

# The Nature Conservancy

Protecting nature. Preserving life.™



## Tug Hill LEED Reporting Documentation

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# 1. Ecological Significance

The 150,000-acre Central Tug Hill Forest is one of the three largest intact forests in New York State. Thanks to its high level of precipitation—most of which falls as snow—and its relatively poor soils, Tug Hill is comprised of largely undeveloped northern hardwood forests, extensive wetlands, and the headwaters of 4,000 miles of rivers and streams. Within the borders of the central forest, seven different rare plant species, four rare animal species and 14 different natural communities can be found.

An intact forest of this size provides habitat for wide-ranging mammals, such as bobcat and black bear, and interior forest species such as blackburnian warblers and goshawks. By preserving it, we will also protect the water quality of the 4,000 miles of rivers and streams that flow off Tug Hill.

The principal forest type on Tug Hill is hemlock-northern hardwood forest, which is comprised primarily of beech, sugar maple, red maple, yellow birch, and hemlock. Red spruce and balsam fir are also prevalent. The Tug Hill forest is generously interspersed with wetlands, as the region's location immediately downwind of Lake Ontario results in considerable precipitation. Tug Hill receives more than 50" of precipitation a year, nearly one-third more than other areas of New York State.

For more than a century, forestry has been the main industry of this area. Timber was intensively harvested, often unsustainably, by a variety of landowners. Forest fragmentation affects species that need continuous habitat. Atmospheric deposition – including acid rain – could be impacting the region, too; it alters soil composition, stresses tree health, and impairs water quality in the Tug Hill's lakes and streams.

# 2. Land Protection and Stewardship

To date, The Nature Conservancy has directly protected more than 45,000 acres of sensitive lands that are being restored to mature forests and managed for public recreation and sustainable timber production. The Conservancy also has established scientific monitoring programs that will measure the health of the Tug Hill forest.

Over the past 24 months land protection has focused on the purchase of the Shed Antler parcel. This 514 acre parcel falls within an area identified for conservation as matrix forest in the Northern Appalachian eco-regional plan. It includes over one mile of frontage on both sides of Six Mile Creek, a tributary of the East Branch of Fish Creek. This area is critically important as it is the source of drinking water for the City of Rome, New York. Specific species that have been noted on this property include orchids, the red spotted newt, black bears, sugar maple, and spruce fir stands.

Stewarding this property has included an environmental review and eco-monitoring. Since the property was logged extensively, it is prime for restoration work including re-contouring logging

roads to allow for greater connectivity of native species. Fortunately, no invasive plants have been found on the property. Part of our stewardship plan includes monitoring the land to implement our early detection/rapid response protocols to ensure the parcel remains in its current pristine condition.

We have been under contract for the purchase of this property since March 14, 2012 and anticipate closing on the property in the early fall of 2012.

### 3. Native Species being protected

**Plant Species:** Tug Hill is a dense forest filled with red spruce, sugar maple, yellow birch, balsam fir and American beech, among others. The rare Brown bog sedge, Weigand's sedge, wild sweet William, and both auricled and broad-lipped twayblade can also be found here.

**Animal Species:** The large area provides habitat for black bear, bobcats, fishers, and white-tailed deer. Many types of birds, such as wood thrushes, great blue herons, ducks, and neo-tropical songbirds, live here. Tug Hill's streams are home to brook trout and eastern pearlshell mussels.

A sampling of species by community type include:

#### **Trees and Shrubs**

Speckled Alder	Apple	Arbor Vitea
Arrowwood	White Ash	Bigtooth Aspen
American Basswood	Red osier Dogwood	Common Elderberry
Highbush Blueberry	American Beech	Eastern Red Cedar
Shagbark Hickory	Highbush Cranberry	Cottonwood

#### **Herbaceous Plants**

Bee Balm	Birdseye Primrose	Blue Flag
Bull-Thistle	Burdock	Jack-in-the-pulpit
St. Johns-wort	Canada Lilly	Pitcher Plant
Sheep Sorrel	Wild Oat	Cinnamon Fern

#### **Mosses and Ferns**

Brook Moss	Sphagnum Moss	Pin Cushion Moss
Clubmoss	Hay-scented Fern	Lady Fern
Rough Horsetail	Snake Liverwort	Ribbed Bog Moss

#### **Mammals**

Big Brown Bat	Ermine	White-Tail Deer
Fisher	Snowshoe Hare	Masked shrew
Southern Flying Squirrel	Meadow vole	Woodchuck
Lynx	Moose	Bobcat

### **Birds**

American Bittern  
Bufflehead  
Glossy Ibis  
American Kestrel

Eastern Bluebird  
Northern Flicker  
Green Heron  
Belted Kingfisher

Bobolink  
Northern Goshawk  
Blue Heron  
Black-billed Cuckoo

### **Amphibians and Reptiles**

Mink Frog  
Four-toed Salamander  
Gray Treefrog

Northern Leopard Frog  
Red-spotted Newt  
Bog Turtle

Spring Peeper  
Northern Water Snake  
Eastern Painted Turtle

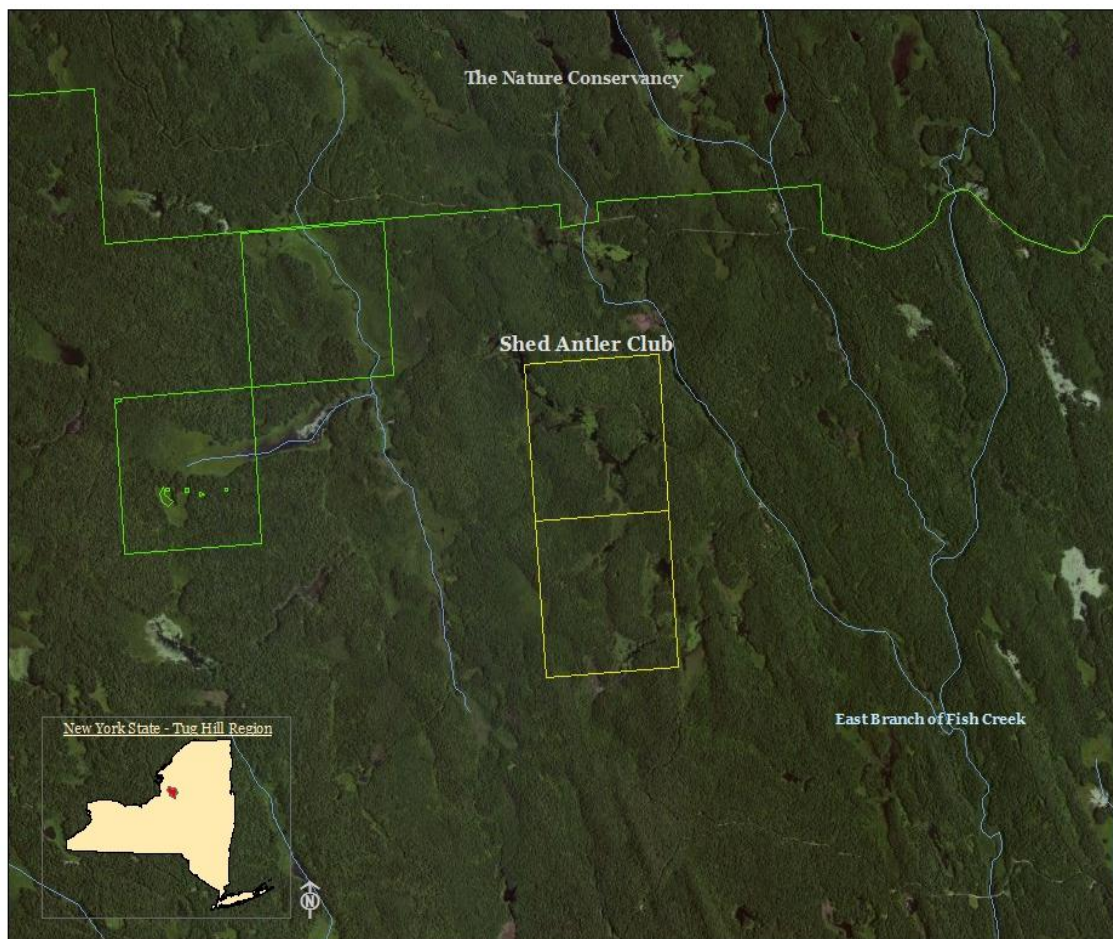
### **Insects**

Mantids  
Cicadas  
Grasshopper

Katydid  
Spittlebugs  
Walking Sticks

Backswimmers  
Damselfly  
Hummingbird Moth

## 4. Map of Land Protected



## 6. Photo of Land Protected

