CLINTON COUNTY
WATER MANAGEMENT
AND SEDIMENT CONTROL
REGULATION

BOARD OF CLINTON COUNTY COMMISSIONERS

Kerry Steed, President

Patrick Haley

Mike Curry

Clinton County, Ohio

Adopted February 12, 2014

Adoption

APPROVED on this 12th day of February, 2014 by the Board of Clinton County Commissioners.

Roll Call Vote:

Mr. Mike Curry

Mr. Patrick Haley

Mr. Kerry Steed

Attest: Debra L. Groves Date: 2/12/2014

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ARTICLE 1

Title, Statutory Authorization, Effective Date, and Statement of Purpose

Section 1.1 Title

This resolution shall be cited as the Clinton County Water Management and Sediment Control Regulations.

Section 1.2 Statutory Authorization

These regulations have been adopted in accordance with and pursuant to the legal grant of authority of Article XVIII, Section 3 of the Ohio Constitution, Section 307.79 and Section 519 of the Ohio Revised Code, and the Rules of 1501: 15-1-01 and 02 of the Ohio Administrative Code.

Therefore, the Board of County Commissioners of Clinton County, State of Ohio, does ordain the following:

Section 1.3 Effective Date

These regulations become effective 31 days after their adoption in resolution by the Board of County Commissioners of Clinton County.

Section 1.4 Statement of Purpose

These regulations are to establish minimum water management and conservation practices to control the pollution of public waters by sediment from accelerated soil erosion and stormwater runoff caused by earth-disturbing activities and land use changes connected with activities within a development area (see definition). Further, these regulations:

A. Promote development while eliminating or significantly reducing downstream flooding, erosion and sedimentation damages.

B. Eliminate or significantly reduce damage to receiving streams and drainage systems which may be caused by increases in the quantity and/or rate of water discharged, and impairment of their capacity which may be caused by sedimentation.

C. Promote and maintain the health, safety and general well-being of the environment and the inhabitants of Clinton County; and

D. Provide a means for the delegation of Water Management and Sediment Control Plan approval, construction and maintenance inspections, and enforcement.

ARTICLE 2

General Provisions

Section 2.1 Scope

The Regulations shall apply to earth-disturbing activities in all unincorporated areas of Clinton County, unless otherwise excluded within the Regulations or expressly excluded by law:

A. A Water Management and Sediment Control Plan shall be filed for any development area and the buildings constructed within, regardless of the phasing of construction.

1. Individual lots in a subdivision development shall not be considered separate earth-disturbing activities and shall not require individual permits. Instead, the subdivision's development, as a whole, shall be considered to be a single earth- disturbing activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.

2. Where individual lots or sections in a subdivision are being developed by different property owners, all earth-disturbing activities related to the subdivision shall be covered by the approved Water Management and Sediment Control Plan for such developments.

3. Subdivisions with construction drawings, approved prior to the effective date on these regulations, are exempt from these requirements. Development of new phases of existing subdivision shall comply with the provisions of these regulations.

Section 2.2 Exemptions

These regulations shall apply to earth-disturbing activities performed within the jurisdiction of all unincorporated areas of Clinton County, unless expressly excluded as follows:

A. Strip mining operations regulated under Section 1513.01 Ohio Revised Code;

B. Surface mining operations regulated under Section 1514.01 Ohio Revised Code.

C. Areas managed jointly as a farming or silviculture operation, or regulated by Ohio Agricultural Sediment Pollution Abatement Rules (1501:15-3-01 to 1501:15-3-09) of the Administrative Code; or

D. Public projects undertaken by a government agency shall not be required to have a Water Management and Sediment Control Permit or plan provided that the government agency has a sediment control policy approved by the Chief of the Division of Soil and Water Conservation of the Department of Natural Resources. All other provisions of these regulations shall apply.

Section 2.3 Disclaimer of Liability

Neither submission of a plan under the provisions herein, nor compliance with the provisions of these regulations shall relieve any person from responsibility for damage to any person or property otherwise imposed by law; not impose any liability upon Clinton County or its representatives for damage to any person or property.

Section 2.4 Severability

If any clause, section or provision of these regulations is declared invalid or unconstitutional by a court of competent jurisdiction, validity of the remaining provision shall not be affected thereby.

ARTICLE 3

Requirements and Performance Criteria

Section 3.1 Submission Requirements

For land subdivided prior to the enactment of this Resolution, a Water Management and Sediment Control Plan shall be submitted at the time of, and together with, an application for a building permit for construction.

A. A Water Management and Sediment Control Plan shall be submitted at the same time and together with submission of a preliminary or final plan, per the Clinton County Subdivision Regulations, as amended.

B. Once the Water Management and Sediment Control Plan is approved, such approval is valid only for the subdivision, development or building permit approved. Any further earth-disturbing activities on the lot or site require an additional permit.

C. For all land developed after the enactment of this Resolution, a Water Management and Sediment Control Plan shall be submitted to the Clinton Soil & Water Conservation District.

Section 3.2 Water Management and Sediment Control Plan Requirements

The Water Management and Sediment Control Plan shall be submitted and approved by the Clinton Soil & Water Conservation District prior to earth-disturbing activities. The Water Management and Sediment Control Plan shall contain a narrative and site plan component.

