

APPENDIX I

Information on roads within or adjacent to the Chenango Trail State Forests

Forest	Road Name	Type	Miles	Description
B/C-1	Chenango County section of Glendenning Road	Town - Abandoned	0.73	Good condition. Year-round maintenance to forest boundary.
	Broome County section of Glendenning Road	Town - Abandoned	1.23	Poor condition south of Spur Road - No motor vehicle use.
	Lippa Road	Town	0.26	Good condition - Year-round maint.
	Davey Road	Town	0.35	Good condition - Year-round maint.
	Glendenning Spur Road	Town - Abandoned	0.31	Poor condition - No motor vehicle use.
Ch-10	Bobell Road	Town	1.30	Good condition - Year-round maint.
	Wylie-Horton Rd.	Town	1.50	Good condition - Year-round maint.
	Cueball Road	Town	0.73	Good condition - Year-round maint.
	Seymour Hill Road	Town	0.28	Good condition - Year-round maint.
	Palmiter Road	Town	0.38	Good condition - Year-round maint.
	Access Road off Palmiter Road	DEC	0.24	Entrance blocked - Not intended for public motor vehicle use.
	Bowbell Rd - south of Seymour Hill Rd	Town - Abandoned	0.19	Poor condition - no motor vehicle use.
	Schaeffer Road (to Osmond property)	DEC - Private	0.39	Entrance gated - Not intended for public motor vehicle use.
Ch-13	Stumptown Road	Town	0.39	Good condition - Year-round maint.
	Stumptown Rd. Ext.	Town - Abandoned	0.50	No public access - No motor vehicle use.
	Elm Drive	Town	0.07	Good condition - Year-round maint.

Forest	Road Name	Type	Miles	Description
Ch-27	Brown Spur Road	Town	0.17	Road section adjacent to forest can not be traveled.
	North Road	Town	1.13	Good condition - Year-round maint.
	Harvey Road	Town	0.54	Good condition - Year-round maint.
	Owlville Road	Town	0.54	Good condition - Year-round maint.
	Stiles Road	Town	0.48	Good condition - Year-round maint.
	“Owlville Rd-to-pond access”	DEC	0.12	Poor condition - entrance blocked.
	“Owlville Rd -to-private land”	DEC	0.39	Entrance gated - Not intended for public motor vehicle use.
Ch-30	Bobell Road	Town	1.00	Good condition - Year-round maint.
	Page Brook Road	Town	0.86	Good condition - Year-round maint.
Ch-33	Sprague Road	Town	0.81	Good condition - Year-round maint.
	Tracy Road	Town	0.27	Good condition - Year-round maint.
	Buckley Hill Road	Town	0.36	Good condition - Year-round maint.

APPENDIX II

Watercourses on the Unit

State Forest	Stream Identification	Common Name	Length (miles)	Standard
B/C-1	SR123-1	unnamed trib. to Wylie Brook	1.91	C
B/C-1	SR123-1-1	unnamed trib. to Wylie Brook	0.60	C
B/C-1	SR123-6	unnamed trib. to Wylie Brook	0.07	C
CH-10	SR123-1-2	unnamed trib. to Wylie Brook	0.49	C
CH-10	SR123-7-2	unnamed trib. to Wylie Brook	0.02	C
CH-10	SR123	Wylie Brook	0.18	Ct
CH-10	SR123-7-3-1	unnamed trib. to Wylie Brook	0.42	C
CH-10	SR123-8	unnamed trib. to Wylie Brook	0.85	C
CH-10	SR123-8-1	unnamed trib. to Wylie Brook	0.71	C
CH-10	SR123-no I.D.#	unnamed trib. to Wylie Brook	0.09	C
CH-10	SR44-11-8-2	unnamed trib. to Chalker Creek	0.02	C
CH-10	SR44-11-8	Chalker Creek	0.40	C
CH-10	SR44-11	Page Brook	0.39	C
CH-10	SR44-11-11-3	unnamed trib. to Page Brook	0.08	C
CH-13	SR138	Guthrie Brook	1.39	C
CH-13	SR138-1	unnamed trib. to Guthrie Brook	0.55	C
CH-13	SR138-2	unnamed trib. to Guthrie Brook	0.05	C
CH-13	SR138-1-1	unnamed trib. to Guthrie Brook	0.19	C
CH-27	SR44-37-3	unnamed trib. to Forrel Creek	0.05	Ct
CH-27	SR134-8-no I.D. #	unnamed trib. to Wilkins Brook	0.59	C
CH-27	SR44-37-4	unnamed trib. to Forrel Creek	0.25	C
CH-27	SR134-8-15	unnamed trib. to Wilkins Brook	0.09	C
CH-27	SR44-37	Forrel Creek	1.08	Ct

State Forest	Stream Identification	Common Name	Length (miles)	Standard
CH-27	SR44-32-8	unnamed trib. to Wheeler Brook	1.10	C
CH-27	SR44-37-no I.D.#	unnamed trib. to Forrel Creek	0.39	C
CH-27	SR134-8-14	unnamed trib. to Wilkins Brook	0.22	Ct
CH-27	SR44-32-8-3	unnamed trib. to Wheeler Brook	0.15	C
CH-30	SR44-11-14-2	unnamed trib. to Page Brook	0.30	C
CH-30	SR44-11-14-3	unnamed trib. to Page Brook	0.51	C
CH-30	SR44-11-15	unnamed trib. to Page Brook	0.08	C
CH-30	SR44-11-16	unnamed trib. to Page Brook	0.61	C
CH-30	SR44-11-16-no I.D. #	unnamed trib. to Page Brook	0.22	C
CH-30	SR44-11-14	unnamed trib. to Page Brook	0.45	C
CH-30	SR44-11	Page Brook	0.25	C
CH-30	SR44-11-14-1	unnamed trib. to Page Brook	0.34	C
CH-33	SR134-8-9-1	unnamed trib. to Wilkins Brook	0.54	C
CH-33	SR134-8-9	unnamed trib. to Wilkins Brook	0.70	C
CH-33	SR134-1-4	unnamed trib. to Bumps Creek	0.53	C

APPENDIX III

Classified Wetlands on the Unit

Forest	wetland I.D. code	Common name/ description	acres	legal status	coinciding stand #'s	NWI * classification
CH-27	WB-8		50	II	A-12	PFO4E
CH-27	WB-7		16	III	B-19	PSS1E
CH-27	B-5		2	III	B-43	PFO1/EM1E
		total	68			

(*) National Wetlands Inventory

APPENDIX IV

Code Definitions for Protective Status of Wildlife on the Chenango Trail Management Unit

The protective status of listed species is based on Federal and State regulations. Following column entries for common and scientific names, a “protective status” category for Federal and for New York State appears. The following definitions are adopted for the terms as used in The Checklist of Amphibians, Reptiles, Birds, and Mammals of New York State, Including their Protective Status.

Federal Definitions

- E -** Endangered Species are determined by the U. S. Department of the Interior to be in danger of extinction throughout all or a significant portion of their range. All such species are fully protected, including their habitat.
- T -** Threatened Species are determined by the U. S. Department of the Interior as likely to become endangered within the foreseeable future throughout all or a significant portion of their range. All such species are fully protected.
- UN -** “Unprotected” under Federal Law.

State Definitions

Protected Protected wildlife means "wild game, protected wild birds, and endangered species of wildlife" as defined in the Environmental Conservation Law.

- E** Endangered Species are determined by the DEC to be in imminent danger of extinction or extirpation in New York State, or are federally listed as endangered. All such species are fully protected under New York State Environmental Conservation Law.
- T** Threatened Species are determined by the DEC as likely to become endangered within the foreseeable future in New York State, or are Federally listed as threatened. All such species are fully protected under the New York State Environmental Conservation Law.
- SC** Special Concern Species are those native species that are not yet recognized as endangered or threatened, but for which documented evidence exists relating to their continued welfare in New York State. The Special Concern category exists within DEC rules and regulations, but such designation does not in itself provide any additional protection. However, Special Concern species may be protected under other laws.
- GS** Game species are defined as “big game”, “small game”, or “game bird” species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.
- UN** Unprotected means that the species may be taken at any time without limit. However, a license to take may be required.

APPENDIX V

Breeding Species Of Birds In The Vicinity Of The Chenango Trail Management Unit (2000 - 2004 Atlas Data)

COMMON NAME	SCIENTIFIC NAME	BREEDING CODE	PROTECTED-NEW YORK STATE
Canada Goose	<i>Branta canadensis</i>	Confirmed	Game Species
Wood Duck	<i>Aix sponsa</i>	Confirmed	Game Species
Mallard	<i>Anas platyrhynchos</i>	Confirmed	Game Species
Common Merganser	<i>Mergus merganser</i>	Possible	Game Species
Hooded Merganser	<i>Lophodytes cucullatus</i>	Possible	Game Species
Ruffed Grouse	<i>Bonasa umbellus</i>	Confirmed	Game Species
Wild Turkey	<i>Meleagris gallopavo</i>	Confirmed	Game Species
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Possible	Game Species
American Bittern	<i>Botaurus lentiginosus</i>	Confirmed	Protected-Special Concern
Great Blue Heron	<i>Ardea herodias</i>	Possible	Protected
Green Heron	<i>Butorides virescens</i>	Probable	Protected
Turkey Vulture	<i>Cathartes aura</i>	Possible	Protected
Osprey	<i>Pandion haliaetus</i>	Possible	Protected-Special Concern
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Possible	Threatened
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Confirmed	Protected-Special Concern
Cooper's Hawk	<i>Accipiter cooperii</i>	Possible	Protected-Special Concern
Northern Goshawk	<i>Accipiter gentilis</i>	Confirmed	Protected-Special Concern
Red-shouldered Hawk	<i>Buteo lineatus</i>	Confirmed	Protected-Special Concern
Broad-winged Hawk	<i>Buteo platypterus</i>	Probable	Protected
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Confirmed	Protected
American Kestrel	<i>Falco sparverius</i>	Confirmed	Protected
Virginia Rail	<i>Rallus limicola</i>	Probable	Game Species
Killdeer	<i>Charadrius vociferus</i>	Confirmed	Protected
Spotted Sandpiper	<i>Actitis macularia</i>	Probable	Protected
American Woodcock	<i>Scolopax minor</i>	Possible	Game Species
Rock Pigeon	<i>Columba livia</i>	Confirmed	Unprotected
Mourning Dove	<i>Zenaida macroura</i>	Probable	Protected
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Confirmed	Protected
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Possible	Protected
Great Horned Owl	<i>Bubo virginianus</i>	Possible	Protected
Eastern Screech-Owl	<i>Megascops asio</i>	Probable	Protected
Barred Owl	<i>Strix varia</i>	Probable	Protected
Chimney Swift	<i>Chaetura pelagica</i>	Possible	Protected
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Probable	Protected
Belted Kingfisher	<i>Ceryle alcyon</i>	Probable	Protected
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Confirmed	Protected
Downy Woodpecker	<i>Picoides pubescens</i>	Probable	Protected
Hairy Woodpecker	<i>Picoides villosus</i>	Confirmed	Protected

COMMON NAME	SCIENTIFIC NAME	BREEDING CODE	PROTECTED-NEW YORK STATE
Northern Flicker	<i>Colaptes auratus</i>	Confirmed	Protected
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Probable	Protected
Eastern Wood-Pewee	<i>Contopus virens</i>	Probable	Protected
Alder Flycatcher	<i>Empidonax alorum</i>	Confirmed	Protected
Willow Flycatcher	<i>Empidonax traillii</i>	Probable	Protected
Least Flycatcher	<i>Empidonax minimus</i>	Probable	Protected
Eastern Phoebe	<i>Sayornis phoebe</i>	Confirmed	Protected
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Probable	Protected
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Confirmed	Protected
Yellow-throated Vireo	<i>Vireo flavifrons</i>	Possible	Protected
Blue-headed Vireo	<i>Vireo solitarius</i>	Confirmed	Protected
Warbling Vireo	<i>Vireo gilvus</i>	Probable	Protected
Red-eyed Vireo	<i>Vireo olivaceus</i>	Confirmed	Protected
Blue Jay	<i>Cyanocitta cristata</i>	Confirmed	Protected
American Crow	<i>Corvus brachyrhynchos</i>	Confirmed	Game Species
Common Raven	<i>Corvus corax</i>	Probable	Protected
Tree Swallow	<i>Tachycineta bicolor</i>	Confirmed	Protected
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Probable	Protected
Bank Swallow	<i>Riparia riparia</i>	Possible	Protected
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Possible	Protected
Barn Swallow	<i>Hirundo rustica</i>	Confirmed	Protected
Black-capped Chickadee	<i>Poecile atricapillus</i>	Confirmed	Protected
Tufted Titmouse	<i>Baeolophus bicolor</i>	Confirmed	Protected
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Confirmed	Protected
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Confirmed	Protected
Brown Creeper	<i>Certhia americana</i>	Confirmed	Protected
House Wren	<i>Troglodytes aedon</i>	Confirmed	Protected
Winter Wren	<i>Troglodytes troglodytes</i>	Probable	Protected
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Possible	Protected
Eastern Bluebird	<i>Sialia sialis</i>	Confirmed	Protected
Veery	<i>Catharus fuscescens</i>	Confirmed	Protected
Hermit Thrush	<i>Catharus guttatus</i>	Confirmed	Protected
Wood Thrush	<i>Hylocichla mustelina</i>	Probable	Protected
American Robin	<i>Turdus migratorius</i>	Confirmed	Protected
Gray Catbird	<i>Dumetella carolinensis</i>	Confirmed	Protected
Brown Thrasher	<i>Toxostoma rufum</i>	Confirmed	Protected
European Starling	<i>Sturnus vulgaris</i>	Confirmed	Unprotected
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Probable	Protected
Blue-winged Warbler	<i>Vermivora pinus</i>	Confirmed	Protected
Nashville Warbler	<i>Vermivora ruficapilla</i>	Probable	Protected
Yellow Warbler	<i>Dendroica petechia</i>	Confirmed	Protected
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Confirmed	Protected
Magnolia Warbler	<i>Dendroica magnolia</i>	Probable	Protected

