

## MANAGEMENT PLAN FOR ONESQUETHAW CAVE

\_\_\_\_\_/\_\_\_\_/\_\_\_\_  
James Carr  
President - Albany County Land Conservancy

\_\_\_\_\_/\_\_\_\_/\_\_\_\_  
Robert Addis  
President - Northeastern Cave Conservancy

### INTRODUCTION

The Onesquethaw Cave System (Onesquethaw Cave and Jordan Cave) is about 5500 feet long making it the second longest cave in Albany County, NY and the 11th longest in New York. It is proposed that the Northeastern Cave Conservancy (NCC) manage access to the Onesquethaw Cave part of the system. The NCC already owns and manages Knox Cave also in Albany County. In addition, the people involved with the NCC also assist in the management of four other caves not owned by the NCC. These are: Schoharie Caverns, Caboose Cave, Gages Cave, and McFails Cave, all of which are in Schoharie County.

### HISTORY OF THE PROPERTY

The property containing the entrance of Onesquethaw Cave is about 1.32 acres. It is roughly trapezoidal in shape with 153 feet of road frontage. The back line is 154 feet. The west side is 354 feet long and the east is 407 feet long. The entrance to the cave is located in the back third of the property. A broad shallow sink is developing about half way between the cave and the road.

The cave is not mentioned in some of the older references on the area which do record nearby caves such as Clarksville Cave and caves at the base of Copeland Hill. The first mention of the cave comes from 1897. After that, there is no known mention of it until the 1950's when it was known as Tri-County Cave (presumably named after the Tri-County Grotto of the NSS which existed in the area at the time). It has also been known as Dewey Cave after a previous landowner.

The cave entrance was for many years on the property of Helderlaan, the nearby farm originally settle in 1751. In the late 1950's the property was owned by the Dewey family. (The farm is now owned by the Brownell family.) In 1960 the owner, Corinne Dewey, put the farm up for sale. Jack Child persuaded her to subdivide the land and sell him the portion with the cave. In 1978 Ron Sloan bought the land though the deed was apparently never filed. Due to high taxes and the difficulty of developing this property, Sloan decided to let the parcel go for taxes. In March 1990, Albany County foreclosed in the property and became owners of the cave.

At the very end of 1998, the county deeded ownership of the cave and property to the Albany County Land Conservancy.

## **RESOURCES**

### **UNDERGROUND RESOURCES**

**BIOLOGICAL** - One species of cave-adapted amphipod, *Stygobromus alleghaniensis*, exists in Onesquethaw Cave. No special precautions are in place to protect the amphipod as normal caving activities do not seem to have an adverse impact on its population. A small population of cave crickets, *Ceuthophilus maculatus* as also been noted in the cave.

Because Onesquethaw is a sinking stream system there are a number of accidentals found in it. Over the years there have been reports of catfish, eels, and frogs. These either get flushed through the system or die in the cave. Either way, they do not constitute a significant or important biological resource

Due to seasonal flooding a significant bat population has never been established in Onesquethaw Cave.

**GEOLOGICAL & HYDROLOGICAL** - The cave was the subject of an extensive study by A.N. Palmer which was published in the NSS Bulletin in 1972. A less technical version was published in *The Northeastern Caver* in 1971 and the following quote is from that article.

The cave is developed in the Onondaga Limestone of Middle Devonian age at the eastern edge of the Helderberg Plateau, where the essentially flat-lying rocks of the plateau have been deformed by gentle folds and minor faults during the crustal disturbance that produced the folded structure of the Appalachian Mountains. The zone of cave development in the Onondaga Limestone that includes Onesquethaw, Ward-Gregory [Clarksville], and Leonard Caves, and the Slingerland Hellhole [Chatter-Stone-Hole] system, is bounded on the west by hills of the overlying Hamilton shales and sandstones and on the east by an escarpment formed by the exposed edge of the Onondaga and the underlying Esopus Siltstone. The limestone forms a rather flat bench sparsely dotted with small hills of glacial drift.

The origin and development of the cave is the result of progressive headward diversion of a tributary to Onesquethaw Creek. At present the cave-forming stream sinks roughly 1000 feet northwest of the Onesquethaw entrance, passes through the lowest levels of Onesquethaw Cave, and resurges at Jordan Cave to the northeast. The main passages of Onesquethaw Cave receive direct recharge from the sinking stream only during periods of flooding.

M.V. Palmer did an extensive study of the hydrology of the cave. She determined that the cave can quite literally flood to the ceiling throughout its entire length.

**PALEONTOLOGICAL** - The Onondaga Limestone is a reef limestone that is early-middle Devonian in age. As such several places in the cave (most notably near the beginning of the Barnyard) have excellent exposures of the Devonian age fossils. Due to the manner in which the cave floods, no paleontological resources of younger age are believed to exist in the cave.

