

## CHAPTER 72

# Department of Health and Environmental Control— Land Resources and Conservation Districts Division

(Statutory Authority: 1976 Code § 49-11-240)

### ARTICLE 1

#### DAMS AND RESERVOIRS SAFETY ACT REGULATIONS

##### **72-1. Definitions.**

A. “Department” means the South Carolina Department of Health and Environmental Control or its staff or agents.

B. “Board” means the Board of Health and Environmental Control.

C. “Dam” means any artificial barrier, together with appurtenant works, including but not limited to dams, levees, dikes or floodwalls for the impoundment or diversion of water or other fluids where failure may cause danger to life or property.

D. “Appurtenant works” include but are not limited to such structures as spillways, either in the dam or separate therefrom, low level outlet works and water conduits.

E. “Reservoir” means an area which contains or will contain the water or fluid impounded by a dam.

F. “Owner” means those who own, control, operate, maintain, manage or propose to construct a dam or reservoir. In cases where a dam has been abandoned by its owner (either intentionally or unintentionally), and it is necessary to reestablish ownership, the Department shall look first to those entities who hold title to the property on which the dam is constructed and those entities who have acquired some legal responsibility for the dam through covenants or other legal agreements, and secondarily to the other entities who fall under the definition of owner.

G. “Operate” a dam or reservoir means to perform functions intended to preserve or protect the dam or reservoir (or the area potentially impacted by the dam or reservoir). Examples of operator functions include removal or replacement of flashboards, opening or closing of gates, removal of accumulated trash at the spillway, and maintenance functions such as mowing grass on the dam, etc.

H. “Classification inspection” means visual examination of an existing dam or proposed dam site to determine the physical dimensions of the dam and reservoir and the hazard potential of the structure, irrespective of the structural safety of the dam itself.

I. “Preliminary inspection” means a visual but technical evaluation of the structural integrity and physical stability of a dam and may include an analysis of the dam’s ability to pass flood waters. The term “preliminary inspection” means also the recurring routine reinspections that the Department may schedule for certain dams.

J. “Detailed inspection” means all studies, investigations and analyses necessary to evaluate conclusively the structural safety and hydraulic capacity of a dam or reservoir and appurtenant works. This inspection may include but is not limited to soil analysis, concrete or earth stability analysis, materials testing, foundation explorations, hydrologic analysis, including basin studies and flood potential. This inspection shall be performed by a qualified registered professional engineer.

K. "Alteration" means any change to a dam or reservoir which affects the physical parameters and safety of the dam or reservoir which may include but is not limited to changing the height of a dam, increasing the normal pool or principal spillway elevation or changing the elevation or physical dimensions of an emergency spillway.

L. "Repairs" means any work done on a dam which may affect the safety of the dam. This includes but is not limited to work requiring excavation into the embankment fill or foundation of a dam or work requiring removal or replacement of major structural components of a dam.

M. "Removal" means the destruction or breaching of a dam or reservoir to the extent that no water or fluid can be impounded by the dam or reservoir.

N. "Order" means a written document prepared and issued by the Department which mandates specific actions to be accomplished by a dam owner within a specified time frame.

O. "Hazard Potential" means the potential for causing property damage or loss of human life in the event of failure or improper operation of a dam or reservoir.

P. "Engineer" means a registered professional engineer licensed to practice in the State or an individual employed by the USDA-Natural Resources Conservation Service with the title of "engineer" who is qualified and authorized to sign documents prepared and submitted by USDA-Natural Resources Conservation Service.

Q. "Probable Maximum Precipitation" (PMP) means the theoretically greatest-depth of precipitation for a given duration that is physically possible over a given area at a given time of year; these projected maximum precipitation numbers are arrived at by the National Weather Service by studying actual storm events that have occurred in similar climatic areas. Information on PMP is available in publications from the National Weather Service NOAA.

R. "Probable Maximum Flood" (PMF) means the largest flood that theoretically could occur at a given site during our present geological and climatic era. The initiating event in a PMF determination is the PMP.

S. "Height" of a dam is measured in feet from the top of the dam to the natural bed of the stream or water course at the downstream toe of the barrier; if the barrier is not across a stream or water course, height is measured from the top of the dam to the lowest elevation of the outside limit of the barrier.

T. "Storage capacity" or "impoundment storage" of a reservoir is defined to be the volume of water (normally measured in acre-feet) contained in the impoundment at maximum storage elevation (i.e., when water is at the top of the dam.)

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

## **72-2. Dam Classifications and Exemptions.**

A. General. All dams and reservoirs subject to this regulation shall be classified according to their size and hazard potential. Classifications shall be made in accordance with this section and are subject to final approval by the Department. It may be necessary to reclassify dams as additional information becomes available.

B. Size Classification. The classification for size based on the height of the dam and storage capacity shall be in accordance with the table below. Size classification may be determined by either storage or height, whichever gives the larger size capacity.

Size Classification Table

Category	Impoundment Storage (Acre Feet)		Height (Feet)
Very Small	<50	and	<25
Small	≥50 and <1000	or	≥25 and <40
Intermediate	≥1000 and <50,000	or	≥40 and <100
Large	≥50,000	or	≥100

C. Hazard Potential Classification. The classification for potential hazard shall be in accordance with the table below. The hazards pertain to potential loss of human life or property damage in the event of failure or improper operation of the dam or appurtenant works. Probable future development of the area downstream from the dam that would be affected by its failure shall be considered in determining the classification. Dams shall be subject to reclassification if the Department determines that the hazard has changed.

Hazard Potential Classification Table

Hazard Classification	Hazard Potential
High Hazard (Class I)	Dams located where failure will likely cause loss of life or serious damage to home(s), industrial and commercial facilities, important public utilities, main highway(s) or railroads.
Significant Hazard (Class II)	Dams located where failure will not likely cause loss of life but may damage home(s), industrial and commercial facilities, secondary highway(s) or railroad(s) or cause interruption of use or service of relatively important public utilities.
Low Hazard (Class III)	Dams located where failure may cause minimal property damage to others. Loss of life is not expected.

D. Exemptions. The following types of dams are exempt from the Dams and Reservoirs Safety Act and the regulations pertaining thereto:

1. Unless the hazard potential as determined by the Department is such that dam failure or improper reservoir operation may cause loss of human life, any dam which is or shall be (a) less than twenty-five feet in height from the natural bed of the stream or water course measured at the downstream toe of the dam, or twenty-five feet from the lowest elevation of the outside limit of the dam, if it is not across a stream channel or water course, to the maximum water storage elevation and (b) has or shall have an impounding capacity at maximum water storage elevation of less than fifty acre-feet.

2. Any dam owned or operated by any department or agency of the federal government.

3. Any dam owned or licensed by the Federal Energy Regulatory Commission, the South Carolina Public Service Authority, the Nuclear Regulatory Commission, the United States Army Corps of Engineers, or other responsible federal licensing agencies considered appropriate by the Department.

4. Any dam upon which the South Carolina Department of Transportation or county or municipal governments have accepted maintenance responsibility for a road or highway where that road or highway is the only danger to life or property with respect to failure of the dam.

5. Any dam, which in the judgement of the Department, because of its size and location could pose no significant threat of danger to downstream life or property. Upon request, Certificates of Exemption (DHEC Form 2601(6/94) are available from the Department for dams in this category.

E. Dams in Series. If an upstream dam has the capability to create failure in a downstream dam because of its failure flood wave, it shall have the same or higher hazard classification as the downstream dam. If the failure flood wave of the upstream dam will not cause failure of the downstream dam, the upstream dam may have a different hazard potential classification from the downstream dam.

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

### **72-3. Permitting Procedures and Requirements.**

A. General. Any individual who proposes to construct a new dam or repair, alter or remove an existing dam shall apply for and obtain a permit from the Department for the proposed work. A separate application for construction of each new dam or reservoir and for alteration, repair, or removal of an existing dam or reservoir, shall be filed with the Department, except that only one application need be filed for a dam and the reservoir which will contain the water impounded by the dam. See the Regulation on Dam Classification and Exemptions for dams which are exempt from the Dams and Reservoirs Safety Act and the regulations pertaining thereto.

## B. Activities Requiring a Permit.

1. Construction of a new dam: Construction of a new dam shall not commence until the owner has applied for and received a permit to construct from the Department, except for any new dam exempt from the statute.

2. Repairs to an existing dam: Repairs to an existing dam shall not commence until the owner has applied for and received a repair permit from the Department to perform the necessary repairs. Repairs proposed voluntarily or pursuant to an inspection and repair order require permitting. Should the owner be uncertain as to whether the proposed work is repair or normal maintenance work, he should contact the Department for clarification. In case of an emergency where the owner finds repairs are necessary to safeguard life or property, the owner may start such repairs immediately but shall notify the Department at once of the proposed repair and work under way.

3. Alteration of an existing dam or reservoir: Alteration of an existing dam or reservoir shall not commence until the owner has applied for and obtained a permit from the Department to perform the proposed alteration. Alteration of a dam or reservoir includes but is not limited to changing the height of a dam, increasing the normal pool or principal spillway elevation, or changing the elevation or physical dimensions of an emergency spillway.

4. Removal of an existing dam: Removal of an existing dam shall not commence until the owner has applied for and obtained a permit from the Department to accomplish the proposed removal. Removals proposed voluntarily or pursuant to an inspection and repair order require permitting.

## C. Permit Application Procedures.

1. The initial application for any permit shall be signed by the owner and should be submitted to the Department. The Department shall determine if the work described in the application can be accomplished without a permit and so advise the owner. When the initial application is intended to satisfy the requirements of a final permit application, it shall identify the name, address, telephone number and registration number of the engineer.

2. The Department shall:

a. Review the initial application and shall assign or verify classification of the dam.

b. Notify the owner in writing that an initial application is on file and advise the owner of any additional information that may be required in the final permit application before a permit can be issued. The information normally required by the Department for issuance of a permit is described in the following subsection entitled "Permit Application Requirements" of this Regulation.

c. If appropriate, determine that the proposed work does not require a permit, and notify the applicant that further application procedures shall be waived. The owner may then proceed with the proposed work, once any other required permits are obtained.

d. As it deems appropriate and upon receipt of all necessary information, refer copies of the completed final application to other state and local agencies for review and comment.

e. Arrange for any necessary meetings with the dam owner and/or his engineer to discuss the application and resolve any conflicting or uncertain matters.

f. Issue an appropriate permit upon review and approval of the proposed work contained in the final application.

## D. Permit Application Requirements.

1. General.

a. The information required in a permit application shall vary depending on the dam's classification and the type of permit requested. All initial permit applications shall at a minimum contain such general information as name and address of the dam owner; dam location, height and purpose; reservoir surface area, watershed area and characteristics; stream flow; description of existing and probable downstream development; type of permit requested; a brief description of the work to be performed and the proposed time of commencement and completion of work. Specific requirements for the final permit application for each type of permit are contained in subsequent paragraphs.

b. All final permit applications shall be prepared by an engineer and shall include a design report with plans and specifications. In addition, the final permit application shall address the subjects required by the Department for the type permit required (i.e., construction, repair, removal). When the initial application is intended to satisfy final application requirements, it also shall be prepared by an engineer.

c. All designs for proposed work shall be done in accordance with good engineering practices. The safety factors, design procedures and design references that are used shall be included in the final report. Criteria and design procedures developed by the following agencies are acceptable to the Department.

- (1) United States Army, Corps of Engineers
- (2) United States Department of Agriculture, Natural Resources Conservation Service
- (3) United States Department of Interior, Water and Power Resources.

d. Other procedures that are approved by the Department may also be used and referenced. These include special design criteria for tailings ponds involved in mining, with special consideration being given to hydrology and stability.

e. All applications to construct new dams or reservoirs classified as high hazard or significant hazard shall include a fully-developed emergency action plan.

2. Construction Permit Application Requirements. A permit to construct shall not be issued until a final permit application is received and approved by the Department. The areas which shall be addressed in the design report and the plans and specifications for a construction permit are contained in subsequent paragraphs, as are the requirements for an emergency action plan.

a. Design Report - The design report shall address and/or provide specific information pertaining to the following as specified by the Department.

(1) Name and address of the applicant and a general description of the dam and appurtenances. The description shall include a statement of the purpose for which the dam is to be used.

(2) A description of properties located in the flood plain below the dam including number of homes, buildings, roads, utilities and other property that would be endangered should failure of the dam occur. For the purpose of delineating the affected flood plain below the dam, the engineer shall consider it the area in which water surface elevations increase a minimum of one foot as a result of dam failure.

(3) Maps showing the location of the dam, identifying the county, the location of state roads, access to the site and the outline of the reservoir. Aerial photographs or USGS maps may be used for this purpose.

(4) Design criteria including a description of the size, ground cover conditions, and extent of development of the watershed, geology and geotechnical engineering assumptions for the foundation and embankment materials and type of materials to be used in the spillway system(s).

(5) An investigation of the foundation and abutment soils or bedrock and the borrow materials including the location of borrow areas, that are to be used to construct the dam. The foundation and abutments investigation shall consist of borings, test pits and other subsurface exploration necessary to clearly define the existing conditions. The investigations shall be performed so as to define the soil and rock and ground-water conditions. Geologic profiles and a geologic report prepared by a qualified geologist or soil borings examined by an engineer shall be required for certain Class II dams, as determined by the Department, and shall be required for all Class I dams. All construction material such as borrow soil and others shall be adequately specified to assure that the properties meet the design criteria. If on-site materials are specified, they shall be located and determined to be adequate in extent and properties.

(6) Data to indicate that the dam will be stable during construction, filling and under all conditions of reservoir operations including earthquake loading. Any slope subject to drawdown that exceeds 6 inches per day shall be designed to remain stable under the maximum anticipated drawdown conditions.

(7) Data to verify that the dam is safe against overtopping during occurrence of the inflow design flood and wave action. Both present and projected future land use shall be considered in

determining the runoff characteristics of the drainage area. The most severe of these two conditions shall be used in the design. All hydrologic assumptions and design calculations shall be included in the report.

(8) Calculations, design data or references to indicate that seepage flow through the embankment, foundation and abutments shall be controlled so that no internal erosion will take place and so there will be no sloughing in the area where the seepage emerges. The design may include an embankment internal drainage system, a zoned embankment, a foundation cut-off, an upstream blanket, a sufficiently wide homogeneous section, or other methods deemed appropriate by the engineer to satisfy minimum acceptable safety factors against excessive seepage.

(9) Calculations and assumptions relative to design of the spillway(s). All dams shall have a spillway system with adequate capacity to safely pass a design flood in the range shown in Table I for the appropriate classification unless it is demonstrated by the applicant that adequate capacity is provided by other means. For new dams, the design flood should be selected at the top of the range in Table I for the appropriate classification categories. The applicant shall justify to the Department's satisfaction any spillway which is not designed in accordance with this provision.

(10) Criteria for open channel, drop, ogee, chute spillways and other spillway types that include crest structures, walls, channel lining, and miscellaneous details. All masonry or concrete structures shall have joints that are relatively watertight and shall be placed on foundations capable of sustaining applied loads without undue deformation. Provisions shall be made for handling leakage from the channel or underseepage from the foundation which might cause saturation of underlying materials or uplift against the undersurfaces. All earth vegetated spillways shall be designed for an appropriate minimum frequency of use, as shown in Table III. The spillway system shall have adequate capacity to remove from the reservoir within 10 days following passage of the design flood peak at least eighty percent of the water temporarily detained in the reservoir above the elevation of the primary spillway.

(11) Provisions to insure that the upstream slope, crest and downstream slope of earth embankments and abutments will be protected against erosion due to wind and rain. Riprap or other erosion protection shall be considered for the full range in stage between the lowest drawdown elevation and at least two (2) feet above full normal pool.

(12) Other design data, assumptions and analysis data pertinent to individual dams and site conditions.

(13) A proposed construction schedule. The construction schedule shall include the estimated time to complete the construction activities, the techniques and work force to be used to insure that the dam is constructed according to the plans and specifications, techniques to be used to divert stream flow to prevent interference with construction and hazard to life or property, and the extent and method of construction quality control.

(14) A proposed filling schedule for the reservoir.

(15) A maintenance plan. The maintenance plan shall include a listing of the equipment and manpower designated for maintenance and the schedule for performing routine maintenance inspections. The maintenance plan shall address, as a minimum, the following items: such maintenance as is necessary to prevent the growth of trees and brush on the embankment and within the spillway system. The vegetation in areas surrounding dams shall be maintained in such a manner to allow adequate visual inspection of the embankments, spillways and crest of dams; such maintenance as is necessary to remove debris or other deleterious materials from the spillway system; such required inspections as are necessary to insure that all gates, orifices, dissipators and other appurtenances that affect the operation of the dam and reservoir are kept in good repair and working order.

(16) The estimated design life of the dam and the reservoir.

b. Plans and Specifications - One complete set of plans and specifications shall be submitted. The plans shall be detailed engineering design that consists of drawings and specifications which include as a minimum the following:

(1) A cover sheet indicating the name of the project; name of owner, classification of the dam; designated access to the project; and the location with respect to highways, roads, streams, and the dam(s) that would affect or be affected by the proposed structure.

(2) Maps showing the drainage area and outline of the reservoir and the ownership of properties covered by the reservoir or flood pool.

(3) Drawings showing the results of surveys which were made with sufficient accuracy to locate the proposed construction in relation to any downstream hazard and to define the volume of the storage in the reservoir. Locations of centerlines, and other horizontal and vertical control points, shall be shown on a map of the site.

(4) Geologic investigation, cross-sections, profiles, logs of borings, location of borrow areas, principal and emergency spillways and other pertinent items shall be included and drawn in sufficient detail and to a sufficiently large scale to clearly indicate their relative locations and the extent and complexity of the work to be performed.

(5) The technical provisions, as may be required, to describe the method of construction and quality control for the project.

(6) Special provisions, as may be required, to describe the technical provisions needed to insure that the dam is installed according to the approved plans and specifications.

(7) General provisions that specify the rights, duties and responsibilities of the applicant, applicant's engineer, builder, and the prescribed order of work.

c. Emergency Action Plan - One copy of a fully developed emergency action plan for any new dam or reservoir whose hazard classification is high hazard or significant hazard. The emergency action plan shall include, as a minimum, the following:

(1) For a high hazard dam:

(a) An emergency alert notification plan on a format sheet supplied by the Department. All pertinent names and telephone numbers required on the form shall be furnished.

(b) Full computer-generated breach analyses with contour maps showing the inundated areas below the dam for the following cases: sunny-day breach with water at normal pool level and breach of the dam during passage of the design storm at the point when water elevation is at its maximum level in the reservoir.

(c) A written listing of the specific actions that shall be taken if there is reason to conclude the dam is near failure or has failed. This shall include the responsibility of the dam owner to notify any downstream property owners.

(2) For a significant hazard dam:

(a) An emergency alert notification plan on a format sheet supplied by the Department.

(b) Full computer-generated breach analyses for the same cases as a high hazard dam above. An exception to the requirement for full-computer generated breach analyses occurs when the only downstream hazard is a road. In this instance, it is acceptable to submit flood inundation maps based on the best-available computation techniques without use of a full computer-generated breach analysis.

(c) A written listing of the specific actions that shall be taken if there is reason to conclude the dam is near failure or has failed. This shall include the responsibility of the dam owner to notify any downstream property owners.

3. Repair Permit Application Requirements. A permit to make repairs to a dam or its appurtenant works shall not be issued until a final permit application is received and approved by the Department. The proposed work shall be clearly described in the final permit application which shall include a design report with appropriate plans and specifications. The areas which shall be addressed in the design report and the plans and specifications for a repair permit are contained in subsequent paragraphs.

a. Design Report - The design report shall address and/or provide specific information pertaining to the following as appropriate or as specified by the Department.

(1) Information required in the design report for a construction permit.

(2) Complete description of the proposed work which shall include the specific measures to be taken to reasonably insure the problem shall not recur.

(3) Hydrologic and hydraulic calculations and assumptions relative to design of repairs to spillways. Spillway repairs shall be designed so as to provide adequate capacity to safely pass the appropriate spillway design flood. Table 1 provides a range of design floods based on the extent of downstream hazard within each range. The applicant shall justify to the Department's satisfaction any spillway repairs which are not designed in accordance with this provision.

(4) Calculations and assumptions relative to design of repairs to the structural elements of the dam. Foundation investigations and stability analysis may be required.

(5) Reservoir drawdown and refill schedules.

(6) Seepage control. Complete description of measures taken to protect the integrity of the dam during the repair work shall be included.

b. Plans and Specifications - One complete set of plans and specifications shall be submitted. The plans shall be detailed engineering design that consists of drawings and specifications which include as a minimum the following:

(1) A cover sheet indicating the name of the project, name of owner; classification of the dam; designated access to the site; and the location with respect to highways, roads, streams, and the dam(s) that are affected by the structure.

(2) Maps showing the drainage area and outline of the reservoir.

(3) Drawings showing the results of surveys which were made with sufficient accuracy to locate the dam in relation to any downstream hazard.

(4) Drawings showing appropriate cross section and profile views of the proposed work with centerlines and horizontal and vertical control points clearly identified in a sufficiently large scale to clearly indicate the extent and complexity of the work to be performed.

(5) Technical provisions, as may be required, to describe the method of construction and quality control for the proposed work.

(6) General provisions that specify the rights, duties and responsibilities of the applicant, applicant's engineer, contractor, and the prescribed order of work.

4. Alteration Permit Application Requirements. A permit to make alterations to a dam, its appurtenant works or reservoir shall not be issued until a final permit application is received and approved by the Department. The proposed work shall be clearly described in the final permit application which shall include a design report with appropriate plans and specifications. The areas which shall be addressed in the design report and the plans and specifications for an alteration permit are contained in subsequent paragraphs.

a. Design Report - The design report shall address and/or provide specific information pertaining to the following as appropriate or as specified by the Department.

(1) Information required in the design report for a construction permit.

(2) Complete description of the proposed work.

(3) Hydrologic and hydraulic calculations and assumptions relative to design of any alteration to the spillway system(s), the storage capacity of the reservoir, the normal pool and flood pool elevations or the height of the dam. Any alteration which affects the structure's ability to pass flood waters shall be designed so as to provide adequate capacity to safely pass the appropriate spillway design flood. Table 1 provides a range of design floods based on dam classification. The appropriate spillway design flood shall be based on the extent of downstream hazard within each range. The applicant shall justify to the Department's satisfaction any such alteration which is not designed in accordance with this provision.

(4) Calculations and assumptions relative to design of alterations to the structural elements of the dam. Foundation investigations and stability analysis may be required.

(5) Reservoir drawdown and refill schedule.



b. Plans and Specifications - One complete set of plans and specifications shall be submitted. The plans shall be detailed engineering design that consists of drawings and specifications which must include as a minimum the items listed for a construction permit.

5. Removal Permit Application Requirements. A permit to abandon or remove a dam or reservoir shall not be issued until a final permit application is received and approved by the Department. The proposed work shall be clearly described in the final permit application which shall include a design report with appropriate plans and specifications. The areas which shall be addressed in the design report with plans and specifications for an abandonment permit are as follows:

- a. Name and address of the applicant.
- b. Detailed descriptions of the proposed changes.
- c. Properties located in the flood plain below the dam including number of homes, buildings, roads, utilities and other property that might be endangered.
- d. Maps showing the location of the structure that include the county, the location of state roads, access to the site and the outline of the reservoir. Aerial photographs or USGS maps may be used for this purpose.
- e. Plans and specifications which shall address the following:
  - (1) Method of draining the reservoir including a proposed work schedule and statement of the sequence of operations.
  - (2) Method of disposal or stabilization of the sediment.
  - (3) Disposition of the dam materials.
  - (4) Description of the reclamation actions to be applied to the dam and impoundment area.
  - (5) Means for preventing future impoundment.

#### E. Permits.

1. The Department shall issue permits for construction, repair, alteration or removal of dams and reservoirs. All permits shall contain the general requirements as well as any special requirements necessary for the accomplishment of the work and shall specify a time when the proposed work is to be completed. The special requirements may also specify that the engineer performing the day-to-day construction inspection for the owner is required to submit construction reports to the Department at designated times. The owner shall apply for an extension of time for completion of the work specified in his permit if for any reason the work cannot be completed within the time specified in the permit. Any changes proposed after issuance of a permit shall be submitted to the Department by the owner and approved by the Department prior to initiation of any of the proposed changes. Failure to do so may result in permit revocation.

2. Permits are revocable by the Department in the event that the terms of the permit as set forth by the Department are violated. In the event that an owner's permit is revoked, the owner has the right to request a hearing before an Administrative Law Judge if the request is made within thirty (30) days after written notice of such revocation, as hereinafter provided in the Regulation covering Hearings and Hearings Procedures; provided, however, that the request for a hearing shall not act as a supersedeas.

#### F. Certification of Completion or Operation.

1. Notice of Completion. The owner shall file with the Department written notice of completion of the work for which a permit was issued. The notice shall be filed within ten (10) days after completion of the work, shall set forth the date of completion and shall be accompanied by written certification from the engineer that inspected the work that the work was performed in conformance with the plans and specifications approved by the Department.

2. As-Built Plans. The Department may, in its discretion, require the owner to file in duplicate supplementary drawings, in the form of paper prints, showing the dam and appurtenances as actually constructed or, in connection with the repair, alteration or removal of a dam or reservoir, showing the new work. Such supplementary drawings shall be filed within sixty (60) days after written notice from the Department.

3. Certificate of Completion and Operation. The Department shall issue a certificate of completion and operation upon receipt of a notice of completion from the owner and a written certification from the engineer and upon approval of the work by the Department. Prior to receipt of the certificate of completion and operation, the owner shall not impound water or raise the water level in the reservoir as may have been stated in the special provisions of the permit. The certificate shall contain the normal requirements for maintenance and operation which shall refer to, as a minimum, the following:

- a. Such maintenance as is necessary to prevent the growth of trees and brush on the embankment and within the spillway system.
- b. Such maintenance as is necessary to remove debris or other deleterious materials from the spillway systems.
- c. Such required inspections as are necessary to insure that all gates, orifices, dissipators and other appurtenances that affect the operation of the dam and reservoir are kept in good repair and working order. Spillway and outlet gates that are required to operate to pass flood flows shall be test operated at least once each year and the owner shall provide reports as required by the Department.

**HISTORY:** Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.

## **72-4. Inspections.**

A. General. Inspection of dams and their appurtenant works is necessary to verify the safety of dams and compliance with these rules and regulations and the Dams and Reservoirs Safety Act. The results of any inspection are subject to verification by the Department.

B. Classification Inspections. Classification inspections shall be performed in accordance with the Regulation covering Dam Classifications and Exemptions. Classification inspections are initially required to determine if a dam falls under the provisions of the Dams and Reservoirs Safety Act. Subsequent classification inspections may be necessary as development occurs which could affect the hazard potential of a dam, and consequently its classification.

C. Preliminary Inspections.

1. Preliminary inspections of dams shall be performed by the Department to identify those dams which require maintenance and/or repair actions to reduce their danger to human life or property. Preliminary inspections shall consist of a visual examination of the dam and its appurtenant works and may include an analysis of the dam's ability to pass flood waters or other problems that may be suspect as a result of the visual examination.

2. The Department shall schedule preliminary inspections of dams within a priority system based on the condition of the dam and the dam's classification. Should another authorized investigator indicate a need for a preliminary inspection or should a written private complaint alleging that the person or property of the complainant is endangered by the maintenance, operation or condition of a dam or reservoir be received, the Department shall schedule a preliminary inspection as soon as possible and if necessary a more detailed analysis as available resources permit.

3. The Department shall notify the owner of a dam prior to a preliminary inspection and shall advise the owner of the results of the inspection and of the Department's intentions regarding issuance of a detailed inspection and repair order or intentions regarding issuance of a maintenance order. The owner shall provide all readily available engineering design and performance data to the Department which shall be considered for inclusion in the preliminary inspection report. The owner shall remove sufficient trees, brush and brambles prior to the Department's inspection so that adequate visual examination of the dam and its appurtenant works can be accomplished. The owner shall furnish an Emergency Action Plan for all high hazard and significant hazard dams as a part of the preliminary inspection or reinspection. The minimum requirements for an Emergency Action Plan shall be the following:

- a. An emergency alert notification plan on a format sheet supplied by the Department.
- b. A written listing of the specific actions that shall be taken if there is reason to conclude the dam is near failure or has failed. This shall include the responsibility of the dam owner to notify any downstream property owners.

4. The results of a preliminary inspection may form the basis for ordering the dam owner to perform a detailed inspection. Although a preliminary inspection may identify only one specific problem area (such as inadequate spillway capacity, excessive seepage, apparent instability or others), this singular problem will be ample evidence to allow the Department, at its discretion to order a complete detailed inspection of all dam features, components and capabilities. Likewise the results of a preliminary inspection may form the basis for ordering the dam owner to perform certain minimum maintenance items on the dam.

#### D. Detailed Inspections.

1. Detailed inspections may be performed voluntarily or pursuant to an order issued by the Department. The Department may order a detailed inspection after determining through a preliminary inspection that further investigation is required. The owner has the right to request a hearing before an Administrative Law Judge if the request is submitted within 30 days after receiving the preliminary inspection results.

2. A detailed inspection shall be performed by a professional engineer licensed in the State and be in sufficient detail so that appropriate plans and specifications correcting all deficiencies of the dam can be prepared by the engineer and submitted by the owner to the Department for approval. The submission shall contain the results of the detailed inspection and shall be in the form of a permit application requesting either a repair, alteration or removal permit as set forth in the Regulation on Permitting Procedures and Requirements.

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

## **72-5. Remedial Measures.**

A. General. The Department has the authority and responsibility to issue orders to dam owners mandating remedial measures necessary to protect life and property from danger imposed by unsafe dams. The remedial measures ordered by the Department shall be made at the dam owner's expense and shall normally include a detailed inspection followed by appropriate repairs.

#### B. Inspection and Repair Order.

1. If upon the findings of a preliminary inspection, it is determined that a dam or reservoir is apparently unsafe and a danger to life or property, the Department may issue an "Inspection and Repair Order" to the owner of such dam or reservoir to make at his expense a detailed inspection of the dam or reservoir and to submit plans and specifications to the Department in the form of a permit application to correct all problems found by the detailed inspection. Based on the findings of the detailed inspection, the owner shall make the decision to repair, to alter or to remove the dam and shall submit the appropriate permit application as prescribed in the Regulation on Permitting Procedures and Requirements.

2. If an inspection and repair order is issued, it shall state the findings of the preliminary inspection, the remedial measures required and the date by which such measures are to be completed.

3. The owner of a dam or reservoir which has been determined through a preliminary inspection to be unsafe and a danger to life or property has the right to request a hearing before an Administrative Law Judge if the request is made within thirty (30) days after receiving written notice of such findings, as hereinafter provided in the Regulation on Hearings and Hearing Procedures. The Department may solicit voluntary compliance by the owner to take the remedial steps necessary to reduce the risk of dam failure.

4. Extension of time to complete work specified in an inspection and repair order may be granted by the Department, provided, however, no extension shall be granted when there appears substantial and immediate danger of dam failure.

C. Maintenance Order. If upon the findings of a preliminary inspection, it is determined that a dam or reservoir is not being properly maintained, the Department may issue a "Maintenance Order" to the owner of such dam or reservoir to perform within a specified period of time such items of maintenance that are listed in the "Maintenance Order." The owner has the right to request a hearing before an Administrative Law Judge if such request is submitted within (30) days after receiving such a

written order. Extension of time to complete the requested maintenance may be granted based on circumstances over which the owner has no control.

#### D. Emergency Order.

1. The Department shall immediately order emergency measures necessary to protect life or property if the condition of any dam or reservoir completed or under construction is so dangerous to the safety of life or property as not to permit time for the issuance and enforcement of an inspection and repair order or if passing of imminent floods threaten overtopping erosion or destruction of any dam or reservoir capable of danger to life or property. In applying emergency measures, the Department shall have the following limited powers to direct the owner to:

- a. Lower the water level by releasing water from the reservoir.
- b. Completely empty the reservoir.
- c. Take whatever immediate measures necessary to reduce the risk of dam failure.

2. In case of an emergency where the owner finds repairs are necessary to safeguard life or property, he may start such repairs immediately but shall notify the Department at once of the proposed repair and work under way.

3. When the owner fails to comply with the emergency order or cannot be ascertained or found, the Department or its authorized agents may enter and immediately take such actions as may be necessary to provide protection to life or property including removal of the dam. The Department thereafter may recover from the owner, in the name of the State, the expenses incurred in taking such action in the same manner as debts are recoverable by law.

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

### **72-6. Transfer of Ownership.**

A. General. The owner of any high hazard dam or significant hazard dam shall inform the Department in writing within 30 days after title to the dam or reservoir has been transferred from his ownership.

B. Implementation. The Department shall furnish to the owner a standard form on which change of ownership can be recorded and sent to the Department. This standard form will be a part of each inspection letter that Department staff issues, as a way of reminding the owners of this requirement. The standard form will be used for the owner's convenience, and the owner can notify the Department in writing about an ownership change without using the standard form.

C. Imposition of Administrative Fine. Failure to notify the Department about an ownership transfer within 30 days after it occurs can result in an administrative fine as detailed in Table II. A fine will not be imposed until the owner has received at least one written notice of the requirement to notify the Department about an ownership transfer and has failed to meet the requirement.

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

### **72-7. Administrative Fines.**

A. General. The Department may assess an administrative fine against any person who violates the Dams and Reservoirs Safety Act, the regulations promulgated pursuant to it, or an order issued under the Act. These fines shall be not less than one hundred nor more than one thousand dollars.

B. Implementation. Administrative fines that are assessed shall be based on those shown in Table II for the offenses listed. If the administrative fine is not paid, the Department may recover from the person fined, in the name of the State, the amount of the fine and the expenses incurred in collecting it, in the same manner debts are recoverable by law.

**HISTORY: Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.**

### **72-8. Effect of Regulations.**

Under no circumstances, and in no particular case, shall these regulations or any part of them, be construed as a limitation or restriction upon the exercise of any proper discretion that is vested in the

regulatory agency, nor shall these regulations in any event be construed to deprive the regulatory agency of any exercise of powers, duties and jurisdiction conferred by law, nor to limit or restrict the amount or character of data or information which may be required for proper administration of the Act.

**HISTORY:** Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993 (See Editor's Note); State Register Volume 21, Issue No. 7, eff July 25, 1997.

## 72-9. Hearings and Hearing Procedures.

- A. An Administrative hearing is available, following a timely request, to determine the propriety of:
1. A classification of a dam or reservoir under the Regulation covering Dam Classifications and Exemptions;
  2. A revocation or denial of a construction permit under the Regulation covering Permitting Procedures and Requirements;
  3. The terms and conditions of a construction permit;
  4. The issuance of an inspection and repair order under the Regulation covering Remedial Measures;
  5. The issuance of a maintenance order under the Regulation covering Remedial Measures;
  6. The imposition of an administrative fine under the Regulation covering Administrative Fines.
- B. A hearing may be initiated by any owner, provided that a written request is received within thirty (30) days after notice is given to the owner of the adverse action. The contested case hearing will be held before an Administrative Law Judge. Any request for a hearing shall be filed with the Clerk of the Board of DHEC and shall contain the following:
1. The name of the party requesting the hearing and the issue(s) for which the hearing is requested.
  2. The caption or other information sufficient to identify the decision, order, or inaction which is the subject of the hearing; and
  3. The relief requested.
- C. Board review and any subsequent judicial review of the order of the Administrative Law Judge shall be allowed in accordance with the South Carolina Administrative Procedures Act and any applicable rules and regulations.

TABLE I

### SPILLWAY DESIGN FLOOD CRITERIA

Hazard	Size	Spillway Design Flood (SDF)*
High	Very Small	100-yr. to ½ PMF
	Small	½ PMF to PMF
	Intermediate	PMF
	Large	PMF
Significant	Small	100-yr. to ½ PMF
	Intermediate	½ PMF to PMF
	Large	PMF
Low	Small	50 to 100-yr. frequency
	Intermediate	100-yr. to ½ PMF
	Large	½ PMF to PMF

\* Note: When appropriate, the spillway design flood may be reduced to the spillway discharge at which dam failure will not significantly increase the downstream hazard which exists just prior to dam failure.

TABLE II

### ADMINISTRATIVE FINES

Failure to notify Department within 30 days of ownership transfer:

High hazard dam (except very small size class) \$200

High hazard dam (very small size class)	\$100
Significant hazard dam	\$100
Failure to obey written repair order or written emergency repair order	
High hazard dam	\$1000
Significant hazard dam	\$500
Failure to obey written maintenance order:	
High hazard dam	\$500
Significant hazard dam	\$250
Construction of dam without a permit:	
High hazard dam	\$500
Significant hazard dam	\$250
Failure to obey conditions in a permit:	
High hazard dam	\$300
Significant hazard dam	\$150
Failure to provide or update Emergency Action Plan:	
High hazard dam (except very small size class)	\$200
High hazard dam (very small size class)	\$100
Significant hazard dam	\$100
Other violations of Act or Regulations:	
High hazard dam	\$100–\$1000
(dependent on severity of offense)	
Significant hazard dam	\$100–\$500
(dependent on severity of offense)	

TABLE III  
MINIMUM FREQUENCY OF USE  
EARTH VEGETATED SPILLWAYS

Low hazard dam	1 year
Significant hazard dam	10 years
High hazard dam	25 years

**HISTORY:** Amended by State Register Volume 5, eff June 5, 1981; State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993; State Register Volume 21, Issue No. 7, eff July 25, 1997.

