

# Safety at Water Margins and Water Health Hazards

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## INTRODUCTION

This document is a ‘must read’ for leaders taking groups to locations such as:

- Walking along a river or canal bank
- Visit to the seashore
- Pond dipping
- Geographical river studies
- Paddling or walking in gentle, shallow water

Further guidance on safety at water margins is listed in the useful links section on page 6 of this document.

This section does not cover swimming and other activities that require water safety or rescue qualifications and equipment, nor water-going craft.

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## GENERAL TIPS AND GUIDANCE

In addition to the general preparation, the leader of a visit to water margins must consider the following with reference to proximity to water and the specific hazards that involves.

## ***Before the Visit (Apply the SAGED framework for planning your water margin activity)***

### **S – Staffing:**

- Suitability of venue and activities. It would be prudent to contact agencies such as the Coastguard, Rivers Authority or Environment Agency for guidance on safety, accessibility, and permission (if required) when arranging an activity at a location with water margins.
- Knowledge of activity location - What are the hazards e.g. steep banks, tides, currents, quicksand, underwater hazards?
- Competency and confidence of visit and group leaders

### **A – Activities:**

- Clear purpose (e.g. educational objectives) and reasons for going to water margins, also considering the risks of the intended water margin location.

### **G – Group:**

- Knowledge and the dynamics of the groups' experience and behaviour.
- Pupils with individual needs?
- Suitability of clothing and footwear.
- Do you intend your group or individuals to enter the water?

### **E – Environment:**

- Look for the hazards on a pre-visit:
  - How likely is it that someone could fall in?
  - What are the consequences of such an event?
  - Could they be rescued by the leader?
  - Will immersion in cold water result and impair the casualty?
  - Is the location remote or isolated?
- Your surroundings - cliffs above or below you, steep banks, unstable ground, quicksand, sharp rocks (where individuals may access the water barefoot).
- Tidal conditions and local currents- how they affect your location and activity.

### **D – Distance:**

- Get a weather forecast- how it might affect the location and activity (need to move plan B?)
- Plan B – always have a risk assessed alternative.
- Access to refuge, place of safety, or simply for travel/transport arrangements.

## ***Planning the Visit***

- Tell people where you are going (e.g. endorsement through your EVC).
- Brief the group and other adult helpers e.g. risk assessments, group supervision, head counts, first aid, timings etc.
- On arrival review your pre-visit checks - be prepared to change to plan B.
- Changing to plan B should not be a surprise or a disappointment to the group.
- Group control – agree the safety rules beforehand and stick to them.
- Set boundaries for the group.
- Supervision - having small groups each with its own leader is often better than a large group with several leaders.
- Health and hygiene – see [below](#) for details on health hazards in water.
- Make sure that there are emergency procedures and first aid provision in place.

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## **TOP TEN TIPS**

1. Whatever your reason for going, having a clear purpose and plan is essential for your group to get the most from the time available and helps manage safety.
2. Whatever you choose to do, be sure that all those present know who is responsible for what and what should be happening at each point during the visit.
3. Remember that fast moving water above knee height is likely to knock people off their feet. Consider whether this is likely at your location, and whether it is appropriate for the planned activity - you may need to move relocate or instigate your Plan B.
4. Check out the visiting environment including what lies upstream, downstream, and around nearby corners from your work area – e.g. a fallen tree, weir, docks, signs of waste or pollution, other hazards. If you are not happy with your location look for a safer one.
5. Just because you did it last year does not mean you have to do it this year. Just because it was safe last year does not mean that it will be safe this year.
6. Always get a local weather forecast prior to, and on the day of, your visit and know how it will impact on your plans.
7. If you visit a place regularly you may be able to recognise cut-off criteria and signs to move to plan B - e.g. a river rising above a certain point.
8. If the group seeks to enter the water, direct supervision is usually necessary. However, Group leaders must be prepared to refuse entry into the water if they feel that conditions are unsafe.

9. Remember that visiting one venue once a year for ten years is ten days' experience, not ten years. Ask somebody with good local knowledge about local conditions.
10. Record any incidents, including 'near misses', to confirm how and why it happened and how it can be avoided/managed in the future.

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## **WATER HEALTH HAZARDS**

Participation in activities at waterside locations and on water carries with it a small but significant health risk. Publicity surrounding such risks to health understandably gives parents and all those involved in the provision of those activities cause for concern.

The following sub-sections of this guidance are provided to enable visit leaders to give positive advice and assurance to parents. The degree of risk of serious illness in each case, which is very small indeed given appropriate precautions, should be strongly emphasised. It is recognised that some parents may decide against their children's participation in the activity citing concerns such as water health hazards.

Each school/establishment will need to decide how best such information is disseminated to parents and it is recommended that it is best done at an early stage and in sufficient detail to describe accurately the chance of contracting the illness, its nature, symptoms, and treatment.

