

Stormwater Management

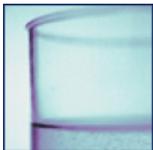
In 2003, the City of Oakwood responded to an environmental mandate from Georgia's Environmental Protection Division (EPD) to develop a comprehensive stormwater management program to protect water quality in the state's waterways. This required program was necessary to comply with the National Pollutant Discharge Elimination System (NPDES) Stormwater Phase II Permit regulations of the federal Environmental Protection Agency.



It is the mission of the City of Oakwood Stormwater Management Program to:

- Protect the health and safety of both the public and the environment;
- Address both stormwater quality and stormwater quantity concerns, and,
- Meet or exceed Federal and state mandates regarding stormwater.

What is stormwater pollution? Stormwater is the runoff that comes from parking lots, roads and rooftops and flows into our storm drains and streams during and/or immediately after a rainstorm. Stormwater carries nutrient laden sediment, heavy metals, oils, and other materials which have accumulated on the land between rain events and flushes them into streams, rivers, and lakes carrying silt, debris, fertilizer and other pollutants with it. Since stormwater runoff is untreated, pollutants end up in our lakes and other water resources.



Stormwater pollution can impact our drinking water sources, cause adverse impacts to habitat for fish, macroinvertebrates and wildlife, and pose a threat to humans due to the presence of elevated fecal coliform levels. In addition to adding pollutants to stormwater, urban development increases the amount and velocity of runoff that occurs, so that downstream properties are flooded, channels and streams become eroded over time, and natural beauty and habitat are lost. Uncontrolled stormwater pollution affects the way a stream or other water body looks and smells, making it unpleasant to be near. This can impact the quality of life for everyone living in and around a community.

Sources of Stormwater Pollution - There are many different types and sources of stormwater pollution. Examples include:

- **Commercial businesses** that are retail oriented or perform services for customers. Examples include auto service shops, gas stations, restaurants and lawn care services. Motor oil, antifreeze, oil filters and cleaners can all be potentially harmful to the environment if not recycled. Oil and grease contain hydrocarbon



compounds, some of which can injure or kill aquatic life even at low concentrations.

- **Industrial facilities** that are engaged in manufacturing, production, transportation and/or construction-related activities. Waste generated at an industrial site, when exposed to rain or outdoor watering, can wash into rivers, streams and lakes.
- **Residential areas and neighborhoods** can significantly impact rivers, lakes and streams due to improper disposal of yard clippings, fertilizer, pesticides, and herbicides as well as vehicle washing on impervious surfaces that result in the runoff of soapy water and other cleaning chemicals down the street into a storm drain and the nearest stream. Household hazardous wastes in and around a home can cause harm to family members and pets and can also be toxic to local wildlife and fish. Dog waste can be especially problematic and known to contaminate nearby streams, rivers and lakes with unhealthy levels of bacteria
- **Institutions** such as schools, universities, hospitals, churches and government facilities can cause water pollution in the same way that businesses and residents can generate it. The types of waste are similar to that of any home or work environment and if not disposed of or managed properly can cause adverse effects on the environment.

Preventing Stormwater Problems

City of Oakwood is involved in a number of activities designed to educate local school children, residents, business owners and operators as well as municipal employees on the importance of preventing stormwater runoff. Example projects are listed below.

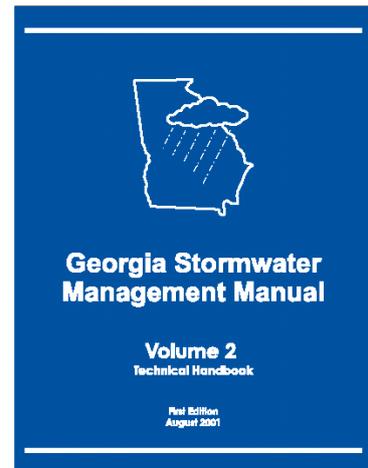
Elachee Nature Center - Elachee Nature Science Center, one of the premier nature centers in Georgia, provides environmental education programs in the form of school field trips for students and also as workshops, camps, and events for the general public. The Nature Science Center serves over 35,000 students from more than 35 school systems and an additional 50,000 visitors to the museum and preserve each year. Located in the 1,500-acre Chicopee Woods Nature Preserve in North Georgia, Elachee is celebrating more than 28 years of building environmental literacy for Georgians through quality educational experiences, museum exhibitions, special programs, and resources for schools and the general public. For more information on the many activities at the Center, visit <http://www.elachee.org>.





City Employee Training Program – City managers and staff are committed to ensuring that all public facilities and operations employ pollution prevention practices to prevent polluted stormwater runoff. City of Oakwood recently completed a compliance survey that identified additional measures to be taken to further eliminate potential sources of pollution from all City facilities and operations.

