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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18921-2019

Replacing GB/T 18921-2002

**The reuse of urban recycling water - Water quality standard for
scenic environment use**

城市污水再生利用 景观环境用水水质

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009. This Standard replaces GB/T 18921-2002 "The reuse of urban recycling water - Water quality standard for scenic environment use". Compared with GB/T 18921-2002, in addition to editorial modifications, main technical changes are as follows: - added recycling water for aesthetic wetland environment use (see

3.5 of this Edition); - deleted 4 indicators of suspended matter, dissolved oxygen, petroleum, anionic surfactant as well as selective control items (see

4.2 of Edition 2002); - modified values of some water quality indicators, including BOD₅, turbidity, total phosphorus, total nitrogen, ammonia nitrogen, fecal coliform, residual chlorine, color (see Clause 4 of this Edition,

4.1 of Edition 2002); - modified hydraulic retention time for scenic impoundment; deleted hydraulic retention time and water change method for aesthetic watercourse; added relevant provisions on setting marks in scenic water body (see

6.1 of this Edition, 5.2,

5.5 of Edition 2002); - modified sampling requirements and tracking monitoring content for water sample; modified monitoring frequency and monitoring analysis method of some water quality indicators (see 7.1, 7.2,

7.4 of this Edition, 7.1, 7.2,

7.4 of Edition 2002); - deleted "Standard implementation and supervision" (see Clause 8 of Edition 2002). This Standard was proposed by Ministry of Housing and Urban-Rural Development of the People's Republic of China. This Standard shall be under the

jurisdiction of National Technical Committee on Town Water Supply and Drainage of Standardization Administration of China (SAC/TC 434). The drafting organizations of this Standard: China Municipal Engineering North China Design and Research Institute Co., Ltd., Tianjin Venture Environmental Protection Group Co., Ltd., Beijing City Drainage Group Co., Ltd., Beijing Enterprises Water Group Co., Ltd., National Urban Water Supply and Drainage Engineering Technology Research Center, Chinese Academy of Sciences Ecological Environment Research Center, Jiangnan University. The reuse of urban recycling water - Water quality standard for scenic environment use

1 Scope

GB/T 18921-2019 is the Chinese national standard on the reuse of urban recycling water - water quality standard for scenic environment use, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 4 June 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2020. Classification: ICS 13.060, CCS P40. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies water quality indicators, use requirements, safety requirements, sampling and monitoring for reuse of urban recycling water - scenic environment use. This Standard is applicable to recycling water for scenic environment use.

2 Normative references

The following referenced documents are indispensable for the application 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.

GB/T 6920, Water Quality - Determination of pH Value - Glass Electrode Method

GB/T 11893, Water quality - Determination of total phosphorus - Ammonium molybdate spectrophotometric method

GB/T 11903, Water quality - Determination of colority

GB/T 13200, Water quality - Determination of turbidity

GB 18918, Discharge standard of pollutants for municipal wastewater treatment plant

GB/T 25499-2010, The reuse of urban recycling water - Water quality standard for green space irrigation HJ/T 347, Water quality - Determination of fecal coliform-manifold

zymotechnics and filter membrane

HJ 493, Water quality sampling-technical regulation of the preservation and handling of samples

HJ 505, Water Quality - Determination of Biochemical Oxygen Demand after

4 Water quality indicators

As reclaimed water of recycling water for scenic environment use, in addition to provisions of Table 1, its water quality shall also comply with provisions of GB 18918.

5 Use requirements

5.1 Water source of reclaimed water plant shall use domestic sewage or urban sewage that does not contain heavy-polluted, toxic or harmful industrial wastewater.

5.2 When reclaimed water is fully used and water body temperature is not greater than 25°C, hydraulic retention time of scenic impoundment shall not exceed 10d. When water body temperature is not greater than 25°C or when actual total phosphorus concentration of reclaimed water hydration is lower than the limit of Table 1, hydraulic retention time of water body can be extended.

5.3 When setting up artificial aeration or hydraulic propulsion to enhance water disturbance and flow capacity, or when large water surface has strong flow and exchange capacity due to natural effects such as wind, it can combine with operational process monitoring so as to extend hydraulic retention time of scenic impoundment.

5.4 In scenic water body or aesthetic wetland that uses reclaimed water, it is advisable to cultivate suitable aquatic plants and harvest them regularly.

5.5 When reclaimed water is used for aesthetic wetland environment use, it shall consider potential effects of salinity and its accumulation on plant growth. Choose salt-tolerant plants or take salt-control and salt-reduction measures.

5.6 During utilization process, attention shall be paid to sedimentation and water quality changes in scenic water bodies. It shall perform regular sediment dredging.

6 Safety requirements

6.1 For scenic water body and scenic wetland that use reclaimed water, it shall set mark and description of "reclaimed water" in prominent positions.

6.2 In scenic water body and scenic wetland that use reclaimed water, aquatic animals and plants shall not be eaten.