COMMON NAME	SCIENTIFIC NAME	BREEDING CODE	PROTECTED-NEW YORK STATE
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	Possible	Protected
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Probable	Protected
Black-throated Green Warbler	<i>Dendroica virens</i>	Probable	Protected
Blackburnian Warbler	<i>Dendroica fusca</i>	Probable	Protected
Prairie Warbler	<i>Dendroica discolor</i>	Confirmed	Protected
Black-and-white Warbler	<i>Mniotilta varia</i>	Probable	Protected
American Redstart	<i>Setophaga ruticilla</i>	Confirmed	Protected
Ovenbird	<i>Seiurus aurocapilla</i>	Confirmed	Protected
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Possible	Protected
Louisiana Waterthrush	<i>Seiurus motacilla</i>	Possible	Protected
Mourning Warbler	<i>Oporornis philadelphia</i>	Probable	Protected
Common Yellowthroat	<i>Geothlypis trichas</i>	Confirmed	Protected
Canada Warbler	<i>Wilsonia canadensis</i>	Confirmed	Protected
Scarlet Tanager	<i>Piranga olivacea</i>	Probable	Protected
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	Probable	Protected
Chipping Sparrow	<i>Spizella passerina</i>	Confirmed	Protected
Field Sparrow	<i>Spizella pusilla</i>	Confirmed	Protected
Savannah Sparrow	<i>Passerculus sandwichensis</i>	Confirmed	Protected
Song Sparrow	<i>Melospiza melodia</i>	Confirmed	Protected
Swamp Sparrow	<i>Melospiza georgiana</i>	Confirmed	Protected
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Confirmed	Protected
Dark-eyed Junco	<i>Junco hyemalis</i>	Confirmed	Protected
Northern Cardinal	<i>Cardinalis cardinalis</i>	Confirmed	Protected
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Confirmed	Protected
Indigo Bunting	<i>Passerina cyanea</i>	Probable	Protected
Bobolink	<i>Dolichonyx oryzivorus</i>	Confirmed	Protected
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Confirmed	Protected
Eastern Meadowlark	<i>Sturnella magna</i>	Confirmed	Protected
Common Grackle	<i>Quiscalus quiscula</i>	Confirmed	Protected
Brown-headed Cowbird	<i>Molothrus ater</i>	Probable	Protected
Baltimore Oriole	<i>Icterus galbula</i>	Confirmed	Protected
Purple Finch	<i>Carpodacus purpureus</i>	Confirmed	Protected
House Finch	<i>Carpodacus mexicanus</i>	Confirmed	Protected
Pine Siskin	<i>Carduelis pinus</i>	Possible	Protected
American Goldfinch	<i>Carduelis tristis</i>	Probable	Protected
House Sparrow	<i>Passer domesticus</i>	Confirmed	Unprotected

APPENDIX VI

Reptiles and Amphibians of the Chenango Trail Unit Management Plan By Common Name, Scientific Name, and Protective Status

Common Name	Scientific Name	Protective Status	
		Federal	State
Blue spotted salamander	<i>Ambystoma laterale</i>	UN	UN-SC
Spotted salamander	<i>Amsytoma maculatum</i>	UN	UN-SC
Red spotted newt	<i>Notophthalmus viridescens</i>	UN	UN-SC
Northern dusky salamander	<i>Desmognathus fuscus</i>	UN	UN
Mountain dusky salamander	<i>Desmognathus ochrophaeus</i>	UN	UN
Redback salamander	<i>Plethodon cinereus</i>	UN	UN
Northern spring salamander	<i>Gyrinophilus porphyriticus</i>	UN	UN
Northern two-lined salamander	<i>Eurycea bis/inata</i>	UN	UN
American toad	<i>Bufo americanus</i>	UN	UN
Northern spring peeper	<i>Hyla crucifer</i>	UN	UN
Grey tree frog	<i>Hyla versicolor</i>	UN	UN
Bull frog	<i>Rana catesbeiana</i>	UN	GS
Green frog	<i>Rana clamitans</i>	UN	GS
Wood frog	<i>Rana sylvatica</i>	UN	GS
Northern Leopard frog	<i>Rana pipiens</i>	UN	GS
Pickerel frog	<i>Rana palustris</i>	UN	GS
Common snapping turtle	<i>Chelydra serpentina</i>	UN	UN
Spotted turtle	<i>Clemmys guttata</i>	UN	UN-SC
Wood turtle	<i>Clemmys insculpta</i>	UN	GS-SC
Eastern painted turtle	<i>Chrysemys picata</i>	UN	UN
Northern water snake	<i>Nerodia spidedon</i>	UN	UN
Northern brown snake	<i>Storeria dekayi</i>	UN	UN
Northern redbelly snake	<i>Storeria occipitamaculata</i>	UN	UN
Eastern garter snake	<i>Thamnophis sirta/is</i>	UN	UN
Eastern ribbon snake	<i>Thamnophis sauritis</i>	UN	UN
Northern ringneck snake	<i>Diadophis punctatus edwardsi</i>	UN	UN
Eastern smooth green snake	<i>Ophreodryas verna/is</i>	UN	UN
Eastern milk snake	<i>Lampropeltis triangulum</i>	UN	UN

Source: Adapted from Breisch, A., et. al, Amphibian and Reptile Atlas, New York State, Internal Report, 1990-1998.

APPENDIX VII

Mammals on the Unit By Common Name, Scientific Name and Protective Status.

Common Name	Scientific Name	Protective Status	
		Federal	State
Masked shrew	<i>Sorex cinereus</i>	UN	UN
Northern water shrew	<i>Sorex palustris</i>	UN	UN
Smokey shrew	<i>Sorex fumeus</i>	UN	UN
Pygmy shrew	<i>Microsorex hoyi</i>	UN	UN
Northern Short-tailed shrew	<i>Blarina brevicauda</i>	UN	UN
Least shrew	<i>Cryptotis parva</i>	UN	UN
Hairy-tailed mole	<i>Parascalops breweri</i>	UN	UN
Star-nosed mole	<i>Condylura cristata</i>	UN	UN
Little brown bat	<i>Myotis lucifugus</i>	UN	UN
Keen's Bat	<i>Myotis septentrionalis</i>	UN	UN
Indiana Bat	<i>Myotis sodalis</i>	E	E
Small-footed Bat	<i>Myotis leibii</i>	UN	UN-SC
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	UN	UN
E. Pipistrel bat	<i>Pipistrellus subflavus</i>	UN	UN
Big brown bat	<i>Eptesicus fuscus</i>	UN	UN
Red Bat	<i>Lasiurus borealis</i>	UN	UN
Hoary Bat	<i>Lasiurus cinereus</i>	UN	UN
E. Coyote	<i>Canis latrans</i>	UN	GS
Red fox	<i>Vulpes fulva</i>	UN	GS
Gray fox	<i>Urocyon cinereoargenteus</i>	UN	GS
Black bear	<i>Ursus americanus</i>	UN	GS
Raccoon	<i>Procyon lotor</i>	UN	GS
Fisher	<i>Martes pennanti</i>	UN	GS
Short-tailed weasel	<i>Mustela ermine</i>	UN	GS
Long-tailed weasel	<i>Mustela frenata</i>	UN	GS
Mink	<i>Mustela vison</i>	UN	GS

