CAVE CONSERVATION PLAN
FOR ST. CUTHBERT'S SWALLET,
PRIDDY, SOMERSET

INTRODUCTION

This plan relates principally to the cave known as St. Cuthbert's Swallet and also to other cave and karst features to be found in its immediate vicinity. St. Cuthbert's Swallet is noted for being a multi-level, mainly phreatic system; the extensive anastomosis in the area of the Rabbit Warren and Warren Extension and the extreme beauty, purity and size of its calcite formations. It is certainly the most complicated cave to be found in the Mendip Hills. Its hydrology has been intensively studied as has the geomorphology (Ford, 1963).

The cave has been designated as a drained phreatic system modified by vadose downcutting (Ford, 1964, 1968). The main features include a phreatic anastomosis and interpenetrating potholes far greater than any other such structures known anywhere on Mendip. The stalagmite deposits exhibit a purity, variety and size unrivalled on Mendip or, for that matter, in the United Kingdom.

The cave has been preserved in its pristine condition by the Bristol Exploration Club since 1954. It is the only cave to have been preserved so efficiently by a warden system whose members are subjected to a rigorous training programme - more than that required for any other controlled cave in the British Isles.

The cave has been designated as a Site of Special Scientific Interest (SSSI) by Natural England; see Appendix B.

The full extent of the scientific work carried out at this site is not reiterated here, readers should refer to the select bibliography given at the end of this plan.

The cave is thus both a site of outstanding natural beauty and a unique place in the development and understanding of theories of cave formation. Work on the clastic and stalagmite deposits in St. Cuthbert's Swallet has also been of great importance in developing an absolute chronology for the Pleistocene.

OBJECTIVES

The particular features of this site, outlined above, are of continuing interest for both scientific and aesthetic reasons. It is important therefore for future enjoyment and study that this site and these features are protected. The objective of this plan is to ensure that the procedures already established continue to provide the maximum degree of conservation for the site, whilst still allowing reasonable access for interested and responsible parties.

SITE DETAILS

The entrance to the second longest Mendip cave (7,000m) is to be found in an area known as The Mineries, which is situated to the north of the Wells Road and lies close to the Monarchs Way, a public footpath (NGR ST 5430.5050).

The NGR of the entrances to the karst features are as follows:

ST/5430.5050	St. Cuthbert's Swallet
ST/5433.5060	Plantation Swallet

A survey which includes both underground and surface details of these sites was published in Irwin *et al* (1991). The underground surveys are to Cave Research Group (CRG) Grade 6D[1] Copies of the report[2] are available from the Bristol Exploration Club, The Belfry, Wells Road, Priddy, Somerset BA5 3AU. A copy of the survey is appended to this plan (Appendix A).

The land on which these entrances are situated belong to Inveresk Plc. Access to the caves is administered by the BEC under an agreement and lease with the landowners who require that no pollution or diversion of the water shall take place as defined by a High Court judgment of 1863. Control of access to, and day-to-day activity within, the cave is normally undertaken by a special sub-committee, comprising the cave wardens, which reports regularly to the Committee of the Bristol Exploration Club. The ultimate authority relating to policies relating to the cave lies with the members of the Club at their Annual General Meeting and the Club Trustees. Requirements for prospective wardens is given in Appendix 3.

FEATURES REQUIRING CONSERVATION

The particular features requiring conservation in these caves can be divided into three categories: Calcite Formations, Clastic Sediments and Passage Morphology.

CALCITE FORMATIONS:

St. Cuthbert's Swallet is particularly noted for its unequalled profuse calcite decoration. Especially fine examples are to be found in the September Series; Cascade Chamber, Curtain Chamber, High Chamber, Canyon Series and Gour Hall. Other smaller displays of equal quality are to be found at numerous locations throughout both caves. Of less aesthetic but equal scientific value are the calcite flows that overlay or are inter-bedded with clastic sediments at points throughout the cave; the finest being at the entrance to Curtain Chamber.

CLASTIC SEDIMENTS:

[1]The Cave Research Group merged with the British Speleological Association to form the British Cave Research Association in 1973.

[2] St Cuthberts Swallet Bristol Exploration Club 1991 ISBN 0 9517282 0 2

Sediments of mud, sand and gravel are to be found throughout the cave, the most important being located at the eastern end of Railway Tunnel. These have scientific value for correlating the various phases in the history of the formation of the cave.

PASSAGE MORPHOLOGY

Most of the elements of cave passage morphology, passage shapes, dimensions and altitudes, are not generally thought to be at risk. Some more delicate features do exist, however, such as fossils exposed in the cave walls by differential erosion, and equal care must be shown to these. Included within this category are the surface features of geomorphological interest, especially the risings and sinks, and also the remains of mining activity.

The areas in the caves of particular fragility, and therefore vulnerability, are highlighted on the attached plan of the caves (Appendix A)

THE PRESENT STATE OF THE CAVES

St. Cuthbert's Swallet was discovered in 1953, and has been used by cavers continuously since that time. Due to there being a warden system in operation, much less damage has occurred than otherwise would be expected. Minimal damage has occurred along the popular tourist routes, with the major formations and the rare examples of a variety of crystal and clastic forms remaining in their pristine condition.

