MANAGEMENT PLAN FOR BENSONS CAVE

INTRODUCTION

The approximately 6.2 acre Bensons Cave Preserve was donated to the Northeastern Cave Conservancy, Inc. (NCC) by the US Cave Conservancy in 2014. It is landlocked and access is via a 16-foot wide right-of-way about 310 feet long.

Bensons Cave is the downstream portion of Secret Caverns, a commercial cave. The two caves together have just under 6200 feet (1890 m) of passage. The main entrance to the cave is a pit entrance with a 60-foot drop. The drop is free rappel. From the base of the pit, the passage goes SSW and NNE. To the south it leads back through a tight fissure to Jolly Hole and beyond. Jolly Hole is another entrance to the cave and is not gated but very tight. Between Bensons and Jolly Hole is the Knothole, a small tight lead to the west. This connects to the walk-in entrance to the cave.

North of Bensons Pit the cave is a mix of hands and knees crawl and walking passage with many formations. Eventually, a wet crawl is reached. In some of the older descriptions this is called Ladies Limit. Beyond this, one reaches the Junction Room. There is a 4-foot drop into the room. This is where the passage from Secret Caverns enters from the NNW. The main cave continues east and south.

PURPOSE OF A MANAGEMENT PLAN

A management plan is not only a good idea but one must be approved by the NCC Board early in the acquisition process for any new cave property. The purpose of a management plan is to describe what is on a property and how it should be managed. It is an operating manual for the preserve. A plan is not a static document that once written is placed on the shelf and forgotten. It is a document that is to be used and referenced on a regular basis. The property manager must follow the plan unless there is a compelling and overriding reason for doing otherwise. Unless there is an immediate need, nothing should be done at a property that is not in the plan. If something new is desired, the plan should be amended only after careful, complete, and thorough analysis of the proposed changes or additions. Then, the amendments must be approved by the NCC board. The NCC requires all of its preserve managers to conduct a thorough review of their preserve management plan every two years and submit a report with their recommendations to the Board. The NCC Secretary issues reminders and puts plan reviews on meeting agendas.

HISTORY OF THE PROPERTY

It is unclear when the cave was first known. About 1930 Arthur Van Voris asserted the cave had been known for more than 50 years. So, it seems the cave was being visited by at least 1880. By 1906 John Cook was already calling it Bensons Cave even though it was owned by J. M. Collins. The only Benson living in the Town of Cobleskill was Alman Benson. (The 1866 F.W. Beers map of Cobleskill is hard to read, but the farm north of the preserve and across the road looks like it is labeled as Benson.) He is found in all the censuses from 1850 until 1880 when he was 70. In the 1892 NYS census his daughter, Rebecca, was still living in the town and had two laborers named Collins – David (56) and Almond (25). Later censuses showed a J Mary and M. James Collins.

John Cook in 1906 discusses the cave and gives its length as 1040 feet. Cook says the cave was at one time well decorated but that the formations "have been broken to pieces by collectors." Van Voris wrote that the cave had "rooms with stalactite and stalagmite and rock crystal formations and yet, unless entirely removed, such formations are not to be found

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today."

In 1928 Arthur Van Voris and his crew visited the cave and he described it in *The Lesser Caverns of Schoharie County*. The description seems to be only of that part of the cave near the walk-in entrance.

The same year, Secret Caverns was discovered. It was open to the public in 1929, but the tour was more like a caving trip. Visitors had to descend a rope and then crawl for almost 200 feet. By 1930, ladders (later replaced by steps), lights, and walkways had been installed.

In *Underground Empire* (1948) Clay Perry called it the Minister's Cave and says that it "could be entered once beneath the old portal of Howe Cave" and "it has an artificial extent of over 1000 feet." (It is this sort of material that makes *Underground Empire* a less than reliable source of solid information.) His description seems to suggest the cave ended at the wet crawls.

In the winter of 1949-50, Dick Kenyon went into Secret Caverns and "explored downstream from the waterfalls for over half a mile" with another boy. They came to a large room and leaving "their names on the wall, they returned to Secret and on out." In the Spring of 1950, "Wes Wickenhofer guided a party into Benson Cave for over a half mile to a big room from which he could find no other passage. He did find Dick's name and placed his beside it. Later, in talking it over, they discovered that the other party in each case had come in from another direction and been unable to find the continuation." On 2 July 1950 during the Tri-County Grotto's 2nd annual outing, a group of 19 did the first entrance-to-entrance trip.