Common Name	Scientific Name	Protective Status	
		Federal	State
River otter	<i>Lutra canadensis</i>	UN	GS
Bobcat	<i>Lynx rufus</i>	UN	GS
White-tailed deer	<i>Odocoileus virginiana</i>	UN	GS
E. Chipmunk	<i>Tamias straitus</i>	UN	UN
Woodchuck	<i>Marmota monax</i>	UN	UN
Gray squirrel	<i>Sciurus carolinensis</i>	UN	GS
Red squirrel	<i>Tamiasciurus hudsonicus</i>	UN	UN
S. Flying squirrel	<i>Glaucomys volans</i>	UN	UN
Beaver	<i>Castor canadensis</i>	UN	GS
Deer mouse	<i>Peromyscus maniculatus</i>	UN	UN
White-footed mouse	<i>Peromyscus leucopus</i>	UN	UN
Redback vole	<i>Clethrionomys gapperi</i>	UN	UN
Meadow vole	<i>Microtus pennsylvanicus</i>	UN	UN
Woodland vole	<i>Microtus pinetorum</i>	UN	UN
Pine vole	<i>Pitymys pinetorum</i>	UN	UN
Muskrat	<i>Ondatra zibethicus</i>	UN	GS
Southern bog lemming	<i>Synaptomys coo peri</i>	UN	UN
Meadow jumping mouse	<i>Zapus hudsonius</i>	UN	UN
Woodland jumping mouse	<i>Zapus insignis</i>	UN	UN
Porcupine	<i>Erethizon dorsatum</i>	UN	UN
E. Cottontail	<i>Sylvilagus floridanus</i>	UN	GS
Varying hare	<i>Lepus americanus</i>	UN	GS

Source: Adapted from Gotie, F.F. 1983. Biological Reconnaissance of the Wildlife Management areas in Region 7- Pharsalia WMA fed. Aid. Perf. Report W-137-D. 1982-83, mimco; and Chambers, RE. op. cit.

APPENDIX VIII

Fishery Information for the Chenango Trail UMP

Water Index #	Name	Class	Year(s) Surveyed	Species Present	Notes
SR-44-37-4	Unnamed Trib.	C	Never		
SR-44-37-3	Unnamed Trib.	C	1935	None Observed	100 BT/yr. stocked from 1936 - 1942
SR-44-37	Forrel Creek	C(t)	1935	None Observed	180 BT/yr. stocked from 1936 - 1942 downstream of State Forest.
SR-44-32-8	Unnamed Trib.	C	1935	None Observed	100 BT/yr. stocked from 1936 - 1952 downstream of State Forest.
SR-44-11-8	Unnamed Trib.	C	1935	None Observed	
SR-44-11-16	Unnamed Trib.	C	1935, 1974	402, 406, 423, 360	
SR-44-11-14-3	Unnamed Trib.	C	Never		
SR-44-11-14-2	Unnamed Trib.	C	Never		
SR-44-11-14-1C	Unnamed Trib.	C	Never		
SR-44-11-11	Unnamed Trib.	C	1974	406, 362, 865, 402	Surveyed approx. 1 1/2 mi. downstream of State Forest.
SR-44-11	Page Brook	C	1935, 1974	362, 406, 613, 377, 444, 419	Surveyed at Bowbell Rd. bridge
SR-138-1	Unnamed Trib.	C	Never		
SR-138	Guthrie Brook	C	Never		
SR-134-8-9-1	Unnamed Trib.	C	Never		
SR-134-8-9	Unnamed Trib.	C	Never		
SR-134-8-14-P?	Unnamed Pond	C(t)	Never		Dam built on private land adjacent to State Forest.
SR-134-8-14	Unnamed Trib.	C(t)	1935	None Observed	Records indicate it may have been stocked with 180 BT/yr. for some period after 1935.
SR-134-1-7-2	Unnamed Trib.	C	Never		
SR-134-1-4	Unnamed Trib.	C	1935	None Observed	
SR-134-8-P?	Unnamed Pond	C	Never		Class III wetland
SR-123-8-1	Unnamed Trib.	C	1935	None Observed	
SR-123-8	Unnamed Trib.	C	1935	None Observed	
SR-123-7-3-1	Unnamed Trib.	C	Never		
SR-123-6	Unnamed Trib.	C	Never		
SR-123-1-2	Unnamed Trib.	C	1935	None Observed	
SR-123-1-1	Unnamed Trib.	C	Never		
SR-123-1	Unnamed Trib.	C	1935	None Observed	
SR-123	Wylie Brook	C(t)	1935, 1963	614, 406, 402, 385, 423, 362, 367, 419, 329, 403, 866	Stocked for decades with BT well downstream of S.F. Survey locations were up & downstream of S.F. section.

BT - Brook Trout)

Fish Species Index

<u>Species Code</u>	<u>Common Name</u>	<u>Scientific Name</u>
329	brook trout	<i>Salvelinus fontinalis</i>
360	central stoneroller	<i>Campostoma anomalum</i>
362	redside dace	<i>Clinostomus elongatus</i>
367	cutlips minnow	<i>Exoglossum maxillingua</i>
385	common shiner	<i>Notropis cornutus</i>
377	golden shiner	<i>Notemigonus crysoleucas</i>
402	blacknose dace	<i>Rhinichthys atratulus</i>
403	longnose dace	<i>Rhinichthys cataractae</i>
406	creek chub	<i>Semotilus atromaculatus</i>
419	white sucker	<i>Catostomus commersoni</i>
423	northern hog sucker	<i>Hypentelium nigricans</i>
444	brown bullhead	<i>Ameirus nebulosus</i>
613	Johnny darter	<i>Etheostoma nigrum</i>
614	tessellated darter	<i>Etheostoma olmstedii</i>
865	mottled sculpin	<i>Cottus bairdi</i>
866	slimy sculpin	<i>Cottus cognatus</i>

APPENDIX IX

Deer Harvest Records for Towns in the Chenango Trail Management Unit

Deer Kill By Town											
Towns	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVG.
Coventry	301	162	147	212	221	196	228	256	179	215	212
Greene	553	271	336	357	356	384	473	515	467	402	411
Oxford	501	302	345	384	462	401	513	456	507	361	423
Colesville	444	260	282	258	329	312	347	347	370	449	340
Average	427	217	242	285	289	290	351	386	323	309	312

Source: 2002 New York State 20 Yr. Deer Book

Adult Bucks Killed/Sq. Mile											
Towns	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVG.
Coventry	2.16	1.73	1.85	2.32	2.22	2.18	2.14	2.62	1.96	2.42	2.16
Greene	3.05	1.91	2.84	2.34	2.56	2.84	2.86	3.44	2.99	3.22	2.81
Oxford	3.31	2.53	3.43	3.05	4.06	3.57	3.94	3.81	4.64	3.15	3.55
Colesville	2.40	1.72	2.26	1.97	2.47	2.21	2.14	2.09	1.94	2.05	2.13
Average	2.61	1.82	2.35	2.33	2.39	2.51	2.50	3.03	2.48	2.82	2.48

Source: 2002 New York State 20 Yr. Deer Book

APPENDIX X

Reported Turkey Harvest 1993-2002 for Towns in the Chenango Trail Management Unit

Turkey Harvest By Town- Spring											
Towns	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVG.
Coventry	12	7	12	12	11	8	7	6	10	5	9
Greene	27	42	31	22	33	22	17	14	15	13	24
Oxford	18	25	42	25	25	26	22	11	16	15	23
Colesville	25	21	33	26	22	18	22	24	24	21	24
Average	21	24	30	21	23	19	17	14	16	14	20

Source: New York State Turkey Fact Book

Turkey Harvest By Town- Fall											
Towns	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVG.
Coventry	14	4	11	3	4	8	6	3	10	11	7
Greene	26	29	23	6	17	16	26	11	31	22	21
Oxford	24	20	20	10	10	16	19	12	15	18	16
Colesville	25	14	23	6	12	16	16	13	30	25	18
Average	22	17	19	6	11	14	17	10	22	19	16

