

## POLICY IV 11: Land Disturbing Activities

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## 1.0 Purpose

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James Madison University is required to operate an Erosion and Sediment Control (ESC) and Stormwater Management (SWM) program as part of permit and legislative requirements. JMU is responsible for ensuring all regulated land disturbing activities have adequate documentation before construction activity begins and that construction activities follow approved site plans, JMU's *Annual Standards and Specifications for ESC and SWM*, and regulatory requirements.

The purpose of this policy is to layout the procedures for regulatory compliance concerning all regulated land-disturbing activities at the University.

## 2.0 Definitions

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**Best Management Practice (BMP)** – Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices, including both structural and nonstructural practices to prevent or reduce pollution of surface waters and groundwater systems.

**Common Plan of Development** – A contiguous area where separate and distinct construction activities may be taking place at different times on different schedules.

The EPA has provided guidance stating that there are several situations where discrete projects, that could be considered part of a larger “common plan,” can actually be treated as separate projects for the purposes of permitting:

A public entity (e.g., a municipality, state, tribe, or federal agency) need not consider all construction projects within their jurisdiction to be part of an overall “common plan.” For example, construction roads or buildings in different parts of a state, city, military base, university campus, etc. could be considered separate “common plans.” Only the interconnected parts of a project would be considered to be a “common plan” (e.g. a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.) – 2008 Construction General Permit FAQ

When can you consider future construction on a property to be part of a separate plan of development or sale? After the initial “common plan” construction activity is completed for a particular parcel, any subsequent development or redevelopment of that parcel would be regarded as a new plan of development. For example, after a house is built and occupied, any future construction on that lot (e.g. reconstructing after fire, adding a pool or parking area, etc.), would stand alone as a new “common plan” for purposes of calculating acreage disturbed to determine if a permit was required. This would also apply to similar situations at an industrial facility, such as adding new buildings, a pipeline, new wastewater treatment facility, etc. that was not part of the original plan. – 2003 Construction General Permit Fact Sheet.

For example, a 4 acre project has been completed which included water quantity and quality control measures. Later, an additional 8,000 square feet is planned to be added onto the parking lot, this would not be considered to be a regulated land-disturbing activity. If after that work was completed, and an additional 8,000 square feet was to be added, then it would be considered a regulated activity as 16,000 square feet will have been disturbed without an approved site plan to account for water quantity. If then, another 30,000 square feet were to be disturbed, it would obviously meet the criteria for an ESC plan, but now the total disturbance would be over an acre, and water quality would need to be included for the entire 46,000 square feet. Once that project was completed, the cycle could start over again.

**Environmental Protection Agency (EPA)** – Federal entity responsible for monitoring, standard-setting and enforcing activities to ensure environmental protection.

**Erosion and Sediment Control (ESC) Plan** – A site specific plan identifying best management practices and control measures to be implemented during a land-disturbing activity of 10,000 square feet or more, or part of a common plan of development, to prevent or minimize downstream impacts from sediment deposition, erosion, and damage due to increases in stormwater run-off. Will include a quantity analysis for channel protection and flood protection.

**Illicit Discharge** – Any discharge to a MS4 that is not composed entirely of stormwater, except discharges pursuant to a separate VPDES permit, discharges resulting from firefighting activities, and discharges identified by and in compliance with 9VAC25-870-400 D 2 c (3). (water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration as defined in 40 CFR 35.2005(20), uncontaminated pumped ground water, potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water.)

**Land Disturbance or Land Disturbing Activity** – A manmade change to the land surface that potentially changes its runoff characteristics including, but not limited to, clearing, grading, excavating, transporting and filling of land.

**Municipal Separate Storm Sewer System (MS4)** – A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains.

**Non-Regulated Land Disturbance** – A land disturbance that does not require an approved site plan before construction activity begins. Best management practices shall be implemented as needed to prevent sediment deposition and illicit discharges to an MS4 or waterway. These practices may include, but not limited to, construction entrances, road sweeping, silt fence installation, inlet protection, trash management, and washout locations.

**Regulated Land Disturbance** – A land disturbance that meets criteria requiring a site plan be prepared and approved before land disturbance may begin.

**Responsible Land Disturber (RLD)** – An individual holding a certificate of competence issued by the DEQ, or previously issued by the Department of Conservation and Recreation (DCR), who will be in charge of and responsible for ensuring the land-disturbing activity follows the approved ESC plan and remains compliant with JMU's *Annual Standards and Specifications for ESC and SWM*, and other applicable stormwater management requirements.

**Stormwater Management Facility** - A structural best management practice that controls stormwater runoff and changes the characteristics of that runoff, including but not limited to, the quantity and quality, the period of release, or the velocity of flow.

**Stormwater Management (SWM) Plan** – A site specific plan identifying best management practices and control measures to be implemented during a land-disturbing activity of 1 acre or more, or part of a common plan of development, to mitigate effects of additional pollutant loads from development or redevelopment projects. Will include a water quantity analysis for channel protection and flood protections, and a water quality analysis to meet regulatory design criteria requirements.

