

BRECON BEACONS  
NATIONAL PARK

## **Porth-yr-Ogof Safety Statement and Risk Assessment**

**Original Assessment 12 October 1999**

**Reviewed & Updated August 2009**



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# I Introduction

This document has been written by National Park officers with advice from users of Porth-yr-Ogof. The document follows the standard guidance from the Health and Safety Executive on how to manage risk through the risk assessment process.

1.1 The Brecon Beacons National Park Authority (BBNPA) long leasehold on land that includes the main entrances to the Porth-yr-Ogof cave system and the public car park (see attached map in Appendix 5.1).

1.2 Public access is encouraged to the cave entrance and general environs by the provision of marked paths. Notice boards and signs provided by the Authority give information on the area and also warn the public of the inherent risks associated with visiting the site. Access to the cave itself is unrestricted and is impossible to control, even if this were considered desirable, due to the open nature of the system which has several large entrances.

1.3 The objectives of the National Park Authority in relation to PYO are to:

- Maintain access to the cave system and surrounding environment
- Minimise risks as far as is reasonably practicable
- Preserve the natural beauty of the location and the experience that it can offer to people. For this reason it has been felt that intrusive engineering works to address some of the concerns about hazards at this site would be inappropriate.

1.4 It is acknowledged that there is an inherent tension between the need to give cavers an experience which is both challenging and exciting and the need for the visit to take place in a reasonable degree of safety. As the experience and expectations of visitors to the cave are likely to vary widely it can be difficult to achieve an appropriate balance. The aim of the risk assessment and safety statement is to achieve a consistent balance through management between safety and adventure.

1.5 Many caves within the Brecon Beacons National Park are actively visited by cavers and no risk assessment is produced for their management. The reasons why one is needed for Porth-yr-Ogof system are;

- There have been at least 11 deaths and at this site involving the deep water areas of the cave (particularly the resurgence zone). The deaths involved instructed groups of inexperienced persons.
- The site is managed by the BBNPA
- It is promoted by the BBNPA
- It has very large visitor numbers compared to other caves. In 2006 22,254 people visited the main Porth yr Ogof cave entrance (this figure was calculated using data gathered from the pyro-sensor located in the post and rail fencing on the path down to the cave.

Surveys undertaken over the years have been an excellent source for useful technical advice in the writing of this Risk Assessment. Three of these reports have been included as Appendices:

Appendix 5.2: 'Porth-yr-Ogof Safety Review'  
*John Harvey* 12 June 1997

Appendix 5.3: 'Porth-yr-Ogof ., Ystradfellte Cave & Cliff Survey'  
*Ove Arup & Partners* 14 January 1999

Appendix 5.4: 'Cave & Cliff Survey - Rope Access Survey'  
*Ove Arup & Partners* Summer 2008

## **2 Risk Assessment and Safety Statement**

In appendix 5 full risk assessments for the activities assessed in section 2.1 have been produced however the following sections will only discuss and address the main hazards of the site as identified in section 2.3.

### **2.1 Activity Assessed**

Activities being undertaken at the site can be split into two categories:

- General access to the site, waterfalls and environs (outside the cave system)
- Access within the cave system (“caving”)

### **2.2 Persons at risk**

For the purposes of this assessment people accessing the site can be split into four broad categories:

- General members of the public visiting the site and not accessing the cave system. These people are unlikely to have experience or knowledge of the site or of the general dangers and precautions associated with caving.
- Brecon Beacons National Park Authority Staff might be expected to have an increased knowledge of the site and caving risks compared to members of the public but would not normally access the cave system.
- Voluntary and professional rescue services.
- Caving groups and individuals who will have access to both the site in general but may also be entering the cave system. The majority of people accessing the caves are part of an organised group with the objective of gaining an outdoor adventurous activity experience. They would be inexperienced and be led by a qualified and experienced instructor. Typical groups include:
  - Adults and children in a group led by an instructor
  - Sport cavers

### **2.3 Main Hazards**

The following main hazards have been identified on the site and are listed in order of significance, those with the highest risk being listed first:

- The “resurgence area” where 10 out of the 11 known fatalities have occurred in the past.
- Water hazards outside the caves and inside. Particular hazards within the cave system include:
  - Deep, cold and moving water within a dark and potentially confined environment
  - The potential for sudden changes in water level
  - Flood debris
- Rock-falls both inside and outside the caves (particularly the cave entrances) – whether natural or deliberate
- Cliffs and slopes around the site and particularly when gaining access to the main cave entrance (including falls from height, steps and stiles)
- Slips, trips and falls both outside and inside the cave system

The hazards identified are inherent in the nature of the site and type of activity carried out. It is the aim of the National Park Authority to minimise the risks where reasonably practicable to anyone who might visit the site (evaluated below) by the provision of information and direct management of the site.

## 2.4 Evaluation of Risk

A **hazard** is something with the potential to cause harm. **Risk** is an evaluation of the potential events that might happen combined with the potential severity. The Authority uses a system that involves scoring both the severity of a potential event with the likelihood on a 3 point basis and multiplying the two scores together as shown on the following table:

		Likelihood		
S e v e r i t y	(3)	3	6	9
	(2)	2	4	6
	(1)	1	2	3
		(1)	(2)	(3)

#### Likelihood of event

- |   |                |
|---|----------------|
| 1 | Not likely     |
| 2 | Quite possible |
| 3 | Very likely    |

#### Severity of event

- |   |         |   |
|---|---------|---|
| 1 | Major:  | Death or major injury as defined under RIDDOR*  |
| 2 | Serious | 3 day injury or illness as defined under RIDDOR |
| 3 | Slight  | All other injuries or illness                   |

1-2 Risk is insignificant

3-4 Risk is significant but under control

6-9 Risk is significant and not adequately controlled so further control measures are required.

The complete hazards and risk assessments for the site are shown in tables at Appendix 5.5

\* Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

## 3 Control Measures

The most critical hazard presenting itself on this site is deep water and in particular the resurgence. Whilst other hazards are addressed, the focus for action must be in reducing the risk associated with this hazard.

### 3.1 General overview of main control measures

- 3.1.1. The National Park Authority managed public car park at Cwm Porth is generally staffed seven days a week throughout the year, during summer from 0900 to 1700 and winter 0930 to 1630, although attendants also have to leave the site to carry out inspections at the nearby Gwaun Hepste car park and may only be on site until 1630 in summer and 1600 in winter. The attendants are familiar with the hazards of the site and have a role to play in advising visitors, mainly through the distribution of the information leaflet, which outlines the code of conduct for use of the site. They are also able to provide advice on any restrictions on use of the site - for example - due to a rock-fall at the entrance to the cave.