Source: New York State Turkey Fact Book

APPENDIX XI

Pelt Sealed Beaver 1996-2002 for Towns in the Chenango Trail Management Unit

Town	1996	1997	1998	1999	2000	2001	2002	Average
Coventry	29	25	10	25	1	7	5	16
Greene	49	100	45	48	13	15	28	45
Oxford	63	65	82	44	7	39	50	50
Colesville	5	43	9	3	6	18	13	14

Source: NYSDEC 1996-1997 Small Game Hunter Survey

Pelt Sealed Coyote 1996-2002 in Towns Within The Chenango Trail Management Unit

Town	1996	1997	1998	1999	2000	2001	2002	Average
Coventry	2	2	2	5	0	1	4	2
Greene	8	0	6	10	22	6	4	6
Oxford	3	2	8	6	1	10	8	5
Colesville	4	1	6	5	13	7	0	6

Source: NYSDEC 1996-1997 Small Game Hunter Survey

APPENDIX XII

Property Taxes (as recorded for 2004-05)

Township	Acres	Assessment	County Tax	Town Tax (*)	School Tax	Total Tax
Afton	199.9	\$115,814	0	\$666.20	\$2,412.34	\$3,078.54
Bainbridge	366.4	\$231,535	0	\$1,592.04	5,402.12	\$6,994.16
Colesville	726.9	\$56,669	0	\$1,983.01	\$8,372.36	\$10,355.37
Coventry	3,386.2	\$2,054,549	0	\$18,242.72	\$53,516.74	\$71,759.46
Greene	438.6	\$184,564	0	\$1,433.14	\$4,246.38	\$5,679.52
Oxford	316.4	\$214,452	0	\$1,445.84	\$5,198.24	\$6,644.08
Total	5434.4	\$2,857,583	0	\$25,362.95	\$79,148.18	\$104,511.13

(*) includes Town General, Town Highway and Special District Taxes.

APPENDIX XIII

Mineral Resources Procedures

Any party desiring to procure minerals, rocks or oil and gas resources (or for the use of those minerals in the case of gas or liquid storage) from the mineral estate under State lands included in this Unit Management Plan must obtain contractual rights (such as a lease contract) to those minerals from the appropriate State entity administering those resources. The party must also obtain appropriate consent (Temporary Revocable Permit) from the State to access the surface estate during operations. Prior to the commencement of operations the appropriate permits must be obtained. These procedures are further outlined below.

Any activity involving the procurement of oil and gas resources and/or storage of gas and liquids in the subsurface on State lands in this Unit Management Plan are administered by the NYSDEC Division of Mineral Resources. The procurement of minerals and rocks (inorganic substances), including the solution mining of minerals (such as salt) on these same State lands, are administered by the Office of General Services. All activity associated with mining minerals and rocks, solution mining of minerals and oil and gas drilling, including production, are regulated by the NYSDEC Division of Mineral Resources (including the issuance of mining permits and drilling permits).

The surface estate of these State lands is managed through the NYSDEC Division of Lands and Forests. In the event the surface estate is to be used in the evaluation and/or extraction of mineral resources from State lands, a Temporary Revocable Permit (TRP) must be obtained from the NYSDEC Division of Lands and Forests prior to conducting any operations. It should be noted that if the mineral estate must be under a lease agreement, only the lessee, or entities authorized by the lessee, will be issued a TRP for these purposes.

It is NYSDEC policy to recommend excluding operations in surface areas with sensitive habitats (stream banks, wetlands, steep slopes, rare communities etc.) or intensive recreational use.

APPENDIX XIV

Procedures for Oil & Gas Procurement for State Lands Nominated in the Future

The NYSDEC will receive requests to nominate specific lands for leasing of the mineral rights in the event a party has an interest in exploring and developing oil and gas reserves under lands administered by the NYSDEC. Prior to leasing lands where the mineral estate is owned by New York State, a thorough review of the lands nominated for leasing is conducted to determine:

- 1.) Which areas can be leased with full rights granted (100% surface entry and no special conditions required),
- 2.) Which may require special environmental and safety conditions, and
- 3.) Which may be leased with no surface-disturbance/entry conditions (non-drilling clause).

This review is conducted by the area's land manager (Division of Lands and Forests or Division of Fish and Wildlife) in coordination with the Division of Mineral Resources. A tract assessment is then conducted that identifies sensitive resources of the Unit. These resources include certain management strategies, wetland, riparian zones, steep slopes, recreational trails and areas, unique ecological communities, habitat of rare and endangered species, archeological and cultural sites and scenic vistas and view sheds.

Proposals to lease parcels of State land for exploration, production and development will only be considered following a public notice in the Environmental Notice Bulletin(ENB) and in local newspapers. A public meeting will be held to provide information and receive comments. A 30-day public comment period will follow, and the Department will consider all comments received prior to making a decision to lease State minerals located in this Unit. If the Department chooses to pursue leasing, site specific guidelines for limiting impacts on natural resources will be drafted by the Division of Mineral Resources staff, in conjunction with the Division of Lands and Forests, and incorporated into contract documents. These conditions will include, but not be limited to site selection, mitigation of impacts, and land reclamation upon completion of drilling.

A number of factors are considered when determining where surface disturbance will be allowed or disallowed. The presence of regulated wetlands, riparian areas, steep slopes, significant recreation areas, presence of rare, threatened or endangered species or unique ecological communities, are all areas which may be excluded from surface disturbance. Certain management strategies, such as reserves which may be incompatible with oil and gas well development, may result in exclusion from surface disturbance. This determination will be made as a part of the tract assessment process on a case by case basis. Individual tract proposal reviews for each forest within this Unit will be completed, and determinations deciding which areas would be excluded from surface disturbance (should leasing be initiated) will be made.

Any parcel designated as a non-surface entry lease will no longer be subject to the process detailed above due to the prohibition of surface disturbance(s).

If it is determined that oil and gas exploration and development can proceed on these State lands, a lease sale is conducted. The DEC Division of Mineral Resources is the oil and gas leasing agent for these State lands. Lease sales are then conducted through a competitive bid process administered by the Division of Mineral Resources and in accordance with Article 23, Title 11 of the Environmental Conservation Law and State Finance Law.

Revenues from State Reforestation Areas and Multiple Use Areas are deposited into the General Fund while revenues from Wildlife Management Areas are deposited into the Conservation Fund.

In the event leases are granted and the drilling of a well is desired by the lessee on the leased property, an Application for Permit to Drill, Deepen, Plug Back or Convert a Well Subject to the Oil, Gas and Solution Mining Law (form 85-12-5) must be submitted to the Division of Mineral Resources. Site-specific impacts will then be identified by Department staff during review process and inspection of the proposed well site. The Generic Environmental Impact Statement On the Oil, Gas and Solution Mining Regulatory Program (Draft, 1988) is used to guide the Department in determining whether the proposal will have a significant impact on the environment. Conditions are then attached to the drilling permit as well as the Temporary Revocable Permit (TRP) which covers the mitigation and/or control of surface disturbances.

In the event underground pipelines are planned to transport gas and/or oil across State lands; the Division of Mineral Resources in conjunction with the Division of Lands and Forests, and Division of Fish and Wildlife will coordinate with the mineral estate lessee to determine the best route for the pipeline(s). It should be noted that any pipeline greater than 1,000 feet in length and/or containing pressures greater than 125 pounds per square inch are regulated by the New York State Public Service Commission.

