

# Stormwater Pollution Prevention

April 18, 2009



# THE worst POLLUTERS ARE NOT WHO WE THINK...

- Sewage plants?
- Chemical companies?
- Oil tanker spills?
- Industrial discharges?



# STORMWATER RUNOFF IS PUBLIC ENEMY #1







# Our Storm Drain System

7.18.2001 09:30



7.18.2001



7.18.2001 09:32

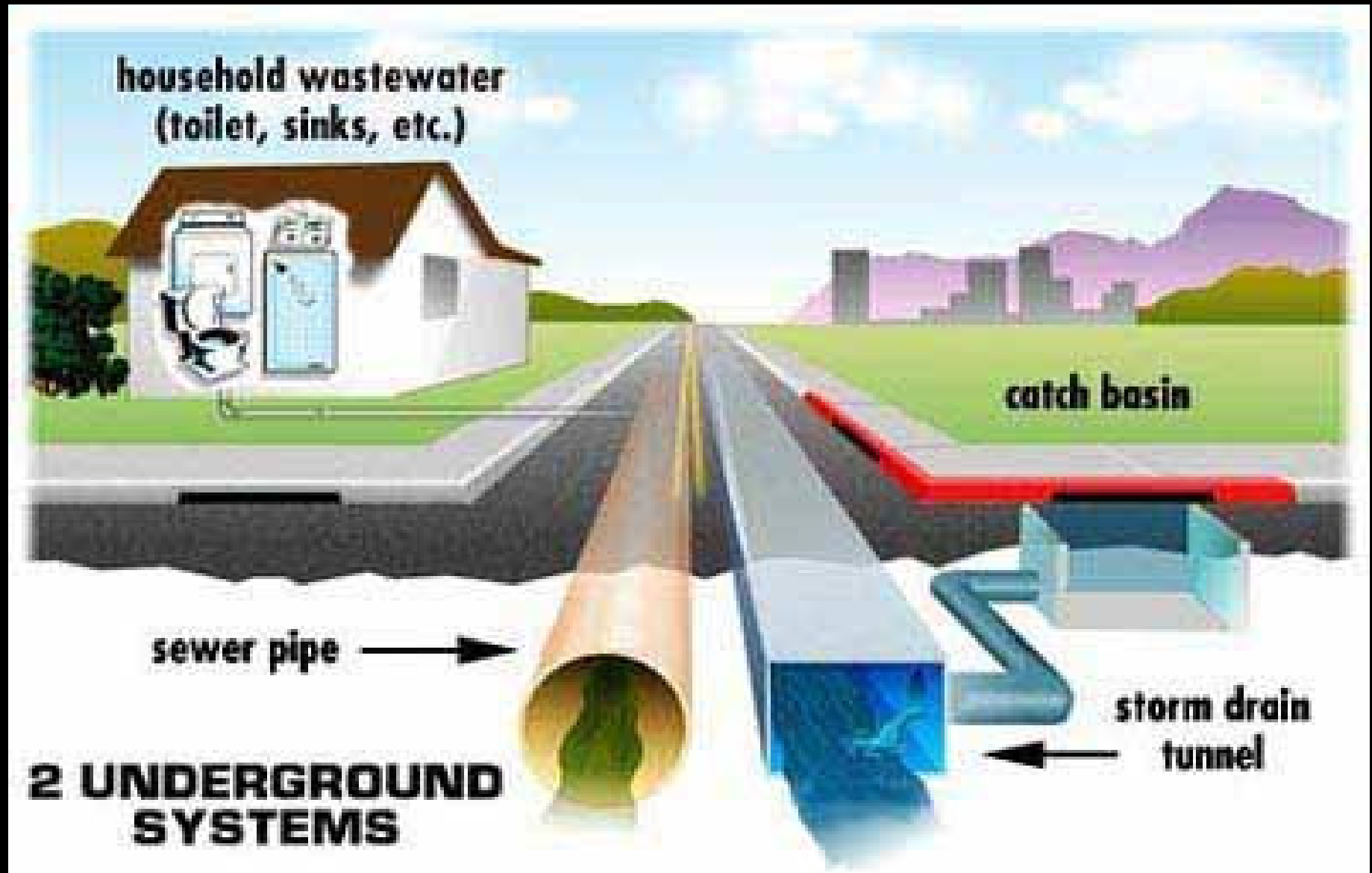


The **road** is part of the storm drain system





Storm drains are **not** connected to a treatment plant





# Water Pollution Laws

- Clean Water Act in the 1970s
- NPDES- Control pollution from getting to waterways
- Industrial then Stormwater
- Only **clean water** down the storm drain – it all goes to our waters



# ENFORCEMENT

- County **ordinance**: only CLEAN WATER into drainage and waterways.

**Fines up to \$10,000!**

- Examples of **illegal discharges**:
  - Pet waste
  - Yard clippings, leaves
  - Dirt, concrete, sand
  - Chemical washout (paint, etc)
  - Chlorinated pool water
- Even during the **dry season** it is important to prevent stormwater pollution

# EXEMPT DISCHARGES

- POOL WATER (IF NOT CHLORINATED)
- RESIDENTIAL CARWASH
- GROUNDWATER
- IRRIGATION WATER

What about illicit connections???



