



Division of Lands & Forests

**ZOAR VALLEY MULTIPLE USE AREA
UNIT MANAGEMENT PLAN**

FINAL

Town of Collins, Persia and Otto

December 2006

NYS Department of Environmental Conservation
Region 9
182 East Union Street
Suite 3
Allegany, NY 14706



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GOVERNOR

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DENISE M. SHEEHAN
COMMISSIONER

MEMORANDUM

TO: The Record

FROM: Denise M. Sheehan *DS*

SUBJECT: Zoar Valley Multiple Use Area Unit Management Plan

DATE: 12/25/00

The unit management plan for the "Zoar Valley Multiple Use Area" has been completed. The Plan is consistent with Department policy and procedure, involved public participation and is consistent with the Environmental Conservation Law, Rules and Regulations. The plan includes management objectives for a ten year period and is hereby approved and adopted.

PREFACE

It is the policy of the Department of Environmental Conservation to manage state lands for multiple benefits to serve the People of New York State. This Unit Management Plan is the first step in carrying out that policy. The plan has been developed to address management activities on this unit for the next 10 year period, with a review due in 5 years. Some management recommendations may extend beyond the 10 year period. Factors such as budget constraints, wood product markets, and forest health problems may necessitate deviations from the scheduled management activities.

Acknowledgments

The Zoar Valley UMP is dedicated in memory of Gerald F. Mikol, Regional Director, Region 9

Gerald Mikol, Region 9 Director of the New York State Department of Environmental Conservation (DEC), passed away in April 2005. Mr. Mikol was born in Buffalo and grew up in Lancaster. He started his career with DEC in 1978 as a biologist in the Ray Brook office and rose through the ranks to become Coordinator of DEC's Great Lakes Programs. In 1996 he became Director of DEC Region 9, which includes Allegany, Cattaraugus, Chautauqua, Erie, Niagara and Wyoming counties.

Gerald was very interested in the wise stewardship of all DEC administered lands and played an active role in the preparation of this Unit Management Plan. While he wasn't able to see this project to its final completion, his contributions have helped shape the long term stewardship of Zoar Valley and of all DEC administered land in Region 9.

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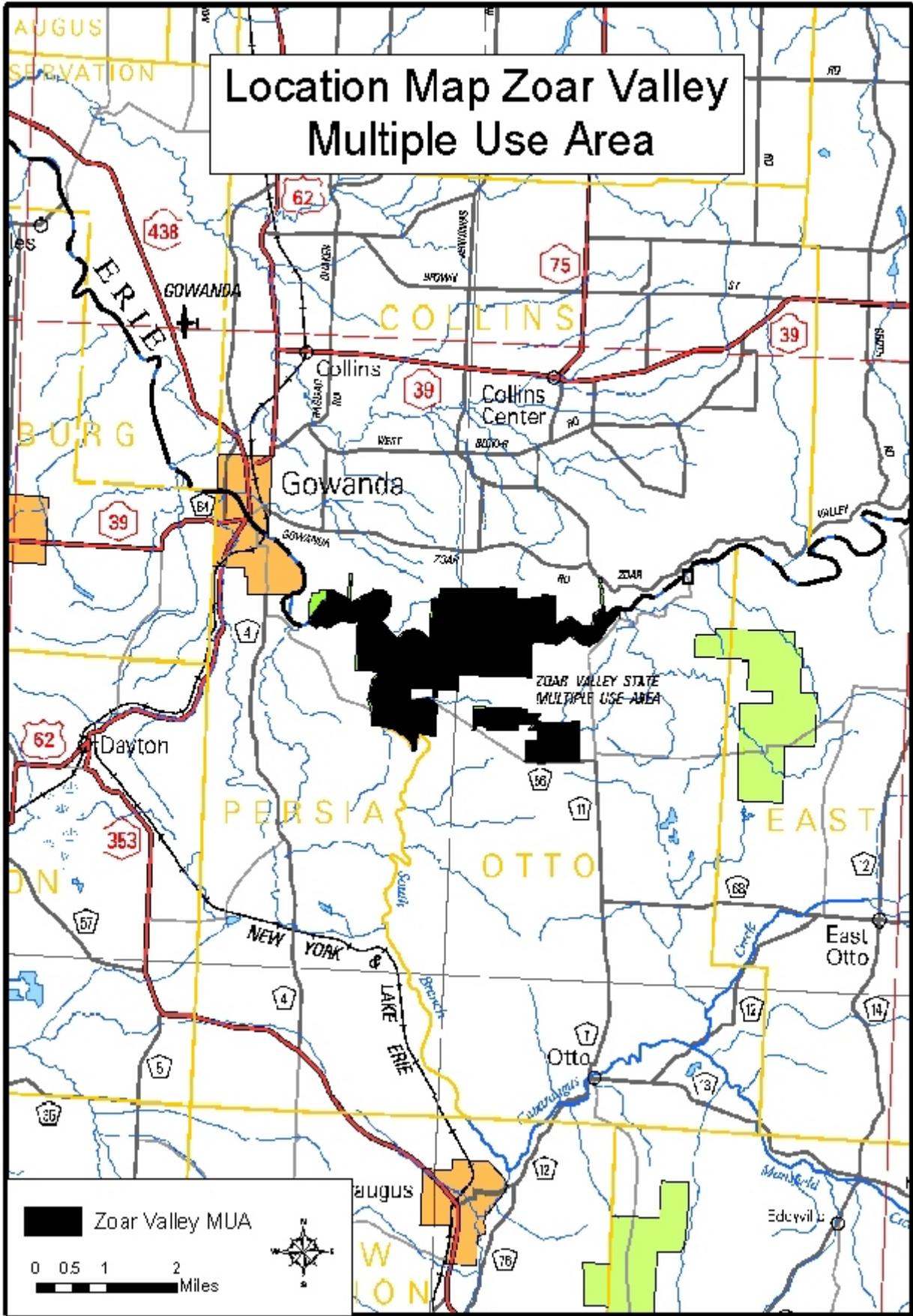
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I. Introduction

The Zoar Valley Unit contains some of the most scenic, ecologically diverse and potentially sensitive environmental areas in western New York. Approximately 1,912 acres are in Cattaraugus County and about 1,011 acres are in Erie County encompassing 2,923 acres in total. The basis for the development of this Unit Management Plan (UMP) is the future management of the upland portion of the unit and the protection of the unique features associated with the gorge. Protection of this unique area has been recognized as important for decades, even prior to its acquisition by the State of New York as a Multiple Use Area (“MUA”) in the 1960s. Interest in acquiring lands in the Zoar Valley area for protection purposes dates back to the early 1950s, when the NYS Division of Parks recommended State acquisition of about 5000 to 6000 acres. The 1960 Park and Recreation Land Acquisition Bond Act provided the resources for acquiring parcels and helped focus the public interest in acquiring parcels in the Zoar Valley area. The State Conservation Department was the driving force in the acquisition process. Mr. C.W. Mattison, Land Acquisition Consultant for the State wrote a report on Zoar Valley in 1961 in which he stated, “In development and management planning for lands acquired in the Zoar Valley area, the first definite action should be to insure the continued preservation of the gorges (and protective strips along the rims) as they now are” (underlining by author) (Mattison 1961). This philosophy is still held by the New York State Department of Environmental Conservation (DEC), the steward of the area today. Significant public interest in the management of the State lands in the Zoar Valley area also exists. Extensive comments and public input were compiled and incorporated during the development of this UMP.

A. Generic History of State Forests

The forest lands outside the Adirondack and Catskill regions owe their present character, in large part, to the impact of pioneer settlement. Following the close of the Revolutionary War, increased pressure for land encouraged westward expansion. Up to 91% of woodlands were cleared for cultivation and forage.

Early farming efforts met with limited success. As the less fertile soils proved unproductive, they were abandoned and settlement was attempted elsewhere. The stage of succession was set and new forests of young saplings re-occupied the ground once cleared.

The State Reforestation Law of 1929 and the Hewitt Amendment of 1931 set forth the legislation which authorized the Conservation Department to acquire land by gift or purchase for reforestation areas. These State forests, consisting of not less than 500 acres of contiguous land, were to be forever devoted to “reforestation and the establishment and maintenance thereon of forests for watershed protection, the production of timber and other forest products, and for recreation and kindred purposes”. This broad program is presently authorized under Article 9, Title 5 of the Environmental Conservation Law.

In 1930, forest Districts were established and the tasks of land acquisition and reforestation were started. In 1933 the Civilian Conservation Corps (CCC) was begun. Thousands of young men were assigned to plant millions of trees on the newly acquired State lands. In addition to tree planting, these men were engaged in road and trail building, erosion control, watershed restoration, forest protection and other projects.

During the war years of 1941-1945, very little was accomplished on the State lands. Plans for further planting, construction, facility maintenance and similar tasks had to be curtailed. However, through the postwar funding, conservation projects once again received needed attention.

The Park and Recreation Land Acquisition Act of 1960, the Environmental Quality Bond Acts of 1972 and 1986 and the Environmental Protection Fund of 1993 contain provisions for the acquisition of State lands. Today these lands serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forest management and recreation.

Today there are over 720,000 acres of State forest land throughout the State. The use of these lands for a variety of purposes such as timber production, hiking, skiing, fishing, trapping and hunting is of tremendous importance economically and to the health and well-being of the people of the State.

B. History of the Unit

The Zoar Valley Unit has a rich history. Two sites with archeological evidence of early human use have been documented on private property near the Unit. Since much of the area has been disturbed by farming and other activities, it is not known whether the Unit was occupied by early Native Americans. However, the presence of archeologic findings on nearby parcels indicates the Unit may have been used or inhabited by early people.

The surrounding area including the Unit was deeded to the Holland Land Company in the early 1800s. It was surveyed, subdivided and sold in the 1820s. Historic records from 1842 reveal farming was practiced along both sides of Cattaraugus Creek near what is now Forty Road. A cheese factory was located near the intersection of Forty and Wickham Roads, now private property.

The shale of the Unit has apparently been mined. There are reports of two lime kilns in the Unit area, one near Overlook Point which has not been located, and the other near the Forty Bridge on the South Branch of Cattaraugus Creek. These lime kilns were probably operated in the early 1800s.

At least two sawmills were located in the area. Reports indicate that logs and produce were moved along Cattaraugus Creek. Trees of saw log quality near the river, or that could be easily pulled to the river, would have been cut.

Oil and gas wells were drilled on the property in the late 1890s. One of these abandoned wells was recently plugged near Overlook Point by a contractor to DEC.

Around 1865 the Atlantic and Great Western railroad was planned to cross the Unit near North Otto Road. The approaches to the bridge were built and most of the grade work was done up to Collins Center before the project was abandoned. Small parts of the grade still remain. The rest was converted back to farmland.

For many years a Boy Scout Camp existed on the north side of the confluence of the Cattaraugus Creek and its South Branch. A cable car was used to cross the main branch. The foundations of the camp buildings remain visible today.

The current Valentine's Flats area, at the confluence of Cattaraugus Creek with its South Branch, was first deeded by the Holland Land Company to Elisha Derby (pronounce "Darby") in 1837. The land became known as "Darby Flats." According to old maps, his house was located just below Overlook Point. In 1900, the land was sold to Ernest and Caroline Valentine and later became known as "Valentine's Flats."

In 1926, the Valentine property was deeded to Niagara, Lockport and Ontario Power Company. The power company purchased land from the Valentine's Flats and downstream to Overlook Point, to build a hydroelectric power dam. Test borings were made in the area just above Overlook Point to determine if the rock would hold a dam. The brittleness of the shale, however, made dam building impractical. The Valentine family stayed on the farm as tenants for a time. After the house was no longer occupied, the field in the Flats area was rented out for bean farming.

In 1952, Mr. Herbert Darling purchased land, including the Valentine's Flats area, from the Niagara Mohawk Power Corporation, the successor to Niagara, Lockport and Ontario Power Company. Mr. Darling gifted 1425 acres to the State of New York in 1961 and 1962. This marks the beginning of the New York State ownership and stewardship of the Valentine's Flats area. Other parcels were added later using Bond Act funds.

The Valentine's Flats area has always been a popular recreation area for hiking, swimming, fishing, camping and picnicking. Irresponsible behavior on the part of some campers led to the State's ban on overnight camping and motor vehicles in 1971. The Valentine's Flats and the Forty Road areas still remain popular spots for outdoor recreation. Public access to the Valentine's Flats area is limited by the fact that the Forty Bridge was closed and removed, the road to the Flats was abandoned, and by erosion along the access road from the parking lot.

In April 1968, a black walnut plantation was established in the Valentine's Flats area. About 7,300 black walnut trees were planted on approximately 12 acres in the center of the Flats. Many of the other upland areas used as fields and pasture were planted with conifer trees by the DEC. There is also an experimental American Chestnut plantation on the Unit. Many areas once used as pasture have reverted to hardwood stands. Evidence of the old farms, fields, fences, roads, and final resting places of those who were here before is still visible throughout the Unit.

II. Information on the Unit

A. Geographical

The Zoar Valley Unit includes three parcels of land, known collectively as the Zoar Valley Multiple Use Area (MUA). The parcels include the main area located along the Cattaraugus Creek gorge, the 5 acre Cattaraugus Creek Waterway Access and a 387 acre detached parcel. For purposes of this plan, the “Zoar Valley Unit” or “Unit” will be used to refer to these three parcels collectively being addressed in the UMP. Another detached parcel, known as East Otto State Forest, had previously been included in the MUA but has been excluded from this UMP process. Appendix A outlines the entire Unit Management Planning Process.

The Zoar Valley Unit is located in the Town of Collins (Erie County), and in the Towns of Persia and Otto (Cattaraugus County), New York. The gorge area of the Unit is located east and south of the Village of Gowanda and includes upland areas on both sides of Cattaraugus Creek and both sides of the South Branch of Cattaraugus Creek. The Cattaraugus Creek Waterway Access is located on North Otto Road on the Cattaraugus Creek in the Town of Otto, near the bridge at Burt’s Landing.

The Zoar Valley Unit encompasses about 2,923 acres. Approximately 1,912 acres are in Cattaraugus County and about 1,011 acres are in Erie County.

Currently, there is one hiking trail at the Zoar Valley Unit that had been maintained. DEC does maintain several parking areas to provide public access to the Unit. The Unit parking areas and access sites are described below and are shown in Figure 5.

1. The Forty Road parking lot, near the former Forty Road bridge, allows access to the South Branch of Cattaraugus Creek.
2. The Valentine’s Flats Road parking lot is located at the end of Valentine Flats Road in Cattaraugus County. This lot provides access to Overlook Point and unmarked foot trails to Valentine’s Flats, as well as other areas at the top of the gorge.
3. The Cattaraugus Creek Waterway access on North Otto Road has a parking lot with access to the water. Hand-carried water craft can be launched here. It is currently the only public place to start a boat trip on the main branch of Cattaraugus Creek within the Unit.
4. The Vail Road trail starts at Holcomb Pond parking lot and ends at the Ross Pond parking lot. This trail passes by Ross Pond and Holcomb Pond. The Ross parking lot, with room for about 5 vehicles, is off Vail Road near Unger Road. The Holcomb Pond parking lot has room for 2-3 vehicles.
5. The Purdy access is located off Forty Road and is blocked with earthen barriers to prevent vehicular access. Foot access by the public is allowed.
6. The Gravel Pit access trail is located off Forty Road in the southern most portion of the main Unit area and is accessible to the public for foot travel only.

There are several easements for Niagara Mohawk power line right-of-ways on the area. The largest is for a power line that runs across approximately 6000 feet of State land and exists on the main parcel of the Zoar Valley MUA. It crosses the Cattaraugus Creek gorge about 4500 feet east of the confluence with the South branch of Cattaraugus Creek and then goes west, exiting the State land in a northwesterly direction. The second easement is for about 1250 feet before leaving State land.

B. Vegetative Types & Stages

The 1987 DEC inventory of forested and other vegetative cover on the Zoar Valley Unit revealed information on the species of trees, size of trees (diameter class) and predominant species of trees found in each forest stand that was inventoried. Figure 2 shows the forest compartments or stands. The trees in the gorge were not inventoried as part of this evaluation since no timber management was planned. The results of the inventory are generalized in the table below.

Vegetative Types and Stages within the Unit

Vegetative Type	Acres by Size Class			% of Total
	0-5 "	6-11 "	12"+	
Natural Hardwood Forest	411	106	579	38
Natural Forest Conifer	0	0	0	0
Plantation	249	94	0	12
Acres				
Wetland	87			3
Ponds	5			<1
Open/Brush	237			8
Other- gorge, acres not inventoried	1,159			38

Some uncommon vegetation types exist on the Zoar Valley Unit including:

- a. A variety of landscape species not common in forests are found around old house foundations;
- b. Butternut trees are present, however, they are becoming rare due to disease problems;
- c. About 5 acres of rare riverine forest contain sycamore trees of substantial size. They are located near Valentine’s Flats. Other small areas of riverine forest are found along Cattaraugus Creek.

1. Tree Plantations

The Unit contains numerous plantations that were established by the DEC during the late 1960s and early 1970s for the purpose of creating conifer cover on some of the many old field sites on the area. They were also some hardwood plantations planted in an attempt to establish hardwood forest areas without waiting for natural succession. Many of the conifer plantations feature non-native species, while the hardwood plantations feature native species such as black cherry, black walnut, tulip poplar. The majority of the experimental hardwood plantations have not shown the desired growth on the sites where they were planted. One site near the Ross Parking Area off Vail Road is planted with American chestnut. This is a cooperative venture between the American Chestnut Foundation and DEC. Figure 3 shows the locations of the plantations.

2. Old Growth Forests

Several locations in the gorge and near the rim of the gorge contain impressive stands of large trees. Some trees within these forests are reputed to constitute examples of an “old growth” forest. These areas will be assessed according to the old growth definition found on page 25 of the plan. Some specimens have been noted as the tallest of that species in the State and in one case, the world. The ten that are the tallest in New York State include tulip poplar, sugar maple, slippery elm, American sycamore, black walnut, cottonwood, red oak, bitternut hickory, yellow birch and white ash. There is also a 128 foot tall basswood that has been reported to be the tallest in the world. Future inventories and the compilation of existing information are planned to better document and map the status of the mature forested areas of the Unit.

3. American Chestnut

American chestnut trees are scattered throughout the Unit. Most of those trees are found in the chestnut plantation. The New York State Chapter American Chestnut Foundation manages the plantation under an Adopt A Natural Resource Stewardship Agreement. The Agreement covers 18 acres, although trees have only been planted on part of the area so far. This is a research project that will hopefully lead to the restoration of American chestnuts to the forests of New York State. In order to protect the trees, a fence may be installed around the plantation. Cultural work will be undertaken as required.

Starting in 1991, the American Chestnut Foundation planted American chestnuts from various sources in the plantation located near the Vail Road access point. The trees are protected with plastic tree shelters. The young trees are replaced as needed from new stock raised by DEC from plantation seeds collected each fall by the Foundation.

C. Wildlife

The Zoar Valley Unit is home to a variety of wildlife species. A listing of the commonly found mammals and birds are found in Appendices H and D. Historically, wildlife inventories focused primarily on game species. Today numerous recreational and educational users with a variety of wildlife interests, ranging from birdwatching, nature study and

photography to more traditional activities such as hunting and trapping, utilize the Unit. To effectively manage a large, complex ecosystem, or a number of smaller ecosystems like those that make up the Unit, we must consider the entire wildlife spectrum. Given the transient or migratory tendencies of some wildlife species, a species observed in the past may not be on the Unit today or may be present in reduced numbers. Changes in the Unit's habitat may be responsible for fluctuation in some species numbers. Loss of grassland areas due to reforestation and natural succession is one noticeable change since the area was acquired. Likewise, other species may be on the Unit today that were not observed or recorded previously.

In recent years there have been an increasing number of bald eagle sightings on the area which lead Department staff to believe there may be one or more active nests along the gorge portion of the Unit. DEC staff hope to continue to monitor the area by aerial survey annually in order to confirm nest locations.

The forested component of the area is considered to be characteristic of a hemlock - northern hardwood forest. The wildlife species associated with the forest component and its associated open areas reflect this relationship. Commonly observed mammals include the white tailed deer, grey and red squirrels, chipmunk, woodchuck, red and grey fox, raccoon, beaver, muskrat, opossum, skunk, coyote and occasionally a black bear and mink. Other than the common game birds found on the area such as wild turkey and ruffed grouse, other listings of common songbirds and waterfowl are noted in Appendix D. White tailed deer use of the Unit during winter months includes areas which provide adequate conifer cover and terrain which limits exposures to winter winds. No defined deer wintering areas have been identified.

D. Wetlands and Water Resources

1. Fisheries

Fisheries resources within the Zoar Valley Management Unit are primarily associated with seasonal steelhead trout (*Oncorhynchus mykiss*) runs, of both wild and hatchery origin. Upstream migrations of this species occur in Cattaraugus Creek, the South Branch of Cattaraugus Creek and to a lesser degree in Utley and Waterman Brooks. Approximately 7 miles of trout fishing waters occur on the Unit. Water levels can limit access due to the nature of the Cattaraugus Creek gorge. Additional recreational fishing opportunities exist in Holcomb and Ross Ponds that support warm water fish communities. Fisheries surveys indicate the presence of largemouth bass (*Micropterus dolomieu*), yellow perch (*Perca flavescens*), sunfish (*Centrarchidae*) and minnows (*Cyprinidae*). Statewide regulations apply to all recreational fisheries within the Zoar Valley Unit. A listing of the water bodies and common fish species found in them is found in Appendix I.

2. Water Resources:

Along with the water resources associated with Cattaraugus Creek and its tributaries are ponds and small marshes that provide recreational opportunities as well as wildlife habitat. Holcomb Pond and Ross Pond are both located north of the main gorge and south of Vail Road. These ponds are man-made and are accessible by foot trails leading from the

parking areas on Vail Road. The pond dikes and water control structures maintain water levels at a somewhat constant level. Several beaver ponds exist along the trail between Ross and Holcomb Ponds. These ponds are built on natural stream drainage and the water levels are maintained by beaver. Other man-made ponds on the area include the “Wildlife Ponds” located south of the Forty Road and East of the old Purdy gravel pit. Small natural ponds and vernal pools occur throughout the upland areas.

3.. Wetlands

The 1987 DEC forest inventory (NYSDEC 1987) of the area indicates a total of 87 acres of wetland located on the Zoar Valley Unit, none of which is of sufficient size to be protected by State Law. The wetland sites are scattered throughout the wooded and open areas on both sides of the gorge. There are three rich sloping fens and one rich graminoid fen found on the area. One of the rich sloping fens is located just west of the Ross Pond on an unnamed tributary of Cattaraugus Creek that flows toward the Ross access road. The second is found south of Cattaraugus Creek and north of Wickham Road on another unnamed tributary of Cattaraugus Creek. The third is located adjacent to the Forty Road. These fens are characterized as being small, gently sloping, minerotrophic wetlands, with shallow peat deposits, that occur in a shallow depression on a slope composed of calcareous glacial deposits. The graminoid fen is located on Valentine’s Flats just South of Cattaraugus Creek. The fens are fed by small springs or groundwater seepage and are headwater wetlands with water constantly flowing through them.

E. Biodiversity

The New York Natural Heritage Program conducted a survey and identified four endangered and two threatened plant species within the gorges of the Zoar Valley Unit (NYSDEC 1993). The New York State endangered species noted in the report are: mountain watercress (*Cardamine rotundifolia*), rough leaf dogwood (*Cornus drummondii*), giant pine drops (*Pterospora andromedea*) and St. Andrew’s cross (*Hypericum hypericoides* var. *multicaule*) (6NYCRR Part 193.3 and section 9-1503 ECL). Schweinitz sedge (*Carex schweinitzii*), and golden seal (*Hydrastis canadensis*) are both considered threatened in New York State. The unique habitat conditions and remoteness of the gorges provide habitat and natural protection for these species.

F. Transportation Corridors

The State Forest Transportation system provides for both public and administrative access to the unit. Roads and trails are constructed to standards that will provide reasonably safe travel and to keep maintenance costs at a minimum. There are six types of transportation corridors providing different levels of access, depending on the standards to which they are constructed.

Public Forest Access Roads (PFAR) - Permanent, unpaved roads which may be designed for all-weather use depending upon their location, surfacing and drainage. These roads provide primary access for administration and public use within the unit. The design standards for these roads are those of the Class A and Class B access roads as provided in the Unpaved

Forest Road Handbook (8/74). As a general guideline, sufficient access is typically achieved when 1 mile of PFAR is developed for each 500 acres of State land, and no position within the unit lies more than 1 half mile from a PFAR or public highway.

Haul Roads - Permanent, unpaved roads which are not designed for all weather travel, but may have hardened or improved surfaces with artificial drainage. They are constructed according to best management practices primarily for the removal of forest products, providing limited access within the unit by log trucks and other heavy equipment. These roads may or may not be open for public motor vehicle use, depending on management priorities and objectives. They may serve as recreational access corridors, but are not maintained according to specific standards or schedules. The design standards for these roads are below those of the Class B access roads as provided in the Unpaved Forest Road Handbook.

Access Trails - Temporary, unpaved roads which do not provide all weather access within the unit. They are not designed for long term and repeated use by heavy equipment. These corridors were originally constructed for the seasonal removal of forest products by skidding to landings or other staging areas. Constructed according to best management practices, these trails may be used to support other management objectives such as recreational access corridors. Maintenance is limited to activities which minimally support seasonal access objectives.

Recreational Trail - Unpaved recreational corridors which do not provide all weather access within a unit, and are designed to achieve specific recreational access objectives. Constructed according to best management practices, and following accepted regional standards for design, these trails may be used to support multiple types of seasonal recreation access. Maintenance is limited to activities which minimally support the access objectives and design.

Public Road - Permanent, paved or unpaved roads primarily designed for motor vehicle travel which are maintained by Federal, State or local government. These roads may or may not provide year round access.

Rights-Of-Way - Permanent, paved or unpaved roads which allow the Department access to State forest properties while crossing private land, or, corridors across State forests allowing access to private in-holdings.

Roads and Trails

Both public and private roads intersect the Unit. The travel system ranges from unpaved foot trails, to paved public roads accessible by car or truck. Several roads crossed through the Unit in the past, although many have been closed. The remaining roads and trails are listed below. The Forty Road bridge was removed in 1995 due to safety concerns and has not been rebuilt. Several parking lots and access routes have been established in recent years in the Unit.

County Highways/ Town Roads:

Forty Road..... 1.7 miles
 Hill Rd. 0.6 miles
 North Otto Rd..... 0.03 miles
 Valentine Flats Rd..... 0.4 miles
 Wickham Rd..... 0.6 miles
 Gowanda Zoar Road..... 0.01 miles
 Vail Road.....1.1 miles
 Button Road..... 0.3 miles

Trails: (Administrative and foot access only)

Darling Access Rd.....0.2 miles
 Holcomb Pond Access Rd.... 2 miles
 Ross Access Rd.....1 mile
 Wildlife Access Rd.....0.5 miles

G. Recreation

Information on public use of the area has not been routinely collected from users except for a recent creel survey of steelhead anglers. The total number of cars at the Valentine’s Flats and the Forty Road access sites indicated that between 7,000 and 12,000 people used the area in the eight month period between September 2002 and May 2003. These figures were obtained by taking the average number of people per vehicle and multiplying by the number of cars counted. The number of anglers interviewed accounted for about 16% of the total number of users at the Valentine’s Flats access site.

Trails and access points are not routinely monitored for use. Available information on use of the area is generally from observances by staff and during patrols by DEC Rangers. Input on uses and potential uses was gained during the scoping sessions held for the purpose of development of this UMP. Appendix B summarizes the comments and input received during those scoping sessions and Appendix C lists the DEC responses to those comments.

