# SLOVENSKI STANDARD
# SIST EN 15843:2026

**01-marec-2026**

**Nadomešča:**
**SIST EN 15843:2010**

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**Kakovost vode - Navodilo za določanje stopnje hidromorfološke spremenjenosti vodotokov**

Water quality - Guidance standard on determining the degree of modification of river hydromorphology

Wasserbeschaffenheit - Anleitung zur Beurteilung von Veränderungen der hydromorphologischen Eigenschaften von Fließgewässern

Qualité de l'eau - Guide pour la détermination du degré de modification de l'hydromorphologie des rivières



**Ta slovenski standard je istoveten z:** **EN 15843:2025**

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**ICS:**

| | | |
|---|---|---|
| 13.060.10 | Voda iz naravnih virov | Water of natural resources |
| 13.060.45 | Preiskava vode na splošno | Examination of water in general |

**SIST EN 15843:2026** **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 15843

September 2025

ICS 13.060.45

Supersedes EN 15843:2010

English Version

# Water quality - Guidance standard on determining the degree of modification of river hydromorphology

Qualité de l'eau - Guide pour la détermination du degré de modification de l'hydromorphologie des rivières

Wasserbeschaffenheit - Anleitung zur Beurteilung von Veränderungen der hydromorphologischen Eigenschaften von Fließgewässern

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 15843:2024) has been prepared by Technical Committee CEN/TC 230 “Water analysis”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15843:2010.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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# Introduction

This document will enable broad comparisons to be made of river hydromorphological modifications throughout Europe (e.g. for reporting by the European Environment Agency). The assessment of river 'quality' in Europe has evolved over the past 30-40 years. From its original focus on organic pollution it now relies on methods for analysing a range of chemical and biological attributes. More recently, several European countries have developed systems for evaluating the hydromorphological features of rivers. The EC Water Framework Directive (WFD) has reinforced the need for this broader view of river 'quality' through its requirement for determining 'ecological status' based on macrophytes, phytobenthos, invertebrates and fish. The Directive also requires that hydromorphological and physico chemical conditions should be suitable for supporting biological communities.

EN 14614:2020, *Water Quality — Guidance standard for assessing the hydromorphological features of rivers* describes a standard for field survey and feature recording, whereas this standard gives guidance on assessing the modification of river hydromorphological features. It focuses especially on human pressures that affect rivers; thus, it may be helpful for implementing the WFD by indicating the extent to which these pressures might have caused a departure from hydromorphological reference conditions. Although the procedure described in this standard enables the hydromorphological characterization and assessment of rivers, it does not attempt either to describe methods for defining high status for hydromorphology under the WFD or to link broadscale hydromorphological classification to assessments of ecological status. However, the content of this standard has the potential to contribute to both of these.

In addition to its relevance to the WFD, this standard has applications also for nature conservation, meeting the goals of the Biodiversity Strategy (e.g. re-instating connectivity), environmental impact assessment, river basin management, flood risk management (e.g. the EC Floods Directive) and setting targets for river restoration work.

# 1 Scope

This document provides guidance on characterizing the modifications of river hydromorphological features described in EN 14614:2020. Both standards focus more on morphology than on hydrology and continuity, and include a consideration of sediment and vegetation. This document will enable consistent comparisons of hydromorphological forms and processes between rivers within a country and between different countries in Europe, providing guidance for broad-based characterization across a wide spectrum of hydromorphological modification of river channels, banks, riparian zones and floodplains. Although of lesser focus, it considers the indirect effects of catchment-wide modifications to these river and floodplain environments. Its primary aim is to assess 'departure from naturalness' as a result of historical and modern human pressures on river hydromorphology, and it suggests suitable sources of information (see EN 14614:2020, Table A.1) which can contribute to characterizing the modification of hydromorphological properties. In doing so, it does not replace methods that have been developed for local assessment and reporting.

Decisions on river management for individual reaches or catchments require expert local knowledge and vary according to river type.

# 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14614:2020, *Water quality - Guidance standard for assessing the hydromorphological features of rivers*



# 3 Terms and definitions



For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

**3.1**
**aquatic vegetation morphotype**
morphological character of aquatic vegetation, which combines the shape of the leaves, whether the leaves are emergent, floating or submerged, and whether or not the vegetation is rooted in the riverbed

**3.2**
**armouring**
where the riverbed surface comprises coarser particles than the underlying river bed layers as a result of removal (mobilization and transport) of the finer particles from the bed surface layer

[SOURCE: EN 14614:2020, 3.4]

**3.3**
**bank**
side of a river channel or island which extends above the normal (e.g. mean) water level and is only completely submerged during periods of high river flow

[SOURCE: EN 14614:2020, 3.7]

Note 1 to entry: In the context of this document, the bank top is marked by the first major break in slope, above which cultivation or development is possible.

**3.4**
**bar**
in-channel, elevated sediment deposit exposed during periods of low flow, which may be a side bar (including a point or counterpoint bar, located respectively along the convex or concave bank of a meander bend) or a mid-channel bar

[SOURCE: EN 14614:2020, 3.9]

**3.5**
**bench**
natural flat-topped shelf that evolves from a natural berm as further deposited sediment raises its surface gradually to higher elevations within the river channel

[SOURCE: EN 14614:2020, 3.14]



**3.6**
**berm**
natural or artificial, flat-topped shelf along the margin of a river channel that is exposed above water level during low flows, but is submerged during high flows



[SOURCE: EN 14614:2020, 3.13]

Note 1 to entry: Natural berms are vegetated features composed of sediments deposited by the river to the baseflow level.

**3.7**
**biogeographical region**
extended area, usually distinguished by its global position, climate and topography, within which species live under broadly similar environmental conditions

**3.8**
**confinement**
degree to which the lateral movement of a river channel is confined by the presence of valley sides or terraces

[SOURCE: EN 14614:2020, 3.21]

**3.9**
**culvert**
arched, enclosed or piped structure constructed to carry water under roads, railways and buildings

[SOURCE: EN 14614:2020, 3.25]

**3.10**
**embankment**
artificial bank built to raise the natural bank level thereby reducing the frequency of flooding of adjacent land

[SOURCE: EN 14614:2020, 3.27]

**3.11**
**floodplain**
valley floor adjacent to a river that is (or was historically) inundated periodically by flood waters and is formed of sediments deposited by the river

[SOURCE: EN 14614:2020, 3.29]

**3.12**
**flow regime**
typical magnitude, frequency, timing, and duration of river flows that drive physical and some ecological processes and so, within the constraints of valley slope and confinement, influence the sizes and types of river channel that may be present

[SOURCE: EN 14614:2020, 3.30]

**3.13**
**hydromorphology**
morphological and hydrological characteristics of rivers including the underlying processes from which they result



[SOURCE: EN 14614:2020, 3.36]

**3.14**
**hydro-peaking**
rapid and frequent fluctuations in flow resulting from hydropower generation to meet peak demands in electricity

**3.15**
**hyporheic zone**
spatio-temporally dynamic ecotone between the surficial benthic substrate and the underlying aquifer

[SOURCE: EN 16772:2016, 2.13]

**3.16**
**large wood**
piece of wood that is more than 1 m long and 10 cm in diameter

[SOURCE: EN 14614:2020, 3.37]

**3.17**
**lateral connectivity**
freedom for water, sediments and biota to move between the channel and the floodplain/hillslopes

[SOURCE: EN 14614:2020, 3.39]