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## Public Education and Outreach

- Part of the Public Education and Outreach portion of the City's NPDES Permit
- Florida Department of Environmental Protection (FDEP)

2

2



## Topic Overview

- What is NPDES?
- What is the purpose?
- Where did it come from?
- Why do we care about it?

3



## What is NPDES?

- NPDES = National Pollutant Discharge Elimination System

4

## Purpose

- ✓ The purpose of the NPDES program is to protect the Waters of the United States from pollution.



5

## Where did it come from?

- The NPDES program was established by the EPA in 1972- Clean Water Act.
- Phase I Permitting 1990 (industrial use sites, large construction sites, large municipalities)
- Phase II Permitting **1999** (everyone else)
- EPA delegated their permitting authority to FDEP 2000
- City of Minneola – Permitted in August 2004



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6

## Why We Care?

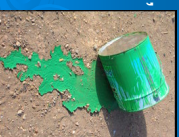
- Comply with permit through Florida Department of Environmental Protection Agency (FDEP)
- Most of us live near drainage systems which eventually discharge into ponds, lakes, rivers and streams.
- Improving our waters benefit us health wise and cost wise.
- Right Thing to Do



7

## Common Household Hazardous Waste

- Many households contain potentially harmful chemicals
- Examples: Household cleaners, motor oil, anti-freeze, gasoline, herbicides, insecticides, pet shampoo, spot removers, oven cleaners, deodorizers, ammonia, paint, varnish, pool chemicals, etc..
- Keep them out of the drainage systems.



8

8

## Environmental Friendly Substitutes -Household Hazardous Waste-

- Chose those product carefully (less hazardous) and become less dependent-Use preferably environmental friendly substitute products.
- A label is generally added to Environmental friendly products.
- Keep foreign materials out of drainage systems



9

9

## Proper Disposal Methods

- Regular curbside pick up for non-hazardous material
- Household Hazardous material disposal location- 13130 County Landfill Road, CR 561. 352-343-3776. Monday-Saturday, 8am-5pm.
- call FDEP or visit website at [www.fdep.org](http://www.fdep.org)
- Do not dispose any trash in storm drains
- City has adopted ordinance making it unlawful to deposit non stormwater materials in the stormwater management system

10

10

## Avoiding Polluting our Water -Recycling-

- Recycle.
- Reducing volume of trash en route to landfills, reduces amount entering drainage infrastructure.
- Good common sense practice in general, minimize waste, etc.
- Keep recycle bin off of the top of curb inlets, prevent recyclables from entering drainage system

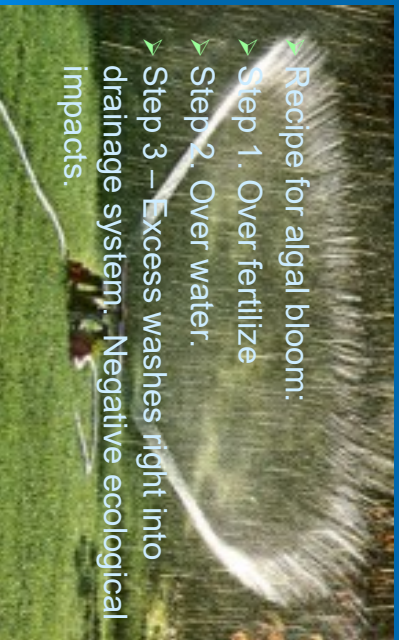


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## Avoiding Polluting our Water -Lawn and Garden-

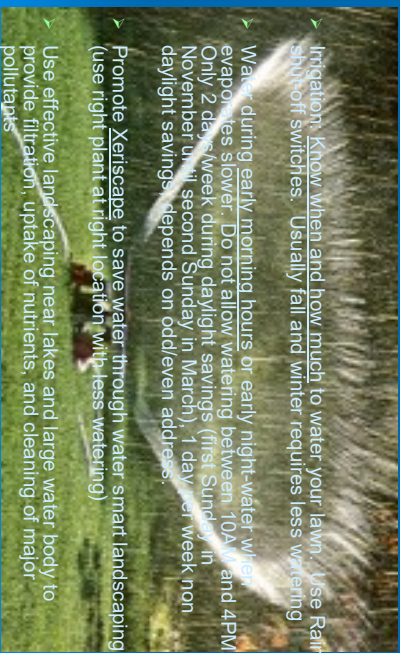
- Recipe for algal bloom:
- Step 1. Over fertilize
- Step 2. Over water.
- Step 3 – Excess washes right into drainage system. Negative ecological impacts.



12

12

## Avoiding Polluting our Water -Lawn and Garden-



- Irrigation: Know when and how much to water your lawn. Use Rain shut-off switches. Usually fall and winter requires less watering!
- Water during early morning hours or early night-water when evaporation is slower. Do not allow watering between 10AM and 4PM. Only 2 days/week during daylight savings (first Sunday in November until second Sunday in March), 1 day per week non daylight savings depends on odd/even addresses.
- Promote Xeriscape to save water through water smart landscaping (use right plant at right location with less watering)
- Use effective landscaping near lakes and large water body to provide filtration, uptake of nutrients, and cleaning of major pollutants

13

13

## Avoiding Polluting our Water -Lawn and Garden-

- Use environmental friendly fertilizers – (Refer to “Florida Yards and Neighborhoods”)
- Minimize the phosphorous content (4% or less, Florida Yards & Neighborhoods)
- Some municipalities prevent P altogether
- 35 % of Nitrogen – In slow release form –
- Minimize use of fertilizer –runoff of lawn

14

14

## Avoiding Polluting our Water -Boat Owners-

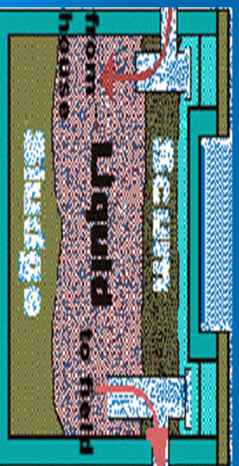
- Do not litter. Retrieve litter found in water.
- Use a bilge pillow or an oil absorbing sponge in your bilge to remove oil.
- Regularly check your engine to see if it is leaking gas or oil.
- Clean your boat to avoid toxic polishes or stain removers near the water lines.



15

## Avoiding Polluting our Water -Septic System-

- Make sure you maintain your septic tank regularly, to make sure there is no leakage into the groundwater.



16

16



Basic Overview of how stormwater enters natural systems

17

17

## 10 Action Items for Everyone

1. Use fertilizers sparingly. Minimize Phosphorous.
2. **NEVER DUMP ANYTHING DOWN STORM DRAINS.**
3. Vegetate Bare Spots in Your Yard
4. Compost yard waste if possible.
5. **Avoid excessive use of pesticides and fertilizers.**
6. Direct roof downspouts away from paved surfaces.
7. Take car to car wash rather than driveway.
8. **Check car for leaks and recycle motor oil.**
9. Pick up after your pet.
10. **Have your septic system regularly maintained.**

18

18

# References

- FDEP <http://www.dep.state.fl.us/>
- SJRWMD <http://slr.state.fl.us/>
- City of Minneola <http://www.ci.minneola.fl.us/conservationwater.html>
- Florida Yards and Neighborhoods <http://hort.ufl.edu/fyn/fad.htm>

## Handouts:

- 10 Things You Can Do to Prevent Stormwater Pollution
- Pointless Personal Pollution
- After the Storm

- FDEP-NPDES contact: [Boria.CraneAmores@dep.state.fl.us](mailto:Boria.CraneAmores@dep.state.fl.us)
  - 850-245-7520