A. The following narrative shall be included on the site plans in the form of notes.

1. The schedule of major construction operations is related to implementing erosion and sediment control practices and stormwater management facilities.

2. Maintenance requirements for temporary erosion and sediment control practice:
   a) Sediment levels necessitating clean out;
   b) Person to perform maintenance.

3. The name, address and telephone number of the WMSC plan designer and the owner or person(s) responsible for the development area.

B. The application shall be augmented with a written description of the following overall project concept:

1. Stormwater run-off computation;

2. Stormwater controls, both during and after development;

3. Projected time schedule; and,

4. Where the project envisions using an existing facility, declaration and certification from the owner of the existing facility stating the adequacy of such existing facility.

Section 3.3 Site Plan Requirements

The following shall be included on the site plan before approval by the Clinton Soil & Water Conservation District:

A. Vicinity map at a scale of two thousand (2,000) feet to the inch, locating the site relative to the surrounding area.

B. Scale, north point and date.

C. Name of the proposed subdivision, name and address of the property owner and individual or firm preparing the Plan.

D. Tract boundary with distances marked to the nearest foot and bearings to the nearest degree, total acreage, existing and proposed use, including total area of impervious surfaces after construction.

E. Existing soil types, flood hazard boundaries, streams or drainage courses.

F. Topographic conditions of both existing and proposed elevations at intervals of two (2) feet for land with an average natural slope of five (5) percent or less and at intervals of five (5) feet for land with an average natural slope exceeding five (5) percent.

G. Horizontal and vertical profiles of any existing watercourses, drainageways, channels or streams, including hydrologic capacity; construction specifications, including the materials to be used for stormwater management structures; hydraulic, hydrologic and structural computations for all proposed stormwater management facilities; and ten (10) foot access easement around all stormwater management structures and from such structures to a public right-of-way.

H. If stormwater management facilities are off-site, a note on the plan indicating location and responsibility for conveyance and maintenance; all such off-site facilities shall meet the design standards and criteria specifics in this Resolution and shall be included with the Plan.

I. A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture which can be altered or removed only after approval of a revised plan by the Clinton Soil & Water Conservation District.

J. Erosion and sediment control practices which include their location, settling ponds drawn to scale with basic dimensions and detail drawings of structural control practices.

K. Proposed utilities, which may effect erosion and sediment, control practices.

Section 3.4 Performance Criteria

A. Timing of Sediment Trapping Practices

Sediment control practices shall be functional throughout earth-disturbing activity. Settling facilities, sediment barriers and other practices intended to trap sediment shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the up-slope development area is restablized.

B. Stabilization of Denuded Areas

Denuded areas shall have soil stabilization applied within seven (7) days, if they are to remain dormant (undisturbed) for more than forty-five (45) days. Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site and shall also be applied within seven (7) days to denuded areas which may not be at final grade but will remain dormant for longer than forty-five (45) days.

C. Settling Facilities

Concentrated stormwater runoff from denuded areas flowing at rates which exceed the design capacity of sediment barriers, shall pass through a sediment-settling facility. The facility's storage capacity shall be sixty-seven (67) cubic yards per care of drainage area.

D. Sediment Barriers

Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions directing runoff to settling facilities shall project adjacent properties and water resources from sediment transported by sheet flow.

E. Storm Sewer Inlet Protection

All storm sewer inlets, which accept water runoff from the development area, shall be protected so that sediment-laden water will not enter the storm sewer system without first being treated to remove sediment, unless the storm sewer system drains to a settling facility.

F. Working in or Crossing Streams

1. Streams, including bed and bank, shall be restablized immediately after in-channel work is completed, interrupted or stopped. To the extent practicable, construction vehicles shall be kept out of streams. Where in-channel work is necessary, precautions shall be taken to stabilize the work area during construction to minimize erosion.
2. If a live (wet) stream must be crossed by construction vehicles regularly during construction, a temporary stream crossing shall be provided.

G. Construction Access Routes

Measures shall be taken to prevent soil transport onto surfaces where runoff is not checked by sediment controls, or onto public roads.

H. Sloughing and Dumping

1. No soil, rock, debris or any other material shall be dumped or placed into a water resource or into such proximity that it may readily slough, slip or erode into a water resource unless such dumping or placing is authorized by the Clinton Soil & Water Conservation District and, when applicable, the U.S. Army Corps of Engineers for such purposes as, but not limited to, construction of bridges, culverts and erosion control structures.
2. Unstable soils prone to slipping or landslides shall not be graded, excavated, filled or have loads imposed upon them unless the work is done in accordance with a qualified professional engineer's recommendations to correct, eliminate or adequately address such problems.

I. Cut and Fill Slopes

Cut and fill slopes shall be designed and constructed in a manner, which will minimize erosion. Consideration shall be given to the length and steepness of the slope,soil type, up-slope drainage area, groundwater conditions and slope stabilization.

J. Stabilization of Outfalls and Channels

1. Outfalls and constructed or modified channels shall be designed and constructed to withstand the expected velocity of flow from a post-development, ten (10) year frequency storm without eroding.

K. Establishment of Permanent Vegetation

Permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until ground cover is achieved which, in the opinion of the Clinton Soil & Water Conservation District, provides adequate cover and is mature enough to control soil erosion satisfactorily and to survive adverse weather conditions.