Once the proposal is approved, a drilling permit with site specific conditions is issued by the Division of Mineral Resources along with a Temporary Revocable Permit issued by either the Division of Lands and Forests or Fish and Wildlife. These permits are administered by their respective programs and are designed to prevent and/or mitigate environmental impacts. Site inspections are conducted by the Division of Mineral Resources to ensure compliance with Article 23 of the Environmental Conservation Law and 6NYCRR Part 550 - 559. The Division of Lands and Forests or Fish and Wildlife will also inspect the site to ensure compliance with the TRP.

APPENDIX XV

Budget

<u>Task</u>	<u>Unit</u>	<u>Cost</u>	Days per Year	
			<u>Professional</u>	<u>Technical</u>
<u>Annual Budget*</u> - estimated costs and required work man days				
General Maintenance & Refuse Pickup		\$6,000	1	12
Trails	5.2 mi.	\$3,000	3	4
Parking Areas & Pulloffs		\$2,500	1	6
Forest Product Sales	300 ac./yr	\$27,500**	110	0
Coordination w/ Other Agencies		\$1,000	4	0
Coordination w/ Public Interest Groups	\$1,000		4	0
Supervision, Training, Reporting		\$2,000	8	0
Disease Control		\$500	2	0
Post-treatment Inventory		\$2,500	10	0
<u>Law Enforcement and Fire Control</u>		<u>\$2,500</u>	<u>10</u>	<u>0</u>
Subtotal		\$48,500	153	22
<u>Periodic or One-Time Costs</u> - estimated				
Land Acquisition	140 ac.	\$140,000	7	0
Boundary Line Maintenance	57.2 mi.	\$5,800	0	60
Inventory	5,446 ac.	\$15,000	0	110
Construct and Install Kiosks	6	\$9,000	2	8
<u>Construct accessible parking areas</u>	8	<u>\$20,000</u>	<u>3</u>	<u>70</u>
Subtotal		\$189,800	12	248
<u>Grand Totals</u> - estimated over a 10 year period		\$674,800	1,542	468

(*) Annual budget does not include property & school taxes.

(**) Estimated costs do not include anticipated revenues from forest products sales.

APPENDIX XVI

Rules & Regulations pertaining to NYS Public lands

Title 6 of the New York Code of Rules and Regulations - Part 190 - Use of State Forests

Section 190.1 - Fire - no fires permitted except for cooking, warmth or smudge. Also specifies depositing matches, etc. and using live trees for fuel prohibited.

Section 190.2 - Signs and structures - no person shall deface, mutilate or destroy, etc. This section also includes the prohibition of placing trash, garbage, etc.

Section 190.3 - Camping sites - sites must be kept neat, 150 feet from trail, road, stream, pond, spring, etc. and includes emergency closure times and elevation restrictions.

Section 190.4 - Camping permits - camping at one site for four nights or more without a permit is prohibited, length of stay specified, camping restricted to posted areas, group size specified and age of permittee.

Section 190.5 - Permissible structures - no permanent structures allowed, no transfer of existing structures, listing of reasons for cancellation of existing permits for lean-to (open camps).

Section 190.6 - Open camps - specifies number of days a lean-to may be occupied, what constitutes an enclosure, etc.

Section 190.7 - Public campgrounds - Lists of additional public use requirements when a public campground exists on state land.

Section 190.8 - General - a long list of prohibitions for the public use of State lands including gambling, use of snowmobiles, toboggans and sleds on ski trails, sale of alcohol, speed limit on truck trails, deface, remove, destroy vegetation without a permit, etc. This section allows the use of horses except on intensively developed facilities (listed).

Section 190.9 - Use of pesticides on State lands - none allowed except by written permission.

Section 190.10 - Unique Areas - special regulations listed by area.

Section 190.11 - Environmentally sensitive lands - lists the sections above that apply to people using sensitive lands (Sections 190.0 - 190.9) seems redundant.

Section 190.12 - Conservation Easements - Applies to all easement lands that the public has a right to access. Goes on to list general prohibitions on use, then lists areas under easements.

Section 190.13 - 190.22 - Repealed or not in use.

Section 190.23 - Specific Areas - List of Ski Centers: Belleayre, Gore and Whiteface.

Section 190.24 - Boat launch sites - specific rules of public use of launch sites.

Section 190.25 - 190.33 - Regulations for specific areas such as Zoar Valley, Lake George, the Olympic Area, etc.

State Forest Camping Regulations:

1. Campsites must be kept clean. These are “carry-in -carry-out” areas.
2. Camping is prohibited within 150' of any road, trail, stream, or body of water, except where sites have been designated by the Department.
3. Camping is allowed for up to 3 nights without a permit. Campers occupying a site for more than 3 nights are required to obtain a written permit from the Sherburne DEC office. There is currently no fee for the permit.
4. Permits will be issued for a maximum of 10 days. A permit will not be renewed to the same person for the same site during the same calendar year.

5. Groups of 10 or more persons are required to obtain a camping permit for any length of stay.
6. Camping is prohibited in any area that is posted against camping.
7. All camping equipment and supplies must be removed from State land when the users have completed their stay.
8. No permits will be issued to persons under 18 years of age.
9. Campers are required to obtain a permit for any length of stay in a Wildlife Management Area. These permits are available from the Cortland DEC office.
10. Campers may use tents or trailers, but no permanent structures, such as tent platforms or lean-tos, may be constructed for camping.
11. Lean-tos that are provided by the DEC may not be occupied for more than 3 successive nights or for more than 10 nights in any one calendar year, if others wish to use the site.
12. Only dead and down wood may be used for campfires. Fires must be extinguished when the site is not occupied.
13. There is no fee for camping on State forests.

APPENDIX XVII

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APPENDIX XVIII

Glossary of Terms

Access trails - may be permanent, unpaved and do not provide all-weather access within the Unit. These trails are originally designed for wood product removal and may be used to meet other management objectives such as recreational trails. These trails are constructed according to Best Management Practices.

Aesthetics - forest value, rooted in beauty and visual appreciation and providing a distinct visual quality.

Age class - trees of a similar size originating from a single natural event or regeneration activity. *see* cohort.

Apple tree release - a management action; the act of removing an overstory of trees and/or competing vegetation that are shading and potentially inhibiting apple tree growth and fruit production.

Basal area - the cross sectional area, measured in square feet, of a single stem, including the bark, measured at breast height (4.5 ft above the ground).

Beech bark disease - a insect and disease pathogen complex involving a scale insect (*Cryptococcus fagi*) and a necrotic fungus (*Nectria coccinea* var. *faginata*). The insect pierces the bark to feed, allowing a place for the fungus to enter the tree. Fungal activity interrupts the tree's normal physiological processes and a severely infected tree will most likely die.

Best management practices - a practice or a combination of practices that are designed for the protection of water bodies and riparian areas, and determined to be the most effective and practicable means of controlling point and non-point source water pollutants.

Biological diversity (Biodiversity) - the variety, abundance, and interactions of life forms found in areas ranging in size from local through regional to global. Biodiversity considers both the ecological and evolutionary processes, functions, and structures of plants, animals and other living organisms, as well as the variety and abundance of species, communities, gene pools, and ecosystems.

Biological legacy - an organism, living or dead, inherited from a previous ecosystem - *note* biological legacies often include large trees, snags, and down logs left after timber harvesting.

Browse - portions of woody plants including twigs, shoots, and leaves consumed by animals such as deer.

Buffer zone / Buffer strip - a vegetation strip or management zone of varying size, shape, and character maintained along a stream, lake, road, recreation site, or different vegetative zone to mitigate the impacts of actions on adjacent lands, to enhance aesthetic values, or as a best management practice.

