

# Navigation signs and symbols

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Association of  
Inland  
Navigation  
Authorities

## NAVIGATION SIGNS AND SYMBOLS

An industry standard for UK inland waterways



## 8. Sign dimensions

### 8.1 Size of sign:

The size of signs used will vary depending on location, background conditions/colours, ambient light and required readable distance.

The following simple formula/diagram is used for calculating the size of sign and readable distances in average daylight. Where craft transit a waterway during the hours of darkness, signs may need to be reflective or luminous – alternatively, they may require lighting. Your sign supplier should be able to provide further guidance on a suitable specification.

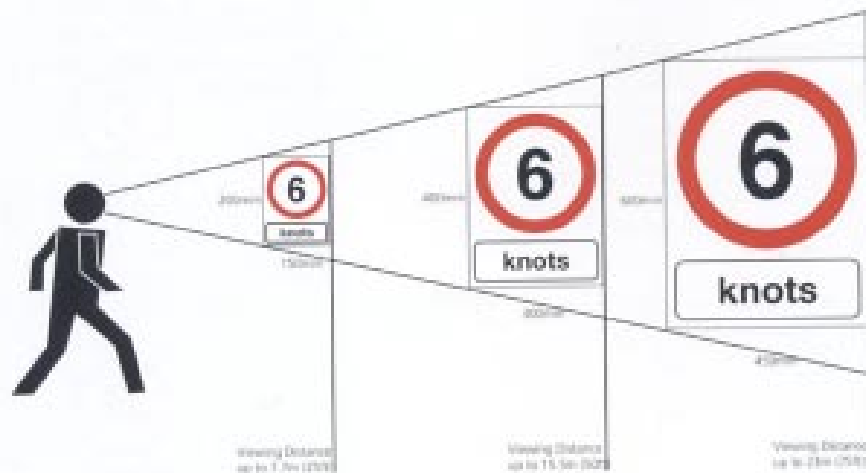
#### Viewing distance diagram and table

Viewing Distance (m)	Sign height (mm)	Sign width (mm)
30	800	600
50	1300	1000
100	2600	1950
200	5200	3900

### 8.2 Letter height:

The following table provides guidance on letter height (lower case). To find the letter height in millimetres from which the sign must be readable, multiply the distance in metres x 5:

Distance (m)	Letter height (mm)
5	25
10	50
15	75
20	100
30	150
50	250
100	500
200	1000



## 9. Risk assessment and additional risk controls

The installation of a new sign, or replacement of a life-expired sign should not go ahead without first considering its necessity.

The target audience, the messages conveyed, the likelihood of vandalism/theft, hazard warnings and the impact on the surrounding environment should all be considered and included in the risk assessment process.

At many locations signage will be chosen as the most appropriate risk control measure during the risk assessment process. However, on some waterways (eg rivers and open waters) signs will only be one part of a safe system for navigation users. The information that follows is provided to increase safety where the use of signs alone may not be adequate.

### 9.1 Buoy and markers

On some navigations buoys and markers are used to denote shipping lanes and obstructions to navigation. This document does not cover buoys and markers as there are appropriate systems already in use eg the IALA System (International Association of Lighthouse Authorities).

### 9.2 Strong stream warning system/air draft markers

River navigations hold specific hazards for users. For example, water levels/flow rates may be susceptible to changes that affect navigation without warning. At some locations the provision of a single sign warning of such changes may be appropriate. However, on many rivers this may not be sufficient.

The use of strong stream warnings and air draft markers (inverted depth gauges) reduces the risk of incidents/collision by craft during elevated water levels.

The specifications contained in Appendix 2 have been developed to assist navigation authorities convey information to boating users about safe cruising in varying water levels/strong stream conditions.

### 9.3 Weir signage and weir booms

The weir sign (Hazard sign ref. 2 – Appendix 1) is designed to be used as part of a safe system of operation. At some locations there will be a need to provide further risk controls such as weir booms.

