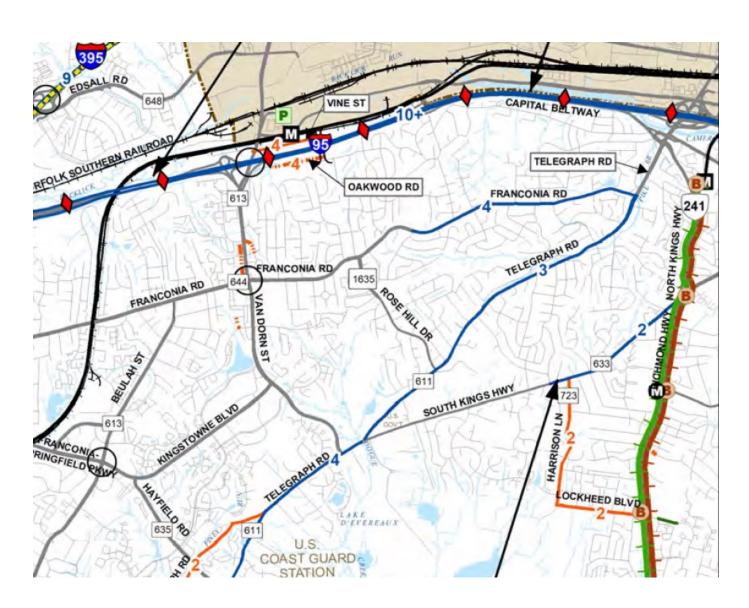


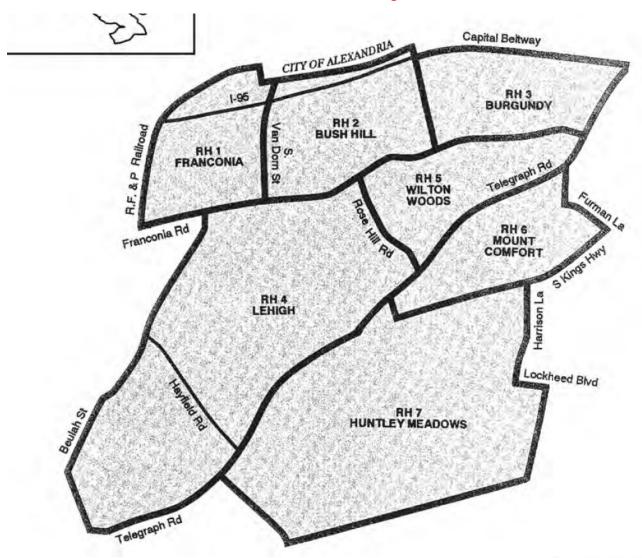
Maps of the Rose Hill Planning District

DISTRICT AND NEIGHBORHOOD BOUNDRIES | DRAINAGE OUTFALLS | MARINE SOILS | TRANSPORTATION





Rose Hill Planning District





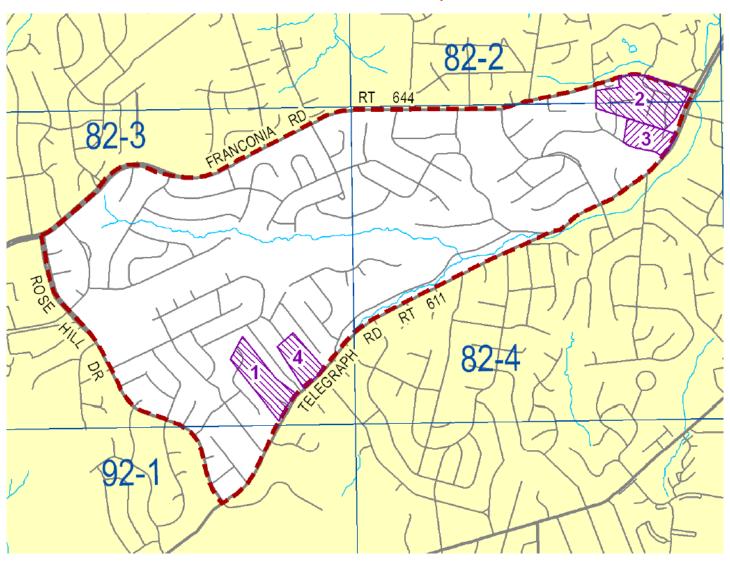


Lehigh Community (Kingstowne and Manchester)





