

## Community Conservation Assistance SWCD Training Curriculum Outline

Draft #2

### Engineering Track

Level	Course	Class Length & Agency Providing Training	Description

### Planning Track

Level	Course	Class Length & Agency Providing Training	Description
1	Basic Soils	2 Days NRCS	Introduction to soil surveys, soil properties, USDA soil classification system and unified classification system. The class includes field exercises to practice identifying and classifying soils in the field.
1	Introduction to Water Quality	1 Day NRCS	Overview of nonpoint source pollution impacts to a watershed and process to use to select needed BMPs
1	Ecological Principles	1 Day USFWS	Provides a basic knowledge of the following ecological principles and concepts and their interactions: energy flow; hydrologic cycle; mineral cycle; factors limiting species distribution and population size; characteristics of species, populations and communities.
1	Environmental Issues in Communities	1 Day NYSSWCC	Overview of community environmental issues; state and federal programs available to assist; options for local controls and practices available to protect water resources; and the potential role of SWCDs in assisting communities.

2	Soils Engineering	2 Days NRCS	Instruction on the engineering properties of soil and its use as a construction material and foundation for structures. Topics include: Unified Soil Classification System, field ID of soils, soil compaction, permeability and aggregate gradation.
2	Construction Inspection	3 Days NRCS	Provides the basic knowledge to conduct construction inspection of projects involving concrete, piping and lumber. Also includes project layout and construction safety.
2	Environmental Permit Requirements	1 Day NYSDEC and USCOE	Review of state and federal environmental permit requirements
2	Biological and Chemical Stream Monitoring	1 Day Izaak Walton League NYSDEC	Review of techniques for conducting biological and chemical assessments of stream health

2	Urban Soil Primer	1 Day NRCS	Understanding soil risks and hazards in urban areas and how soil survey information can be used to reduce environmental impact of land use planning decisions
2	GIS	1 Day	Introduction on the setup of a Geographical Information System (GIS) and use of digital soils information.
2	State Environmental Quality Review Act (SEQR)	1 Day NYSDOS	Introduction to the steps in the SEQR process, terms, timetable and requirements for making a decision on the potential negative impacts to the environment of a proposed land use activity.
2	Watershed Planning	1 Day NYSDOS	Overview of the steps involved in preparing and implementing a watershed plan

3	Conservation Buffers	1 Day USDA National Agro Forestry Center	Instruction on planning and designing buffers, corridors and greenways to maximize environmental benefits in a watershed
3	Wetland & Vernal Pool Design	1 Day USFWS USC	Instruction on planning, designing and constructing a wetland and vernal pools based on soils, hydrology, and topography.
3	Stream Obstruction Removal	1 Day	Review of guidelines for correcting stream flow problems caused by obstructions in an environmentally sound manner
3	Erosion and Sediment Control Plans	2 Days NYSDEC NRCS	Review of the "NY Standards and Specifications for Erosion and Sediment Control" (Blue Book). This course will provide skills necessary to minimize erosion and sediment control impacts from construction activities involving soil disturbance. Course will include a site visit to identify needed erosion and sediment control practices
3	Green Infrastructure Practices	2 Days EPA or NC CCAP	Introduction to the design and installation of landscape solutions (rain gardens, grassed swales, infiltration trenches, soak away pits etc.) to reduce runoff and increase infiltration in developed areas

3	Wetlands Primer	2 Days USFWS/ NYSDEC	Review of the types of wetlands and their value and function Learn to delineate wetlands using vegetative, soil and hydrology indicators.
3	Invasive Species Management	2 Days NYSDDAM	Learn what types of species are considered invasive in New York; how to identify common invasive species; and techniques for properly managing invasive species.
3	Land Use Law in NYS	2 Days Pace University NYSDDOS	Primer on how land use decisions are made by local governments
3	Introduction to Conservation Site Design	2 Days CWP STCRPB	Overview of conservation design principals and practices communities should adopt to reduce the environmental impact of local development.
3	Marketing Community Conservation Assistance	1 Day NYSSWCC	Review of methods for effectively communicating to the public and local government officials the benefits of protecting their natural resource