L. Disposition of Temporary Practices

All temporary erosion and sediment control practices shall be removed or permanently stabilized within thirty (30) days after final site stabilization is achieved or after the temporary practices are no longer needed, unless otherwise authorized by the Clinton Soil & Water Conservation District.

M. Maintenance

All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as needed to assure continued performance of their intended function. The person or entity responsible for the continued maintenance of permanent erosion controls shall be identified to the satisfaction of the Clinton Soil & Water Conservation District.

ARTICLE 4

Standards and Criteria

Section 4.1 Water Management and Sediment Control Plan Content

In compliance with Article 3 and 4, a Water Management and Sediment Control Plan Content plan shall identify potential erosion, sediment pollution and stormwater problems from the development area and describe measures to be taken to control those problems. The Water Management and Sediment Control Plan shall be submitted to and approved by the Clinton Soil & Water Conservation District prior to any earth-disturbing activity on the development area. The document shall contain the following information:

A. Plan Requirements for Development Areas Five (5) Acres or More

In compliance with Section 3.3, plans for proposed land development areas shall contain, at a minimum, the information that is specified below. The Clinton Soil & Water Conservation District shall have the right to require any additional information, as it may deem necessary to determine compliance with the requirements of these regulations. It shall also have the right to waive individual informational requirements, if it considers that they are not necessary to determine compliance. All site plans will include:

1. Location of the area, total area involved and its relation to its general surroundings including, but not limited to:
   a) Off-site areas susceptible to sediment deposits or to erosion caused by accelerated runoff; and,
   b) Off-site areas affecting potential accelerated runoff and erosion control

2. Existing topography of the development area and adjacent land within one hundred (100) feet of the boundaries. A topographic map should contain no less than a two (2) foot contour interval to clearly portray the conformation and drainage pattern of the area;

3. The location of existing buildings, structures, utilities, water bodies, drainage facilities, vegetative cover, paved areas (streets, roads, driveways, sidewalks), and other significant natural or man-made features on the development area and adjacent land within one hundred (100) feet of the boundaries;

4. An illustration of soil types, their locations and descriptions;

5. Proposed use of the development area including present development and ultimate utilization with detail on soil cover, both vegetative and impervious;

6. All proposed earth disturbance including:
   a) Areas of excavation, grading and filling;
   b) The finished grade, stated in feet horizontal to feet vertical of cut and fill slopes;
   c) Kinds of utilities and proposed areas of installation;
   d) Proposed paved and covered areas in square feet or to scale on a plan view map;
   e) Makeup of proposed surface soil (upper six inches) on areas not covered by buildings, structures or pavement. Description shall be in such terms as: original surface soil, subsoil, sandy, heavy clay, stony; and
   f) Proposed kind of cover on areas not covered by buildings, structures, or pavement. Description shall be in such terms as: lawn, turfgrass, shrubbery, trees, forest cover, riprap, and mulch.

7. Provisions for temporary and permanent erosion control;

8. Provisions for the management of stormwater control facilities to insure short as well as long-term erosion and sediment pollution control and stormwater management;

9. Provisions for maintenance of stormwater control facilities to insure short as well as long-term erosion and sediment pollution control and stormwater management.
   Examples include:
   a) Self-maintained
   b) Homeowner Organization
   c) Cooperative Ditch Maintenance

10. Proposed construction sequence, time schedules, and proposed start and completion dates for all earth-disturbing activities and installation of practices for erosion and stormwater management.

11. Design computations and applicable assumptions for all structural measures for erosion and sediment pollution control and water management. Volume and velocity of flow must be given for all surface water conveyance. This information shall also be provided for surface water outlets;

12. Seeding mixtures and rates, lime and fertilizer application rates and kind and quantity of mulching for both temporary and permanent vegetative control measures.

13. Estimated cost of erosion and sediment control and water management structures and features.

14. Title, scale, direction, legend and date of all maps and dates of fieldwork and reports. Maps shall be drawn to a scale of one inch equals twenty feet (1"=20') through one inch equals two hundred feet (1'=200') on a sheet size no smaller than eleven inches by seventeen inches (11"x17").

15. Names, address and telephone number of the person(s) preparing the plan, the owner, and the person responsible for the development area;

16. Certification that all earth disturbance, construction and development will be done pursuant to the plan and compatible with specifications set forth in Rainwater and Land Development (Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection, Second Edition 1996), as amended, available through the Clinton Soil & Water Conservation District office;

17. Certification by the person responsible for the earth-disturbing activity, that the earth-disturbing activity will be accomplished pursuant to the approved plan and that responsible personnel will be assigned to the project;

18. Certification by the person responsible for the earth-disturbing activity of the right of the Clinton Soil & Water Conservation District or its representative to conduce on-site inspections; and

19. The Clinton Soil & Water Conservation District shall not consider the Water Management and Sediment Control Pan approved without the inclusion of an approval stamp with a signature and date on the plans. 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 or effectiveness of any provision, or omission from the Water Management and Sediment Control Plan.

B. Plan Requirements for Development Areas Less than Five (5) Acres

The Water Management and Sediment Control Plan required for earth-disturbing activities of less than five (5) acres, which are not part of a larger common plan of development, or sale shall contain the following information:

1. A narrative description of the Water Management and Sediment Control Plan to be used during earth-disturbing activities;

2. A plan (engineer's or architect's seal not required) to scale between one inch equals ten inches (1"=10") through one inch equals one hundred inches (1"=100') to accompany the narrative which shall contain:
   a) A site location drawing indicating the location to the proposed project in relation to roadways, jurisdictional boundaries, streams and river;
   b) The boundary lines of the site on which the work is to be performed;
   c) A topographic map and soil type of the site if required by the Clinton Soil & Water Conservation District;
   d) The location of temporary and permanent vegetative and structural water management and sediment control measures;
3. A general description of adjacent property and a description of existing structures, buildings and other fixed improvements located on surrounding properties.

4. Provisions for maintenance of stormwater control facilities to insure short, as well as long-term erosion and sediment pollution control and stormwater management. Examples include:
   a) Self-maintained
   b) Homeowner Organization
   c) Cooperative Ditch Maintenance

6. An anticipated starting and completion date of the various stages of earth-disturbing activities and the expected date of the final stabilization will be completed;

7. Certification by the person responsible for the earth-disturbing activity, that the earth-disturbing activity will be accomplished pursuant to the plan; and,

8. Certification by the person responsible for the earth-disturbing activity of the right of the Clinton Soil & Water Conservation District or its representative to conduct on-site inspections.

C. Requirements for Development Areas less than Two (2) Acres

Developments for uses disturbing less than two (2) acres, and which is not part of a larger common plan of development or sale, will be required to submit a plan and required to address the following. These developments shall be required to file a drainage plan with the applicable agency administering these regulations that will include, at a minimum, the following:

1. A location map of proposed development showing its relationship to its general surroundings.

2. A description of the location and character of the drainage system to be utilized to transport any and all confined runoff and subsurface drainage water to an open outlet defined as a perennial or intermittent stream with adequate depth to allow one (1) foot of freeboard and a minimum of two (2) feet of cover over the top of the tile.

3. A copy of any maintenance easements required any other regulations for the drainage system such as easements to maintain approved off-lot sewage discharge.

4. A copy of any private or petition-based maintenance agreements in place covering all or parts of the drainage system being utilized as part of the drainage plan.

Section 4.2 Erosion and Sediment Control

In order to control sediment pollution of water resources, the owner or persons responsible for the development area shall use conservation planning and practices to maintain the level of conservation pursuant to the following standards:

A. Timing of Sediment Trapping Practices

Sediment control practices shall be functional throughout all earth-disturbing activity. Settling facilities, perimeter controls, and other practices intended to trap sediment shall be implemented as a first step of grading and within seven (7) days from the removal of vegetation (grubbing). They shall continue to function until the upslope areas are stabilized.

B. Temporary stabilization of Denuded Areas

Denuded areas shall have soil stabilization applied within seven (7) days if they are to remain dormant (undisturbed) for more than forty-five (45) days. Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site, and shall also be applied within seven (7) days to denuded areas which may not be at final grade, but will remain dormant for longer than forty-five (45) days. Necessary steps shall be taken to prepare the soil if vegetative growth is required.

C. Settling Facilities

If the size of a denuded area is five (5) acres or more, concentrated stormwater runoff from the area shall pass through a temporary sediment-settling basin. The storage capacity of the basin shall be sixty-seven (67) cubic yards per acre of the drainage area. If effective perimeter controls are used on the subject property or on adjacent property, and/or if filtration is accomplished, then, with prior approval, the design of such facilities may be changed from the minimum.

D. Perimeter Controls

Appropriate sediment barriers shall be installed to protect adjacent properties and waters of the State from sediment transported by sheet flow from denuded areas of the development. Such facilities shall be site specific and may include such items as sediment filters, diversions to settling facilities or barriers.

E. Storm Sewer Inlet Protection

All storm sewer inlets which accept water from the development area shall be protected so that sediment-laden water will not enter the storm sewer system without first being filtered or otherwise treated to remove sediment, unless the storm system drains to a settling facility.

F. Working in or Crossing Streams

Streams, including beds and banks, shall be re-established immediately after in-channel work is completed, interrupted or stopped. To the extent practicable, construction vehicles shall be kept out of the streams. Where in-channel work is necessary, precautions shall be taken to stabilize the work during construction to minimize erosion.

1. If a flowing stream must be crossed by construction vehicles regularly during construction, a temporary stream crossing shall be provided pursuant to applicable floodplain regulations and necessary 404 permits issued by the U.S. Corps of Engineers.

G. Construction Access Routes

Measures will be taken to prevent soil transport onto public roads or surfaces where runoff is not controlled by sediment controls.

H. Sloughing and Dumping

1. No soil, rock, debris or other material shall be dumped or placed into a water resource or into such proximity as to cause it to slough, slip or erode into a water resource unless such dumping or placing is authorized by approving agency and when applicable, the U.S. Army Corps of Engineers and floodplain regulations, for such purposes as, but not limited to, construction of bridges, culverts and erosion control structures.

2. Unstable soils prone to slipping or land sliding shall not be graded, excavated, filled or have loads imposed upon them unless the work is done in accordance with the recommendations of a qualified professional engineer to correct, eliminate or adequately address such problems.