- 3.1.2. Management of the site is the responsibility of the National Park Area Manager for the Western Area of the Park. If the Area Manager is absent then the responsibility lies with the Assistant Area warden. Day-to-day responsibility for management of the site in terms of visitor provisions, toilets and car parking rests with the car park attendants, whilst other issues rest with the Assistant Area Warden for the area who reports to the Area Manager. A list of current post holders can be found at appendix 5.13.
- 3.1.3. The Porth-yr-Ogof Safety Advisory Group was amalgamated with the Waterfalls Area Safety Advisory Group (WASAG) in 2004. The group meets around three times per year to discuss health and safety issues in the waterfalls area. For the Waterfalls Area Safety Advisory Group terms of reference please see appendix 5.6. The Assistant Area Warden is responsible for convening WASAG meetings.
- 3.1.4. An information leaflet for users of the cave has been prepared by National Park staff (see appendix 5.7). This will be available at Information Centres, through the Cambrian Caving Council and from the attendants at Cwm Porth car park. The leaflet should be reviewed and updated every 2-3 years or when major changes occur.
- 3.1.5. A new information board for cavers and site users is situated in the car park at the entrance to the path that leads down to the main cave entrance. This board gives safety advice to users of the site and cave and can be seen in appendix 5.8.
- 3.1.6. The inventory of safety signs is attached at appendix 5.9. The Area Manager is responsible for ensuring that the signs are inspected annually and that this inspection is recorded, even if this inspection is undertaken by another party.
- 3.1.7. The Cambrian Caving Council and South Wales Cave Rescue Organisation have circulated reminders of the dangers of Porth-yr-Ogof to its members and any other known users of the cave (Appendix 5.10). This should be done at intervals of 3 years or following a serious incident or fatality.
- 3.1.8. A roped inspection and prising-off of loose rock is carried out on an annual basis by ARUP, who also produce a report on their inspection (see appendix 5.4). In addition monthly visual checks are to be carried out by a member of BBNPA, for any obvious signs of recent rock-fall particularly following prolonged periods of heavy rainfall (see appendix 5.14); users will be requested via the Waterfalls Area Safety Advisory Group to report any obvious signs of recent rock-fall to the Area Manager and advice will be sought from a technical expert immediately following any reports or sightings of recent rock-fall.

- 3.1.9. A survey was commissioned on the risk of rock fall within the cave. The report was received in January 1999 and is enclosed at Appendix 5.3. This points out that the natural environment presents hazards which are not present in the built environment and that reasonable caution by users should be exercised. One such inherent risk is that of rockfall. Management recommendations were therefore, not in terms of engineering solutions, which should only be considered as a last resort, but were for providing information, warnings and, if absolutely necessary, imposing restrictions on access, together with monitoring those areas which were deemed most subject to movement (see appendix 5.3).
- 3.1.10. Installations have been fixed in the cave to the 'Great Bedding Plane', for future monitoring of the opening of the bedding planes. Monitoring should be carried out annually at first. Location of 'Demec' studs attached at Appendix 5.12.
- 3.1.11. Any debris, which poses a hazard, particularly sheep carcasses, should be reported to the Area Manager who will arrange removal.

### **3.2 Control measures and the relationship with hazard risk assessment**

Once hazards have been risk assessed, control measures to reduce the risk for the various hazards should be considered and ways of ensuring that they are implemented. Risks should generally be reduced as far as is “reasonably practicable” with particular attention being made on those risks that are considered significant. The residual risk can then be assessed that includes the impact of the control measures (a full summary is included in Appendix 5.5):

#### **Control Measure Outside the Cave**

- Speed ramps on access road into car park.
- Monitoring of surface of car park & paths.
- Installation and monitoring of countryside furniture.
- Emergency telephone at warden hut in car park.
- Qualified instructors and leaders should:
  - warn their group of rough and slippery ground
  - adhere to any advice/warning given by safety signs
- Fencing installed, monitored & maintained. Installation and monitoring of countryside furniture to aid access.
- Warning signs installed, monitored and maintained.
- Specialist annual assessments by ARUP.
- Descaling.
- Monthly monitoring of rock-falls.
- Helmets recommended if entering cave.

- Monitoring & reporting to BBNPA by activity leaders of any rock-falls.
- Safety inspection of trees every 5 years by expert. Ongoing monitoring & works on trees. Regular monitoring by site/warden staff, particularly following storm events.
- Undertaking tree safety works.
- Warning signs installed, monitored and maintained. Information board in car park.

### **Control Measure Within and Relating to the Cave System**

- New caving information board installed in car park.
- Leaflets distributed to cavers by car park wardens.
- General information from car park wardens.
- Cave leader training.
- Liaison with outdoor operators including the WASAG (Waterfalls Area Safety Advisory Group) which meets around three times per year.
- Warning signs installed, monitored and maintained.
- Qualified instructors and assistants should:
  - check weather forecast
  - have prior knowledge of the cave
  - not enter the cave if the water is high and rising
  - be aware of visible conditions
  - adhere to all safety signs installed in the cave and at entrances to the cave
  - carry out close monitoring of the group near deep water
- Qualified instructors and assistants should:
  - not allow climbing without a lifeline
  - take care in hazardous areas
  - assess group capability at the start of the activity
  - carry appropriate safety and first aid equipment
  - ensure their first aid knowledge is fit for the activity
  - ensure that all group members are wearing adequate footwear for the conditions in the cave
- Qualified instructors and assistants using the cave should know the cave and routes
- Qualified instructors and assistants should:
  - ensure lamps are fully charged before hand
  - check all groups lights at beginning of activity
  - carry relevant spares for lamps
  - carry a spare light source
- Qualified instructors and assistants should:
  - ensure a staff minimum ratio is agreed with a technical advisor for caving
  - place an assistant at the back of the group if appropriate
  - carry out constant visual checking
- Qualified instructors and assistants should:
  - know the cave and route
  - know the limitations of group members

- carry a knife or blade for equipment removal
- Monitoring & reporting of cave system by activity leaders.
- Qualified instructors and assistants should:
  - ensure that all members of the group are wearing helmets at all times
  - avoid areas with known loose rock
  - provide adequate warning to the group if passing loose rock
- Qualified instructors and assistants should:
  - ensure group members do not drink the water in the cave
  - ensure that group members wash their hands before eating
  - cover cuts
  - ensure knowledge of radon surveys
- Qualified instructors and assistants should:
  - ensure individuals are issued with adequate clothing and equipment
  - carry appropriate safety equipment
  - know procedures to deal with the situation

### **3.3 Overview of main hazards, residual risks (RR) and associated control measures**

The most critical hazard presenting itself on this site is deep water, particularly in the resurgence zone where there have been a number of fatalities. Whilst other hazards are addressed, the focus for action must be in reducing the risk associated with this hazard.

#### **Main hazards outside of cave system and applicable to all users of the site:**

##### **3.3.1 Water hazards outside the cave (particularly deep and moving water) (RR=3)**

**Control Measures:**

Warning signs installed, monitored and maintained.  
Emergency telephone at warden hut in car park.

##### **3.3.2 Rock-falls (particularly around cave entrances) (RR=3)**

**Control Measures:**

Specialist annual assessments by ARUP. The Area Manager is responsible for ensuring that an annual inspection takes place and that the report is recorded (see appendix 5.4).

De-scaling.

Helmets should be worn by groups in the cave and cliff areas

Monitoring & reporting of cave system by activity leaders.

BBNPA staff (typically members of the Western Warden team or car park attendants) for any obvious signs of recent rock-fall. Typically these would be carried out monthly or following prolonged periods of heavy rainfall. Request to

users via the Safety Advisory Group to report any obvious signs of recent rock-fall to the Area Manager.

Advice to be sought from technical expert immediately following any reports or sightings of recent rock-fall particularly in the area East of the main entrance, where the risk has been identified as moderate.

