1. Record Nr. UNINA9910433252203321 Langergraber Guenter Autore Titolo Wetland technology: practical information on the design and application of treatment wetlands / / edited by Gunter Langergraber, Gabriela Dotro, Jaime Nivala, Anacleto Rizzo and Otto R. Stein IWA Publishing, 2019 Pubbl/distr/stampa London:,: IWA Publishing,, 2020 ©2020 **ISBN** 1-78906-017-6 1 online resource (xx, 167 pages): illustrations; digital file(s) Descrizione fisica Collana Scientific and Technical Report Series; No. 27 Disciplina 551.417 Soggetti Water quality management - Technological innovations Water - Purification - Biological treatment Wetland management Wetland ecology Wetland landscape design Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "This eBook was made Open Access in January 2020" -- title page Note generali verso. Nota di bibliografia Includes bibliographical references and index. Chapter 1. Introduction -- Chapter 2. Why use treatment wetlands? --Nota di contenuto Chapter 3. Design approach for treatment wetlands -- Chapter 4. Designing wetlands for specific applications -- Chapter 5. Practical information on design of specific wetland types and typical pitfalls --Chapter 6. Case studies -- References -- Index Sommario/riassunto Water quality standards across the world are being re-written to promote healthier ecosystems, ensure safe potable water sources, increased biodiversity, and enhanced ecological functions. Treatment wetlands are used for treating a variety of pollutant waters, including municipal wastewater, agricultural and urban runoff, industrial effluents, and combined sewer overflows, among others. Treatment wetlands are particularly well-suited for sustainable water management because they can cope with variable influent loads, can be constructed of local materials, have low operations and maintenance requirements

compared to other treatment technologies, and they can provide

additional ecosystem services. The technology has been successfully implemented in both developed and developing countries. The first IWA Scientific and Technical Report (STR) on Wetland Technology was published in 2000. With the exponential development of the technology since then, the generation of a new STR was facilitated by the IWA Task Group on Mainstreaming Wetland Technology. This STR was conceptualized and written by leading experts in the field. The new report presents the latest technology applications within an innovative planning framework of multi-purpose wetland design. It also includes practical design information collected from over twenty years of experience from practitioners and academics, covering experiments at laboratory and pilot-scale up to full-scale applications.