

SECTION 2.2 LOWER NON-TIDAL (LNT) RONDOUT CREEK WATERSHED

Watershed General Description

The Rondout Creek is a tributary of the Hudson River in Ulster and Sullivan counties of New York State. It arises on Rocky Mountain in the eastern Catskills, flows south into New York City's Rondout Reservoir, then into the valley between the Catskills and the Shawangunk Ridge, where it goes over the spectacular High Falls and finally empties out into the Hudson at Kingston, receiving the Wallkill River along the way.

The lower, non-tidal portion of the Rondout, which is the focus of this management plan, begins below the Rondout Reservoir and includes the confluence with the Wallkill River in Creek Locks upstream of the Eddyville Dam. The mainstem of the LNT Rondout Creek is approximately _____ miles long and, with its tributaries, is part of a 383 sq. mi. drainage basin. This includes major portions of the towns of Wawarsing, Rochester, Marbletown, and Rosendale. Thirty-eight tributaries flow into the lower non-tidal portions of the creek (*Appendix F: Table 3.1 Tributaries to Rondout Creek*). The creek in this section has ___dams and is channelized for approximately ___miles.

The name of the Rondout Creek comes from the fort, or redoubt, that was erected near its mouth. The Dutch equivalent of the English word redoubt (meaning a fort or stronghold), is reduyt. In the Dutch records of Wildwyck, however, the spelling used to designate this same fort is invariably Ronduyt during the earliest period, with the present form Rondout appearing as early as November 22, 1666. ^[3 cite]

The Rondout Creek became economically important in the 19th century when the Delaware and Hudson Canal followed closely alongside it from Napanoch to the village of Rondout, now part of the City of Kingston, which grew rapidly as the canal's northern port. Today it is important not only for the Rondout reservoir, which provides drinking water to nine million people in the greater New York City metropolitan area, but also for the fishing and other recreational opportunities it provides.

Including the contribution from the Wallkill, the Rondout drains a vast area stretching over 1,100 square miles (2,850 km²) all the way down to Sussex County, New Jersey. The high mountains around its upper course and the reservoir, which collects water from three others, also add to it flow.

The Rondout goes through several different stages due to the changes in surrounding geography and past development, such as the canal and reservoir that has drawn on its waters. Its headwaters, above the reservoir, are typical of a mountain stream. Below the reservoir the streambed remains fairly rocky but widens into the floor of a narrow valley. At Napanoch, where it turns northeast and receives its first significant tributary, the Ver Nooy Kill, it becomes wider, as does the valley it drains, and deeper.

North of the Shawangunks, where the Wallkill trickles down from Sturgeon Pool, it is wide enough to be referred to as the Rondout River. At Creek Locks, the former northern outlet of the Delaware Hudson canal, it becomes wide and deep enough to be navigable, and several marinas

line the banks of the tidal Rondout, now more than a hundred feet (30 m) wide, at Kingston just before its mouth.

Delineation of the LNT Rondout Creek

The concept of a watershed is basic to all hydrologic designs. Since large watersheds are made up of many smaller watersheds, it is necessary to define the watershed in terms of a point, which is referred to as the watershed “outlet”. With respect to the outlet, the watershed consists of all land area that “sheds” water to the outlet during a rainstorm. Using the concept that “water runs downhill,” a watershed is defined by all points enclosed within an area from which rain falling on these points will contribute water to the outlet.

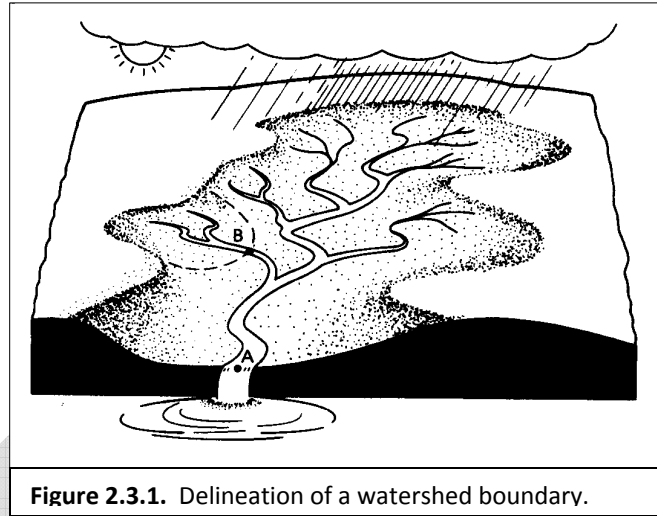
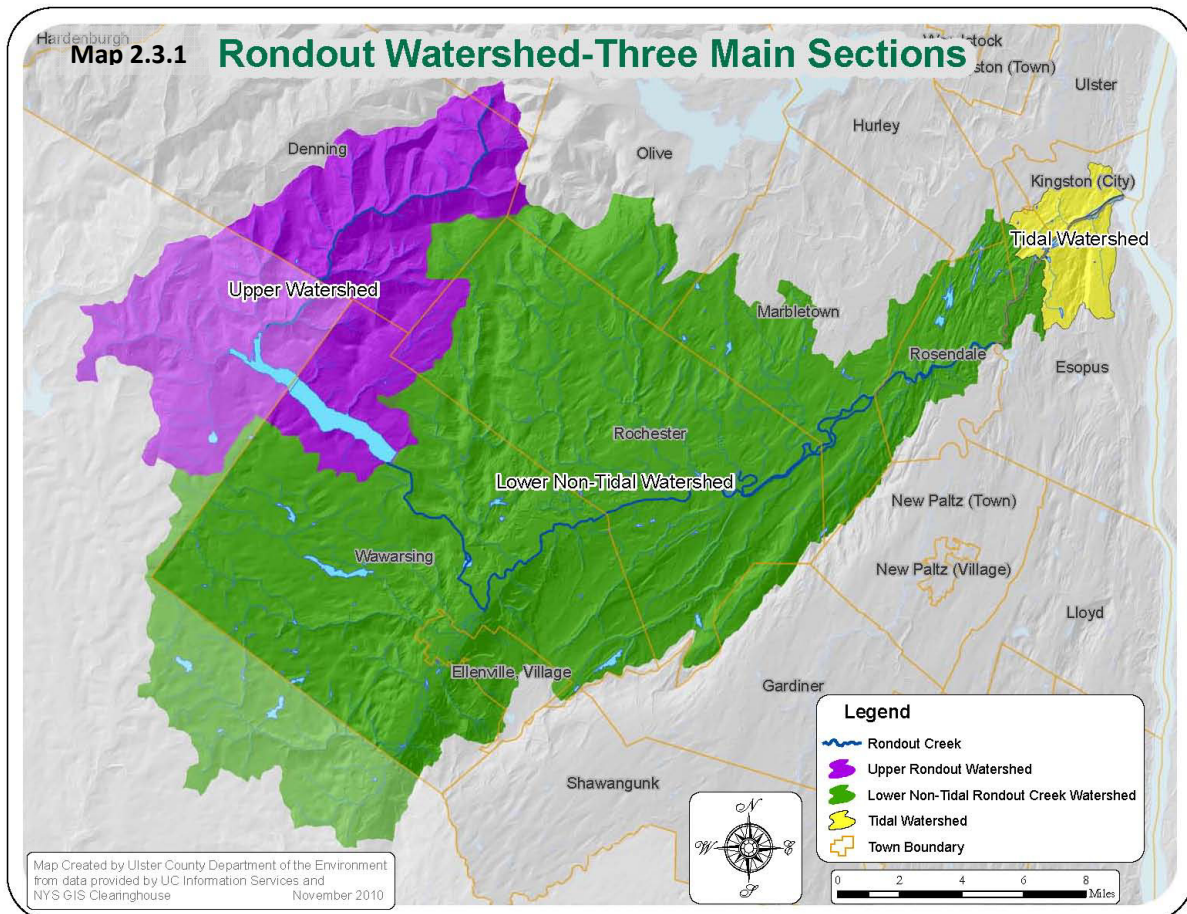