### **3.3.3 Cliffs and slopes around site and access to the main cave entrance (RR=2)**

#### **Control Measures:**

Fencing installed, monitored & maintained. Installation and monitoring of countryside furniture to aid access: Hand-rails, steps, fences, gates & stiles.

### **3.3.4 Slips, trips and falls (RR=4)**

#### **Control Measures:**

Monitor surface of car park & paths. Installation and monitoring of countryside furniture to aid access: Hand-rails, steps, fences, gates & stiles.

Emergency telephone at warden hut in car park.

### **Main hazards within the cave system and applicable to cavers:**

### **3.3.5 The Resurgence Pool (RR= 3)**

The policy of the Brecon Beacons National Park Authority, is that no groups or individuals are to enter the Resurgence Pool. This is communicated through the Waterfall Area Safety Advisory Group, leaflets, and signage including signs placed within and at the entrances to the cave (see appendix 5.9)

### **3.3.6 Water hazards inside the cave (RR= 3)**

- Deep, cold and moving water within a dark and potentially confined environment
- Sudden changes in water-levels
- Flood debris and entrapment

#### **Control Measures:**

New caving information board installed in car park (see Appendix 5.8).

General information and distribution of safety advice leaflet (see appendix 5.7) by car park wardens.

Cave leader training.

Liaison with outdoor operators including the WASAG (Waterfalls Area Safety Advisory Group) which meets around three times per year.

Warning signs installed, monitored and maintained (see Appendix 5.9).

Emergency telephone at warden hut in car park.

The South Wales Local Cave and Mine Leader Award Panel have produced a safety advice information sheet and map on navigating deep water which can be found in appendix 5.11. This advice sheet should be circulated to instructors leading groups in the cave.

The Cambrian Caving Council and what was South Wales Cave Rescue Organisation circulated reminders of the dangers of Porth-yr-Ogof to its members and any other known users of the cave (Appendix 5.10). Mailings should be carried out at intervals of three years or following a serious incident or fatality.

### **3.3.7 Rock-falls inside caves (RR=4)**

#### **Control Measures:**

Any issues reported to CCC will be communicated by them to the caving community.

Helmets – elaborate.

Monitoring & reporting of cave system by activity leaders

A survey was commissioned on the risk of rock fall within the cave. The report was received in January 1999 and is enclosed at Appendix 5.3. This points out that the natural environment presents hazards which are not present in the built environment and that reasonable caution by users should be exercised. One such inherent risk is that of rock-fall. Management recommendations were therefore, not in terms of engineering solutions, which should only be considered as a last resort, but were for providing information, warnings and, if absolutely necessary, imposing restrictions on access, together with monitoring those areas which were deemed most subject to movement.

Installations have been fixed in the cave to the 'Great Bedding Plane', for future monitoring of the opening of the bedding planes. Monitoring should be carried out annually at first. Location of 'Demec' studs attached at appendix 5.12.

### **3.3.8 Slips, trips & falls within the cave (RR= 4)**

#### **Control Measures:**

Qualified instructors and assistants should:

- not allow climbing without a lifeline
- take care in hazardous areas
- assess group capability at the start of the activity
- carry appropriate safety and first aid equipment
- ensure their first aid knowledge is fit for the activity
- ensure that all group members are wearing adequate footwear for the conditions in the cave

## 4 Review of Risk Assessment

This document will serve as a management and communication tool to be shared with partners involved with the site, particularly the Waterfalls Safety Advisory Group. It should be reviewed on a regular (ideally annual) basis or in the event of changed circumstances.

## 5 Key Responsibilities and Duties

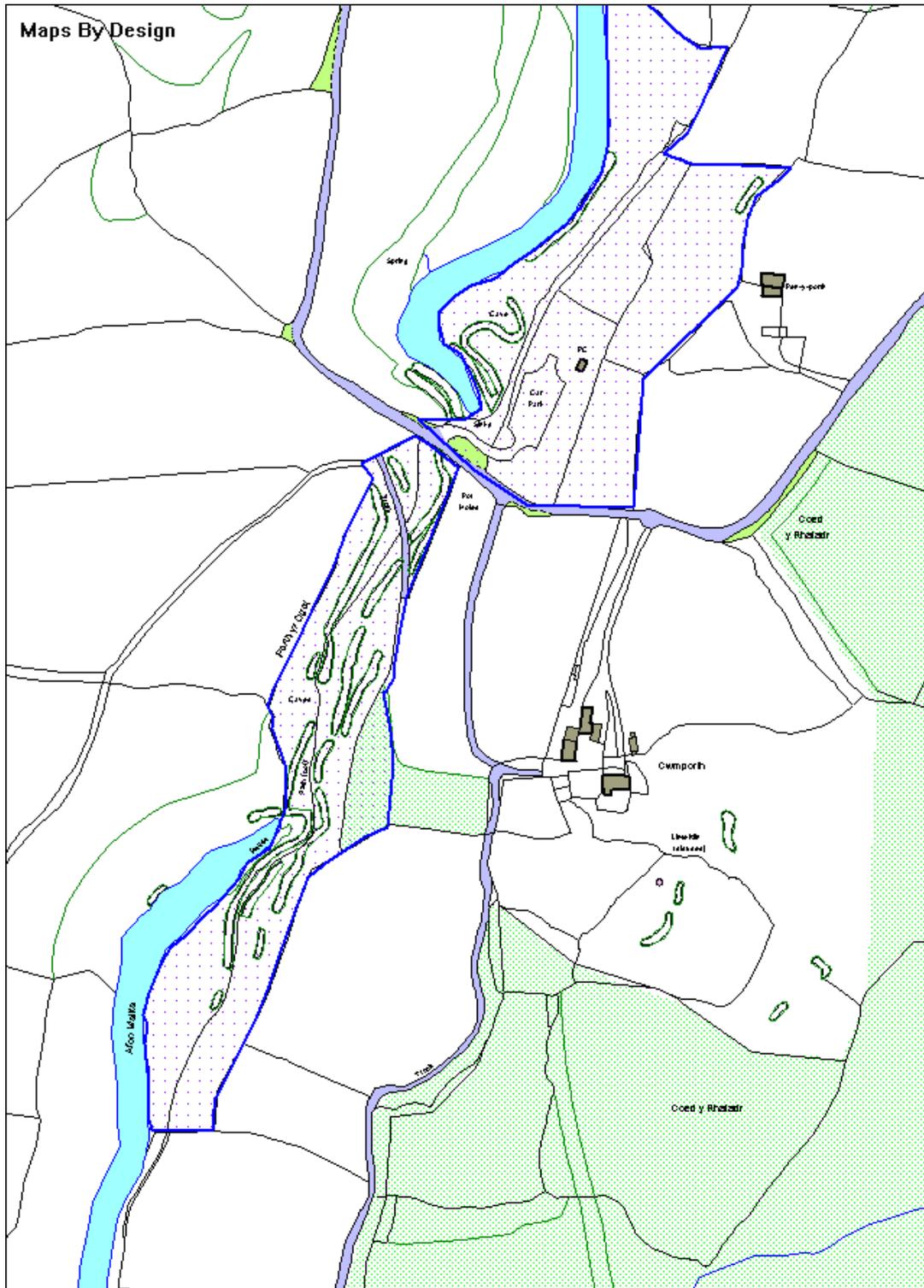
The following table should be used by the area manager to ensure that all responsibilities and duties in relation to the safety control measures are being carried out as recommended.