Zoar Valley is a popular area for a variety of diverse outdoor recreational activities. Most are traditional and accepted uses of public land. Following is a list of some of the activities that have been documented in the Unit. The list does not indicate DEC’s priority of importance nor significance of those activities. Special regulations for public use of the Zoar Valley MUA currently prohibit some of these activities (see 6 NYCRR 190.25, Appendix F). Most of the prohibitions were implemented in the late 1970s in response to complaints and difficulties with overnight camping and concerns about the impacts of those activities on the Zoar Valley ecosystem. Safety and local laws were also a consideration for prohibiting some of these activities.

Activity	Regulation
All-terrain vehicle (ATV) & 4WD off-road vehicle use	Prohibited (6NYCRR 190.25[c] and [d])
Camping*	Prohibited (6 NYCRR 190.25[b] and [j])
Canoeing	
Cross country skiing	
Fishing	Regulated (6NYCRR 190.25[i])
Fireworks displays	Prohibited (6NYCRR 190.25[e])
Flower picking	Prohibited (6NYCRR 190.25[k])
Geocaching	
Hiking	Regulated (6NYCRR 190.25[i])
Horseback riding	Regulated (6NYCRR 190.8[g])
Hunting	Regulated (6NYCRR 190.8[e])
Kayaking	
Motorcycle riding on & off road	Prohibited (6NYCRR 190.25[c] and [d])
Nature observation	
Nature photography	
Natural Resources research	Regulated Part 8426.08 PPM
Nature & wildlife art	
Paintball games	Prohibited (6NYCRR 190.25[e] and [g])
Picnicking	
Snowmobiling	Prohibited (6NYCRR 190.25[c] and [d])
Snow shoeing	
Sun bathing	
Swimming/wading	Prohibited (6NYCRR 190.25[e])
Target shooting	Regulated (6NYCRR 190.25[e])
White water rafting	

* Camping on the Unit has been prohibited since July 16, 1971 due to numerous situations involving irresponsible behavior on the part of some individuals who used the area for over night camping in the three years prior to the ban being put in place.

H. Inventory of Facilities

Permanent facilities in the Zoar Valley Unit consist of parking areas, some access roads and the hand launch boat access site on Cattaraugus Creek (Figure 5). Trails are evident from use by the public but most are not maintained by DEC. Since the area was originally farmed, there are remnants of old building foundations, lime kilns, dug water wells, and burial sites. Evidence of a family cemetery plot still exists south of Cattaraugus Creek and north of Forty Road and is surrounded by State land. The former Forty Road bridge abutments remain as well as the plugged abandoned gas well near the Valentine’s Flats parking area. The Niagara Mohawk Corporation’s power transmission lines also traverse the Unit.

I. Geological

The gorge of Cattaraugus Creek in the Zoar Valley MUA cuts west for 7.5 miles through Late Devonian shales and silt stones of the Canadaway formation. The heights of the cliffs range from about 100 feet to about 500 feet if you measure to the tops of the hills. Surface expressions of the Alleghenian Bass Island Trend are exposed in the main branch as joints and a pop-up fold trending northeast. Other joint sets trend north, east northeast and northwest. Surficial deposits and land forms provide clues to the sequence of events leading to gorge formation, but present more mysteries. Although flowing parallel to strike, Cattaraugus Creek is not a typical subsequent stream. The stream traverses at least three pre-glacial north-flowing stream valleys dammed by the Valley Heads Moraine. There is a curious erosional remnant at the confluence of the main branch and the South Branch of the Cattaraugus Creek. The creek drops at an average gradient of 0.3 percent from the head of the gorge to the first rapid, 0.6 percent from the first rapid to the mouth of the gorge and 0.4 percent to the end of the rapids one mile downstream of the mouth. Practically all of the drops occur in 19 rapids. A strong correlation exists between rapids, silt stone beds, joints and cross channel cobble and boulder deposits (Meyers 1999).

The soils of the Unit are for the most part of glacial origin. Unlike the shallow glacial hardpan soils of much of Chautauqua County, most of the soils in the Unit are quite deep and were deposited at the edge of the retreating glaciers. As a result, soils here are quite different from those of un-glaciated areas like Allegany State Park. Many of the areas of the Unit that have soil limitations do not support the growth of forests and have high erosion potential, poor drainage, seasonal perched water table and low permeability.

Current Storage Leases- National Fuel

Site	Year	Acreage	Lease Duration
R 4050	1966	222	Leases continue until strata is no longer used for storage.
R 776.9	1966	70	
R 775.9	1966	37	
R 774.9	1966	100	
R 176772	1981	142	Sept. 29, 2011

Terminated Leases

Lessee	Year	Acreage
Gower Oil	1977- 1987	387
National Fuel	1977- 1987	Unknown
US Energy	1992- 1994	11.44
US Energy	1991- 1994	386.6

A part of the MUA located in Erie County includes the National Fuel Gas-Collins gas storage field. Natural gas is stored there in natural underground formations until it is needed. National Fuel Gas (NFG) has several leases on the Erie County portion of the MUA as part of this storage field as referenced above. One lease is a no-drilling, no-entry lease. The others were inherited by the State when the property was acquired and the State is bound to the terms of the leases which allow NFG entry and drilling rights for storing and withdrawing natural gas.

There are no active gravel pits on the State property of the Unit. Larger gravel pits, located adjacent to or nearby the Unit, are on private property. Two small gravel pits near the Purdy Road access site had historically been used by DEC for minimal amounts of material for road maintenance on the Unit.

J. Administrative Facilities

There are several small historic gravel pit sites on the main part of the Unit which are no longer active. These sites are located near the Purdy Road access site off the Forty Road.

K. Deeded Exceptions

1. Herbert Darling Parcels

In 1961 and 1962, Mr. Herbert Darling deeded 1425 acres, including the Valentine's Flats and the Forty Bridge area, to the State of New York. There were 5 deeds involved, and each deed contained the following statement:

“This land is conveyed as a gift to the State of New York in the thought that its gorges be retained in their wild state; that for the enjoyment of the public no development other than simple foot trails be made with [sic] the gorges, and that only such development be made at the immediate gorge rims as are necessary to insure the safety of those enjoying the scenic values of the gorges. The state insofar as possible will keep it so but this shall not be deemed a condition as to the grant.”

Although this statement is not a deed restriction, DEC has in the past and intends in the future to follow the spirit of this request by protecting the gorge and the gorge rim as outlined, with public access afforded.

L. Cultural Resources

The Zoar Valley gorge is a significant scenic resource within the Zoar Valley Unit. Scenic resources within the gorge include the steep shale cliffs and the Cattaraugus Creek that flows through the gorge, the South Branch of Cattaraugus Creek, which flows through its own gorge and joins with Cattaraugus Creek near Valentine's Flats, waterfalls located on State property where tributaries cut through the steep cliffs to Cattaraugus Creek or to the South Branch of Cattaraugus Creek and tall trees in areas near the rim of the gorge and along some of the steps of the gorge. Holcomb Pond and Ross Pond are both easily accessible and scenic. They are man-made ponds, but have no built structures near them other than the pond berms and water control devices. Other ponds and marshes in the Zoar Valley Unit provide views of nature and wildlife.

The Unit was impacted by historic uses prior to acquisition by New York State. The area was largely farmed, including the lowlands near the Cattaraugus Creek, commonly referred to as Valentine's Flats. Several saw mills were located in the valley and remnants of stone walls, lime kilns, and other structures are present. Around 1865, the Atlantic and Great Western railroad was planned and would have crossed the Zoar Valley near North Otto Road. This project was abandoned but not until after the approaches to the bridge were built. Some parts of the railroad grade still exist but much of it was converted back into farmland. Oil and gas wells were drilled in the area during the late 1890s. In 1926 the Valentine property was deeded to Niagara, Lockport and Ontario Power Company. The power company wished to develop a hydroelectric power dam and test borings were made in the area just above Point Peter to determine if the rock would support the construction of a dam. The brittleness of the shale rock made the site impractical for dam building.

M. Landscape Conditions

The Zoar Valley Multiple Use Area exhibits topographical features typical of the Allegheny Plateau of which it is a part. Steep valley walls are common place, as are shown by the Zoar Valley gorge and the South branch of the Cattaraugus Creek. Wide flat ridge tops with elevations near 1400 feet mean sea level and a gorge bottom elevation of about 800 feet mean sea level show the wide variance in the topography of the area. The steep shale cliffs which form the gorge walls in the main branch of Cattaraugus Creek reach over 400 feet from the creek bottom. Scenic features include Overlook Point which overlooks Valentine Flats and the confluence of the main branch of Cattaraugus Creek with the South Branch, waterfalls along the steep cliffs and tributaries, rapids and large trees along the gorge walls and stream side add to the scenic attraction of the area. The topographic features are evident when viewing the USGS Topographical Quadrangles for Collins Center and Gowanda. A topographical map that shows the entire area known as Zoar Valley and its associated tributaries can be seen in Figure 6.

III. Use and Demand

A. Consumptive Activities

1. Timber Harvest

Areas in the Unit that were harvested previously through commercial revenue contracts are shown on Figure 4. The record of these sales only cover the time period since State ownership in 1961. DEC records indicate that a total of 478 acres were harvested through

those contracts. Local sales on small acreages were also administered. DEC Region 9 Forestry staff marked the trees to be removed under contract and administered all aspects of the timber sale. The goal of each timber sale was to manage the timber for an older forest characteristic. Trees were removed that were of poorer quality, showed signs of less vigorous growth, were slower growing, or were a less desirable species. Some of the areas harvested in the past took place near the gorge rim, but trees were not removed from the gorge walls. No commercial harvests took place on the detached parcel. This portion of the Unit is characterized by younger trees and old fields planted to conifer plantations.

2. Mineral Resources Use

Historically, there was limited natural gas production in the Zoar Valley Unit. Private gas well extraction activities on adjacent lands continues today and likely impacts natural gas resources under the Zoar Valley Unit. National Fuel Gas has a permitted gas storage field under a portion of the Unit. Gravel was occasionally removed for on site road construction and maintenance from small pits on the Unit however these pits will not be used in the future.

3. Hunting

Similar to most State land in this Region, deer hunting pressure is assumed to be moderate due to the popularity of the area with big game hunters. There is currently no deer hunting pressure data for the Unit. Black bear are likely found in the Unit but their harvest is currently prohibited in the portion of the Unit north of Cattaraugus Creek. For small game, ring neck pheasant hunting is moderate due to the fact that DEC releases State game farm-raised birds at two sites in the Unit, Button Road and Vail Road. There is also evidence of moderate levels of wild turkey hunting in the area as well. The Unit is utilized to a lesser degree for gray squirrel and grouse hunting. Harvest data for all species is unknown at this time. There is likely limited trapping for beaver at Ross and Holcomb Ponds, but harvest rates are unknown.

4. Fishing

Ross and Holcomb Ponds are utilized by shoreline anglers. Both ponds have populations of largemouth bass and other sunfish species. Harvest rates are unknown. There is also a significant lake-run rainbow trout (steelhead) population that migrates upstream from Lake Erie in the Cattaraugus Creek watershed. Despite limited access points in the Unit, shoreline steelhead angling has been documented and a recent creel survey was conducted to assess catch rates. The total catch of salmonids between 9/10/03 and 5/15/05 were 85,414 individuals of which 82,870 were steelhead.

B. Education, Interpretation and Research

The Zoar Valley area has been of interest to educators for many years. Both professional and amateur naturalists are attracted to the Zoar Valley. The area is popular due to its geography and the old trees found within the gorge area. Private individuals and organizations lead educational tours into the gorge and rim areas. These activities are not currently monitored by the DEC. No observable detrimental effects on the Unit environment have been noted from these groups.

Private research has been conducted on the age and location of old trees in the Zoar Unit. The American Chestnut Foundation is also conducting research and has established a plantation of American chestnut trees on the site.

While the Department is not currently conducting any formal education or research on the area, in the past information was gathered by DEC staff and volunteers in order to update species diversity information for the Breeding Bird and Amphibian and Reptile Atlas (Appendices D and E, respectively). These surveys are generally updated on a ten year basis.

C. Opportunities for Persons with Disabilities

The Federal Americans with Disabilities Act of 1990 (“ADA”) along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973, have important implications for the management of all public lands, including the Zoar Valley Unit. In 1997, DEC adopted policy CP-3, Motor Vehicle Access to State Lands under Jurisdiction of the DEC for People with Disabilities, that establishes guidelines for issuing temporary revocable permits allowing people with disabilities to use motor vehicles to gain access to designated routes on certain State lands. There are no existing CP-3 routes in the planning area.

Two public access points currently lend themselves to the possibility of development of access for persons with disabilities. One is the Forty Road access point and the other is the Valentine’s Road access point. Both are discussed in Section VII under Management Actions.

D. Relationship Between Public and Private Land

The Zoar Valley gorge area is a popular destination for outdoor enthusiasts. However, the State does not own every parcel within the gorge area, and property lines are not always easy to discern. Some adjacent landowners have expressed concern about people trespassing on their property who believe the land is publicly owned or simply want to reach State property. Some waterfalls frequently visited by the public are actually located on private property adjacent to State property. The Nature Conservancy owns property along the South Branch of Cattaraugus Creek south of the State owned Zoar Valley Unit. This preserve, known as the Deer Lick Conservation Area, is separated from State land by other private parcels. This 400 acre area is well marked with trails and a parking area clearly defined. This area provides additional acreage for public access to the gorge and surrounding watershed and is an excellent example of private stewardship of this important ecological area. The Deer Lick Conservation Area contains a popular waterfall that has become a destination for many day hikers.

Search and rescue operations conducted by DEC’s Forest Rangers of the Division of Fire Protection and Forest Management have become fairly routine during the hiking and canoeing season in the area. On occasion, the quickest and easiest access to the lost or injured subjects is through private lands. Improving access for search and rescue has been noted during public meetings as an important issue for the local rescue units in the Village of Gowanda.

