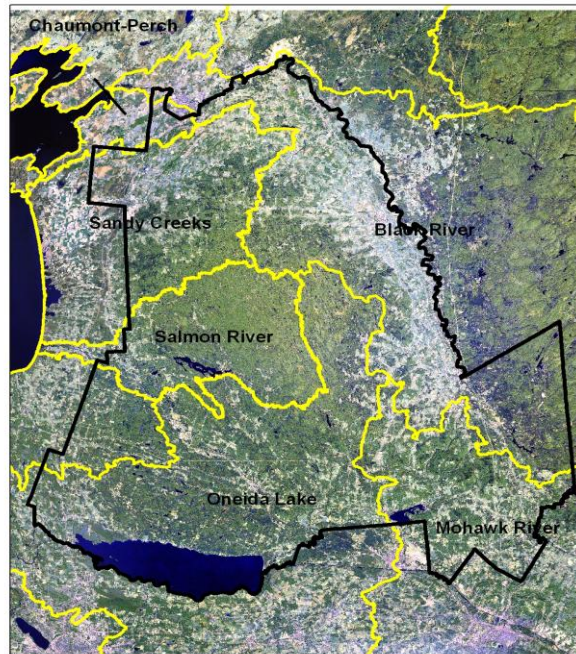


TUG HILL NATURAL RESOURCES FACT SHEET

1) Headwaters

Tug Hill contains the headwaters to five major watersheds (Oneida, Black, Salmon, Mohawk, Eastern Lake Ontario/Sandy Creeks).



2) Contiguous Forest

Tug Hill is the third most contiguous forested region in New York State, after the Adirondacks and Catskills.

3) Working Forest

<http://www.dec.ny.gov/outdoor/7993.html>

The largest NYS Department of Environmental Conservation working forest conservation easement purchased outside of the Adirondack Forest Preserve is the East Branch of Fish Creek. By law, the state is required to pay its portion of taxes on conservation easements it holds on Tug Hill.

4) Water Supply

<http://www.romenewyork.com/organization.asp?orgid=35>

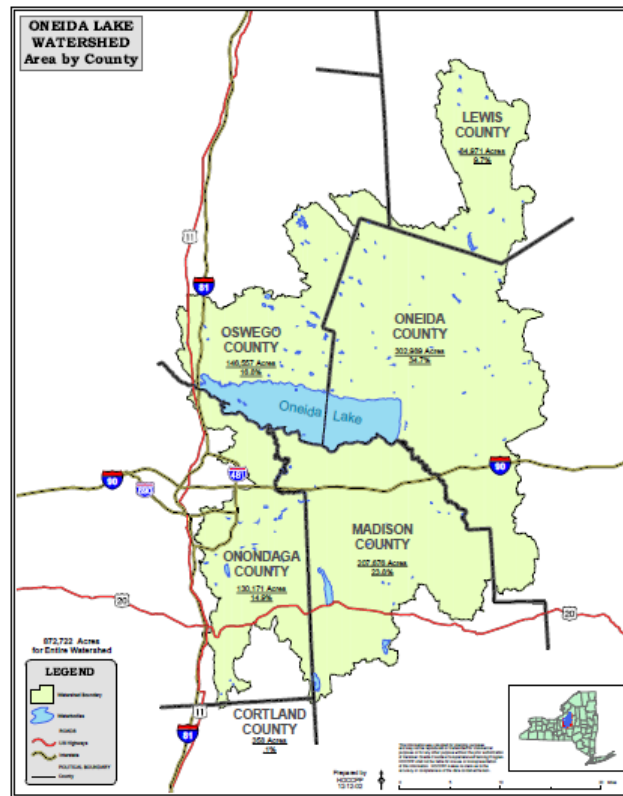
<http://www.ci.oneida.ny.us/Departments/water/water.html>

