
Contents:**Terminology**

Chapter Summaries

Chapter 1 Introduction: Ecological and Physical Considerations for Stream Projects

Chapter 2 Goals, Objectives, and Risk

Chapter 3 Site Assessment and Investigation

Chapter 4 Stream Restoration Design Process

Chapter 5 Stream Hydrology

Chapter 6 Stream Hydraulics

Chapter 7 Basic Principles of Channel Design

Chapter 8 Threshold Channel Design

Chapter 9 Alluvial Channel Design

Chapter 10 Two-Stage Channel Design

Chapter 11 Rosgen Geomorphic Channel Design

Chapter 12 Channel Alignment and Variability Design

Chapter 13 Sediment Impact Assessments

Chapter 14 Treatment Technique Design

Chapter 15 Project Implementation

Chapter 16 Maintenance and Monitoring

Chapter 17 Permitting Overview

Appendix A Postscript

Appendix B References

**Technical
Supplements****Introduction****TS2 Use of Historic Information for Design****TS3A Stream Corridor Inventory and Assessment Techniques****TS3B Using Aerial Videography and GIS for Stream Channel Stabilization in the Deep Loess Region of Western Iowa****TS3C Streambank Inventory and Evaluation****TS3D Overview of United States Bats****TS3E Rosgen Stream Classification Technique—Supplemental Materials****TS5 Developing Regional Relationships for Bankfull Discharge Using Bankfull Indices****TS13A Guidelines for Sampling Bed Material****TS13B Sediment Budget Example****TS14A Soil Properties and Special Geotechnical Problems Related to Stream Stabilization Projects****TS14B Scour Calculations****TS14C Stone Sizing Criteria****TS14D Geosynthetics in Stream Restoration****TS14E Use and Design of Soil Anchors****TS14F Pile Foundations****TS14G Grade Stabilization Techniques****TS14H Flow Changing Techniques****TS14I Streambank Soil Bioengineering****TS14J Use of Large Woody Material for Habitat and Bank Protection****TS14K Streambank Armor Protection with Stone Structures**

TS14L	Use of Articulating Concrete Block Revetment Systems for Stream Restoration and Stabilization Projects
TS14M	Vegetated Rock Walls
TS14N	Fish Passage and Screening Design
TS14O	Stream Habitat Enhancement Using LUNKERS
TS14P	Gullies and Their Control
TS14Q	Abutment Design for Small Bridges
TS14R	Design and Use of Sheet Pile Walls in Stream Restoration and Stabilization Projects
TS 14S	Sizing Stream Setbacks to Help Maintain Stream Stability

Case Studies**Introduction**

CS1	Chalk Creek, Summit County, Utah
CS2	Goode Road/Cottonwood Creek, Hutchins, Texas
CS3	Little Elk River, Price County, Wisconsin
CS4	Silver Creek, Silver Creek, New York
CS5	Rose River, Madison County, Virginia
CS6	Big Bear Creek, Lycoming County, Pennsylvania
CS7	Spafford Creek, Otisco Lake Watershed, New York
CS8	Copper Mine Brook, Burlington, Connecticut
CS9	Little Blue River, Washington County, Kansas
CS10	Newaukum River, Lewis County, Washington

CS11	Streambank Stabilization in the Red River Basin, North Dakota
CS12	Grade Control Structures in Western Iowa Streams
CS13	Owl Creek Farms, North Branch of the Kokosing River, Knox County, Ohio
CS14	Streambank Stabilization in the Merrimack River Basin, New Hampshire
CS15	Streambank Stabilization in the Guadalupe River Basin, Santa Clara County, California
CS16	Coffee Creek, Edmond, Oklahoma
CS17	Stream Barbs on the Calapooia River, Oregon
CS18	Wiley Creek, Sweet Home, Oregon
