

FLORIDA-FRIENDLY  
BEST MANAGEMENT PRACTICES  
FOR PROTECTION OF WATER RESOURCES  
BY THE GREEN INDUSTRIES



GREEN INDUSTRIES BEST MANAGEMENT PRACTICES (GI-BMP)

MODULE 2: OVERVIEW

6/2016

---

---

---

---

---

---

---

---



TRAINING OBJECTIVES

**At the end of this module you will be able to:**

1. Describe how GI-BMPs address environmental issues according to federal, state and local laws.
2. Define nonpoint source pollution and its negative impacts on the environment.
3. Explain how urban stormwater systems function.
4. Describe landscaping principles that protect Florida's water resources.

---

---

---

---

---

---

---

---



LAWS



---

---

---

---





---

---

---

---

 FEDERAL LEGISLATION

-  Clean Water Act
-  Water Quality Standards
-  Watershed Assessments
-  National Pollutant Discharge Elimination System (NPDES)

---

---

---

---

---

---

---

---

 IMPAIRED WATERS/TMDLS

- Impaired waters are those not meeting water quality standards and designated uses of a water body.
- Total Maximum Daily Loads (TMDLs) are the maximum amount of pollutant loading that a water body can receive and be healthy.
- Watershed pollutant loads must be reduced to meet the TMDL.



---

---

---

---

---

---

---

---

 STATE LEGISLATION TIMELINE

-  Watershed Restoration Act, 1999
-  Urban Turf Fertilizer Rule, 2007
-  Florida-Friendly Landscaping™ Model Ordinance, 2009
-  FDACS certificate required by 2014 Chapter 482

---

---

---

---

---

---

---

---

 FLORIDA WATERSHED RESTORATION ACT

**Established:**

- Total Maximum Daily Load (TMDL) program for state ground and surface waters required by the Clean Water Act.
- A process to identify and list state impaired waters, including point and nonpoint sources.



---

---

---

---

---

---

---

---

 FDACS: URBAN TURF FERTILIZER RULE

- Regulates nitrogen and phosphorus content.
- Many local governments may require applicators to abide by label instructions.
- Defined "specialty turf fertilizer".



---

---

---

---

---

---

---

---

 FFL LANDSCAPE MODEL ORDINANCE

- Implementation of local control of water use and nonpoint source pollution issues.
- Local government may adopt more stringent standards.



---

---

---

---

---

---

---

---



### FLORIDA-FRIENDLY LANDSCAPING™ DESIGN STANDARDS

Florida Statutes provide that:

A deed restriction or covenant or local government ordinance, may not prohibit, or be enforced to prohibit, any property owner from implementing Florida-friendly landscaping on his or her land.

*Florida Statutes 125.568(3), 166.048(3), 373.185(3) and 720.3075(4)*

---

---

---

---

---

---

---

---



### KNOW YOUR ORDINANCES!



Local ordinances may be more strict and more inclusive than state laws.

---

---

---

---

---

---

---

---



### FLORIDA LEGISLATION REQUIRES

- All commercial fertilizer applicators must have the Limited Landscape Commercial Fertilizer Application (LCFAC)
- Florida Department of Agriculture and Consumer Services (FDACS)
- Application fee is \$25

For More Information:

Telephone

850-617-7997

Website

<http://freshfromflorida.com>

Bureau of Licensing and Enforcement

---

---

---

---

---

---

---

---



## BEST MANAGEMENT PRACTICES

A practice or combination of practices determined by the coordinating agencies, based on research, field-testing, and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural and urban discharge.

*Chapter 373.4595 Florida Statutes*



---

---

---

---

---

---

---

---



## NONPOINT SOURCE POLLUTION

---

---

---

---

---

---

---

---



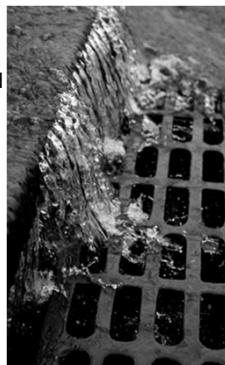
## WHAT IS NONPOINT SOURCE POLLUTION?

### Nonpoint Source Pollution (NPS)

Water pollution that cannot be traced to its specific origin or starting point.

#### Commonly associated:

- Impervious surfaces
- Stormwater runoff and leaching



---

---

---

---

---

---

---

---



### NONPOINT SOURCE POLLUTION VIDEO

---

---

---

---

---

---

---

---



### WHERE DOES NPS POLLUTION COME FROM?

- Diffuse sources throughout a watershed.
- Related to everyday human activities, and driven by rainfall and stormwater.
- Pointless Personal Pollution



---

---

---

---

---

---

---

---



### WHAT DOES NPS POLLUTION AFFECT?

Water quality is important:

