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FAUQUIER COUNTY

DEPARTMENT OF COMMUNITY DEVELOPMENT

Zoning & Development Services

29 Ashby Street, Suite 310 Warrenton, VA 20186

Phone: 540-422-8200 ◦ Fax: 540-422-8201 www.fauquiercounty.gov

SWM / BMP CHECKLIST

Please type or print legibly

Project Information

Submittal Date: _____ Parcel ID (PIN) # _____

Project Identifier: _____ Magisterial District: _____

Location: _____

Project Description: _____

_____

Contact Information

Current Property Owner

Name: _____

Address: _____

Phone: _____

Applicant

Name: _____

Address: _____

Phone: _____

Fax: _____

Representative

Contact Person: _____

Company Name: _____

Address: _____

Phone: _____

Fax: _____

CODE SECTION	DESCRIPTION	SHEET	OK	NO	N/A
	The seal and signature of the engineer or surveyor designing said plan. Name, address, and telephone number of the engineer or surveying firm that prepared the plan.		☐	☐	☐
	Date the plan was prepared		☐	☐	☐
	Sheet index of plans/pages		☐	☐	☐
	Current zoning and available parcel identification numbers (PINS)		☐	☐	☐
Fauquier County Code Sec. 11-77(4)	A stormwater management/BMP narrative including the number and type of facilities, a description of the hydrologic analyses, a description of how the facility (or facilities) was sized, and any other pertinent information.		☐	☐	☐

CODE SECTION	DESCRIPTION	SHEET	OK	NO	N/A
	Vicinity map, with north arrow, at a scale of 1"=2000" showing the relationship of the proposed project to the adjoining properties. The map should show all adjoining roads, their names and numbers, town/county boundaries, subdivisions, and other landmarks within one-mile radius of the proposed project.		☐	☐	☐
Fauquier County Code Sec. 11-77(9)	Existing and proposed mapping (recommended scale of 1"=50' or greater unless prior approval is obtained from the VSMP Administrator) that includes: • Existing and proposed contours, 2-foot minimum contour interval • Perennial and intermittent streams • Mapping of County soils from the County Soils Map or the Type I Soil Survey • Locations of any soil borings • Boundaries of existing vegetation and proposed limits of clearing and grading. • Locations of wetlands, ponds and lakes • Well and drainfield setbacks • Location of existing and proposed roads, buildings and other structures • Location of existing and proposed utilities and easements • Location of existing and proposed stormwater runoff conveyance systems, including ditches, grass channels and swales, and storm drains		☐	☐	☐
Fauquier County Design Standards Manual (DSM) 201.1.1	The specified design storms for stormwater management facilities shall be defined as the 24-hour storm using site specific rainfall precipitation frequency data recommended by the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 unless using the Modified Rational Method, in which case the storm of critical duration should be used.		☐	☐	☐
DSM 201.2	A topographic map identifying all drainage areas. The 5-foot contour topographic maps available from the Fauquier County GIS Department are appropriate to delineate drainage areas that extend beyond the site development area.		☐	☐	☐
DSM 201.2	Time of concentration flow paths and calculations. The travel time path shall be reflective of the actual conditions both before and after the land disturbing activities.		☐	☐	☐
DSM 201.3.2	The length of overland flow shall be reflective of actual conditions and shall be no greater than 150 feet unless approval from the Program Administrator is obtained.		☐	☐	☐
DSM 201.3.2	Overland flow shall be calculated using TR-55 methodology or using the Seelye chart and the roughness coefficients (Manning's n-values) for sheet flow provided in DSM Table 201.1.		☐	☐	☐
DSM 201.3.3	The maximum allowable length for shallow concentrated flow shall be 1000 feet. The travel time for shallow concentrated flow shall be calculated using TR-55 methodology or the Kirpich nomograph.		☐	☐	☐
DSM 201.3.4	The travel time for channelized flow and pipe flow shall be calculated using TR-55 methodology or the Kirpich nomograph.		☐	☐	☐
DSM 201.4.1	The Natural Resources Conservation Service (NRCS) synthetic rainfall distribution and models, including but not limited to Technical Release 20 (TR-20), TR-55, and the USACE's HEC-1 and HEC-HMS software, as well as other NRCS applications are preferred and acceptable for all stormwater management analyses.		☐	☐	☐
	• The NRCS method must be used where drainage areas are equal to or greater than 200 acres, or where times of concentration are 20 minutes or longer.		☐	☐	☐