Key Responsibility/Duty	Individual Responsible	Frequency
Review Safety Statement	Area Manager (or Area Manager to assign to Area Warden)	Annual: Next review due in August 2010 (or in the event of a change in circumstances)
ARUP cliff inspections and de-scaling (Cwm Porth and Clun Gwyn)	Area Manager to organize.	Annual: Next inspection due in Summer 2009.
Site Monitoring Forms to be completed	Car Park Attendants.	Monthly – completed forms to be given to Area Manager.
Visual checks for signs of recent rock-fall and dangerous/fallen trees.	Area Warden.	Monthly or following prolonged periods of heavy rain/storm events.
Tree safety inspection	Rural Practice Surveyor to organize.	Every five years: Next survey due August 2013.
Undertaking of tree safety work.	Area Warden.	Every five years (next due August 2013) following recommendations of the tree safety inspection and ongoing as a result of monthly visual checks/recommendations on site monitoring forms.
Monitoring and maintenance of warning signs within the cave system.	Area Manager to organize for Gary Evans (or another member of South Wales Cave Rescue team) to inspect and replace and underground signs.	Annual: Next inspection due in Summer 2009.
Waterfalls Safety Advisory Group meetings: - request to users via group to report any obvious or recent signs of rock-fall or movement within and outside of the cave system.	Area Warden to organise and attend.	Group to meet three times a year.

Copy of safety statement to be circulated to groups via BBNPA activity provider circulation list.	Area Warden to organize.	Annual.
Distribution of information leaflet for users of the cave via car park wardens.	Area Warden to print. Car Park wardens to distribute.	All groups initially then just new groups. Re-distribute annually.
Car park wardens advised to give out general safety advice and message to visitors.	Area Manager.	On-going.
Ensure knowledge of Randon surveys.	Rural Practice Surveyor to research.	By December 2009.

## 6 Appendices

### Appendix 6.1 National Park owned land at Cwm Porth (marked with blue dots and blue border)



## **Appendix 6.2     ‘Porth yr Ogof Safety Review’**

*John Harvey 12 June 1997*

*\*A PDF copy of this report can be found at k:\Documents\Countryside and Land Management\Wardens\West\Waterfall Country\Car Parks Cwm Porth & Gwaun Hepste\Safety Statement and Risk Assessment*

*Or*

*On request from the Brecon Beacons National Park headquarters –  
Wardens admin (01874) 620456*

**Appendix 6.3**     **'Porth-yr-Ogof, Ystradfellte Cave & Cliff Survey'**  
Ove Arup & Partners 14 January 1999

A copy of this document is available in the library of the National Park offices in Brecon.

**Appendix 6.4 'Cave & Cliff Survey - Rope Access Survey'**

*Ove Arup & Partners Summer 2008*

A copy of this document is available in the library of the National Park offices in Brecon.

## Appendix 6.5 Porth-yr-Ogof Risk Assessments

### 6.5.1. Risk assessment for general access to the site, waterfalls and environs (outside the cave system)

Hazard (outside of cave system and applicable to all users of the site)	Risk	Control Measure	Residual Risk
Car park & vehicle movements	2	Speed ramps on access road into car park.	2
Slips, trips & falls	4	Monitor surface of car park & paths. Installation and monitoring of countryside furniture. Emergency telephone at warden hut in car park. Qualified instructors and leaders should: - warn their group of rough and slippery ground - adhere to any advice/warning given by safety signs	4
Cliffs and slopes around site and particularly when gaining access to the main cave entrance (including falls from height, steps and stiles)	4	Fencing installed, monitored & maintained. Installation and monitoring of countryside furniture to aid access.	2
Drowning within river	3	Warning signs installed, monitored and maintained. Emergency telephone at warden hut in car park.	3
Rock-falls (particularly around cave entrances)	6	Specialist annual assessments by ARUP. Descaling. General monitoring. Helmets recommended if entering cave. Monitoring & reporting to BBNPA by activity leaders.	3
Tree hazards	3	5 yearly assessments by expert. Ongoing monitoring & works. Regular monitoring by	2

		site/warden staff, particularly following storm events. Undertaking tree safety works.	
Inexperienced members of the public entering the cave unprepared for the cave environment	6	Warning signs installed, monitored and maintained. Information board in car park.	2

### 6.5.2 Risk assessment for access within the cave system (caving)

Hazard (within cave system and applicable to cavers)	Risk	Control Measure	Residual Risk
<p>Drowning within cave system:</p> <ul style="list-style-type: none"> <li>• Resurgence zone</li> <li>• Deep/cold/moving water</li> <li>• Sudden changes in water-levels</li> <li>• Debris</li> </ul>	6	<p>New caving information board installed in car park. Leaflets distributed to cavers by car park wardens. General information from car park wardens. Cave leader training. Liaison with outdoor operators including the WASAG (Waterfalls Area Safety Advisory Group) which meets around three times per year. Warning signs installed, monitored and maintained. Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- check weather forecast</li> <li>- have prior knowledge of the cave</li> <li>- not enter the cave if the water is high and rising</li> <li>-be aware of visible conditions</li> <li>-adhere to all safety signs installed in the cave and at entrances to the cave</li> <li>-carry out close monitoring of the group near deep water</li> </ul>	3
Slips, falls and injury/health problems within caves	4	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- not allow climbing without a lifeline</li> </ul>	4

		<ul style="list-style-type: none"> <li>- take care in hazardous areas</li> <li>- assess group capability at the start of the activity</li> <li>- carry appropriate safety and first aid equipment</li> <li>- ensure their first aid knowledge is fit for the activity</li> <li>- ensure that all group members are wearing adequate footwear for the conditions in the cave</li> </ul>	
Getting lost or disorientated within the cave	4	Qualified instructors and assistants using the cave should know the cave and routes	2
Light failure	4	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- ensure lamps are fully charged before hand</li> <li>- check all groups lights at beginning of activity</li> <li>- carry relevant spares for lamps</li> <li>- carry a spare light source</li> </ul>	2
Group member becoming separated from rest of group	4	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- ensure a staff minimum ratio is agreed with a technical advisor for caving</li> <li>- place an assistant at the back of the group if appropriate</li> <li>- carry out constant visual checking</li> </ul>	2
Group members becoming stuck	4	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- know the cave and route</li> <li>- know the limitations of group members</li> <li>- carry a knife or blade for equipment removal</li> </ul>	1
Rockfalls inside caves	6	<p>Monitoring &amp; reporting of cave system by activity leaders</p> <p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- ensure that all members</li> </ul>	4

		<p>of the group are wearing helmets at all times</p> <ul style="list-style-type: none"> <li>- avoid areas with known loose rock</li> <li>- provide adequate warning to the group if passing loose rock</li> </ul>	
Water-bourne diseases/health threats – weils disease, radon,	2	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>- group members do not drink the water in the cave</li> <li>- ensure that group members wash their hands before eating</li> <li>- cover cuts</li> <li>- ensure knowledge of radon surveys</li> </ul>	2
Hypothermia	3	<p>Qualified instructors and assistants should:</p> <ul style="list-style-type: none"> <li>-ensure individuals are issued with adequate clothing and equipment</li> <li>- carry appropriate safety equipment</li> <li>- know procedures to deal with the situation</li> </ul>	2

## **Appendix 6.6 Waterfalls Area Safety Advisory Group terms of reference**

*\*The following text is to be reviewed at the next WASAG meeting (October 2009).*

### **Aim of the Group**

1. To promote best practice safety precautions amongst members of the public visiting Waterfalls Country.
2. To discuss recent accidents and seek ways to mitigate similar accidents in the future.

