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| STN P | Hydrometria Sedimentácia Merania potrebné na efektívny manažment a kontrolu sedimentov v riečnych konštrukciách | STN P CEN/TS 18041 75 1315 |
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Hydrometry
Sedimentation
Measurements required for effective sediment management and control at river structures

Hydrométrie
Sédimentation
Mesures nécessaires à la gestion et au contrôle efficaces des sédiments dans les structures fluviales

Hydrometrie
Sedimentation
Erforderliche Messungen für effektives Sedimentmanagement und effektive Sedimentkontrollen an Flusstrukturen

Táto predbežná slovenská technická norma obsahuje anglickú verziu CEN/TS 18041: 2024.

This prestandard includes the English version of CEN/TS 18041: 2024.

Táto predbežná slovenská technická norma je určená na overenie. Prípadné pripomienky pošlite do mája 2026 Úradu pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky.

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

Anotácia

Tento dokument poskytuje návod na zoraďovanie meraní potrebných na manažment sedimentácie v riečnych konštrukciách. Patria sem konštrukcie využívané vodárenskými podnikmi, inými významnými odberateľmi vody, výrobcami elektriny z vodnej energie, mosty a konštrukcie na meranie prietokov agentúrami na ochranu životného prostredia. Je určený na použitie pre miesta, kde sa veľkosť častíc sedimentu pohybuje od jemného koloidného materiálu po hrubý štrk, čo predstavuje sediment bežne transportovaný povodňovými prietokmi. Dokument nie je určený na použitie pre miesta, kde sa má vykonať veľká úprava koryta, ktorá si vyžaduje, veľké výkopové práce z pevného dnového materiálu.

Dokument je tiež určený na použitie pri odstraňovaní nadbytočnej konštrukcie alebo pri úpravách konštrukcie na uľahčenie migrácie rýb alebo pri obnove rieky. To má zabezpečiť, aby sa dopady týchto zmien primerane monitorovali a zaznamenávali.

Tento dokument sa týka zabezpečenia rutinných meraní, ako aj kontrol a požiadaviek, ktoré má vykonať prevádzkovateľ, aby boli zhromaždené a ľahko dostupné špecifické základné informácie. Tieto informácie sa používajú na informovanie agentúr pre riadenie životného prostredia pri rozhodovaní, ktorým sa povoľuje preplachovanie, čistenie sedimentov alebo ich odstraňovanie. Cieľom je zabezpečiť minimálne dopady na životné prostredie a podporiť súlad s existujúcou environmentálnou legislatívou.

Národný predhovor

Vypracovanie

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, Bratislava

Technická komisia: TK 64 Hydrológia a meteorológia

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English Version

Hydrometry - Sedimentation - Measurements required for effective sediment management and control at river structures

Hydrometrie - Sedimentation - Erforderliche Messungen für effektives Sedimentmanagement und effektive Sedimentkontrollen an Flussstrukturen

This Technical Specification (CEN/TS) was approved by CEN on 1 April 2024 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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| Contents | Page |
|---|-------------|
| European foreword | 3 |
| Introduction | 4 |
| 1 Scope..... | 5 |
| 2 Normative references..... | 5 |
| 3 Terms and definitions | 5 |
| 4 Underpinning legislation and regulations..... | 5 |
| 5 Collection of data and information..... | 6 |
| 5.1 General..... | 6 |
| 5.2 Existing data and information..... | 6 |
| 5.3 Hydrometric data and other data requirements..... | 7 |
| 5.3.1 General..... | 7 |
| 5.3.2 Daily rainfall patterns across the catchment..... | 7 |
| 5.3.3 Channel cross-section and velocity profiles..... | 7 |
| 5.3.4 River level..... | 8 |
| 5.3.5 River discharge and water velocity..... | 8 |
| 5.3.6 Water quality..... | 8 |
| 5.3.7 Biodiversity..... | 8 |
| 5.4 Sediment characteristics..... | 8 |
| 5.5 Additional information for other structures on the watercourse..... | 8 |
| 6 Establishing the monitoring programme and related activities | 9 |
| 6.1 General..... | 9 |
| 6.2 Costing | 9 |
| 6.3 Frequency of the measurements..... | 9 |
| 6.4 Duration of the monitoring programme | 9 |
| 6.5 Monitoring techniques and methods to be used | 9 |
| 7 Impact on carbon emissions | 9 |
| 8 Allowing for uncertainty | 10 |
| Annex A (informative) A case study - Weir removal considerations on the River Rother, West Sussex, UK..... | 11 |
| Annex B (informative) A decision tree for transverse weir removal, based on ecological benefits and cost | 13 |
| Bibliography | 15 |

European foreword

This document (CEN/TS 18041:2024) has been prepared by Technical Committee CEN/TC 318 “Hydrometry”, the secretariat of which is held by BSI.

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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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CEN/TS 18041:2024 (E)**Introduction**

The need for this document stems from the lack of concise guidance that is available on sediment management in watercourses. Previously, bespoke procedures for undertaking sediment management activities at discrete locations have been developed to address a specific local problem. These procedures usually required a data gathering exercise that delayed the implementation of the management plan. These procedures and the data that supported them, only addressed the issues at the individual local sites. There is, however, no generic or standardized approach to the routine collection of data and information that can be undertaken in advance of an application to manage sedimentation. This document will therefore help the user to build up a database of required measurements and other related information to support the sediment management plan.

It is envisaged that the users of this document will include government agencies that have legislative powers to manage the natural environment, individuals or organisations that wish to develop a river site by the construction of structure that will interfere with the natural sediment process in the water course, or owners of existing structures that wish to manage the sedimentation at the structure or remove the structure from the channel.

To assist the user in understanding the full range of issues that may require addressing, an example of the requirements of a sediment management plan is given in Annex A. This gives details of what issues had to be considered when a weir removal plan was developed for the River Rother in West Sussex in the UK.

To assist the user in devising the detail of a sediment management plan, Annex B is included, and shows a decision tree that will help put into context the detailed decisions required in deploying a management plan across a complex catchment with a number of sites where weirs could be removed.

1 Scope

This document provides guidance on the collation of the measurements required for the management of sedimentation at river structures. These include structures used by water supply utilities, other major water abstractors, HEP producers, bridges, and for flow measurement by environmental protection agencies. It is intended to be used at sites where the sediment ranges in particle size from fine colloidal material to coarse gravel, that is, sediment normally transported by flood flows. It is not intended for use at sites where major channel bed regrading is to be undertaken requiring the major excavation of solid bed material.

The document is also intended for use when a redundant structure is being removed, or when modifications to a structure are being made to facilitate fish migration or for river restoration. This is to ensure that the impacts of these changes are adequately monitored and recorded.

The document covers the provision of routine measurements, and the checks and requirements that are to be made by the operator so that specific basic information is collated and made readily available. This information is used to inform decision-making by environment management agencies that authorize flushing, sediment clearance or sedimentation removal. This is to ensure minimal environmental impacts, and to support compliance with existing environmental legislation.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN