



# Stormwater

*Ashley Osborne, Environmental Issues; Stephanie Jenkins, Kentucky Water Resources Research Institute; and  
Carmen Agouridis, Biosystems and Agricultural Engineering*

# What is stormwater?



**W**hen rain or snowmelt flows over surfaces such as rooftops, sidewalks, or driveways, it is called stormwater.

As stormwater moves across lawns and paved areas, it picks up bacteria, nutrients, sediments, heavy metals, and chemicals before traveling through the storm sewers to our water bodies. Because the stormwater is not cleaned or treated, it creates harmful conditions for the environment and for us.

# What harm can stormwater cause?

- **Trash in water bodies** can kill or disable birds, turtles, and fish.
- **Too many nutrients** in a water body promote algae growth. Too much algae lowers the oxygen level of the water. Fish and other water organisms need oxygen to live.
- **Pollution** from stormwater increases the risk of contaminated drinking water.
- **Contamination** increases water-treatment costs.



# How can you reduce stormwater pollution?

- **Don't** litter.
- **Compost** yard waste.
- **Never sweep contaminants** into the street or storm drain.
- **Choose hardy plants** that require little water.
- **Use** fertilizers and pesticides sparingly.
- **Cover bare soil** with straw or mulch to prevent soil erosion.
- **Use wood, brick, or gravel** for patios and walkways so water can soak in rather than running off.
- **Pick up** after your pet.
- **Maintain** your septic system by having it serviced every three to five years.
- **Walk, bike, or carpool** so fewer pollutants are released into the air.





- **Install a rain garden** to capture and reduce runoff.
- **Use a rain barrel** to capture runoff from rooftops.
- **Dispose of** solid and hazardous wastes properly.
- **Recycle** items such as paint, electronics, and batteries.
- **Visit** <http://www.earth911.com/recycling/> to learn how to recycle in your area.
- **Contact** your county solid waste coordinator or cooperative extension agent for information.

# Volunteer

You can volunteer to monitor your local stream with **Kentucky Watershed Watch!**

<http://kywater.org/>

## Kentucky Watershed Watch Monitoring Data Form

**Site ID#** \_\_\_\_\_

**Participants**  
 # adults \_\_\_\_\_  
 # youth \_\_\_\_\_

**Miles Driven** \_\_\_\_\_

**Samplers Names** \_\_\_\_\_

**Latitude** \_\_\_\_\_ **Longitude** \_\_\_\_\_  
If the latitude and longitude have already been recorded for your site, you do not need to complete these fields.

**Date** \_\_\_\_/\_\_\_\_/20\_\_\_\_ **Start Time at Site** \_\_\_\_:\_\_\_\_ AM / PM

**Current Weather:**  Clear/Sunny,  Overcast,  Intermittent Rain,  Steady Rain,  Heavy Rain

**Rainfall in last 48 hours (round up):** \_\_\_\_ 0", \_\_\_\_ 0.1", \_\_\_\_ 0.5", \_\_\_\_ 1", \_\_\_\_ 1.5", \_\_\_\_ >1.5"

**Water Color:** \_\_\_\_ Clear, \_\_\_\_ Brown / Muddy, \_\_\_\_ Green, \_\_\_\_ White, \_\_\_\_ Grey, \_\_\_\_ Orange, \_\_\_\_ Other: \_\_\_\_\_

**Odor:** \_\_\_\_ None, \_\_\_\_ Rotten eggs, \_\_\_\_ Chlorine, \_\_\_\_ Rancid, sour, \_\_\_\_ Gas, petro, \_\_\_\_ Musty, \_\_\_\_ Sweet, fruity, \_\_\_\_ Sharp, pungent, \_\_\_\_ Other: \_\_\_\_\_

**Water Surface/Other:** \_\_\_\_ None, \_\_\_\_ Oil sheen, \_\_\_\_ Algae, \_\_\_\_ Suds/Foam, \_\_\_\_ Sewage, \_\_\_\_ Erosion

**Stream Flow:**  
 Visual: \_\_\_\_ Flood, \_\_\_\_ Bankfull, \_\_\_\_ Normal, \_\_\_\_ Low, \_\_\_\_ Pondered, \_\_\_\_ Dry

**If Field-Measured:** \_\_\_\_\_ cubic ft / sec

**Pictures:** \_\_\_\_ Upstream, \_\_\_\_ Downstream, \_\_\_\_ Other: \_\_\_\_\_

**Trash / Litter:** \_\_\_\_ None, \_\_\_\_ Minor, \_\_\_\_ Several Bags, \_\_\_\_ Tires / Large Debris, \_\_\_\_ Abundant / Dump Site

**Turbidity (visual):** \_\_\_\_ Clear, \_\_\_\_ Slightly Cloudy, \_\_\_\_ Cloudy, \_\_\_\_ Very Turbid

**Conductivity meter calibration date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Water Temperature:** \_\_\_\_\_ °C

**pH:** \_\_\_\_\_

**Dissolved Oxygen:** \_\_\_\_\_ mg/L

**Conductivity:** \_\_\_\_\_ µS/cm

**Bacteria: R-Card Method**  
 Time IN Incubator \_\_\_\_:\_\_\_\_ AM / PM  
 Time OUT Incubator \_\_\_\_:\_\_\_\_ AM / PM

**Sample A:** \_\_\_\_\_ # E.coli / card  
**Sample B:** \_\_\_\_\_  
**Sample C:** \_\_\_\_\_

**Sample Vol (mL)**  
 \_\_\_\_\_ x 100 = \_\_\_\_\_  
 \_\_\_\_\_ x 100 = \_\_\_\_\_  
 \_\_\_\_\_ x 100 = \_\_\_\_\_  
**Total =** \_\_\_\_\_  
**Avg (÷ 3) =** \_\_\_\_\_

**E.coli/100mL**

**Possible Bacterial Sources:** \_\_\_\_ Duck/Goose, \_\_\_\_ Human, \_\_\_\_ Livestock, \_\_\_\_ Pet Waste, \_\_\_\_ Wildlife

**Other Observations or Measurements:** \_\_\_\_\_

**KENTUCKY WATERSHED WATCH**  
 Visit [www.kywater.org](http://www.kywater.org) to view and enter data.  
 Kentucky Watershed Watch  
 P.O. Box 1245  
 Frankfort, KY, 40602  
 (502) 782-7032

Incubation should be for 20-24 hrs at 55-58°C.  
For counts greater than 200, record as "200" and calculate average using 200.  
Read thermometer in water or quickly after removing. Take reading in the shade. Use a white background or hold up to the sun. Don't wear sunglasses when reading. Check bottle and syringes for air bubbles. Add drops slowly. Calibrate meter within 24 hours of measurement.

Do not sample if ponded or dry.

Kentucky Mesonet website link for rainfall data.

Revised by Lee Moser and Katherine Bullock.

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