### **Membership**

Membership of this group is open to any individual or group with an active interest in developing the aims of the group, however the core stakeholders at present are:

- The Forestry Commission – represented by Paul Dann, Area Manager.
- The Brecon Beacons National Park – represented by Helen Pye – Warden for the Waterfalls.
- The Association of Heads of Outdoor Education Centres (AHOEC) – represented by Juliet Parker-Smith.
- Dyfed Powyd Police – represented by Inspector Helen Hill.
- Ystradfellte Community Council – represented by Colin Woodley.
- Cambrian Caving Council – represented by Elsie Little.
- South Wales Search and Rescue Association – represented by Huw Jones and Mark Jones.
- West Brecon Cave Rescue Team – represented by Gary Evans.
- Ministry of Defence – represented by Gerwyn James

Other invited groups on the circulation list of minutes include:

- The Health and Safety Executive.
- The Adventure Activities Licensing Service

The role of chairperson at each meeting is typically held by either Helen Pye or Paul Dann.

### **Communications**

- The group will meet as often as it collectively feels is useful. It is anticipated that this would not normally be around three times per year, usually at Pontneddfechan Village Hall.
- The BBNPA will provide administrative services and circulate agreed action points and key points of note after each meeting.
- Representatives will be expected to communicate agreed outputs back to their organisations.

### **Networking between WASAG members**

All members are encouraged to pass on relevant information between members as soon as practicable. To this end a circulation list is available and regularly updated.

**Appendix 6.7 Porth-yr-Ogof Safety Advice Leaflet**



**PORTH YR OGOF, YSTRADFELLTE**

**ADVICE FOR**

**CAVING GROUP LEADERS**

Only experienced cavers, familiar with this cave, should lead people into it. We recommend that Caving Group Leaders be qualified with the:

**LOCAL CAVE & MINE LEADER AWARD** or  
**CAVE INSTRUCTOR CERTIFICATE**

All members of the group must be properly equipped and happy to take part in the proposed trip.

**PLEASE READ THE CAVING INFORMATION  
BOARD OPPOSITE THE TOILETS  
THERE IS AN EMERGENCY  
TELEPHONE LOCATED TO THE  
REAR OF THE CAR PARK  
ATTENDANT'S HUT**

If you have any comments regarding safety please fill in the Visitor's Book (held by the Car Park Attendant) or contact the

**Western Area Manager**  
**Brecon Beacons National Park Authority**

**Tel: 01874-620234 or e-mail**  
**[Judith.harvey@breconbeacons.org](mailto:Judith.harvey@breconbeacons.org)**

April 2009

## Appendix 6.8 Caving information sign at Cwm Porth car park



**Appendix 6.9    Signs Inventory 2008**

See following pages.

# West Brecon Cave Rescue Team

C/O SWCC Headquarters, No. 2 Powell Street, Penwyllt,  
Pen-Y-Cae, Swansea, SA9 1GQ  
Registered Charity No. 1016463



Judith Harvey  
Area Manager (Central)  
Plas y Ffynnon  
Cambrian Way  
Brecon  
Powys  
LD3 7HP

31<sup>st</sup> August, 2008

## Subject : Porth Yr Ogof Sign Survey

As agreed earlier this year, I undertook a survey of the underground signs at Porth Yr Ogof on 30<sup>th</sup> August, 2008. I had hoped to do this sooner, but as you know water levels have been ridiculously high for the time of year. Even on Saturday it was a struggle to reach the resurgence signs.

I covered all passages within the cave that are accessible to non divers and the signs encountered were photographed, the photos being enclosed. The position of each sign (as shown on the Photos) is marked on the enclosed survey.

The Signs observed are as follows :

### Sign 1 - 'Dangerous Pool Ahead. Safe Exit'

Visible only inside the Cave near collapse entrance/exit I and easily visible to anyone following the river downstream. The photo below shows the sign in position near the entrance I and above the river passage.



Please Reply To :  
Garreg Wen,  
Golden Grove,  
Llanarthney,  
Carmarthenshire  
SA32 8JR

Tel : 01558 668878  
07836 748752

**Sign 2 - 'Safe Exit'**

Visible only inside the Cave near collapse entrance/exit J and easily visible to anyone following the river downstream on it's left hand side. The photo below shows this sign.



This sign is becoming rather stained as it is submerged when the cave is in flood. It will need replacing after the next Winter season.

**Sign 3 - 'Warning. The deep water in this cave is dangerous and many people have drowned'**  
Visible outside the cave in Collapse entrances I and J. The photos below show these signs.



**Entrance J**



**Entrance I**

**Sign 4** - 'Danger !, Deep Water. Many People Have Drowned in This Cave' 'No Entry ! Except For Properly Equipped Groups With Experienced Leaders'.  
Visible from the path outside Collapse entrances I and J.



**Entrance J**



**Entrance I**

**Sign 5** - 'Extreme Danger. Many people have drowned beyond here. Do not proceed.'  
Visible only inside the cave when approaching the resurgence pool from the right hand side looking downstream. Positioned near the exit pool.  
It would not be possible to enter the pool without seeing the sign. The photo below shows this sign.



**Sign 6** - 'Extreme Danger. Many people have drowned beyond here. Do not proceed.'  
Visible only inside the cave when approaching the resurgence pool from the right hand side looking downstream. Positioned to the right of the exit pool.  
It would not be possible to enter the pool without seeing the sign. The photo below shows this sign



**Sign 7** - 'Extreme Danger. Many people have drowned beyond here. Do not proceed.'  
Visible only inside the cave when approaching the resurgence pool from the left looking downstream or from the centre.  
It would not be possible to enter the pool without seeing the sign. The pool is usually deep here and I have to stand in the water up to my neck to photograph it. On this occasion a large shingle bank has formed and the sign was easier to reach this time. The following 2 photos show this sign.



This sign is becoming rather stained as it is submerged when the cave is in flood. It will need replacing after the next Winter season.

**Sign 8** - 'Extreme Danger. Deaths have occurred in this Pool. Do not swim without Wetsuit'.  
On the rock wall high above the Resurgence.  
**This sign was removed by me with help from Jon Pimm on 11<sup>th</sup> June, 2007 as shown below**



**Sign 9** - 'Danger. Accidents and Deaths Have Occurred in the Caves' 'No Entry ! Except For Properly Equipped Groups With Experienced Leaders'.



I hope that this information meets your requirements. Should you need further information or wish to discuss these matters, please do not hesitate to contact me.

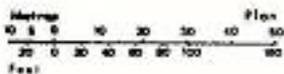
Yours sincerely,

Gary Evans  
Warden & Medical Officer, WBCRT

# PORTH YR OGOF

Survey 1968 - 1977

U.B.S.S. and C.D.G.



