



A Homeowner's Guide to a Healthy Stormwater Drainage System



A publication of
**The York County
Stormwater Advisory
Committee**



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Introduction

Dear York County Homeowner:

We hope you find this booklet informative and useful in our common quest to manage stormwater here in low-lying York County. Our committee is made up of community volunteers, all of whom are homeowners like you. Our goal is to make you better aware of how our stormwater drainage system works, and how we can all play a part in maintaining it.

We view stormwater management as a partnership between the County, Virginia Department of Transportation, homeowners associations and individual homeowners. We need your help to take an active role in keeping our stormwater systems healthy, identifying potential stormwater problems as well as supporting necessary clean-up and maintenance actions. Taxpayer dollars are not unlimited, so we must prioritize our efforts. With your active support, county and state resources can be targeted against the more expensive/labor intensive repair and maintenance tasks.

As homeowners, your part can be as simple as keeping drainage ditches free of leaves or notifying the proper agency of a blocked drainage pipe. This booklet provides a good



overview of what to watch for, what actions you can take, and where to call if you see a problem.

Thank you for taking the time to review and use this information. For more information, please contact your District Representative. A list of representatives can be found on our website at <http://www.yorkcounty.gov/stormwater/index.htm>.

The York County Stormwater Advisory Committee

Frequently Asked Questions

What is stormwater?

Impervious surfaces such as rooftops, driveways and roads prevent water from being absorbed into the ground. The portion of water that is not absorbed into the ground is what is known as stormwater runoff. This water in motion picks up and carries a wide variety of pollutants and litter, which flow into our storm drains, and eventually empty directly into our waterways, rivers and oceans. Unlike household wastewater, stormwater is not treated. That means the everyday pollution that we all contribute has a direct impact on our local water quality.

Why is stormwater management important?

Water from rain and irrigation carries fertilizers and pesticides, soil and debris off lawns and streets into neighborhood storm drains that lead directly to our streams, rivers and bays.

Traditional stormwater management has focused on removing quantities of water from our streets and neighborhoods, with the primary goal being to prevent flooding. But this water went untreated and was discharged directly into area waterways.

Now, federal and state regulations require localities to better manage the quality of the stormwater, as well as the

flow rates, that are entering our creeks, streams, rivers and bays. These regulations require much planning and educational effort to be effective, but the benefits include cleaner surface water and a healthier environment.

The regional stormwater management effort, known as HR STORM, is coordinated through the Hampton Roads Planning District Commission, with representatives from local governments. HR STORM is a coalition of local government staff members who come together to share ideas and pool resources for targeted educational program efforts about stormwater management.

How does stormwater become polluted?

As stormwater travels over the land, it picks up all kinds of chemicals and materials that are not naturally found in our waterways. Some of these are toxic and dangerous—even in small amounts. Others,



such as nutrients, are not poisonous but may be produced in such great quantities that natural systems simply can't cope. This results in the pollution of our waterways.

What are the main pollutants?

Stormwater pollution may be divided into three general categories:

Natural – organic material such as leaves, grass clippings and soil sediment.

Chemical – such as detergents, fertilizers, oil and greases.

Litter – Plastic bags, drink containers, wrappers, and cigarette butts.

What is the effect of stormwater pollution?

The effects of stormwater pollution include killing plants and animals that live in the water. For example:

- Sediment in the water reduces light penetration and affects photosynthesis, the process that allows plants to use light as their source of energy.
- Organic material (green waste) uses up vital oxygen in the water.
- Litter clogs waterways and causes toxicity from the breakdown of material and has an effect on the health of birds, fish and other animals and plants that live in the waterways.

How can I help reduce stormwater pollution?

Motor oil, antifreeze, fertilizers, pesticides, detergents, pet waste, yard debris and litter all have a major impact on the quality of our stormwater, and our local waterways.

These products are necessary to maintain our automobiles and homes. That makes it even more important to follow label instructions carefully and to properly dispose of any excess. If you have questions about disposing of car care products, lawn and garden supplies or household hazardous waste, contact the Southeastern Public Service Authority (SPSA) at (757) 427-4700 or the Virginia Peninsula Public Service Authority (VPPSA) at (757) 259-9850. For additional information, contact your local Department of Public Works or Public Information Office. And don't forget to clean up after your pet. Pet waste introduces harmful bacteria into stormwater that will not be treated!

What can I do to improve the water quality of stormwater lakes or ponds near my residence?

There are several things that can be done to improve water quality of the stormwater lakes, but please keep in mind that they were installed to control flow and remove pollutants before they go downstream.

Apply fertilizer properly. One of the biggest pollutants is fertilizer that is not properly applied. High amounts of fertilizers

Frequently Asked Questions

can cause algae blooms on the lakes and reduces the oxygen level for a healthy lake. Fertilizers work best if applied in the fall months of September, October, and November. Contact the Virginia Extension office for recommendations on applications.

Routine maintenance. In many cases, HOAs contain stormwater lakes or ponds built specifically to reduce pollution from stormwater runoff before it reaches our natural lakes and bays. The maintenance of these lakes and ponds may be the responsibility of the HOA. Check your association bylaws and covenants for specific information. Keep in mind that, even though you may not live near a lake or pond, you as a member of the HOA may share responsibility for keeping these bodies of water maintained. Maintenance needs vary according to the specific site conditions. Landscaping, upstream conditions, safety, technical expertise and financing are just some of the issues that must be considered as part of a routine maintenance program. Routine cleaning and maintaining proper vegetation growth around lakes and ponds are an example of normal maintenance procedures. Hampton Roads Storm (H R Storm) publishes a guide for maintaining and operating these lakes and ponds. The guide can be obtained from EDS or the H R Storm website at <http://www.hrstorm.org>.

What are localities doing to reduce stormwater pollution?

Localities in Hampton Roads are using a variety of options as part of a comprehensive stormwater management program. All local programs are crafted to meet or exceed state and federal requirements. The following activities help to improve both management of quantities of stormwater, as well as the quality of stormwater that is discharged into our waterways:

- Initiating or increasing the frequency of street sweeping. Street sweeping helps to remove litter and debris that is washed into storm drains. New technology is also improving the capacity for eliminating a greater percentage of sediment.
- Inspecting construction sites for erosion and sediment controls, which decreases the amount of soil carried offsite.
- Monitoring and eliminating illicit discharges into storm drains. Many localities have staffed hotlines so citizens can report illicit dumping into storm drains.
- Maintaining and improving drainage systems to help improve water quality, as well as reduce flooding in streets and neighborhoods.
- Analyzing pollutants in stormwater runoff. This helps to determine the source of pollutants, which can help localities to better target future program efforts.

Aren't businesses bigger polluters than residents?

Both industry and the community have an important role to play in helping to reduce stormwater pollution. Strict pollution controls on industry have helped reduce their impact on the environment in recent years.

The state government's stormwater program is working with selected industries whose products have a detrimental impact on the environment when improperly used by consumers. The campaign will show these industries how to do the right thing.

The reality is that we all have an impact on stormwater quality, and we can all take steps to make a difference.

What incentives are there for people to adhere to the messages of this campaign?

Maintaining our lifestyle, which includes using the waterways, is a significant incentive for most people. If we stop pollutants entering our gutters and drains in the first place, we can help keep our waterways clean and healthy. That way, they will provide a better environment for our native plants and animals and provide places of recreation and enjoyment.

Who owns the drainage ditches in front of my house?

The ditch in front of your house that runs parallel with the paved road is in the Virginia Department of Transportation (VDOT) right-of-way. VDOT maintains all public roads, adjacent ditches and pipe culverts in the ditch lines, driveway entrances and road crossings.



Wet ponds or lakes like this one near a York County housing development, help control stormwater runoff.

Who maintains the ditches near my residence?

That depends. If it is the roadway ditch as just described, then it is VDOT. If it is perpendicular to the road, and in an easement, then whomever the easement is deeded to is responsible for maintaining the ditch.