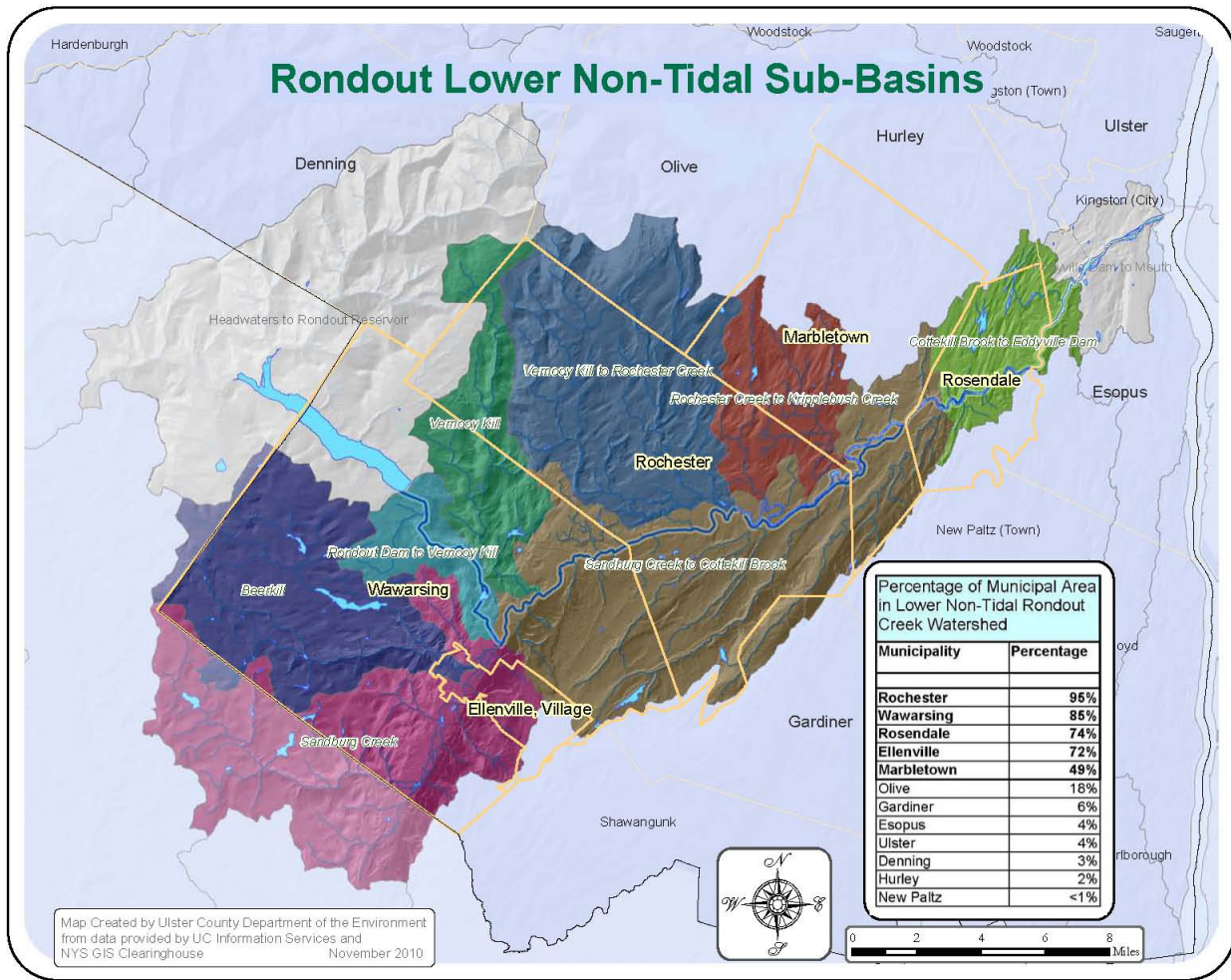