## LEGEND

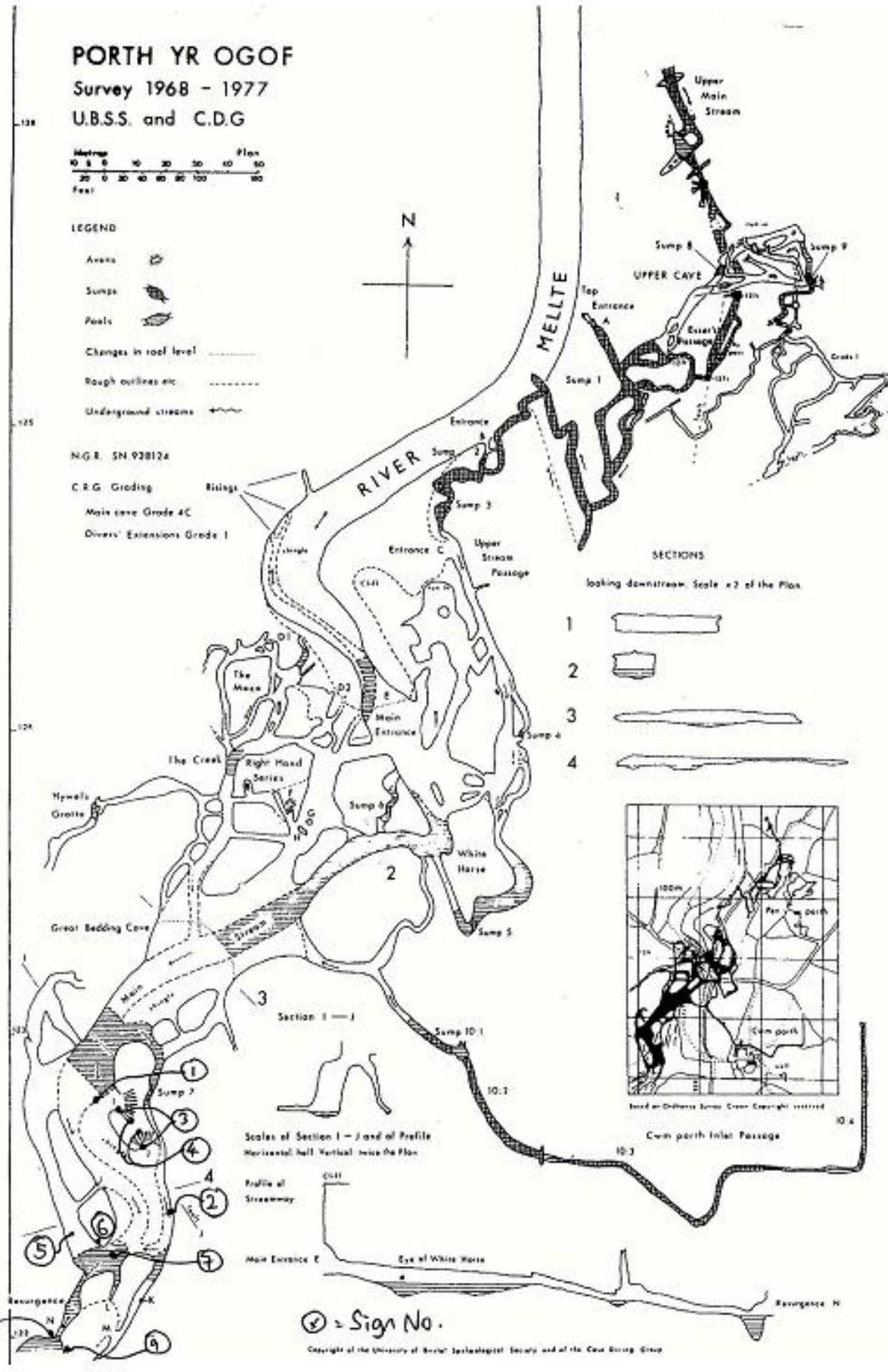
- Areas
- Sumps
- Pools
- Changes in roof level
- Rough outlines etc
- Underground streams

N.G.R. SN 928124

C.R.G. Grading

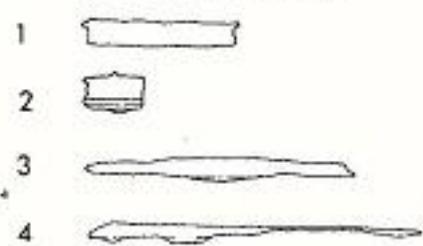
Main cave Grade 4C

Divers' Extensions Grade 1



## SECTIONS

looking downstream. Scale x2 of the Plan.



Based on Ordnance Survey. Crown Copyright reserved.

Cwm ymorth Inlet Passage

Scales of Section 1 - 4 and of Profile  
Horizontal: Half Vertical: twice the Plan

Profile of Streamway

Main Entrance C

Eye of White Horse

Reurgence N

Reurgence S

Ⓢ = Sign No.

Copyright of the University of Bristol Zoological Society and of the Cave Survey Group

**Appendix 6.10 Cambrian Caving Council and South Wales Cave  
Rescue Letters of Advice and Mailing List**

**CAMBRIAN CAVING COUNCIL  
CYNGOR OGOFYDD CYMREIG**

**Affiliated to the National Caving Association**

**To All Porth-vr-Ogof Users:-**

LEA Chief Education Officers in England and Wales  
Directors of Social Services in England and Wales  
Outdoor Activity/Field Study Centres in Brecon Beacons National Park  
Outdoor Activity Instructors working in South Wales  
Military Facilities providing Caving  
University Caving Clubs

Please reply to:-

Hennoyadd Villa  
Abercrave  
Swansea  
SA9 1UR

Tel : 01639 730331

1<sup>st</sup> September 2002

Dear Sir / Madam,

**Re .... Fatalities in Porth-vr-Ogof in South Wales**

Sadly the Resurgence Pool that was the subject of our previous warnings has claimed another victim. The 10<sup>th</sup> death has occurred in that same location.

We ask for your help in circulating this letter and the accompanying ones to all leaders and personnel involved in caving who are under your control or guidance.

The deep water at this part of the cave has caused difficulties even to very strong and well equipped swimmers with some experience in caving at similar sites.

The light entering the cave as one looks out of the cave at this point is enticing and belies the dangers which are involved in attempting to exit through the pool where there are strong currents and very large overhanging areas of rock roof below the surface of the water.

Flood debris often presents an additional hazard in the pool.