Newer subdivisions (1983 and newer) should specify who is responsible on the subdivision plat. If it is older, there may or may not be an easement and it may not be specified to whom it is deeded. It will either be VDOT, York County or the homeowners association (HOA).

Frequently Asked Questions

Who do I call if I have a drainage problem near my home?

For roadside ditches, call the VDOT Seaford office at 898-5151 for areas south of Route 238 and Yorktown. For areas north of there, call the Williamsburg office at 253-4832.

If it is a York County drainage easement or you are not sure, call the County's Environmental and Development Services Drainage Maintenance office at 890-3752 or Mosquito Control at 890-3790. Mosquito Control has crews that remove blockages by hand and Drainage Maintenance does repairs with equipment. If it is deeded to your HOA, contact your HOA president or representative.

How can I find out if an individual, a HOA, VDOT or the County owns the drainage easement?

First, look at your property plat to see if any easements are marked on the plat. This should say to whom it is deeded. If it is a subdivision, this is recorded at the Courthouse; there are also copies at the County's Environmental and Development Services office at 105 Service Drive or the Computer Support Services office at 120 Alexander Hamilton Blvd. VDOT easements are also marked on these plats. If it is an older lot or subdivision, they are also recorded at the Courthouse, but may require additional research to find.



Tree branches and leaves are a common cause of storm drain blockages that can contribute to flooding during heavy rains.

What can I do to reduce the potential for flooding in my area?

The main way to reduce flooding is to help maintain our drainage systems. Do not put anything in the ditches or pipes. Keep the ditches clean of leaves, branches or other debris that can wash downstream and block up the system.

Pipes that have been put in the ditch by an individual without VDOT or County approval may be too small for the amount of drainage going through it. Modifying or filling in ditches also can create drainage problems.

What does the County do to reduce drainage problems in York County?

The County reviews all new developments in the County for compliance with state and County regulations. This process ensures that stormwater flow remains the same as or better than before the proposed development is completed. This can be done by installing Best Management Practices (BMPs) such as wet ponds or lakes, and dry ponds as well as other engineered systems.

The County also receives complaints about drainage problems and researches them to determine if there are easements, whether it is the County's responsibility and whether there is anything that the County should be doing to correct the problem.

If it requires major construction, then it would have to be added to the Capital Improvement Plan list and ranked with the others in the schedule.

**The best way
to reduce
flooding is for
you to help
maintain our
drainage
systems!**

Why can't the County or VDOT come out every month and clean the drainage ditches?

Unfortunately, there just isn't enough County and VDOT staff to go around. And the number of county drainage easements is increasing. County mosquito control staff can maintain an area only once or twice a year; VDOT staff is even more limited. The County has two four-person field crews who work 10 months of the year clearing debris from drainageways to promote better drainage, thus removing mosquito breeding areas. In May and June, staff dispenses mosquito larvicides in mosquito breeding areas to help reduce their numbers. Citizens can be involved in controlling mosquitoes by keeping drainageways clear. Field crews also will remove major drainageway impediments, and Stormwater Maintenance repairs culverts, sink holes and ditches located on York County drainage easements.

What are the major drainage improvement projects going on now in York County?

The County has adopted a Strategic Plan for Capital Improvement Projects (CIP) to be done over the next six years. This is approved by the Board of Supervisors (BOS). The County is working on drainage improvements in several areas. For information on the CIP, contact the Environmental and Development Services Department (EDS) at 890-3750.

York County Drainageway Maintenance

What to do if you have a drainage problem or identify a drainage problem

1. If possible, take a picture of the problem for future reference.
2. Contact the appropriate department. To determine the appropriate office, refer to the criteria listed under “Who You Should Call” (see below).
3. For more assistance, call your Stormwater Advisory Committee district representative. A list of representatives by district is available on the website at <http://www.yorkcounty.stormwater/index.htm>, or call EDS at 890-3752.
4. To assist EDS staff in assessing the problem, please complete the Drainage Issue Worksheet available at the above website, or obtain a copy from EDS. Mail, e-mail or deliver the worksheet to the EDS office, 105 Service Drive, Grafton, VA 23692.