I. Cut and Fill Slopes

Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Consideration shall be given to the length and steepness of the slope, soil type, upslope drainage area, groundwater conditions and slope stabilization.

J. Stabilization of Outfalls and Channels

Outfalls and constructed or modified channels shall be designed and constructed to withstand the expected velocity of flow from a post-development, ten (10) year frequency, twenty-four (24) hour duration storm without eroding or flooding.

K. Establishment of Permanent Vegetation

1. A permanent vegetative cover shall be established and maintained on denuded areas that are not otherwise permanently stabilized. Permanent soil stabilization treatment shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site.

2. In the event of adverse weather conditions, a reasonable extension of time may be granted by inspecting officials. Adequate steps shall be taken to prepare the soil to guarantee proper vegetative growth.

3. Permanent vegetative cover shall be considered established only when, in the judgment of the inspecting official, ground cover achieved provides adequate cover and is mature enough to control soil erosion satisfactorily and to survive adverse weather conditions.

L. Cessation of Temporary Practices and Deposition of Temporary Facilities

All temporary erosion and sediment control practices shall cease and temporary facilities shall be disposed of within thirty (30) days after final site stabilization is achieved. Trapped sediment shall be permanently stabilized to prevent further erosion.

M. Maintenance

All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as needed to assure continued performance of their intended function. The person or entity responsible for the continued maintenance of permanent erosion controls shall be identified to the satisfaction of the inspecting official.

Section 4.3 Stormwater Control

To protect property from flood damage and channel erosion, and to protect water resources from degradation resulting from accelerated stormwater flows, all development areas shall be designed and constructed in compliance with these regulations.

A. Requirements

1. Stormwater management systems shall be designed for the ultimate use of the land. Development areas developed for subdivision shall provide a stormwater management system for the ultimate development of all the subdivided lots.

2. Stormwater management facilities shall be designed so that they will continue to function with minimal maintenance.

3. Stormwater management facilities shall be designed for multi-use wherever practical.

4. Stormwater management facilities shall be designed with specific regard to safety.

5. The design criteria shall be applied to each watershed within the development area. If the inspecting officials allow post-development drainage to cross pre-development drainage divides, all pre- and post-development runoff rates and volumes shall be calculated using their respective drainage divides.

B. Stormwater Management Design Criteria

1. General
   a) Runoff Rate
      The runoff rate from the development area shall not be greater after development than it was before development for all design storms.
   b) Increases in runoff volume shall be offset by further restricting runoffrates percritical storm calculations described below.

2. Runoff Volume
   a) The runoff volume from the development area may be greater after development than it was before development if the increase is offset by further restricting runoff rates. This modification of runoff rates shall be determined by a "critical storm" calculation as described below.

3. Calculation Method
   a) All calculations for site runoff rates & runoff volumes shall be done using the method presented in the United States Department of Agriculture, Natural Resources Conservation Service, Engineering Division, UrbanHydrology for Small Watersheds, Technical Release No. 55 (TR-55).
   b). All calculations to analyze detention pond function shall be done using the "storage indication method". Results shall be in tabular form showing each hydrograph time interval with the corresponding inflow, stage elevation, storage volume, and outflow. This table shall be provided for each 24 hour design storm.
   c) Design submittal shall include a "pre-developed" site plan and a "post- developed" site plan. Each plan shall clearly show the total area involved in each case. The site plan in each case shall be divided into subareas and assigned appropriate curve numbers with acres noted. Each plan shall show contour lines and detailed topographic information with direction of stormwater runoff indicated. Details of adjacent properties shall be shown as needed where stormwater leaves the site so that downstream situations can be considered. All calculations and results shall be summarized in a tabular form to facilitate review.

4.Preliminary Calculations

a) For a 5-year design storm calculate the stormwater runoff rate for the pre-developed and the post-developed conditions. If there is more than one watershed within the development area, consider each one separately.

b) For a 5-year design storm calculate the stormwater runoff volume for the pre-developed and the post-developed conditions. If there is more than one watershed within the development area, consider each one separately.

c) Compare the pre-developed results with the post-developed results foreach case noted in "a." and "b." above. If the post-developed results areless than or equal to the pre-developed results detention of stormwater runoff will not be required. No additional calculations are needed. If the post-developed results are greater than the pre-developed results in either case, detention calculations will be required as follows.

5. Detention Calculations & Criteria

a) Runoff Rate

The runoff rate from the development area shall not be greater after development than it was before development. The applicant shall provide calculations showing no increase in the runoff rates from the two-, five-, ten-, twenty-five-, fifty-, and one hundred- (1, 2, 5, 10, 25, 50, and 100) year storms. If post-developed runoff volumes are greater than pre-developed runoff volumes, allowable post-developed runoff rates may be modified (see below).

b). Runoff Volume

When post-developed stormwater runoff volume is greater than pre-developed runoff volume the increase in volume may need to be offset by modifying the allowable runoff rate described above. This modification in the allowable rate of stormwater runoff leaving the site is to be determined by calculating the "critical storm".

Critical Storm Calculation:

- Calculate pre-developed site runoff volume for a 1 year storm.
- Calculate post-developed site runoff volume for a 1 year storm.
- Determine percent increase of runoff volume.
- Using this percentage, select the critical storm from the Table 4-1. Note that for a 0%-10% increase in runoff volume (a 1-year critical storm) no modification to the allowable peak runoff rate is required.