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	• The Rational Method may be used for drainage areas that are less than 200 acres.		☐	☐	☐
	• The Modified Rational Method may be used to determine peak discharge rates for drainage areas less than 200 acres and when the time of concentration is less than 20 minutes.		☐	☐	☐
DSM 201.4.2.A	Weighted Runoff Coefficient calculations (C factor). The Runoff Coefficients shall be selected from the range of values for a given land use provided in DSM Exhibit 201.3. Deviations from these values must be approved by the Program Administrator.		☐	☐	☐
DSM 201.4.2.B	Rainfall Intensity (I) shall be determined using the formula $I=B/(t_c + D)^E$. Values for B, D and E can be obtained in the table in DSM 201.4.2.B.		☐	☐	☐
DSM 204.4.3.C	Pre-developed and post-developed hydrologic calculations. When calculating existing rates of runoff (pre-developed), assume that all cover types are in good hydrologic condition.		☐	☐	☐
DSM 202.2.A & 205.2.A	Projects obtaining VSMP coverage under Part IIA and Part IIC of the Virginia Stormwater Management Program (VSMP) Permit Regulations; and projects not requiring coverage under VSMP Permit Regulations but do require coverage under the Virginia Erosion and Sediment Control Regulations shall meet the requirements of VSMP Part IIC and the Virginia Erosion and Sediment Control Regulations for stream channel erosion prevention criteria and flood protection criteria.		☐	☐	☐
DSM 202.2.B & 205.2.B	Projects obtaining VSMP coverage under Part IIA and Part IIB of the VSMP Permit Regulations shall meet the requirements of VSMP Part IIB Regulations for channel protection and flood protection criteria.		☐	☐	☐
DSM 205.3	To properly design stormwater detention facilities, a flow routing computer program shall be used with appropriate elevation-discharge-storage relationship for the design storm events.		☐	☐	☐
DSM 205.4	Plan must show the location of the Federal Emergency Management Agency (FEMA) designated Special Flood Hazard Area (SFHA). Stormwater detention facilities should not be constructed within a FEMA designated SFHA. If this is unavoidable, the facility shall comply with all applicable regulations under the National Flood Insurance Program, 44 CFR Part 59.		☐	☐	☐
DSM 205.4	A minimum separation of 50' from the computed 100-year water-surface elevation of an extended detention pond and drainfields is required.		☐	☐	☐
DSM 205.4	Wet ponds shall maintain a minimum separation of 100' from the computed 100-year water surface elevation and drainfields.		☐	☐	☐
DSM 205.4	In subdivisions, all stormwater management/BMP facilities must be placed in a common area, and not on private lots, unless prior approval has been obtained from the Program Administrator. Note: This does not preclude the use of Low Impact Development (LID) practices such as bioretetnion facilities, dry wells, etc. on individual lots.		☐	☐	☐
DSM 205.4	All Stormwater Management Ponds shall have their toe of embankment established a minimum of 10 feet from all property lines.		☐	☐	☐
DSM 205.4	A "No Plant Zone" area shall be established extending a minimum of 10 feet beyond the embankment toe and shall be included in a stormwater maintenance easement.		☐	☐	☐
DSM 205.4	Hydrophilic trees or shrubs, such as maple, sycamore or willow species, shall not be permitted within 25 feet of the embankment toe.		☐	☐	☐
DSM 205.4	Stormwater management and BMP facilities shall not be located in required buffer areas unless authorized by the Zoning Administrator.		☐	☐	☐

