1. Record Nr. UNINA9910299741503321 Autore Goldsmith Wendi Titolo Bioengineering case studies: sustainable stream bank and slope stabilization / / Wendi Goldsmith, Donald Gray, John McCullah New York:,: Springer,, 2014 Pubbl/distr/stampa **ISBN** 1-4614-7996-7 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (xix, 244 pages): illustrations (some color) Gale eBooks Collana Disciplina 627.5 Soggetti Bioengineering Slopes (Soil mechanics) - Stability Soil stabilization Streambank planting Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Introduction -- Project 1: Fleming Creek -- Project 2: Gateway Garden -- Project 3: School Girls Glen -- Project 4: River Landing -- Project 5: Nichols Drive -- Project 6: Harvard Road -- Project 7: Malletts Creek --Project 8: Toboggan Hill -- Project 9: Argo Cascades -- Project 10: Asaayi Lake -- Project 11: Hollywood Hills -- Project 12: Geyserville --Project 13: Buckhorn Mtn -- Project 14: Buckhorn Summit -- Project 15: Stafford -- Project 16: Pacifica -- Project 17: Branciforte Creek --Project 18: San Vicente Creek -- Project 19: Opal Cliffs -- Project 20: Lower Sulpur Creek -- Project 21: Secret Canyon -- Project 22: Greenfield Road -- Project 23: Buffalo Bayou -- Project 24: Little_Topashaw -- Project 25: New Concord -- Project 26: Water Purification Facility and Park -- Project 27: Walden Pond -- Project 28: Hearthstone Quarry Brook -- Project 29: Mill Creek -- Project 30: Charles River -- Project 31: Connecticut River -- Project 32: Cumberland River -- Project 33: Manhan River -- Project 34: Walgreen Slope -- Project 35: Creek Road -- Appendices A-C. Sommario/riassunto This unique volume describes and evaluates 30 projects from across the United States where bio-stabilization was employed to address a

detrimental naturally occurring process or byproduct of the built

environment. Bio-stabilization (or soil bioengineering) refers to the use

of plant materials, primarily live cuttings, arranged in the ground in different arrays to reinforce soils and protect upland slopes and/or stream banks against surficial erosion and shallow slope failures. Examples included in the collection represent different regions of the country and their specific conditions and challenges. Each project is illustrated with a number of distinctive photographs to support the reader's understanding and showcase the wide scope of projects and techniques presented. This book also: Presents a range of welldocumented case studies on key techniques and best practices for biostabilization projects Emphasizes evaluation and comparison of different techniques and challenges across a wide range of project types and geographies Adopts a clear and consistent descriptive scheme and performance evaluation rubrics for 35 bio-stabilization projects, including efforts protecting/repairing watersheds, stabilizing slopes along highways, and protecting stream banks and coastal slopes Offers abundant visual detail, featuring four to five high-quality photographs for each project, totaling nearly 150 images Bioengineering Case Studies is an ideal book for civil and environmental engineers and environmental scientists working on watershed, infrastructure projects, and municipal scale installations.