The use of some private lands adjacent to the Zoar Valley Unit has recently been noted by public supporters of the area as being in conflict with the preservation philosophy of the general public. One example is the removal of sand and gravel deposits from property close to the gorge on the north side of the Unit. While privately owned, the State has taken this concern into consideration during the comment period of this process and has actively pursued the acquisition of additional parcels in the area.

Another concern is the removal of mineral resources, namely oil and natural gas, from nearby lands and from under State owned land. Subsurface mineral rights are often not sold nor transferred during real property transactions. Many parcels in this part of New York State, including the Zoar Valley Unit, have mineral rights owned by other than the surface owner due to historic reserves of oil and gas. Historic gas wells exist on the Unit as well as on private land adjacent to the Unit. This issue is one noted by the public and has been considered during this process. The mineral resources and leases are described in Section II-I.

IV. Management Goals

It is the goal of the DEC to manage all State Forests for multiple use to serve the needs of the people of New York State. This management will be considered on a landscape level not only to ensure the biological diversity and protections of the ecosystem but also to optimize the many benefits to the public that these lands provide.

The DEC's approach to management of the Zoar Valley Unit will balance the desire for public passive recreational use with the need to preserve the character of the area and the capacity of the resources to withstand those uses. The following principles will be applied:

- a. Protect, preserve and restore the natural resources of the Unit.

Management will stress sustaining the existing environmental conditions and potentially restoring those areas and resources which have been or are being degraded.

- b. Provide for a variety of outdoor recreational uses so long as those uses do not degrade the natural resources of the Unit.

Management will provide for a wide variety of outdoor recreational activities consistent with the resource capacity to withstand use. Care will be taken to prevent overuse of areas within the unit, and areas of the unit which provide some degree of solitude and sense of remoteness will be managed to retain those attributes.

- c. Manage the Unit as an ecosystem employing interdisciplinary scientific and public interest skills.

The natural resources of the Unit are interrelated and the management of the Unit must deal comprehensively with those resources and their interrelationships. DEC will continue to seek to improve our knowledge of these interrelationships. In addition, our working relationship with natural resource professionals, educators, technicians and local interests will be geared to working as a team to focus on preserving and enhancing the resources of the Unit.

d. Manage the Unit with the “minimum tool” approach.

All management actions will be reviewed to determine first if they are necessary, and then to determine the minimum action or tool that will accomplish the task. Management will seek the available alternatives that will have the least possible impact on the resources of the Unit and the visitor’s experience.

V. Management Objectives

Following is a summary of the significant findings and management directions to be implemented in the Zoar Valley Unit under this UMP. The unique qualities of the Zoar Valley Unit, its biological diversity, old growth forest, scenic vistas and passive recreational value will be protected and restored by DEC by implementing the following recommendations. DEC will:

1. Divide the main portion of the Zoar Valley Unit into two management areas by designating a “protection area” comprised of the gorge and a 300' buffer zone along the rim of both the north and south sides of the main gorge and east and west sides of the South Branch of Cattaraugus Creek and seek to have that area reclassified as recommended in the next paragraph while maintaining the MUA designation for the remainder of the Unit. This protection area will be complemented by additional buffers along access routes and trails that are within the MUA and lead into the gorge area. These access trails will also be protected by buffer areas of approximately 200 feet in total width. There will be limited cutting of trees or development in the buffer areas along the trails to allow for motor vehicle access by DEC staff and contractors to access adjacent areas for management activities or to construct hiking trails. Buffer areas that are within the MUA will be managed for public safety, aesthetic value and possibly for wildlife habitat improvement along access trails into the protection area. In the protection area there will be no cutting of trees or development except as necessary to develop access for persons with disabilities, for hiking trails and for maintenance of parking lots. The use of motorized vehicles by the public in this protected gorge area will be prohibited by regulation, except for safety and emergency reasons;
2. Ask the New York State Legislature to dedicate the portion of Zoar Valley Multiple Use Area identified as the “protection area” to the Nature and Historic Preserve Trust, as outlined in the NYS Environmental Conservation Law, Article 45;
3. Pursue the protection of additional properties in the area on behalf of the State and in collaboration with other partners. Those parcels should add to the overall gorge areas of the main branch of the Cattaraugus Creek as well as the South Branch of Cattaraugus Creek. The intended use of these properties will be to add to the protected areas already under State and private stewardship in the watershed and classified as indicated in number 2 above.
4. Implement regulation changes for the entire Unit to reflect the change in designation of the gorge and buffer areas to the “protection area” and ultimately the dedication of the “protection area” to the State Nature and Historic Preserve Trust and to support uses that are consistent with current policies and direction;

5. Manage all the forested stands outside the “protection area” on the main Unit including both single species plantations and natural forest stands in the upland areas of the Zoar Valley Unit over time with the intent to restore the biological diversity of the mature eastern hardwood forests, as well as to improve wildlife habitat where appropriate. This action will not be for the purpose of managing for commercial timber value. Recent plantations of American Chestnut will be continued in an effort to provide important research into the restoration of this extirpated species;
6. Pursue Natural Resource Stewardship Agreements with appropriate groups and entities in order to improve the overall stewardship of the Zoar Valley Unit;
7. Emphasize public safety in future DEC publications on recreational use of the area and in future informational kiosks on the area.
8. Review the UMP and potentially revise it on a five year schedule as long as resources for that purpose are available.

A definition of old growth forest is included in this UMP for the first time and represents the working definition New York State will use in the stewardship of the Zoar Valley Unit as well as in other planning and land management efforts statewide. For the Zoar Valley Unit, it will be applied to geographic areas inventoried to determine to what extent and where the areas of old growth forest are in the Unit. Those locations will later be publicized in documents made available to the public. The definition is found in Section VII Management Actions.

The detached parcel of approximately 387 acres currently managed as part of this Unit will continue to be addressed in this UMP. Another detached parcel known as Cattaraugus #15, East Otto State Forest, will not be addressed in this UMP.

The Zoar Valley UMP has been developed pursuant to, and is consistent with, relevant provisions of the New York State Constitution, the Environmental Conservation Law (ECL), the Executive Law, Department of Environmental Conservation (“Department”) rules and regulations, Department policies and procedures and the State Environmental Quality Review Act.(Appendix A)

The DEC’s approach to management of natural resources includes four factors in identifying potential management actions for an area:

1. The identification of acceptable resource and social conditions as defined by measurable indicators;
2. An analysis of the relationship between existing conditions and those desired;
3. Determinations of the necessary management actions needed to achieve desired conditions;
4. A monitoring program to determine if objectives are being met.

The following list of indicators will be used by DEC for measuring and evaluating impacts on the Zoar Valley Management Unit:

1. Condition of vegetation in high use areas and riparian areas near waterbodies;
2. Extent of soil erosion on trails;
3. Noncompliant behavior;
4. Conflicts between different user groups;
5. Diversity and distribution of plant and animal species;
6. Air and water quality;
7. Time and frequency of search and rescue operations and / or recreational accidents;

These indicators form the basis for the proposed management actions proposed. This approach will require flexibility, resources, enforcement, outreach, negotiation, determination and patience.

The proposed management of the Zoar Valley Unit is divided into the following three categories:

- A. Land Protection;
- B. Land Management and Recreation; and
- C. Access and Safety.

These three proposed management action categories are based on the four categories used at the public scoping sessions which included:

- | | |
|---------------------|---------------------------|
| (1) Access | (3) Recreation |
| (2) Land Management | (4) Safety and Evacuation |

These categories were used during the public meetings to address issues and concerns. Each category is further broken down into component units where the present conditions are assessed, management objectives developed and management actions proposed. All recommended actions are consistent with the overall management policies, guidelines and principles outlined above, and are based on information gathered during the UMP development process and through public input.

VI. Information in Support of Goals and Objectives

The Zoar Valley Unit will be specifically managed for protection of the unique characteristics of this gorge ecosystem in a manner that allows open public access and passive recreational use in as safe a means as possible. The Cattaraugus Creek gorge area will not be managed except to provide public access. Those areas adjacent to the gorge and its buffer will be managed for access to the Unit and potentially for habitat improvement, as well as to allow for the natural return of the plantation areas to their former mixed hardwood composition or grassland.

The information gained from the two Public Scoping Sessions held prior to the preparation of this plan indicated strong public interest in protecting the gorge and a buffer area adjacent to it, and any areas which contain the characteristic of old growth forest. This has been accomplished through the designated “protected area” and buffer along access trails leading to the protected area.

There was also strong public opinion requesting the designation of the portion of the Unit which contains the gorge of main and south branch of Cattaraugus Creek and the potential old growth characteristic trees and forest as a separate area. This is accomplished through the intent to request that the State Legislature designate this portion to the State Nature and Historic Trust.

The detached area of the Zoar Valley Unit will be managed to optimize the potential benefits of that area to the public, forest and wildlife habitat while recognizing its place in the Zoar Valley watershed and the necessity to consider any impacts management may have on the Cattaraugus Creek watershed, in general.

The Zoar Valley Unit has been managed by the DEC Region 9 Office of the Division of Lands and Forests. Other programs that have had involvement and input in the management of the Unit include Regional Administration, Operations, Fish, Wildlife and Marine Resources, Mineral Resources, Forest Protection and Fire Management, Law Enforcement and Public Affairs and Education. The DEC’s Central Office Division of Lands and Forests will continue to provide direct policy and program oversight for management of the Unit. Management of the Zoar Valley Unit will continue to be guided by these DEC Regional and Central Office units using existing laws, standards, rules, regulations, guiding documents, the property deeds, and DEC policies.

A. Americans with Disabilities Act

The Americans with Disabilities Act (ADA), Appendix K, along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on the manner by which people with disabilities are afforded equality in their recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities and use of public accommodations. Title II of the ADA applies to the Department and requires, in part, that reasonable modifications must be made to its services and programs, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden to the DEC. Since recreation is an acknowledged public accommodation program of the Department, and there are services and

activities associated with that program, the Department has the mandated obligation to comply with the ADA, Title II and ADA Accessibility Guidelines, as well as Section 504 of the Rehabilitation Act. Any activities planned in the Zoar Valley Unit will be reviewed relative to the applicability of these acts. This could include the construction and maintenance of facilities, such as trails, bridges, trail heads, signs, etc.

B. Minerals Management on the Unit

There will be no surface disturbance for minerals extraction allowed on the Unit. Existing leases for underground gas storage will be honored and future applications which would request extraction of gas and oil from underneath the Unit via directional drilling from adjoining private properties will be undertaken as per Title 11 Section 23-1101 of the Environmental Conservation Law. Existing surface mining sites (gravel) that are planned to be reclaimed will be completed by following mined land reclamation standards noted in Appendix J.

C. Pertinent State Land Classifications

The Zoar Valley Unit is currently classified as a Multiple Use Area as described and defined below. Other State land classification that have been discussed relative to the Unit include Unique Areas and the dedication of a portion of the Unit to the State Nature and Historical Preserve Trust. The pertinent portions of the Parks, Recreation and Historic Preservation Law and the Environmental Conservation Law for these State land classifications are given below.

Multiple Use Areas (MUA)

The MUA designation for the Zoar Valley Unit is due to the fact that it was acquired with 1960 Bond Act funds. Parks, Recreation and Historic Preservation Law, 15.01 (1) (b): "...Moneys received by the State from the sale of bonds sold pursuant to the park and recreation land acquisition bond act of 1960 and 1962 shall be expended for the following purposes: For the acquisition of real property for other than State park or municipal park purposes, to provide additional opportunities for outdoor recreation, including public camping, fishing, hunting, boating, winter sports and, wherever possible, to also serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry and reforestation." Definition: A parcel of land owned by the State acquired for outdoor recreation, including public camping fishing, hunting, boating, winter sports, and, wherever possible, to also serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry and reforestation. Because the lands of the Zoar Valley Unit were acquired with 1960 Bond Act funds, it is classified as a Multiple Use Area.

Unique Areas

ECL 51-0703 (4): "A State project to acquire lands of special natural beauty, wilderness character, geological, ecological or historical significance for the State nature and historical preserve and similar lands within a forest preserve county outside the Adirondack and Catskill parks". Definition: A parcel of land owned by the State acquired due to its special natural beauty, wilderness character, or for its geological, ecological or historical significance for the State nature and historical preserve, and may include lands within a forest preserve county outside the Adirondack and Catskill Parks.

State Nature and Historic Preserve Trust

ECL 45-0117 (3): “Lands dedicated to the preserve (State Nature and Historic Preserve Trust, as referred to in Section 4 of Article XIV of the State Constitution) are declared to be put to their highest, best and most important use and are to be held for one or more of the following purposes:

1. As natural communities for maintaining plants, animals and natural communities;
2. As reservoirs of natural materials and ecological processes that contribute to the State's biological diversity;
3. As field laboratories for scientific research and education in the natural sciences, including the fields of biology, conservation, ecology, natural history and paleontology;
4. As places of natural and historical interest and beauty which provide the public with passive recreational opportunities including, where appropriate, fishing, hunting and trapping, or commercial fishing opportunities that are compatible with protecting the ecological significance, historic features and natural character of the area.”

D. Current Rules and Regulations

The list of specific rules and regulations which govern the public use of the Zoar Valley Unit are found under the Codes, Rules and Regulations of the State of New York, title 6, Chapter II Lands and Forests Part 190 (6 NYCRR 190). Current use regulations are noted in Appendix F. The description of the area covered by these regulations is as follows:

190.25 Zoar Valley Multiple Use Area. Description. For purposes of this section, Zoar Valley Multiple Use Area means all those State lands lying and situated in the towns of Otto and Persia, Cattaraugus County, and the town of Collins, Erie County, including a five-mile segment of the Cattaraugus Creek and a two mile segment of the south branch of Cattaraugus Creek, being the same lands as more particularly described in several deeds conveying said lands to the People of the State of New York, on file in the Department of Environmental Conservation, Albany, NY, and duly recorded in the office of the county clerk of the county of Cattaraugus and the office of the county clerk of the county of Erie, respectively. Said Zoar Valley Multiple Use Area shall be hereinafter referred to in this section as “area.”