## ARTICLE 2 EROSION AND SEDIMENT REDUCTION AND STORMWATER MANAGEMENT RELATIONS

(Statutory Authority: 1976 Code §§ 48–18–40, 48–18–70)

### 72–101. Jurisdiction.

These regulations shall apply to all land either owned by the state, a state agency, or quasi-state agency or under the management or control of such entities through right-of-way easements or other agreements between the entities and private landowners, except as exempted by these regulations.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

### 72–102. Purpose.

These regulations set forth requirements for erosion and sediment control and stormwater management measures to be used on state land to prevent damage to land, water and property from erosion, sediment and stormwater.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

### 72–103. Definitions.

As used in these regulations:

A. "Applicant" means the state agency or quasi-state agency that owns, manages or controls state land that is to be disturbed, or the agent of the agency.

B. "Commission" means the South Carolina Land Resources Conservation Commission or its agent.

C. "Construction" means the building or erection of a structure or any land preparation or change for the same.

D. "Construction site" or "site" means the area of land to be disturbed for the purpose of construction.

E. "Day" means all calendar days except Saturdays, Sundays and holidays.

F. "Emergency repairs" means repairs of an unforeseen nature that are necessary to protect property or human health and safety.

G. "Erosion" means the wearing away of the ground surface by the action of water, wind, gravity or any combination thereof.

H. "Erosion and sediment control and stormwater management plan" or "plan" Means a description of measures, including a timetable for their installation in relation to the construction schedule, to be used on a particular land area to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased; the plan to be designed by a registered professional engineer, registered landscape architect or professional soil conservationist.

I. "Land disturbing activity" means any construction or other land change.

J. "NOAA" means the National Oceanic and Atmospheric Administration of the United States Department of Commerce.

K. "Private landowner" means any landowner other than the state, a state agency, quasi-state agency, subdivision of the state, or a federal government agency.

L. "Professional soil conservationist" means an individual who has successfully completed a four (4) year course of study at an accredited college or university leading to a Bachelor of Science Degree with major study in soil conservation or a closely related agricultural or natural resource field such as agronomy, wildlife biology, agricultural education or agricultural engineering, with a minimum of thirty (30) semester hours (or the equivalent) in agricultural or natural resource subjects, including three (3) semester hours (or the equivalent) in soils, and three (3) years experience in the planning and application of erosion and sediment control measures; the experience having been obtained under the supervision of another professional soil conservationist.

M. "Registered engineer" means an individual who is registered pursuant to Chapter 21, Title 40, Code of Laws of South Carolina, 1976.

N. "Registered landscape architect" means an individual who is registered pursuant to Chapter 28, Title 40, Code of Laws of South Carolina, 1976.

O. "Quasi-state agency" means any entity other than a state agency but having some attributes of a state agency by virtue of the fact that the state has some authority to make rules and regulations by which it is governed. For the purpose of these regulations, the South Carolina Public Service Authority is a quasi-state agency; county and municipal governments and special purpose districts are not quasi-state agencies.

P. "Sediment" means soil or other earth-like material that has been moved by the force of water, wind, gravity or any combination thereof.

Q. "State Engineer" means the State Engineer with the Division of General Services or his agent.

R. "State land" means all land either owned by the state, a state agency or quasi-state agency or under the management or control of such entities through right-of-way easements or other agreements between the entities and private landowners.

S. "Stormwater" means the direct runoff of water and associated material resulting from precipitation in any form.

T. "Structure" means anything constructed or erected on or in the ground, or attached to something having a location on or in the ground, including but not limited to buildings, roads, parking lots and utilities.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

## **72-104. Exemptions.**

The following are exempted from these regulations:

A. Land owned by or under the jurisdiction of the South Carolina Department of Highways and Public Transportation.

B. Forest land owned or managed by the South Carolina Forestry Commission.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

## **72-105. Requirement for Erosion and Sediment Control and Stormwater Management Measures to be Used and Maintained.**

All land disturbing activities on state land under the jurisdiction of these regulations must be performed in a manner that erosion is controlled, sediment is retained on the site and stormwater is managed in a manner that neither any on-site nor off-site damage or problem is caused or increased; and all erosion, sediment and stormwater problems on state land under the jurisdiction of these regulations must be corrected. All erosion and sediment control and stormwater management measures implemented pursuant to these regulations must be maintained in proper functioning condition by the state agency or quasi-state agency that owns, manages or controls the land where the measures are located.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

## **72-106. Land Disturbing Activities Under the Jurisdiction of the State Engineer.**

A. No state land may be disturbed for the purpose of any land disturbing activity that is under the jurisdiction of the State Engineer pursuant to the South Carolina Consolidated Procurement Code (Title 11, Chapter 35, Code of Laws of South Carolina, 1976) or otherwise under his jurisdiction, except in accordance with an erosion and sediment control and stormwater management plan approved by the State Engineer. The State Engineer may alter the requirements of this regulation for a land disturbing activity as he deems appropriate, and he may exempt a land disturbing activity from any or all of the requirements if he determines that some or all of the requirements are not applicable, or that the activity will likely cause, increase or result in neither any on-site nor off-site erosion, sediment or stormwater damage or problem; the exemption may include activity that the State Engineer deems adequately controlled by a land management program or other laws and regulations. Emergency repairs may be performed without submitting a plan to the State Engineer; however, the repairs must be performed in a manner consistent with these regulations to the maximum extent feasible.

B. Administration.

(1) The applicant shall submit an erosion and sediment control and stormwater management plan to the State Engineer to be approved before any land disturbing activity begins. Submittal to the State Engineer shall include, but not be limited to two (2) copies of the plan, specifications and design calculations. When supplemental information is required, the State Engineer shall request the information from the applicant in writing, including the reason(s) for requesting the information.

(2) Approval or disapproval of the plan.

(a) The plan must be reviewed by the State Engineer. If the plan meets the requirements of these regulations, the State Engineer shall approve the plan and so notify the applicant in writing.

(b) If the plan does not meet the requirements of these regulations, the State Engineer shall disapprove the plan and so notify the applicant in writing, indicating the reason(s) for disapproval.

(c) If the plan is disapproved, the applicant shall correct the indicated deficiencies and resubmit the plan to the State Engineer.



(d) The State Engineer shall either approve or disapprove any submitted or resubmitted plan and so notify the applicant in writing within thirty (30) days from the date of receiving all required information.

C. Responsibility of the applicant.

The applicant is responsible for implementing the plan, maintaining all erosion and sediment control and stormwater management measures in proper functioning condition, and meeting other requirements of these regulations.

D. Inspection and enforcement.

(1) The State Engineer shall periodically inspect work performed under the plan required by this regulation. In the event the State Engineer finds that the measures in the plan are not adequate to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, he shall require that necessary additional measures be implemented.

(2) Upon completion of the land disturbing activity, the State Engineer shall make a final inspection and issue the applicant a letter of satisfactory completion if the work has been completed in accordance with the approved plan.

(3) In the event the State Engineer finds that the land disturbing activity has not been performed in accordance with the approved plan, he shall issue a written order either directing conformance with the plan, suspending additional work until conformance is achieved, or directing other measures that he deems necessary to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased.

(4) Complaints from any party must be investigated by the State Engineer.

(5) The State Engineer shall request legal assistance from the Attorney General's Office upon any unresolved problem resulting from violation of this regulation.

E. Minimum standards and specifications.

(1) The following standards and specifications must be used as the minimum criteria for the design and implementation of erosion and sediment control and stormwater management measures for construction.

(a) Use available soil survey information.

(b) Expose the smallest practical area of land for the shortest feasible time during construction.

(c) Retain and protect natural vegetation when feasible.

(d) Stockpile topsoil and replace on graded areas.

(e) Use vegetation, mulch, structural measures and other practices during construction to protect areas subject to erosion, manage stormwater and remove sediment from stormwater leaving the site.

(f) Use permanent vegetation, structural measures and other practices to prevent erosion and manage stormwater throughout the life of the facility; install the measures as soon as practical in the construction process.

(g) Provide for handling the increased runoff caused by changes in soil and surface conditions.

(h) Consider expected future development and conditions in the watershed when designing stormwater management systems.

(i) Unless on-site or off-site conditions warrant otherwise, use a twenty-five (25) year storm, as established by NOAA, and the rainfall time distribution that is expected to yield the most stringent design, to design structures, systems and improvements for:

1. temporary erosion and sediment control, and

2. temporary and permanent management of stormwater that originates on-site.

(j) Unless on-site or off-site conditions warrant otherwise, use a one hundred (100) year storm, as established by NOAA, and the rainfall time distribution that is expected to yield the most stringent design, to design structures, systems and improvements for:

1. permanent erosion and sediment control and stormwater detention/retention,
2. management of stormwater that originates outside yet flows through the site, and
3. locating buildings, utilities and other permanent facilities above the one hundred (100) year flood elevation.

(k) Use closed storm sewers for stormwater systems receiving runoff from areas less than forty (40) acres. This requirement may be waived when:

1. The required storm sewer pipe size is calculated to exceed thirty (30) inches, or
2. A natural stream or improved open channel is deemed more desirable, provided it has the capacity to carry the runoff resulting from a twenty-five (25) year storm with the rainfall time distribution that is expected to yield the most stringent design.

(l) Maintain all temporary and permanent erosion and sediment control and stormwater management measures in proper functioning condition.

(m) Discharges to stormwater drainage systems may be made only at locations approved by the State Engineer and where applicable, other appropriate authority (-ies); the discharge must be made in a manner that will not cause or increase any damage or problem.

(n) The State Engineer shall have authority to require detention/retention measures that are adequate to limit the rate of stormwater runoff from the site to the rate that existed prior to the land disturbing activity.

(2) The State Engineer may alter the minimum standards and specifications in this regulation to accommodate specific conditions of the site and affected areas, or when the standards and specifications are in conflict with other applicable regulations. When a conflict occurs, the most stringent regulations shall apply.

(3) The State Engineer may alter the minimum standards and specifications in this regulation for other land disturbing activities under his jurisdiction.

#### F. Plan Requirements.

(1) For construction, the plan required by this regulation shall follow the requirements of Regulation 19-445.2140 of the South Carolina Consolidated Procurement Code and shall include the following:

(a) A vicinity map sufficient to locate the construction site and to show the relationship of the construction site to its general surroundings at a scale of not less than one (1) inch to one (1) mile.

(b) The construction site drawn to a scale of not less than one (1) inch to two hundred (200) feet, and supporting specifications and schedules, showing:

1. the boundary lines of the construction site, including the approximate acreage of the site.
2. existing contours with intervals of not more than ten (10) feet and extending one hundred (100) feet outside the site boundary lines. Indicate any condition beyond this contour that would affect or be affected by stormwater from the site. The existing contour lines outside the site boundary lines may be estimated but shall represent the general topography.
3. a general description of the predominant soil type(s) on the site.
4. proposed physical improvements on the site, including existing structures and future utilization if future construction plans are known.
5. schedule of construction operations, including the anticipated starting and completion dates of each operation; and a timetable of the installation of each erosion and sediment control and stormwater management measure in relation to the construction schedule.
6. specifications for all proposed grading, including finished contours at a five (5) foot interval.
7. a grading and stormwater drainage plan for borrow pits and material processing facilities.
8. all necessary erosion and sediment control measures, designed in accordance with Regulation 72-106 E.
9. all necessary stormwater management measures, designed in accordance with Regulation 72-106 E.

10. specifications for all vegetative measures to be used:
    - a. Designation of area to be vegetated
    - b. Site preparation
    - c. Seed or plant selection and quality
    - d. Seeding rate
    - e. Mulch material and application rate
    - f. Fertilizer and lime, including application rates and fertilizer analysis
  11. any other protective measures to be used during construction and throughout the life of the facility.
  12. provisions for maintenance of measures in proper functioning condition during construction.
- (c) The name and address of the applicant along with the person(s) or organization(s) involved in planning the project.
- (d) Title, scale, north arrow, date and name of the individual preparing the plan, with seal when applicable.
- (e) Any other reports, data or additional information that the State Engineer may require.
- (f) The following certifications signed by the appropriate individuals:
1. *Applicant's Certification*: "I hereby certify that all land disturbing activity will be performed pursuant to this plan."
  2. *Designer's Certification*: "I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the regulations contained in Chapter 72, Article 2 (Erosion and Sediment Reduction and Stormwater Management Regulations)."
- (2) The State Engineer may alter the plan requirements in this regulation for other land disturbing activities under his jurisdiction.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

## **72-107. Land Disturbing Activities Under the Jurisdiction of the Land Resources Conservation Commission.**

A. For the purpose of these regulations, the Land Resources Conservation Commission shall have jurisdiction over all land disturbing activities on state land that are not under the jurisdiction of the State Engineer as provided in Regulation 72-106 A. No state land may be disturbed for any such land disturbing activity except in accordance with an erosion and sediment control and stormwater management plan approved by the Commission. The Commission may alter the requirements of this regulation for a land disturbing activity as it deems appropriate, and it may exempt a land disturbing activity from any or all of the requirements if it determines that some or all of the requirements are not applicable, or that the activity will likely cause, increase or result in neither any on-site nor off-site erosion, sediment or stormwater damage or problem; the exemption may include activity that the Commission deems adequately controlled by a land management program or other laws and regulations. Emergency repairs may be performed without submitting a plan to the Commission; however, the repairs must be performed in a manner consistent with these regulations to the maximum extent feasible.

### **B. Administration.**

#### **(1) Construction.**

The applicant shall submit an erosion and sediment control and stormwater management plan to the Commission to be approved before construction begins. Submittal to the Commission shall include, but not be limited to two (2) copies of the plan, specifications and design calculations. When supplemental information is required, the Commission shall request the information from the applicant in writing, including the reason(s) for requesting the information.

(2) Other land disturbing activities.

(a) All land disturbing activities not previously addressed in these regulations must be performed in a manner that erosion is controlled, sediment is retained on the site and stormwater is managed in a manner that neither any on-site nor off-site damage or problem is caused or increased.

(b) The applicant shall submit an erosion and sediment control and stormwater management plan to the Commission to be approved before any land disturbing activity begins. For activity that the Commission determines to be part of or to constitute an existing continuous program, the activity may be conducted without a plan approved by the Commission, provided that the applicant shall submit a plan for the activity to the Commission within six (6) months from the effective date of these regulations. For activity that is begun after six (6) months from the effective date of these regulations that the Commission determines to be part of or to constitute a continuous program, the applicant shall submit a plan to the Commission before the activity is begun.

(3) Approval or disapproval of the plan.

(a) The plan must be reviewed by the Commission. If the plan meets the requirements of these regulations, the Commission shall approve the plan and so notify the applicant in writing.

(b) If the plan does not meet the requirements of these regulations, the Commission shall disapprove the plan and so notify the applicant in writing, indicating the reason(s) for disapproval.

(c) For construction and other land disturbing activity that is not part of or does not constitute a continuous program:

1. If a plan is disapproved, the applicant shall correct the indicated deficiencies and resubmit the plan to the Commission.

2. The Commission shall either approve or disapprove any submitted or resubmitted plan and so notify the applicant in writing within thirty (30) days from the receipt of receiving all required information.

(d) For land disturbing activity that is part of or constitutes a continuous program:

1. If a plan is disapproved, the applicant shall correct the indicated deficiencies and resubmit the plan to the Commission within sixty (60) days from receipt of written notice of disapproval.

2. The Commission shall either approve or disapprove any submitted or resubmitted plan and so notify the applicant in writing within sixty (60) days from the date of receiving all required information.

3. The Commission shall periodically review plans and may require, in writing, revisions to the plans. The revision must be submitted to the Commission within sixty (60) days from receipt of written notification. The review process is the same as for the original plan.

C. Responsibility of the applicant.

The applicant is responsible for implementing the plan, maintaining all erosion and sediment control and stormwater management measures in proper functioning condition, and meeting other requirements of these regulations.

D. Inspection and enforcement.

(1) The Commission shall periodically inspect work performed under the plan required by this regulation. In the event the Commission finds that the measures in the plan are not adequate to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, it shall require that necessary additional measures be implemented.

(2) Upon completion of construction and other land disturbing activity that is not part of or does not constitute a continuous program, the Commission shall make a final inspection and issue the applicant a letter of satisfactory completion if the work has been completed in accordance with the approved plan.

(3) In the event the Commission finds that any land disturbing activity has not been performed in accordance with the approved plan, the Commission shall issue a written order either directing conformance with the plan, suspending additional work until conformance is achieved, or directing

other measures that it deems necessary to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased.

(4) Complaints from any party must be investigated by the Commission.

(5) The Commission shall request legal assistance from the Attorney General's Office upon any unresolved problem resulting from violation of this regulation.

#### E. Minimum Standards and Plan Requirements.

(1) For construction and all other land disturbing activity that is not part of or does not constitute a continuous program, erosion and sediment control and stormwater management plans must be prepared and implemented according to Regulations 72-106 E and 72-106 F with the exception that the words "State Engineer" must be replaced by "South Carolina Land Resources Conservation Commission."

(2) For continuous programs, plans must be prepared and implemented according to erosion and sediment control and stormwater management measures applicable to the land disturbing activities of the programs and according to any specific requirements or conditions set forth by the Commission.

**HISTORY: Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.**

### **72-108. All Erosion, Sediment and Stormwater Problems not Addressed by Regulations 72-106 and 72-107.**

A. All erosion, sediment and stormwater problems on state land that are not addressed by Regulations 72-106 and 72-107 must be corrected to control erosion, retain sediment on the land and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased.

#### B. Administration.

(1) The Land Resources Commission shall inspect all state land to identify erosion, sediment and stormwater problems.

(2) The Commission shall notify in writing the state agency or quasi-state agency that owns or manages the land of the nature and extent of the problem(s).

(3) Based on the assessment of the problem(s), the commission may submit a plan to the agency to be implemented by the agency, or may require the agency to submit a plan to the Commission for approval, with the Commission providing guidance regarding the nature of the plan to be submitted. Submittal to the Commission shall include, but not be limited to two (2) copies of the plan, specifications and design calculations. When supplemental information for a submitted plan is required, the Commission shall request the information from the agency in writing, including the reason(s) for requesting the information.

(4) Any agency that is notified by the Commission to submit a plan shall submit the plan to the Commission within six (6) months from receipt of notification.

#### (5) Approval or disapproval of the plan.

(a) Any plan submitted to the Commission pursuant to this regulation must be reviewed by the Commission. If the plan conforms to the standards in Regulation 72-108 A, the Commission shall approve the plan and so notify the agency in writing.

(b) If the plan does not conform to the standards in Regulation 72-108 A, the Commission shall disapprove the plan and so notify the agency in writing, indicating the reason(s) for disapproval.

(c) If the plan is disapproved, the agency shall correct the indicated deficiencies and resubmit the plan to the Commission within sixty (60) days from receipt of written notice of disapproval.

(d) The Commission shall either approve or disapprove any submitted or resubmitted plan and so notify the owner or manager of the land within sixty (60) days from the date of receiving all required information.

#### C. Responsibility of the state agency or quasi-state agency.

The state agency or quasi-state agency that owns or manages the land is responsible for implementing the plan, maintaining all erosion and sediment control and stormwater management measures in proper functioning condition, and meeting other requirements of these regulations.

