

Visit the Following Web Sites for More Details on the Water Cycle:

- **Earth Observatory: The Water Cycle**
http://earthobservatory.nasa.gov/Features/Water/water_cycle_2000.pdf
- **USGS: What Is the Water Cycle?**
<http://ga.water.usgs.gov/edu/watercyclehi.html>
- **The Water Cycle Explorer: A Virtual Study of the Water Cycle, Closely Linked to Geography**
<http://www.naturegrid.org.uk/rivers/watercyclepages/watercycle-intro.html#>

Especially for Kids...

- **Drinking Water and Ground Water Kids' Stuff**
<http://water.epa.gov/learn/kids/drinkingwater/index.cfm>
- **From the NASA Web Site: A Story of a Water Droplet as It Passes through the Water Cycle**
<http://kids.earth.nasa.gov/droplet.html>
- **Water Science for Schools: The Water Cycle**
<http://ga.water.usgs.gov/edu/watercycle.html>

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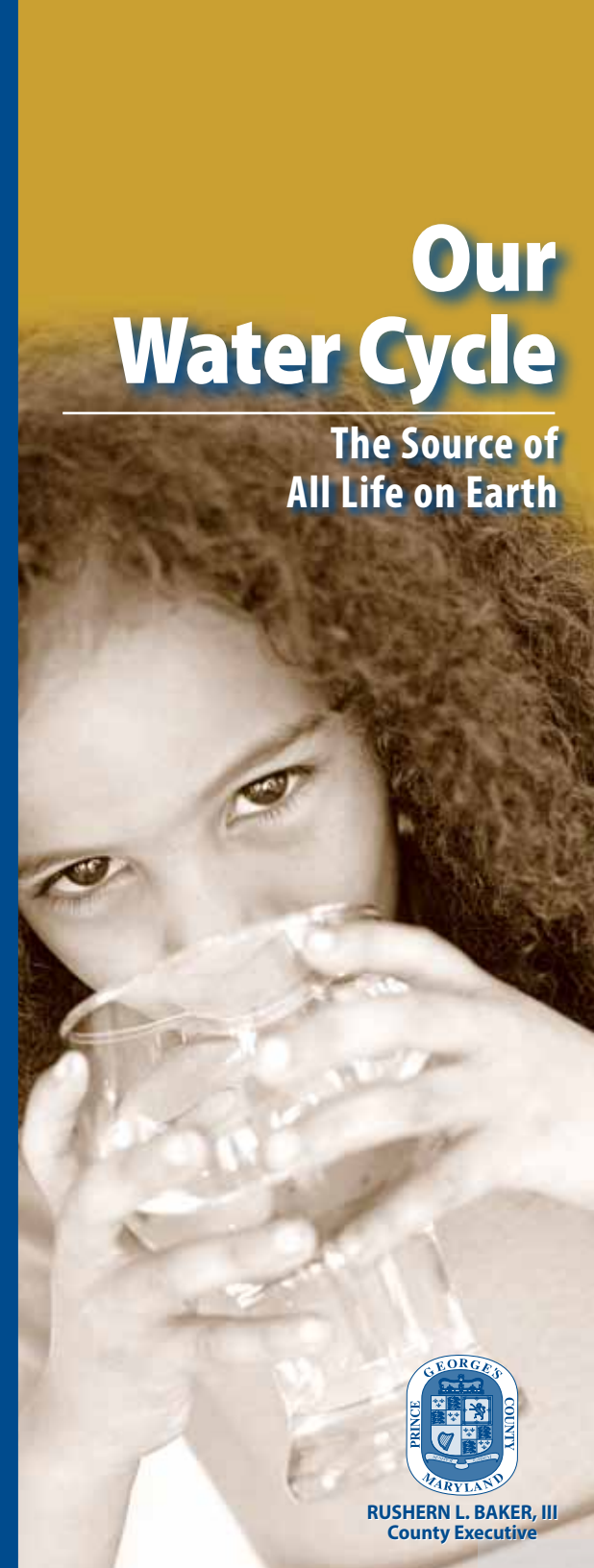
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DEPARTMENT OF ENVIRONMENTAL RESOURCES

Our Water Cycle

The Source of All Life on Earth



RUSHERN L. BAKER, III
County Executive

Photo Credit: Jupiterimages/Bananastock

Water on the Move

On, Above and Below the Earth's Surface

Every grade school student learns about the hydrologic cycle — the pathway water follows during its journey from the sky, over land and back to the sea. However, what many people don't realize is that development and urbanization impact Mother Nature's natural ability to cleanse and recycle water.

Urbanization, which is the increase of population in a specific geographic area, has enormous effects on the environment. As the population grows, our landscape changes. Fields and woodlands are replaced with buildings, parking lots and roads. These changes impact our water resources. Areas that once allowed rain or melted snow to slowly soak into the soil and replenish groundwater are now paved over.

Water's Detour

Since urbanization allows very little rainwater to soak into the ground, it must flow over the land. This rainwater, known as runoff, becomes contaminated as it moves across the landscape. Pollutants such as fertilizers, pesticides and motor oil are carried by the runoff through the storm drain system and directly into streams, rivers and the Chesapeake Bay.

Rough Waters

The effects of runoff are complicated by the speed of water flowing over the landscape. Since development creates large, impermeable surfaces, rainwater that normally would be slowed down by vegetation now rushes through storm drains with great speed. When it discharges into streams and rivers, the water's speed causes soil erosion that destroys stream channels and increases the chances for flooding.

Water Pollution

When surface water runoff does not have a chance to infiltrate into the soil as nature intended, the result of its detour through storm drains is detrimental. Household substances, once picked up in runoff, are dumped directly into surface waters where people swim, fish and recreate. Utilities also draw drinking water from the same sources that receive these contaminants from surface runoff.

Act Responsibly

Take care of your environment by reducing the impact to streams. A little effort can go a long way in improving the health of our streams and rivers. Here are a few things to remember:

- Properly discard household hazardous waste (HHW) products, such as oil-based paint; motor oil; cleaners; pesticides, herbicides and insecticides;

brake fluid; batteries; antifreeze; paint thinners; pool and photographic chemicals; solvents; cooking oil and chemistry sets at the County HHW Acceptance Site.

- Carefully follow the manufacturers' instructions when using landscape products in your yard. Seek environmentally sound alternatives to chemical fertilizers and pesticides, and compost your organic household waste to create nutrient-rich fertilizer for little money.
- Coordinate volunteer cleanup projects to pick up trash and debris around surface waters through your civic association, school, or scout troops.
- Conserve water. Water your garden in the early morning or evening so water has a chance to soak into the ground.
- Commit to becoming better stewards of our environment.