Wilton Woods Community





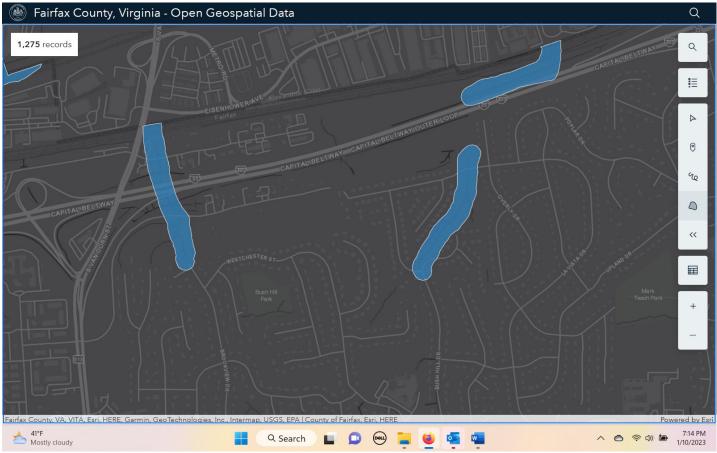
Mount Comfort Community





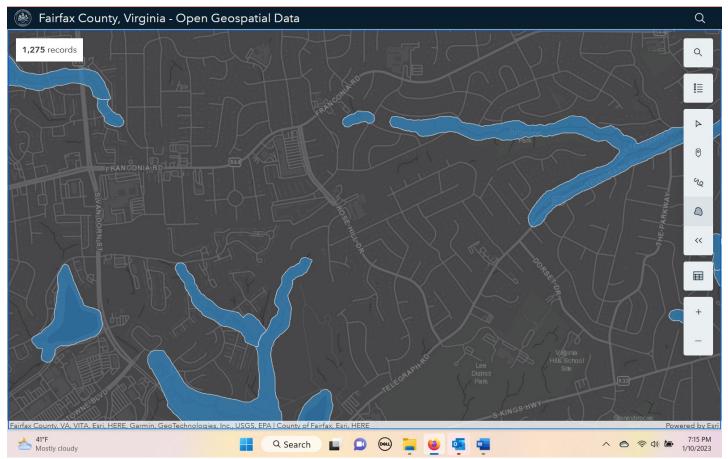
Fairfax County Geospatial Data

Chesapeake Bay Protection Area



 $\frac{https://data-fairfaxcountygis.opendata.arcgis.com/datasets/Fairfaxcountygis::resource-protection-areas/explore?location=38.780708\%2C-77.116743\%2C15.00$





https://data-fairfaxcountygis.opendata.arcgis.com/datasets/Fairfaxcountygis::resource-protection-areas/explore?location=38.780708%2C-77.116743%2C15.00



Environmentally Sensitive Areas

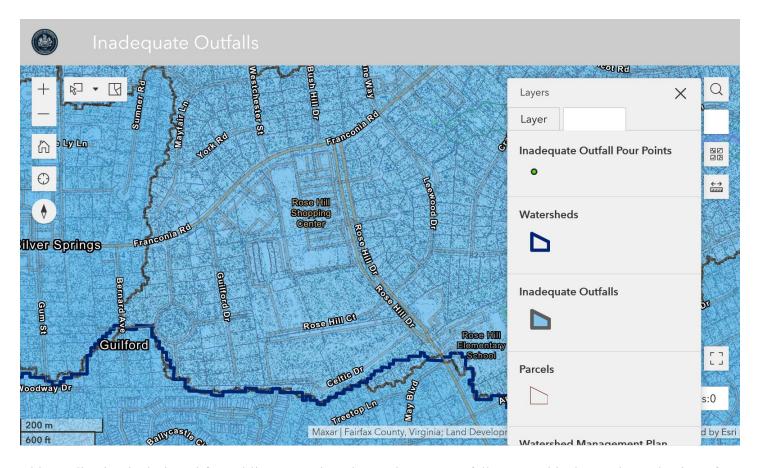
https://www.fairfaxcounty.gov/maps/open-geospatial-data







Inadequate Outfall Map



This application is designed for public use to view the Inadequate Outfalls Map. This dataset is a selection of known erosion and flooding problems throughout the County. The data is intended primarily to assist site plan preparers with establishing the existence of known erosion and flooding problems.

Increased volumes of sheet flow that will cause or contribute to erosion, sedimentation, or flooding of down gradient properties or resources shall be diverted to a stormwater management facility or a stormwater conveyance system that conveys the runoff without causing down-gradient erosion, sedimentation, or flooding per Stormwater Management Ordinance 124-4-4.E. Minimum Standard (MS) 19 of the Virginia Erosion and Sediment Control Regulations (9VAC25-840-40.19) requires stormwater discharge from permitted projects be diverted to an adequate conveyance or detention facility.

