

The sludge is trucked and land-applied to nearby farms in Middlesex and North Middleton Townships, or dewatered and landfilled.

VI. Biological Resources

The waterway's alkaline water quality, moderated temperatures and variety of flow conditions have created habitats which encourage the establishment and proliferation of living organisms.

A. Wildlife & Vegetation



Aquatic Vegetation

The waterway and banks of the LeTort Spring Run support the distinct flora and fauna of a Pennsylvania limestone stream. A profusion of aquatic plants create floating mats of vegetation in the waterway sometimes thick enough to kneel on. Large populations of aquatic insects such as mayflies and midges, and crustaceans such as isopods and scuds live and feed on the vegetation. The LeTort Spring Run produces almost twenty times more life per acre than typical streams outside limestone areas. The insects and crustaceans are the

primary food for the world famous brown trout that live in the LeTort.

The vegetation found in the vicinity of the LeTort Spring Run is typical of Cumberland County. The area surrounding the LeTort is a mixture of deciduous trees, cropland, abandoned land and manicured lawns. Oak species are dominant since the American Chestnut was logged out in the eastern forests at the turn of the century. The oaks are encroached upon by willow, maple and locust species along the banks. All species make up small wooded areas found along the stream.

These remnant woodland areas are significant environmental sanctuaries. The mixed hardwood tree stands are of value as green contrast to cleared open spaces, as wildlife habitats, natural and wild areas, and potential recreational areas. Because of their high environmental and aesthetic quality the remnant woodlands are being converted in increasing numbers from their wild state to sites for new home construction and commercial developments. The associated high environmental quality and the limited occurrence and desirability of these unique environments for residential development make their place within the LeTort Spring Run watershed extremely important.

In many areas along the stream, land that was once cropland or otherwise intensely managed is now at the stage of the abandoned field in the ecosystem succession. This is a stage where nature is in the beginning process of establishing a climax community. It is characterized by dense growth of vines, herbaceous vegetation and tree seedlings. The predominant tree species during this stage are the boxelder and the black locust. This type of landscape becomes an ideal habitat for various wildlife species that can coexist with man and development but still prefer a wild habitat.

The wetland fringe of the LeTort Spring Run can be quite wide. The cattails, wetland grasses, and reeds in these wetlands provide food and shelter for muskrat, waterfowl, and amphibians. Plants and animals in the LeTort watershed are typical residents of the fragmented ecosystems resulting from development in the region. The common plants and animals of the area are those most able to adapt to a landscape much more open than the original forest cover of the 1700's. Mammals such as red and grey fox, raccoon, opossum, grey and flying squirrels, white-tailed deer, meadow vole, minks and others, live in the patchwork of fields, woods, and neighborhoods. Birds migrating through and breeding in the region include Canada geese, ducks, egrets, and herons.



Ducks in LeTort Park, Carlisle

B. Pennsylvania Natural Diversity Inventory Species

The Pennsylvania Natural Diversity Inventory (PNDI) is a site specific information system that describes significant resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features.

A data request submitted to the Pennsylvania Natural Diversity Inventory for the LeTort Spring Run watershed revealed that no occurrences of species of special concern are found within the watershed and potential impacts to endangered, threatened, or rare species would not be anticipated.

One species that is listed as endangered by the Pennsylvania Fish and Boat Commission has a historical range within Cumberland County. This specie is the bog turtle. Even though there has been no recent documented sitings within the LeTort Spring Run area, the habitat found along the LeTort is ideal for the bog turtle.

C. Important Habitats

The most important features of the LeTort Spring Run is its upper waterway and its population of wild brown trout. These trout are found mainly in the upper reaches of the stream between the Route 34 bridge and the Railroad Bridge at LeTort Park.

The productive aquatic life found in the upper portion of the LeTort is the most diverse found in the entire stream. The aquatic plants serve as a food supply, habitat and as a natural conditioner of the water chemistry. As a food supply the thick populations of aquatic plants provide surplus amounts of energy to aquatic herbivores. Besides the energy available in its own green leaves for higher forms of life, the vegetation harbors dense populations of aquatic insects, insect larve and crustaceans. The invertebrates in turn are excellent suppliers of food for the brown trout.



Sculpin

Trout spawning areas have been artificially enhanced along selected portions of the upper section of the stream. Without these beds the natural reproduction of the brown trout would be severely limited. There is a constant effort being made to ensure that a spawning habitat of gravel is maintained for the brown trout in the midst of the sediment introduced to the stream by human activity within the watershed. The wetlands which border much of the stream not only serve an important function for the aquatic wildlife but also for

terrestrial wildlife. Since the majority of terrestrial species rely on this type of habitat during their life. In this capacity the wetlands serve as a food and water source, cover and nesting and reproduction areas.

VII. Cultural and Recreational Resources

It is the intent of the affected municipalities and various state agencies, largely working through the LeTort authority, to retain and even broaden the use of the stream and its watershed for public enjoyment. Although fishing has, historically, been its principle attraction, the establishment of nature trails and a park has opened up a variety of enjoyable opportunities.