

Overview

This standard is about the maintenance and repair of permanent structures within the water environment. Structures may include bridges, culverts, weirs, revetments, concrete fencing and coastal defences. It may be undertaken to maintain the effectiveness of the structure, to increase its lifespan or for safety purposes. Repairs may be temporary or long-term.

You must carry out your work in a way which minimises any impact on the natural environment, and enhances the nature, conservation, recreational and economic value of the natural environment.

Where you are required to use machinery you must hold the relevant qualification.

This standard is designed for those employees and volunteers working on the maintenance and repair of permanent structures applicable to rivers, coastal areas and waterways.

Performance criteria

You must be able to:

- P1 assess the risk associated with the operation
- P2 confirm the planned work is relevant to the condition of the structure
- P3 recognise any circumstances which affect the planned operations and take the appropriate action
- P4 access the site in accordance with instructions, specifications and legal requirements
- P5 select, prepare and use tools, equipment and materials that are appropriate to the work safely and effectively
- P6 ensure the appropriate quantity and type of materials are available and ready for use
- P7 carry out consultation where relevant, with agencies, advisors and documents related to historic structures
- P8 prepare the site in a way which is appropriate for the maintenance and repair to be carried out
- P9 place warning signs and barriers in the appropriate locations
- P10 ensure temporary works comply with design specifications and statutory requirements and are safe, secure and ready for use
- P11 prepare the structure in accordance with the specifications
- P12 where accidental damage occurs to the environment take the appropriate action
- P13 report any unexpected findings to the relevant body or person
- P14 keep accurate and up-to-date records as required by relevant legislation and the organisation
- P15 maintain environmental and health and safety legislation and codes of practice
- P16 recognise opportunities to minimise impact to wildlife and habitats through modifications to working procedures, and discuss these with your line manager
- P17 maintain and repair the structure in accordance with the specifications and within the appropriate timescales
- P18 ensure the structure is maintained and repaired to meet line and level tolerances
- P19 ensure your work takes into account relevant statutory requirements for the structure
- P20 ensure your use of methods, materials and equipment causes minimal disturbance to the site's environment
- P21 ensure the structure meets the specifications when you have finished the work
- P22 restore the site to safe conditions which are consistent with the surrounding environment, clear of unwanted materials and maintains the appropriate access
- P23 dispose of waste and excess materials safely to minimise environmental risk and in accordance with legal requirements

Performance
criteria

P24 communicate completion of site operations clearly and accurately to the appropriate person

Knowledge and understanding

You need to know and understand:

- K1 how to interpret plans and specifications for the maintenance and repair of structures
- K2 the indications that maintenance is required
- K3 circumstances which may impact on the operation: site hazards, working conditions, plant break downs, wildlife habitats and the recreational and economic use of the water environment and historical features
- K4 the correct action to take in response to unforeseen circumstances
- K5 how to prepare the site and the structure for maintenance
- K6 your responsibilities under current environmental and health and safety legislation and codes of practice
- K7 how to interpret risk assessments
- K8 the importance of identifying underground and overhead services and how to do this
- K9 how to select, prepare and use tools, equipment and materials relevant to the agreed specifications
- K10 the types and quantity of materials which are needed and the methods for preparing such materials
- K11 the methods and statutory requirements for setting up and using temporary works
- K12 the implications for your work of relevant legislation and organisational requirements
- K13 how to acquire related historic reference material
- K14 the procedures for recording and reporting information
- K15 the procedures for reporting discoveries of historic interest
- K16 the correct ways to access the site
- K17 how to maintain environmental good practice during work activities
- K18 the opportunities which may arise to minimise impact and/or enhance wildlife habitat and to whom these should be reported
- K19 the instructions and specifications for maintenance and repair
- K20 the methods and techniques for maintaining and repairing structures
- K21 the safe use of temporary works
- K22 the necessary condition of the site and equipment on completion of work activities
- K23 correct methods of disposing of waste and excess material
- K24 the ways in which temporary works must be safely and correctly dismantled
- K25 the procedures for communicating and recording the completion of work activities

Knowledge and understanding

K26 how to protect and conserve habitats and historic features during clearing-up activities

LANEnC18 - SQA Unit Code H460 04

Maintain and repair permanent structures for the water environment



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