- If calculations for the percentage increase in volume result in a 2 year critical storm or greater, modification to the allowable peak runoff rate of stormwater leaving the site will be as follows. For the post-developed condition, the allowable peak runoff rate resulting from the critical storm will be limited to the pre-developed peak runoff rate resulting from a 1 year storm. Storms of less frequent occurrence (longer return periods) than the critical storm up to the one-hundred (100) year, twenty-four (24) hour storm have peak runoff rates no greater than the peak runoff rate from the equivalent size storm under pre-development conditions. Considerations of the one-, two- five-, ten-, twenty-five-, fifty, and one-hundred- (1, 2, 5, 10, 25, 50, and 100) year, twenty-four hour storms will be considered adequate in designing and developing to meet this standard.

TABLE 4.1
CRITICAL STORM FOR DISCHARGE LIMITATION

If the percentage of increase in volume of runoff is:

EQUAL TO OR GREATER THAN	AND LESS THAN	THE CRITICAL STORM FOR DISCHARGE LIMITATION WILL BE
---	10%	1 year
10%	20%	2 year
20%	50%	5 year
50%	100%	10 year
100%	250%	25 year
250%	500%	50 year
500%	---	100 year

c) Stormwater Quality Standards
Stormwater quality standards are determined and enforced by the Ohio Environmental Protection Agency and are not regulated by the Clinton County Soil and Water Conservation District. The design of detention facilities may incorporate stormwater quality features as required by the OEPA.

C. Control Methods

Methods for controlling increases in stormwater runoff peaks and volumes may include:

1. Retarding flow velocities by increasing friction; for example, grassed road ditches rather than paved street gutters where practical; discharging roof water into vegetated areas; or grass and rock-lined drainage channels;

2. Grading and construction of terraces and diversion to slow runoff and use of grade stabilization structures to provide a level of control in flow paths and stream gradients;

3. Induced infiltration of increased stormwater runoff into the soil where practical; for example, constructing special infiltration areas where soil are suitable, retaining topsoil for all areas to be revegetated, or providing good infiltration areas where proper emergency over-flow facilities; and,

4. Provisions for retention and detention; for example, permanent ponds and lakes with stormwater basins provided with proper drainage, multiple use areas for stormwater detention and recreation, wildlife, transportation, fire protection, aesthetics, or subsurface storage areas.

D. Vector Controls

All water 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:

1. The bottom of detention facilities should be graded and have a slope of 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 surfaces to prevent an overgrowth of vegetation in the pond; and/or

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

Section 4.4 Stormwater Facility Maintenance

A. The owner and/or developer shall maintain all facilities and practices installed as part of the approved plan. This maintenance will continue for a period of one year from the date that construction was released by the Clinton Soil & Water Conservation District.

B. Continuing maintenance of any permanent facilities shall revert to the owners of the parcels, such as a homeowners group. It is the intent that any permanent facilities affecting more than one (1) landowner shall be petitioned by the owners and/or developers to the Board of County Commissioners of Clinton County through the Ohio Drainage Law for permanent maintenance of any or all of these facilities that may benefit two or more landowners. Such procedures shall follow the Ohio Revised Code Chapter 1515, Chapter 6131 or Chapter 6137. The Clinton Soil & Water Conservation District may require such structures and facilities to be designed to reduce future maintenance costs. If the affected facility is not petitioned or if the petition is denied, an agreement shall be recorded to address the ongoing maintenance by the owners or homeowners group.

C. Any on-going maintenance agreements or restrictions shall be recorded on the deed for the property, including reference to those responsible for maintenance. The location, dimension and bearing of such facilities and easements shall also be recorded on the deed and transferred to future owners. When on a subdivision, the items referenced above shall be a part of the final plat and will likewise be recorded for that subdivision.

ARTICLE 5

Administration

Section 5.1 Permit Parameters

A Water Management and Sediment Control Permit shall be required for any earth-disturbing activities involving an area greater than ten thousand (10,000) square feet.

A. For earth-disturbing activities disturbing five (5) or more acres, the requirements of Section 5.1-1 shall apply.

B. For earth-disturbing activities involving less than five (5) acres but more than ten-thousand (10,000) square feet, and which are not part of a larger plan of development or subdivision, a simplified permitting and approval process shall be imposed and need the requirements of Section 5.1-2.

C. For earth-disturbing activities involving less than two (2) acres but more than ten-thousand (10,000) square feet, and which is not part of a larger common plan of development or subdivision, a drainage plan shall be required according to the requirements of Section 5.1-3.

Section 5.2 Application for Permit and Approval Process

A. An application for a Water Management and Sediment Control Permit shall be completed and submitted to the Clinton Soil & Water Conservation District. The Clinton Soil & Water Conservation District shall review the application and may forward copies of the application to other agencies as may be affected by the proposed activities.

B. If the Clinton Soil & Water Conservation District finds the application in conformance with the provisions of these Regulations, a permit shall be issued. Such permit may be issued with reasonable conditions as deemed necessary to secure the objectives of this Resolution.