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DSM 205.5	Impounding structures that are not covered under the Virginia Dam Safety regulations shall be designed to maintain structural integrity during the 100-year frequency storm event. An emergency spillway shall be provided. The emergency spillway may be separate or incorporated into the design of the principal spillway. Weirs or orifices used to control lesser frequency storms are to be considered 100% clogged for the design of the emergency spillway.		☐	☐	☐
DSM 205.5	Embankment side slopes shall be no steeper than 3:1 unless prior approval is obtained from the VSMP administrator.		☐	☐	☐
DSM 205.5	Embankments must provide at least one foot of freeboard from the maximum 100-year storm water-surface elevation to the lowest elevation on the top of the dam.		☐	☐	☐
DSM 205.5	A geotechnical study must be provided for all stormwater embankments greater than 6 feet in height as measured from the toe of the embankment.		☐	☐	☐
DSM 205.5	Dry stormwater management detention facilities shall be designed to be empty within 72 hours of the storm event.		☐	☐	☐
DSM 205.5	The minimum orifice size shall be 1" diameter.		☐	☐	☐
DSM 205.5	All riser structures shall be cast-in-place concrete unless a substitute material has been approved by the Program Administrator.		☐	☐	☐
DSM 205.5	Outflows from stormwater detention/retention facilities shall be discharged into an adequate channel as specified in Section 202.2.		☐	☐	☐
DSM 205.5	Stormwater basin embankments shall be vegetated in accordance with the standards in the Virginia Stormwater Management Handbook or the BMP Clearinghouse.		☐	☐	☐
DSM 205.5	Underground facilities shall not be permitted in single family detached subdivisions.		☐	☐	☐
DSM 205.5	If underground facilities are proposed, the following note shall appear on the plans: *"Construction inspections are required throughout construction by the design engineer or other qualified professional to ensure that stormwater management facilities are constructed in conformance with the approved design plan."*		☐	☐	☐
DSM 205.5	Trash racks are required at the low flow orifice controlling extended detention drawdown. Trash racks are required at the tops of all risers/drop inlet spillways. The trash rack shall be a removable unit.		☐	☐	☐
DSM 205.5	Emergency spillways and their outfall channels must safely convey the 100-year storm to a receiving channel (the receiving channel does not have to be adequate for the 100-year storm).		☐	☐	☐
DSM 205.6	Access to remote stormwater management/BMP facilities must be provided by an all-weather vehicular traversable route a minimum of 8 feet wide and contained in appropriate easements.		☐	☐	☐
DSM 205.6	Stormwater management access roads with grades of 0%-3.49% may be stabilized with grass; access roads with grades of 3.5%-6.99% shall be stabilized, at a minimum, with compacted gravel mix (21-A), and access roads with grades of 7%-12% shall be paved with asphalt.		☐	☐	☐
DSM 206.1	Permanent outlet protection shall be provided at culvert and stormdrain discharge points and shall be designed in accordance with VDOT methods.		☐	☐	☐
DSM 207.3	A geotechnical report with site specific infiltration rates is required for all stormwater infiltration practices. The report must demonstrate that the infiltration BMP will work as designed.		☐	☐	☐
DSM 207.3	All wet ponds shall have an aquatic safety bench at least 10 feet wide with slopes not to exceed 1:10 (V:H) or 1' water depth.		☐	☐	☐
DSM 207.3	No more than one penetration shall be allowed through a dam structure without prior approval of the Program Administrator.		☐	☐	☐
DSM 208.2	Stormwater management/BMP practices having an infiltration component are prohibited in stormwater management hot spot areas.		☐	☐	☐

CODE SECTION	DESCRIPTION	SHEET	OK	NO	N/A
DSM 208.2	Stormwater detention facilities shall be separated a minimum of four feet from the seasonal high groundwater table, or use an impermeable liner if the facility will be receiving runoff from a stormwater management hotspot.		☐	☐	☐
DSM 209.1	A storm drainage easement shall be provided for the exit channel of all emergency spillways sufficient to convey the maximum emergency spillway flow to an existing downstream receiving channel.		☐	☐	☐
DSM 209.1	The maximum computed 100-year water-surface elevation must be contained within the Stormwater Management Easement.		☐	☐	☐
DSM 209.1	Storm drainage easements shall extend a minimum of 10 feet from culvert inlets and outlets and storm drain inlets to allow for maintenance access.		☐	☐	☐
DSM 209.3	All stormwater structures and BMPs shall be accessible. All access easements shall connect to a public road or right-of-way.		☐	☐	☐
DSM 210.2	A legally binding maintenance agreement specifying the parties responsible for the proper maintenance of all stormwater management facilities shall be secured prior to the issuance of any permits for land disturbance activities.		☐	☐	☐
DSM 210.2	The maintenance agreement shall include a project specific appendix that lists all stormwater management facilities present on the property; the minimum frequency of inspections and maintenance; and the routine maintenance that is to be performed for each stormwater management facility. The project specific appendix to the maintenance agreement is to be prepared by the applicant and submitted to the County with the Stormwater Management Plan for review.		☐	☐	☐
DSM 210.2	When landscaping is a component of the stormwater management facility, a project specific maintenance schedule for the landscaping shall be provided that is reflective of the plant species specified.		☐	☐	☐