When considering the installation of a boom as part of the safe system of operation the design must be specific to the location where they are to be installed.

## 10. Locating visitors in an emergency

In an emergency, locating visitors and users of waterways can be a problem for the emergency services. Many navigations cross remote areas of our countryside with poor or restricted access. In addition, many navigations and their associated structures have local names which are not recognised on maps.

Provision of appropriate signage and instruction for users to give to the emergency services should be considered when introducing new signage or replacing existing signage. Information such as grid references or (where appropriate) post codes printed on lock, bridge and other signs can assist. In addition, placing location markers at regular intervals on canals and/or river navigations will also assist this process.

Local police, fire, ambulance services and the coastguard will provide details of the best method to aid location in your locality.



## Overhead Electric Power Line Warning Signs

How and where warning signs should be used

These are the three types of warning signs:

### Warning Notices

Warning notices should be used at access points to provide a general warning of the presence of overhead electric power lines on approach to the fishery and/or affecting the fishery staff.



**Danger**  
Overhead electric  
power lines

Size  
170x170  
Colours:  
Black onto  
yellow  
RAL 1023

Minimum letter  
from readable  
distance: 18M

Fishery/Access  
affected by overhead  
electric power lines.

Always carry rods,  
poles and other  
equipment at a low  
level, parallel to the  
ground.

Size  
170x170  
Colours:  
Black onto  
White

Minimum letter  
from readable  
distance: 18M

### Angling Exclusion Zone Signs

Exclusion Zone Signs should be used at the extremities of the angling exclusion zone. This type of sign is designed to warn anglers as they approach the overhead electric power lines and should be erected in a prominent position, at right angles to the water, to face the anglers as they approach the exclusion zone.



**Danger**  
Overhead electric  
power lines

Size  
170x170  
Colours:  
Black onto  
yellow  
RAL 1023

Minimum letter  
from readable  
distance: 18M



**No fishing**  
beyond this point

Size  
170x170  
Colours: Red  
RAL 3020 and  
Black onto  
White

Minimum letter  
from readable  
distance: 18M

### Repeater/Under Line Signs

At some locations overhead electric power lines may run parallel to the water for long distances. Where this occurs it is recommended that 'repeater signs' are erected at frequent intervals in line of sight but not exceeding 200m. These signs can also be used as a reminder sign directly below the overhead crossing.

Note: This type of sign should be used in addition to the Angling Exclusion Zone Signs.



**Danger**  
Overhead electric  
power lines

Size  
170x170  
Colours:  
Black onto  
yellow  
RAL 1023

Minimum letter  
from readable  
distance: 18M



**No fishing**

Size  
170x170  
Colours: Red  
RAL 3020 and  
Black onto  
White

Minimum letter  
from readable  
distance: 18M

At high risk locations individual fish with the wording "Always carry rods, poles and other equipment at a low level, parallel to the ground" can also be incorporated alongside the Exclusion Zone signs and/or the Repeater/Under Line Signs.

Sanitisation note: Due to the effects of weathering, notably the fading of the printed message caused by the sun's UV rays, it is advisable to air your sign regularly about the life expectancy of the signs. Sign life can be increased by overlaminating the panel with a clear UV inhibiting film.

The Exclusion Zone and under line signs are supplied as sets for use in a vertical format as displayed above, or side by side on one sign panel as shown below. The above shows just being the sign to decide on the most suitable configuration sign for the location to be signed.



**Danger**  
Overhead electric  
power lines

Fishery/Access  
affected by overhead  
electric power lines.

Always carry rods,  
poles and other  
equipment at a low  
level, parallel to  
the ground.

1000, 1000mm x 1200mm



**Danger**  
Overhead electric  
power lines



**No fishing**  
beyond this point

1000, 1000mm x 2100mm



**Danger**  
Overhead electric  
power lines



**No fishing**

1000, 1000mm x 2100mm