Figure 2.3.1. Delineation of a watershed boundary.

The Lower Non-Tidal Rondout, which is the focus of this document, is located between the Upper Rondout, for which a management plan has been developed by New York City Department of Environmental Protection (*Appendix G – Upper Rondout Watershed Management Plan*), and the Tidal portion which includes about half of the City of Kingston and portions of the Town of Esopus and the Town of Ulster.



Map Created by Ulster County Department of the Environment from data provided by UC Information Services and NYS GIS Clearinghouse November 2010

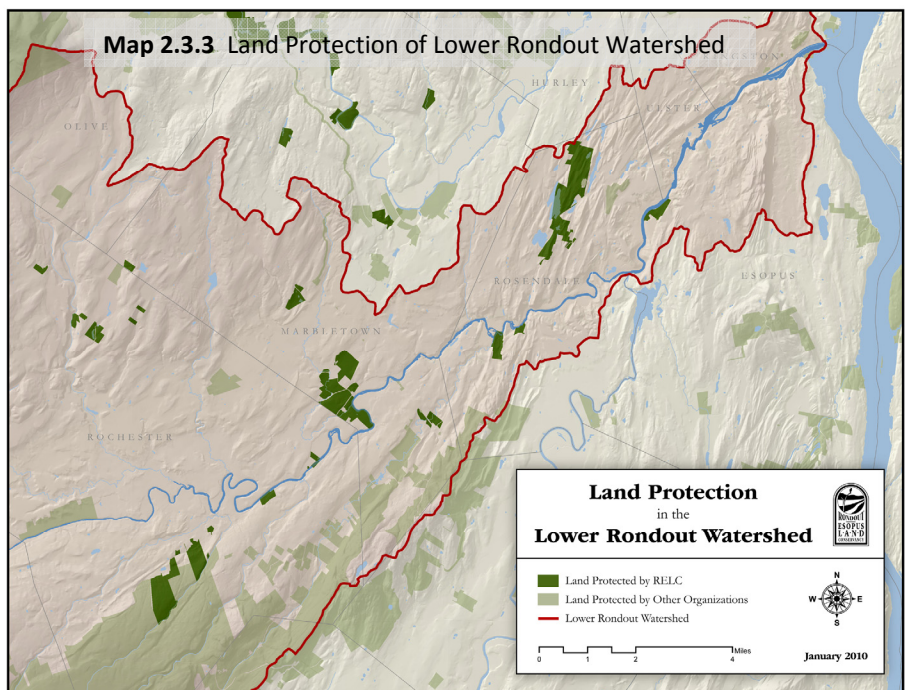


Map 2.3.2 Smaller Sub-Basins of Lower Non-Tidal Rondout Creek Watershed

Approximately 95% of the Town of Rochester is in the LNT Rondout Creek Watershed, 85% of Wawarsing (including 72% of Ellenville), 74% of Rosendale and 49% of Marbletown; in addition to smaller parts of Olive (18%), Gardiner (8%), Esopus (4%), Denning (3%), Hurley (2%) and <1% of New Paltz. In addition, the LNT section of the Rondout includes parts of Fallsburg and Mamakating in Sullivan County.

Land Use in the LNT Rondout Creek

Open space preservation is often the first line of defense and the most effective strategy for protecting water resources. The responsibility for protecting large or significant portions of the watershed is often assumed by or designated to area land



Map 2.3.3 Land Protection of Lower Rondout Watershed

Land Protection
in the
Lower Rondout Watershed

- Land Protected by RELC
- Land Protected by Other Organizations
- Lower Rondout Watershed

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trusts, of which the Rondout Esopus Land Trust (RELT) is an important organization in this watershed. Map 2.3.3 shows the lands protected by RELT (in dark green), and those protected by other organizations (in lighter green), extending all the way out to the Hudson River and includes the tidal portion of the Rondout Creek Watershed. Note the large amount of protected lands along the Shawangunk Ridge, much of which is protected by Mohonk Preserve and the Nature Conservancy (*check this*).

This area, along with the farms in along the Route 209 corridor, create a very scenic byway. Area land trusts and related organizations have partnered with local municipalities to form the Shawangunk Mountains Scenic Byway Regional Partnership (www.mtnscenicbyway.org) to preserve the region's beauty.



Fig. 2.3.3 Scenic view of Shawangunk Ridge from the Rondout Valley.

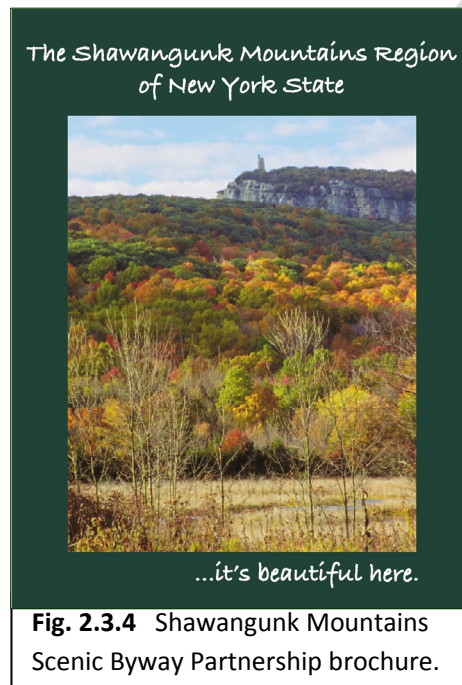


Fig. 2.3.4 Shawangunk Mountains Scenic Byway Partnership brochure.

During the six years of planning the byway, nine towns and two villages came to realize that they have a lot in common and to appreciate the synergy that can be achieved by working together so they formed an intermunicipal partnership to implement a corridor management plan, to help improve transportation systems, and to advance their mutual goals of advancing economic growth through tourism, while helping to preserve the important resources of this region. The Shawangunk Mountains Regional Partnership includes the towns of Crawford, Gardiner, Marbletown, Montgomery, New Paltz, Rochester, Rosendale, Shawangunk, Wawarsing and the villages of Ellenville and New Paltz and is the management organization for the Shawangunk Mountain Scenic Byway with Al Wegener as its Executive Director.

By joining this partnership the towns participated in an intermunicipal agreement (IMA), forerunner to the one signed by the four central Rondout municipalities for watershed protection.