D. Inspection and enforcement.

(1) The Commission shall periodically inspect work performed under the plan required by this regulation. In the event the Commission finds that the measures in the plan are not adequate to control erosion, retain sediment on the land and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, it shall require that necessary additional measures be implemented.

(2) Upon completion of such work, the Commission shall make a final inspection and issue the agency a letter of satisfactory completion if the work has been completed in accordance with the plan.

(3) In the event the Commission finds that work has not been performed in accordance with the plan, the Commission shall issue a written order either directing conformance with the plan or directing other measures that it deems necessary to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased.

(4) Complaints from any party must be investigated by the Commission.

(5) The Commission shall request legal assistance from the Attorney General's Office upon any unresolved problem resulting from violation of this regulation.

**HISTORY:** Added by State Register Volume 9, Issue No. 6, eff June 28, 1985.

### ARTICLE 3

#### STANDARDS FOR STORMWATER MANAGEMENT AND SEDIMENT REDUCTION

##### **72-300. Scope.**

A. Stormwater runoff is a source of pollution of waters of the State, and may add to existing flooding problems. The implementation of a statewide stormwater management and sediment control program will help prevent additional water quantity and quality problems and may reduce existing problems.

B. Stormwater management and sediment control plan approvals are necessary prior to engaging in any land disturbing activity related to residential, commercial, industrial or institutional land use which are not specifically exempted or waived by these regulations.

C. To the extent possible, the Commission intends to delegate the provisions of these regulations to local governments. Those program provisions which are subject to delegation include stormwater management and sediment control plan approval, construction and maintenance inspections, enforcement, and education and training.

D. The Commission encourages the implementation of the Stormwater Management and Sediment Reduction Act on a watershed basis by local governments. The Commission recognizes that all jurisdictions may not have the resources available to implement this type of program immediately. However, the comprehensive approach of implementing the program on the watershed basis will allow for planned, orderly development in a watershed.

E. The implementation of a stormwater utility represents a comprehensive approach to program funding and implementation. The activities which may be undertaken by a stormwater utility include not only assessment, collection, and funding activities, but also carrying out provisions of adopted stormwater management plans. These provisions may include contracting for such services as project construction, project maintenance, project inspection, and enforcement of installation and maintenance requirements imposed with respect to approved land disturbing activities.

**HISTORY:** Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.

##### **72-301. Definitions.**

As used in these regulations, the following terms shall have the meanings indicated below:

1. “Adverse Impact” means a significant negative impact to land, water and associated resources resulting from a land disturbing activity. The negative impact includes increased risk of flooding; degradation of water quality; increased sedimentation; reduced groundwater recharge; negative impacts on aquatic organisms; negative impacts on wildlife and other resources; and threatened public health.

2. “Applicant” means a person, firm, or governmental agency who executes the necessary forms to obtain approval or a permit for a land disturbing activity.

3. “Appropriate Plan Approval Agency” means the Commission, Local Government, or Conservation District that is responsible in a jurisdiction for review and approval of stormwater management and sediment control plans.

4. “As-Built Plans or Record Documents” means a set of engineering or site drawings that delineate the specific permitted stormwater management facility as actually constructed.

5. “Best Management Practices” means a wide range of management procedures, schedules of activities, prohibitions on practices and other management practices which have been demonstrated to effectively control the quality and/or quantity of stormwater runoff and which are compatible with the planned land use.

6. “Certified Construction Inspector” means a person with the responsibility for conducting inspections during construction and maintenance inspections after the land disturbing activity is completed as certified by the Commission.

7. “Certified Plan Reviewer” means a person with the responsibility for reviewing stormwater management and sediment control plans for an appropriate plan approval agency as certified by the Commission.

8. “Commission” means the South Carolina Land Resources Conservation Commission.

9. “Delegation” means the acceptance of responsibility by a Local Government or Conservation District for the implementation of one or more elements of the statewide stormwater management and sediment control program.

10. “Designated Watershed” means a watershed designated by a local government and approved by the Commission, Department of Health and Environmental Control and the South Carolina Water Resources Commission and identified as having an existing or potential stormwater, sediment control, or nonpoint source pollution problem.

11. “Detention Structure” means a permanent stormwater management structure whose primary purpose is to temporarily store stormwater runoff and release the stored runoff at controlled rates.

12. “Develop Land” means to change the runoff characteristics of a parcel of land in conjunction with residential, commercial, industrial, or institutional construction or alteration.

13. “Developer” means a person undertaking, or for whose benefit, activities covered by these regulations are commenced and/or carried out.

14. “District” means any soil and water conservation district created pursuant to Chapter 9, Title 48, S.C. Code of Laws.

15. “Drainage Area” means that area contributing runoff to a single point.

16. “Easement” means a grant or reservation by the owner of land for the use of such land by others for a specific purpose or purposes, and which must be included in the conveyance of land affected by such easement.

17. “Erosion” means the wearing away of land surface by the action of wind, water, gravity, ice, or any combination of those forces.

18. “Erosion and Sediment Control” means the control of solid material, both mineral and organic, during a land disturbing activity to prevent its transport out of the disturbed area by means of air, water, gravity, or ice.

19. “Exemption” means those land disturbing activities that are not subject to the sediment and stormwater requirements contained in these regulations.

20. “Grading” means excavating, filling (including hydraulic fill) or stockpiling of earth material, or any combination thereof, including the land in its excavated or filled condition.

21. “Implementing Agency” means the Commission, local government, or conservation district with the responsibility for receiving stormwater management and sediment control plans for review and approval, reviewing plans, issuing permits for land disturbing activities, or conducting inspections and enforcement actions in a specified jurisdiction.

22. “Infiltration” means the passage or movement of water through the soil profile.

23. “Land Disturbing Activity” means any use of the land by any person that results in a change in the natural cover or topography that may cause erosion and contribute to sediment and alter the quality and quantity of stormwater runoff.

24. “Natural Waterways” means waterways that are part of the natural topography. They usually maintain a continuous or seasonal flow during the year and are characterized as being irregular in cross-section with a meandering course. Construction channels such as drainage ditches shall not be considered natural waterways.

25. “Nonerodible” means a material, e.g., natural rock, riprap, concrete, plastic, etc., that will not experience surface wear due to natural forces of wind, water, ice, gravity or a combination of those forces.

26. “Local Government” means any county, municipality, or any combination of counties or municipalities, acting through a joint program pursuant to the provisions of this chapter.

27. “Nonpoint Source Pollution” means pollution contained in stormwater runoff from ill-defined, diffuse sources.

28. “One Hundred Year Frequency Storm” means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 100 years. It also may be expressed as an exceedence probability with a 1 percent chance of being equaled or exceeded in any given year.

29. “Person” means any State or federal agency, individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or other political subdivision of this State, any interstate body or any other legal entity.

30. “Person Responsible for the Land Disturbing Activity” means

(a) the person who has or represents having financial or operational control over the land disturbing activity; and/or

(b) the landowner or person in possession or control of the land who directly or indirectly allowed the land disturbing activity or has benefitted from it or who has failed to comply with any provision of the act, these regulations, or any order or local ordinance adopted pursuant to this act as imposes a duty upon him.

31. “Post-Development” means the conditions which exist following the completion of the land disturbing activity in terms of topography, vegetation, land use and rate, volume or direction stormwater runoff.

32. “Pre-Development” means the conditions which existed prior to the initiation of the land disturbing activity in terms of topography, vegetation, land use and rate, volume or direction of stormwater runoff.

33. “Redevelopment” means a land disturbance activity that alters the current use of the land but does not necessarily alter the pre-development runoff characteristics.

34. “Responsible Personnel” means any foreman, superintendent, or similar individual who is the on-site person in charge of land disturbing activities.

35. “Retention Structure” means a permanent structure whose primary purpose is to permanently store a given volume of stormwater runoff. Release of the given volume is by infiltration and/or evaporation.

36. “Sediment” means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, ice, or gravity from its site of origin.

37. “Single Family Residence-Separately Built” means a noncommercial dwelling that is occupied exclusively by one family and not part of a residential subdivision development.



38. "Stabilization" means the installation of vegetative or structural measures to establish a soil cover to reduce soil erosion by stormwater runoff, wind, ice and gravity.

39. "Stop Work Order" means an order directing the person responsible for the land disturbing activity to cease and desist all or any portion of the work which violates the provisions of this act.

40. "Stormwater Management" means, for:

(a) quantitative control, a system of vegetative or structural measures, or both, that control the increased volume and rate of stormwater runoff caused by manmade changes to the land;

(b) qualitative control, a system of vegetative, structural, or other measures that reduce or eliminate pollutants that might otherwise be carried by stormwater runoff.

41. "Stormwater Management and Sediment Control Plan" means a set of drawings, other documents, and supporting calculations submitted by a person as a prerequisite to obtaining a permit to undertake a land disturbing activity, which contains all of the information and specifications required by an implementing agency.

42. "Stormwater Runoff" means direct response of a watershed to precipitation and includes the surface and subsurface runoff that enters a ditch, stream, storm sewer or other concentrated flow during and following the precipitation.

43. "Stormwater Utility" means an administrative organization that has been created for the purposes of planning, designing, constructing, and maintaining stormwater management, sediment control and flood control programs and projects.

44. "Subdivision", unless otherwise defined in an ordinance adopted by a local government pursuant to Section 6-7-1010, means all divisions of a tract or parcel of land into two or more lots, building sites, or other divisions, or parcels less than five acres, for the purpose, whether immediate or future, of sale, legacy, or building development, or includes all division of land involving a new street or a change in existing streets, and includes resubdivision and, where appropriate, in the context, shall relate to the process of subdividing or to the land or area subdivided.

45. "Swale" means a structural measure with a lining of grass, riprap or other materials which can function as a detention structure and convey stormwater runoff without causing erosion.

46. "Ten-Year Frequency Storm" means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 10 years. It may also be expressed as an exceedence probability with a 10 percent chance of being equaled or exceeded in any given year.

47. "Twenty-Five Year Frequency Storm" means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 25 years. It also may be expressed as an exceedence probability with a 4 percent chance of being equaled or exceeded in any given year.

48. "Two-Year Frequency Storm" means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in two years. It may also be expressed as an exceedence probability with a 50 percent chance of being equaled or exceeded in any given year.

49. "Variance" means the modification of the minimum sediment and stormwater management requirements for specific circumstances where strict adherence of the requirements would result in unnecessary hardship and not fulfill the intent of these regulations.

50. "Waiver" means the relinquishment from sediment and stormwater management requirements by the appropriate plan approval authority for a specific land disturbing activity on a case-by-case review basis.

51. "Water Quality" means those characteristics of stormwater runoff from a land disturbing activity that relate to the physical, chemical, biological, or radiological integrity of water.

52. "Water Quantity" means those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff to downstream areas resulting from land disturbing activities.

53. "Watershed" means the drainage area contributing stormwater runoff to a single point.

54. "Watershed Master Plan" means a plan for a designated watershed that analyzes the impact of existing and future land uses and land disturbing activities in the entire watershed and includes strategies to reduce nonpoint source pollution, to manage stormwater runoff and control flooding. The

plan must be developed for the entire watershed, regardless of political boundaries, and must include appropriate physical, institutional, economic and administrative data needed to justify the plan.

**HISTORY:** Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.

## **72-302. Exemptions, Waivers and Variances from Law.**

A. The following activities are exempt from both the sediment control and stormwater management requirements established by these regulations:

(1) Land disturbing activities on agricultural land for production of plants and animals useful to man, including but not limited to: forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules, or goats, including the breeding and grazing of these animals; bees; fur animals and aquaculture, except that the construction of an agricultural structure of one or more acres, such as broiler houses, machine sheds, repair shops and other major buildings and which require the issuance of a building permit shall require the submittal and approval of a stormwater management and sediment control plan prior to the start of the land disturbing activity.

(2) Land disturbing activities undertaken on forest land for the production and harvesting of timber and timber products.

(3) Activities undertaken by persons who are otherwise regulated by the provisions of Chapter 20 of Title 48, the South Carolina Mining Act.

(4) Construction or improvement of single family residences or their accessory buildings which are separately built and not part of multiple construction in a subdivision development.

(5) Land disturbing activities, other than activities identified in R.72-302A(6), that are conducted under another state or federal environmental permitting, licensing, or certification program where the state or federal environmental permit, license, or certification is conditioned on compliance with the minimum standards and criteria developed under this act.

(6) Any of the following land disturbing activities undertaken by any person who provides gas, electrification, or communications services, subject to the jurisdiction of the South Carolina Public Service Commission, or corporations organized and operating pursuant to Section 33-49-10 et seq.:

(a) land disturbing activities conducted pursuant to a certificate of environmental compatibility and public convenience and necessity issued pursuant to Title 58, Chapter 33, of the South Carolina Code, or land disturbing activities conducted pursuant to any other certification or authorization issued by the Public Service Commission;

(b) land disturbing activities conducted pursuant to a federal environmental permit, including Section 404 of the Federal Clean Water Act, and including permits issued by the Federal Energy Regulatory Commission;

(c) land disturbing activities associated with emergency maintenance or construction of electric, gas, or communications facilities, when necessary to restore service or when the Governor declares the area to have sustained a disaster and the actions are undertaken to protect the public from a threat to health or safety;

(d) land disturbing activities associated with routine maintenance and/or repair of electric, gas, or communications lines;

(e) land disturbing activities associated with the placement of poles for overhead distribution or transmission of electric energy or of communications services;

(f) land disturbing activities associated with placement of underground lines for distribution or transmission of electric energy or of gas or communications services; or

(g) land disturbing activities conducted by a person filing environmental reports, assessments or impact statements with the United States Department of Agriculture, Rural Electrification Administration in regard to a project.

Any person, other than a person identified in R.72-302A(6)(g) who undertakes land disturbing activities described in R.72-302A(6)(d,e,f) must file with the South Carolina Public Service Commission, in a Policy and Procedures Manual, the procedures it will follow in conducting such activities. Any person, other than a person identified in R.72-302A(6)(g), who conducts land disturbing

activities described in R.72-302A(6)(b), must address the procedures it will follow in conducting the activities in the Policy and Procedures Manual filed with the South Carolina Public Service Commission to the extent that the land disturbing activities are not specifically addressed in the federal permit or permitting process. If any person, other than a person identified in R.72-302A(6)(g), does not have a Policy and Procedures Manual on file with the Public Service Commission, such manual must be filed with the Public Service Commission not later than six months after the effective date of Chapter 14, Title 48 of the 1976 Code of Laws, South Carolina.

Any person who undertakes land disturbing activities described in R.72-302A(6)(g) of this subsection shall give the same written notice to the commission as given to agencies whose permits are required for project approval by the regulations of the United States Department of Agriculture, Rural Electrification Administration.

(7) Activities relating to the routine maintenance and/or repair or rebuilding of the tracks, rights-of-way, bridges, communication facilities and other related structures and facilities of a railroad company.

(8) Activities undertaken on state-owned or managed lands that are otherwise regulated by the provisions of Chapter 18 of this title, the Erosion and Sediment Reduction Act.

(9) Activities undertaken by local governments or special purpose or public service districts relating to the repair and maintenance of existing facilities and structures.

B. Implementing agencies with responsibility for plan review and approval may grant waivers from the stormwater management requirements of these regulations for individual land disturbing activities provided that a written request is submitted by the applicant containing descriptions, drawings, and any other information that is necessary to evaluate the proposed land disturbing activity. A separate written waiver request shall be required if there are subsequent additions, extensions, or modifications which would alter the approved stormwater runoff characteristics to a land disturbing activity receiving a waiver.

(1) A project may be eligible for a waiver of stormwater management for both quantitative and qualitative control if the applicant can demonstrate that the proposed project will return the disturbed area to a pre-development runoff condition and the pre-development land use is unchanged at the conclusion of the project.

(2) A project may be eligible for a waiver or variance of stormwater management for water quantity control if the applicant can demonstrate that:

(a) The proposed project will have no significant adverse impact on the receiving natural waterway or downstream properties; or

(b) The imposition of peak control requirements for rates of stormwater runoff would aggravate downstream flooding.

(3) The implementing agency will conduct its review of the request for waiver within 10 working days. Failure of the implementing agency to act by end of the tenth working day will result in the automatic approval of the waiver.

C. The implementing agency with responsibility for plan review and approval may grant a written variance from any requirement of these regulations if there are exceptional circumstances applicable to the site such that strict adherence to the provisions of these regulations will result in unnecessary hardship and not fulfill the intent of these regulations. A written request for variance shall be provided to the plan approval agency and shall state the specific variances sought and the reasons with supporting data for their granting. The plan approval agency shall not grant a variance unless and until sufficient specific reasons justifying the variance are provided by the applicant. The implementing agency will conduct its review of the request for variance within 10 working days. Failure of the implementing agency to act by the end of the tenth working day will result in the automatic approval of the variance.

**HISTORY:** Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.

## **72-303. Commission Responsibilities.**

A. The Commission is responsible for the implementation and supervision of the stormwater management and sediment control program which is established by Chapter 14, Title 48, S.C. Code.

B. The schedule for implementing the Stormwater Management and Sediment Control Act (48-14-10, et. seq.) has been established by the Commission as follows:

(1) These regulations are effective and applicable to all land disturbing activities of five acres and greater on October 1, 1992 regardless of program status at the local level. Local governments with existing local programs as of this date shall require that persons responsible for land disturbing activities on sites with disturbed areas of five acres or greater comply with these regulations. Local governments may request assistance from the Commission to implement these regulations on these sites. If a local government does not have a local program on October 1, 1992, the Commission and others shall function as the implementing agencies.

(2) FY 1992-1993

Greenville  
Charleston  
Richland  
Spartanburg  
Lexington  
Anderson  
Horry  
York  
Berkeley  
Aiken  
Florence  
Sumter  
Pickens  
Beaufort  
Orangeburg

(3) FY 1993-1994

Dorchester  
Darlington  
Greenwood  
Laurens  
Oconee  
Lancaster  
Georgetown  
Cherokee  
Kershaw  
Chesterfield  
Williamsburg  
Colleton  
Marion  
Newberry  
Chester  
Union

(4) FY 1994-1995

Marlboro  
Dillon  
Clarendon

Abbeville  
Fairfield  
Barnwell  
Lee  
Edgefield  
Hampton  
Bamberg  
Saluda  
Jasper  
Calhoun  
Allendale  
McCormick

C. This schedule may be modified by the Commission due to requests from local governments to develop and implement a program prior to the scheduled implementation date. The Commission may also modify this schedule due to personnel or financial resource limitations.

D. Local governments which adopted stormwater management and/or sediment control programs prior to the effective date of these regulations may continue to administer the existing program until the scheduled implementation date for the local government.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-304. Criteria for Delegation/Revocation of Programs.**

A. The Commission may delegate the following components of stormwater management and sediment control programs to local governments or conservation districts as follows:

- (1) Stormwater management and sediment control plan review and approval/disapproval.
- (2) Inspections during construction and maintenance inspections.
- (3) Enforcement.
- (4) Education and training.