The following list includes public uses that are not allowed on the “area”:

- | | |
|------------------------------|---|
| Flower picking 190.25(k) | Motorcycle riding (on/off road) 190.25(c)(d) |
| Snowmobiling 190.25(c)(d) | ATV and 4WD off-road vehicle use 190.25(c)(d) |
| Camping 190.25(b)(j) | Fireworks displays 190.25(e) |
| Paintball games 190.25(e)(g) | |

E. Department and Division Policies

DEC policy has been developed for the public use and administration of State forest lands. Select policies relevant to the management of this unit include:

1. Motor Vehicle Access to State Lands Under the Jurisdiction of DEC for People with Disabilities (CP-3).
2. Standards and Procedures for Boundary Line Maintenance (NR-91-2; NR-95-1).
3. The Administration of Conservation Easements (NR-90-1).
4. Acquisition of Conservation Easements (NR-86-3).
5. Division Regulatory Policy (LF-90-2).
6. Adopt-A-Natural Resource (ONR-1).
7. Policies and Procedures Manual Title 8400 - Public Land Management.

The recommendations presented in this UMP are subject to the requirements of the State Environmental Quality and Review Act, Article 8 of the ECL. All proposed management activities will undergo an environmental assessment.

VII. Management Actions

DEC obtained information from the public by way of two scoping sessions, held on October 21, 2003 at the American Legion Post 409 in Gowanda and on October 23, 2003 at the Bellevue Fire Hall in Cheektowaga. DEC also accepted comments through the mail for several months following the scoping sessions. Several issues of concern were brought to the attention of the Department during the development of this plan. Appendix C includes a list of issues, needs and desires received from the public and DEC staff. Where concerns have not resulted in Proposed Management Actions being developed, a justification for excluding that point is provided.

A. Specific Actions for Land Management

The entire Zoar Valley Management Unit will be managed for passive recreational use. DEC will limit access to foot traffic and by water craft only. Forest Rangers and Environmental Conservation Officers will continue to patrol the area. Management activities for each forest area or compartment are noted in Appendix G. A more complete inventory and compilation of existing information on possible old growth areas will be undertaken and documented. This information will be used to better monitor impacts of use, potential access improvements and the appropriateness of the management of the area.

1. Old Growth Forest Definition

Defining old growth forests will assist in the management of the forest ecosystem, not only in the Zoar Valley Unit, but statewide.

DEC defines old growth forest as:

“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 are **(1)** 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 (Aird 1995; Brady 1984; Commonwealth of Massachusetts 1999; Dahms and Geils 1997; Dunster and Dunster 1996; Davis 1996; Franklin et al. 1981; Helms 1998; Helms 2004; Hubbard et al. 1998; Leopold, Reschke and Smith 1988; Leopold 2003; Lund 2004; Nyland 2004; Spies 2004; Temperate For. Found. 1989; U.S. Dept. Int.; Canadian For. Serv.).

This definition will be applied to areas after the forest inventory is completed (see Section IV) to determine, map and publicize areas that contain old growth forest in the Unit.

2. Forest Management

Forest management activities will be limited to areas outside the “protection area” and management actions will be directed to convert conifer plantations to natural forest stands or grasslands, maintain existing grasslands and shrub land communities, enhance conditions for unique species and habitats, increase overall species and forest diversity, control unwanted exotic species, and create opportunities for the reintroduction of diminishing species such as American chestnut and butternut. Natural stands will be managed to control exotic species, enhance conditions for unique species and habitats and to increase overall species and forest structural diversity. Tree removal would be one of the tools used to meet this management objective. The cutting and removal of trees outside the “protection area” will be done to achieve the desired management goals only, not to generate revenues. While we recognize commercial harvesting was objected to during public meetings and outreach, this method is oftentimes the only viable option due to funding constraints and commercial harvesting under these scenarios would be done only for the purposes stated above. Figure 3 indicates plantation areas that are proposed for conversion to native tree species in the future, as resources permit.

The most recent DEC inventory of trees in the area outside of the gorge was conducted in 1987. The data collected were based on a timber inventory system. Those data are somewhat out of date due to the changes in individual tree growth or decline, and the changing species composition of the plant communities. The trees in the gorge were not inventoried because no management of timber was planned to take place there. A new inventory of the trees in the Unit, excluding the protection area, will be conducted. The DEC is in the process of

developing a Natural Resource Inventory (NRI) system which will be used on all State forests. When finalized, the new system will be implemented on the Zoar Valley Unit. Until that inventory has been completed, it will not be possible to accurately determine the acreage of all forest areas proposed for management. Some of the information that needs to be determined for each timber stand before some management activities can be planned are relative stand density, percent of acceptable grade stock, and the number of years to maturity. In the interim, available data and information on the Unit will be stored in a computer database. Information on the size, species composition, soils, and proposed management activities will be kept in this database.

The New York Natural Heritage Program information also needs to be updated. The last survey of the area was conducted in 1993. A copy of the report is available for public review at the Falconer DEC Office, 215 South Work St. Falconer, NY 14733. DEC is in the process of contracting with Natural Heritage to carry out an update of that work on the Unit and other State forests. Enhancement of conditions for unique species and habitats will be carried out if those species are located. If rare or endangered plants or animals are discovered, they will either be left undisturbed or the surrounding conditions may be modified if it would benefit those species. Natural species and diversity will be improved by managing areas to contain healthy native trees.

There is also an opportunity to reintroduce native vegetation to the area. An experimental American chestnut plantation is maintained to provide plant material to be used to find a resistant tree. The American chestnut plantation is noted on Figure 3. When resistant trees are produced they will be reintroduced to the Unit. Another species suffering from disease and that could be reintroduced is the butternut. Its reintroduction will be considered by DEC.

B. Specific Actions for Fish and Wildlife

1. Flora and Fauna Inventory

A detailed inventory of wildlife habitats and existing wildlife on the Unit will be conducted in 2007. The mapping of wetlands, ponds, fens and potholes should also be improved. Newly discovered rare or endangered animals and their habitats will be documented. The New York Natural Heritage Program and The Nature Conservancy will continue to identify and map unique plants, features, rare or endangered plants or plant communities. Management activities that may have an adverse impact on those species should be modified, postponed or discontinued in that immediate area. Better soils information for Cattaraugus and Erie Counties will be obtained by DEC when available and entered in to the Unit database. Whitetail deer wintering areas will be mapped. Ruffed grouse population levels associated with proposed management activities in the converted upland spruce stands will be monitored.

2. Endangered, Threatened and Special Concern Animal Species

The animal species noted in this section were not necessarily documented on the Zoar Valley Unit but are assumed to be there or in the vicinity due to their evidence during surveys in the area. Similar habitats to those where these species were documented are available on the Unit and therefore, the assumption can be made that these species exist on the Unit. Future

surveys are proposed to be conducted to verify the existence of these species and to attempt to document others that may be utilizing the Unit as well. Management recommendations for each species are noted where appropriate.

a. Birds

Species that were observed and showed evidence of breeding within the New York State Breeding Bird Atlas blocks containing the Zoar Valley Unit and are described below. This is interim data representing field work conducted in the mid-1990s. It is possible, but not certain that they breed within the Unit.

Cooper's Hawk (*Accipiter cooperii*) Special Concern. The location of any Cooper's hawk nests are unknown at the present time. Active nest sites should be inventoried by inspection of suitable forest nesting habitat. If this is not possible a record should be kept of locations of any newly discovered nest sites. Areas where tree removal for habitat restoration or trail construction is proposed will be checked before proceeding with the activity. Disturbance of nest sites will be avoided by scheduling management activities outside the nesting period and preventing harvesting or construction near active nests.

Sharp-shinned Hawk (*Accipiter striatus*) Special Concern. The locations of any Sharp-shinned Hawk nests are unknown at this time. The above recommendations for Cooper's Hawk also apply for this species.

Red-shouldered Hawk (*Buteo lineatus*) Special Concern. The above recommended actions for inventory and protection of Cooper's Hawk and Sharp-shinned Hawk nests also apply to this species.

Northern Harrier (*Circus cyaneus*) Threatened. The remaining grassland habitat on the Unit should be surveyed to identify any active harrier nests. Any identified nests should be inventoried and protected from disturbances such as access construction or tree planting during the nesting period. The open field near the Ross access is large enough to provide nesting habitat for harriers as well as other grassland nesting species. This grassland habitat will be maintained by continuing the present management of three-year rotational mowing. The quality of this grassland for harrier nesting could be improved by the application of fertilizer and replanting of grasses. These latter practices would improve the density of grasses at this site. Other open areas or areas of early succession that can be reclaimed as grassland will be considered.

Grasshopper Sparrow (*Ammodramus savannarum*) Special Concern. Grassland habitat is also utilized by this species. Grassy fields will be surveyed to determine if there is any nesting activity. Nesting activity may be determined by observing singing males in their territories. The maintenance and improvement of grassland habitat on the management area as described above for northern harrier would also attract and benefit this species.

Common Nighthawk (*Chordeiles minor*) Special Concern. Nesting of this species has not been recorded in the Unit. The Breeding Bird Atlas records may be for rooftop nesting in the Village of Gowanda. Suitable nesting habitat may exist on gravel bars and rock ledges in the Unit. Since nesting habitat is remote and not normally disturbed, a survey to inventory nest sites is not necessary. However, any newly discovered or reported nest locations will be recorded.

Bald Eagle (*Haliaeetus leucocephalus*) Threatened. This species uses the Zoar Valley gorge area for resting and feeding during migration. It is unknown at this time if nests have been established on or near the Unit. Further surveys will be conducted to locate potential nests in the gorge area. Bald Eagles have been recorded in the Breeding Bird Atlas. Bald Eagles were observed at the fisheries access site at the North Otto bridge by DEC staff in 2004 and in the main gorge area during the summer of 2005. An Eagle nest has been confirmed on Cattaraugus Creek down stream from the Zoar Valley Unit on the Cattaraugus Indian Reservation. Other sightings have been recorded near the village of Gowanda, near the Route 219 bridge south of Springville and at the Route 16 bridge near Yorkshire. The protection of the National Resource Protection Act will continue to provide resting perches and potential nest sites.

The following species were not listed as showing evidence of breeding within Breeding Bird Atlas blocks containing the Zoar Valley Unit. However, some species may use the Unit during migration. Other species may have been overlooked by atlas observers since their breeding habitat occurs within the Unit.

Osprey (*Pandion haliaetus*) Special Concern. This species may use the Zoar Valley Unit for resting and feeding during migration. It is unknown if they nested in or along the rim of the gorge in the past. Future surveys will be conducted to locate potential nests and nest sites. The above recommendations for the Bald Eagle also apply for this species.

Peregrine Falcon (*Falco peregrinus*) Endangered. This species is not known to breed within the Unit at the present time. It may use the gorge area during migration. Peregrines are believed to have nested in similar gorge habitat in Letchworth State Park in the 1930s. A summer sighting of a Peregrine is recorded for Zoar Valley on June 15, 1941. Zoar Valley may provide a future site for natural nesting. Monitoring for this species should occur between April and June.

Vesper Sparrow (*Pooecetes gramineus*) Special Concern and Henslow's Sparrow (*Ammodramus henslowii*) Threatened. These two grassland nesting species are difficult to identify and may have been overlooked by Breeding Bird Atlas workers. Vesper Sparrows were observed in at least one of the atlas blocks covering the Unit. Grassland habitat on the area will be surveyed for these species. The maintenance and improvement of grassland habitat as described for Northern Harrier should also benefit these species if they are present.

b. Mammals

The Zoar Valley Unit is within the described ranges of the following species of concern and are possible residents of the Unit.

Indiana Bat - Endangered. The lack of limestone caves most likely precludes wintering of Indiana bats on the Unit. However, they may feed and roost there during the summer months. Any discovered or reported observation of Indiana bats on the Unit will be recorded and protection should be given to identified summer roost sites.

Small-Footed Bat - Special Concern. Rock crevices in Zoar Valley may provide roosting habitat for this species. Such potential roost sites should be surveyed for the presence of the bats and any confirmed roost sites should be recorded. Confirmed roost sites should be protected from disturbance.

c. Amphibians

Potential breeding habitats such as woodland pools and marshes should be surveyed to determine the presence of all amphibians and reptiles. Confirmed breeding habitats should be recorded and protected from degradation such as filling or draining. Woodland habitat should be maintained around any confirmed breeding sites.

Jefferson Salamander (*Ambystoma jeffersonianum*) and Blue-spotted Salamander (*Ambystoma laterale*) Special Concern. The Unit is within the described range of these species. However, their presence here is presently unknown. Future surveys of woodland pools and marshes should be conducted to determine their presence. Their breeding habitats should be recorded and protected in the same manner as described above.

d. Reptiles

The Zoar Valley Unit is within the range of the species listed below, however, their presence on the Unit is currently unknown.

Spotted Turtle (*Clemmys guttata*) Special Concern. The presence of this species should be determined by examination of woodland streams, wet meadows, ponds, bogs and marshes. Habitat sites found to contain spotted turtles should be protected.

Wood Turtle (*Clemmys insculpta*) Special Concern. The presence of this species should be determined by examination of suitable habitats such as floodplain forest, wooded streambanks and open sandy nesting areas. These habitats should be given protection if wood turtles are documented.

Eastern Hognose Snake (*Heterodon platyrhinos*) Special Concern. Open woodlands and flood plain forest should be examined for the presence of this species. If they are found to be present, only compatible activities should be allowed in their habitat.

Timber Rattlesnake (*Crotalus horridus*) Threatened. This species was likely a historic resident of the Zoar Valley gorge and surrounding forested upland. It was known to inhabit similar habitat in the Niagara River gorge in the past and presently is found in similar habitat at Letchworth State Park. It is believed to be extirpated from Zoar Valley at the present time.

3. Forest Bird Diversity

Recent research indicates that the breeding success of certain forest birds is diminished by the fragmentation of forest habitat. The reasons for this are the detrimental impacts of nest predation, brood parasitism by brown-headed cowbirds and competition associated with forest edge habitats. Recent research has also indicated that these effects are minimized within core areas of forests which are over 300 feet from the forest edge. Species occurring on the Unit which are likely to be sensitive to forest fragmentation include the hairy woodpecker, pileated woodpecker, acadian flycatcher, veery, yellow-throated vireo, ovenbird, American redstart, hooded warbler and scarlet tanager. Several of these species are also believed to require mature forests.