Notice boards near to the cave do draw attention to the dangers but we will be only too glad to offer whatever more information we can by way of attempting to avert further tragedies,

Yours faithfully,



Elsie Little  
Conservation Officer

**SUPPORTED BY THE SPORTS COUNCIL FOR WALES**

**SOUTH WALES CAVE RESCUE ORGANISATION**  
**CYMDEITHAS ACHUB OGOF AU DE CYMRU**

Registered Charity No. 1002613. British Cave Rescue Council and Mountain Rescue Committee Member  
Member Teams : West Brecon Cave Rescue Team & Gwent Cave Rescue Team  
Rescue Depots : No.2 Powell Street, Penwyllt, Pen Y Cae, Swansea, SA9 1GQ – Tel : 01639 730613  
Whitewalls Cottage, Llangattock Hillside, Powys

*Please Reply To :*  
Poplar Court  
Station Road  
Caehopkin  
Swansea  
SA9 1TP  
  
Tel : 01639 730806

To All Porth-yr-Ogof Users :  
LEA Chief Education Officers in England and Wales  
Directors of Social Services in England and Wales  
Outdoor Activity/Field Study Centres in Brecon Beacons National Park  
Outdoor Activity Instructors working in South Wales  
Military Facilities providing Caving  
University Caving Clubs

24<sup>th</sup> August, 2002

Dear Sir / Madam,

**Subject : Drownings in Cave at Porth-yr-Ogof in South Wales**

May we draw your attention to the deaths that have occurred by drowning in Porth-yr-Ogof, a cave near Ystradfellte in Powys, on a number of occasions. There have been at least 11 deaths at this site, the most recent being a fatality on 22<sup>nd</sup> July this year. Deep and dangerous pools remain underground throughout the year, despite apparently low water conditions on the surface.

10 of the 11 deaths at Porth-yr-Ogof have been at the Resurgence Pool and many have involved instructed groups of inexperienced persons. Warning notices both inside this cave and on the surface have been disregarded.

We advise, that under no circumstances should groups of inexperienced persons, whether under the control of a qualified Instructor or not, enter the deep water within this cave.

South Wales Cave Rescue Organisation does not wish to comment beyond this unequivocal advice. We trust that every precaution will be taken to ensure that novices can experience a sense of adventure in ways which avoid taking unacceptable risks.

Thank you for your co-operation.

Yours faithfully,



Gary Evans  
Executive Officer, SWCRO

**Circulation List:**

A circulation list of outdoor providers that operate within the National Park is available from Richard Tyler: [richard.tyler@breconbeacons.org](mailto:richard.tyler@breconbeacons.org)

## **Appendix 6.11 Navigating Deep Water in Porth yr Ogof**

Are you swimming through deep water in the cave? If so...

- Are you wearing a buoyancy aid and wetsuit?**
- Have you checked the deep water for potential hazards, i.e. high water, fast flowing water, entrapping debris such as trees?
- Does your party have an experienced caver leading it?
- If you are an instructed group, is your leader a qualified BCA Local Cave Leader or a BCA Cave Instructor?
- Are you intending to fix a rope or carry a floating throw line?
- Are all your party members confident, strong swimmers in good health?

If the answer to any of the above questions is negative you should consider staying away from the deep water areas or coming back another time when conditions are better and you are more prepared.

A journey through the deep water sections of the cave is a serious undertaking. **11 people have lost their lives** in recent times in this cave and all but one of these deaths has been in the Resurgence pool.

The passage through to the Resurgence is particularly dangerous as it is deep, narrow and both side walls are smooth and severely undercut; swimmers have drowned under these ledges.



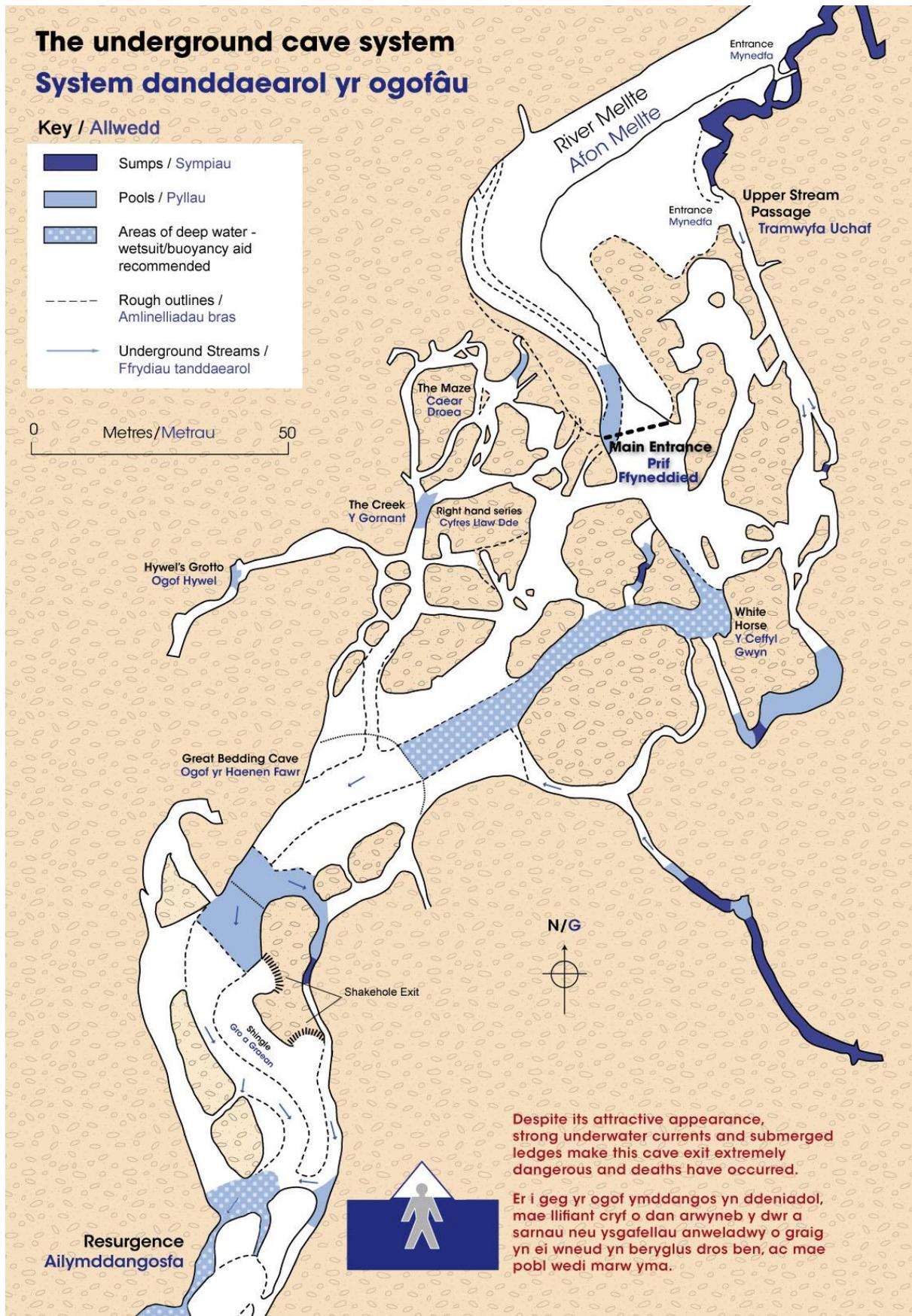
The policy of the Brecon Beacons National Park Authority, the Landowners, is that no groups or individuals are to enter the Resurgence Pool and that all warning signs within the cave are to be complied with at all times.

The journey through deep water can be a fun and rewarding experience but it is not a trip to be attempted without adequate planning and preparation.

