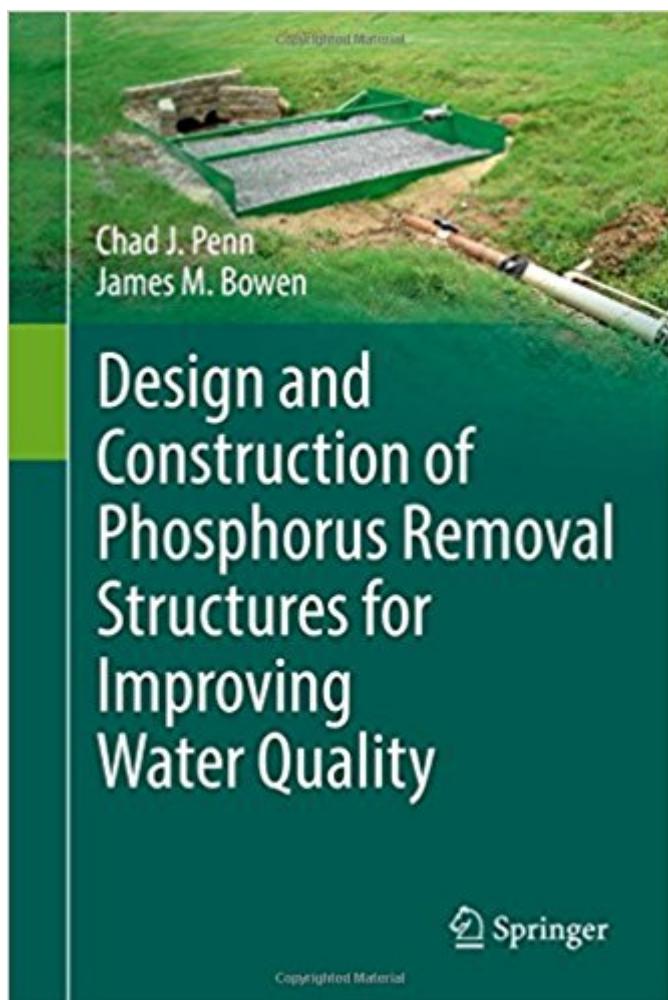


The book was found

Design And Construction Of Phosphorus Removal Structures For Improving Water Quality



Synopsis

The purpose of this book is to introduce the phosphorus (P) removal structure as a new BMP for reducing dissolved P loading to surface waters from non-point source pollution, provide guidance on designing site-specific P removal structures, and provide instruction on use of the design software, "Phrog" (Phosphorus Removal Online Guidance). The book initially provides a review of the nature and sources of non-point source P pollution, examines short and long term solutions to the problem, and provides detailed theory on design and operation of the P removal structure. As with many areas of study, one of the best methods of communicating concepts is through illustrations and examples. This book is no exception; several years of experience in studying P sorption and constructing P removal structures at multiple scales and settings is utilized for providing real examples and applications. With an understanding of the P removal structure established, the reader is instructed on how to obtain all of the necessary inputs for properly designing a site-specific P removal structure for meeting a desired lifetime and performance, or predict the performance and lifetime of a previously constructed P removal structure. For the readers who already possess the Phrog design software or are interested in obtaining it, one chapter is dedicated to detailed use of the software as demonstrated with various examples of structure design and also prediction.

Book Information

Hardcover: 228 pages

Publisher: Springer; 1st ed. 2018 edition (July 5, 2017)

Language: English

ISBN-10: 3319586572

ISBN-13: 978-3319586571

Product Dimensions: 6.1 x 0.6 x 9.2 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #755,522 in Books (See Top 100 in Books) #205 in Books > Science & Math > Nature & Ecology > Water Supply & Land Use #218 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Environmental > Pollution #282 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Environmental > Water Quality & Treatment

Customer Reviews

The purpose of this book is to introduce the phosphorus (P) removal structure as a new BMP for reducing dissolved P loading to surface waters from non-point source pollution, provide guidance on designing site-specific P removal structures, and provide instruction on use of the design software, Phrog (Phosphorus Removal Online Guidance). The book initially provides a review of the nature and sources of non-point source P pollution, examines short and long term solutions to the problem, and provides detailed theory on design and operation of the P removal structure. As with many areas of study, one of the best methods of communicating concepts is through illustrations and examples. This book is no exception; several years of experience in studying P sorption and constructing P removal structures at multiple scales and settings is utilized for providing real examples and applications. With an understanding of the P removal structure established, the reader is instructed on how to obtain all of the necessary inputs for properly designing a site-specific P removal structure for meeting a desired lifetime and performance, or predict the performance and lifetime of a previously constructed P removal structure. For the readers who already possess the Phrog design software or are interested in obtaining it, one chapter is dedicated to detailed use of the software as demonstrated with various examples of structure design and also prediction.