An examination of the Unit indicates that areas with deciduous and mixed coniferous and deciduous trees exist north of the Cattaraugus Creek gorge in the vicinity of Holcomb Pond. There are similar areas south of the gorge. These areas are within the Natural Resource Protection Area and would not be managed. Future management of areas outside the NRPA will take into consideration forest bird habitat requirements in order to perpetuate a minimum acceptable area of forest bird breeding habitat and maintain the existing bird diversity of the Unit.

4. Habitat Improvement

The following actions will help maintain and improve wildlife habitat in both forested and non-forested areas. It is recognized, however, that all habitat management activities in both forested and non-forested areas as well as wildlife management activities that involve manipulation of the wildlife itself, must be considered in an integrated fashion.

a. Habitat Improvement in Forested Areas

In general, a mix of forest types in various stages of succession including grasslands and forest openings will provide a variety of wildlife habitat. The US Forest Service - Forest Inventory and Analysis Unit has noted that early successional habitat in the form of seedling sapling forests has declined by over 40% between 1980 and 1993 in the Lake Plain Unit. According to the *2005 Comprehensive Wildlife Conservation Strategy for New York* (CWCS) and studies of the Nature Conservancy, there have been significant changes in the Lake Erie Basin due to changes in agriculture. The CWCS observes “as smaller farms have been consolidated into larger units, monocultures have become more expansive. Consequently, adjacent edge habitats in the form of grasslands, woodlands, and strip cover (e.g., fencerows, hedgerows) have either been lost outright or dramatically altered in size and shape. This loss of habitat not only affects resident wildlife communities but may also have played a role in the decline of migratory species such as Neotropical migratory birds that breed in the basin”. The CWCS has identified 99 species of “greatest conservation need” in New York State. Of those 99 species, 42 depend on grasslands.

Starting in 2007, specific management activities will be conducted outside the “protection area” of the Zoar Unit to enhance and protect wildlife habitat. These activities include:

i. Early successional bird species such as the American woodcock, blue-winged warbler and golden winged warbler require varying age classes of hardwoods between 10 and 40 years. Therefore, some upland spruce stands will be cut at the rate of about one quarter of the spruce trees every 5-10 years in order to allow hardwoods to regenerate and mature while providing improved grouse habitat. These harvests will also benefit other species of wildlife by providing early successional browse, nesting and brooding habitat and edge effect.

ii. Grasslands provide habitat for a variety of wildlife species including bobolink, grasshopper sparrow, Henslow’s sparrow and northern harriers. Currently the Zoar Valley Unit contains very little of this habitat.

iii. Cottontail rabbit populations have also declined as early successional become more scarce in New York State. Cottontails require feeding areas consisting of early succession species and areas of tall grasses and forbs (herbs other than grasses) located very close to escape cover. These must be connected by travel cover so the rabbits do not have to expose themselves to predators.

iv. Vernal pools in forested areas are vital habitats for water birds, certain mammals, amphibians and reptiles. Vernal pools are small, seasonally flooded wetlands in shallow depressions within an upland forest (Reschke 1990). They have the greatest amount of water depth generally in the spring and fall and vary in size seasonally as a result of yearly fluctuations in precipitation. Vernal pools should be identified in the Unit and any activity near these vernal pools should be avoided.

v. Whitetail deer use some parts of the Unit to overwinter. The most important overwintering areas are those located within about one half-mile of both Cattaraugus Creek and the South Branch of Cattaraugus Creek. When conifer plantations are harvested, several management options are possible. If advanced hardwood regeneration is present, then the area will be left to grow into a hardwood stand. In cases where regeneration is lacking, grasslands will be established through mowing or planting to improve deer habitat.

vi. Apple trees provide significant food for wildlife. If resources permit and volunteers are interested in assisting, the existing apple trees outside the protection area could be improved by removing competing vegetation.

b. Beaver Habitat and Damage

Beavers have created wetland habitats on the Zoar Valley Unit. Beaver impoundments provide the major part of the waterfowl, waterbird, mink, muskrat, and amphibian habitat found on the Unit. In addition to these, several reptiles and non-game bird species benefit from beaver activity. The most critical factor in beaver management is the protection of beaver habitat from conflicting human uses of the site. Human uses that conflict with beaver activity include the development of ponds, roads, agricultural drainage systems and timber

production. Such conflicting uses often require the destruction of beaver at the damage site which results in the loss of their valuable wetland habitat. In order to protect beaver habitat within the Unit, the following management actions will be undertaken:

- i.* Beaver habitat sites will be inventoried on the Unit and the inventory updated as new sites are utilized by beaver.
- ii.* Structures and facilities such as trails, should be located away from beaver habitat sites at a sufficient distance to preclude beaver damage.
- iii.* Beaver damage to existing facilities and structures shall be resolved through the use of beaver damage control devices whenever possible in order to allow beaver to remain at habitat sites.

c. Fisheries Management

To improve angling opportunities, DEC will develop and implement fisheries management plans for Unit ponds greater than one acre in size and five feet in depth. DEC will:

- i.* Sample fish populations in existing ponds by electro fishing or with experimental gill nets or seines. Fish management plans will be developed from these data;
- ii.* If management recommendations include the stocking of panfish and/or game fish, they will be collected from other waters with abundant fish populations during ongoing fisheries assessments and then transferred to the Unit ponds;
- iii.* Unit pond fish populations will be monitored and managed as necessary.

C. Specific Actions for Recreation Development and Enhancement

Regulatory proposal	Zoar Valley	Detached Area
Designate “protection area”	Amend 6NYCRR 190.25. Designate gorge and buffers as “protection area” subsequent to State Legislative dedication to State Nature and Historical Preserve Trust, see pages 24 and 40 of the UMP	
Motor vehicle use	Amend 190.25[c] and [d] to allow motor vehicle use for search and rescue operations, administrative activities and disabled access. See pages 19, 24, 35 and 38 of the UMP	Amend 190.25[c] and [d] to allow motor vehicle use for search and rescue operations, administrative activities and disabled access. See pages 19, 24, 35 and 38 of the UMP
Camping	Prohibition in 6 NYCRR 190.25[b] and [j] will remain in effect	Amend 190.25 to allow camping by permit, see page 35 of UMP
Wading /Angling	Amend 190.25(i) to allow for angling in creeks, see page 35 of UMP	
Alcohol and glass containers	Amend 190.25 to prohibit possession of alcohol and glass containers	Amend 190.25 to prohibit possession of alcohol and glass containers
Horseback riding		Development of horse trails will be considered see page 36 of UMP
Emergency Access see page 39 of UMP		

1. Rules and Regulation Changes

DEC will change the existing rule prohibiting wading to allow for angling in the creeks using that technique. Also, DEC will consider allowing camping by permit on the detached parcel only. Camping is currently prohibited on the entire Unit. Possession of alcohol and glass containers on the Unit will also be prohibited. The current list of rules and regulations regarding public use will potentially be revised further based on changes in designations of areas of protection and concerns expressed during the public outreach for this UMP.

2. Water Resource Based Recreation

Current use by canoeists and white water rafters through the Unit will continue to be allowed.

3. Hunting, Fishing and Trapping

Hunting, fishing and trapping will continue to be permitted recreational activities on the entire Zoar Valley Unit. Small game hunting permits will continue to be required for opening day of the fall pheasant season to hunt any small game on the Erie County portion of the Zoar Unit. All dogs will be prohibited from being on the Zoar Unit 48 hours prior to the opening day of the fall pheasant season on the Erie County portion of the Zoar Unit.

Additional hunting regulations for both big game and small game may be adjusted as future hunting pressure and habitat impacts dictate.

The prohibition against wading in the waters of the Unit will be removed to accommodate anglers that use this technique.

4. Overnight Camping

Overnight camping will continue to be prohibited in the main parcel of the Zoar Unit. Continuing concerns about safety and rescue operations after dark are still valid. Camping has been allowed in the nearby East Otto State Forest. Camping by permit in the detached parcel of the Unit will be considered.

5. Access by Motor Vehicles

Access by motor vehicle to the Unit will be prohibited except for search, rescue and administrative purposes. This will include all motorized vehicles, including but not limited to autos, motorcycles, ATVs, snowmobiles, etc.

6. Fishing Access

DEC will seek additional public access to the fisheries resources of the Unit. The areas of focus will include improving access to Cattaraugus Creek, South Branch Cattaraugus Creek, and all pond waters in excess of one acre in size and five feet in depth. To improve fishing access, DEC will pursue improved access as noted below in Section D.

7. Access by Horse

DEC will not develop trails for horse and rider access in the gorge area of the Unit due to safety concerns. The development of horse trails on the detached parcel will be evaluated and considered.

8. Trails/Roads

The DEC will provide educational kiosks and signs at parking lots and access points to show trail locations and points of interest. Trails will be identified with paint blazes on the trees. New trails will be considered in appropriate areas if satisfactory paths can be located that will not adversely impact the terrain and if satisfactory parking sites can be established. Trail development and maintenance will also be encouraged through Adopt-A-Natural Resource agreements with local constituent groups. DEC plans for improved trails and access include the following:

- a.** Maintain Vail Road Trail Upgrading and marking the trail near Holcomb Pond. Currently this trail begins at the Holcomb pond parking lot and ends at the Ross Pond access parking lot.
- b.** Upgrade and mark the trail to Valentine's Flats from the Valentine's Flats Parking lot. This trail is currently in use but is very steep. The new trail will have to be cut into the slumped area where the old road used to go. A portion of this may be used for emergency ATV access.

9. ATV/Snowmobile Use

Multiple use recreational activities such as snowmobiling and ATV use will not be allowed on the main portion of the Zoar Valley Unit gorge area due to safety concerns. Administrative or emergency uses will be permitted. The detached parcel of the unit is too small to be considered for such a trail, but a snowmobile trail could cross the detached unit and be developed and maintained through an Adopt-A-Natural Resource agreement with local interest groups.

D. Public Access

1. Parking and Public Access Points

At the public scoping sessions, concerns were expressed about inadequate parking at public access points. Some specific requests included a parking area suitable for buses used by white water raft companies and requests for new parking lots at several access points. Some users also requested year-round parking access since DEC currently does not plow snow at any of the parking lots. DEC will evaluate the potential for upgrading some parking areas to provide additional parking for fishing and passive recreational use of the area. Those recommendations are as follows:

- a.** Monitor parking lot use at the Holcomb Pond access site. If parking is inadequate, expand the existing parking lot to hold 10 cars.
- b.** Monitor parking lot use at the Ross Pond access site. If parking is inadequate, expand the existing parking lot to hold 10 cars each.

- c. Improve the surface of the Forty Road parking lot with gravel. Designate handicap and emergency parking spots at this lot. Evaluate the potential for additional handicap access to Cattaraugus Creek at this site.
- d. Improve and maintain the Valentine’s Flats parking area. Designate handicap and emergency parking spots at this lot. Evaluate the potential for additional handicap access to Overlook Point at this site.
- e. Maintain the existing parking lot at the waterway access site.
- f. Construct a small parking lot (2 cars) at Gowanda-Zoar Road.
- g. As additional parcels adjacent to Zoar Valley MUA and elsewhere along Cattaraugus Creek and the South Branch become available for purchase, DEC will determine if those parcels can provide new, safe access to the area.

2. Maintenance

DEC will:

- a. Provide routine maintenance of existing roads, access sites and gates.
- b. Evaluate the feasibility of repairing the road to Valentine’s Flats for emergency search and rescue ATV access only.
- c. Upgrade selected access trails by improving drainage, grading in ruts, and spot gravel.
- d. Maintain man-made structures including, but is not limited to signs, gates, guide posts, etc. In some cases, structures may be removed if they cannot be properly maintained.
- e. Mow selected areas including some pond dikes and areas around ponds, along roads, and areas around parking lots, etc.
- f. Discontinue the current trash pick-up program and return to the policy of “carry in, carry out”.
- g. Continue to enforce the rules and regulations which prohibit littering and dumping.

3. Access for Persons with Disabilities

DEC will:

- a. Provide marked parking spots for emergency vehicles and accessible parking at the Forty Road parking area and Valentine’s Flats parking area.
- b. Improve access at the Forty Road Parking Area to the South Branch of Cattaraugus Creek.

- c. Explore the possibility of providing natural surface access at the Valentine's Flats parking lot to Point Peter overlooking Valentine's Flats and the confluence of Cattaraugus Creek and the South Branch of Cattaraugus Creek.

4. Safety

Considerable safety concerns have been raised by DEC Forest Rangers and local emergency response groups. These concerns are also evident in the numerous search and rescue operations that need to be conducted in the area of the Zoar Valley gorge. Some of these situations have occurred on private property, but in some cases the public accessed those properties via State land and access points. Public education about the serious hazards and risks due to the gorge and seasonal high water events needs to be improved. This issue needs to be considered in light of the limited ability the State has to restrict access to such a large tract of land, the impacts of increased human activity in the area and the increased interests in this unique natural resource area.

a. Boundaries, Maps, Informational Kiosks and Signs

DEC will:

- i.* Clearly mark the Unit boundary lines with paint and signs.
- ii.* Erect and maintain area identification signs and other informational signs which will help identify areas of interest and safety concern.
- iii.* Develop a map for public distribution when the UMP is finalized and appropriate regulations are changed. The map will identify the locations of parking areas, access roads, hiking trails, and general features of the Unit, including the boundaries. In addition it will list the rules and regulations that are specific to the Unit as well as emergency contacts and DEC contacts.
- iv.* DEC will install informational kiosks at key locations to better inform the public about the Zoar Valley Unit and the potential hazards in the area. These will likely be at major access points such as parking lots and trail heads.
- v.* Information kiosks will be placed at the beginning of designated trail heads and parking areas. The kiosks will include information on terrain challenges along the trail.

b. Regulations

In response to public concerns and the need to protect public safety, DEC will update the current regulations governing the Zoar Valley Unit. Safety concerns and hazardous areas will be taken into consideration during review and potential revision to the current Unit regulations. As noted previously, DEC will also post signs at parking lots or other access points listing the regulations and noting hazardous conditions.

c. Law Enforcement

Patrolling the Zoar Valley Unit and detached parcels and the enforcement of laws and regulations will continue to be the responsibility of DEC Rangers of the Division of Forest Protection and Fire Management.

d. Emergency Access

Emergency personnel from several municipal agencies have expressed the need to improve the ability of personnel to enter and remove accident victims from the gorge areas of the Unit and nearby private lands. DEC will investigate potential foot and ATV access improvements in the Zoar Unit for this purpose. Outreach to neighboring landowners for this purpose will also be pursued since many of the accidents occur on neighboring private lands after hikers have entered the area from State land.