B. The Commission shall grant delegation of one or more program elements to any local government or conservation district seeking delegation that is found capable and meets all of the criteria set forth herein for delegation to comply with Chapter 48, Title 14, 1976 Code and these regulations.

C. Request for delegation of more than one program element may be accomplished by the submission of one request for all the elements requested. A rejection by the Commission of one element will not jeopardize delegation of other requested program elements.

D. To be considered capable of providing compliance with Chapter 14 and these regulations, applications for delegation of program elements shall contain the following requisite items:

(1) Requests for delegation of stormwater management and sediment control plan review and approval responsibility shall include the following information:

- (a) Copy of enacted ordinance or program information detailing the plan approval process,
- (b) Plan review check lists and plan submission requirements,
- (c) Stormwater management and sediment control criteria, including waiver and variance procedures, that meet minimum standards established by these regulations,
- (d) Description of personnel allocations including qualifications and experience of personnel, description of computer hardware and software resources and expected time frames for plan review which meet the requirements of R.72-305B(2) and R.72-305M, and
- (e) Name of the Certified Plan Reviewer.

(2) Requests for delegation of inspection during construction and of maintenance inspection responsibility shall include the following information:

- (a) Inspection and referral procedures,
  - (b) Time frames for inspection of active land disturbing activities,
  - (c) Time frames for inspection of completed stormwater management structures,
  - (d) Inspection forms,
  - (e) Description of adequate personnel allocations including qualifications and experience of personnel,
  - (f) Name of Certified Construction Inspector, and
  - (g) Procedures and time frames for processing complaints.
- (3) Request for delegation of enforcement responsibility shall include the following information:
- (a) Procedure for processing violations.
  - (b) Description of personnel allocations involved in enforcement actions including qualifications and experience of personnel.
  - (c) Description of citizen complaint process.
  - (d) Description of applicant appeal process.

(4) Requests for delegation of education and training responsibility shall include the following information:

- (a) Types of educational and training activities to be accomplished,
- (b) Frequency of activities,
- (c) Names and backgrounds of those individuals conducting the training, and
- (d) Procedures and timetables to notify the Commission of educational programs.

E. Requests for delegation of program elements must be submitted by local governments or conservation districts within six months of the effective date of these regulations, and by January first of subsequent years if delegation is desired at a future date. The Commission shall approve, approve with modification, or deny such a request on or before April first of the year for which delegation is sought.

F. The S. C. Coastal Council shall assist the Commission in reviewing all requests for delegation of program elements from local governments in the counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Jasper and Horry to ensure that the delegated program elements are consistent with the Coastal Zone Management Program.

The S. C. Coastal Council, in coordination with the Commission, will serve as the implementing agency for these regulations in the jurisdictions of the local governments which do not seek delegation of program elements in the counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry and Jasper.

G. If the Commission denies a request for delegation, the local government or conservation district may appeal the decision of the Commission by requesting an administrative hearing within 30 days after receipt of written notification as described in R.72-313.

H. Delegation of authority for one or more program elements may be granted for a maximum time frame of three years. After three years a new application to the Commission must be made. Over the time frame for which delegation has been granted, the Commission will evaluate delegation implementation, coordinate review findings with the delegated authority, and determine if the new delegation should be granted.

I. A delegated authority may sub-delegate program elements, with Commission concurrence, to a conservation district, regional council of government or other responsible entity or agency.

J. The Commission shall maintain, and make available upon request, a listing of the current status of delegation for all jurisdictions within the State.

K. Any local government that has adopted a stormwater management and/or sediment control program prior to the effective date of these regulations may request approval of any, or all, components of its existing program within six months of the effective date of these regulations. The Commission shall give priority to the approval, approval with modification or disapproval of these requests. The local government shall continue to administer the existing program during the review

process by the Commission. Efficiency and effectiveness of the existing program shall be considered in the review process.

(1) The Commission shall approve a delegation request upon determining that the implementation of the existing program by the local government equal or exceed the requirements, criteria, standards and specifications of these regulations.

(2) If the request for delegation of program components are disapproved, the local government may appeal the decision of the Commission by requesting an administrative hearing within 30 days after receiving written notification of the disapproval as described in R.72-313.

L. If the Commission determines that a delegated program falls below acceptable standards established by these regulations, delegation may be suspended. During a period of suspension, the Commission shall be responsible for implementation of the program element. The Commission shall collect fees based on R.72-306 for use when the delegation is suspended.

The following actions may be cause for suspension if they represent a continuing pattern of action or in-action:

(1) Failure of implementing agency with the responsibility for enforcement to issue a violation in the event of off-site sediment or stormwater damage resulting from non-compliance with the approved plan.

(2) Failure of the implementing agency to assess a fine when a violation has not been corrected within the specified time frame.

(3) Failure of the implementing agency to stop work when a violation has resulted in off-site damages.

(4) Failure of the implementing agency to force compliance with an approved plan.

(5) Failure of the delegated program to comply with the provisions of its application for delegation.

M. Upon suspension of the delegation, the implementing agency has the right to file an appeal within 30 days of the notification of the suspension following procedures listed in R.72-313. The Commission shall administer the program during the appeal process.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-305. Permit Application and Approval Process.**

A. After the effective date of these regulations, unless a particular activity is exempted by these regulations, a person may not undertake a land disturbing activity without an approved stormwater management and sediment control plan from the appropriate plan approval agency that is consistent with the following items:

(1) Chapter 14, Title 48, South Carolina Code, relating to erosion and sediment control and stormwater management, and

(2) These regulations, or duly adopted county or municipal ordinances or programs that are adopted as a part of the delegation process and set minimum standards equivalent to these regulations.

B. Specific requirements of the permit application and approval process are generally based on the extent of the land disturbing activity. The permit application and approval procedure is as follows:

(1) For land disturbing activities involving two (2) acres or less of actual land disturbance which are not part of a larger common plan of development or sale, the person responsible for the land disturbing activity shall submit a simplified stormwater management and sediment control plan meeting the requirements of R.72-307H. This plan does not require approval by the implementing agency and does not require preparation or certification by the designers specified in R.72-305H and R.72-305I.

(2) For land disturbing activities involving more than two (2) acres and less than five (5) acres of actual land disturbance which are not part of a larger common plan of development or sale, a simplified permitting and approval process will be used meeting the requirements of R.72-307I. These activities are required to utilize Best Management Practices (BMP's) to control erosion and

sediment and to utilize appropriate measures to control the quantity of stormwater runoff. Plans and specifications for these activities will be prepared by the designers cited in R.72-305H and R.72-305I.

The implementing agency will review these submissions within a ten working day period. If action is not taken by the end of the review period, the plan will be considered approved.

(3) For land disturbing activities disturbing more than five (5) acres, the requirements of R.72-305 and R.72-307 will apply. However, the use of measures other than ponds to achieve water quality improvement are recommended on sites containing less than ten (10) disturbed acres. Plans and specifications for these activities will be prepared by the designers specified in R.72-305H or R.72-305I.

(4) These requirements may be modified on a case-by-case basis to address specific stormwater quantity or quality problems or to meet S.C. Coastal Council or other regulatory requirements. Requests for waivers or variances from these requirements will be made in accordance with the provisions of R.72-302.

(5) When the land disturbing activity consists of the construction of a pond, lake or reservoir which is singly built and not part of a permitted land disturbing activity, the following procedures will apply:

(a) A stormwater management and sediment control plan will not be required if the pond, lake or reservoir is permitted under the S.C. Dams and Reservoirs Safety Act or has received a Certificate of Exemption from the S.C. Dams and Reservoirs Safety Act. Best management practices should be used to minimize the impact of erosion and sediment.

(b) A stormwater management and sediment control plan will be required for the construction of all ponds, lakes or reservoirs not meeting the conditions in R.72-305B(5)(a) that otherwise meet the size requirements for stormwater management and sediment control plan approval.

C. A stormwater management and sediment control plan or an application for a waiver shall be submitted to the appropriate plan approval agency by the person responsible for the land disturbing activity for review and approval for a land disturbing activity, unless otherwise exempted. The stormwater management and sediment control plan shall contain supporting computations, drawings, and sufficient information describing the manner, location, and type of measures in which stormwater runoff will be managed from the entire land disturbing activity. The appropriate plan approval agency shall review the plan to determine compliance with the requirements of these regulations prior to approval. The approved stormwater management and sediment control plan shall serve as the basis for water quantity and water quality control on all subsequent construction.

D. All stormwater management and sediment control plans submitted for approval shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the approved plan and that responsible personnel will be assigned to the project.

E. All stormwater management and sediment control plans shall contain certification by the person responsible for the land disturbing activity of the right of the Commission or implementing agency to conduct on-site inspections.

F. The stormwater and sediment management plan shall not be considered approved without the inclusion of an approval stamp with a signature and date on the plans by the appropriate plan approval agency. The stamp of approval on the plans is solely an acknowledgement of satisfactory compliance with the requirements of these regulations. The approval stamp does not constitute a representation or warranty to the applicant or any other person concerning the safety, appropriateness of effectiveness of any provision, or omission from the stormwater and sediment plan.

G. When the local conservation district is not the plan approval agency, the conservation district may request to review and comment on stormwater management and sediment control plans. Failure of the conservation district to provide comments by the date specified by the local implementing agency will not delay the approval of the stormwater management and sediment control plans by the implementing agency.

H. All stormwater management and sediment control plans submitted to the appropriate plan approval agency for approval shall be certified by the designer. The following disciplines may certify and stamp/seal plans as allowed by their respective licensing act and regulations:



- (1) Registered professional engineers as described in Title 40, Chapter 22.
- (2) Registered landscape architects as described in Title 40, Chapter 28, Section 10, item (b).
- (3) Tier B land surveyors as described in Title 40, Chapter 22.

I. Pursuant to Title 40, Chapter 22, Section 460, stormwater management and sediment control plans may be prepared by employees of the federal government and submitted by the person responsible for the land disturbing activity to the appropriate plan approval agency for approval.

J. These regulations do not prohibit other disciplines or Certified Professionals, including, but not limited to, Certified Professional Erosion and Sediment Control Specialists, which have appropriate background and experience from taking active roles in the preparation of the plan and design process. All plans and specifications submitted to the appropriate plan approval agency for approval shall be stamped/sealed by those listed in R.72-305H or prepared by employees of the federal government under R.72-305I.

K. Approved plans remain valid for 5 years from the date of an approval. Extensions or renewals of the plan approvals will be granted by the plan approval agency upon written request by the person responsible for the land disturbing activity.

L. Approvals of land disturbing activities which were approved prior to the effective date of these regulations shall remain in effect for the original term of the approval. For land disturbing activities which were not initiated during the original term of approval, the person responsible for the land disturbing activity shall resubmit the stormwater management and sediment control plan to the appropriate plan approval agency for review and approval subject to the requirements of these regulations.

M. Upon receipt of a completed application for sediment and stormwater management, the appropriate plan approval agency shall accomplish its review and have either the approval or review comments transmitted to the applicant within 20 working days. If notice is not given to the applicant or if action is not taken by the end of the 20 working day period, the applicants plan will be considered approved.

N. One year after the effective date of Chapter 14, Title 48 of the Code of Laws of South Carolina, a federal agency or facility may not undertake a land disturbing activity unless the agency has submitted a stormwater management and sediment control plan for the specific activity to the Commission and the plan has been approved.

In lieu of submitting individual plans for approval, the federal agency or facility may submit an application for a general permit to the Commission for approval.

O. A local government or special purpose or public service district may request a general permit for its regulated activities from the Commission. If a local government's or special purpose or public service district's request is approved, individual stormwater management and sediment control plans for regulated land disturbing activities will not be required.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-306. Fees.**

A. The fees associated with the plan review and approval process inspection and enforcement shall be set by the implementing agency. If permit fees are established, they shall be established in accordance with the following items:

(1) Delegation of program elements will depend, to a large extent, on funding and personnel commitments. If the delegated jurisdiction has a source of funding that is provided through local revenues, then the implementation of the delegated component will not necessitate the imposition of a permit fee to cover the cost of the delegated program component.

(2) In the event that one component of an overall stormwater management and sediment control program is not funded through the use of general or special funds, a non-refundable permit fee may be collected at the time that the stormwater management and sediment control plan or application for waiver or variance is submitted or approved. The permit fee will provide for the unfunded costs of plan review, administration and management of the permitting office, construction review, maintenance inspection, and education and training. The plan review or permit approval agency shall be responsible for the collection of the permit fee. Unless all program elements in a county or

municipality have been delegated to a single agency, the funds collected not supporting the plan review function shall be distributed to the appropriate agencies.

(3) The number of needed personnel and the direct and indirect expenses associated with those personnel shall be developed by the agencies requesting delegation in a specific jurisdiction. Those expenses will then form the basis for determining unit plan approval costs by the local government.

B. Where the Commission is the implementing agency, the Commission may assess a fee not to exceed \$100.00 per disturbed acre up to a maximum of \$2000.00. No fee will be charged for land disturbing activities which disturb two acres or less. A fee of \$100.00 will be charged for permit modifications.

C. A maintenance fee may be required on approvals granted for stormwater management structures that will be maintained by a local government.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992. Amended by State Register Volume 26, Issue No. 6, Part 2, eff June 28, 2002.**

## **72-307. Specific Design Criteria, Minimum Standards and Specifications.**

A. General submission requirements for all projects requiring stormwater management and sediment control plan approval will include the following information as applicable:

(1) A standard application form,

(2) A vicinity map indicating north arrow, scale, and other information necessary to locate the property or tax parcel,

(3) A plan at an appropriate scale accompanied by a design report and indicating at least:

(a) The location of the land disturbing activity shown on a USGS 7.5 minute topographic map or copy.

(b) The existing and proposed topography, overlaid on a current plat showing existing and proposed contours as required by the implementing agency. The plat and topographic map should conform to provisions of Article 4, Regulations 400-490.

(c) The proposed grading and earth disturbance including:

1. Surface area involved; and

2. Limits of grading including limitation of mass clearing and grading whenever possible.

(d) Stormwater management and stormwater drainage computations, including:

1. Pre- and post-development velocities, peak rates of discharge, and inflow and outflow hydrographs of stormwater runoff at all existing and proposed points of discharge from the site,

2. Site conditions around points of all surface water discharge including vegetation and method of flow conveyance from the land disturbing activity, and

3. Design details for structural controls.

(e) Erosion and sediment control provisions, including:

1. Provisions to preserve top soil and limit disturbance;

2. Details of site grading; and

3. Design details for structural controls which includes diversions and swales.

(4) Federal Emergency Management Agency flood maps and federal and State wetland maps, where appropriate.

(5) The appropriate plan approval agency shall require that plans and design reports be sealed by a qualified design professional that the plans have been designed in accordance with approved sediment and stormwater ordinances and programs, regulations, standards and criteria.

(6) Additional information necessary for a complete project review may be required by the appropriate plan approval agency as deemed appropriate. This additional information may include items such as public sewers, water lines, septic fields, wells, etc.

B. Specific requirements for the erosion and sediment control portion of the stormwater management and sediment control plan approval process include, but are not limited to, the following items.

The appropriate plan approval agency may modify the following items for a specific project or type of project.

(1) All plans shall include details and descriptions of temporary and permanent erosion and sediment control measures and other protective measures shown on the stormwater and sediment management plan. Procedures in a stormwater and sediment management plan shall provide that all sediment and erosion controls are inspected at least once every seven calendar days and after any storm event of greater than 0.5 inches of precipitation during any 24-hour period.

(2) Specifications for a sequence of construction operations shall be contained on all plans describing the relationship between the implementation and maintenance of sediment controls, including permanent and temporary stabilization and the various stages or phases of earth disturbance and construction. The specifications for the sequence of construction shall, at a minimum, include the following activities:

- (a) Clearing and grubbing for those areas necessary for installation of perimeter controls;
- (b) Installation of sediment basins and traps;
- (c) Construction of perimeter controls;
- (d) Remaining clearing and grubbing;
- (e) Road grading;
- (f) Grading for the remainder of the site;
- (g) Utility installation and whether stormdrains will be used or blocked until after completion of construction;
- (h) Final grading, landscaping, or stabilization; and
- (i) Removal of sediment controls.

Changes to the sequence of construction operations may be modified by the person conducting the land disturbing activity or their representative and do not constitute a violation unless measures to control stormwater runoff and sediment are not utilized.

(3) The plans shall contain a description of the predominant soil types on the site, as described by the appropriate soil survey information available through the Commission or the local Conservation District.

(4) When work in a live waterway is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction.

(5) Vehicle tracking of sediments from land disturbing activities onto paved public roads carrying significant amounts of traffic (ADT of 25 vehicles/day or greater) shall be minimized.

C. Specific requirements for the permanent stormwater management portion of the stormwater management and sediment control plan approval process include, but are not limited to, the following items. The appropriate plan approval agency may modify the following items for a specific project or type or project.

(1) It is the overall goal of the Commission to address stormwater management on a watershed basis to provide a cost effective water quantity and water quality solution to the specific watershed problems. These regulations will provide general design requirements that must be adhered to in the absence of Designated Watershed specific criteria.

(2) All hydrologic computations shall be accomplished using a volume based hydrograph method acceptable to the Commission. The storm duration for computational purposes for this method shall be the 24-hour rainfall event, SCS distribution with a 0.1 hour burst duration time increment. The rational and/or modified rational methods are acceptable for sizing individual culverts or stormdrains that are not part of a pipe network or system and do not have a contributing drainage area greater than 20 AC. The storm duration for computational purposes for this method shall be equal to the time of concentration of the contributing drainage area or a minimum of 0.1 hours, whichever is less.

(3) Stormwater management requirements for a specific project shall be based on the entire area to be developed, or if phased, the initial submittal shall control that area proposed in the initial phase and establish a procedure and obligation for total site control.

(4) Water quantity control is an integral component of overall stormwater management. The following design criteria for flow control is established for water quantity control purposes, unless a waiver is granted based on a case-by-case basis:

(a) Post-development peak discharge rates shall not exceed pre-development discharge rates for the 2-and 10-year frequency 24-hour duration storm event. Implementing agencies may utilize a less frequent storm event (e.g. 25-year, 24-hour) to address existing or future stormwater quantity or quality problems.

(b) Discharge velocities shall be reduced to provide a nonerosive velocity flow from a structure, channel, or other control measure or the velocity of the 10-year, 24-hour storm runoff in the receiving waterway prior to the land disturbing activity, whichever is greater.

(c) Watersheds, other than Designated Watersheds, that have well documented water quantity problems may have more stringent, or modified, design criteria determined by the local government that is responsive to the specific needs of that watershed.

(5) Water quality control is also an integral component of stormwater management. The following design criteria is established for water quality protection unless a waiver or variance is granted on a case-by-case basis.

(a) When ponds are used for water quality protection, the ponds shall be designed as both quantity and quality control structures. Sediment storage volume shall be calculated considering the clean out and maintenance schedules specified by the designer during the land disturbing activity. Sediment storage volumes may be predicted by the Universal Soil Loss Equation or methods acceptable to the Commission.

