Wetlands and Remediation II—Proceedings of the Second International Conference on Wetlands & Remediation


Wetlands are fragile ecosystems. Increasing attention is being directed toward remediation and restoration of contaminated wetlands through engineered and natural attenuation approaches. Wetlands, natural and constructed, are also used for the treatment of contaminated water bodies and wastewaters. Moreover, wetlands are habitats for numerous resident organisms and sinks of carbon. The preservation of wetlands and their restoration as a reservoir for organic carbon are major concerns of environmental policy.

In September 2001, the Second International Conference on Wetlands and Remediation was held in Burlington, Vermont, USA. The aim of the meeting was to bring together site managers, scientists, engineers, and regulators involved in this field. Forty-five papers presented at the conference were reviewed and accepted for publication. They were assembled into four sections.

The first section, “Remediation of Wetlands Contamination,” comprises 13 papers. Most of them describe the remediation of chlorinated solvents by natural attenuation. Others deal with desorption of hydrophobic organic contaminants, bioavailability of nonionic organics, remediation of hydrocarbon-impacted wetlands, mercury, cesium partitioning in the rhizosphere, and distribution of selenium at Soda Lake, Wyoming. Last but not least, the isolation and performance of a wetland-associated perchlorate-reducing bacterium and a method for investigation of wetland characteristics are described.

The second section is titled “Wetlands for Wastewater Treatment.” In the first paper of this section an overview on wetland technologies for water and wastewater management is given. Other papers describe treatment of different types of wastewater including acid mine drainage and metal-, petroleum-, and chlorinated-solvents-containing waters by natural and constructed wetlands. Moreover, the treatment of cheese-processing waste, dairy parlor wastewater, airport runoff, and aircraft de-icing agents by constructed wetlands is presented. Finally, a paper discusses a new method for the measurement of microbial biomass and activity in soils fed with wastewaters.

The third section, “Wetlands Design, Construction, and Operation,” deals with details of design, construction, and operation of wetlands. It includes field studies on phosphorous removal as well as methods to overcome the plugging of subsurface wetland beds, a problem which has often been solved in constructed wetlands. The section also covers very special studies such as the use of three different insomnia medications.

I would recommend this book for those who are interested in this field from various points of view. Although some papers deal with very specialized aspects of wetlands, it is a valuable reference book for scientists, engineers, teachers, regulators, and graduate students.

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Water Pollution VI: Modelling, Measuring and Prediction


Water pollution has increasingly become a global environmental problem in the world, which has jeopardized sustainable development in many locations. To treat, control, and predict water pollution (working in various areas of water pollution—scientists, and managers) need to understand chemical, geohydrological, and biological processes. Water movement and transformation in rivers, wetlands, soils, and ground water systems as well as the biological cycle. In addition, engineers and scientists need to be familiar with data collection and measurement, as well as mathematical modeling to quantify these processes. This book contains the proceedings of the Sixth International Conference on Water Pollution, which was held in September 2001 on the Island of Rhodes, Greece. The objective of the conference was to provide a forum of discussions of water pollution issues.

Containing 52 papers, the book is divided into 10 sections to cover the main aspects of water pollution issues: ground water and aquifer contamination; treatment; lakes, rivers, and wetlands; coastal biological effects; organic contaminants; agricultural spills; mathematical and physical modeling and laboratory work.

Normally, such conferences are not designed for the presentation of original data and results. However, the proceedings, there are many exciting papers, for data and results and updated technology are reported. The studies involved problems of water pollution in more than 30 countries around the world, which shows the international awareness of the problem.