Streams

The focus of this strategy will be on watersheds that have impaired stream segments. An impaired stream is a stream determined to be receiving a level of a pollutant exceeding the natural level, or the pollutant level that can be assimilated by the stream without having detrimental effects on water quality.

For some streams, a TMDL (Total Maximum Daily Load) has been developed. Basically, a TMDL is a plan to correct the impairment by determining specific levels of pollutants that can be safely discharged. For a detailed description of TMDLs, see the DEP Fact Sheet "Watershed Management and TMDLs" attached as **Appendix 1**

The Conservation District will focus on streams where a pollution concern has been identified. Specifically, the Strategy will focus on Category 4A and Category 5 impaired streams. A Category 4A stream is an impaired stream with an approved TMDL. A Category 5 stream is an impaired stream requiring a TMDL. Within these categories, Special Project funds will focus on watersheds impaired by nutrient pollution and/or siltation (agricultural practices). A complete listing of Cumberland County streams classified as either Category 4A or Category 5 is attached as **Appendices 2 and 3.**

Although this strategy will focus on impaired watersheds, the Conservation District will not preclude itself from working in other watersheds. The Conservation District also believes it is important to maintain higher quality streams so that degradation of these streams does not occur.