Record Nr. UNINA9910451043703321 Autore Wolanski Eric **Titolo** Estuarine ecohydrology [[electronic resource] /] / Eric Wolanski Pubbl/distr/stampa Amsterdam,: Elsevier, 2007 **ISBN** 1-281-30731-9 9786611307318 0-08-055035-5 Edizione [1st ed.] Descrizione fisica 1 online resource (169 p.) Disciplina 577.786 Soggetti Ecohydrology Estuarine ecology Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Cover; Estuarine Ecohydrology; Copyright Page; About the Author; Table of Contents; Chapter 1 Introduction; 1.1. What is an estuary?; 1.2. Humanity and estuaries: 1.2.1. Sedimentation from sediment eroded from cleared land in the hinterland; 1.2.2. Overfishing and trawling; 1.2.3. Destruction of wetlands; 1.2.4. Eutrophication; 1.2.5. Pollution; 1.2.6. Dams; 1.2.7. Dykes for flood protection; 1.2.8. Human health risks: 1.3. The future of estuaries and the quality of life of the human population living on its shores; 1.4. The solution 1.5. Ecohydrology science: the structure of this bookChapter 2 Estuarine water circulation; 2.1. The average residence time; 2.2. The age of water; 2.3. Exposure time vs. residence time; 2.4. Vertical mixing and stratification; 2.5. Lateral stratification, trapping, and shear; 2.6. The importance of the bathymetry on flushing; 2.7. The importance of flows near the river mouth on flushing; 2.8. The special case of lagoons; Chapter 3 Estuarine sediment dynamics; 3.1. Geomorphological time scales; 3.2. Sediment dynamics; 3.2.1. The

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Sommario/riassunto

This book focuses on the principal components of an estuary. Although each chapter contains rigorous specialist knowledge, it is presented in an accessible way that encourages multidisciplinary collaboration among such fields as hydrology, ecology and mathematical modeling. Estuarine Ecohydrology demonstrates how one can quantify an estuarine ecosystem's ability to cope with human stresses. The theories, models, and real-world solutions presented will serve as a toolkit for designing a management plan for the ecologically sustainable development of an estuary.* Appropriate for