Cavity tree / Den tree - a tree containing an excavation sufficiently large for nesting, dens or shelter; tree may be alive or dead.

Clear cut - a harvesting and regeneration technique that removes all the trees, regardless of size, on an area in one operation. This practice is done in preparation of the re-establishment of a new forest through reforestation, stump sprouting, or changing habitats, i.e., from forest to brush or grass cover.

Climax forest - an ecological community that represents the culminating stage of a natural forest succession for its locality / environment.

Coarse woody debris (CWD)- any piece(s) of dead woody material on the ground in forest stands or in streams.

Community - an assemblage of plants and animals interacting with one another, occupying a habitat, and often modifying the habitat; a variable assemblage of plant and animal populations sharing a common environment and occurring repeatedly in the landscape.

Conifer - a cone-bearing tree, also referred to as softwood; *note* the term often refers to gymnosperms in general.

Conversion - a change from one silvicultural system to another or from one tree species to each other.

Corridor - a linear strip of land identified for the present or future location of a designed use within its' boundaries. *Examples:* recreational trails, transportation or utility rights-of-way.

When referring to wildlife, a corridor may be a defined tract of land connecting two or more areas of similar management or habitat type through which a species can travel from one area to another to fulfill any variety of life-sustaining needs.

Cover type - the plant species forming a majority of composition across a given area.

Crown - the part of a tree or woody plant bearing live branches and foliage.

Cultural resources - a significant historical or archaeological assets on sites as a result of past human activity which are distinguishable from natural resources.

Cutting interval - the number of years between harvest or regeneration cuts in a stand.

Deciduous - tree and shrub species that lose their leaves in autumn.

Defoliation - the partial or complete loss of leaves, usually caused by an insect, disease, or drought.

Diameter (at) breast height (DBH) - the diameter of the stem of a tree (outside bark) measured at breast height (4.5 ft) from the ground.

Disturbance - a natural or human-induced environmental change that alters one or more of the floral, faunal, and microbial communities within an ecosystem. Timber harvesting is the most common human disturbance. Windstorms and fire are examples of natural disturbance.

Ecosystem - a spatially explicit, relatively homogeneous unit of the earth that includes all interacting organisms and components of the abiotic environment within its boundaries - *note* an ecosystem can be of any size, e.g., a log, pond, field, forest or the earth's biosphere.

Ecosystem management - the appropriate integration of ecological, economic, and social factors in order to maintain and enhance the quality of the environment to best meet our current and future needs. Means keeping natural communities of plants, animals, and their environments healthy and productive so people can benefit from them year to year.

Edge - the more or less well-defined boundary between two or more elements of the environment, e.g. a field adjacent to a woodland or the boundary of different silvicultural treatments.

Endangered species - any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register.

Even-aged - a class of forest or stand composed of trees of about the same age. The maximum age difference is generally 10-20 years.

Even-aged system - a program of forest management directed to the establishment and maintenance of stands of trees having relatively little (10-20 yrs) variation in ages. The guidelines to be applied in using this system at all stages of tree development are uniquely different from the uneven-aged system.

Exotic - a plant or species introduced from another country or geographic region outside its natural range.

Forest - an assemblage of trees and associate organisms on sites capable of maintaining at least 60% crown closure at maturity.

Forest Stewardship Council - A non-profit organization devoted to encouraging the responsible management of the world's forests.

Forestry - the profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values.

Forest succession - the gradual replacement of one community of plants by another. *Example:* an area of open grass becoming shrub which then becomes shade intolerant trees (pioneer species) and finally climax forest of mostly shade tolerant trees.

Forest type - a category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage cover of trees.

Forested wetland - an area characterized by woody vegetation where soil is periodically saturated with or covered by water.

Fragmentation - the process by which a landscape is broken into small islands of forest within a mosaic of other forms of land use or ownership - islands of a particular age class that remain in areas of younger-aged forest - fragmentation is a concern because of the effect of noncontiguous forest cover on connectivity and the movement and dispersal of animals in the landscape.

Grassland - land on which the vegetation is dominated by grasses, grasslike plants, or forbs.

Green tree retention - the practice of retaining live trees after a release cut. This practice creates higher levels of structural diversity providing varied wildlife habitat and future downed wood. The residual overstory trees also moderate the microclimate of the site and provide continuity of habitat for plant and animal species between uncut forest areas. These residual trees are left through the next rotation.

Habitat - the geographically defined area where environmental conditions (e.g., climate, topography, etc.) meet the life needs (e.g., food, shelter, etc.) of an organism, population, or community.

Hardwoods - broad-leafed, deciduous trees belonging to the botanical group Angiospermae.

Haul roads - permanent, unpaved roads, not designed for all-weather travel, but are constructed primarily for the removal of wood products and provide only limited access within the Unit. As such, these roads may or may not be open for public use. The standards for these roads are those of Class C roads.

Herbicide - a chemical used for killing or controlling the growth of plants.

Improvement cut - the removal of less desirable trees of any species in a stand of poles or larger trees, primarily to improve composition and quality.

Indicator species - species with such specialized ecological needs that they can be used for assessing the quality, condition, or extent of an ecosystem on the basis of their presence and density, or the accumulation and effect of materials in their tissues.

Intermediate treatment - any silvicultural treatment designed to enhance growth, quality, vigor, and composition of the stand after establishment or regeneration and prior to final harvest.

Invasive species -

1.) a plant or animal that spreads rapidly and in great numbers in a region, often to the point of being a nuisance in an ecosystem where it is not native.

2.) species that, after they have been moved from their native habitat, spread on their own, displacing other species, and sometimes causing environmental damage.

Large poles - trees 9-11 inches diameter at breast height.

Large sawtimber - trees 18 inches or greater diameter at breast height.

Log deck - a cleared area in the forest to which logs are skidded and are temporarily stored before being loaded onto trucks for transport.

Long-lived conifers - conifers that are capable of living 135 years or more on forest sites in Central New York. Tree species typically include eastern hemlock, eastern white pine, Norway spruce and northern white cedar.

Mast - all fruits of trees and shrubs used as food for wildlife. Hard mast includes nut-like fruits such as acorns, beechnuts, and chestnuts. Soft mast includes the fleshy fruits of black cherry, dogwood and serviceberry.

Mature stand - pertaining to an even-aged stand that has attained most of its potential height growth, or has reached merchantability standards -*note* within uneven-aged stands, individual trees may become mature but the stand itself consists of trees of diverse ages and stages of development.

Medium sawtimber - trees 15-17 inches diameter at breast height.

Mesic - of sites or habitats characterized by intermediate moisture conditions, i.e., neither decidedly wet nor dry.

Multiple use - a strategy of land management fulfilling two or more objectives, e.g. forest products removal and recreation.

Native species - an indigenous species that is normally found as part of a particular ecosystem.

Natural area - these areas are not managed for the production of wood products. A physical and biological area left in a natural condition, usually without direct human intervention, to attain and sustain a climax condition, the final stage of succession.

Natural regeneration - the establishment of a forest stand from natural seeding, sprouting, suckering or layering.

Northern hardwood forest type - a forest type usually made up of sugar and red maple, American beech, yellow birch, and to a lesser extent black cherry and white ash. This type represents about 70 percent of all forests in New York State.

Old growth -

1.) forests that approximate the structure, composition, and functions of native forest prior to European settlement. They vary by forest type, but generally include more large trees, canopy layers, standing snags, native species, and dead organic matter than do young or intensively managed forests.