During the public scoping sessions and in routine meetings with emergency response personnel from the Village of Gowanda area, county sheriff deputies, State Police and DEC Forest Rangers over the years, the concept of establishing a permanent helicopter pad in the Valentine's Flats area was discussed. During search and rescue operations in the gorge areas, it was thought that having access to a developed helicopter pad may improve the speed at which accident victims could be removed from the gorge and transported to medical facilities. During site visits in the fall of 2004 and in meetings with the emergency response personnel, it was determined that development of a permanent helicopter landing pad would not be feasible and in fact, would not provide the anticipated benefit to the rescue operations. Significant numbers of trees and low lying brush would have to be removed from the rim and floor of the gorge in the Valentine's Flats area to provide a cleared flight path for incoming and outgoing helicopters. Long-term routine maintenance of the developed pad, in terms of mowing, etc. would also be necessary but would be very difficult due to the inaccessibility of the Valentine's Flats area to heavy machinery. It was also noted by one of the Erie County Sheriff helicopter pilots who had extensive experience in assisting victims in the gorge areas that the majority of accidents by hikers needing emergency assistance was not in the Valentine's Flats area but generally significant distances upstream of that area. For these reasons, DEC is not considering establishing an emergency helicopter landing area in the Zoar Unit.

E. Survey Needs

No boundary line surveys are needed at this time. Future acquisition would require the survey of those parcels. Updates of existing atlas information for the Breeding Bird Atlas and the Reptile and Amphibian Atlas will be undertaken as updates are scheduled. Natural Heritage information will be updated as new information is obtained. Location of suspected old growth trees and other important habitats such as vernal pools will be surveyed and locations recorded.

F. Land Acquisition Needs

Additional protection for both the main gorge and the South Branch of the Cattaraugus Creek was mentioned during the public scoping meetings held prior to the development of the UMP. Areas of concern focused on providing additional protection for the main gorge perimeter in areas where

the State does not currently own beyond the gorge edge and where timber and mineral resource removal on adjacent properties threaten the integrity of the gorge. Support of additional acquisition is included in the Open Space Conservation Plan.

DEC will pursue the protection of additional properties from willing sellers in the area on behalf of the State and in collaboration with other partners to increase the areas under State and private stewardship in the watershed. Those parcels should add to the overall gorge areas of the main branch of the Cattaraugus Creek as well as the South Branch of Cattaraugus Creek. DEC will also continue to pursue acquisition of property to completely establish the 300-foot “protection area” in those few areas where the current State owned boundary is less than 300 feet from the rim of the gorge. Eminent domain will not be used in the acquisition of properties in order to provide additional "protection area" or add additional property to the Zoar Unit.

G. Natural Areas

The portion of the Unit included in the “protection area” and which the Department proposes to request that the State legislature dedicate to the State Nature and Historic Preserve Trust pursuant to Article 45 of the ECL meets this description.

1. Protection Area

The gorge floor, sides and a buffer area along the rim of the gorge will be maintained in a natural state by establishing a distinct area within the Unit. For administration purposes, this area will be termed the “protection area”(Figure 7). This area is bounded by a line that is at least 300 feet from the rim of the gorge. In a few areas, real property boundaries are less than 300 feet to the rim of the gorge. In those cases, the real property boundary becomes the boundary of the “protection area” No trees will be removed from the “protection area” except for the possibility of removal of trees that present a threat to public safety. An updated inventory of trees in the “protected area” needs to be conducted. No removal of minerals will be allowed from the “protection area” by surface entry. No development will occur in the “protection area” except for possible improvements to public access, search and rescue operations and for signs for safety and educational purposes.

In addition to the protection area a buffer strip 100 feet on either side of the Vail Road Trail will be established. Selected trees may be removed in order to benefit wildlife habitat diversity or if they present a threat to public safety.

2. State Nature and Historic Preserve Trust

The Zoar Valley Multiple Use Area as currently designated, allows DEC to manage the Unit and detached parcels for recreational activities noted in this UMP. Due to the unique ecological significance of the gorge area, the public support for a land use designation that affords maximum protection of the natural character of the State’s holdings in the Unit, and the Darling family’s original interests, the DEC will propose to the New York State Legislature to dedicate the part of the Zoar Valley Unit described as the “protection area” from Multiple Use Area to State Nature and Historic Preserve Trust. While additional protection is accomplished as a DEC policy change, the long-term protection

of the gorge area should be accomplished by dedicating the “protection area” to the State Nature and Historic Preserve Trust, established pursuant to section 4, Article XIV of the New York State Constitution and Article 45 of the Environmental Conservation Law. To achieve this designation a survey would be needed to establish a comprehensive legal description of the intended “protection area” The Preserve designation is extended to State owned lands "in need of the highest level of protection" and "is intended for unique and irreplaceable State-owned lands that are relatively undisturbed and not presently being managed through modern forest management practices." Preserve lands may also be dedicated to passive recreational use, including fishing, hunting, and trapping. Recreational uses must be compatible with protecting the character of the site. The New York State Legislature must pass legislation to dedicate land to the Preserve. Once added to the Preserve, land cannot be sold except by law enacted by two successive regular sessions of the legislature. The upland areas outside the “protection area” would remain in the current land classification of Multiple Use Area since portions have been subjected to modern forest management practices such as plantations and need to be returned to natural diverse hardwood areas and managed for habitat improvement.

Public input during the UMP process included suggestions for changing the land classification to Forever Wild. This is not possible since the Forever Wild land classification is by law only applied to lands in the Adirondack and Catskill Forest Preserves. The State Nature and Historical Preserve Trust is specifically intended to protect lands outside of the Adirondack and Catskill Forest Preserves.

The time needed to enact a change to the Preserve for the “protection area” through legislation will not impede DEC from managing the Unit in the way proposed in this UMP. In fact, in large part, the historic management of the Unit has always been in the context of preserving the natural character of this significant natural resource and will continue to be as such.

Also during the public input period of this plan, it was suggested that the MUA classification be changed to the State land classification of Unique Area. The Zoar property was acquired as a Multiple Use Area using 1960 Bond Act Funds. Acquiring properties using Bond Act allocations requires the designation of state land classification available at the time of acquisition. The Unique Area classification wasn’t available until 1973, after Zoar was acquired, and only applies to properties acquired with 1972 Bond Act funds. For this reason, the Zoar MUA cannot be moved to the Unique Area classification nor would this classification necessarily afford any more protection than the current MUA designation.

H. Scenic Vistas

The Zoar Valley Unit features many scenic vistas. Most notable are from Overlook Point near the Valentine Parking Area and views of the gorge walls from the gorge itself and the existing perimeter trails. No construction is planned that would enhance the opportunity for the public to view these vistas.

I. Mineral Resources Management

National Fuel Gas Supply Corporation has a lease on the Unit and will continue to use the Collins gas storage field in the northern portion of the Unit. No surface disturbance is expected from this use. No additional exploration or extraction of mineral resources will be allowed in the “protection area” in anticipation of that area being designated Nature and Historic Preserve Trust land. No exploration or extraction of minerals will be allowed in the upland areas nor will they be allowed on the detached parcel. There is a potential for extraction of gas and oil under permit from underneath lands where the state owns the mineral rights. This extraction would involve directional drilling from adjacent private lands and would occur without any surface disturbance of state owned property. Small historic gravel pits will be evaluated for restoration and reclamation to natural vegetative cover, in particular, the Purdy Road pit.

J. Forest Protection

There are many species of insects and diseases, as well as pollutants, that are active in the northeastern forests. All play important roles in the ecology of the forest. The following list describes a few of these insects and diseases, in their role as forest pests, and their present or historical impacts on the ecosystem.

1. Insects

Gypsy moth (*Lymantria dispar*) - This insect has received much notoriety since it was introduced into the United States in 1868. Populations of this insect can periodically build to “outbreak levels” resulting in widespread forest defoliation. Gypsy moths will defoliate many species of northeastern trees, but they favor oaks.

High populations of gypsy moths do not typically persist more than three years before they collapse. Until recently, a virus (Nucleoehedrosis Virus) has usually caused the rapid decline of Gypsy Moth populations. In recent years however, a fungus (*Entomophaga maimaiga*) has also proved to be effective in reducing moth populations. This fungus was introduced to the U.S. from Japan in 1910 and again in 1985. Because of the presence of both the virus and the fungus, it is hoped that future Gypsy Moth outbreaks will be less severe and less frequent.

Forest Tent Caterpillar (*Malacosoma disstria*) - This insect can be a serious defoliator of sugar maple. Unlike other “tent caterpillars” the Forest Tent Caterpillar does not construct a tent on the tree branches. Most healthy hardwoods can withstand a single defoliation from this insect.

Eastern Tent Caterpillar (*Malacosoma americanum*) - This is the most common “tent caterpillar” in New York State. The caterpillars build the nests in the crotches of tree branches. They prefer cherry trees and apple trees. The nests are formed in late April or early May each year and the caterpillars feed on the leaves. Most of the feeding is done from dusk, through the evening hours.

Pear Thrips (*Taeniothrips inconsequens*) - Introduced from Europe to the United States in 1904. It attacks a variety of orchard and forest trees. There were several population explosions of Pear thrips in the northeast during the late 1980s. The outbreak of 1988

damaged or defoliated more than 1.5 million acres of sugar maple trees. In addition to causing leaf damage, Pear thrips may also be capable of transmitting a fungal disease, maple anthracnose. This disease often coincides with Pear thrip infestations. Maple anthracnose decreases the photosynthetic ability of leaves, which can kill trees, if they are severely infected. Thrips damage to the forests of the Unit has so far been insignificant.

Elm Spanworm (*Ennomos subsignarius*) (and other species of loopers) - the common name of this insect is deceiving, as it is not only associated with elm trees, but will defoliate beech, oak, hickory, maple and ash as well. More than 20 major outbreaks have occurred in the past century. The forests in the southern tier of New York State and much of Pennsylvania were heavily defoliated by these insects in 1994. Typically, outbreaks of the Elm Spanworm succumb to mortality from a complex of natural agents, including egg parasites and larval diseases.

Peach Bark Beetle (*Phloeotribus liminaris*) - This insect has recently gained increased attention from foresters in the northeast, due to the amount of damage it has caused to black cherry trees. Infestations of this insect can result in large amounts of gum deposits on the trunks of black cherry. The damage can significantly reduce the value of the timber and it causes a general decline in tree health. Peach Bark Beetle populations build up in the tree tops following the harvest of cherry timber. Residual, healthy cherry trees are then attacked. Cultural practices (i.e. reducing quantities of slash and seasonal cutting) are being investigated to minimize the negative impacts of peach bark beetles.

Pine Shoot Beetle (*Tomicus piniperda*) - This beetle, native to Europe and Asia, attacks the new shoots of pine trees, including scotch pine and red pine, stunting the growth of the tree. The USDA's Animal and Plant Health Inspection Service (APHIS) has issued regulations resulting in "quarantines" within the infested counties of New York State and other states, to prevent the spread of this insect. These quarantines are of significance because they affect the transportation of pine logs. All of New York State except New York City and Long Island is designated as a quarantined area. In general, the regulation restricts the transportation of pine logs from a quarantined area to a non-quarantined area.

2. Diseases

Beech Bark Disease - This disease has caused a widespread decline in the health of American beech, and it limits the life span of these trees. Beech trees are infected when the beech scale (*Cryptococcus fagi*) punctures the bark, allowing the spores of the fungus (*nectria coccinea*) to enter the tree. American beech saplings are still abundant to the understory of northeastern forests, however mature beech trees are declining and becoming less common.

Dutch Elm Disease - This disease entered North America in 1930 and it has killed most of the American elm trees in the northeastern United States. The causal agent is a fungus (*Ceratocystis ulmi*) which is spread by elm bark beetles. Although the disease has killed most elms, a few resistant individuals have survived. It is still possible to find mature elm trees within Erie and Cattaraugus Counties.

Chestnut Blight - This is one of the most famous plant diseases in North America. It has resulted in the near extinction of American chestnut trees throughout their natural range. The blight is caused by a fungus (*Cryphonectria parasitica*) that enters through wounds in the bark. American chestnut saplings can still be found in a few, isolated areas of the forest in Erie and Cattaraugus Counties, but it is rare for a tree to survive long enough to attain a stem diameter greater than six inches.

3. Fire Control

Wildfires on the unit can be extinguished to the extent possible by Forest Ranger staff and authorized volunteers.

4. Trespass or Encroachment Issues

Trespasses and encroachments will be investigated by Forest Ranger and Forestry staff. Department resources will be used to prosecute violations and remediate the lands.

5. Boundary Line Maintenance

The boundaries are scheduled to be maintained every seven years or sooner if markings need to be replaced. Maintenance consists of painting existing blazes with yellow paint and installing signs if needed.

6. Watershed and Wetlands Protection

Compliance with the New York State Freshwater Wetlands Act (ECL Article 24) of the Water Resources Law (ECL Article 15, Title 5) is required by NYS DEC when conducting management activities or construction projects that involve regulated activities within protected wetlands, water bodies, or streams. Timber Harvesting Guidelines which are mandatory for all silvicultural practices on state lands, require specific conservation practices which protect soils and water quality. The ECL dictates that among other purposes State Forests within this Unit be managed for watershed protection. This is also clearly consistent with wildlife management area objectives and sound conservation practices and public desires.