Who You Should Call

If area is designated as a County easement on a subdivision or property plat, the areas are maintained twice a

year by the County to promote drainage and to prevent mosquitoes. For a drainage concern about an easement drainageway beside or behind one’s residence, call 890-3790 and provide your name, address, and telephone number. The situation will be investigated within five working days and a return call will be made to the concerned citizen about when the maintenance work is scheduled to be accomplished.

When it is apparent that a resident has dumped debris (lawn clippings, leaves, tree limbs, etc.) into a drainageway creating an impediment, a notice will be sent to the resident requiring that the debris be removed immediately per section 16-36 of the York County code. If not resolved as requested, then the County will have it removed at the resident’s expense per the Code.

If the area is adjacent to a state maintained road, the Virginia Department of Transportation (VDOT) has maintenance responsibility for all roadside drainageways and their associated culverts. VDOT may also be responsible for some designated right-of-way outfall easements as indicated on a subdivision or property plat. For a roadside culvert, or easement drainage concern call VDOT at 898-5151 for lower York County (south of Route 238, and Yorktown), and 253-5138 for the upper York County.



Drain blockages can be natural or man-made. At left, a property owner has illegally covered a ditch and put in pipes that are too small to adequately handle the amount of water the ditch was designed to handle. At right, a collection of leaves has bunched up in front of a pipe, blocking water from getting through.

If the area is perpendicular to the road, and in an easement, then whomever the easement is deeded to is responsible for maintaining the ditch. Newer subdivisions (1983 and newer) should specify who is responsible on the subdivision plat. If it is older, there may or may not be an easement and it may not be specified to whom it is deeded. It will either be VDOT, York County, the HOA or the property owner.

If it is a York County drainage easement or you are not sure, call the County's Environmental and Development Services Drainage Maintenance office at 890-3752 or Mosquito Control at 890-3790. Mosquito Control has crews that remove blockages by hand and Drainage Maintenance does repairs with equipment. If it is deeded to the HOA, contact your HOA president or representative.

STORMWATER

DO's

IN THE GARDEN

- Sweep the gutters and driveways regularly and place the sweepings on the garden, compost or in the bin.
- Prevent soil or mulch from being washed or blown off the garden.
- Rake up leaves or lawn clippings and use them as mulch on the garden or place them in the compost.
- Seed or re-plant areas of disturbed soil.
- Consider natural alternatives to pest control chemicals.

WITH THE CAR

- Maintain the car, making sure there are no leaks and that fuel is burned “cleanly” by keeping your car tuned, repairing leaks and properly disposing of fluids.
- Use the minimum amount of detergent for cleaning outside, and wash your car on grass or gravel. Even better: take your car to a car wash, where the water is recycled.

DON'Ts

- Hose dirt off hard surfaces (roads, paths, driveways) into gutters and ditches.
- Rake, blow, or deposit leaves, grass clippings, or trash into drainageways.
- Pile sand and soil on areas where it can wash into the stormwater system.
- Overuse chemicals (pesticides and herbicides) that could be washed into stormwater from the garden or yard.
- Use too much fertilizer.
- Work on your car (including oil changing) in a place where oil and grease may wash into gutters and ditches.
- Wash the car in the street using detergent.

STORMWATER

DO's

HOME PROJECTS

- Wash latex paint brushes and rollers into your sewage system.
- Keep paint, turpentine and solvents clear of gutters or drains.
- Reuse turpentine once the paint has settled and dispose of properly.
- Allow unused paint to dry out and then properly dispose of it.

IN THE STREET

- Pick up litter in the park or on the street.
- Clean up pet droppings and dispose of them in the garden, rubbish containers, or in the toilet.

DON'Ts

- Wash out cement mixers or barrows so that the waste flows into street drains.
- Hose sand, gravel or cement into gutters and ditches.
- Leave piles of sand or gravel uncovered where it could wash or blow into gutters and ditches.
- Throw partially used cans in the trash bin.
- Drop packaging or cigarette butts on the ground.
- Leave rubbish beside garbage cans that are already full.