The East Branch of Fish Creek headwaters supply the drinking water to the City of Rome. The City of Oneida also receives drinking water from the Tug Hill region. Its water source is the Glenmore Reservoir on Florence Creek, which is located twenty miles north of the City in the Town of Annsville, Oneida County. The dam impounds water from a 13.8 square mile watershed on the edge of the Tug Hill Plateau. The watershed is mainly forestlands with approximately half being State Reforestation. The 378-foot long and 45-foot high dam, constructed in 1926 in this rural location, provides water storage to buffer seasonal water demands as well as dry weather supply. The reservoir holds 320 million gallons of water. In all, nearly 21,000 people consume over 834,000,000 gallons of water annually produced by the City of Oneida Water Treatment Plant, whose source is on Tug Hill.

5) Oneida Lake

(<http://www.cnyrpdb.org/oneidalake/>)

Oneida Lake is the largest lake (in surface area) wholly within New York State, with nearly 50% of the watershed's area in the Tug Hill region. Additionally, 44% of its surface water inflow comes from Fish Creek, which is the least nutrient laden source of water to Oneida Lake and is critical to the lake's nutrient balance and high quality largemouth bass habitat.



6) Tug Hill Aquifer

(<http://www.epa.gov/region2/water/aquifer/tughill/support.htm>)

The Tug Hill Aquifer is a 47-mile long, 103 mi² aquifer system that extends from southern Jefferson County, through Oswego County and into Oneida County, and is the source of drinking water for eleven municipalities, as well as the source for private wells serving residences, manufactured home parks, camp-grounds, and other facilities. Water from the aquifer is also used for manufacturing, the dairy processing industry, agriculture, and the NYS Department of Environmental Conservation (NYSDEC) Fish Hatchery in Altmar. Several streams that are hydraulically connected to ground water in the central part of the aquifer are critical fish habitat for salmon and trout, and help support a significant recreational fishing economy.

Critical issues facing the aquifer are impacts from withdrawal and significant development pressure. The northern portion of the aquifer has been designated as a federal Sole Source Aquifer by the US Environmental Protection Agency, where it is the sole or principal source of drinking water for the Hamlet of Adams Center, Hamlet of Pierrepont Manor, Village of Adams, Village of Lacona, Village of Mannsville, and Village of Sandy Creek. Several large changes in withdrawal rates from the aquifer have occurred or have been proposed, including cessation of pumping of a well field for a paper company, purchase of those wells for expanded municipal water systems, a proposed water bottling operation, and declining yields from an aging well field at the state fish hatchery. There are concerns about increased long-term development over the aquifer. Local and state governments, commercial, farming, and individual water users need information to understand what effects these activities may have on the aquifer and how to sustain this resource in support of future growth and economic development.

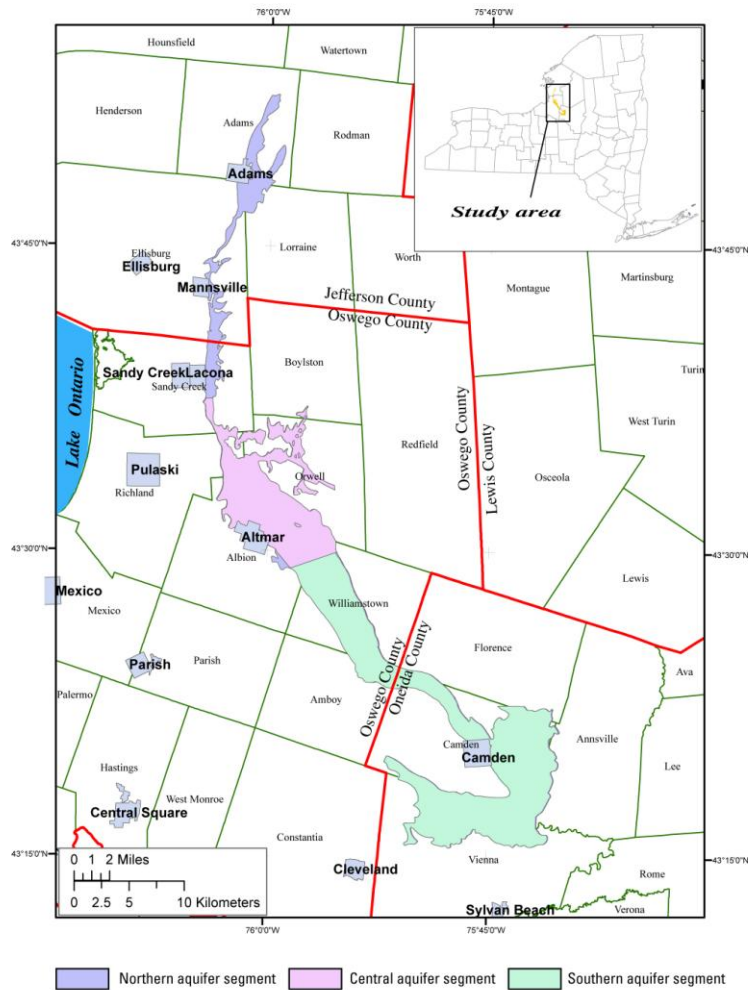


Figure 1. Location of the Tug Hill glacial aquifer proposed study area, and northern, central and southern, aquifer segments.

7) 2009 NYS Open Space Plan – Joint Regions 6 & 7 Priority Conservation Project

(<http://www.dec.ny.gov/lands/47990.html>)

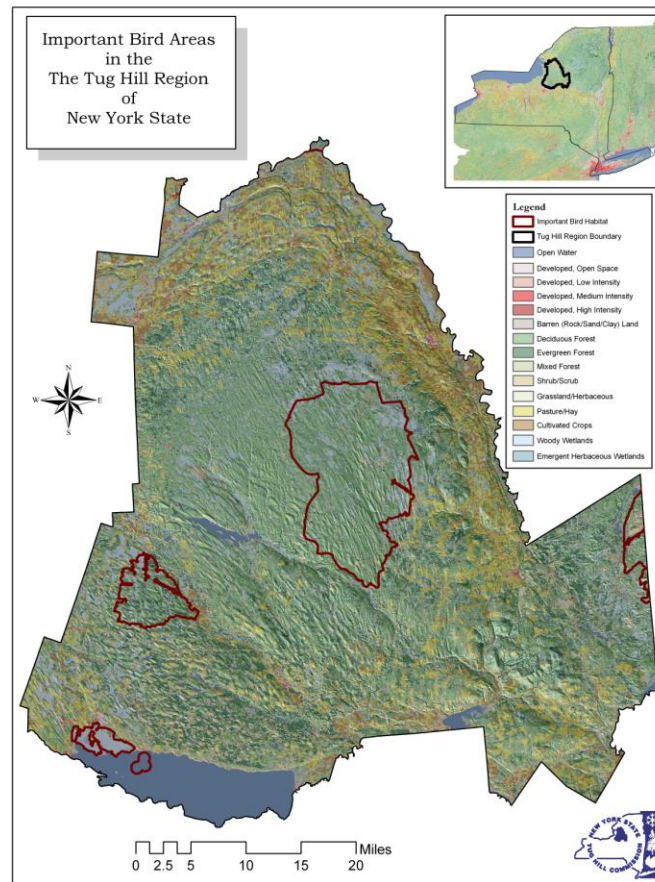
“TUG HILL CORE FORESTS & HEADWATER STREAMS {88} - The Tug Hill Plateau is a large, undeveloped forested area that serves as the headwaters for several major water courses. These headwaters make a significant contribution to high quality drinking water supplies and the Tug Hill Aquifer as well as wildlife habitat. Major river systems that originate on the Plateau are the Mohawk River, Deer River, Salmon River, East Branch of Fish Creek, Fish Creek, Sandy Creek, and the Mad River to the north of the Salmon River Reservoir. The integrity of these core forests and headwaters should be protected through a combination of easement and fee acquisition of key parcels. Of particular importance is the maintenance of large private tracts managed for forest products to prevent subdivision and development. These forest tracts support a major regional forest products industry, provide important habitat for wide ranging and migratory species, and offer a wide range of outdoor recreational opportunities.”

