

# Sewickley Creek Watershed Conservation Plan

■ Chapter Summaries

# Project Area

*The project area characteristics studied include: watershed location, size, climate, topography, major tributaries, socio-economic profile, and education.*

- The watershed is located in southwestern Pennsylvania and drains an area of 168 square miles.
- The topography consists mainly of gently rolling hills with steeper mountainous terrain in the headwaters.
- The two (2) largest tributaries to the Sewickley Creek, Jacks Run and Little Sewickley Creek, make up 35% of the total drainage area.
- Land use in the watershed is primarily agriculture and forestland, with some urban and rural residential.
- Land use regulation is generally lacking in the watershed.
- Population patterns in the watershed have been stagnant overall, with the eastern part of the watershed experiencing some growth.
- With nine major roads and 2 major rail lines, the watershed is very accessible to intra and interstate traffic.
- The largest employment sectors are services, retail trade, and manufacturing, which make up over 70% of employment in Westmoreland County.
- Educational institutions within the watershed include seven school districts and three colleges.
- Coal mining, manufacturing, and agriculture significantly influence the character of the watershed.

## **Goals:**

- Encourage and foster regional planning initiatives.
- Encourage sound land use planning by using established best management practices.
- Complete the County Comprehensive Plan.
- Establish the watershed as a planning unit.

# Land Resources

*The land resource topics addressed in this chapter include geology, soil characteristics, agriculture, ownership, critical areas, landfills, and hazard areas.*

- The Appalachian Plateau Physiographic Province is the geological address of the Sewickley Creek watershed, with the Pittsburgh Low Plateau and the Allegheny Mountain Sections included within the watershed.
- Six (6) soil associations are identified in the watershed, four (4) of which are well suited for cropland, hay land, and pasture. The other two (2) soil associations are steep and/or stony and are well suited for woodland, recreation, and wildlife habitat.
- Agricultural Security Areas make up 15% of the watershed area.
- The majority of the watershed is privately owned.
- Six (6) landfills are located in the watershed; three (3) of which are active.
- Hazard areas, such as illegal dump sites, waste sites, brownfields, refuse piles, abandoned mines, and subsidence areas, are significant because of the threat they pose to environmental and human health.

## *Goals:*

- Identify and protect areas of exceptional ecological value.
- Restore streams and prevent future degradation through community partnerships and sound land use management.
- Effectively manage soils that are productive for farming, particularly those soils for cultivated crops, hay land and pasture.
- Work with local municipalities and farmers to secure agricultural land use and the right to farm.
- Help protect farmland by promoting Smart Growth concepts.
- Discourage use of highly erodible soils/lands.
- Promote re-use of abandoned industrial sites and mine lands.
- Encourage construction and development techniques that minimize erosion and protect land resources.

# Water Resources

*The water resources chapter identifies and discusses major tributaries, wetlands, floodplains, lakes and ponds, surface water quality, Pennsylvania's Impaired Waters List, monitoring, groundwater, and water resources.*

- Wetland loss has been identified as a key issue in the watershed, despite protection by the Clean Water Act.
- Floodplain encroachment continues in the watershed, thereby aggravating flooding problems.
- Numerous lakes and ponds are found throughout the watershed.
- Major pollutants to the watershed are non-point source in nature and include: abandoned mine drainage, erosion and sedimentation, agricultural runoff, stormwater runoff.
- Groundwater quality and water use are becoming more prevalent issues in the watershed.

## **Goals:**

- Positively impact water resource management through a combination of active project participation, educational outreach, industry collaboration and measurement/planning.
- Increase involvement in restoration through stream bank fencing, erosion control and refuse pile remediation.
- Utilize and expand educational outreach programs and workshops on flood-prone areas, non-point source pollution, and ground and drinking water quality and conservation.
- Establish and implement sewage planning efforts, land use ordinances, and storm water management with municipalities, local planning commissions, and other environmental groups that protect water resources.
- Develop plans and establish volunteer monitoring groups to assess physical, chemical, and biological activity in the watershed.
- Compile a database of watershed monitoring information that can be accessed and updated by volunteer monitors, agencies, and other organizations.

# Biological Resources

*The biological resources chapter focuses on the wildlife and vegetation found throughout the watershed. The importance and diversity of habitats and species is described.*

- A variety of wildlife species call the Sewickley Creek watershed home.
- Invasive and exotic species are a growing problem in the watershed and can be blamed for stressed populations of native species.
- Nine (9) Pennsylvania Rare, Threatened, or Endangered Species have been identified within the watershed.
- Many important habitats, including Natural Heritage Areas, Important Bird Areas, streamside habitats, and woodland areas are found within the watershed.
- Residents of the watershed must be better informed to the value of healthy ecological systems.

## **Goals:**

- Manage biological resources through increased preservation and conservation efforts, encouragement of industry collaboration, educational outreach, and establishment of an evaluation program.
- Identify and help to preserve rare, threatened and endangered species' habitat.
- Utilize the Natural Heritage Inventories for planning and education.
- Utilize and expand educational outreach programs on the environment and stream bank fencing/barnyard stabilization.
- Compile a website database for invasive, native, and non-native species for educational and documentary purposes.
- Conduct surveys to determine knowledge and interest in the biological resources found throughout the watershed.

# Cultural Resources

*The Sewickley Creek watershed has an array of cultural resources available to residents and visitors to the area. Dating back to the 1750s, the region has a rich history.*

- Recreational resources include trails, parks, hunting, fishing, boating, and private facilities such as campgrounds and golf courses.
- The arts have played an important role in this region from theatrical facilities to visual arts displays.
- Environmental education is one of the most important issues to the watershed. There exists a dire need to educate the public about the environmental challenges facing the watershed as well as arm them with the knowledge and skill to fully and actively participate in solving those problems. Many organizations, agencies, and educational institutions are taking an environmental education initiative and should work together cooperatively.
- Archaeological and historical resources, including historical sites, structures, and districts, are located within the watershed.

## ***Goals:***

- Expand opportunities for recreational resources.
- Cultivate a culturally diverse and dynamic region by collaborating with the cultural community, participating in educational outreach projects, and actively spearheading projects.
- Develop or improve multi-use trails, auto trails, water trails, and educational tours.
- Protect open spaces for recreational activities and aesthetic value.
- Educate the public on trail safety, watershed resources and the value of historical sites.
- Promote locally related educational programs.