**Stormwater Pollution Prevention Plan (SWPPP)** – A document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges. A SWPPP required under a VSMP for construction activities shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of an approved ESC plan, an approved SWM plan, and a pollution prevention plan.

**Virginia Department of Environmental Quality (DEQ)** – State department responsible overseeing the universities stormwater related programs and the enforcement of stormwater legislation.

**Virginia Pollutant Discharge Elimination System (VPDES)** – A permit program allowing the discharge of stormwater from MS4s, industrial activities and construction activities.

## 3.0 Responsibilities

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**Executive Director of Facilities & Construction, Associate Director of Operations, Assistant Director of Environmental Services, Director of Engineering and Construction, and Assistant Director of Support Services:** Responsible for the overall implementation of this policy and procedures.

**Project Managers and Supervisors:** Responsible for ensuring that the requirements outlined in this policy are followed for all land-disturbing activities by both JMU employees and outside contractors under their supervision.

**Stormwater Coordinator:** Responsible for the coordination of plan review, approval and related inspections concerning regulated land-disturbing. Ensuring regulated land-disturbing activities follow approved measures to stay compliant with JMU's *Annual Standards and Specifications for ESC and SWM*, stormwater related policies and procedures, and applicable laws and regulations.

## 4.0 Procedures

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Project Managers or supervisors planning work that will require land disturbance should consult with FM Engineering to determine if the proposed project will be considered a regulated or non-regulated land disturbing activity.

### 4.1 Non-Regulated Land Disturbing Activities

Projects that do not meet the criteria requiring a site plan are still required to implement control measures, as needed, to prevent sediment deposition and other illicit discharges to a MS4 or waterway. These measures may include, but are not limited to, construction entrances, road sweeping, silt fence installation, inlet protection, trash management and washout locations. If additional guidance is needed, contact FM Engineering.

If site issues are noticed at a non-regulated land disturbing activity, or if a non-regulated land disturbing activity expands in scope to where it will meet regulated criteria, notification of such will be forwarded to the Director of Engineering and Construction to coordinate needed corrective actions.

### 4.2 Regulated Land Disturbing Activities

Projects disturbing 10,000 square feet or more, or part of a common plan of development will require an ESC plan, narrative and supporting documentation for review and approval. Projects disturbing an acre or more, or part of a larger common plan of development will require an ESC and SWM plan, narrative, and supporting documentation for review and approvals. Shape of the land disturbance does not matter, so whether it is a land disturbance of 100' by 100', a utility project that is 10' wide and a length of 1,000', or any other configuration of 10,000 square feet or more, an approved plan will be required.

Following is a list of questions to be considered when determining if a proposed project will be considered a regulated activity:

- How large of a land disturbance will be needed for construction activity?
  - This will include borrow and waste areas, and any other areas that may be denuded related to the construction activity.
- What site changes have been done since the purchase of the property?
- What site changes have been done since the last approved site plan?
- How will new construction or redevelopment connect to adjacent areas?
- What is the current purpose of the project area?

- Is the project routine maintenance that is being performed to maintain the original grade line and grade, hydraulic capacity, or original construction of the project?
  - Is the routine maintenance on impervious or pervious surface?

Please note that if site limits during construction increases over land disturbing benchmarks, additional requirements will need to be met. For example, if a site plan is approved with a disturbance of 0.95 acres, but during site activity over an acre is disturbed. Site plans will need to be updated to include stormwater management criteria (water quality) and General Permit Coverage will need to be obtained from the state. In addition, if a project were to increase in size that would require a higher fee for permit coverage, the difference in fees will need to be paid to the state (see permit fee form and fee schedule on DEQ's website for construction general permits).

Also, if there are increases to the imperviousness of the project that have not been accounted for in the approved plan while the permit is still active, then additional information from the project engineer will need to be submitted to confirm water quantity and quality requirements. The construction general permit remains active until DEQ follows up for a final field inspection to accept the projects Notice of Termination application which could be several months after submittal of the application.

### 4.2.1 Plan Review & Approval

Once it is determined that a project will require an approved site plan, the project manager will need to have a professional engineer licensed in the commonwealth prepare and submit a site plan with supporting documentation to FM Engineering for review. The plan checklist included in the appendix of JMU's *Annual Standards and Specifications for ESC and SWM* will also need to be completed and submitted.

Site plans will be reviewed by certified individuals to ensure compliance is met with JMU's *Annual Standards and Specifications for ESC and SWM*, *Virginia Erosion and Sediment Control Law*, *Virginia Erosion and Sediment Control Regulations*, *Virginia Stormwater Management Act*, *Virginia Stormwater Management Permit Regulations*, and any other applicable stormwater requirements.

Please note that plan review and approval is not an instant process. The plan review process typically takes 4 to 8 weeks to complete from the time of initial plan submission, depending on the size of the project and its complexity. This time frame includes both plan review and time for the engineering consultant to respond to comments and re-submit.

