



HAS BEEN DESIGNATED AS A

**VIRGINIA STORMWATER MANAGEMENT
PROGRAM AUTHORITY**

EFFECTIVE

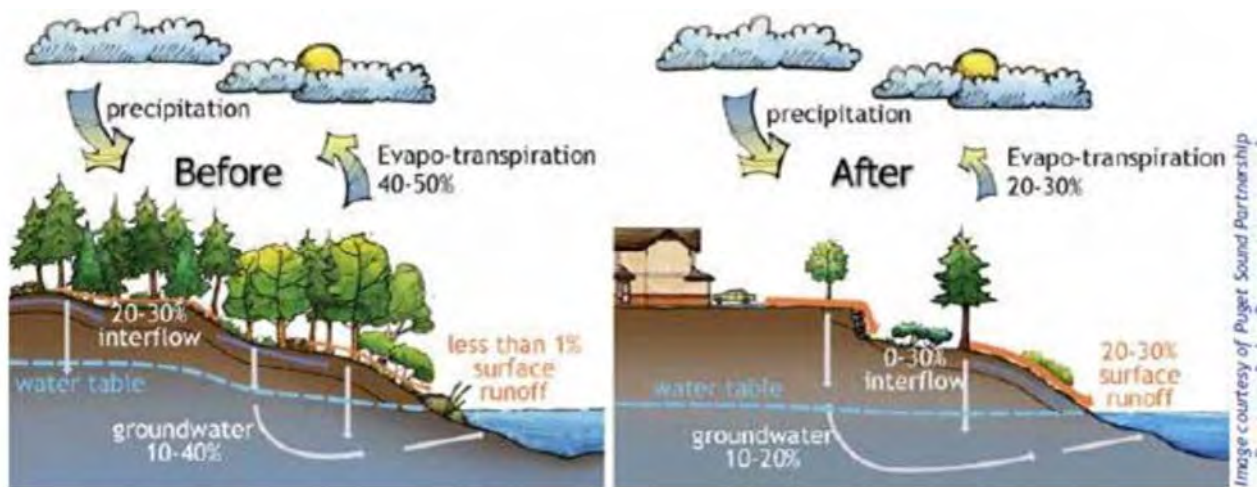
JULY 1, 2014

SPONSORED BY



Why does stormwater management matter?

Land development leads to changes in the hydrology (the natural cycle of water) of a site or of a watershed.



Changes in hydrology and land cover before (left) and after (right) development.

- Clearing removes the vegetation that intercepts, slows and returns rainfall to the air through evaporation and transpiration.
- A portion of the rainfall that once seeped into the ground now runs over the surface.
- Grading flattens hilly terrain and fills in natural depressions that would normally slow and provide temporary storage for rainfall.
- The topsoil (usually required to be replaced) and sponge-like layers of humus are scraped and removed, and the remaining subsoil is compacted.
- The addition of buildings, roadways, parking lots and other surfaces that are impervious to rainfall further reduces infiltration and increases runoff.

Impacts to streams



Natural Stream



Urban Stream

Not just Quantity – Also Quality



Sediment from Construction Runoff



Pollutants from Post Construction Runoff

Montgomery County has a Significant Amount of Karst Terrain



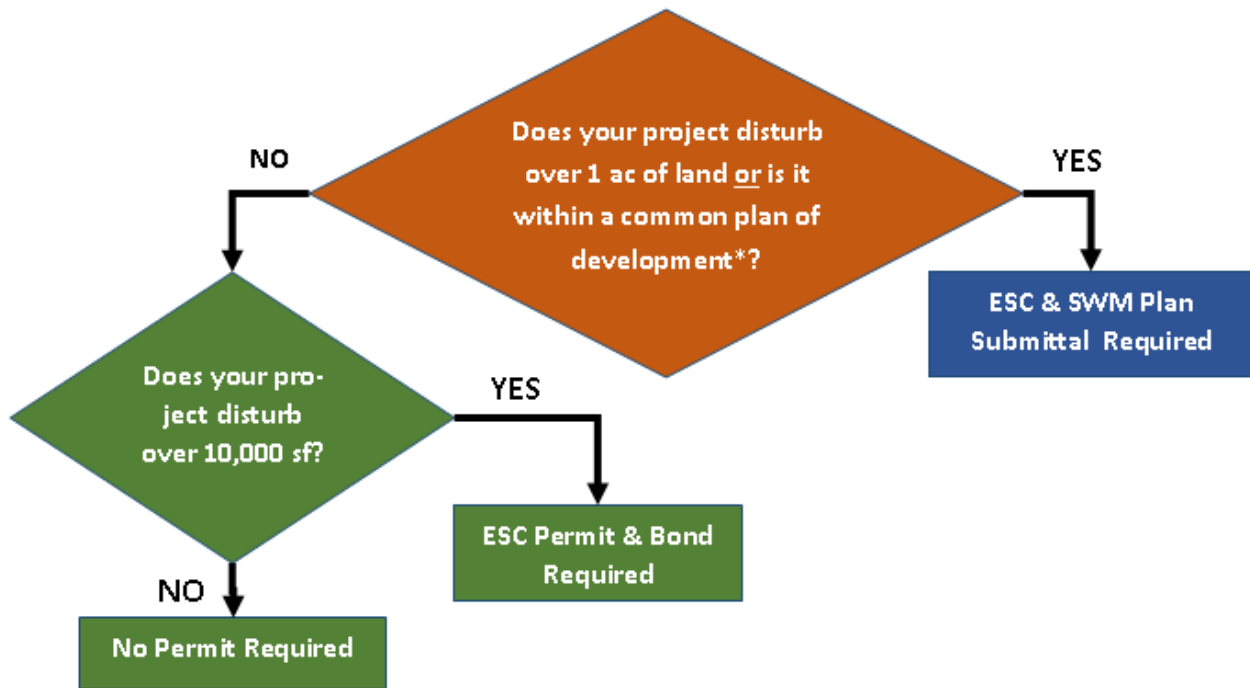
The effects of poor stormwater management are exacerbated in this setting:

- Karst terrain soils are not very permeable
- Rainwater is diverted underground through fractured bedrock or other karst features to aquifers and springs without the usual natural attenuation (natural ground filtration) process that accompanies groundwater flow (leads to increased contamination of groundwater and base stream water)
- Increased stormwater ponding or infiltration form sinkholes (surface sediments collapse due to the intrusion of stormwater runoff)
- More runoff deprives the karst system of recharge (groundwater table and base stream flows diminished)