C. Application for a Water Management and Sedimentation Control Permit shall be approved or denied within thirty (30) days from the date application was received by the Clinton Soil & Water Conservation District. Should revisions to the application or supporting data be required, the thirty (30) day review period commences upon receipt of such revisions.

D. All Water management and Sedimentation Control Permit holders shall notify the Clinton Soil & Water Conservation District no less than five (5) working days before the commencement of work authorized by said permit.

E. All permitted earth-disturbing activities may be subject to site inspections by the Clinton Soil & Water Conservation District or designated representative, to ascertain compliance with these Regulations.

F. The approved Water Management and Sediment Control Plan(s) shall serve as the basis for water quality control on all subsequent construction activities.

1. In applying the Water Management and Sediment Control Plan criteria, in Article 5, individual lots in a subdivision development and shall not be considered to be separate earth-disturbing activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.
2. Where individual lots or sections in a subdivision are being developed by different property owners, all earth-disturbing activities related to the subdivision shall be covered by the approved Water Management and Sediment Control Plan for such developments.
3. Subdivisions with construction drawings, approved prior to the effective date of these regulations, are exempt from these requirements. Development of new phases of existing subdivision shall comply with the provisions of these regulations.

Section 5.3 Guarantees of Completion of Work

A. In order that the Board of Clinton County Commissioners has the assurance that the construction and installation of required water management and sediment control structures, features and measures which are required by the approved plan for one (1) acres or more of earth-disturbing activities will be completed, the developer shall enter into one of the agreements:

1. To construct all improvements directly affecting the development area, as required by the approved plan, prior to the issuance of a building permit or approval of a final subdivision plat as appropriate.
2. In lieu of the completion of the improvements, to execute a performance bond with the Board of Clinton County Commissioners, Clinton County, Ohio. The value of the bond shall be calculated as follows: one hundred and thirty (130) percent of the estimated costs of all incomplete improvements plus twenty (20) percent of all completed improvements as shown on the plans and based on an estimate by a Professional Engineer currently licensed in the State of Ohio. Improvements covered by a bond to the Board of Clinton County Commissioners for major subdivision improvements are not required to be covered by an additional bond.

B. The performance bond shall run to Clinton County for a period of twelve (12) months beyond the final inspection and approval of the project and shall provide that the developer, his heirs, successors and assigns, their agents or servants will comply with all applicable terms, conditions, provisions and requirements of these regulations, and will faithfully perform and complete the work of constructing, installing and maintaining such facilities or improvements in accordance with such laws and regulations.

C. Before the performance bond is accepted, it shall be approved by the proper administrative officials, including, but not limited to the Clinton County Prosecutor's Office.

D. When improvements have not been constructed in accordance with the agreement, and with specifications as established, the Board of Clinton County Commissioners may exercise its right of forfeiture to complete said work.

Section 5.4 Inspection to Ensure Compliance

A. The Clinton Soil & Water Conservation District and/or its representative may inspect development areas to determine compliance with these regulations. Such inspections are authorized for all developments, as set forth in Section 5.1-1 and 5.1-2 of these Regulations.

B. The person responsible for the earth-disturbing activity shall notify the Clinton Soil & Water Conservation District before initiation of construction and upon project completion when a final inspection will be conducted to ensure compliance with the approved Water Management and Sediment Control Plan.

C. The person responsible for the earth-disturbing activity shall, if required during the plan approval process, submit "as built or record document" plans. In addition, the person responsible for the earth-disturbing activity may be required to submit written certification from the professional engineer or architect responsible for the field supervision of the earth-disturbing activity that the earth-disturbing activity was accomplished according to the approved Water Management and Sediment Control Plan or approved changes.

D. For inspection purposes, the Clinton Soil & Water Conservation District shall:

1. Ensure that a copy of the approved Water Management and Sediment Control Plans are on the project site and being properly implemented;
2. Ensure that, on a regular basis, each active site is inspected for compliance with the approved plan; and,
3. Provide the person responsible for the earth-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.

E. If violations are observed, notification shall be made to the person responsible for the earth-disturbing activity in writing describing the nature of violation, the required corrective action and the time period for violation correction as described in Section 6.5.

F. The Clinton Soil & Water Conservation District may require a revision to the approved plans as necessary due to differing site conditions.

G. Water management construction shall have inspection accomplished as needed.

Section 5.5 Enforcement Actions

A. The Clinton Soil & Water Conservation District and/or its representatives may inspect any permitted development area to determine compliance with the approved plan and these regulations. When it is determined that there is a violation or the development area is not in compliance, the following procedure shall be followed:

1. The inspector representing the Clinton Soil & Water Conservation District shall notify the site superintendent of the violation and the work required to be in compliance with the approved plan and the regulations. Notification shall be in writing.
2. One week following the inspection, during which the violation was noted or after a time period mutually agreed to by the inspector and the site superintendent, the inspector shall re-inspect the site.
3. If the violation still exists, the Clinton Soil & Water Conservation District may issue, by certified mail, an order to comply. The order shall describe the problem and the work needed, and specify a date whereby the work must be completed.
4. On the date specified in the order to comply, the site shall be re-inspected.
5. If the violation still exists, the issue may be reported to the Board of County Commissioners of Clinton County for consideration.