Plantation Swallet, an active Swallet modified by mining activity c.1905, has been filled with farm debris and so access to the enlarged entrance is not currently possible. No access control has ever been implemented here. It is still capable of engulfing the large stream that escapes from the Mineries Pool, 300m to the north-east.

The members of the BEC demonstrated considerable foresight when, in 1956, they instituted the warden system, which at the time was a considerable innovation for cave conservation. Initially it was open to members of that club, but in 1967 the BEC agreed to extend the warden system to members of the major Mendip Clubs enabling them to have a maximum of 2 leaders. Later, the club agreed to widen the leader system to any club throughout the country providing the rules of leader selection were adhered to. At the time of preparing this document the number of leaders does not exceed 40.

CURRENT CONSERVATION PRACTICES

ACCESS CONTROL

Access is controlled on behalf of the landowner by the Bristol Exploration Club. The cave is gated.

Keys are held by each BEC warden, guest warden and Mendip Cave Rescue. All parties must be accompanied by one of these wardens and are limited in size to six persons, including the warden. In certain areas of the cave, because of the potential damage to vulnerable stalagmite formations and other features, the party size is restricted to a maximum of three including the warden. These include the Rabbit Warren Extension and Canyon Series.

It is certainly the case that, both because of the technical difficulty in traversing its passages and the vulnerability of its stalagmite and clastic displays, this cave is not a suitable site for commercially run caving or training trips of any type; this activity is banned by the BEC.

No novices are allowed in the cave.

PREFERRED ROUTES AND TAPING

The established routes through the centre of the cave are those used for visiting parties. Unless visitors specifically request a visit to one or more of the east or west series (e.g. September Series) they are shown only the central routes to the end of the cave.

In vulnerable areas within the cave, routes are tape marked through some of the more sensitive areas. The most fragile areas are highlighted on the survey in Appendix A.

USE OF CARBIDE

The use of carbide lamps is forbidden.

DIGGING GUIDELINES

All digs in the cave and on the surface of land covered by the lease are subject to the approval of the BEC Committee and digging teams must be led by an approved warden. No digs are approved unless; i) they are likely to lead to significant discoveries and ii) their working will not significantly damage known cave features.

The use of explosives is not permitted.

FIXED AIDS

A number of fixed aids have been installed in the cave, mainly in the entrance series north of Wire Rift. This is for safety reasons and not to simplify the technical difficulty of the cave. A few handlines have been installed on awkward climbs in order to protect vulnerable formation in the immediate vicinity.

SITE CLEANING

Regular inspection of the cave has been, and continues to be, undertaken by wardens. When deemed necessary cleaning sessions take place to restore despoiled features. Although a rare occurrence, repair to damaged formations is also undertaken using the most up-to-date technology.

EXTERNAL FEATURES

At present the land above the entrances to the caves, and immediately upstream of the stream sinks is a botanical SSSI and so it is believed that general surfaces conservation practices will not have any deleterious effects on the cave or its environment.

EDUCATION

No policy of this nature can succeed unless it is known to and understood by those people who use the site. The BEC regularly publishes details of the access rules relating to St. Cuthbert's Swallet in such manner as will reach the greatest number of these people.

Its policy and the circumstances surrounding its formation is reviewed regularly by the Committee of Wardens. This ensures that the policy, and the reasoning behind it, is understood by those people who administer it.

MONITORING

Monitoring of the state of the cave is carried out in two ways:

Fixed Point Photography: A full photographic survey of the more delicate features of the caves will be undertaken. This will then be repeated at intervals, as necessary. The interval will be determined by the results, but surveys will be a minimum of one every five years. The results will be made available to interested parties by the Annual General Meeting of the Bristol Exploration Club. The results of the surveys will be kept in the BEC library collection where they will be available for study and also submitted to Natural England.

Written Reports: In addition, and at the same interval, written reports will be commissioned from the cave wardens, concentrating on the type of detail that does not easily photograph. These reports will be kept in the same place as the photographic record.

FUTURE CONSERVATION MEASURES

Subject to the results of the surveys, the BEC will continue to apply the stringent conservation measures currently being operated and outlined above.

In addition, two other activities detailed below will be acted upon when necessary.

Scientific Work:

As has already been stated, St. Cuthbert's Swallet has been the subject of intensive study. This large base of material makes it valuable as a subject for further research. Whilst this is to be encouraged, it is proposed that the sampling of calcite formations and sediments should be restricted to those projects likely to produce new information and that sampling simply to confirm current knowledge or for training purposes should be prohibited.

External Features:

Any proposed changes in the use of the overlying land should be carefully reviewed, and the list of Potentially Damaging Operations (PDO's) applied by the SSSI schedule should be adhered to (See Appendix B).

APPENDICES

A. Annotated copy of the published survey of the caves.
B. Copy of the SSSI notification Citation Sheet, Map and PDO list.
C. Requirements of a St. Cuthbert's Swallet Warden.
D. Definition of responsibilities of the surface management required by Natural England that is to be undertaken by the Bristol Exploration Club. The outline details have already been discussed on site with representatives of the Club and Dr. Robert Corns of [the then] English Nature, c.1999, at Taunton.

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Stuart McManus: Bristol Exploration Club. Dated: 12th August 2015.

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On behalf of Natural England	On behalf of St Cuthberts Minery Reserve
PP Bob Corns	PP Estelle Sandford (Director)
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