Development Services - New commercial and residential development is occurring in the City of Oakwood. All construction activities in the City are required to prevent polluted stormwater runoff during construction and to utilize various structural and/or vegetative approaches to control and treat large volumes of stormwater runoff after construction is complete. Design engineers and contractors must utilize the Georgia Stormwater Management Manual in addition to other required technical regulations and best management practices to prevent polluted stormwater runoff from new development both during and after construction.



Improving Water Quality

Dry Weather Outfall Screening Program – City of Oakwood conducts field inspections of outfalls located throughout the City to identify and eliminate suspicious discharges that could impact stream and lake biota. Examples of potential problem discharges include: oil, soapy water, grease, and sediment. Once identified, all illicit discharges are eliminated as soon as possible through education and enforcement activities, if needed.

Business Inspection Program - In 2008, the City will initiated a Business Education and Inspection Program designed to encourage owners and operators of local businesses and industries utilize best management practices to eliminate polluted stormwater runoff from their sites. Pollutants of greatest concern are: grease, oil, soap, sediment and trash.

Inspection, Operations and Maintenance Program – The City actively inspects both public and private storm sewer systems and facilities, such as detention ponds to ensure they function as designed to reduce stormwater velocity and improve the quality of stormwater entering local streams and



lakes. Owners of private detention ponds are responsible for maintaining their storm sewer system and stormwater management facilities which may include ponds, ditches, pipes, inlets, catch basins, etc.

How You Can Help

Pollution Prevention at Home – City residents can help protect local streams and lakes by following the simple practices listed below.

- *Never dump anything down a storm drain or drainage ditch.*
- *Recycle motor oil and other vehicle fluids.*
- *Throw litter in its place.*
- *Clean up after your pet.*
- *Check your vehicles for leaks (repair them!)*
- *Reduce the amount of household hazardous wastes generated at home.*
- *Compost yard clippings.*
- *Use fertilizer and pesticide only when needed. (Read the label!)*
- *If you wash your vehicle at home, do so on the lawn rather than on pavement.*
- *Tell a friend or neighbor about how to prevent stormwater pollution and get involved in your community.*

Report a Problem



To report a stormwater problem, such as: illegal dumping; suspicious discharge; muddy runoff; clogged drainage structures; flooding; and/or structure repairs, please contact:

Joe Hayes
Code Enforcement Officer
770-534-2365
jhayes@cityfoakwood.net

All reported problems will be addressed during the hours of: 8:00 am - 4:00 pm Monday Through Friday. Please call 911 to report immediate emergencies.

Additional Resources

- **Metropolitan North Georgia Water Planning District**
<http://www.northgeorgiawater.com/>
- **Center for Watershed Protection**
<http://www.cwp.org/>

- **Stormcenter**
<http://www.stormwatercenter.net/>
- **Stormwater Outreach Materials**
<http://cfpub.epa.gov/npdes/stormwatermonth.cfm>
- **Low Impact Development Center**
<http://www.lowimpactdevelopment.org/>
- **Environmental Compliance for Auto Recyclers**
http://www.epa.gov/npdes/pubs/ecar_center_announcement.pdf
- **Georgia Stormwater Management Manual**
<http://www.gegiastormwater.com/>
- **American Rivers**
<http://www.americanrivers.org/site/PageServer>



Kids Corner

Check out these great links to find streams in your community, games, experiments and more!

- **Surf Your Watershed**
<http://www.epa.gov/surf/>
- **Non-point Source Pollution Kids Page**
<http://www.epa.gov/OWOW/NPS/kids/index.html>
- **Environmental Kids Club**
<http://www.epa.gov/kids/>
- **Clean Water Campaign**
<http://www.cleanwatercampaign.com/kids/index.html>
- **Kid's Playhouse**
<http://www.stormwatercoalition.org/html/playhouse/index.html>
- **Stormwater Quality Lesson Plans and Activities**
<http://www.stormwatercoalition.org/html/et/index.html>

- **Make a Water Filter**
<http://pbskids.org/zoom/activities/sci/waterfilter.html>
- **Droplet and the Water Cycle**
<http://kids.mtpe.hq.nasa.gov/droplet.html>
- **Concentration Game**
<http://www.lbstormwater.org/kidz/concentration/index.html>
- **Center for Watershed Protection**
http://www.cwp.org/whats_a_watershed.htm
- **Sacramento California Stormwater Kid's Page**
<http://www.sacstormwater.org/fun/kids.htm>
- **USGS Water Science for schools**
<http://ga.water.usgs.gov/edu/index.html>
- **The Water Guardian Chopper Ride**
<http://www.stormwatersmart.org/chopper/chopper.html>

Thank you for helping protect the City of Oakwood's
critical water resources!