

Low Impact Development Practices for Florida: Stormwater

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Provides 8 CEHs for Professional Engineers and 6.3 AICP and CPD credits; other board and association CEUs applied for and will be posted when approved

(Basic Workshop cost is \$25; Workshop cost for CEH/CEU credit is \$50)

Goal

Minimize degradation of water quality associated with residential development and maximize habitat creation, amenities and creation of naturalized areas.

Description

This workshop includes an overview of Florida's fast growing urbanization, its impact on water quality and quantity, and the laws regulating water quality and quantity. Stormwater considerations in residential developments are addressed. Topics include: stormwater volume, time, pollutants and sediments. Best low impact development practices in terms of landscape designs (i.e. preservation of existing vegetation, riparian buffers, etc.) and methods (i.e. water catchment devices, bioretention areas, etc.) are covered in detail. Permeable pavers will be discussed. The benefits of integrating wetlands and stormwater basins and improving stormwater ponds for wildlife and aesthetics are explained, and, a final review of permitting standards - what's in place today in Florida and tomorrow's outlook.

Agenda

8:30 - 8:40 Pre-test (10 minutes)

8:40 - 9:10 Overview/Background (HS) - (30 minutes)

- Impacts of urbanization
- Florida's hydrology
- Florida's water quality status

9:10 - 9:45 Laws relating to water quality and quantity (MC) - (35 minutes)

- Clean Water Act
- TMDL and Waters of Special Concern

9:45 - 10:00 Break

10:00 - 11:15 Stormwater considerations in residential developments (MC) - (75 minutes)

- Volume and time
- Pollutants
- Sediment

11:15 - 12:00 Lunch

12:00 - 1:10 Best low impact development practices in the landscape (HS) - (70 minutes)

- Design

- Preservation of existing vegetation
 - Preservation/Revegetation of Riparian buffers
 - Landscaping with stormwater in mind
 - Methods
 - Cisterns and other water catchment devices
 - Swales
 - Bioretention areas
 - Filter/buffer strips
 - Soil moisture sensors
- 1:10 - 1:40 Best low impact development practices: Permeable Pavements (EB) - (30 minutes)
- Types: Form and Function
 - Design Considerations
 - Expectations (water quantity and quality)
- 1:40 - 2:00 Break
- 2:00 - 3:15 Best low impact development practices: Stormwater infrastructure - (75 minutes)
- Integrated wetlands and stormwater basins (MC)
 - Design
 - Construction
 - Biofiltration methods
- 3:15 - 3:30 Break
- 3:30 - 4:15 Ameliorating Stormwater Ponds for Wildlife and Natural Aesthetics (MH) - (45 minutes)
- Attracting wildlife
 - Benefits for design-build professionals and homeowners
 - Dealing with wildlife-human conflicts
- 4:15 - 4:35 Low impact development and permitting standards (MC) - (20 minutes)
- Examples of what's being tried in Florida
 - The future?
- 4:35 - 4:45 Post-test and evaluation - f(10 minutes)

University of Florida (UF) Instructors:

EB - *Mr. Eban Bean*, PhD Student in the Dept. of Agricultural & Biological Engineering, UF

HS - *Ms. Holly Shiralipour*, Florida Yards & Neighborhoods Building & Developer Statewide Coordinator

MC - *Dr. Mark Clark*, Assistant Professor, Dept. of Soil & Water Science, UF

MH - *Dr. Mark Hostetler*, Associate Professor, Dept. of Wildlife Ecology & Conservation, UF