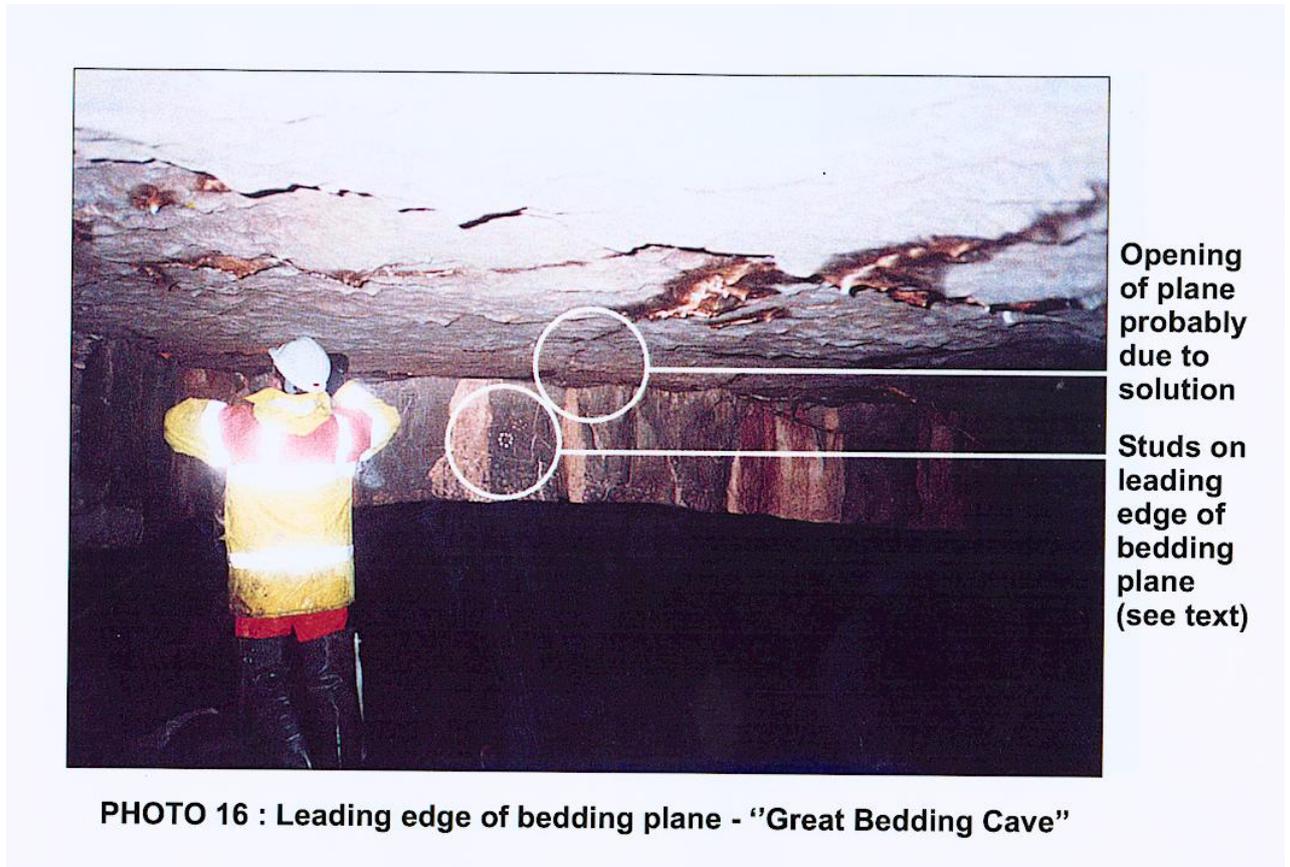
Recognised best practice suggests that:

- all party members wear wetsuits and buoyancy aids**
- water levels are low and the route is obstruction free
- a competent, highly experienced caver is in charge
- a fixed rope or floating throwline should be considered
- all party members are strong, confident swimmers in good health
- no pressure should be put on any party member to undertake this journey

If you have doubts, come back another day – the cave won't go away!



## Appendix 6.12 Location of Demec Studs



### The "Great Bedding" Cave

The gradient of the passage is slightly less than the dip of the bedding and therefore the leading edges of a number of bedding planes are visible, marking the limits of previous collapses of the cave roof; see Photo 16. A circle of "Demec" studs was noted on one of these leading edges; see Photo 16. The National Park Authority have confirmed that they have no knowledge of who installed these studs or for what purpose.

NB/

Photograph and excerpt taken from "Porth yr Ogof, Ystradfellte - Caves and Cliff Survey" by Ove Arup & Partners, January 1999.

## **Appendix 6.13 Current Post Holders**

*[Correct on 20/5/09]*

### **BBNPA Western Area Manager:**

Judith Harvey  
Tel: 07854997510  
E-mail: [Judith.harvey@breconbeacons.org](mailto:Judith.harvey@breconbeacons.org)

### **BBNPA Assistant Area Warden:**

Helen Pye  
Tel: 07854997516  
E-mail: [helen.pye@breconbeacons.org](mailto:helen.pye@breconbeacons.org)

### **BBNPA Car Park Attendants:**

Huw and Russell  
Tel: (Cwm Porth hut) (01639) 722 309

### **BBNPA Rural Practices Surveyor:**

Mathew Williams  
Tel: (01874) 620448  
E-mail: [matthew.williams@breconbeacons.org](mailto:matthew.williams@breconbeacons.org)

### **Cambrian Caving Council representative:**

Elsie Little  
Tel: (01639) 730 331  
E-mail: [elsie@abercravel8.fsnet.co.uk](mailto:elsie@abercravel8.fsnet.co.uk)

### **West Beacons Cave Rescue Team representative:**

Gary Evans  
Tel: 01558 668878, 07836 748752  
E-mail: [gary@swcro.fsnet.co.uk](mailto:gary@swcro.fsnet.co.uk)

## Appendix 6.14

## Site Survey Sheet

Monthly Site Survey Record	Cwm Porth
Name of person completing checks.....	
Date when checks carried out.....	
<b>* A copy of this report should be sent to the Area Warden</b>	
<b>Rock-falls:</b>	
Are there any obvious signs of recent rock-fall from the cliffs surrounding the cave? Yes/No	
If yes please give details of location and size and ensure that the area manager is made aware of the rock-fall immediately.....	
.....	
.....	
<b>Car-park and paths:</b>	
Are the paths and car parking area on the site free from slip and trip hazards? Yes/No	
If <b>no</b> please specific locations and issues.....	
.....	
<b>Countryside furniture:</b>	
Are all gates and stiles in a safe condition? Yes/No	
If <b>no</b> please specific locations and issues.....	
.....	
<b>Fencing:</b>	
Is all fencing on site solid and all rails and posts in good condition? Yes/No	
If <b>no</b> please specific locations and issues.....	
.....	
<b>Emergency phone:</b>	
Is the emergency phone near the wardens hut in good working order? Yes/No	
If <b>no</b> please report the problem to the area manager.	
<b>Warning signs:</b>	
Are all hazard and warning signs present and in good condition? Yes/No	
If <b>no</b> please specific locations and issues.....	
.....	
<b>Tree hazards:</b>	
Are there any trees that have fallen on site? Yes/No	
If <b>yes</b> please specific locations and issues.....	
.....	
Are there any trees on site that look dead/dying/dangerous? Yes/No	
If <b>yes</b> please specific locations and issues.....	
.....	
<b>Other issues:</b>	
Where any other issues noted during the inspection on the site? Yes/No	
If yes please give details.....	
.....	
.....	
Signature of person carrying out checks..... Date.....	