- Drinking
- Recreation
- Fisheries
- Wildlife



---

---

---

---

---

---

---

---



## NPS WATER QUALITY IMPACTS

### Turbidity

- low visibility

### Lower dissolved oxygen

- fish kills

### Higher nutrients

- algal blooms

### Heavy metals

- toxicity

### Fecal coliform bacteria

- health risks




---

---

---

---

---

---

---

---



## IMPERVIOUS SURFACES




---

---

---

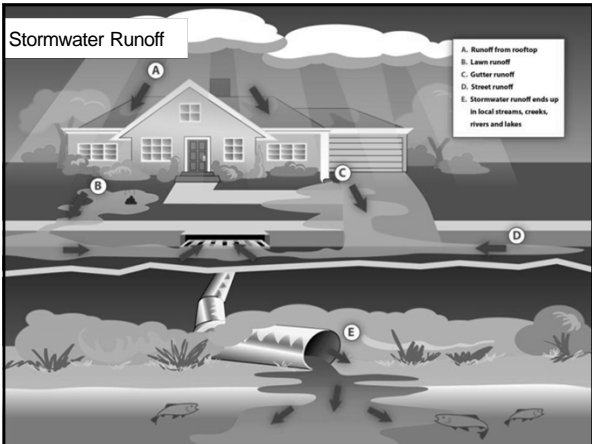
---

---

---

---

---




---

---

---

---

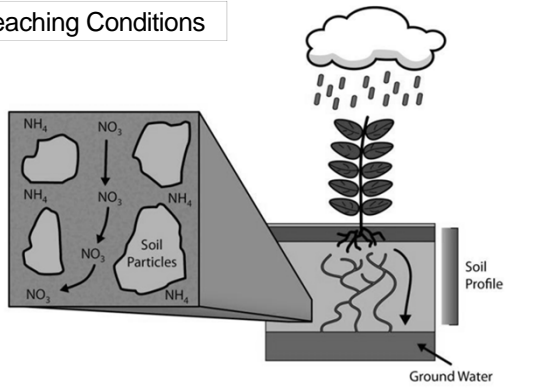
---

---

---

---

### Leaching Conditions



Nitrate nitrogen,  $\text{NO}_3$  will leach in sandy soil types.

---

---

---

---

---

---

---

---

### WHAT ARE CULTURAL PRACTICES?



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---





 WHAT IS FLORIDA-FRIENDLY LANDSCAPING™?

---

---

---


---




---

---

---

---

 **FLORIDA-FRIENDLY LANDSCAPING™ PROGRAM**

-  Green Industries Best Management Practices
-  Florida Yards and Neighborhoods
-  FYN-Builder & Developer Program

---

---

---

---

---

---

---

---

 **THE NINE FFL PRINCIPLES**



**1. Right plant, right place**

- Consider moisture, light, soil, and temperature.

---

---

---

---

---

---

---

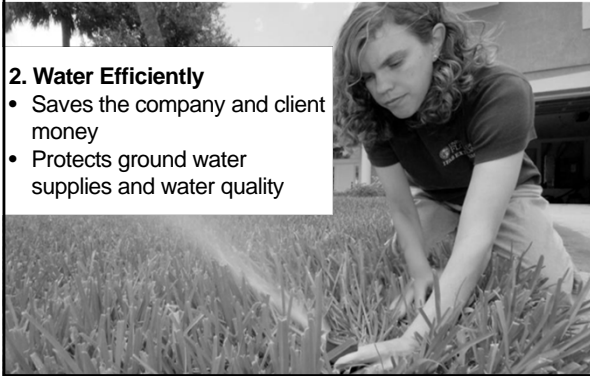
---



THE NINE FFL PRINCIPLES

**2. Water Efficiently**

- Saves the company and client money
- Protects ground water supplies and water quality




---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES

- 3. Fertilize Appropriately**  
to prevent pollution and maximize plant health




---

---

---

---

---

---

---

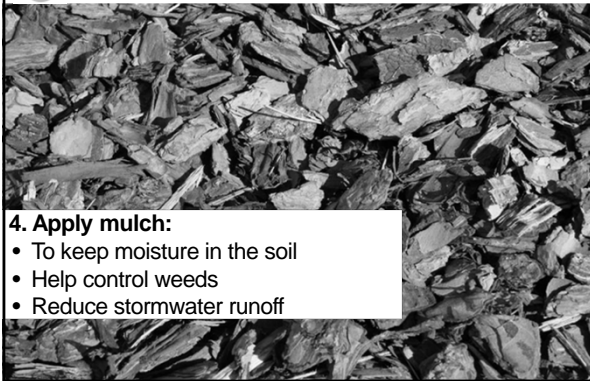
---



THE NINE FFL PRINCIPLES

**4. Apply mulch:**

- To keep moisture in the soil
- Help control weeds
- Reduce stormwater runoff




---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES



5. Attract wildlife

---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES



6. Manage yard pests responsibly.  
• Practice Integrated Pest Management (IPM)

---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES



7. Recycle yard waste

---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES

8. Reduce stormwater runoff



---

---

---

---

---

---

---

---



THE NINE FFL PRINCIPLES

9. Protect the waterfront



---

---

---

---

---

---

---

---



REVIEW TRAINING OBJECTIVES

1. Describe how GI-BMPs address environmental issues according to federal, state and local laws.
2. Define nonpoint source pollution and its negative impacts.
3. Explain how urban stormwater systems function.
4. Describe landscaping principles that protect Florida's water resources.

---

---

---

---

---

---

---

---



*This program is funded in part by FDEP with a Section 319 Nonpoint Source Management Program Grant from the U.S. Environmental Protection Agency.*



**THANK YOU!**



---

---

---

---

---

---

---

---