

Flooding

The inundation of land caused by heavy rainfall, overflow of bodies of water or storm surges.

Checklist for managing site activities and assets during adverse weather.

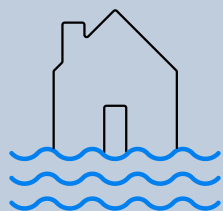
Get ahead in readiness for adverse weather. Improve safety and limit damage.

Key issues: Flooding

- ***Refer to separate torrential rain checklist for flooding prevention and preparation.***
- Flooding can cause delays and collapse of open excavations, damage structures, materials, tools and machinery and endanger workers.
- Flooding can be unpredictable.
- Waterlogged or flooded sites may need to be shut down to protect workers and prevent damage to the site.
- Soil erosion and site flooding can compromise the stability of the site and the integrity of structures.
- Flooding creates significant electrical hazards, such as fires, electrocution and short circuits, and may present risk to life.
- Accumulated water increases the risk of slips, trips and falls, particularly when workers are carrying materials or the hidden ground is uneven.
- Risk of clean-up accidents.
- Saturated ground and flooding make some construction tasks, such as excavation or pouring concrete, challenging or impossible.

General checklist: Flooding

- ☐ Mitigate flooding through site understanding and management, flood preparedness, plus safety checks and clean-up after a flood.
- ☐ 'Toolbox talk' presentation to the workforce on flooding.
- ☐ Conduct start and end-of-day safety inspections to identify erosion, drainage issues, at-risk equipment and safety issues.
- ☐ Monitor weather forecasts and be proactive when torrential rain is expected.
- ☐ Be prepared to evacuate the construction site if necessary.
- ☐ After a flood, conduct immediate safety checks, damage assessment and clean-up. Activate the flood response plan.
- ☐ If safe, immediately turn off power. Keep away from flooded electrical equipment. Arrange for inspection by an electrician before resuming construction activities.
- ☐ If safe, secure any hazardous materials to prevent contamination of floodwater.
- ☐ Protect workers from deep water and collapse accidents by sheeting excavations, controlling erosion and dewatering.
- ☐ Clean and disinfect before resuming construction activities.
- ☐ Check insurance. Flood cover is not always included as standard, especially if your site is in a known high-risk area. Check whether equipment and stored materials are covered and confirm public liability insurance details.



Flooding

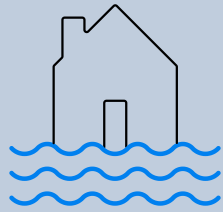
The inundation of land caused by heavy rainfall, overflow of bodies of water or storm surges.

Checklist for managing site activities and assets during adverse weather.

Get ahead in readiness for adverse weather. Improve safety and limit damage.

Worker checklist: Flooding

- ☐ Discuss safety and schedule with workers. Be prepared to stop work if unsafe.
- ☐ Reschedule work or implement additional safety measures/adapt risk and method statements (RAMS) considering flooding.
- ☐ Have a flood risk assessment and flood response plan that are consistent with each other.
- ☐ Regularly inspect and maintain equipment that may be needed in emergency situations such as generators, pumps and communication devices.
- ☐ Make sure workers are aware of the risks of accumulated water, electrical hazards and clean-up accidents.
- ☐ Provide indoor spaces where workers can rest. Prolonged exposure to rain/water can cause fatigue and increased risk of illness.
- ☐ Provide a drying room for wet clothes and boots.
- ☐ Use barriers, cones and signage to direct vehicles and pedestrians safely on waterlogged ground.
- ☐ Ensure PPE is appropriate/available. Provide rainwear appropriate to tasks eg waterproof high-visibility jackets and trousers and safety wellingtons.
- ☐ Record precipitation and flood levels on site and assess the effectiveness of flood safety measures for future reference.



Flooding

The inundation of land caused by heavy rainfall, overflow of bodies of water or storm surges.

Checklist for managing site activities and assets during adverse weather.

Get ahead in readiness for adverse weather. Improve safety and limit damage.

Site checklist: Flooding

- ☐ Undertake site research. Review water table level. Understand site geography, how water moves across the land, where water is likely to accumulate and how it will drain. Be aware of any nearby water courses and areas of the site that are susceptible to flooding.
- ☐ Effective site planning. Properly grade the construction site and install drainage to minimise water accumulation.
- ☐ Flood preparedness. Install additional site drainage, temporary flood barriers such as water barriers or sandbags and elevate equipment and materials where necessary.
- ☐ Ensure all drainage systems are free from obstructions and working effectively. Conduct regular inspections and clear debris from storm drains and culverts.
- ☐ Install silt fences, sediment basins and erosion control mats to minimise erosion on site during torrential rain where needed.
- ☐ Install granular fill, mats or flexible asphalt to create temporary paths and roads to minimise mud.
- ☐ Implement track-out controls such as gravel pads, vehicle washing and mats/grids at site entrances/exits to minimise mud dispersal.
- ☐ Have sufficient waterproof covers/tarpaulins and ropes to secure them available to protect open workfaces, stockpiles, materials and equipment.
- ☐ Ensure tools, materials and equipment are put away, elevated (on pallets/platforms) and protected (in waterproof toolboxes and shield machinery with waterproof covers).
- ☐ Protect sensitive materials (like insulation or plasterboard) from moisture by storing in a dry covered area, elevating on pallets/platforms, wrapping securely in vapour barrier/plastic sheeting.
- ☐ Never install damp insulation. Remove and replace it instead.
- ☐ Move equipment to higher ground when a flood is anticipated. Anchor large equipment/machinery to prevent them from tipping over. Regularly inspect and maintain equipment to ensure functionality and guard against water damage.
- ☐ Ensure that electrical equipment like generators is protected by elevating and using waterproof covers.
- ☐ Drain floodwater using sump pumps or other dewatering systems from trenches and excavations. Ensure proper disposal of water to prevent additional runoff or pollution.
- ☐ Evaluate the impact of rain/water on construction and materials. Floodwater can contain contaminants and prolonged exposure to moisture can lead to mould growth.
- ☐ Heavy machinery may lose traction on muddy and slippery surfaces, leading to accidents or equipment damage.
- ☐ Prolonged exposure to moisture can cause rust and corrosion, particularly in machinery made of metal. Regular maintenance and protective coatings can help reduce these effects.
- ☐ Prolonged exposure to water may result in electrical failure and hazards to electrical equipment. Ensure cables are tidy and elevated off the ground.
- ☐ Conduct a thorough post-flood inspection of materials, equipment, tools and machinery and replace/repair, if necessary, before resuming construction activities.