



STREAM REHABILITATION

From Form to Function Workshop Series

1.0 The Concept:

The "Stream Rehabilitation: From Form to Function" workshop series originally began as the Aquatic Renewal Program. This workshop series was developed by rehabilitation ecologists with Trout Unlimited Canada with the help and support of the School of Environmental Design and Rural Development, University of Guelph, Fisheries Policy Section, Ontario Ministry of Natural Resources and Forestry, the Wellington County Stewardship, Waterloo Stewardship Network and Grand River Fisheries Management Plan Implementation Committee volunteer members. This new series of workshops is designed to formalize the theory, practice and application of watershed and stream assessment and rehabilitation and to train a new generation of individuals, organizations and community groups who will promote watershed, stream and stream corridor rehabilitation.

2.0 Why Stream Rehabilitation?

Healthy watersheds, clean water and healthy animal communities should be of interest to all of us. Healthy watersheds and their stream corridors (streamside areas/floodplains and active channels) can be considered part of the natural infrastructure of a watershed. This natural infrastructure provides important services including clean water, productive rivers and streams, better water quality, healthier animal communities and more stable stream corridors. All these services ultimately translate into increased biodiversity, healthy water quality and decreased flooding and erosion risks. In addition there are more and more studies demonstrating the links between revitalized environments and healthy people.

3.0 Purpose

This workshop series provides an understanding of the basic theory and practice of watershed and stream rehabilitation as well as demonstrating examples of successful work on the ground. In addition, the program encourages learning from each other, whether an instructor or a participant.

3.1 Workshop Structure

The Stream Rehabilitation Training Program encompasses a total of 6 workshops. These workshops will lead the student through an understanding of watersheds, streams and their corridors, to planning and implementing projects, monitoring for success and all with the goal of improving the quality of rehabilitation. The workshops include: in class lectures; field trips; hands on activities; and one-to-one



discussions with instructors and peers. Most workshops are structured as a one day event. Workshop 2 requires two days.

3.2 Learning Objectives

The Stream Rehabilitation Training Program will provide participants a strong foundation in the principles and application of watershed and river rehabilitation approaches. The training objectives are to:

- provide the students with a basic understanding of watershed and river systems;
- provide an understanding and introduction to assessment and monitoring approaches;
- provide an understanding of how to determine key issues and how to address them;
- provide an understanding of what community groups can reasonably achieve;
- demonstrate how to develop strategic plans and how to implement them
- demonstrate how to determine appropriate actions and how to implement them;
- demonstrate how to assess and determine success; and
- demonstrate how to promote and improve their programs.

3.3 Expectations of the Stream Rehabilitation Program

The workshop program will create a new group of individuals, both volunteers and professionals with a strong knowledge base in the field of watershed and stream rehabilitation. **The hope is to create communities of practice to foster this expertise as they take the lead in watershed and stream rehabilitation projects.**

3.4 Contents of the Entire Workshop Series:

The full series is envisioned to include 6 core workshops that build on each other. The hope is that people will take all six in order to gain the maximum benefit from the course material and its application.

Workshop 1 – Creating the Context: Watershed & Stream Systems

History of stream rehabilitation

Basic understanding of the structure of watershed and river systems

Watersheds as one type of ecosystem

Role of groundwater and riparian systems

Streams and their corridors and stream classification

Impacts of land uses on watersheds and streams

Workshop 2 – Understanding and Assessing the System

Dynamics of watersheds and streams in relation to geology, climate and water regimes

Understanding linkages between watershed geology and stream form on habitat in streams

Determining how to diagnose the issues in order to develop an assessment program

Developing an assessment plan appropriate to the issues and your capabilities

Importance of communicating to landowners, agencies and the public

Introduction to various assessment methods and approaches

**Workshop 3 – Diagnosing the Problem and Developing a Plan**

Examples from successful rehabilitation projects/programs
Rehabilitation vs restoration and disciplines involved
Rehabilitation planning process - how to determine key issues and how to address them
What community groups can reasonably achieve, so as to manage their expectations
Approach and Steps to developing strategic rehabilitation plans and how to implement them
Identifying and diagnosing the key issues and problems
Sorting out small scale vs larger scale problems and potential solutions
Demonstrate how to determine appropriate actions and how to implement them

Workshop 4 – Linking Solutions to the Problems

Introduction
Framework for Problem-Solving
Determining Problem Areas
Problems and their Causes
Observed Effects
Potential Solutions
Summary of Selected Techniques
Summary of Workshop 4 and Introduction to the Field Project

Workshop 5 – Project Planning, Development and Managing the Cookbook

Introduction and recap of Workshop 4
Group Presentations on Field Projects
Group Discussions on Field Projects
Instructors critique of the Field Projects and Group Discussion on Approaches
Discussion on Project Design, Budgeting and Project Management
Linking the Right Techniques and Approach to the Right Problem
Summary of key points presented in Workshop 5

Workshop 6 – Applying a Strategic Approach and Introduction to Large-scale Rehabilitation

Introduction and Recap of Key Points from Workshop 5
From Strategic Project to Linking back to a Strategic Program
Annual Work planning and Project Management, Working with People
Introduction to Large-Scale Issues and Problems
Summary of the Workshop Series and Learning Objectives
Tools for continuing education and mentorship towards Accreditation

Primary Instructors, **Jack Imhof**, Director, Conservation Ecology, TUC and **Silvia D'Amelio**, CEO, TUC. Occasional guest rehabilitation experts will also participate. For more information on this workshop series and workshop dates. Please visit www.tucanada.org and click on the tab for Education or email srt@tucanada.org.