

Flooding

After the Flood – Pitches and Courts

How to recover from a flood safely and quickly



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Issues to consider

- Following a flood, many of the hazards will remain, even when the flood waters have gone. These need to be taken into consideration to prevent harm to your volunteers/staff, members and the wider public
- It is very important to contact your insurance company quickly and to ensure that nothing is thrown away until their loss adjuster has seen it
- When pitches flood a number of hazards and problems can occur. In addition to the direct effects of water on the surface (stressing grass plants, disrupting levels and displacing surfaces and equipment), the deposition of debris and sediment over the affected area also creates serious problems
- Some, but not all, flood sediments contain harmful substances such as petroleum hydrocarbons (diesel, petrol, oils), E.coli (from human and animal manures) and salmonella. In one extreme situation flooding of a disused mine resulted in lead, cadmium, zinc and chromium being deposited on a sports ground
- Floodwater can move even large items around. All sorts of machinery, trees, equipment and debris will be moved on to the sports pitches and will need to be cleared. Such items could be sharp or heavy and therefore could cause injuries
- Tennis and netball courts, as well as other artificial sports surfaces such as AGPs and MUGAs, are also affected by flood water and a planned approach to clean up is required to maintain safety and the long term use of the facility
- Floodwater can damage roads, weaken bridges and culverts and cause ground to become uneven and unstable so approach with caution and do not ignore instructions from the emergency services, local authorities and the Highway Agency.

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Actions

- 1. Ensure that no one enters the flooded site until it has been cleared safe to do so and inform the public of any hazards**

Where possible, prevent access to the general public and use signs to warn people to keep themselves and their pets away from potentially contaminated land and stockpiles

Use your club network to communicate to everyone to keep away from the flooded areas and buildings. Let them know that you are waiting on advice from the Fire Service / your competent advisor, and that you will keep them updated on progress.

- 2. Contact your insurance company and get a reference number**

In almost all cases the insurance company will send a loss adjuster to look at your property. They will confirm what work is needed and covered by your policy. In many cases they will advise on which specialist clean up companies to use.

- 3. If you do not own the facilities, contact your landlord/the owner as soon as possible**

- 4. Take lots of photos and video to document the damage caused**

Photographs and video are useful to record the damage for insurers and the wider club membership and they will also assist with future planning.

- 5. Always follow the manufacturer's instructions carefully when using plant and equipment**

It is important for health and safety reasons that you follow instructions and that only competent and trained people use any equipment.

- 6. Ensure all clean-up operations have a health and safety risk assessment**

These should look at what hazards exist on site, how people (or the environment) will be exposed to those hazards and what can be done to reduce the risk of exposure and harm. For further guidance on preparing a risk assessment go to the HSE website at: www.hse.gov.uk

- 7. Take the following minimum precautions to protect ground staff and volunteers involved in the clean-up. (Note further/enhanced precautions may be necessary following the risk assessment)**

During clean up and maintenance, personal protective equipment (PPE) must be worn by all staff and volunteers who are involved.

Minimum requirements include:

- Use machinery to clear heavy debris where possible. Safe manual handling procedures should be observed. Wearing suitable gloves (to reduce sediment contamination and to protect from sharp objects), dust masks, cover clothing (particularly cuts/abrasions etc.) and waterproof boots with toe protection
- No eating or drinking during this work
- Thorough hand washing with soap and hot water should be made compulsory for all staff, before every break (including before toilet breaks) and at the end of the day
- Staff should shower to remove dust from hair and skin, cleaning the nose, mouth, eyes and ears.

- 8. Only dispose of what the loss adjuster has seen and said it's ok to dispose**

- 9. Assess the damage to your playing facilities and consider what will be required to return them to a playable condition**

- 10. Get volunteers to help clear debris and sediment and to help repair playing surfaces**

Be aware of hazards and provide a safe working environment for volunteers

Ensure that your clean-up is sustainable, does not harm the environment and does not contribute to further flooding.

- 11. Contact the governing body for your sport if you need further assistance and advice**

Contact details are at the end of this note.

- 12. Seek specialist advice if your site has been affected by coastal flooding**

Salt from the seawater can make clay soils unstable and damage grass plants- seek advice if these problems persist.

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Advice on specific potential problems on site

Residual wet areas

Try to avoid water standing stagnant for long periods by redistributing water with brushes and pumps and use a hand fork to spike the ground to assist in infiltration.

If flooding has caused grass death, (this is usually limited to depressions in the field) cultivate the surface and apply sand dressing to help dress out the depression, if possible. Also, incorporate a pre-germination fertiliser as per bag label recommendations and re-seed.

Debris

Debris on site should be cleared using safe handling procedures. Contact the appropriate authorities regarding identifiable property such as cars and try to return these to their owners. Valuable machinery/items subject to an insurance claim should be recovered and kept for the insurance loss adjuster. Look to reuse and recycle where possible. Combustible materials such as wood and vegetation could be burnt in a well-managed bonfire and plastics should be recycled in local recycling schemes. Try and limit the amount of waste material that actually ends up in landfill.

Sediment

Large quantities of sediment can be deposited on a sports ground, particularly on areas next to rivers during river flooding or adjacent to silted water courses/drains during localised (storm water) flooding.

