

Sustainable Landscape Stewards

COURSE OUTLINE – Fall 2014

Class 1

Thursday September 18 (6-8 PM) -Location: Aiken Building, UVM Campus

Lake Champlain and Surrounding Watersheds

This class is designed to introduce students to the program and provide information on the current state of Lake Champlain and the area's natural communities. We will also review common terminology. Participants will discuss their community involvement with natural resources and brainstorm possible project ideas.

Guest Presenter: Colleen Hickey (LCBP)

Topics:

- Introductions & Getting to Know the Class
- State of Lake Champlain Report
- Watersheds in Vermont

Class 2

Friday September 19 (6-8 PM) – Location: Rubenstein Laboratory (attached to ECHO Lake Aquarium and Science Center)

Stream Dynamics

We will focus on gaining an understanding of natural river dynamics and how land use changes can impact the movement of a river and the quality of water that it carries. A River Flume model will be used to illustrate natural and human influenced changes to a stream.

Guest Presenter: Karen Bates (VT DEC)

Topics:

- How Streams Work – River Flume Model Demo
- The Clean Water Act
 - History and impacts

Class 3

Saturday September 20 (8 AM – 12 PM) - Location: Meet at Aiken Building

Field Day: Visit to a Stream Restoration Site

Students will spend this class meeting in the field where they will see, touch and experience the concepts covered in the two previous evening classes and the required readings. We will focus on the watershed of the Allen Brook in Williston as a case study of natural stream dynamics and human influences and the process of stream restoration.

Guest Presenters: Evan Fitzgerald (Fitzgerald Environmental Associates) and Katie Cain (US Fish and Wildlife Service)

Topics:

- Review of the Allen Brook watershed
- Anatomy of an impaired stream: from the headwaters to the mouth
- Visit to a successful stream restoration project in Williston

Class 4

Thursday September 25 (6-8 PM) – Location: Aiken Building, UVM

The Significance of Soils

During this class, students will learn about soil type and the role it plays in infiltration, erosion, and runoff pollutant loads. Samples of soil types will be available for students to see and touch. An NRCS soil scientist will lead the class and answer questions about soils in Vermont.

Guest Presenter: Caroline Alves (NRCS)

Topics:

- Soil structure and make-up
- Soils in Vermont – what makes them unique?

Class 5

Friday September 26 (6-8 PM) – Location: Aiken Building Rm 101 (Computer Lab)

Remote Site Assessment Tools

This class will feature an overview and instruction on the use of information gathering tools to assist in identifying conditions on the ground and finding existing GSI projects in Vermont.

Topics:

- Computer-based tools practicum
 - VT ANR Natural Resources Atlas
 - Sea Grant LID Atlas
 - EPA How's My Waterway?
- Desktop site assessment – LaPlatte River case study (information gathering)

Class 6

Saturday September 27 (8 AM – 12 PM) – Location: Meet at Aiken Building, UVM

Field Day: Visit to Conserved Land Parcel

The class will visit a parcel of conserved land along the LaPlatte River in Shelburne with the Lake Champlain Land Trust. Chris Boget will discuss land management techniques for the site, the challenges and benefits of public access, and the land conservation process.

Guest Presenter: Chris Boget (LCLT)

Topics:

- Land conservation in VT
- Conserved land as green infrastructure

Class 7

Thursday October 2 (6-8 PM) – Location: Aiken Building, UVM

Green Infrastructure and Zoning for LID

Participants will receive an overview of conventional stormwater management and how this approach has been changing in the last ten years through Low Impact Development (LID) and Green Stormwater Infrastructure (GSI). Information on translating LID/GI principles into effective town zoning language will also be explored.

Guest Presenters: Justin Kenney (VT DEC), Dan Albrecht (CCRPC)

Topics:

- From Conventional to Green Stormwater Infrastructure
 - Updated Stormwater Manual
 - Forests and farmland as GI
 - VT Stormwater Manual and other technical resources
- Municipal Zoning
 - You get what you zone for – lessons about competing interests at the town level

Class 8

Friday October 3 (6-8 PM) – Location: Aiken Building, UVM

Green Stormwater Infrastructure in Practice

This class provides an overview of existing public GSI projects, the process for approval and important points to be aware of when reviewing site plans. We will also give an overview of the local organizational players involved in water and land conservation in the area and common sources of funding.

Guest Presenter: Andres Torizzo (Watershed Consulting Associates)

Topics:

- GSI at the municipal scale
 - How to review a site plan
 - Management & maintenance
- Local organizations, project types, and funding sources

Class 9

Saturday October 4 (8 AM – 12 PM) – Location: Meet in UVM Aiken Solarium

GSI Walking Tour of Burlington

Starting at the top of the hill at UVM, participants will be lead on a green infrastructure walking tour of Burlington. We'll stop at local examples of GSI in action, including: bioretention facilities, a green roof, pervious parking lot, permeable pavers, rain gardens, rain barrels and cisterns, and a Silva cell tree box. Professionals will meet us along the route to discuss each installation, design, permitting, costs, maintenance, and performance.

Guest Presenters: TBD

- GSI tour of Burlington