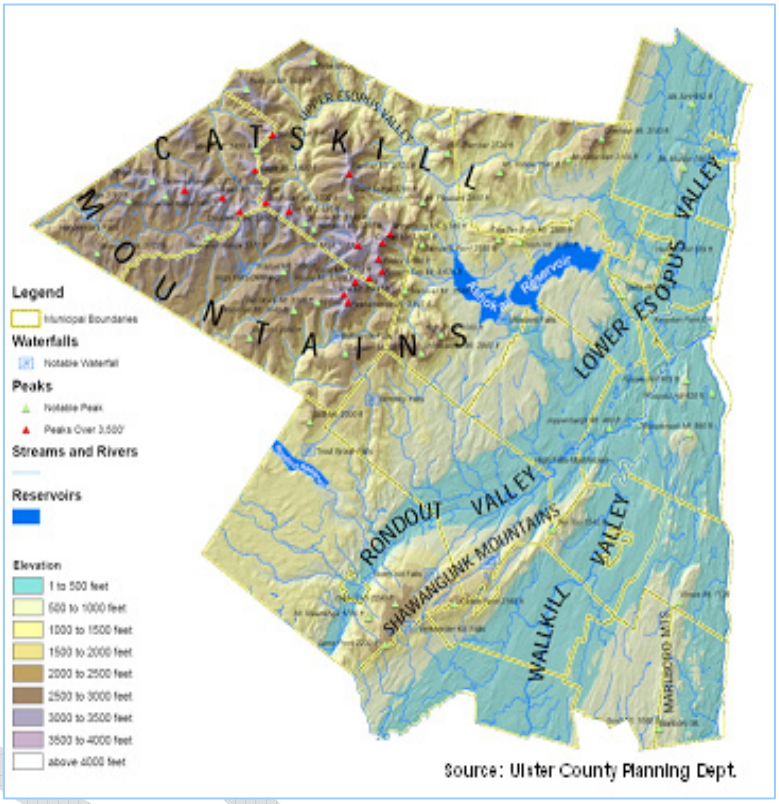
SECTION 2.3 ADJACENT WATERSHEDS

The Rondout Creek watershed in the Rondout Valley roughly parallels the Lower Esopus Valley, which is to the northeast, as they both flow northward towards the Hudson River, passing through many of the same towns. The Rondout Creek flows on the eastern and southern portions of Marbletown, (almost all of Rosendale), and the Town of Ulster, and the City of Kingston. The Esopus Creek flows to the west and north of the elevated limestone ridge that shaped the Esopus Valley and gave many of the early settlements a high place to grow and expand. *(A full description of both the Upper and Lower Esopus watersheds and the Ashokan Reservoir, which separates them -- as the Rondout Reservoir does the Upper and Lower Rondout -- is attached as Appendix H.)* The Wallkill Valley and its watershed are to the southeast of the Rondout and flow into it at Creek Locks. Glacial activity in these adjoining watersheds repeatedly covered and melted, scraped and deposited the land forms and soils and outwash that defined the valley forms and their composition.



New York City Water Supply System:

Another a major adjacent watershed is the Catskill/Delaware Watershed, which is New York City's West-of-Hudson water supply. A smaller source in Westchester and Putnam counties is the East-of-Hudson Croton Watershed. The Catskill system was built in 1927, the Delaware portion of the system in 1967, and the Croton system in 1842. East of the Hudson River, the "Cat-Del" system as it has come to be called is comprised of a series of reservoirs. The Ashokan is the major reservoir of the Catskill system. The Delaware system, consisting of the Cannonsville, Pepacton and Neversink reservoirs, is connected to the Rondout Reservoir in the Hudson watershed by

aqueducts, which represent a major inter-basin transfer of water across watershed boundaries. This transfer is under the jurisdiction of the Delaware River Basin Commission. The Cat-Del system has 580 billion gallon storage capacity. Both the Catskill/Delaware and the Croton systems are connected by aqueducts to the greater New York City metropolitan area. Together theses systems deliver approximately 1.4 billion gallons of high-quality water each day to nearly nine million people in New York City and Westchester, Orange, Putnam and Ulster counties,

In addition to assuring water quality these areas provide important fish and wildlife habitat, open space preservation, and recreational opportunities. The New York City Department of Environmental Protection has carefully protected these major drinking water supplies by promulgating strict regulations and entering into related Memoranda of Understanding (MOUs) with municipalities which are located in these drainage basin and those through which the aqueducts run. To assure watershed protection in agricultural areas of these watersheds, the NYC DEP has worked with the Watershed Agricultural Council to implement Whole Farm Planning projects in which farmers participate in the design, installation and management of a variety of systems on their own farms that protect water resources, especially these critical reservoirs. Technical assistance and funding provided by New York City, NY State and related agencies.

Ecosystems Protection Pays Off

In the 1990's as development pressures increased in the area, the Catskill-Delaware System was threatened with increasing pollution due to construction, agricultural runoff and other activities. The City was faced with an important decision: whether to build an artificial filtering system at a cost of approximately $6-$8 billion or to invest $1 billion in sustainable development practices which would restore the Catskills' natural filtering purification capacity. Choosing to protect ecosystems and the services they provide they convened a multi-stakeholder process to encourage Whole Farm Planning, pass of Well Testing and Aquifer Protection laws, upgraded sewage treatment plants to tertiary treatment and implemented other watershed protection measures. In 1997, EPA issued a five-year Filtration Avoidance Determination, which ultimately saved City taxpayers $5 to $7 billion in construction costs and actually increased property values in these rural areas. (Penn State College of Ag Sciences, Coop Extension & Center for Biodiversity Research, Environmental Resources Research Inst., *Biodiversity: Our Living World: Your Life Depends On It!,* Penn State U: University Park, PA 2001, p. 7.)

Under the Surface Water Treatment Rule, New York City is required to filter water from the Croton system, which provides 10 to 15 percent of the City's water, however, many of the protections developed for the Cat-Del system also apply in the Croton watershed. *(EPA)*