36th Conference of the International Erosion Control Association 2005

Dallas, Texas, USA 20-23 February 2005

ISBN: 978-1-62276-170-8

ISSN: 1092-2806

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2005) by the International Erosion Control Association All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the International Erosion Control Association at the address below.

International Erosion Control Association 3401 Quebec St., Suite 3500 Denver, CO 80207

Phone: (800) 455-4322 Fax: (866) 308-3087

ecinfo@iec.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

IECA...your essential Best Management Practice

TABLE OF CONTENTS

| | Page |
|---|-------|
| | |
| TABLE OF CONTENTS | . iii |
| TECHNICAL PAPERS | |
| 2005 MOST DISTINGUISHED TECHNICAL PAPER AWARD | |
| CHANNEL REMEDIATION AND RESTORATION DESIGN FOR SILVER BOW CREEK, BUTTE, MONTANA Bill Bucher, C. Gary Wolff, and Larry Cawlfield | . 3 |
| SLOPE TECHNOLOGY | |
| MODERN CRITERIA FOR TESTING AND ASSESSING THE LIMIT PERFORMANCE OF EROSION CONTROL MATERIALS Ghislain Brunet and Paolo Di Pietro | . 15 |
| NAILING AND BIOENGINEERING TECHNIQUES APPLIED TO SLOPE STABILIZATION Terezinha Cássia de Brito Galvão, Aloisio Rodrigues Pereira, | |
| Maria Giovana Parizzi, and Humberto Alves da Silva | . 25 |
| CREATIVE REPAIR OF A RESIDENTIAL LANDSLIDE Glen Mann | . 39 |

TABLE OF CONTENTS (Continued)

| | Page |
|--|-------|
| EFFECTIVE COMPOST AND BIOENGINEERING TECHNIQUES FOR ADVERSE SOIL CONDITIONS John McCullah, Kaila Dettman, Vic Claassen, and Matthew Curtis | . 49 |
| BIOTECHNICAL SLOPE STABILIZATION USING A SPYDER HOE IN BRITISH COLUMBIA, CANADA Pierre Raymond | . 61 |
| · | |
| STREAM RESTORATION | |
| STREAM RESTORATION CONSTRUCTION: THE COLDWATER FORK STREAM RESTORATION PROJECT | |
| Michael F. Adams, Jr. and J. George Athanasakes | . 73 |
| HYDRAULIC TESTS ON GABION WEIRS TO DEVELOP DESIGN CRITERIA FOR DISSIPATION BASINS | |
| Ghislain Brunet, Paolo Di Pietro, Maria de Fátima Souza Curi, Kikuo Tamada, and Gerardo Fracassi | . 83 |
| VEGETATIVE ESTABLISHMENT | |
| RECLAMATION AND REVEGETATION OF EARTHEN CHANNELS USING ORGANIC AMENDMENTS Todd Carpenter, Sam Feagley, Fred Jacoby, and Sherri L. Dunlap | . 95 |
| | . 95 |
| REVEGETATION AFTER PIPELINE CONSTRUCTION IN THE TROPICAL RAINFOREST OF PERU Moisés A. Cavero | . 107 |
| PERFORMANCE OF EROSION CONTROL TREATMENTS AND | . 107 |
| NATIVE VEGETATION ON REAPPLIED TOPSOIL Brent G. Hallock, Anne Power, Steve Rein, and Misty Scharff | . 119 |
| STORM WATER MANAGEMENT | |
| CASE STUDY: THE DESIGN OF A BIORETENTION AREA TO TREAT HIGHWAY RUNOFF AND CONTROL SEDIMENT David Alderete and Misty Scharff | . 135 |
| INITIAL RESULTS OF PERFORMANCE MONITORING OF A STORMWATER TREATMENT SYSTEM | .50 |
| Michael F. Bloom and Catherine Elliott | . 145 |

TABLE OF CONTENTS (Continued)

| | | Page |
|--|----|------|
| COMPARISON OF RUSLE AND RUSLE2 TO DETERMINE WATER QUALITY TREATMENT OF VEGETATED STRIPS Misty L. Scharff | | 157 |
| USING BIOFILTRATION AS A STORMWATER BEST MANAGEMENT PRACTICE FOR CLAY ROAD RECONSTRUCTION PROJECT Yu-Chun Su, Mark Dessens, and Glenn D. Carraux | | 167 |
| DOUGLAS COUNTY COLORADO'S DRAINAGE, EROSION AND SEDIMENT CONTROL PROGRAM Carlo A. Turchiano | | 177 |
| WETLANDS TECHNOLOGY | | |
| COMMUNITY-BASED DOPI <i>BEEL</i> WETLAND MANAGEMENT Md. Abdur Rahman and Sabuj Kumar Chowdhury | | 189 |
| STORMWATER RUNOFF AS A HYDROLOGY SOURCE FOR A WETLANDS MITIGATION BANK Michele C. Wilkins | | 199 |
| EROSION AND SEDIMENT CONTROL | | |
| BIOENGINEERING'S TECHNIQUES TO CONTROL EROSIONAL PROCESSES IN BRAZIL Terezinha Cássia de Brito Galvão, Aloisio Rodrigues Pereira, Maria Giovana Parizzi, and Humberto Alves da Silva | | 211 |
| FACTORS INFLUENCING SEDIMENT PLUME DEVELOPMENT FROM FOREST ROADS J. McFero Grace III | | 221 |
| INTRODUCTION TO THE SEDIMENT CONTROL FACILITY (SCF) Kurt Kelsey, Tony Johnson, and Ryan Vavra | | 231 |
| RESEARCH EXTENDS THE PERFORMANCE OF REINFORCED TURF Roy J. Nelsen | | 241 |
| BENCH-SCALE PERFORMANCE TESTING OF RECPs—REVIEW OF DAC. Joel Sprague | TA | 253 |

TABLE OF CONTENTS (Continued)

| | Page |
|---|------|
| BEACH AND SHORELINE STABILIZATION | |
| GOOSE ISLAND STATE PARK SHORELINE PROTECTION PROJECT Kay Jenkins, Yu-Chun Su, Marty Heaney, Paul Jensen, and Bob Gearhart | 267 |
| REFERENCES | |
| AUTHOR INDEX | 281 |