Additionally, Region 6 projects INMAN GULF {77}, FORT DRUM CONSERVATION PARTNERSHIP PROJECT {75}, BLACK RIVER VALLEY CORRIDOR (formerly Black River Corridor) {74} and Region 7 project SALMON RIVER CORRIDOR {100} are located at least partially within the Tug Hill Region.

8) Audubon Important Bird Area

(<http://iba.audubon.org/iba/viewSiteProfile.do?siteId=2812&navSite=state>)

This site supports a number of characteristic forest breeders, including the Ruffed Grouse, Black-billed Cuckoo, Yellow-bellied Sapsucker, Eastern Wood-Pewee, Least Flycatcher, Great Crested Flycatcher, Blue-headed Vireo, Veery, Bicknell's Thrush, Wood Thrush, Northern Parula, Chestnut-sided Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Blackburnian Warbler, Black-and-white Warbler, American Redstart, Ovenbird, Canada Warbler, Scarlet Tanager, Rose-breasted Grosbeak, and Purple Finch. At-risk species that have been documented at the site in recent years include the American Black Duck, American Bittern, Sharp-shinned Hawk, Northern Goshawk, American Woodcock, Wood Thrush, and Canada Warbler. Bald Eagles have historically bred at this site.



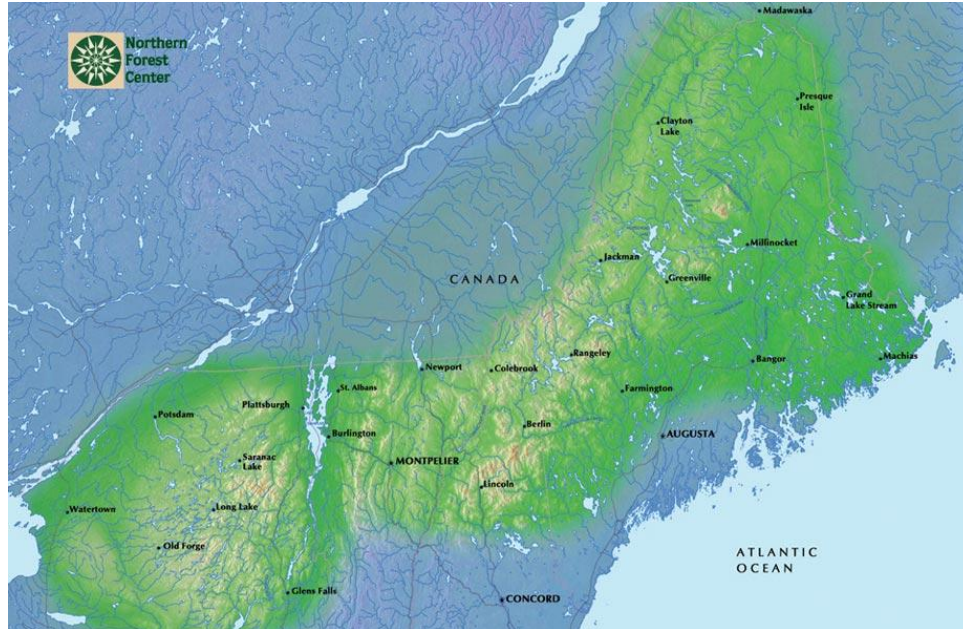
9) The Nature Conservancy's Tug Hill Conservation Area

(<http://www.nature.org/wherewework/northamerica/states/newyork/preserves/art11834.html>)

The Nature Conservancy has a 15,000 acre reserve on Tug Hill, with the goal for this core reserve to see it restored to mature forest, a successional stage that is virtually absent on Tug Hill. TNC has also made this reserve off-limits to motorized vehicles. It is the largest privately owned conservation area in the state.

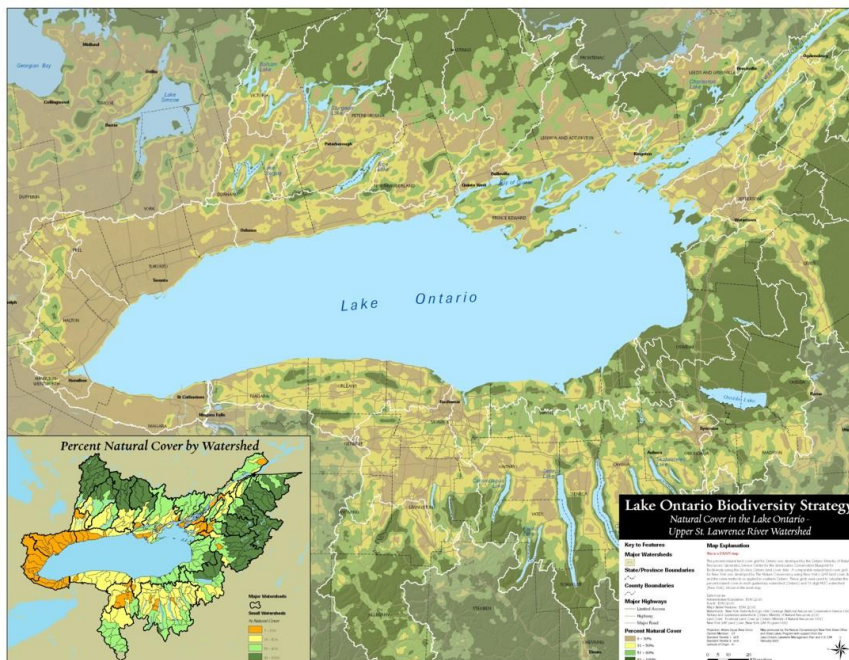
10) Northern Forest

Tug Hill is the western-most area in the four state Northern Forest region. All four Tug Hill counties fall within the Northern Border Regional Commission area (<http://www.nado.org/legaffair/nbfact.pdf>).



11) Great Lakes/Lake Ontario

Snowmelt accounts for a significant amount of spring runoff into Lake Ontario. Note Tug Hill is the last green oasis in the area directly surrounding Lake Ontario.



12) Tug Hill Tomorrow Land Trust

(www.tughilltomorrowlandtrust.org)

Tug Hill Tomorrow Land Trust is a regional, private, nonprofit organization founded in 1990 by a group of Tug Hill residents as an outcome of Tug Hill Commission forums held at the time. It was incorporated as an independent, nonprofit 501(c)3 organization in 1991, for the purposes of helping increase awareness and appreciation of the Tug Hill region through education efforts, field trips, and special events; and to help retain the forest, farm, recreation and wild lands of the region through voluntary, private land protection efforts.

The Commission and THTLT continue to have a strong working relationship, collaborating on numerous projects, grant applications, and mapping initiatives.