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### **WEIL'S DISEASE (LEPTOSPIROSIS) - <http://www.nhs.uk/conditions/leptospirosis>**

Weil's disease is caused by an organism, carried in rat's urine, which is present in and on the banks of many rivers and lakes, particularly slow-moving or stagnant water. Participation in all forms of water-based outdoor activity carries with it a very small risk of contracting the disease.

Precautions can be taken by participants to reduce further the risk of infection. Though rare it can be a very serious illness, requiring hospital treatment; it can be fatal, but if diagnosed early responds well to antibiotics.

Bacteria may be absorbed through the mucous membranes of the eyes and mouth, particularly via skin cuts and abrasions.

#### ***Precautions***

Simple protective and hygiene procedures can further reduce the already small chances of infection.

- Avoid water which appears stagnant or contaminated through pollution, animal urine or farm waste.
- Wear protective footwear to reduce the chance of accidental cuts and abrasions.
- Cover any existing cuts and abrasions with a waterproof plaster before participation.
- Wash hands regularly (e.g. using antibacterial hand-gel sanitisers)

- Wash or shower as soon as possible after the activity.

### ***Symptoms and Treatment***

Early symptoms, normally appearing within 3-19 days after the activity, are:-

- A temperature.
- A flu-like illness, often with a severe and persistent headache, joint and muscle pain.
- Pain in the calf muscles is often particularly noticeable.
- Jaundice and conjunctivitis may develop.

Having any of the above symptoms does not necessarily mean that you have Weil's Disease but if you do develop such symptoms a few days to 3 weeks after participation: -

- Visit your doctor promptly.
- Tell the doctor you have been involved in water activities and where and when.
- Mention Weil's Disease and the Elisa blood test below.

The doctor should administer penicillin or other suitable antibiotics and arrange for an urgent blood test. If your local laboratory is not equipped to perform the test, the sample should be sent (with a completed [leptospirosis request form](#)) to:-

Rare and imported pathogens laboratory (RIPL),  
Public Health England,  
Manor Farm Road,  
Porton Down  
Wiltshire  
SP4 0JG  
Tel: 01980 612348  
Email: [ripl@phe.gov.uk](mailto:ripl@phe.gov.uk)

***Remember: the chances of contracting the disease are remote - but if you do, early treatment is essential.***

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### **ALGAL BLOOMS - [Algal blooms: advice for the public - GOV.UK](#)**

Blue-green algae inhabit most inland waterways. They are a natural part of the life cycle of such waters and only create a significant risk to health when a combination of calm conditions and nutrients during the summer months causes the algae to multiply abnormally. On such occasions the water becomes discoloured, and a bright green/blue scum may form at the surface.

On decomposition a cyanobacteria or *blue-green algae* can produce toxins, which can be harmful to those who swim through, or swallow, affected water.

There have been few reports of long term illness but the short term effects of exposure can be severe:-

- Skin rashes
- Fever
- Stomach complaints

The Environment Agency monitors most waters affected by blue-green algae and where doubt exists about particular water, leaders can seek advice of the relevant Environment Agency Office. (See [Contact Us > Offices](#) on the Environment Agency website.)

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## **POLLUTED WATER**

Some inland waters, particularly those in lowland areas, and some beaches, show sewage-based pollution levels greater than that considered safe for bathing. Water pollution can be caused by many factors including eutrophication (an increase in nutrients, which can eventually deplete oxygen levels through excessive plant life), chemicals, oils, sewage, and run-off of farm wastes into water sources. Signs of pollution include water discolouration or cloudiness, unpleasant odours, dead fish, and marine life. Even if the water looks clean, do not allow anyone to drink water directly from a stream or river. Water-based activities such as pond dipping or water sampling as well as adventurous activities such as canoeing, paddle-boarding etc will carry some risk of infection from pollution.

Illness arising through such pollution is not likely to be severe. Where illness does occur following activity in or near such waters, parents should inform the provider of the activity, who may decide to inform the appropriate authorities and will decide whether future activities should proceed. Schools should refer to their Managing illnesses and infectious diseases procedures, or contact the UK Health Security Agency Health Protection Team for further guidance: <http://www.gov.uk/government/publications/health-protection-in-schools-and-other-childcare-facilities>

The appropriate office of the Environment Agency (see [Contact Us > Offices](#) on the Environment Agency website) or the Environmental Health Department of the local Council can give advice on pollution levels in their local area.

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## **USEFUL LINKS**

The Outdoor Education & External Visits website is at <https://sccocea.org.uk/>.

Outdoor Education National Guidance – [Group safety at Water Margins 7.2i](#)

The RosPA (Royal Society for the Prevention of Accidents) Water Safety Code is available is at <https://www.rosipa.com/leisure-water-safety/water/advice/water-safety-code>.

The Environment Agency website is at <http://www.environment-agency.gov.uk/>.

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