Waste Disposal Information

Household Chemical Disposal

This special program, offered by the Virginia Peninsula Public Service Authority (VPPSA), provides an opportunity for York County residents to dispose of a variety of household chemicals and paint products, including: gasoline, insecticides, paint, brake fluid, herbicides, solvents and cleaners.

Collections take place one Saturday morning every other month. This program is available for York County and Poquoson residents only; proof of residence is required. Please call 259-9850 for additional information on the collection day schedule or for general information and restrictions. For more information, please contact the Division of Solid Waste Management at 890-3780, or visit the website at <http://www.yorkcounty.gov/eds/chemicaldisposal.htm>

Community Compost Facility

The Virginia Peninsula Public Service Authority operates a Community Compost Facility behind the York County Waste Management Center, 145 Goodwin Neck Road. York County residents can deliver yard debris to this facility at no charge as long as their vehicle is no larger than a ¾-ton truck.



The Virginia Peninsula Public Service Authority's Community Compost Facility, 145 Goodwin Neck Road, will recycle tree branches, leaves and grass—items often blamed for blocking drainage ditches.

Limbs and branches must be less than 8 inches in diameter and less than 10 feet in length. (Grass and leaves may also be recycled, but must be out of the bags.)

Stumps, construction debris, and dirt are not accepted. The facility also has mulch and compost materials available for sale at very reasonable prices. Hours of operation are Monday through Saturday, 8 a.m.–4 p.m. For more information, contact the VPPSA Compost Facility at 898-5012 or VPPSA Administrative Offices at 259-9850.

General Yard Waste Collection

Year round, York County residents can schedule a special yard debris collection for items such as limbs, branches and bags of natural yard waste. A nominal fee is charged per tandem size load of materials. Residents must call one week in advance to schedule this collection.

Limbs and branches must be less than 8 inches in diameter and less than 10 feet in length. Yard debris cannot be placed under power lines because a large boom truck is used for this collection. Loose yard debris such as grass, leaves, and straw must be placed in clear bags. Stumps, construction debris, and other materials CANNOT be collected. Materials must be at the front roadside by 7 a.m. on the Monday of your scheduled

collection week to ensure pickup before the end of the week. Contact the Waste Management Center at 890-3780 to schedule a pickup or for additional information.

Leaf Collection Service

Normal leaf collection service is from November through January. York County residents can place an unlimited number of **clear** bags of leaves at the front roadside for collection every other week. Bags must be at the front roadside by **7 a.m.** on the **Monday** of your collection week to ensure pickup by the end of the week.

Leaves must be in clear bags, and weigh no more than 40 pounds per bag so it can be easily handled by one person. Clear bags can be purchased at all local grocery, hardware and department stores. Please contact the Waste Management Center at 890-3780 for your leaf collection schedule or for information on the collection of other materials. More information can found on the website at <http://www.yorkcounty.gov/eds/index.htm> and click on “Leaf Collection.”

Stormwater Websites

York County

<http://www.yorkcounty.gov/>

Click on “Local Government” then click on “Environmental and Development Services” or “Boards, Committees, Commissions.”

York County Department of Environmental and Development Services

<http://www.yorkcounty.gov/eds/index.htm>

Website for environmental services including drainage and mosquito control. Good site to look at to learn what services are provided to public in York County.

York County Stormwater Drainage Advisory Committee

<http://www.yorkcounty.gov/stormwater/index.htm>

One-stop shopping for all of the information that the Stormwater Drainage Advisory Committee provides: points of contact, other websites, reporting processes, necessary forms, committee goals/objectives, meeting schedules, pickup schedules, etc.

Hampton Roads Storm (HR Storm)

<http://www.hrstorm.org/>

Provides educational programs, history, water conservation suggestions, information on household chemical collections and points of contact. Contains a guide and information on drainage ponds and basins, Best Management Practices (BMP).

Virginia Cooperative Extension (York County)

<http://www.yorkcounty.gov/vce/index.html>

Useful web site containing information on agricultural and natural resources. This office provides classes on maintaining laws and gardens in an environmentally safe way and has numerous handouts for the public.

