

**ESSENTIAL  
STANDARDS  
no.3**

# **Working In, Over or Near Water**



## KEY MESSAGES

- When working over or near water, wherever possible provide collective protection measure e.g. hand rails which protect all those working in the area.
- Always plan the work and ensure the necessary equipment, materials and water safe PPE are in place and available to carry out the work safely.
- Anyone carrying out work over or near water must be trained on the use of water safe PPE and received instruction through the water awareness / water safety working courses about the hazards associated with this type of work, control measures and bank based methods of rescue.

## 1. Introduction

Working in, on or near water carries an increased level of risk. Approximately 300 deaths a year occur through drowning – most within 3 metres of safety. Some risk factors to consider include:



- Unstable banks/edges
- Inability to exit once in the water
- Strong currents
- Concealed objects or voids beneath the surface or machinery that can start without warning
- Exposure to cold water can cause “cold shock” an inability to hold breath and an increased rate of breathing, heart rate and blood pressure, and the risk of hypothermia.
- Exposure to biological hazards, e.g. blue green algal blooms and sewage.
- Growth of plants and the formation of crusts.

Where applicable, physical protection measures are required and the use of water safe PPE must be properly planned and personnel must be trained and supervised.

NOTE: This document does not include requirements for diving operations. Diving for and on behalf of Thames Water is strictly controlled. Any company engaged to undertake diving for and on behalf of Thames Water must be an ADC member. Prior to any diving operations, the Thames Water Project Manager and Controller of Premises must be made aware of the diving activities.

## 2. Planning

Any areas where work needs to be carried out which are in, on, or near water, personnel must be trained and identified prior to work commencing, where possible, additional precautions taken e.g. protected by fixed guardrail and toe-boards.

Those personnel working in water will need to be trained in self-rescue and the use of any specialist PPE required to work in that environment. Those acting as safety/rescue must be trained to complete bank-based rescue using the hierarchy of response (The Formula - “Shout, Reach and Throw”) ensuring that only minimal risk is placed on the rescuer.

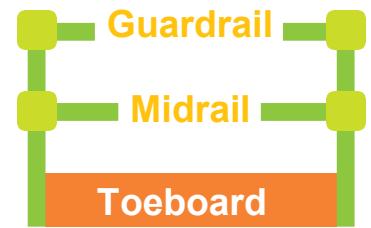
On no account should personnel be entering water with no means of rescue nor should personnel be expected to undertake swim rescues if personnel fall in.



### 3. Undertaking Work In, Over or Near Water

Appropriate precautions should be taken to prevent people and materials from falling into the water / effluent. Where edge protection can be used it should meet the following requirements:

- Guard rails with a minimum height of 950mm.
- Intermediate guard rails or other rigid barriers so that there is no unprotected gap of more than 470mm.
- Toe boards with a minimum height of 150mm to prevent people from slipping under the intermediate rail and to prevent materials from falling in.



If fencing or guarding is not reasonably practicable, water safe PPE must be worn, and personnel trained and supervised.



- Wherever possible do not use a safety harness as it is not appropriate due to the additional risk of water snag hazard. Life jackets must be worn at all times when working within 3 meters of water.



- Life jackets must be self-inflating with a minimum buoyancy of 275 newtons.

- Buoyancy aids are only suitable if the wearer intends to enter the water. It should be noted that they are not designed to turn an unconscious person on to their back and prevent them drowning. Users are required to enroll on to the correct training to ensure they know how to operate in these aids



- When working near to aerated water, the aeration process reduces the density of the water and therefore lifejackets (275 newtons) are required.

The need for good hygiene practices should be emphasised. All personnel should be reminded of the need to wash thoroughly before eating smoking or drinking. Any minor cuts and abrasions should be protected from contamination with water proof plasters.



Lone working is **PROHIBITED** for:

- All activities that require the unprotected opening of observation grids, gratings or covers, without additional safeguards, that are above the size of 1.00m x 40cm above water.
- Work over unguarded deep, (flow depth of 0.4 metres or greater) or fast flowing, (flowing at 1 metre per second or faster) water, whenever a barrier between yourself and the water is removed, found to be faulty or missing.

Tasks which require wading in water **MUST** be subject to a specific safe system of work.

### 4. Driving in Floodwater

Driving in floodwater carries additional risk to the driver/passengers, and bystanders.

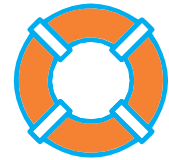
A normal car can be carried away in as little as 30cm of flowing flood water; Floodwater can also obscure potholes, missing manholes or even the road edge therefore, irrespective of vehicle type, driving in Floodwater must be avoided wherever possible and an alternative route found. Only where no alternative route exists before entering flood water in a vehicle you must:



- Visually check the depth of the water you intend to enter, plan your route and confirm there are no potholes or hidden hazards beneath the water's surface.
- Be aware of the potential for flooding of the engine or stalling and minimise wash/bow wave by only driving at a slow speed
- Should a vehicle become stranded, think about how it may move relative to the water flow and on no account exit immediately up or downstream to minimise the chance of being pinned by the vehicle.
- NOTE: vehicle is more likely to move as the weight of passengers is taken off the suspension.

## 5. Rescue

Sufficient rescue equipment must be immediately next to the work location e.g. life rings with hauling lines/reach poles or throw bags. Rescue teams must be trained to the appropriate level and competent to use this equipment.

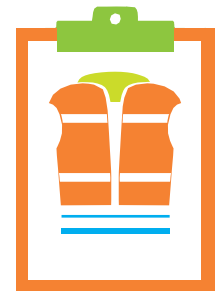


Means of communication must be provided so that emergency services can be contacted if an incident occurs e.g. a fully charged mobile phone or radio. Supervisors should check whether phone signal coverage is adequate.



## 6. Maintenance and Inspection

- All water safe PPE must be inspected visually every time they are used to ensure they are within test date and have not been previously deployed. On no account should users attempt to access the actuating mechanism or cylinder within a lifejacket.
- All water safe PPE should also be regularly checked. Checks should include the general condition. A record of these checks should be maintained.
- Life jackets should be maintained in accordance with the manufacturer's instructions via a qualified inspection service and records kept.
- Every month life rings and throwing lines should be checked for deterioration and replaced if damaged or defective.



## 7. Training and Competence

All persons required to work in, over or near water including the use of water safe PPE must be instructed in their correct practice, limitations, and characteristics.