2.) the definition of "Old Growth Forest" involves a convergence of many different, yet interrelated criteria. Each of these criteria can occur individually in an area that is not old growth, however, it is the presence of all of these factors that combine to differentiate "Old Growth Forest" from other forested ecosystems. These factors include: An abundance of late successional

tree species, at least 180 - 200 years of age in a contiguous forested landscape that has evolved and reproduced itself naturally, with the capacity for self perpetuation, arranged in a stratified forest structure consisting of multiple growth layers throughout the canopy and forest floor, featuring (1) canopy gaps formed by natural disturbances creating an uneven canopy, and (2) a conspicuous absence of multiple stemmed trees and coppices. Old growth forest sites typically (1) are characterized by an irregular forest floor containing an abundance of coarse woody materials which are often covered by mosses and lichens; (2) show limited signs of human disturbance since European settlement; and (3) have distinct soil horizons that include definite organic, mineral, illuvial accumulation, and unconsolidated layers. The understory displays well developed and diverse surface herbaceous layers.

Overstory - that portion of the trees in a forest forming the upper or uppermost canopy layer.

Pioneer - a plant capable of invading bare sites (newly exposed soil) and persisting there or colonizing them until supplanted by successional species.

Plantation - a stand composed primarily of trees established by planting or artificial seeding - a plantation may have tree or understory components that have resulted from natural regeneration.

Poletimber - trees that are generally 6-11 inches diameter at breast height.

Protection forest - forest land excluded from most active management including wood product management, oil and gas exploration and development, and some recreational activities to protect sensitive sites. These sites most often include steep slopes, wet woodlands and riparian zones along stream corridors.

Public forest access roads - permanent, unpaved roads marked for motor vehicle use. They may be designed for all-weather use depending on their location and surfacing. These roads provide primary access within the Unit. The standards for these roads are those of the Class A and Class B access roads.

Pulpwood - low grade or small diameter logs used to make paper products, wood chips, etc.

Reforestation - the re-establishment of forest cover by natural or artificial means.

Regeneration - naturally or artificially established seedlings or saplings existing in a forest stand.

Release -

1.) a treatment designed to free trees from undesirable, usually overtopping, competing vegetation.

2.) a treatment designed to free young trees not past the sapling stage from undesirable competing vegetation that overtops or closely surrounds them.

Residual stand - a stand composed of trees remaining after any type of intermediate harvest.

Riparian zone - an area adjoining a body of water, normally having soils and vegetation characteristic of floodplains or areas transitional to upland zones. These areas help protect the water by removing or buffering the effects of excessive nutrients, sediments, organic matter, pesticides, or pollutants.

Rotation - the period of years required to establish and grow timber crops to a specified maturity. Rotation being the predetermined time frame between successive harvest/regeneration cuts in a given stand under even-aged management.

Salvage cutting - the removal of dead trees or trees damaged or dying because of injurious agents other than competition, to recover economic value that would otherwise be lost.

Sapling - a small tree, usually defined as being between 1 and 5 inches diameter at breast height.

Sawtimber - trees that are generally 12 inches and larger diameter at breast height.

Seedling - a young tree originating from seed that is less than 4 feet tall.

Seedling/sapling - trees less than 6 inches diameter at breast height.

Selection cut/method - the removal of trees over the entire range of size classes either singly or in groups at relatively short intervals, resulting in continuous establishment of reproduction.

Individual trees are chosen for removal due to their maturity, because they are of poor quality or thinning is needed to improve the growth rate of the remaining trees.

Shade tolerance - the ability of a tree species to germinate and grow at various levels of shade.

Shade tolerant: having the capacity to compete for survival under shaded conditions.

Shade intolerant: having the capacity to compete for survival only under direct sunlight conditions; light demanding species.

Silviculture - the art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

Site - the area in which a plant or forest stand grows, considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area can support.

Site index - a species-specific measure of actual or potential forest productivity, expressed in terms of the average height of trees included in a specified stand component at a specified age.

Site quality - the productive capacity of a site, usually expressed as volume production of a given species.

Skid trail - a temporary or permanent trail used to skid or forward felled trees from the stumps to the log landing.

Small poles - trees 6-8 inches diameter at breast height.

Small sawtimber - trees 12-14 inches diameter at breast height.

Snags - standing, dead trees, with or without cavities; function as perches, foraging sites and/or a source of cavities for dens, roosting and/or nesting for wildlife.

Softwoods - generally refers to needle and/or cone bearing trees (conifers) belonging to the botanical group Gymnospermae.

Species - the main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process.

Stand - a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

Stand structure - the horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and down woody debris.

Stand treatment - work done in a stand which is directed towards the management of the stand.

State Forest / State Reforestation Area - lands owned by the State of New York, administered by the Department of Environmental Conservation and authorized by Environmental Conservation Law to be devoted to the establishment and maintenance of forests for watershed protection, the production of timber and other forest products, and for recreation and kindred purposes. These forests shall be forever devoted to the planting, growth and harvesting of such trees (Title 3 Article 9-0303 ECL).

Succession - the natural series of replacements of one plant community (and the associated fauna) by another over time and in the absence of disturbance.

Sustainable forest management - management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things, while providing environmental, economic, social and cultural opportunities for present and future generations.

Sustained yield - the achievement and maintenance in perpetuity of a reasonable regular periodic output of the various renewable resources without impairment of the land's productivity.

Temporary revocable permit - a Department permit which authorizes the use of State land for a specific purpose for a prescribed length of time.

Thinning - a silvicultural treatment made to reduce stand density of trees primarily to improve growth of remaining trees, enhance forest health, or recover potential mortality.

Threatened species - a species likely to become endangered in the foreseeable future, throughout all or a significant portion of its range, unless protected.

Timber stand improvement (TSI) - pre-commercial silvicultural treatments, intended to regulate stand density and species composition while improving wood product quality and fostering individual tree health and vigor, through the removal of undesirable trees.

Top logging - the cutting of limbs from the tops of felled trees to reduce fire danger, speed up the decaying process of the logging debris, and/or to improve the appearance of the stand.

Understory - the smaller vegetation (shrubs, seedlings, saplings, small trees) within a forest stand, occupying the vertical zone between the overstory and the herbaceous plants of the forest floor.

Uneven-aged system - a planned sequence of treatments designed to regenerate a stand with three or more age classes.

Uneven-aged stand/forest - a stand with trees of three or more distinct age classes, either intimately mixed or in small group

Watershed - a region or area defined by a network of stream drainage. A watershed includes all the land from which a particular stream or river is supplied.

Water quality classes - a system of classification in ECL Article 17 which presents a ranked listing of the State's surface waters by the letters AA, A, B, C or D according to certain quality standards and specifications. AA is the highest quality rank and has the greatest suitability for human usage.

Wetland - a transitional area between aquatic and terrestrial ecosystems that is inundated or saturated for periods long enough to produce hydric soils and support hydrophytic vegetation.

Wetland classes - a system of classification set forth in ECL Article 24, section 664.5 which ranks wetland I through IV based upon wetland functions and benefits, I being the highest rank.

Windthrow - trees that have been broken, uprooted, or felled by strong winds.

Woodland - a natural community containing trees, with a canopy cover of 25-60% at maturity, but incapable of maintaining greater than 60% crown closure due to site limitations.

APPENDIX XIX

Tract Assessment for Oil & Gas Surface Disturbance Maps

APPENDIX XX

MAPS