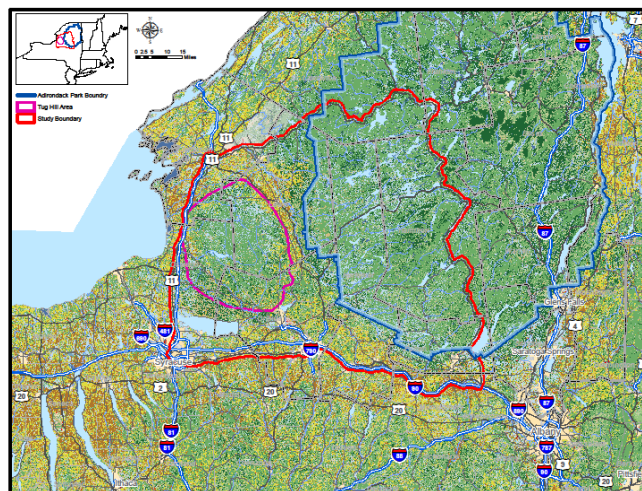
13) Wildlife Connectivity

Maintaining connections between large forested areas like Tug Hill and the Adirondacks is critical for many wildlife species that require large ranges for survival. The Adirondack-Tug Hill Habitat Connectivity Project is a collaborative undertaking by Tug Hill Tomorrow Land Trust, Adirondack Nature Conservancy, Wildlife Conservation Society, Tug Hill Commission and others to identify areas of the Black River valley that seem optimum for wildlife movement between the two regions. Over the past three years, current knowledge of wildlife needs, computer modeling and on-the-ground data have been used to identify areas of special interest regarding wildlife movement.

Two priority areas have been identified through the work so far, one of which is the mostly forest and farm area in Northern Oneida County. Implementation of some measures has begun in that southern linkage (the towns of Ava, Boonville, Forestport, Remsen, Steuben, Trenton, and Western) to maintain and improve the landscape for wildlife habitat.

Implementation involves three primary approaches: working with towns on local land use planning; partnering with state, county, and town transportation/highway departments on ways to make roads easier for wildlife to cross; and engaging interested private landowners in land protection efforts. The towns of Trenton, Forestport, and Boonville have each completed or almost completed comprehensive plans that incorporate the concept of “wildlife connectivity” in their language. The towns of Ava, Steuben and Western are working through some mapping exercises to identify important areas in their towns in anticipation of working on comprehensive plans over the next several years.

NYS Department of Transportation has been involved in considering options on State Route 12 for low-cost wildlife barrier mitigation that can be incorporated in regularly scheduled maintenance. Field work will take place this winter to identify animal movement across key road segments to refine implementation plans. Future work will focus on partnering with local highway departments to inventory potential areas that could benefit in similar ways. Additionally, conservation organizations are working with several willing landowners on either conservation easements or land purchase to protect important wildlife habitat areas.



Tug Hill Plateau to Adirondacks

14) Tug Hill Reserve Act

(<http://www.tughillcouncil.com/PATH.htm>)

Established in 1992, the Act gives authorities to Tug Hill Councils of Governments, with their member municipalities, to designate “Special Areas” identified in their municipalities. These designations then require that actions of governmental agencies, boards, commissions and authorities in proposing development or in the review of proposed development shall be consistent with maintaining the rural character of Tug Hill.

15) Green Energy

Wind (<http://www.horizonwind.com/projects/whatwevedone/mapleridge/>)

Tug Hill is home to the largest wind farm east of the Mississippi River. Fully operational as of January 2006, the Maple Ridge Wind Farm comprises includes 195 wind towers; collectively, the turbines are capable of producing a maximum of 320 MW, which accounts for three quarters of the wind power capacity of New York.

Hydropower (<http://www.brookfieldpower.com/>)

Tug Hill is also home to a number hydro-electric power plants, primarily on the Black and Salmon Rivers. Brookfield Power operates many of these projects.

Biomass (<http://www.catalystrc.com/projects.html>)

Lyonsdale Biomass, owned and operated by Catalyst Renewables, is a wood-fired, combined heat and power (CHP) facility in the township of Lyonsdale, Lewis County, New York. This 19-megawatt facility produces electricity for delivery to the New York Independent System Operator and several thousand pounds per hour average steam flow to Burrows Paper Corporation.

16) Scenic Byways

One hundred forty two (142) miles of five federally recognized New York State Scenic Byways – Black River Scenic Byway, Olympic Byway, Maple Traditions Scenic Byway (soon to be approved), Central Adirondack Trail, and Revolutionary Trail.