# Worst Pollutants



# DIRT It's not just Dirt!



## Sources:

- Construction
- Stream Bank Erosion

## Impacts:

- High turbidity
- Reduced Oxygen
- Fish kills





# NUTRIENTS, a.k.a plant food

## Sources:

- Yard Clippings
- Fertilizer overuse



## Impacts:

- Green water (very unsightly)
- Algae consume all the oxygen
- No oxygen = no fish

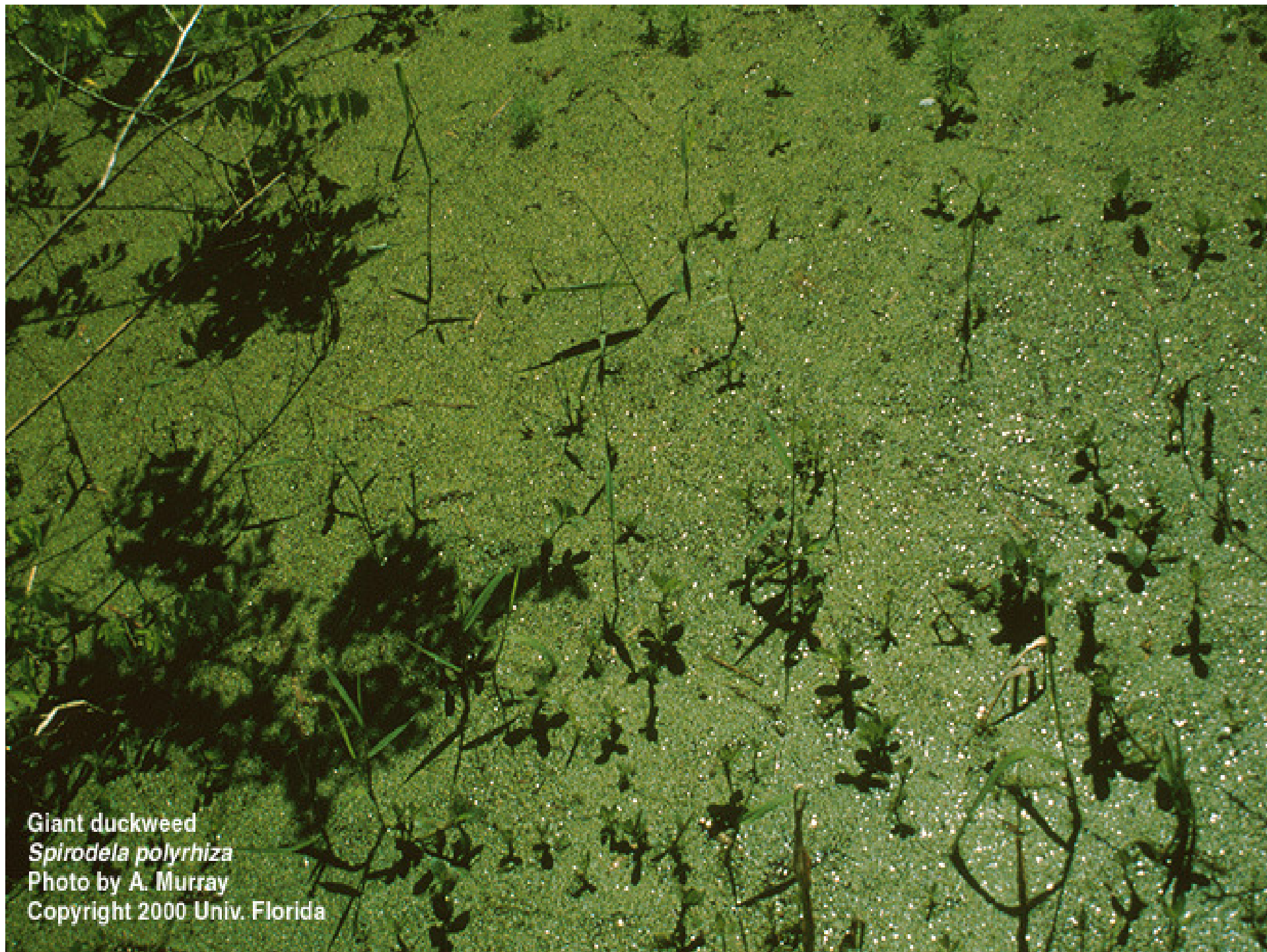




# NUTRIENTS, a.k.a plant food







Giant duckweed  
*Spirodela polyrhiza*  
Photo by A. Murray  
Copyright 2000 Univ. Florida

# OTHER SOURCES OF NUTRIENTS





# PESTICIDES



## Sources:

- Yard clippings
- Excessive usage

## Impacts:

- Danger to aquatic life
- Human exposure







# OIL AND GREASE



- Have **leaks** repaired immediately.
- Use **oil absorber** to collect the oil. Dispose of it in the trash.
- **Drip pan** to collect leaking fluids
- Recycle or dispose of the fluids properly

# Chlorinated pool water

- Pool filter backwash (diatomaceous earth)
- **Test water** before discharging
- Drain water to lawn or garden if possible





# Contractors

- Pool, masonry, bricklayers, power washers, landscapers, waste haulers
- Make sure they know about the ordinance
- Make sure they clean up the road





# WHAT CAN YOU DO TO HELP?

- Limit fertilizer and pesticide usage to recommended quantities and do not use near water or just before a rain.
- Recycle your yard clippings.
- Wash your car at a local car wash facility; they recycle the water. Or wash it on the grass.
- Pick up after your pet
- Maintain your car regularly
- Never discharge pool water containing chlorine or particulates to the stormwater system.
- Store chemicals inside where they are not exposed to rain
- Report any possible violations of the stormwater ordinance.

# Contact Information for Possible Illegal Discharges

- (727)464-4425
- 24 hr hotline (727)464-5060
- Stormwater Education website-  
[www.pinellas.wateratlas.usf.edu/StormwaterEd/](http://www.pinellas.wateratlas.usf.edu/StormwaterEd/)
- Brochures