(b) Stormwater runoff and drain to a single outlet from land disturbing activities which disturb ten acres or more shall be controlled during the land disturbing activity by a sediment basin where sufficient space and other factors allow these controls to be used until the final inspection. The sediment basin shall be designed and constructed to accommodate the anticipated sediment loading from the land-disturbing activity and meet a removal efficiency of 80 percent suspended solids or 0.5 ML/L peak settleable solids concentration, whichever is less. The outfall device or system design shall take into account the total drainage area flowing through the disturbed area to be served by the basin.

(c) Other practices may be acceptable to the appropriate plan approval agency if they achieve an equivalent removal efficiency of 80 percent for suspended solids or 0.5 ML/L peak settleable solids concentration, which ever is less. The efficiency shall be calculated for disturbed conditions for the 10-year 24-hour design event.

(d) Permanent water quality ponds having a permanent pool shall be designed to store and release the first ½ inch of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate, at least, ½ inch of runoff from the entire site.

(e) Permanent water quality ponds, not having a permanent pool, shall be designed to release the first inch of runoff from the site over a 24-hour period.

(f) Permanent infiltration practices, when used, shall be designed to accept, at a minimum, the first inch of runoff from all impervious areas.

(g) For activities in the eight coastal counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Jasper and Horry, additional water quality requirements may be imposed to comply with the S.C. Coastal Council Stormwater Management Guidelines. If conflicting requirements exist for activities in the eight coastal counties, the S.C. Coastal Council guidelines will apply.

(6) Where ponds are the proposed method of control, the person responsible for the land disturbing activity shall submit to the approving agency, when required, an analysis of the impacts of stormwater flows downstream in the watershed for the 10-and 100-year frequency storm event. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed land disturbing activity, with and without the pond. The results of the analysis will determine the need to modify the pond design or to eliminate the pond requirement. Lacking a clearly defined downstream point of constriction, the downstream impacts shall be established, with the concurrence of the implementing agency.

(7) Where existing wetlands are intended as a component of an overall stormwater management system, the approved stormwater management and sediment control plan shall not be implemented until all necessary federal and state permits have been obtained.

(8) Designs shall be in accordance with standards developed or approved by the Commission.

(9) Ease of maintenance must be considered as a site design component. Access to the stormwater management structure must be provided.

(10) A clear statement of defined maintenance responsibility shall be established during the plan review and approval process.

(11) Infiltration practices have certain limitations on their use on certain sites. These limitations include the following items:

(a) Areas draining to these practices must be stabilized and vegetative filters established prior to runoff entering the system. Infiltration practices shall not be used if a suspended solids filter system does not accompany the practice. If vegetation is the intended filter, there shall be, at least a 20 foot length of vegetative filter prior to stormwater runoff entering the infiltration practice;

(b) The bottom of the infiltration practice shall be at least 0.5 feet above the seasonal high water table, whether perched or regional, determined by direct piezometer measurements which can be demonstrated to be representative of the maximum height of the water table on an annual basis during years of normal precipitation, or by the depth in the soil at which mottling first occurs;

(c) The infiltration practice shall be designed to completely drain of water within 72 hours;

(d) Soils must have adequate permeability to allow water to infiltrate. Infiltration practices are limited to soils having an infiltration rate of least 0.30 inches per hour. Initial consideration will be based on a review of the appropriate soil survey, and the survey may serve as a basis for rejection. On-site soil borings and textural classifications must be accomplished to verify the actual site and seasonal high water table conditions when infiltration is to be utilized;

(e) Infiltration practices greater than three feet deep shall be located at least 10 feet from basement walls;

(f) Infiltration practices designed to handle runoff from impervious parking areas shall be a minimum of 150 feet from any public or private water supply well;

(g) The design of an infiltration practice shall provide an overflow system with measures to provide a non-erosive velocity of flow along its length and at the outfall;

(h) The slope of the bottom of the infiltration practice shall not exceed five percent. Also, the practice shall not be installed in fill material as piping along the fill/natural ground interface may cause slope failure;

(i) An infiltration practice shall not be installed on or atop a slope whose natural angle of incline exceeds 20 percent.

(j) Clean outs will be provided at a minimum, every 100 feet along the infiltration practice to allow for access and maintenance.

(12) A regional approach to stormwater management is an acceptable alternative to site specific requirements and is encouraged.

D. All stormwater management and sediment control practices shall be designed, constructed and maintained with consideration for the proper control of mosquitoes and other vectors. Practices may include, but are not limited to:

(1) The bottom of retention and detention ponds should be graded and have a slope not less than 0.5 percent.

(2) There should be no depressions in a normally dry detention facility where water might pocket when the water level is receding.

(3) Normally dry detention systems and swales should be designed to drain within three (3) days.

(4) An aquatic weed control program should be utilized in permanently wet structures to prevent an overgrowth of vegetation in the pond. Manual harvesting is preferred.

(5) Fish may be stocked in permanently wet retention and detention ponds.

(6) Normally dry swales and detention pond bottoms should be constructed with a gravel blanket or other measure to minimize the creation of tire ruts during maintenance activities.

E. A stormwater management and sediment control plan shall be filed for a residential development and the buildings constructed within, regardless of the phasing of construction.

(1) In applying the stormwater management and sediment control criteria, in R.72-307, individual lots in a residential subdivision development shall not be considered to be separate land disturbing activities and shall not require individual permits. Instead, the residential subdivision development, as a whole, shall be considered to be a single land disturbing activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.

(2) If individual lots or sections in a residential subdivision are being developed by different property owners, all land-disturbing activities related to the residential subdivision shall be covered by the approved stormwater management and sediment control plan for the residential subdivision. Individual lot owners or developers may sign a certificate of compliance that all activities on that lot will be carried out in accordance with the approved stormwater management and sediment control plan for the residential subdivision. Failure to provide this certification will result in owners or developers of individual lots developing a stormwater management and sediment control plan meeting the requirements of R.72-307.

(3) Residential subdivisions which were approved prior to the effective date of these regulations are exempt from these requirements. Development of new phases of existing subdivisions which were not previously approved shall comply with the provisions of these regulations.

F. Risk analysis may be used to justify a design storm event other than prescribed or to show that rate and volume control is detrimental to the hydrologic response of the basin and therefore, should not be required for a particular site.

(1) A complete watershed hydrologic/hydraulic analysis must be done using a complete model/procedure acceptable to the implementing agency. The level of detail of data required is as follows:

(a) Watershed designation on the 7.5 minute topo map exploded to a minimum of 1" = 400'.

(b) Inclusion of design and performance data to evaluate the effects of any structures which effect discharge. Examples may be ponds or lakes, road crossings acting as attenuation structures and there may be others which must be taken into account.

(c) Land use data shall be taken from the most recent aerial photograph and field checked and updated.

(d) The water surface profile shall be plotted for the conditions of pre-and post-development for the 10-, and 100-year 24-hour storm.

(e) Elevations of any structure potentially damaged by resultant flow shall also be shown.

(2) Based on the results of this type of evaluation, the certified plan reviewer representing the implementing agency shall review and evaluate the proposed regulation waiver or change.

G. The general permit application for use by federal, local governments, or special purpose or public service districts shall contain, as a minimum, standard plans and specifications for stormwater management and erosion and sediment control; methods used to calculate stormwater runoff, soil loss and control method performance; staff assigned to monitor land disturbing activities and procedures to handle complaints for off-site property owners and jurisdictions.

This general permit will be valid for a period of three years and will be subject to the same review criteria by the Commission as that of the delegated program elements.

The use of the general permit classification does not relinquish a land disturbing activity from the requirements of these Regulations. Rather, the general permit precludes that activity from the necessity of a specific plan review for each individual project.

Approval of a general permit does not relieve any agency from the conditions that are part of the general permit approval regarding the implementation of control practices as required by the general permit. Failure to implement control practices pursuant to conditions included in the general permit may result in the revocation of the general permit and the requirement of the submission of individual plans for each activity.

H. The stormwater management and sediment control plan required for land disturbing activities of two (2) acres or less which are not part of a larger common plan of development or sale shall contain the following information, as applicable:

- (1) An anticipated starting and completion date of the various stages of land disturbing activities and the expected date the final stabilization will be completed;
- (2) A narrative description of the stormwater management and sediment control plan to be used during land disturbing activities;
- (3) General description of topographic and soil conditions of the tract from the local soil and water conservation district;
- (4) A general description of adjacent property and a description of existing structures, buildings, and other fixed improvements located on surrounding properties;
- (5) A sketched plan (engineer's, Tier B surveyor's or landscape architect's seal not required) to accompany the narrative which shall contain:
  - (a) A site location drawing of the proposed project, indicating the location of the proposed project in relation to roadways, jurisdictional boundaries, streams and rivers;
  - (b) The boundary lines of the site on which the work is to be performed;
  - (c) A topographic map of the site if required by the implementing agency;
  - (d) The location of temporary and permanent vegetative and structural stormwater management and sediment control measures.
- (6) Stormwater management and sediment control plans shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the plan.
- (7) All stormwater management and sediment control plans shall contain certification by the person responsible for the land disturbing activity of the right of the Commission or implementing agency to conduct on-site inspections.

The requirements contained above may be indicated on one plan sheet.

I. The stormwater management and sediment control plan for land disturbing activities of greater than two (2) acres but less than five (5) acres which are not part of a larger common plan of development or sale shall contain the following information, as applicable:

- (1) An abbreviated application form;
- (2) A vicinity map sufficient to locate the site and to show the relationship of the site to its general surroundings at a scale of not smaller than one (1) inch to one (1) mile.
- (3) The site drawn to a scale of not smaller than one (1) inch to 200 feet, showing:
  - (a) The boundary lines of the site on which the work is to be performed, including the approximate acreage of the site;
  - (b) Existing contours and proposed contours as required by the implementing agency;
  - (c) Proposed physical improvements on the site, including present development and future utilization if future development is planned;
  - (d) A plan for temporary and permanent vegetative and structural erosion and sediment control measures which specify the erosion and sediment control measures to be used during all phases of the land disturbing activity and a description of their proposed operation;
  - (e) Provisions for stormwater runoff control during the land disturbing activity and during the life of the facility, including a time schedule and sequence of operations indicating the anticipated starting and completion dates of each phase and meeting the following requirements:
    1. Post-development peak discharge rates shall not exceed pre-development discharge rates for the 2- and 10- year frequency 24-hour duration storm event. Implementing agencies may utilize a less frequent storm event (e.g. 25-year, 24-hour) to address existing or future stormwater quantity or quality problems.

2. Discharge velocities shall be reduced to provide a nonerosive velocity flow from a structure, channel, or other control measure or the velocity of the 10-year, 24-hour storm runoff in the receiving waterway prior to the land disturbing activity, whichever is greater.

(f) A complete and adequate grading plan for borrow pits and material processing facilities where applicable, including restoration and revegetation measures;

(g) A general description of the predominant soil types on the site;

(h) A description of the maintenance program for stormwater management and sediment control facilities including inspection programs.

(4) All stormwater management and sediment control plans submitted for approval shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the approved plan.

(5) All stormwater management and sediment control plans shall contain certification by the person responsible for the land disturbing activity of the right of the Commission or implementing agency to conduct on-site inspections.

(6) All stormwater management and sediment control plans submitted to the appropriate plan approval agency for approval shall be certified by the designer. The following disciplines may certify and stamp/seal plans as allowed by their respective licensing act and regulations:

(a) Registered professional engineers as described in Title 40, Chapter 22.

(b) Registered landscape architects as describe in Title 40, Chapter 28, Section 10, item (b).

(c) Tier B land surveyors as described in Title 40, Chapter 22.

(7) Pursuant to Title 40, Chapter 22, Section 460, stormwater management and sediment control plans may be prepared by employees of the federal government and submitted by the person responsible for the land disturbing activity to the appropriate plan approval agency for approval.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-308. Maintenance Requirements and Off-Site Damage Correction.**

A. The Commission will provide technical assistance to local governments who choose to assume the maintenance responsibility for stormwater management structures on, at least, residential lands.

B. The person responsible for maintenance shall perform or cause to be performed preventive maintenance of all completed stormwater management practices to ensure proper functioning. The responsible inspection agency shall ensure preventive maintenance through inspection of all stormwater management practices.

C. Inspection reports shall be maintained by the responsible inspection agency on all detention and retention structures and shall include the following items (as applicable):

(1) The date of inspection;

(2) The name of the inspector;

(3) The condition of (if applicable):

(a) Vegetation,

(b) Fences,

(c) Spillways,

(d) Embankments,

(e) Reservoir area,

(f) Outlet channels,

(g) Underground drainage,

(h) Sediment load, or

(i) Other items which could effect the proper function of the structure.

(4) Description of needed maintenance.

D. Responsible inspection agencies shall provide procedures to ensure that deficiencies indicated by inspections are rectified. The procedures shall include the following:



(1) Notification to the person responsible for maintenance of deficiencies including a time frame for repairs;

(2) Subsequent inspection to ensure completion of repairs; and

(3) Effective enforcement procedures or procedures to refer projects to the Commission if repairs are not undertaken or are not done properly.

E. The following criteria shall be used by the appropriate implementing agency in evaluating and for correcting off-site damages resulting from the land disturbing activity:

(1) Determine the extent of damage by sediment resulting from non-compliance with the approved stormwater management and sediment control plan,

(2) Determine the classification of the impaired waterbody, if any,

(3) Determine the impact and severity of the damage resulting from non-compliance with the approved stormwater management and sediment control plan,

(4) Develop an agreement with landowners for cleanup and corrections, including a schedule of implementation.

(5) Evaluate the alternatives for correction of the damage and prevention of future damage, and

(6) Failure to implement the agreement in the required schedule will constitute a violation of these regulations.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-309. Criteria for Designated Watersheds.**

The concept of designated watersheds is intended, not only to prevent existing water quantity and water quality problems from getting worse, but also to reduce existing flooding problems and to improve existing water quality or meet State Water Quality Standards through a reduction of the impacts of NPS pollution in selected watersheds. Further, the designation of watersheds under this section may also be used to protect watersheds which do not currently have significant water quality or quantity problems, but which require protection in order to avoid or mitigate the occurrence of future problems which might impair current or protected multiple water uses or important water resources within the watershed. Criteria is established for designated watersheds and these criteria will depend on whether the specific problems of the watershed are water quantity or water quality oriented. Water quantity and water quality concerns will be considered in all designated watersheds, but the overall emphasis for each designated watershed will depend on its existing and future water quality and quantity issues as well as consideration of the multiple offstream and instream water uses within the watershed.

A. To initiate consideration of a watershed for Designated Watershed status, a watershed shall be recommended by a local government or combinations of local governments through the passage of a local ordinance to the Commission. Upon recommendation to the Commission, the Commission shall publish the request in the State Register and contact all involved agencies at the local and state level within 30 days after receipt of the designation request and their input received prior to any consideration of the designation is made.

B. Included with the recommendation of a watershed for Designated Watershed status to the Commission shall be an identification of the specific problems that exist in the watershed so that the pursuit of a watershed study is warranted. Designation as a Designated Watershed requires approval by the Commission, the South Carolina Water Resources Commission and the South Carolina Department of Health and Environmental Control. A significant water quantity or water quality problem must exist that would support this designation. Also, inclusion of a watershed as a Designated Watershed will necessitate a public hearing process. The process of designating a watershed shall be based on the following information:

(1) An estimate of the potential for land disturbing activities to be initiated in the basin which would be regulated under this regulation. This estimate could utilize historical and projected population growth, land use data, and other such appropriate measures to estimate the nonpoint source pollution contribution or stormwater runoff which could be reduced or avoided,

(2) An inventory of the offstream and instream water uses in the watershed to quantify and characterize the benefits associated with reducing current or avoiding future water resources

problems in the watershed. These could include water supply intakes, State navigable waters, recreational resources, fisheries resources, wetlands, or other such important uses,

(3) Water quality data, collected through either the statewide water quality inventory, or other special studies inclusive of benthic macroinvertebrate data,

(4) Historical and estimated flood damage and/or estimated flood protection benefits to both private and public property in the watershed,

(5) Status of current or description of proposed State and Federal flood protection and flood plain management program(s) and activities in the watershed, and

(6) Dangers to public health and welfare.

C. Following an adequate review of the recommendation, staff of the Commission, South Carolina Water Resources Commission, and the South Carolina Department of Health and Environmental Control shall meet to review and discuss their decision regarding designation. The staff shall prepare a statement in support of, or objection to, the proposed designation within 120 days following receipt of the recommendation by the Commission. The statement shall be voted upon by the appointed commissioners of each respective agency. Ex-officio members of the South Carolina Water Resources Commission representing the Land Resources Conservation Commission and the South Carolina Department of Health and Environmental Control shall abstain from voting regarding designation at the meeting of the South Carolina Water Resources Commission. Approval by each of the three agencies shall constitute designation.

D. Upon approval of designation, a Watershed Advisory Committee shall be established to advise and provide guidance in the development and conduct of the watershed master plan. The Commission, South Carolina Water Resources Commission, and the South Carolina Department of Health and Environmental Control will appoint the Watershed Advisory Committee which shall include State, District, local government representatives, and also representatives of the regulated community within the watershed and other persons which may be affected by the plan.

E. The general components contained in the actual watershed study shall be the following items:

(1) Stormwater quantity or water quality problem identification,

(2) The overall needs of the watershed including the additional impacts of new land disturbing activities,

(3) Alternative approaches to address the existing and future problems,

(4) A selected approach that includes the overall costs and benefits,

(5) An economic impact analysis of the selected approach,

(6) Schedule for implementation,

(7) Funding sources that are available for the actual implementation of study recommendations, and

(8) A public hearing prior to final Commission, S.C. Water Resources Commission and S.C. Department of Health and Environmental Control approval of the watershed study.

F. The following goals are to be obtained through the implementation of the Designated Watershed program:

(1) Reduction of existing flooding or water quality impacts,

(2) Prevention of future flooding or water quality impacts, and

(3) Minimization of economic and social losses.

G. Specific plan components of a watershed study shall include, but not be limited to, the following items:

(1) The limits of the watershed.

(2) An inventory of existing water quality data.

(3) An inventory of areas having significant natural resource value as defined in existing State or local studies as they may be impacted by the construction of location of stormwater control structures.