On natural turf football and rugby pitches, sediments should be broken up using harrows to allow the grass to break through the sediment cap. Unless sediment is very deep it can be left on the pitches as it can provide plant nutrients and could be difficult to remove and expensive to dispose. The exceptions to this are:

- When there is a suspicion that the sediment is contaminated and could pose a human health risk (if in doubt, speak to your local Environment Agency office or hire a suitably qualified consultant to test the soils and advise on appropriate disposal)
- If you have a sand construction surface or sand slit/band/groove bypass drainage system that could become contaminated by the finer silt particles and cease functioning effectively. Speak to the designers/consultants for specific advice on sediment removal and drainage renovation.

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Artificial sport surfaces (e.g. macadam, artificial grass, acrylic, clay surfaces and athletic tracks)

The impact of flooding on many artificial surfaces can be very significant. You should consider taking advice from a specialist sports surface consultant to establish if the existing surface can be rejuvenated or if a new surface/construction is required. Artificial grass surfaces are particularly affected by flooding as they can be lifted and moved by flooding.

On artificial sport surfaces you should be careful to wash sediment off the surface and remove in accordance with the surface manufacturer's instructions. Do not wash the sediment into the pile/infill or into perimeter drains as this will block drainage.

Heavily affected artificial sports surfaces should be cleaned using specialist equipment by specialist cleaning contractors. The equipment should combine brushes with air or water to clean the surface and any infill to remove the sediment.

Damaged drainage

Starting at the outfall ensure that your drainage scheme hasn't been damaged by flood. It is likely that your outfall was submerged during flooding. If it is protected by a one-way flap, then damage will be limited but if unprotected then it could have been blocked. When it is safe to do so inspect and clear the outfall.

Working from the outfall, open each inspection chamber to confirm that drainage is flowing and clear silt traps where appropriate.

Where drains are not flowing, check for obstructions.

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On natural turf pitches, check drain runs and any secondary bypass systems (sand slits, bands or grooves) to ensure that drains haven't been capped by sediment. If possible try to remove sediment from the tops of drain runs and slits and replace with sand but be careful not to wash sediment further into the drainage. If you are in any doubt contact your sports drainage consultant.

Damaged equipment

Check that goal posts and other playing equipment is fit for purpose and safe to use after the flood.

Cricket sight screens and covers are easily moved and damaged during a flood – these should be moved if there's a flood warning (see the England and Wales Cricket Board (ECB) website: <http://www.ecb.co.uk/development/facilities-funding/sustainable-clubs/flooding,2637,BP.html>) for further details. Recover and check such equipment is fit for purpose and safe to use.

Machinery such as rollers, mowers and aerators might have been moved or damaged during a flood. Check with your insurance company as to whether these items are covered.

Erosion

Check all roads and pathways to ensure that surfaces are not damaged and repair where possible – again this might be covered under your insurance policy so seek advice from the loss adjuster before commencing any non-emergency work and take photos of before and after.

Check that pitch surfaces have not been eroded, particularly those adjacent to slopes and check for landslip and unstable slopes and banks. Seek competent professional advice on repair.

Further help and information

Further help and advice can be found on the following flood information sheets produced by Sport England and the governing bodies of sport.

- **How to plan ahead** – What to do to minimise the impact of future flooding of your sports facilities
- **Developing a club flood plan** – Making sure everyone knows what to do in a flood.
- **Flood resilient design** – How to make sports facilities more resilient to flooding
- **Flood alert / warning received** – What to do to minimise the impact of flooding following a flood alert / flood warning.
- **After the flood – buildings** – How to recover from a flood safely and quickly.

Seek professional advice

We strongly recommend that you seek professional advice from a specialist sports surface consultant with relevant expertise and experience if you are considering flood protection and or recovery solutions for your sports facilities. For other property related issues we strongly recommend that you seek advice from a building surveyor or architect.

There is no formal assurance scheme for flood surveyors, but the following professional institutions hold lists of members who have undergone internal vetting and adhere to a common code of conduct:

- Royal Institution of Chartered Surveyors (RICS)
<http://www.rics.org/uk/>
- Royal Institute of British Architects (RIBA)
<http://www.architecture.com/Home.aspx>

Check with your local Environment Agency office if you plan to take measures which could affect the flow of a river or divert flood water to other properties. Call them on **03708 506 506** and ask to speak to someone in the Partnerships and Strategic Overview team in your local area.

This guidance is one of a series of information sheets that have been developed by Sport England, the England and Wales Cricket Board, the Football Association, the Rugby Football League, the Rugby Football Union, The Lawn Tennis Association and England Hockey to provide simple advice to voluntary clubs on minimising the impact of flooding on their sports facilities and to enable them to plan and act safely and effectively.

These sheets are not intended to replace experienced expert advisors from the local authority, Environment Agency or specialist consultant.



Alternative Languages and Formats:

This document can be provided in alternative languages, or alternative formats such as large print, Braille, tape and on disk upon request. Call the Sport England switchboard on 08458 508 508 for more details.

National Governing Bodies Main Offices:

England and Wales Cricket Board	020 7432 1200	http://www.ecb.co.uk/
England Hockey Board	01628 897500	http://www.englishockey.co.uk/
Lawn Tennis Association	020 8487 7000	http://www.lta.org.uk/
Rugby Football League	0844 477 7113	http://www.rfl.co.uk/
Rugby Football Union	0871 222 2120	http://www.rfu.com/
The Football Association	0844 980 8200	http://www.thefa.com/

User Guide:

Before using this guidance for any specific projects all users should refer to the User Guide to understand when and how to use the guidance as well as understanding the limitations of use.

Click here for **'User Guide'**

Click here for current **'Design and Cost Guidance'**

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Further Information:

To find out more about Sport England and to get the latest news and information about our various initiatives and programmes, please go to www.sportengland.org