



Torrential rain

A heavy period of rain $\geq$ to 50mm within a 24-hour period.

Checklist for managing site activities and assets during adverse weather.

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

Key issues: Torrential rain

Refer to separate flooding checklist for 'after-flood' clean-up and precautions.

- Excessive rain can lead to soil erosion and flooding, which can compromise site stability and the integrity of structures.
- Torrential rain can be unpredictable.
- A construction site that is prone to flooding or is waterlogged may need to be shut down during torrential rain events to protect workers and prevent damage to the site.
- Wet surfaces increase the risk of slips, trips and falls, posing a hazard to workers.
- Torrential rain impacts morale.
- Torrential rain and wet conditions make some construction tasks, such as pouring concrete and excavation, challenging or impossible.
- Heavy machinery may lose traction on muddy and slippery surfaces, leading to accidents or equipment damage.
- Rain can cause electrical malfunctions in machinery and tools.
- Prolonged exposure to moisture can cause rust and corrosion, particularly in machinery made of metal.

General checklist: Torrential rain

- ☐ Implement a buddy system because of slip hazards. Control mud.
- ☐ Evaluate the impact of rain/water on construction.
- ☐ Use waterproof covers for machinery and tools. Conduct regular inspections.
- ☐ Provide additional lighting (use LED lighting and consider placement of lights), enforce wearing of high-visibility clothing, use reflective signage and implement traffic management.
- ☐ Be aware of any nearby water courses and areas of the site that are susceptible to flooding.
- ☐ Be proactive when torrential rain is forecast. Install additional site drainage, flood protection (barriers or sandbags) and elevate equipment and materials where necessary.
- ☐ Conduct start and end-of-day inspections to identify erosion, drainage issues, at-risk equipment and safety issues.



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Worker checklist: Torrential rain

- ☐ Discuss safety and schedule with workers. Consider working reduced hours. Be prepared to stop work if unsafe or if work would be unproductive or of poor quality.
- ☐ Reschedule work to avoid the wettest parts of the day.
- ☐ Have an emergency response plan for rain and water-related incidents.
- ☐ 'Toolbox talk' presentation to the workforce on torrential rain and flooding.
- ☐ Provide indoor spaces where workers can shelter from torrential rain.
- ☐ Provide a drying room for wet clothes and boots.
- ☐ Provide additional lighting in work areas to compensate for reduced visibility.
- ☐ Use barriers, cones and signage to direct vehicles and pedestrians safely in wet conditions.
- ☐ Ensure PPE is appropriate/available. Provide rainwear appropriate to tasks eg waterproof high-visibility jackets and trousers and safety wellingtons.
- ☐ Keep records of precipitation and humidity levels on site and assess the effectiveness of torrential rain safety measures for future reference.

Site checklist: Torrential rain

- ☐ Reschedule work or implement additional safety measures/adapt risk and method statements (RAMS).
- ☐ Ensure all drainage systems are free from obstructions. Provide additional drainage where necessary.
- ☐ Use silt fences, sediment basins and erosion control mats to minimise soil erosion 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 (gravel, vehicle washing and mats/grids) at site entrances/exits to minimise mud dispersal.
- ☐ Use sump pumps or other dewatering systems to remove any water from trenches and excavations.
- ☐ Ensure tools, materials and equipment are put away, elevated (on pallets/platforms) and protected (in waterproof toolboxes and shield machinery with waterproof covers).
- ☐ Have sufficient waterproof covers/tarpaulins (and ropes to secure them) available to protect open workfaces, excavations, stockpiles, materials and equipment.
- ☐ 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.
- ☐ Regularly inspect and maintain equipment to ensure functionality and guard against water damage.
- ☐ Regular maintenance of machinery and protective coatings can guard against corrosion.