

in loads is discussed, as well as the results of statistical trend analysis for the period January 1985 through December 2002 for nitrogen, phosphorus, SS, total organic carbon (TOC), and water discharge.

DESCRIPTION OF THE SUSQUEHANNA RIVER BASIN

The Susquehanna River (Figure 1) drains an area of 27,510 square miles (Susquehanna River Basin Study Coordination Committee, 1970), and is the largest tributary to the Bay. The Susquehanna River originates in the Appalachian Plateau of southcentral New York and central Pennsylvania, flows into the Valley and Ridge and Piedmont Provinces of Pennsylvania and Maryland, and joins the Bay at Havre de Grace, Md. The climate in the Susquehanna River Basin varies considerably from the low lands adjacent to the Bay in Maryland to the high elevations, above 2,000 feet, of the northern headwaters in central New York State. The annual mean temperature ranges from 53° F (degrees Fahrenheit) near the Pennsylvania-Maryland border to 45° F in the northern part of the basin. Precipitation in the basin averages 39.15 inches per year, and is fairly well distributed throughout the year.

Land use in the Susquehanna River Basin, shown in Table 1, is predominantly rural with woodland accounting for 67 percent; agriculture, 29 percent; and urban, 2 percent. Woodland occupies the higher elevations of the northern and western parts of the basin and much of the mountain and ridge land in the Juniata and Lower Susquehanna Subbasins. Woods and grasslands occupy areas in the lower part of the basin that are unsuitable for cultivation because the slopes are too steep, the soils are too stony, or the soils are poorly drained. The lower Susquehanna represents the highest density of agriculture throughout the basin. However, extensive areas are cultivated along the river valleys in southern New York and along the West Branch Susquehanna River from Northumberland, Pa., to Lock Haven, Pa., including the Bald Eagle Creek Valley.

Major urban areas in the Lower Susquehanna Subbasin include York, Lancaster, Harrisburg, and Sunbury, Pa. Most of the urban areas in the northern part of the basin are located along river valleys, and they include Binghamton and Elmira-Corning, N.Y., and Scranton and Wilkes-Barre, Pa. The major urban areas in the West Branch Susquehanna River Basin are Williamsport and Lock Haven.

Table 1. Land Use Percentages for the Susquehanna River Basin and Selected Tributaries

Site	Urban	Agricultural	Forested	Other
Towanda	4	35	60	1
Danville	5	33	60	2
Lewisburg	2	15	81	2
Newport	2	28	69	1
Marietta	4	30	64	2
Conestoga	14	60	23	3
Susquehanna River Basin	2	29	67	2



Figure 1. The Susquehanna River Basin, Subbasins, and Population Centers