Dr. Chad Penn is a soil, agricultural, and environmental chemist at the USDA Agricultural Research Service (ARS). Before joining the ARS, he served as a professor of soil and environmental chemistry at Oklahoma State University for eleven years. He received his B.S. in soil science at Penn State University (1998) and M.S. in environmental soil science (2001). He earned his Ph.D. in environmental soil chemistry at Virginia Tech (2004). Dr. Penn has constructed over twenty phosphorus removal structures throughout the U.S., and helped to design many more in the U.S. and internationally. With his thirteen years of experience in conducting research on removing dissolved phosphorus from runoff, Dr. Penn created the software, Phrog, in an effort to disseminate the technology and enable the lay-person to more easily design and construct phosphorus removal structures. He has been a member of the National Academy of Inventors since 2015 and the American Society of Agronomy since 1997. Dr. Penn continues to help people around the world design phosphorus removal structures. Mr. James Bowen is pursuing a Ph.D. in the plant and soil sciences department with a concentration in soil fertility at the University of Kentucky. His research focuses on the spatial variability of soil phosphorus critical thresholds in agricultural systems. He has a BS in environmental science and an MS in soil science from Oklahoma State University. Mr. Bowen

earned his M.S. degree under Dr. Penn while conducting research focused on design and quantification of phosphorus removal structures. He is a co-creator of the Phrog software.

[Download to continue reading...](#)

Design and Construction of Phosphorus Removal Structures for Improving Water Quality Pure Water: The Science of Water, Waves, Water Pollution, Water Treatment, Water Therapy and Water Ecology NEW! PICOSURE MEDICAL LASER TATTOO REMOVAL SYSTEM: FINALLY A NO B.S. GUIDE TO THE WORLD'S NEWEST/LATEST MEDICAL LASER TATTOO REMOVAL SYSTEM Fair, Geyer, and Okun's, Water and Wastewater Engineering: Water Supply and Wastewater Removal Water Quality & Treatment: A Handbook on Drinking Water (Water Resources and Environmental Engineering Series) 2012 Wood Design Package - including the National Design Specification® for Wood Construction (NDS®) & NDS Supplement: Design Values for Wood Construction (4 volumes set) Water Clarity Secrets for Ponds and Water Gardens: The Quick and Easy Way to Crystal Clear Water (Water Garden Masters Series Book 5) Fruit Infused Water - 80 Vitamin Water Recipes for Weight Loss, Health and Detox Cleanse (Vitamin Water, Fruit Infused Water, Natural Herbal Remedies, Detox Diet, Liver Cleanse) Composite Structures & Construction: Modern Methods In Wet Lay-up & Prepreg Construction for Aerospace / Automotive / Marine Applications (DIY Home Workshop Book 2) Asymmetric Synthesis: The Chiral Carbon Pool and Chiral Sulfur, Nitrogen, Phosphorus, and Silicon Centers Renal Diet Cookbook: 101 Easy to Make Recipes Low in Sodium, Protein, Potassium and Phosphorus for Your Kidney Disease Tanya's Cat Food Data: US Foods in Order of Phosphorus Content For Cats with Chronic Kidney Disease Construction Contract Dispute and Claim Handbook, Introduction, and Division 01: A Primer on the Nature of Construction Contract Disputes for Attorneys, ... (Construction Contract Dispute Handbook) Design and Analysis of Composite Structures: With Applications to Aerospace Structures 2016 National Construction Estimator (National Construction Estimator) (National Construction Estimator (W/CD)) Water-Quality Engineering in Natural Systems: Fate and Transport Processes in the Water Environment Design and Retrofit of Wastewater Treatment Plants for Biological Nutrient Removal, Volume V Concrete for Underground Structures: Guidelines for Design and Construction Improving Inter-professional Collaborations: Multi-Agency Working for Children's Wellbeing (Improving Learning) Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)