The cave was closed to visitation in the 60s, 70s, and 80s and most of the trips were sneak trips. (Alex Bartholomew reports that his father "worked at Secret Caverns as a tour guide for 7 years through high school and college and did a 'legal' through trip from Secret out through Bensons in the mid 1960's where they lowered rope ladder down the Bensons entrance before going in through Secret.")

Chuck Porter reports that when he, Vic Baker, and others from RPI visited the cave "in the late '60s it was a museum of 3- and 4-digit NSS numbers carbided on the walls." More recent visits show they are no longer visible.

The United States Cave Conservancy was formed in 1993 and acquired the cave from Andrew Rutsky in September 1993.

A dig in the early 2000s in the southeast part of the cave yielded about 165 feet of cave. This was subsequently extended another 20 feet.

RESOURCES

UNDERGROUND RESOURCES

BIOLOGICAL - One species of cave-adapted amphipod, *Stygobromus alleghenisis*, likely exists in the cave. This species has not been found in the cave, but it is common throughout the caves of the area and is expected to exist in Bensons 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. Also likely to be present would be a cave cricket, *Ceuthophilus maculatus*, the cave moth, *Scoliopteryx libatrix*, harvestmen, *Leiobunum* sp., and snails, *Mesomphix* sp.

Two informal bat counts were done in 2006 and 2008. The 2006 count on February 22 included 37 little browns, 8 *septentrionalis*, 1 small-footed, 1 big brown, 39 tri-colored, and 3 unidentified, for a total of 89. The 2008 survey done March 22 found only 5 bats; 4 little browns and 1 tri-colored. In March of 2014 a DEC survey found 9 little browns, 3 small-footed, and one unknown myotis. White Nose Syndrome which has nearly destroyed the bat population was discovered in 2006 with its epicenter in the non-commercial section of Howe Caverns.

GEOLOGICAL & HYDROLOGICAL - Most of Bensons Cave is developed in the Manlius

limestone, though the entrance pits are in the Coeymans limestone, and south of the Secret-Bensons junction, the stream enters the Rondout dolostone. All are Devonian or Silurian in age. The rocks dip approximately 120 feet per mile to the south.

Bensons is the downstream section of the Secret-Benson system. Water sinking in Secret, enters Bensons at the Junction Room. The water continues east and south. Dye tracing has revealed that the water is next seen in Barytes Cave, the first major side passage in the historic Howe Caverns system. (Barytes was severed from Howe Caverns by quarrying.) Barytes and Howe Caverns have been dye traced to resurge together at No Admittance Spring after traversing the old cement mines under the quarry. It could be argued that Howe and Secret Caverns are hydrologically connected at this resurgence.

The hydrologic relationship of the Bensons passage to the main stream passage is unclear. There are no obvious scallops on the walls of the Bensons main passage to provide clues about water flow, however, debris washed into the passage suggests water flows from the entrance toward the Junction Room.

An ephemeral stream does enter the Bensons Cave (walk-in) entrance. It is unclear where this water goes. It does not seem to have ever been dye-traced.

The whole system presents something of a mystery as much of the main stream passage is not developed down the dip or along the strike. It has recently been suggested that the cave may represent a remnant of a now-gone surface topography. (This would explain the number of infilled domes found especially along the commercial section of Secret Caverns.)

PALEONTOLOGICAL - The Helderberg limestones in which the cave is formed are well known for their fossils. However, no unique paleontological resources are currently known 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 - Bensons Cave preserve is entirely wooded. The forest is a typical northeastern hardwood forest whose predominant species are hemlock (*Tsuga canadensis*), red oak (*Quercus* sp.), beech (*Fagus grandifolia*) (most of the beech exhibit beech bark disease), sugar maple (*Acer saccharum*), cherry (*Prunus serotina*), basswood (*Tilia americana*), and hop hornbeam (*Ostrya virginiana*). There is an under story of tree saplings. Ground cover consists of sedges (*Carex* sp.), the christmas fern (*Polystichum acrostichoides*), the interrupted fern (*Osmunda claytoniana*), and wild ginger (*Asarum canadense*).

Animals include, but are not limited to Red Squirrel, Eastern Gray Squirrel, Chipmunk, White-tail Deer, and probably an occasional coyote. Some snakes probably use the property. The redback salamander (*Plethodon cinereus*) is undoubtably on the preserve. Other salamanders that present might be present include the spotted salamander (*Ambystoma maculatum*) and the Jefferson salamander (*Ambystoma jeffersonianum*). Also the red eft (*Notophthalmus viridescens viridescens*) is most likely present. A variety of birds use the parcel and the surrounding area. These could include Red-tail Hawk, sharp-shinned hawk, owls, mourning dove, wood thrush, vireos, and chickadees.