4	TR-55 Urban Hydrology	1 Day NRCS	Advanced hydrology instruction to determine peak flows and runoff volumes for specific storm events for pre- and post-development land use conditions and stormwater facility sizing.
4	Stormwater Management Practices	2 Days CWP NYSDEC	Review of guidelines in the "NYS Stormwater Management Design Manual". Course will provide a general overview on how to size, design, select and locate stormwater management practices on sites proposed for development to comply with NYS' stormwater performance standards
4	CPESC Review and Exam	1 Day	Review course for taking Certified Professional Erosion and Sediment Control exam
4	Stream Morphology	2 Days USFWS or USC	Introduction to principals involved in natural stream Design.

4	Stream Corridor Protection Strategies for Local Government	2 Days CBP	Review of techniques available to help local governments formulate a strategy to protect and restore their streams to protect the health of their communities
4	Wetland Watershed Management	2 Days ASWM	Review of techniques available for protecting, enhancing, restoring and creating new wetlands in a watershed to maximize environmental benefits.
4	Dam Removal/ Barrier Mitigation	1 Day USFWS	Review of criteria and process for evaluating dams to identify opportunities for improving fish passage and restoring river dynamics
4	Floodplain Management	1 Day Association of Floodplain Managers	Mitigating the costs and losses associated with flooding and protecting the natural and beneficial functions of floodplains
4	Urban Watershed Forestry	1 Day CWP/ NYSDEC	Learn ways trees can be employed to restore and protect water quality in a watershed and urban environment
4	Conserving Natural Areas & Wildlife	1 Day HREP/ NYSDEC	Review of tools and techniques for protecting important natural habitat in a community
4	Road and Highway Right of Way Maintenance	1 Day Cornell Local Roads Program NYSDOT Steuben SWCD	Review of impact of roads, road ditches and stream crossings on stream water quality and fish and wildlife passage and techniques for mitigating impacts.
4	Onsite Wastewater Treatment Systems	1 Day OTN/NYSDOH EPA	Review of OWTS management options to ensure systems are properly sited, designed, installed and maintained.

5	Watershed Assessments	1 Day Warren Co. SWCD	Procedures for conducting watershed assessments for a variety of environmental concerns.
5	CPSWQ Review and Exam	1 Day	Review course for taking Certified Professional Water Quality exam

5	Local Planning for Agriculture	1 Day American Farmland Trust/ NYSSWCC	Review of the benefits of well managed farms to a community and tools and techniques available for assisting towns to support and successfully plan for the future of agriculture within their community.
5	Groundwater Hydrology, Contamination and Management	3 Days EPA/ NYSDOH/ NYRWA	The course will cover technical principals in hydrogeology and water quality assessment, regulatory tools governing land use and examples of effective non-regulatory models for protecting ground water resources.
5	Community Culture and the Environment	2 Days EPA	The course will offer a process and set of tools for defining and understanding the human dimension of an environmental issue.
5	Conducting Watershed Outreach Campaigns	1day EPA	Tools provided on how to plan an effective outreach campaign that will reach the targeted audience and motivate behavioral change.


5	Public Issues and Conflict Management	2 Days NOAA	Participants will learn meeting facilitation skills and tools; how to develop teams to help manage conflict in public issues; understand change and resistance to change, learn how to deal with difficult people in meetings; learn conflict management techniques and when to use; how to design a collaborative process strategy to effectively address the issue; and finally how to implement the planning phase of a collaborative process
5	Putting it all Together Community - Based Environmental Protection Plans	2 Days EPA NYS DOS	Learn how to help communities protect local ecosystems by assessing conditions and trends in local ecosystems, setting goals for maintaining and enhancing the health of their ecosystems, identifying strategies for ecosystem protection and helping communities evaluate and choose appropriate strategies. Also learn how to adapt strategies selected to changing situations and new information.