Social and Economic Impacts of Unmanaged Stormwater

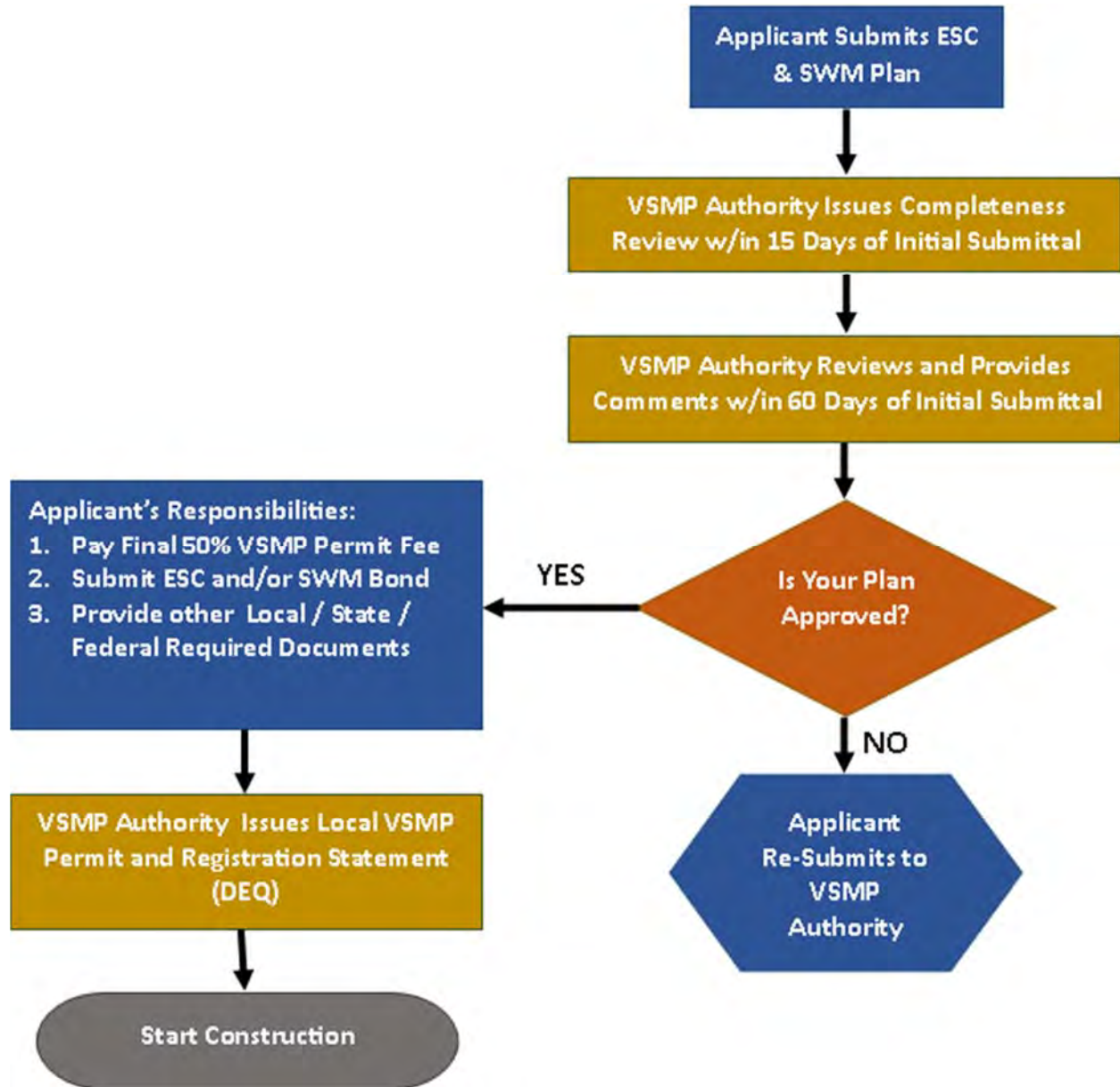
- ***Endangerment of human life from floodwaters.***
- ***Property and structural damage due to flooding.***
- ***Impairment of Drinking Water Supplies (Surface and Groundwater).***
- ***Increased Cost of Treating Drinking Water.***
- ***Increased Cost of Remediating Pollution and Other Damages.***
- ***Loss of Recreational Opportunities on Streams, Lakes, Rivers and Ocean Beaches.***
- ***Declining Property Values of Waterfront Homes and Businesses.***
- ***Loss of Sport and Commercial Fisheries.***
- ***Increased Litigation.***

When Does Permit Application Apply?



There are exceptions and some projects may qualify to be grandfathered under the old regulations.

Application Process



INFORMATION SUBMITTED

- Proof of VSMP General Permit Registration Statement completion, as required.
- Proof of payment of VSMP Permit Fee (Department portion), as required.
- Payment of VSMP Authority Permit Fee
- Certified and completed Erosion and Sediment Control and Stormwater Management Application Form and Checklist
- Erosion and Sediment Control Plan(s) (Plans, Details, etc.) or Agreement in-lieu-of
- Stormwater Management Design Plan(s) (Plans, Profiles, Details, etc.)
- Stormwater Pollution Prevention Plan (SWPPP), including Erosion and Sediment Control, Report, Pollution Prevention Plan, and Stormwater Management narrative and calculations.
- BMP Maintenance Agreement (must be provided and approved prior to plan approval)
- Erosion and Sediment Control and Stormwater Management Bond Estimate (must be provided and approved prior to VSMP permit approval)
- Other Local, State, and Federal Requirements

All submittals shall include this completed checklist, and certification statement below signed by the responsible licensed professional or applicant as required by the VSMP Authority. Application shall include a copy of all documents submitted in PDF format also.

For all second and subsequent submittals, the submitting Engineer shall include a cover letter that provides explanation as to how each comment is addressed and references the relevant plan or narrative location. In addition, significant changes in the plan should be listed.

Additional comments may be warranted depending upon how prior submittal comments were addressed.

Required Certification

I have reviewed the accompanying plan submission, this checklist, the Stormwater Ordinance and applicable Subdivision Ordinance and Zoning Ordinance provisions. The submitted plan is complete and meets all applicable requirements to the best of my knowledge.

Licensed Professional / Applicant Signature

Date

Printed Name