This data documents known inadequacies in the stormwater conveyance system. Plan preparers should and County staff will use this information when evaluating compliance with requirements to discharge storm water to an adequate system or detention facility.

https://experience.arcgis.com/experience/6eef8d178b564eeebc4c03be7159d37d

The above is followed by a disclaimer:

"The geographic data layers produced by the Government of Fairfax County, Virginia ("Fairfax County"), and any associated maps and applications, are provided as a public resource. While every reasonable effort is made to ensure the accuracy and completeness of the data, Fairfax County makes no warranties, expressed or implied,



concerning the accuracy, completeness or suitability of its data, and it should not be construed or used as a legal description.

Pursuant to Section 54.1-402 of the Code of Virginia, any determination of topography or contours, or any depiction of physical improvements, property lines or boundaries is for general information only and shall not be used for the design, modification, or construction of improvements to real property or for flood plain determination.

For more information and definition of terms, please visit the Virginia Legislative Information System."

Evaluation of Drainage Outfalls (FINAL REPORT), December 2021 (https://rga.lis.virginia.gov/Published/2021/RD864/PDF)

"Unmaintained outfalls occurring on private property in the Commonwealth's counties have been of growing concern, specifically as a source of recurrent flooding and associated impacts."

"The results revealed that the occurrence of unmaintained outfalls is a localized concern and appears across the state in varying degrees."

"Based on the Study's findings, the Secretary of Transportation and the Secretary of Natural Resources, with the support of staff, are providing the following recommendations for counties or private entities to implement with the intent to mitigate the consequences of unmaintained outfalls: clear communication of maintenance responsibility; creation of a pilot process for the systematic identification of existing unmaintained outfalls; development of a statewide best practices guide; and adoption of dedicated and innovative funding sources."

"Chapter 1289, Item 430M, of the 2020 Virginia Acts of Assembly, directs the Secretary of Transportation and the Secretary of Natural Resources to evaluate the scope of certain drainage outfalls across the Commonwealth, and recommend cost-effective solutions and means by which to fund maintenance of such outfalls."

"An outfall is a point where surface and stormwater are discharged from a manmade channel, such as a ditch or a culvert. At these points of discharge, especially during heavy rain events, the intensity of hydraulic flow can overwhelm an improperly maintained drainage facility and pose a risk to property from erosion and flooding."

"Thus, in a strict legal sense, while the Study directs an evaluation of the scope of outfalls lacking an assigned maintaining entity, the law prescribes that such assignment of maintenance responsibility rests with the land, or easement, owner. Despite this straightforward rule, however, confusion and historical developments have nevertheless resulted in a number of outfalls that are not properly maintained because such responsibility is unknown, unfunded or, due to historical local processes, inadequately deeded in the land records."

"Figure 4 [below] depicts the responses of VDOT and the counties when asked for the primary reason that outfalls without an assigned maintenance entity have come into existence. It should be noted there is a smaller sample size of county respondents compared to VDOT respondents, which may have led to differences in distribution. However, there is general consistency in the noted complications."

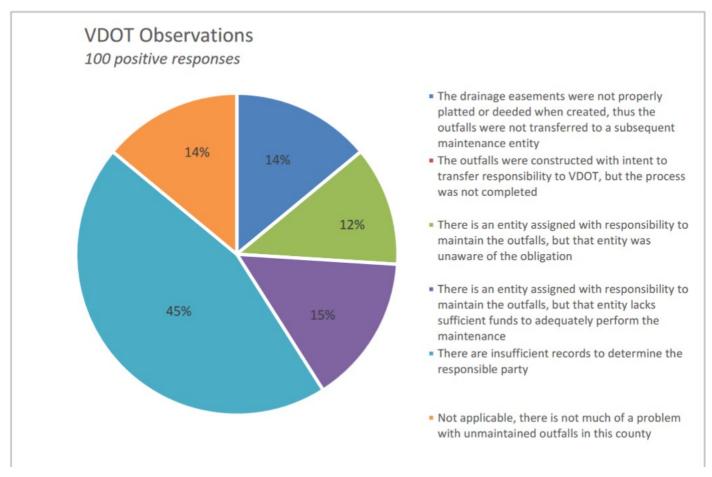
"As depicted in Figure 5 [not shown], 64% of VDOT respondents and 82% of County respondents indicated that unmaintained outfalls generally were installed after 1960, well after the passage of the Byrd Act in 1932. This response reveals that, while the transferal of county roads to the state pursuant to the Byrd Act is a contributing factor, the majority of unmaintained outfalls appear to have arisen with the local development and subdivision of land over time."



