## Ditch Maintenance

Over time, ditches fill with sediment or erode. The City's maintenance work returns the ditches to their original depth and slope, thereby restoring their drainage capacities. After reshaping work is completed, City crews re-seed the work area and stabilize the soil with matting or straw to minimize erosion until the grass is re-established.

### The primary objective of the Stormwater Operation Division is to maintain the City's ditches and stormwater piping so that they continue to function as designed.

### Pros & Cons of an Open Ditch System

There are many benefits of an open drainage (ditch) system. Primarily:

- Greater capacity than a pipe system
- Better water quality
- Low impact development technique which is being promoted in several new developments due to the water quality benefits
- A flowing ditch precludes health and mosquito issues

An open system does present problems on occasion including:

- Sediment buildup
- Leaves and debris blockage
- Visible standing water
- Erosion

The Mosquito Control Commission can assist homeowners with mosquito control concerns. Call (757) 382-3450 for more information.

# **Common Questions**

### **Q:** Who is responsible for maintaining stormwater drainage on my property?

A: The property owner is responsible for maintaining his lot so that it drains to a Citymaintained ditch or inlet structure. Most side ditches between houses and rear ditches are not City-maintained because they do not carry "public" water; that is, runoff from public roadways. Property owners whose property drains to private ditches are responsible for their maintenance. Side ditches and underground piping that carry "public" water are maintained by the City.

# Q: Why can't I just fill the ditch and replace it with a pipe?

A: The open ditch will carry more water in peak flow conditions than a pipe. Also, the vegetation in ditches helps filter sediments and provides better water quality. Citizens may be allowed to pipe ditches greater than three feet deep if they obtain a permit from the city, hire a contractor, and pay for the installation costs of pipe and necessary catch basins.

# Q: Why can't the City pipe most of the deeper ditches?

A: Piping ditches is very expensive. (Cost to pipe a typical residential lot frontage is approximately \$5,000.) The City currently maintains 2,700 miles of open ditches which makes this practice cost prohibitive.

# More Questions?

Contact the Customer Contact Center (757) 382-CITY (2489)

# Roadside Ditch Maintenance





Department of Public Works Stormwater Division

www.CityOfChesapeake.net

## The Purpose of Ditches

Roadside ditches move stormwater runoff from roadways to keep roads passable. The vegetation lining in most ditches helps trap sediment and contaminants carried by stormwater before discharging into lakes, wetlands, or streams. The primary objective of the Stormwater Operation Division is to maintain the City's ditches and stormwater piping so that they continue to function as designed and meet water quality standards mandated by State and Federal regulatory agencies.

Routine maintenance of these ditches minimizes erosion and the flow of sediment into streams and other waterways. Roadside ditches are located within the City's rightof-way, which typically can extend into your front yard.

## Piping Shallow Ditches: Why We Don't

The minimum pipe size for stormwater drainage used by the City has a 12-inch interior diameter. Taking into account the overall diameter of the pipe and the cover material required to keep the pipe from being damaged by vehicles that may park over a pipe, the minimum depth for a ditch to be considered for piping is three feet.





## Step 1: Locate the Problem

Public Works customer service staff assesses the problem described by the homeowner. If the issue is of a maintenance nature, then a work order is written and provided to Stormwater Operations to fix the problem. If the issue requires more than routine maintenance, a stormwater engineering plan may be necessary and budget issues may lengthen the time involved to correct the problem. The time involved for this step ranges, depending on the types of issues involved, from several days to several months.

## Step 2: Perform the Work

Stormwater crews contact Miss Utility to mark all underground utilities within the work area. Crews excavate accumulated sediment and vegetation to match depth and slope required to convey stormwater runoff. This is done using excavators and/or hand tools, depending on the amount of sediment.

### Step 3: End Result

Restoration of the ditch is complete when reseeding is done. Once the grass grows in the ditch, it's important to mow high vegetation and keep debris and leaves from accumulating in the ditch. Blockages of ditches and culverts are frequent causes of flooding in neighborhoods.