Regulated activities within protected wetlands, streams and waterbodies include such things as clear-cutting vegetation and construction of ponds or road crossings. Normal maintenance and repair of existing structures is generally exempt from permit requirements. Well-managed water resources have multiple benefits, including quality fish and wildlife habitats, aesthetically pleasing sites, ground water protection and flood water retention.

Cattaraugus Creek Gorges

Protection Areas

See description in Section G 1.

Unique Habitats

Unique habitats will be maintained for the diversity of plants and animals that occupy those sites.

Rare, Threatened or Endangered Species Habitats

If rare, threatened or endangered species are discovered they will either be left undisturbed or the surrounding conditions may be modified if it would benefit those species.

K. Coordination with Adjoining Landowners

Most of the managements actions proposed for the Zoar Unit will not impact directly on adjoining landowners. In cases where removal of current softwood plantations will take place on borders of the Unit, a buffer of trees may be left as a visual screen for adjoining property owners.

L. Forest Inventory

The current forest inventory is old. New inventory data collection is planned for 2007.

M. Cultural Resources - Historic or Architectural Sites

Historic and archeologic sites on the Zoar Valley Unit have to date not been officially investigated nor recorded. DEC Forestry staff have visited the area on numerous occasions and identified several potential historic sites, including home foundations and remnant structures of a lime kiln. DEC will pursue an official archeological/historical investigation of the Zoar Valley Unit through the NYS Museum. If appropriate sites are determined, DEC will pursue protection of these areas pursuant to recommendations from NYS Museum staff.

VIII. Ten-Year Schedule of Management Actions

The following work plan items and implementation schedule are contingent upon available resources for such purposes. Listed years are targets and will be used to address the overall implementation of the UMP as described.

Ongoing or Annually:

<p>Administration</p>	<p>Pursue Natural Resource Stewardship Agreements with appropriate groups and entities in order to improve the overall stewardship of the Zoar Valley Unit: <u>Ongoing.</u></p>
<p>Land Management</p>	<p>Pursue the protection of additional properties in the area on behalf of the State and in collaboration with other partners: <u>Ongoing.</u></p> <p>Pursue acquisition of property that would completely establish the 300-foot protection area “ / State Nature and Historical Preserves Trust Lands: <u>Ongoing.</u></p> <p>Mow 10 acres of American Chestnut Plantation: <u>Annually.</u></p>
<p>Forest Management</p>	<p>Update the New York Natural Heritage Program information: <u>Ongoing.</u></p>
<p>Wildlife Habitat Management</p>	<p>Install & Maintain blue bird nest boxes located in the field at stand 5: <u>Ongoing.</u></p> <p>Install and maintain a network of 20 wood duck boxes in ponds & potholes.</p> <p>Install and maintain wood duck nest boxes: <u>Annually.</u></p> <p>Mow 7 ac stand 28: <u>Annually.</u></p> <p>Mow 20 acres of stand 5: <u>Annually.</u></p> <p>Mow 7 acres of stand 95.2: <u>Annually.</u></p> <p>Mow 2 acres of pond dikes and trails: <u>Annually.</u></p> <p>Plant and Maintain shrubs: <u>Ongoing.</u></p> <p>Mow between rows of the Vail Road American chestnut plantation: <u>Annually.</u></p> <p>Mow the northern 10 acres section of the Ross access site field annually: <u>Annually</u></p>
<p>Fisheries Management</p>	<p>Monitor Unit pond fish populations and manage as necessary: <u>Ongoing.</u></p>
<p>Public Access/Access for Persons w/ Disabilities</p>	<p>Seek additional public access to the fisheries resources of the Unit concentrating on Cattaraugus Creek and South Branch Cattaraugus Creek: <u>Ongoing.</u></p> <p>Maintaining the existing parking lot at the waterway access site: <u>Ongoing.</u></p>
<p>General Maintenance</p>	<p>Provide routine maintenance of existing roads, access sites, trails and gates: <u>Ongoing.</u></p> <p>Enforce the rules and regulations which prohibit littering and dumping: <u>Ongoing.</u></p>
<p>Safety</p>	<p>DEC will investigate potential foot and ATV access improvements in the Zoar Unit for search and rescue and conduct outreach to neighboring landowners for this purpose: <u>Ongoing.</u></p>
<p>Boundaries, Markers and Informational Signs</p>	<p>DEC will:</p> <p>Maintain educational kiosks and signs at parking lots and access points to show trail locations, points of interest and emphasize safety and hazard concerns: <u>Ongoing.</u></p>

Schedule for 2007:

Land Management	Designate the "Protection Area" portion of the Zoar Valley Unit from Multiple Use Area to the State Nature and Historical Preserve Trust.
Forest Management	Conduct a new inventory of the trees in the Unit outside of the protection area. Evaluate the potential for the reintroduction of the butternut to the Unit.
Wildlife Habitat Management	Harvest red pine in stand 27. Establish and maintain a network of at least 20 wood duck boxes in ponds and potholes on the Unit. Seek volunteer groups. Mowing of Existing Grassland Areas: Mow and maintain pond dikes: Alternate Years Starting in 2007. Mow 20 acres of the 60-acre field located off the Ross access site: Three year rotational mowing of the entire field by doing 18-100 ft. wide strips each year to control invasion by brush and facilitate access for pheasant hunting Manage for Shrubs and Apple Trees in stands 66.0, 68.1 and 17.0
Mineral Resources Management	DEC will evaluate small historic gravel pits for restoration and reclamation to natural vegetative cover.
Historic Preservation	DEC will request an archeological/historical investigation of the Zoar Valley Unit by the NYS Museum.
Regulation Changes	DEC will change the existing rule prohibiting wading to allow for angling in the creeks, plus prohibit possession of alcohol and glass containers.
Hiking Trails	Upgrade and mark the trail to Valentine's Flats from the Valentine's Flats Road parking lot. Upgrade and mark the trail near Holcomb Pond.

<p>Public Access/Access for Persons w/ Disabilities</p>	<p>Install information kiosks at eight locations including Ross, Holcomb Pond, Valentine's Flats, Forty Road, Button Road, Waterway Access, the detached parcel parking areas with information on points of interest, trail locations, safety concerns and rules and regulations governing use of the area.</p> <p>Place signage at key points where trespass occurs onto private lands from the unit.</p> <p>Evaluate the potential for upgrading some parking areas to provide additional parking for recreational use of the Unit by:</p> <ul style="list-style-type: none"> Improving the surface of the Forty Road parking lot with gravel. Designating accessible and emergency parking spots at the Forty Road parking lot. Develop disabled access to Cattaraugus Creek at the Forty Road site. Improving the Valentine's Flats parking area by designating accessible and emergency parking spots at this lot. Evaluating the potential for additional access to Overlook Point from the Valentine's Flats parking area. Monitoring parking lot use at the Holcomb and Ross Ponds access sites
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Schedule for 2008:

<p>Forest Management</p>	<p>DEC will inventory trees in the protection area.</p>
<p>Wildlife Habitat Management</p>	<p>DEC will:</p> <ul style="list-style-type: none"> Improve white tail deer, ruffed grouse and cottontail rabbit populations during management of upland spruce and red pine plantations outside the "protection area" by removing trees from upland spruce stands at the rate of about one quarter of the trees every 5-10 years to improve ruffed grouse habitat. Apple tree maintenance in stands 28.1 28.2, 28.3 Build and place 20 wood duck boxes. Update maps of wetlands, ponds, fens and potholes. Identify and map vernal pools. Conduct a detailed inventory of wildlife and wildlife habitat on the Unit, including the non-forested habitats. Mow non-planted portions of the fields at the Button Road area to maintain open strips. (Alternate Years Beginning in 2007) Dike repair stand 93

Fisheries Management	DEC will sample fish populations in existing ponds and develop fish management plans from these data for Unit ponds greater than one acre and deeper than five feet.
Public Access / Access for Persons with Disabilities	DEC will: Evaluate the potential for developing horse trails on the detached parcel. Expand parking lot at the Ross Pond access site to hold 10 cars plus an ADA compliant parking spot. Construct a small parking lot (2 cars) at the Gowanda-Zoar Road.
Snowmobile and Horse Use	DEC will evaluate whether a snowmobile trail could cross the detached unit and be developed and maintained through an Adopt-A-Natural Resource agreement with local interest groups, perhaps in conjunction with a horse trail.
General Maintenance at the Unit	DEC will discontinue the current trash pick-up program and return to the policy of "carry in, carry out" in educational materials and at access kiosks.
Boundaries, Markers and Informational Signs	DEC will: Maintain educational kiosks and signs at parking lots and access points to show trail locations, points of interest and emphasize safety and hazard concerns. Develop a map for public distribution that identifies the locations of parking areas, access roads, hiking trails, general features of the Unit, boundaries, list regulations, note hazardous areas and safety concerns, and give emergency contacts and DEC contacts. Mark Unit boundary lines with paint and signs.

Schedule for 2009:

Wildlife Habitat Management	DEC will: Harvest larch on eastern 9 ac. stand 3 Apple tree maintenance stand 66 Seek volunteer organizations to assist in improving existing apple tree crops outside the protection area the for deer and other wildlife.
Fisheries Management	DEC will implement fish stocking plans if appropriate.
General Maintenance at the Unit	DEC will evaluate the feasibility to repair the road to Valentine's Flats for emergency search and rescue (ATV access only).

Schedule for 2010:

Wildlife Habitat Management	DEC will: Harvest Norway spruce on 11 ac in stand 77 Apple tree & shrub maintenance stand 68.1
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Schedule for 2011:

Wildlife Habitat Management	<p>DEC will:</p> <p style="text-align: center;">Apple tree and shrub maintenance stand 17</p>
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Schedule for 2012:

Administration	DEC will review the Unit Management Plan and potentially revise.
Wildlife and Habitat Management	<p>DEC will:</p> <p style="padding-left: 40px;">Improve white tail deer, ruffed grouse and cottontail rabbit populations during management of upland spruce and red pine plantations outside the “protection area” by:</p> <p style="padding-left: 40px;">Removing trees from upland spruce stands at the rate of about one quarter of the trees every 5-10 years to improve ruffed grouse habitat.</p> <p style="padding-left: 40px;">Harvest Norway Spruce in stand 82</p>
Forest Management	<p>DEC will:</p> <p style="padding-left: 40px;">Update available DEC databases on the Unit.</p> <p style="padding-left: 40px;">Reintroduce disease resistant American chestnut trees to the Unit.</p>
Boundaries, Markers and Informational Signs	<p>DEC will:</p> <p style="padding-left: 40px;">Mark the Unit boundary lines with paint and signs.</p> <p style="padding-left: 40px;">Post signs at parking lots or other access points listing the regulations and noting hazardous conditions.</p>

IX. Budgetary Needs for Management Actions

2007 - Development and Maintenance	Cost
◆ Construct and place 6 education/information kiosks	\$ 15,000
◆ Maintain bluebird and woodduck nest boxes	\$ 500
◆ Grassland mowing - 46 acres	\$ 2,000
◆ Administrative road maint., access sites ,trails, gates and parking lots	\$ 5,000
◆ Forest Inventory	\$ 10,000
◆ Upgrade and mark existing foot trails (volunteer labor)	\$ 100
◆ Develop Disabled access to South Branch of Cattaraugus Creek at Forty Road	\$ 15,000
◆ Parking lot upgrades to facilitate more parking and designate	\$ 8,000
◆ Holcomb Pond and Ross Pond dike mowing	\$ 50
Total 2007	\$ 55,650

2008 - Development and Maintenance	Cost
◆ Maintain bluebird and woodduck nest boxes	\$ 500
◆ Grassland mowing - 46 acres	\$ 2,000
◆ Maintain administrative roads, access sites, trail and gates	\$ 5,000
◆ Expand parking lots at and Ross Access	\$ 8,000
◆ Construct small 2 car parking lot at the Gowanda-Zoar Road.	\$ 7,000
◆ Develop a map for public distribution that identifies locations of public use facilities, general features of the area, regulations for use and hazardous areas. emergency contact and DEC contacts.	\$ 1,000
◆ Boundary line maintenance with signs and paint	\$ 10,000
◆ Apple tree maintenance	\$ 500

◆	Dike repair	\$ 5,000
◆	Holcomb Pond and Ross Pond dike mowing	\$ 50
	Total 2008	\$ 39,050

2009 - Development and Maintenance

Cost

◆	Maintain bluebird and woodduck nest boxes	\$ 500
◆	Grassland mowing - 46 acres	\$ 2,000
◆	Administrative road maint., access sites, trails, gates, parking areas.	\$ 5,000
◆	Apple tree maintenance	\$ 500
	Total 2009	\$ 8,000

2010 - Development and Maintenance

Costs

◆	Maintain bluebird and woodduck nest boxes	\$ 500
◆	Grassland management and access mowing - 46 acres	\$ 2,000
◆	Administrative road maint., access sites, parking lots, trails, gates.	\$ 5,000
◆	Apple tree & shrubs maintenance	\$ 500
	Total 2010	\$ 8,000

2011	Development and Maintenance	Cost
◆	Maintain 30 bluebird and 20 woodduck nest boxes	\$ 500
◆	Grassland management and access mowing - 46 acres	\$ 2,000
◆	Administrative road maintenance, access sites, parking lots, trails, gates.	\$ 5,000
◆	Apple tree and shrub maintenance	\$ 500
	Total 2011	\$ 8,000

2012	Development and Maintenance	Cost
◆	Maintain bluebird and woodduck nest boxes	\$ 500
◆	Grassland management and access mowing - 46 acres	\$ 2,000
◆	Administrative road maint.,access sites, parking lots, trails, gates.	\$ 5,000
◆	Boundary line maintenance with signs and paint	\$ 10,000
◆	Maintenance of kiosks and regulations signs at access points	\$ 1,000
	Total 2012	\$ 18,500

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