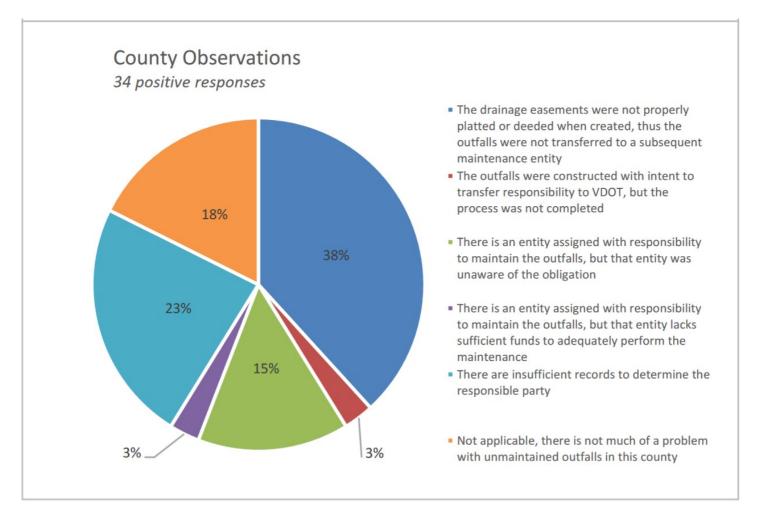
"The creation of the modern highway system through the Byrd Act is not the only historical development contributing to the problem of unmaintained outfalls in the Commonwealth. The development of land and the varying practices of deed recordation appears to have had the greatest effect. As provided above in Figure 4, when asked for the primary reason that outfalls without an assigned maintaining entity have come into existence, VDOT observations indicate that the insufficiency of historical land records and improper recordation of easements are the most significant causes of unmaintained outfalls. These interrelated factors identified by VDOT are also reflected by the county responses to the survey. Without a properly granted and recorded easement, the responsibility to maintain the outfall remains with the fee owner of the land."

"Where counties, in turn, feel that there is not a sufficient mechanism by which to legally enforce such corrective measures on private parties, the occurrence and severity of unmaintained outfalls will likely increase due to further degradation."

Figure 4. Responses received for the survey question: "Typically, in this county, what is the primary reason that outfalls without an assigned maintaining entity have come into existence? (p 7)





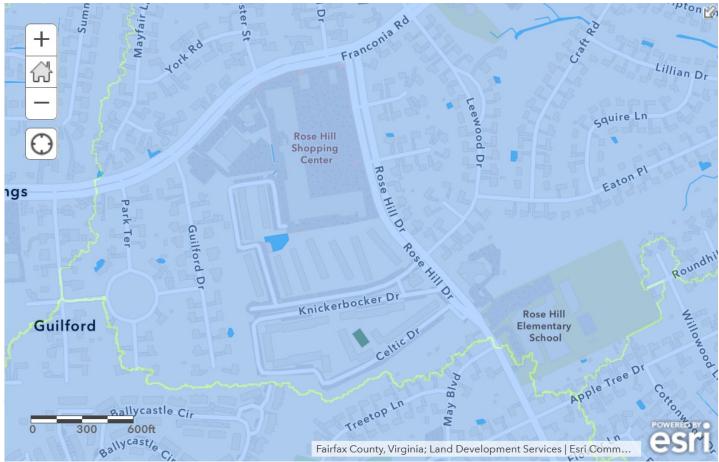


"This dataset is a selection of known erosion and flooding problems throughout the County. The data is intended primarily to assist site plan preparers with establishing the existence of known erosion and flooding problems. Increased volumes of sheet flow that will cause or contribute to erosion, sedimentation, or flooding of down gradient properties or resources shall be diverted to a stormwater management facility or a stormwater conveyance system that conveys the runoff without causing down-gradient erosion, sedimentation, or flooding per Stormwater Management Ordinance 124-4-4.E. Minimum Standard (MS) 19 of the Virginia Erosion and Sediment Control Regulations (9VAC25-840-40.19) requires stormwater discharge from permitted projects be diverted to an adequate conveyance or detention facility. This data documents known inadequacies in the stormwater conveyance system. Plan preparers should and County staff will use this information when evaluating compliance with requirements to discharge storm water to an adequate system or detention facility."