- (4) An inventory of areas of historical and archaeological value identified in existing State or local studies as they may be impacted by the construction or location of stormwater control structures,
- (5) A map or series of maps of the watershed showing the following information:
  - (a) Watershed topography,
  - (b) Significant geologic formations,
  - (c) Soils information,
  - (d) Existing land use based on existing zoning,
  - (e) Proposed land use based on expected zoning or comprehensive plans,
  - (f) Locations where water quality data were obtained,
  - (g) Locations of existing flooding problems including floor and corner elevations of structures already impacted, and
  - (h) 100-year floodplain delineations, water surface profiles, and storm hydrographs at selected watershed location.
- (6) An inventory of the existing natural and constructed stormwater management system.
- (7) An inventory of historic flood damage sites, including frequency and damage estimates,

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

### **72–310. Criteria for Implementation of a Stormwater Utility.**

The implementation of a stormwater utility will necessitate the development of a local utility ordinance or special taxing assessment prior to its implementation, pursuant to Chapter 9, Title 4, 1976 Code of Laws as amended by Act 114 1991. There are essential components that an ordinance must contain to function as a funding mechanism for stormwater management and those components shall include, but not be limited to, the following items:

A. The financing of a stormwater utility with a user charge system must be reasonable and equitable so that each user of the stormwater system pays to the extent to which the user contributes to the need for the stormwater system, and that the charges bear a substantial relationship to the cost of the service. The use of county and municipal taxpayer rolls and accounting systems are allowed for the assessment and collection of fees.

B. The intent of the utility must be clearly defined regarding program components that are to be funded through the utility. Those components may include but not be limited to the following activities:

- (1) Preparation of comprehensive watershed master plans for stormwater management,
- (2) Annual inspections of all stormwater management facilities, both public and private,
- (3) Undertaking regular maintenance, through contracting or other means, of stormwater management structures that have been accepted for maintenance.
- (4) Plan review and inspection of sediment control and stormwater management plans and practices, and
- (5) Retrofitting designated watersheds, through contracting or other means, to reduce existing flooding problems or to improve water quality.

C. The authority for the creation of the stormwater utility and the imposition of charges to finance sediment and stormwater activities is conferred in Chapter 14, Title 48, South Carolina Code. The application of a stormwater utility by means of a local ordinance or other means shall not be deemed a limitation or repeal of any other powers granted by State statute.

D. The creation of a stormwater utility shall include the following components:

- (1) The boundaries of the utility, such as watersheds or jurisdictional boundaries as identified by the local governing body,
- (2) The creation of a management entity,
- (3) Identification of stormwater problems,
- (4) Method for determining utility charges,

- (5) Procedures for investment and reinvestment of funds collected, and
- (6) An appeals or petition process.

E. As established by local ordinance or special election or petition, the local government shall have responsibility for implementing all aspects of the utility including long range planning, plan implementation, capital improvements, maintenance of stormwater facilities, determination of charges, billing, and hearing of appeals and petitions. The local government also will have responsibility for providing staff support for utility implementation.

F. With the respect to new stormwater management facilities constructed by private developers, the local government shall develop criteria for use in determining whether these will be maintained by the utility or by the facility owner. Such criteria may include whether the facility has been designed primarily to serve residential users and whether it has been designed primarily for purposes of stormwater management. In situations where it is determined that public maintenance is not preferable, standards shall be developed to ensure that inspection of facilities occurs annually and that facilities are maintained as needed.

G. The use of charges is limited to those purposes for which the utility has been established, including but not limited to: planning; acquisition of interests in land including easements; design and construction of facilities; maintenance of the stormwater system; billing and administration; and water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection, and other activities which are reasonably required.

**HISTORY:** Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.

### **72-311. Plan Review and Inspector Certification Programs.**

A. The Commission shall require that local governments which request delegation of stormwater management and sediment control plan review and approval/disapproval shall have a Certified Plan Reviewer representing the implementing agency. Certified Plan Reviewers shall obtain certification from the Commission by successfully completing a Commission sponsored or approved training program. Exceptions to this requirement are limited to Registered Professional Engineers, Registered Landscape Architects and Registered Tier B Land Surveyors who can receive initial certification by demonstrating to the Commission a minimum of three (3) years experience in stormwater management and sediment control planning and design.

For a period of one year after the effective date of these regulations, local governments may receive interim certification for plan reviewers during the period before attendance at a Commission sponsored or approved training course by submitting an enrollment form to the Commission. Interim certification shall be valid until the scheduled date of attendance.

B. The Commission shall require that local governments which request delegation of the construction and maintenance inspection component of the stormwater management and sediment control program shall have a Certified Construction Inspector representing the implementing agency. Certified Construction Inspectors shall obtain certification from the Commission by successfully completing a Commission sponsored or approved training program.

For a period of one year after the effective date of these regulations, local governments may receive interim certification for construction inspectors during the period before attendance at a Commission sponsored or approved training course by submitting an enrollment form to the Commission. Interim certification shall be valid until the scheduled date of attendance.

C. Initial certification as a Certified Plan Reviewer or Certified Construction Inspector is good for a period of five years. Recertification is contingent on attending and successfully completing a Commission sponsored or approved recertification program. This continuing education requirement applies to all Certified Plan Reviewers, including, Registered Engineers, Landscape Architects, Tier B Land Surveyors and Construction Inspectors.

**HISTORY:** Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.

### **72-312. Review and Enforcement Requirements.**

A. Items listed in this section are activities by the Commission in the event the Commission serves as the implementing agency. When the Commission is requested to assist the implementing agency, these are suggestions the Commission may submit to the implementing agency.

B. The person responsible for the land disturbing activity shall notify the appropriate inspection agency before initiation of construction and upon project completion when a final inspection will be conducted to ensure compliance with the approved stormwater management and sediment control plan.

C. The person responsible for the land disturbing activity shall, if required by the implementing agency during the plan approval process, submit "As Built or Record Document" plans. In addition, the person responsible for the land disturbing activity may be required to submit written certification from the professional engineer, landscape architect, or Tier B land surveyor responsible for the field supervision of the land disturbing activity that the land disturbing activity was accomplished according to the approved stormwater management and sediment control plan or approved changes.

D. The responsible inspection agency shall, for inspection purposes, do all of the following items:

(1) Ensure that the approved stormwater management and sediment control plans are on the project site and are complied with;

(2) Ensure that every active site is inspected for compliance with the approved plan on a regular basis;

(3) Provide the person responsible for the land disturbing activity, a written report after every inspection that describes:

(a) The date and location of the site inspection;

(b) Whether the approved plan has been properly implemented and maintained;

(c) Approved plan or practice deficiencies; and

(d) The action taken.

(4) Notification of the person responsible for the land disturbing activity in writing when violations are observed, describing the:

(a) Nature of the violation;

(b) Required corrective action; and

(c) Time period for violation correction.

E. The Commission may investigate complaints or refer any complaint received to the local inspection agency if the activity is located in a jurisdiction that has received delegation of inspections during construction and maintenance inspections. In conjunction with a referral, the Commission may also initiate an on-site investigation after notification of the local inspection agency in order to properly evaluate the complaint. The Commission shall make recommendations on enforcement action when appropriate, and notify the local implementing agency in a timely manner of any recommendations.

F. The Commission, at its discretion and upon notification to the person responsible for the land disturbing activity may visit any site to determine the adequacy of stormwater management and sediment control practices. In the event that the Commission conducts site inspection, the appropriate inspection agency shall be notified of the inspection. The appropriate inspection agency shall establish a time frame to obtain site compliance. This notification shall, in no way limit the right to the Commission to take action subsequent to any provision of these regulations or Chapter. Formal procedures for interaction between the Commission and the appropriate inspection agency on-site inspection and referral will be developed on an individual basis.

G. The appropriate plan approval agency may require a revision to the approved plans as necessary due to differing site conditions. The appropriate plan approval agency shall establish guidelines to facilitate the processing of revised plans where field conditions necessitate plan modification. Where changes to the approved plan are necessary those changes shall be in accordance to the following:

(1) Major changes to approved stormwater management and sediment control plans, such as the addition or deletion of a sediment basin, shall be submitted by the applicant to the appropriate plan approval agency for review and approval.

(2) Minor changes to stormwater management and sediment control plans may be made in the field review report. The appropriate inspection agency shall develop a list of allowable field modifications for use by the construction inspector.

H. Stormwater management construction shall have inspections accomplished as needed.

I. The agency responsible for construction inspection may, in addition to local enforcement options, refer a site violation to the Commission for review.

J. Referral of a site violation to the Commission may initiate a Commission construction inspection of the site to verify site conditions. That construction inspection may result in the following actions:

(1) Notification through appropriate means to the person engaged in a land disturbing activity to comply with the approved plan within a specified time frame; and

(2) Notification of plan inadequacy, with a time frame for the person engaged in a land disturbing activity to submit a revised sediment and stormwater plan to the appropriate plan approval agency and to receive its approval with respect thereto

The Commission shall notify the local inspection agency within five working days of what recommendation for enforcement action should be taken on the site.

K. Failure of the person engaged in the land disturbing activity contractor to comply with Commission requirements may result in the following actions in addition to other penalties as provided in Chapter 14.

(1) The Commission shall have the power to request the implementing agency to order any person violating any provision of Chapter 14 and these regulations to cease and desist from any site work activity other than those actions necessary to achieve compliance with any administrative order.

(2) The Commission may request that the appropriate plan approval agency refrain from issuing any further building or grading permits to the person having outstanding violations until those violations have been remedied.

(3) The Commission may recommend fines to be levied by the implementing agency.

L. If the Commission or the implementing agency utilizes "stop work orders" as a part of its inspection and enforcement program, the following procedure shall be followed:

(1) The implementing agency may issue a stop work order if it is found that a land disturbing activity is being conducted in violation of this Act or of any regulation adopted or order issued pursuant to this Act, that the violation is knowing and willful, and that either:

(a) Off-site sedimentation resulting from non-compliance with the approved stormwater management and sediment control plan has eliminated or severely degraded a use in a lake or natural waterway or that such degradation is imminent.

(b) Off-site sedimentation resulting from non-compliance with the approved stormwater management and sediment control plan has caused severe damage to adjacent land.

(c) The land disturbing activity which requires an approved plan under these regulations and is being conducted without the required approved plan.

(2) The stop work order shall be in writing and shall state what work is to be stopped and what measures are required to abate the violation. The order shall include a statement of the findings made by the implementing agency pursuant to (1) of this section and shall list the conditions under which work that has been stopped by the order may be resumed. The delivery of equipment and materials which does not contribute to the violation may continue while the stop work order is in effect. A copy of this section shall be attached to the order.

(3) The stop work order shall be served by the sheriff of the county in which the land disturbing activity is being conducted or by some other person duly authorized by law to serve process, and shall be served on the person at the site of the land disturbing activity who is in operational control of the land disturbing activity. The sheriff or other person duly authorized by law to serve process shall post a copy of the stop work order in a conspicuous place at the site of the land-disturbing activity. The implementing agency shall also deliver a copy of the stop work order to any person that the implementing agency has reason to believe may be responsible for the violation.

(4) The directives of a stop work order become effective upon service of the order. Thereafter, any person notified of the stop work order who violates any of the directives set out in the order may be assessed a civil penalty as provided in R.72-315. A stop work order issued pursuant to this section may be issued for a period not to exceed three calendar days.

(5) The implementing agency shall designate an employee to monitor compliance with the stop work order. The name of the employee so designated shall be included in the stop work order. The

employee so designated shall rescind the stop work order if all the violations for which the stop work order are issued are corrected, no other violations have occurred, and all measures necessary to abate the violations have been taken. The implementing agency shall rescind a stop work order that is issued in error.

(6) The issuance of a stop work order shall be a final agency decision subject to judicial review in the same manner as an order in a contested case pursuant to Title 1, Chapter 23, Section 380 of the Code of Laws of South Carolina, 1976. The petition for judicial review shall be filed in the circuit court of the county in which the land-disturbing activity is being conducted.

(7) The Commission shall file a cause of action to abate the violations which resulted in the issuance of a stop work order within three calendar days of the service of the stop work order. The cause of action shall include a motion for an ex parte temporary restraining order to abate the violation and to effect necessary remedial measures. The resident circuit court judge, or any judge assigned to hear the motion for the temporary restraining order, shall hear and determine the motion within two days of the filing of the complaint. The clerk of circuit court shall accept complaints filed pursuant to this section without the payment of filing fees. Filing fees shall be paid to the clerk of circuit court within 30 days of the filing of the complaint.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

### **72-313. Hearings and Hearings Procedures.**

A. An administrative hearing is available, following a timely request, to determine the propriety of:

(1) The denial of delegation of a program component.

(2) A revocation of a delegated program component.

(3) A denial or revocation of a permit for stormwater management and sediment control.

(4) A citizen complaint concerning program operation.

(5) The requirements imposed by the implementing agency for approval of the stormwater management and sediment reduction plan.

(6) The issuance of a notice of violation or non-compliance with the approved stormwater management and sediment reduction plan.

(7) The issuance of fines by an implementing agency.

(8) The issuance of a stop work order by an implementing agency.

B. Requests for administrative hearings and appeals may be made to local governments when program elements are delegated by the Commission or to the Commission when the Commission functions as the implementing agency. In addition, administrative hearings and appeals may be held by the Commission regarding decisions or actions of local implementing agencies. Procedures for acting on appeals and conducting administrative hearings by local implementing agencies will be specified in their request for delegation of program element. The Commission procedures for conducting administrative hearings is specified in R.72-313C through R.72-313Q.

C. A hearing may be requested by any person. If an adverse action is involved, the hearing may be requested provided that the written request is received within thirty (30) days after the notice is given to the person.

D. All hearings shall be initiated via correspondence approved by the Commission which shall give notice to all parties of the hearing.

(1) All parties must receive notice of the hearing of not less than thirty (30) days;

(2) The notice shall be sent by the designated hearing officer(s);

(3) The notice shall include:

(a) A statement of the time, place, and nature of the hearing;

(b) A statement of the legal authority and jurisdiction under which the hearing is to be held;

(c) A reference to the particular sections of the statutes and rules involved;

(d) A short and plain statement of the matters asserted. If the hearing officer(s) is/are unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a

statement of the issues involved. Thereafter, upon application, a more definite and detailed statement shall be furnished.

E. All hearings shall be conducted by a hearing officer(s) appointed by the Commission.

F. All hearings shall be conducted in accordance with Section 1-23-10 et seq. of the 1976 South Carolina Code of Laws.

G. The hearing officer(s) shall issue a proposal for decision which shall be mailed to the parties.

H. Within twenty (20) days after mailing of the proposal for decision, any party may file exceptions to the hearing officer's proposal for decision.

(1) Such exceptions shall be in written form, addressed to the Chairman of the Commission, and served upon all adverse parties;

(2) The exceptions shall list all the grounds upon which the exceptions are based.

I. If no exceptions are received by the Commission within the twenty (20) day period following the mailing of the proposal for decision, the Commission shall issue a final decision.

J. If timely exceptions are received, the Commission shall send notice to the parties that the appealing party(s) has thirty (30) days to submit a brief. Following the service of the appealing party's brief, or upon the expiration of the thirty (30) day period, whichever shall occur first, the other party shall have thirty (30) days to submit a brief. All briefs must be served on the opposing parties and filed with the Commission.

K. Following receipt of all briefs, the Commission shall schedule an oral argument if requested to do so by either party.

L. The request for an oral argument must be in writing, addressed to the Chairman of the Commission, and submitted with that party's brief.

M. The oral argument shall be scheduled for the next regular Commission meeting following the filing of the last brief.

N. The oral argument shall be heard by the members of the Commission present at the Commission meeting and shall be held in accordance with the following format:

(1) The appealing party shall be given twenty minutes to present his case;

(2) The opposing party shall be given twenty minutes to present his case;

(3) The appealing party shall be given a rebuttal period of five minutes.

O. The parties by written stipulation may agree that the hearing officer's decision shall be final and binding upon the parties.

P. The final order shall be issued by the Commission, and the decision of the Commission shall represent the view of a majority of the Commission members voting on the appeal.

Q. The final order shall be written and shall comply with the provisions of Section 1-23-10 et. seq. of the 1976 South Carolina Code of Laws.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **72-314. Citizen Complaint Procedure on Delegated Program Components and Individual Sites.**

A. Persons may become aggrieved by land disturbing activities and program implementation. The following describes the procedure for a person to complain concerning program operation:

(1) If the program component in question has been delegated to a local implementing agency, the complaint shall be registered first in writing with that agency. An attempt to resolve the problem shall be made with the local implementing agency.

(2) In the event a solution can not be reached, the citizen may forward the complaint to the Commission for review. The Commission shall attempt to resolve the problem with the implementing agency and notify the citizen of the outcome of these efforts.

(3) If the Commission determines, based on complaints indicating a continuing pattern, that implementation of delegated program elements falls below the acceptable standards established by these regulations, the Commission may suspend or revoke the delegation in accordance with R.72-304L.



(4) All complaints filed with the Commission shall be held for a period of three years and will be considered when delegation renewal is requested by the local government.

B. Persons may complain about individual site problems or damages. The procedure is as follows:

(1) The complaint will be registered in writing with the appropriate implementing agency.

(2) If the implementing agency is not the Commission and a solution can not be reached with the local implementing agency, the complaint should be filed with the Commission. The Commission will follow procedures listed in R.72-312E.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

### **72-315. Penalties.**

A. Any person who violates any provision of this chapter or any ordinance or regulation promulgated, enacted, adopted, or issued pursuant to this chapter by the Commission or other implementing agency, or who initiates or continues a land disturbing activity for which a stormwater management and sediment control plan is required except in accordance with the terms, conditions, and provisions of an approved plan, is subject to a civil penalty of not more than one thousand dollars. No penalty may be assessed until the person alleged to be in violation has been notified of the violation. Each day of a violation constitutes a separate violation.

B. The implementing agency shall determine the amount of the civil penalty to be assessed under this section for violations under its jurisdiction. It shall make written demand for payment upon the person responsible for the violation and set forth in detail the violation for which the penalty has been invoked. If payment is not received or equitable settlement reached within thirty days after demand for payment is made, a civil action may be filed in the circuit court in the county in which the violation is alleged to have occurred to recover the amount of the penalty. If the implementing agency is the commission, the action must be brought in the name of the State. Local governments shall refer the matters under their jurisdiction to their respective attorneys for the institution of a civil action in the name of the local government in the circuit court in the county in which the violation is alleged to have occurred for recovery of the penalty.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

### **72-316. Severability.**

If any section, subsection, sentence, clause, phrase, or portion of these regulations are for any reason held invalid or unconstitutional by any court or competent jurisdiction, such provision and such holding shall not affect the validity of the remaining portions of these regulations.

**HISTORY: Added by State Register Volume 16, Issue No. 6, eff June 26, 1992.**

## **ARTICLE 4**

### **STANDARDS FOR STORMWATER MANAGEMENT AND SEDIMENT REDUCTION**

(Statutory Authority: 1976 Code § 48-18-70)

### **72-405. Scope.**

A. All land disturbing activities under the jurisdiction of the Department must be performed in a manner that erosion is controlled and sediment is retained on the site concerned to the maximum extent feasible and stormwater is managed in a manner such that neither any significant on-site nor off-site damage and/or problem is caused or increased.