Once the plan and supporting documentation is deemed to be adequate, a plan approval letter will be forwarded to the project engineer. If the project will require a state construction general permit coverage, a SWPPP will need to be developed and a construction general permit registration statement submitted to the DEQ.

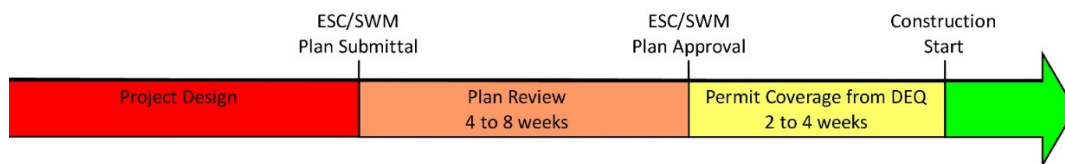


Figure 1. Typical time frame for plan review approval and receipt of permit coverage.

### 4.2.2 Prerequisites for Land Disturbance After Plan Approval

Before land disturbance may begin, there are several prerequisites that will need to be fulfilled.

- Notification of a RLD will need to be submitted to FM Engineering. This notification shall include the RLD's name, certification number and contact information (including email). RLD information will then be forwarded to the DEQ with basic project information.



- A pre-construction conference will also need to be conducted in order to clarify the ESC/SWM roles, responsibilities and obligations of parties involved with the land disturbing activity. The JMU Project Manager, JMU Project Engineer, JMU Stormwater Coordinator, general construction permit operator (if applicable) and RLD should be in attendance.
- If the project requires state construction general permit coverage, a copy of the coverage letter will need to be forwarded to FM Engineering. Please note that by submitting the registration statement for general permit coverage, the operator is certifying that they have received ESC and SWM plan approval, and have prepared a SWPPP.

Once all prerequisites have been fulfilled, land disturbance may begin. Please note that ESC measures intended to trap sediment shall be constructed as a first step in any land disturbing activity.

### 4.2.3 Inspections During Land Disturbance

Inspections will be conducted by certified personnel to confirm site compliance with applicable stormwater laws and regulations, the approved site plan, the construction general permit (if applicable), and JMU's *Annual Standards and Specifications for ESC and SWM*. Inspection frequency will be completed as stated in JMU's *Annual Standards and Specification for ESC and SWM*.

Documentation of findings will be forwarded to the JMU Project Manager, JMU Project Engineer, RLD, and any other persons identified during the pre-construction conference using the *ESC/SWM Inspection Report* included in JMU's *Annual Standards and Specifications for ESC and SWM*. Any site issues will include a description of the issue and photo documentation. In the event site compliance is not met within an acceptable time period, the issue will be forwarded to the Director of Engineering and Construction for further enforcement actions as deemed appropriate.

### 4.2.4 Project Close Out

Project completion may be issued once the following items have been completed and documentation submitted as applicable:

- A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion. Verification of final product according to approved plans.
- All temporary erosion and sediment control measures are removed and any trapped sediment and disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized.
- A construction record drawing for permanent stormwater management facilities shall be submitted to the JMU Stormwater Coordinator. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan. Once all items have been finalized, an inspection report will be submitted stating the ESC and/or SWM has been completed. Notice of Termination of the general construction permit may then be submitted to the DEQ by the operator.
- Completion of TV inspection of the installed storm sewer system.
- As-built CAD files for updating JMU campus map and GIS.

Any constructed stormwater facility BMPs will be entered into JMU's stormwater facility database and the related layer in JMU's GIS will be updated.

## 5.0 References

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Following are references to stormwater related laws, regulations, and specifications:

Code of Virginia. Chapter 3.1. State Water Control Law

<http://law.lis.virginia.gov/vacode/title62.1/chapter3.1/>

James Madison University. *Annual Standards and Specifications for ESC & SWM*

<http://www.jmu.edu/facmgt/sustainability/Stormwater/site-plan-review.shtml>

James Madison University. *Municipal Separate Storm Sewer (MS4) Program Plan*

<http://www.jmu.edu/facmgt/sustainability/Stormwater/ms4.shtml>

Virginia Administrative Code. Chapter 840. Erosion and Sediment Control Regulations

<http://law.lis.virginia.gov/admincode/title9/agency25/chapter840/>

Virginia Administrative Code. Chapter 870. Virginia Stormwater Management Program (VSMP) Regulation

<http://law.lis.virginia.gov/admincode/title9/agency25/chapter870/>

Virginia Administrative Code. Chapter 880. General VPDES Permit for Discharges of Stormwater from Construction Activities

<http://law.lis.virginia.gov/admincode/title9/agency25/chapter880/>

Virginia Administrative Code. Chapter 890. General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems.

<http://law.lis.virginia.gov/admincode/title9/agency25/chapter890/>

## 6.0 Evaluation

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This policy with procedures will be evaluated annually and updated as needed.