Newport News Waterworks

<http://www.newport-news.va.us/wwdept/>

Provides status of water supply, information on water quality, conservation. Click on “Water Quality” or “Conservation.”

US Environmental Protection Agency

<http://www.epa.gov/>

Extensive website with a host of links to stormwater related subjects. From the home page click on “Water” to find

information on water quality, stormwater, groundwater, and drinking water, surface water and many others.

Environmental Protection Association (Australia)

<http://www.epa.nsw.gov.au/stormwater/>

Discusses stormwater drainage and water pollution issues. Flyers, posters, and other useful information are available.

Chesapeake Bay Site

<http://www.chesapeakebay.net/>

Extensive site with information on water quality, pollution, watershed, bay restoration, instructional material and other websites.

National Association of Flood and Stormwater

<http://www.nafsma.org/>

Your voice in water resources management issues.

Virginia Department of Environmental Quality

<http://www.deq.state.va.us/>

Has public information, environmental issues/programs/laws and regulations. Reporting pollution: DEQ **P**ollution **R**esponse Program (PREP). Website: <http://www.deq.state.va.us/prep/>

Norfolk District Army Corp of Engineers

<http://www.nao.usace.army.mil/>

Has regional information, permits, public notices, projects, etc.

Stormwater Magazine

<http://www.forester.net/sw.html>

The journal for surface water quality professionals.

Virginia Department of Transportation

<http://www.virginiadot.org>

All about VDOT programs, projects, state road information, current issues, contacts, website links. Info on drainage can be found at www.virginiadot.org/infoservice/faq-ditching.asp.



Reporting Pollution Incidents

The PREP Program

The Department of Environmental Quality's (DEQ) **Pollution Response Program**, known as PREP, provides for responses to air, water, and waste pollution incidents to protect human health and the environment. PREP staff often works to assist local emergency responders, other state agencies and federal agencies, as needed to manage pollution incidents. Oil spills, fish kills, and hazardous materials are examples of incidents that may involve the DEQ's PREP Program.

Making a PREP report

1. During normal work hours call the number listed for the Pollution Response Program (PREP) for the DEQ Regional Office that covers the area where the incident occurred. See the DEQ Regional Office maps to determine which DEQ Region to call. <http://www.deq.state.va.us/prep/contacts.html>

2. Nights, holidays, and weekends, call the **Department of Emergency Management's (DEM)** 24-hour reporting number. **In-state:** (800) 468-8892. **Out-of-state:** (804) 674-2400. The DEM staff will relay the information to on-call DEQ personnel.

To report a pollution incident or a suspected violation of state environmental law please assemble the following information:

WHERE: The location of the incident. For the DEQ to investigate, we need to know where the problem is and how to get there.

WHEN: The sooner an incident is reported the greater the chances that an environmentally protective response can be made.

WHAT: If you can, let us know what was released and how much. This will help determine the type of investigation needed.

WHO: If you know the source of the problem or the company/individual causing the problem, please give us that information.

Tidewater Regional Office

TRO Contact Number: (757) 518-2000

Counties: Accomack, Isle of Wight, James City, Northampton, Southampton, York

Cities: Chesapeake, Franklin, Hampton, Newport News, Norfolk, Portsmouth, Poquoson, Suffolk, Virginia Beach, Williamsburg

<http://www.deq.state.va.us/prep/>

List of Contacts

<u>Organization</u>	<u>Phone Number</u>
York County Environmental and Development Services (EDS)	890-3750/3752
York County Mosquito Control	890-3790
York County Waste Management Center (Leaf collection, recycling, garbage collection, hazardous waste disposal)	890-3780
Virginia Department of Transportation (VDOT)	
North Office	253-5138
South Office	898-5151
H R Storm	58-STORM (587-8676)



The Stormwater Advisory Committee welcomes volunteers who wish to contribute their time to this very important endeavor for our County. If you are interested in a vacant position on the Committee, please contact your district representative to the Board of Supervisors or go to the County website at <http://www.yorkcounty.gov> to apply to become a Committee member.