(https://www.fairfaxcounty.gov/lambert/rest/services/LDS/InadequateOutfalls/FeatureServer/0)



Inadequate Outfalls Map



https://www.arcgis.com/home/webmap/viewer.html?url=https%3A%2F%2Fwww.fairfaxcounty.gov%2Flambert%2Frest%2Fservices%2FLDS%2FInadequateOutfalls%2FFeatureServer%2F0&source=sd





https://experience.arcgis.com/experience/6eef8d178b564eeebc4c03be7159d37d/page/Page-1/



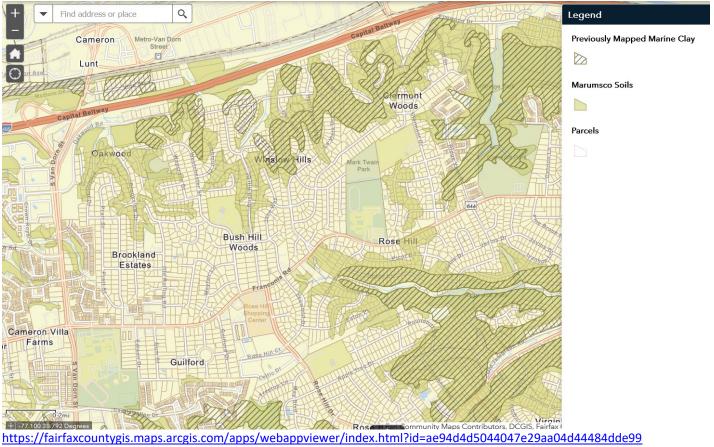
Cameron Run Watershed



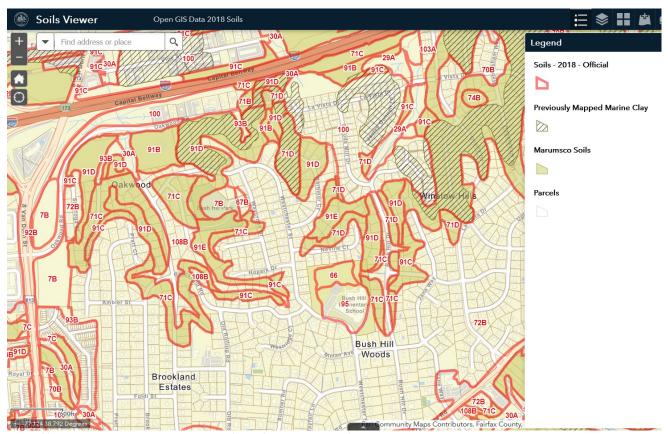
https://fairfaxcountygis.maps.arcgis.com/apps/Viewer/index.html?appid=b6f74baaba14456a8ff42c5bacf0a9b6



Marine Clay and Marumsco Soils





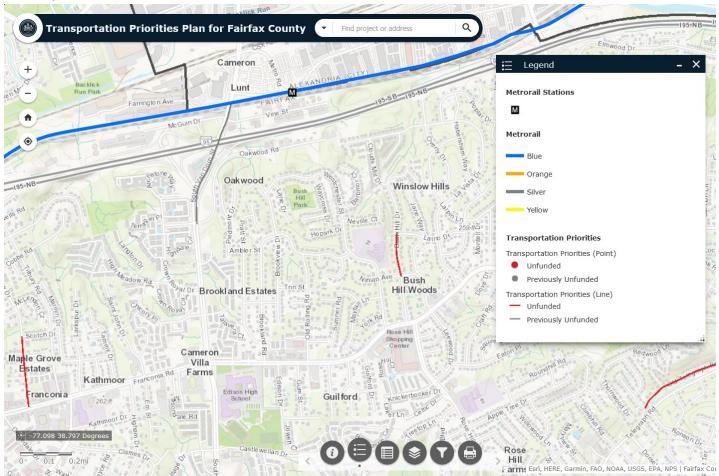


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Marumsco silt loam – is commonly known as Marine Clay. The reason for its notoriety? Marumsco soils contain clay minerals called smectites. Smectites belong to a class of clays that is very sticky; they shrink when they are dry and swell when they are wet. How much damage can shrinking and swelling clay really cause? Plenty. Swelling Marumsco soils can exert thousands of pounds of pressure on basement walls, causing them to bulge and buckle. During the hot and dry summer months, shrinking Marumsco soils beneath the house can cause irregular settling. This settling can warp the house's frame and foundation, causing cracks to form in walls and floors, jamming windows and doors, and putting stress on utility lines. (https://www.fairfaxcounty.gov/soil-water-conservation/five-soils-of-fairfax-county)



Transportation Priorities Plan



https://fairfaxcountygis.maps.arcgis.com/apps/webappviewer/index.html?id=f7a13001b2944946b7c18ad7d3db120f