GEOLOGICAL & HYDROLOGICAL – A stream enters the north side of the property and sinks into the walk-in entrance of Bensons Cave. Because of the large number of sinks

and solutionally-enlarged joints, there is no other surface water. The Kalkberg limestone is visible at the top of all the sinks.

PALEONTOLOGICAL - No resources are known to exist on the property. Some of the sinks and grikes might have acted as natural traps.

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

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

ASSUMPTION OF RISK STATEMENT

Cave exploration and hiking on karst terrain may involve risk or injury, even death from various hazards, both obvious and obscure, including, but not limited to, slippery and uneven ground, open pits, injury by acts of other people, falling, being struck by falling objects, becoming lost, the presence or sudden appearance of water, and hypothermia. All cave visitors will abide by the normally accepted rules of **safe and conservation minded caving** as outlined by the **National Speleological Society**, 6001 Pulaski Pike, Huntsville, Alabama 35810-1122.

ACCESS POLICY

To obtain a permit, the trip leader will e-mail the manager requesting a specific date. A permit for that date listing the trip leader will be issued. On the front of the permit will be a place for trip participants to enter their names. The trip permit must be displayed in a windshield of the group's parked vehicles.

The cave will be closed for bat hibernation for a period specified by the Endangered Species unit of the NYS Department of Environmental Conservation.

The following additional rules shall be followed:

1. Minimum party size is 4. At the chairman's discretion permission may be granted to party sizes of 2 or 3. No solo caving is permitted.
2. Each party member must be proficient in vertical caving techniques and must have his or her own vertical gear with which he or she is familiar.
3. Visitors are strictly forbidden from continuing north into Secret Caverns past the NO TRESPASSING sign.
4. It is recommended that visitors going beyond the wet crawl north of the Bensons Pit wear an article of clothing such as a wetsuit that protects from immersion in the water in the cave.

USE CONFLICTS

At present there do not appear to be any use conflicts. Should a conflict arise between recreational caving and digging, the recreational caving shall take precedence.

If bat surveys reveal the presence of any endangered or threatened species, the NCC shall consider appropriate access restrictions, including closing the cave containing them for the period recommended by the bat specialist of the Endangered Species Unit of the NYS Department of Environmental Conservation.

RESEARCH RULES

All research carried out on the NCC preserve must meet the following criteria:

1. Researchers must initially contact the NCC science coordinator.

2. The goals and objectives of the research must be clearly defined.
3. There must be a clear beginning and end to each project, with the exception of long-term monitoring studies.
4. The work must not cause permanent damage to any caves, natural features, native biota, or historical resources nor interfere with natural hydrologic or chemical processes.
5. The research plan must assure the maximum safety of all concerned.
6 The work must not interfere with the "experience" of other property visitors.
7 Unless specifically authorized by the NCC Board, researchers must operate within the confines of the established management plans for each property.

EXPLORATION RULES

The potential exists for leads at the southeast end of the cave. This includes digs and a narrow, blowing crack at the downstream end of the cave. All dig projects must be approved by the preserve manager.

1. The exploration party should be explicit in indicating what part of the cave will be explored when they ask for permission to enter the cave.
2. Any digging projects will have to be approved by the preserve manager. Persons proposing a dig project shall submit a plan to the manager detailing where they plan to dig, how long they plan to dig, and where they plan to dispose of the spoils. Plans should also include how the diggers plan to remediate the dig should it be abandoned. Projects that include potential passage modification require specific approval from the preserve manager. Any dig that is not worked on for more than six months shall be considered abandoned and any subsequent work in the same area will require manager approval.

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. Grotto publications may also have information, but again these have limited circulation and usually do not give locations. The permit should have a condition forbidding the posting of locations directly or indirectly on the internet.

SURFACE MANAGEMENT

The entire property is wooded. There are numerous sinks plus a ephemeral sinking stream on the land making it an excellent example of karst topography. Of all the sinks, three have cave entrances. All three connect with Bensons Cave, which underlies the eastern portion of the preserve.

The landowner of the right-of-way (ROW) should be contacted and asked whether cars may be parked on the ROW. If not, the cable currently across the ROW should be shortened so it doesn't hang so low and the lock replaced with a new lock. If parking is permitted, then the cable should be moved about two car lengths closer to the property to permit off-road parking. That part of the ROW would be cleared.

There is a trail that runs from the west end of the ROW past Bensons Pit and ends at Bensons Cave (the so-called walk-in entrance).

Garbage is visible in sinks east of the trail and in the southwest corner of the property. A thorough clean-up and removal of this garbage is needed.

Webbing or rope found in trees should be removed.

MONITORING

To know whether a plan is working requires monitoring. This may be as simple as driving by the preserve on a routine basis or more complicated strategies involving data-loggers and more. At this time, no specific monitoring is recommended other than regular bat counts.

RESCUE CONSIDERATIONS

In Bensons Cave there are several locations that might pose a problem in the event of a rescue. These include: Jolly Hole, the Knothole, Bensons Pit, the wet crawls, the 4-foot "step up" at the Junction Room, and downstream of the Junction Room there are the following: a 6' to 7' climb just before the "wagon ruts" crawl and climb-down near the first waterfall (when one is following the water downstream rather than the open dry passage), and a climb-down at the second waterfall further downstream.

Any stretcher rescue in the cave.

Any stretcher rescue in the cave would entail hauling a patient up Bensons Pit. The size of the pit and the gate at the top would require vertical hauling. Thus, in all cases, a patient placed in a stretcher will have to have a seat harness put on him or her. Sufficient ropes would be needed to create a hauling rig from the trees surrounding the entrance to reduce rope rub, and to permit the vertical stretcher to clear the entrance. RJ Mallory of Secret Caverns has indicated that he is very much in favor of us using Secret Caverns as an exit point if it was deemed the better option during a rescue.

Jolly Hole and the Knothole are sufficiently tight that they could become locations of crevice rescues. Short of gating these (not recommended) there is little that can be done regarding the tightness. Jolly Hole is not used frequently as an entrance, so the walls tend to be slippery from decaying organic debris (leaves and branches). Walls should be checked and cleared of loose rocks, branches, *etc.* before attempting a vertical haul. The spot immediately at the bottom of Jolly Hole to the connector passage towards the main pit is fairly tight (tighter than any other parts of the connector passage). This might also be a spot where one might be entrapped. If a patient is injured in the connection between Jolly hole and Bensons Pit, it is advisable to take them out the main pit. If the patient must come out of Jolly Hole, some passage enlargement right before the bottom of the Jolly Hole pit might be necessary.

For the most part, the wet crawls are low-ceiling tight crawls where a patient will either need to be turtled, lap passed or dragged on the ground via a sheet/tarp. At one point the passage is the shape of the number "8" and the largest cross section transitions from on the bottom to the top of the "8", 2-3 ft above the bottom of the stream passage. Due to a 4-6" opening at the bottom of this area, it may be difficult to drag a patient through this section. It may be necessary to put some sort of filler to span this gap; either some flat boards, a person lying on their back/stomach, or other means, depending on ceiling height.

The 4-foot step-up at the Junction Room should not pose a problem for rescue teams with sufficient manpower to lift or lower the patient the 4 feet. There should be adequate space for several people handling the litter when heading out of the cave.

At the end of the Rockeater dig near the downstream end of the cave is a small room. It can be tricky to turn around in it. Should someone get stuck trying to do so, the best thing to do would be to send another person in to visually and verbally assist the stuck person so that they can back out on their own power. Should the patient be injured for some other reason, being dragged out via a tarp would be the best solution given the size and smoothness of the passage.

There is a six-foot climb-down near the downstream end. If a patient had to be packaged at the bottom of this climb, at the very least a belay line should be tied to the litter to capture progress as it is lifted from the ground by a rescue team. The upper opening is about 3 feet tall, so it should be large enough to not need precise guidance for aiming the litter towards

it. Depending on the size of the patent, a temporary upper anchor and full vertical haul rig may be more practical.

There is another climb downstream of the waterfall. This area is typically wet and cold. It may be possible to temporarily dam the stream for short stretches at a time, but it is not practical to permanently divert the water from this area. Most typical injuries from falls in this area would be relatively minor, such as sprained or broken ankles and wrists. The patient or group with the patient should be able to assist the patient out of the water and into the main passage without much difficulty.

Another consideration involves a search for a party thought to be in the cave. From Bensons Pit one can go SSW or NNE. While the former direction doesn't have much cave passage, one search team of thin individuals should go that way and out through the Knothole and the Bensons walk-in entrance. Two teams search toward the Junction Room. At this point one team would go downstream and the second would go upstream toward Secret. Consideration should be given to doing the Bensons/Secret search from the Secret side.

FUTURE PLANS

1. Remove the webbing from the tree near Bensons Cave.
2. Replace old gate at the end of the ROW with a new arrangement or discuss parking with landowner of ROW and if okay place gate further in to allow for a small parking area.
3. Finish marking property boundary.
4. At some point, a Grade 5 survey of the cave should be done. It would assist in further exploration to know actual elevations.

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