**ARCHEOLOGICAL** - No resources are known to exist in the cave.

**HISTORICAL** - No resources are known to exist in the cave.

## **SURFACE RESOURCES**

**BIOLOGICAL** - The property contains no unique or unusual flora or fauna. The front 2/3 of the property has until recently been farmed. Only the area around that cave entrance has been allowed to go back to natural vegetation. The primary early successional plants include gray dogwood, *Cornus* sp., and staghorn sumac, *Rhus typhina*. The most common tree on the property is the sugar maple, *Acer saccharum*. A few black cherry, ash, and American elm are also present. The wild grape, *Vitis* sp., is also common.

**GEOLOGICAL & HYDROLOGICAL** - See the Geology and Hydrology section above in the Underground Resources section.

**PALEONTOLOGICAL** - No resources are known to exist on the property.

**ARCHEOLOGICAL** - No resources are known to exist on the property.

**HISTORICAL** - No resources are known to exist on the property.

## **ACCESS POLICY**

Onesquethaw Cave, because it is a sinking stream system, would be difficult to gate due to the potential to flood surrounding properties from debris turning the gate into a dam. The question of gate construction will be studied further. If it is felt that a gate is necessary, one will be constructed. To accomplish this without causing any flooding would involve the following: 1) a debris basin should be constructed upstream of the entrance near the first bend in the stream, 2) a gate should be placed over the entrance, and 3) a program of regular property inspections should be set up for times when water is entering the cave via the entrance.

At present, in lieu of a gate, signs will be erected indicating no entry to the cave without written permission. Such signs would indicate that such unauthorized permission is considered trespassing. In the event of an incident involving a non-permitted party, those members will be charged with trespassing.

As with Knox Cave, visitors will be required to sign a release form. Further, a permission slip requiring the entry of vehicle information will be needed. Both forms are included at the end of this plan as appendices. Prospective visitors must have the permission on NCC letterhead paper, and it will be dated for only one trip. This letter must be clearly displayed on the dash of the vehicle. The vehicles may park in the designated parking area or along Co. Rt. 301. No vehicles will be allowed to drive to the cave. Vehicles not displaying the permission may be towed away at the owner's expense and the persons are subject to arrest for trespassing.

To obtain permission to enter the cave, groups must meet the following requirements and agree to abide by the following rules:

1. Minimum group size is 3. In special circumstances, permission will be granted to 2 individuals.
2. In the request for permission, the group's leader should briefly summarize his experience as well as that of the group.

3. All cavers are expected to abide by the normally accepted rules of safe and conservation minded caving as outlined by the National Speleological Society, 2813 Cave Avenue, Huntsville, Alabama 35810-4431.
4. All persons entering the cave must have at least the following minimum equipment: helmet with a chin strap; three (3) sources of light, one of which must be helmet mounted; and knee pads.
5. Onesquethaw Cave must be treated as a unique natural resource, and nothing should be taken out of the cave except trash.
6. All work projects must be clearly defined and authorized beforehand.
7. Each group is expected to clean up any trash in the cave or on the property
8. Access for minors: A special parental permission form must be signed for each and every minor on the release form.
9. Private groups: At the discretion of the Access Manager, insurance or certificate thereof may be required for private groups such as schools, camps, and scouts. Groups such as the Boy Scouts will be required to show proof that they are complying with their own rules regarding caving.

The small sink that is forming between the cave and the road probably overlies the end of a known upper level passage. In the event that an opening does form here (and processes should be allowed to proceed naturally) a gate should be installed somewhere in this passage as the descent into the main passage from this upper level can be rather dangerous for individuals without proper experience. This gate should be designed so that it can be opened without a key from the inside.

### **USE CONFLICTS**

Normally, use conflicts in cave management are caused by conflicts between recreational caving and preservation of an in-cave resource such as hibernating bats. Onesquethaw Cave is a sinking stream and drains an area of about 1 square mile. This includes Lawson Lake (about 40 acres in size including wetlands). On occasion, due to high water problems at the lake it is necessary to lower the water level. Such a step would likely cause the cave to flood. Events of December 1, 1990, clearly indicate that if this lowering of water level were to occur when cavers are in Onesquethaw Cave, the results could be disastrous.

To remedy this problem, it will be necessary to coordinate cave access and water releases; not permitting access when releases are planned and not making releases when people are in the cave. However, individuals lowering the water level must check with the cave manager(s) first to make sure nobody is in the cave. In an ideal situation, a schedule of lake lowerings could be worked out in advance for a given period. To minimize use conflicts, lake lowerings should be scheduled for weekdays only -- preferably Tuesdays, Wednesdays, or Thursdays.

The NCC must contact county officials at the lake to discuss this plan.

### **EXPLORATION RULES**

While Onesquethaw Cave has pretty much been explored from end to end, new passage does on occasion, turn up. However, because some potential does exist the following simple rules to govern exploration are recommended:

1. The exploration party should be explicit in indicating what part of the cave will be explored when they sign into the registration box.

2. No blasting of any kind is permitted.
3. Digging and the use of hammer and chisel to enlarge passages is permitted.

## **PUBLICITY POLICY**

The cave is not publicized in magazines or newspapers of general circulation. Caver's publications like The Northeastern Caver and the NSS News may contain information on the latest discoveries. Some grotto publications may also have information, but again these have limited circulation and usually do not give locations.

## **SURFACE MANAGEMENT**

With less than 1.5 acres of land to manage, very little must be done in the way of surface management. It is strongly recommended that a small grassed parking area with a registration box be constructed to provide a place for off-road parking. This should accommodate no more than five cars. The area is to be designed to permit vehicles to park perpendicular to the road, and will be as close to the road (Co Rt 301) as is practicable. The NCC will be responsible for this and for obtaining any permits that may be needed.

The farming should be permitted to continue on the field between the cave and the road. Discussions will be held with the farmer regarding the parking area, which will encroach on the field, and regarding the need for care around the incipient sink already mentioned. Experience in other areas indicate the potential for equipment damage.

It is further recommended that a debris basin be constructed upstream of the cave entrance. This basin should be clean out at least once a year in the summer or as needed. This should be done regardless of gate construction. In the past a variety of "things" have washed into the cave including dogs, goats, and 10-foot poles. A debris basin could make the cave considerably more pleasant, over time.

The very back part of the property (between the cave entrance and the back line) contains trash that has been there for a fairly long time. There are broken cinder blocks, broken glass, bottles, and shards of china and pottery. It is recommended that this material be removed. A group of people dedicated to this task, could accomplish this in a day. Additionally, the neighbor to the west has been encroaching on the property in this area. A rough kennel should be removed. Two wood piles can remain until the wood is used, but no new wood should be stored on the property. Officials from the NCC and the Albany County Land Conservancy need to discuss our plans for management with this owner.

## **RESCUE CONSIDERATIONS**

There has been only one known rescue at Onesquethaw Cave. Primary dangers in the cave result from flooding and from the climbs into the upper level passages in the first and second rooms.

In the event of a fall and the need for a rescue, it appears that a sked-type stretcher could be taken out through the winding entrance passage without too much difficulty. The only problematic area might be at the downstream end of the entrance passage where it enters the first room. In fact, despite the large amount of crawling in the cave, moving a stretcher through most of its length would not appear to be too

difficult. The most difficult area to negotiate would probably be the Duck-Under, the fissure and wet crawl between the Barnyard and the Otter Slide.

Flooding is another problem. As noted above, M.V. Palmer determined that the cave can flood to the ceiling along its entire length -- the cave quite literally filling up like a bottle. If someone is trapped in the cave, all they can do is move to the highest ground and hope the water recedes before it gets there. This is what happened in the December 1, 1990 rescue. No attempts should be made at rescue until the water levels drop and it is safe to enter the cave.

One of the problems with the cave is that the first place in the cave to flood is the first crawl off the second room. This crawl, beyond which the majority of the cave lies, acts like the elbow in a drainpipe. At one time, the inward end of this crawl was quite a large room (by northeast standards). In less than 20 years, this room was filled to within a foot of the ceiling. It has since been re-excavated and a 6-foot climb is now present. Cavers caught beyond this crawl have as their only viable option to climb the fissure at the end of this crawl. With some passage enlargement, this might permit a caver to reach the first room via the upper level, though it is unclear how they would then get down (perhaps a rope could be cached there with a bolt for securing it). Some consideration should be given to doing this.

The Barnyard and the Duck-under can also act as water traps. The only feasible way around these are the two extremely tight crawls that lead from the top of the Otter Slide to the upstream end of the Barnyard. Some study of these should be made to see if they could be enlarged.

## **FUTURE PLANS**

In addition to the recommendations made under the Access Policy and Surface Management sections it is recommended that the access trail down to the cave be relocated to the west where the sinkhole is not as steep. This would allow access to the cave without the danger falling on the steep mud bank above the entrance. The old trail should be broken up and planted with one or two trees.

Finally, to maintain good neighbor relations, it is recommended that a 4-walled, clothes-changing area be erected near where the new trail into the sink is constructed.

Northeastern Cave Conservancy, Inc.  
Onesquethaw Cave Access Manager  
Street address  
City, NY, 12\_\_\_\_