B. All construction or maintenance plans prepared by or for the Department must include designs to manage stormwater runoff and control erosion and sedimentation using state-of-the-art practices.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**

### **72-410. Definitions.**

As used in these regulations, the following terms shall have the meanings as indicated below:

1. "Commission" means the South Carolina Land Resources Conservation Commission.
2. "Department" means the South Carolina Department of Highways and Public Transportation.
3. "Easement" means a grant or reservation by the owner of land for the use of such land by others for a specific purpose or purposes, and which must be included in the conveyance of land affected by such easement.
4. "Erosion" means the wearing away of land surface by the action of wind, water, gravity, ice, or any combination of those forces.
5. "Erosion and Sediment Control" means the control of solid material, both mineral and organic, during a land disturbing activity to prevent its transport out of the disturbed area by means of air, water, gravity, or ice.
6. "Exemption" means those land disturbing activities that are not subject to the sediment and stormwater requirements contained in these regulations.
7. "Infiltration" means the passage or movement of water through the soil profile.
8. "Land Disturbing Activity" means any use of the land by any person that results in a change in the natural cover or topography that may cause erosion and contribute to sediment and alter the quality and quantity of stormwater runoff.
9. "Nonerrodible" means a material, e.g., riprap, concrete, plastic, etc., that will not experience surface wear due to natural forces.
10. "Person" means any State or federal agency, individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or other political subdivision of this State, any interstate body or any other legal entity.
11. "Sediment" means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, ice, or gravity from its site of origin.
12. "Stabilization" means the prevention of soil erosion by surface runoff or wind through the establishment of a soil cover through the implementation of vegetative or structural measures.
13. "Stormwater Management" means, for:
  - (a) quantitative control, a system of vegetative or structural measures, or both, that control the increased volume and rate of stormwater runoff caused by manmade changes to the land;
  - (b) qualitative control, a system of vegetative, structural, or other measures that reduce or eliminate pollutants that might otherwise be carried by stormwater runoff.
14. "Stormwater Management and Sediment Control Plan" means a set of drawings, other documents, and supporting calculations prepared to apply to land disturbing activity, which contains all of the information and specifications to support the design.
15. "Stormwater Runoff" means direct response of a watershed to precipitation and includes the surface and subsurface runoff that enters a ditch, stream, storm sewer or other concentrated flow during and following the precipitation.
16. "Variance" means the modification of the minimum sediment and stormwater management requirements for specific circumstances where strict adherence of the requirements would result in unnecessary hardship and not fulfill the intent of these regulations.
17. "Waiver" means the relinquishment from sediment and stormwater management requirements by the appropriate plan approval authority for a specific highway construction project on a case-by-case review basis.
18. "Water Quality" means those characteristics of stormwater runoff from a land disturbing activity that relate to the chemical, biological, or radiological integrity of water.
19. "Water Quantity" means those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff to downstream areas resulting from land disturbing activities.
20. "Watershed" means the total or partial drainage area contributing stormwater runoff to a single point.

## **72-415. Exemptions.**

- A. Any highway maintenance activity which disturbs less than five acres.
- B. Any land disturbing activity conducted pursuant to a construction activity which disturbs less than five acres.

**HISTORY:** Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.

## **72-420. Activities Requiring Site Specific Plans.**

- A. Land disturbing activity associated with any highway construction or maintenance project not specifically exempted in these Regulations.
- B. Land disturbing activity conducted for any reason under an encroachment permit, by easement or on right of way on lands under the jurisdiction of the Department.

**HISTORY:** Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.

## **72-425. Specific Design Criteria, Minimum Standards and Specifications.**

A. General submission requirements for all projects requiring site specific stormwater management and sediment control plans will include the following information as applicable:

- (1) A standard application form,
- (2) A vicinity map indicating north arrow, scale, and other information necessary to locate the project,
- (3) A plan at an appropriate scale accompanied by a design report and indicating at least:
  - (a) The existing and proposed topography.
  - (b) The proposed grading and earth disturbance including:
    - 1. Surface area involved; and
    - 2. Limits of grading including limitation of mass clearing and grading whenever possible.
  - (c) Erosion and sediment control provisions, including:
    - 1. Provisions to preserve top soil and limit disturbance;
    - 2. Details of site grading; and
    - 3. Design details for structural controls which includes diversions and swales.
  - (d) The plans must be sealed by a qualified design professional and certified that the plans have been designed in accordance with the requirements of these regulations.

B. Requirements that shall be part of the completed plan but retained in the permanent Department files for review by the Commission upon request include the following:

- (1) Stormwater management and stormwater drainage computations, used in the design of pipe culverts, channels, inlets, ditches and other components of the stormwater management and erosion and sediment control systems.
- (2) Location of project on Federal Emergency Management Agency flood maps and federal and State wetland maps, where appropriate.
- (3) Design reports sealed by a qualified design professional and certified that the reports have been prepared in accordance with these regulations, standards, and specs.
- (4) Additional information necessary for a complete project review may be required by the Commission as deemed appropriate. This additional information may include items such as public sewers, water lines, septic fields, wells, etc.

(5) A description of the predominant soil types on the site, as described by the appropriate soil survey information available through the Commission or the local Conservation District.

C. Specific requirements for the erosion and sediment control portion of the stormwater management and sediment control plan approval process include, but are not limited to, the following items. The Commission may modify the following items for a specific project or type of project.

(1) All plans shall include details and descriptions of temporary and permanent erosion and sediment control measures and other protective measures shown on the stormwater and sediment management plan.

(2) Specifications for a sequence of construction operations shall be contained on all plans describing the relationship between the implementation and maintenance of sediment controls, including permanent and temporary stabilization and the various stages or phases of earth disturbance and construction. The specifications for the sequence of construction shall, at a minimum, include the requirements of Standard Specifications for Highway Construction, Edition of 1986, and standard drawings prepared by the Department.

Changes to the sequence of construction operations may be modified by the Department and do not constitute a violation unless measures to control stormwater runoff and sediment are not utilized.

(3) When work in a live waterway is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction.

(4) Vehicle tracking of sediments from land disturbing activities onto paved public roads carrying significant amounts of traffic (ADT of 25 vehicles/day or greater) shall be minimized.

(5) The Department shall initiate appropriate vegetative practices on all disturbed areas within seven (7) calendar days after the last activity at that area. In terms of phased construction, this requirement may require the Department to utilize temporary seeding or other appropriate measures to protect exposed soils.

D. Specific requirements for the permanent stormwater management portion of the stormwater management and sediment control plan approval process include, but are not limited to, the following items. The Commission may modify the following items for a specific project or type or project.

(1) It is the overall goal of the Commission to address stormwater management on a watershed basis to provide a cost effective water quantity and water quality solution to the specific watershed problems. These regulations will provide general design requirements that must be adhered to in the absence of Designated Watershed specific criteria.

(2) All hydrologic computations shall be accomplished using methods recommended by the American Association of State Highway Transportation Officials (AASHTO). The method used shall be based on the size of the drainage area, the land use, site conditions, and topography. Hydrologic computations are not required when run-off flows in sheet flow down grass covered slopes or when roadway run-off is collected in grass lined ditches constructed on non erodible slopes.

(3) If a highway project crosses several watersheds, the stormwater management requirements for the specific project shall be based on the impacts on each individual watershed. If the project is phased, the initial submittal shall control that area proposed in the initial phase and establish a procedure and obligation for total site control.

(4) Water quantity control is an integral component of overall stormwater management. The following design criteria for flow control is established for water quantity control purposes, unless a waiver is granted based on a case-by-case basis:

(a) The impact of the proposed highway project on the outfall channel should be evaluated by:

(1) Evaluate the capacity of the outfall for the 2- and 10-year peak discharges based on prior and post construction conditions. The evaluation should take into account the condition and capacity of existing structures downstream from the outfall point. (2) Compare the time of concentration of the outfall channel with the time of concentration of the proposed development. (3) If the outfall channel has insufficient capacity to carry the system design discharge, channel improvements will be implemented. The design discharge will be the 10-, 25-, or 50-year peak discharge depending on the road classification and the system or structure type. (4) If the 10-year peak discharge on the outfall is increased by the project and if there is development along the outfall that would be impacted by the increased discharge, stormwater management methods shall be used to reduce the 10-year peak discharge to predeveloped levels.

(b) The velocity for the design peak discharge at the outlet of hydraulic structures will be reduced to nonerosive velocity. Ditches and channels will be protected from erosion from the design discharge by the appropriate channel lining.

(5) Water quality control is also an integral component of stormwater management. The following design criteria is established for water quality protection unless a waiver or variance is granted on a case-by-case basis.

(a) When ponds are used for water quality protection, the ponds shall be designed as both quantity and quality control structures. Sediment storage volume shall be calculated considering the clean out and maintenance schedules specified by the Department during the land disturbing activity. Sediment storage volumes may be predicted by the Universal Soil Loss Equation or methods acceptable to the Commission.

(b) Stormwater runoff that drains to a single outlet from land disturbing activities which disturb ten acres or more shall be controlled during the land disturbing activity by a sediment basin where sufficient space and other factors allow these controls to be used until the final inspection. The sediment basin shall be designed and constructed to accommodate the anticipated sediment loading from the land-disturbing activity and meet a removal efficiency of 80 percent suspended solids or 0.5 ML/L peak settleable solids concentration, or 3600 cubic feet of sediment storage volume per disturbed acre that drains to a single point excluding off site flows, whichever is less. The outfall device or system design shall take into account the total drainage area flowing through the disturbed area to be served by the basin.

(c) Other practices may be acceptable to the Commission if they achieve an equivalent removal efficiency of 80 percent for suspended solids or 0.5 ML/L peak settleable solids concentration, or 3600 cubic feet of sediment storage volume per disturbed acre that drains to a single point excluding off site flows, whichever is less. The efficiency shall be calculated for disturbed conditions for the 10-year 24-hour design event.

(d) Permanent water quality ponds having a permanent pool shall be designed to store and release the first  $\frac{1}{2}$  inch of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate, at least,  $\frac{1}{2}$  inch of runoff from the entire site.

(e) Permanent water quality ponds, not having a permanent pool, shall be designed to release the first inch of runoff from the site over a 24-hour period.

(f) Permanent infiltration practices, when used, shall be designed to accept, at a minimum, the first inch of runoff from all impervious areas.

(g) For activities in the eight coastal counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Jasper and Horry, additional water quality requirements may be imposed to comply with the S.C. Coastal Council Stormwater Management Guidelines. If conflicting requirements exist for activities in the eight coastal counties, the S.C. Coastal Council guidelines will apply.

(6) Where ponds are the proposed method of control, the Department shall submit to the approving agency, when required in writing, an analysis of the impacts of stormwater flows downstream in the watershed for the 10-and 100-year storm events. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed land disturbing activity, with and without the pond. The results of the analysis will determine the need to modify the pond design or to eliminate the pond requirement. Lacking a clearly defined downstream point of constriction, the downstream impacts shall be established, with the concurrence of the Commission.

(7) Where existing wetlands are intended as a component of an overall stormwater management system, the approved stormwater management and sediment control plan shall not be implemented until all necessary federal and state permits have been obtained.

(8) Designs shall be in accordance with standards developed or approved by the Commission.

(9) Ease of maintenance must be considered as a site design component. Access to the stormwater management structure must be provided.

(10) A maintenance schedule shall be included in the plans and design report.

(11) Infiltration practices have certain limitations on their use on certain sites. These limitations include the following items:

(a) Areas draining to these practices must be stabilized and vegetative filters established prior to runoff entering the system. Infiltration practices shall not be used if a suspended solids filter

system does not accompany the practice. If vegetation is the intended filter, there shall be, at least a 20 foot length of vegetative filter prior to stormwater runoff entering the infiltration practice;

(b) The bottom of the infiltration practice shall be at least 0.5 feet above the seasonal high water table, whether perched or regional, determined by direct piezometer measurements which can be demonstrated to be representative of the maximum height of the water table on an annual basis during years of normal precipitation, or by the depth in the soil at which mottling first occurs;

(c) The infiltration practice shall be designed to completely drain of water within 72 hours;

(d) Soils must have adequate permeability to allow water to infiltrate. Infiltration practices are limited to soils having an infiltration rate of least 0.30 inches per hour. Initial consideration will be based on a review of the appropriate soil survey, and the survey may serve as a basis for rejection. On-site soil borings must be used to verify the actual site and seasonal high water table conditions when infiltration is to be utilized;

(e) Infiltration practices greater than three feet deep shall be located at least 10 feet from basement walls;

(f) Infiltration practices designed to handle runoff from impervious parking areas shall be a minimum of 150 feet from any public or private water supply well;

(g) The design of an infiltration practice shall provide an overflow system with measures to provide a non-erosive velocity of flow along its length and at the outfall;

(h) The slope of the bottom of the infiltration practice shall not exceed five percent. Also, the practice shall not be installed in fill material as piping along the fill/natural ground interface may cause slope failure;

(i) An infiltration practice shall not be installed on or atop a slope whose natural angle of incline exceeds 20 percent.

(j) Clean outs will be provided at a minimum, every 100 feet along the infiltration practice to allow for access and maintenance.

E. All stormwater management and sediment control practices shall be designed, constructed and maintained with consideration for the proper control of mosquitoes and other vectors. Practices may include, but are not limited to:

(1) The bottom of retention and detention ponds should be graded and have a slope not less than 0.5 percent.

(2) There should be no depressions in a normally dry detention facility where water might pocket when the water level is receding.

(3) Normally dry detention systems and swales should be designed to drain within three (3) days.

(4) An aquatic weed control program should be utilized in permanently wet structures to prevent an overgrowth of vegetation in the pond. Manual harvesting is preferred.

(5) Fish may be stocked in permanently wet retention and detention ponds.

(6) Any rutting of normally dry swales and detention ponds caused by maintenance activities shall be immediately filled and smoothed out.

F. An economic analysis may be used to justify a design storm event other than prescribed or to show that rate and volume control is detrimental to the hydrologic response of the basin and therefore, should not be required for a particular site.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**

## **72-430. Department Responsibilities.**

A. The Department shall file with the Commission, a copy of the sediment reduction and stormwater management plan, in accordance with R.72-420A, for each construction and maintenance activity as required by these regulations.

B. The Department shall inspect all stormwater management and erosion and sediment control practices at least once every seven (7) calendar days and after any storm event of greater than 0.5 inches of precipitation during any twenty-four hour period.

C. The Department shall require that additional practices be implemented in the event that the practices included in the stormwater management and sediment control plan are not sufficient to adequately control erosion, sedimentation and stormwater runoff.

D. After a project has been completed and accepted in its entirety, the Department's Maintenance Forces must maintain the areas with top priority being to take the necessary steps to insure the continuance of proper erosion and sediment control and stormwater management measures as may be needed to prevent on-site and off-site damages or contamination of watercourses or impoundments.

E. Each Resident Maintenance Engineer must prepare an inventory of existing erosion, sedimentation and stormwater problem areas. This list must be kept current and updated as conditions change. The Resident Maintenance Engineer, in conjunction with the District Office Personnel, must set priorities on the inventory and make the necessary corrections as time and funds permit.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**

### **72-435. Commission Responsibilities.**

A. The Commission shall retain the plan six months after completion of the project.

B. The Commission has the responsibility to investigate any complaint of violation against the Department for violating the plans submitted.

C. The Commission shall contact the Department to resolve any complaint. If the Commission and Department can not resolve the problem, the complainant may follow the procedure listed in R.72-440.

D. The Commission shall provide assistance with plan development, inspection, and enforcement as requested by the Department.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**

### **72-440. Hearing and Complaint Procedure.**

A. An administrative hearing is available, following a timely request, to determine the propriety of:

- (1) A citizen complaint concerning program operation.
- (2) A contractor complaint concerning program operation.

B. A hearing may be initiated by any applicant/citizen, provided that a written request is received within thirty (30) days after notice is given to the applicant/citizen of the adverse action.

C. All hearings shall be initiated via correspondence approved by the Commission which shall give notice to all parties of the hearing.

- (1) All parties must receive notice of the hearing of not less than thirty (30) days;
- (2) The notice shall be sent by the designated hearing officer(s);
- (3) The notice shall include:

- (a) A statement of the time, place, and nature of the hearing;
- (b) A statement of the legal authority and jurisdiction under which the hearing is to be held;
- (c) A reference to the particular sections of the statutes and rules involved;
- (d) A short and plain statement of the matters asserted. If the hearing officer(s) is/are unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a statement of the issues involved. Thereafter, upon application, a more definite and detailed statement shall be furnished.

D. All hearings shall be conducted by a hearing officer(s) appointed by the Commission.

E. All hearings shall be conducted in accordance with Section 1-23-10 et. seq. of the 1976 South Carolina Code of Laws.

F. The hearing officer(s) shall issue a proposal for decision which shall be mailed to the parties.

G. Within twenty (20) days after mailing of the proposal for decision, any party may file exceptions to the hearing officer's proposal for decision.

- (1) Such exceptions shall be in written form, addressed to the Chairman of the Commission, and served upon all adverse parties;

(2) The exceptions shall list all the grounds upon which the exceptions are based.

H. If no exceptions are received by the Commission within the twenty (20) day period following the mailing of the proposal for decision, the Commission shall issue a final decision.

I. If timely exceptions are received, the Commission shall send notice to the parties that the appealing party(s) has thirty (30) days to submit a brief. Following the service of the appealing party's brief, or upon the expiration of the thirty (30) day period, whichever shall occur first, the other party shall have thirty (30) days to submit a brief. All briefs must be served on the opposing parties and filed with the Commission.

J. Following receipt of all briefs, the Commission shall schedule an oral argument if requested to do so by either party.

K. The request for an oral argument must be in writing, addressed to the Chairman of the Commission, and submitted with that party's brief.

L. The oral argument shall be scheduled for the next regular Commission meeting following the filing of the last brief.

M. The oral argument shall be heard by the members of the Commission present at the Commission meeting and shall be held in accordance with the following format:

- (1) The appealing party shall be given twenty minutes to present his case;
- (2) The opposing party shall be given twenty minutes to present his case;
- (3) The appealing party shall be given a rebuttal period of five minutes.

N. The parties by written stipulation may agree that the hearing officer's decision shall be final and binding upon the parties.

O. The final order shall be issued by the Commission, and the decision of the Commission shall represent the view of a majority of the Commission members voting on the appeal.

P. The final order shall be written and shall comply with the provisions of Section 1-23-10 et. seq. of the 1976 South Carolina Code of Laws.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**

## **72-445. Inspection and Enforcement.**

A. The Commission may periodically inspect land disturbing activities performed pursuant to the plan required by this regulation. In the event the Commission finds that the measures in the plan are not adequate to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, it shall require that necessary additional measures be implemented.

B. Upon completion, the Department shall notify the Commission of the completion and acceptance of the project.

C. In the event the Commission finds that a land disturbing activity is not being performed in accordance with the submitted stormwater management and sediment control plan, the Commission may issue a written order either directing conformance with the plan, suspending additional work until conformance is achieved, or directing other measures that it deems necessary to control erosion, retain sediment on the site and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased.

D. Complaints from any party shall be investigated by the Commission.

**HISTORY: Added by State Register Volume 17, Issue No. 5, Part 3, eff May 28, 1993.**