   If the Board of County Commissioners of Clinton County determines that a violation exists, one or all of the following options may be pursued:
   a) The WMSC Permit may be revoked. No earth-disturbing activity shall proceed without a WMSC Permit.
   b) The injunction or other appropriate relief may be sought through the court of competent jurisdiction.
   c) The performance bond may be used by the Clinton Soil & Water Conservation District to abate the erosion, sedimentation or water management program caused by the subject site.
6. The inability to perform any of the inspection and enforcement procedures as defined in this Section shall not preclude the use of any other procedure nor shall the procedure be binding in cases of severe hazard or threat to public welfare as determined by the Clinton Soil & Water Conservation District.

Section 5.6 Penalties for Violations

A. If it is determined that a violation exists, the responsible person for the earth-disturbing activity shall be notified of the deficiencies or non-compliance. After a reasonable period of time for voluntary compliance, the Clinton Soil & Water Conservation District shall notify the Board of County Commissioners of Clinton County of non-compliance. Any order to comply issued by the county's legal representative shall describe the problem, the work needed, and will specify a date by which the work shall be completed.

B. Violations of these regulations include, but are not limited to, the following:

1. Off-site sedimentation resulting from non-compliance with the approved Water Management and Sediment Control Plans has eliminated or severely degraded a use in a lake or natural waterway, or that such degradation is imminent;
2. Off-site sedimentation resulting from non-compliance with the approved Water Management and Sediment Control Plan has caused severe damage to adjacent land; and/or
3. The earth-disturbing activity requires an approved plan under these regulations and is being conducted without such an approved plan.

C. Any person who violates any provision or requirements of these regulations or who initiates or continues a earth-disturbing activity for which a Water Management and Sediment Control Plan is required except in accordance with the terms, conditions and provisions of an approved plan, is subject to civil penalty of not less than one hundred ($100) dollars and not more than five hundred ($500) dollars per violation. Each day of a violation constitutes a separate and distinct violation. Nothing herein contained shall prevent Clinton County from taking such other lawful action as deemed necessary to prevent or remedy any violation.

Section 5.7 Fees and Expenses

The Board of Clinton County Commissioners may set inspection and enforcement fees associated with the plan review and approval process.

Section 5.8 Variance Procedures

The Clinton Soil & Water Conservation Board may grant a variance from the requirements of these regulations where the applicant or permit holder can show that compliance with all or part of these regulations would result in practical difficulties. A variance may be granted if the probability of off-site damage is slight because of exceptional topographic or other physical conditions of the development area.

A. Requests for variances shall be submitted to the Clinton Soil & Water Conservation District and shall include the following information:

- Name, address and phone number of the applicant;
- A map or drawing, to approximate scale, of the property, showing the dimensions of the lot, existing and proposed improvements, existing and proposed sediment and water management structures;
- A narrative statement explaining in detail the nature of the variance the applicant is requesting together with the specific facts and other reasons justifying the variance in light of the purpose of these Regulations.

1. Upon filing a variance application with the Board, the Board shall hold a public hearing within forty (40) days and shall arrive at a decision within thirty (30) days after the public hearing.

2. Notice of the time, date and location of the public hearing shall be given by publication in one (1) or more newspapers of general circulation in Clinton County at least ten (10) days before the date of the hearing.

B. The Clinton Soil & Water Conservation District shall maintain the records of all variance requests.

C. A copy of the Board's decision shall be served upon the applicant, and any other interested person who specifically requests notice, by certified U.S. Mail, return receipt requested. Any person or persons aggrieved by a decision of the Board may appeal to the Clinton County Court of Common Pleas (see Section 6.10).

Section 5.9 Conditions for Variance

A. Variance shall be considered upon:

1. A showing of good and sufficient cause;
2. A determination that the granting of a variance would result in practical difficulties to the applicant;
3. A determination that the granting of a variance will not result in:
   a) additional threats to public safety;
   b) extraordinary public expense;
   c) the creation of nuisances; and,
   d) conflict with existing local laws or ordinances.

B. A project may be eligible for a stormwater control variance for both quantitative and qualitative control if the applicant can demonstrate using approved methods 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.

C. A project may be eligible for a stormwater control variance for water quantity control if the applicant can demonstrate that:

1. The proposed project will have no significant adverse impact on the receiving natural waterway or downstream properties; or,
2. The imposition of peak control requirements for rates of stormwater runoff would not aggravate downstream flooding.

D. Upon consideration of the factors of Section 6.9-1 and the purposes of this Resolution, the board may attach such conditions to the granting of variances, as it deems necessary to further the purposes of this Resolution.

Section 5.10 Appeals

Any person aggrieved by any order, requirement, determination or any other action or inaction by Clinton Soil & Water Conservation District, the Board of Clinton County Commissioners and/or the Variance Board in relation to these Regulations may appeal to the Court of Common Pleas. Such an appeal shall be made in conformity with Chapters 2505 and 2506 of the Ohio Revised Code.

ARTICLE 6

Definitions

For the purpose of this resolution, certain rules or word usage apply to the text as follows:

- Words used in the present tense include the future tense; and the singular includes the plural, unless the context clearly indicates the contrary.
- The term "shall" is always mandatory and not discretionary; the word "may" is permissive.
- The word or term not interpreted or defined by this article shall be used with a meaning of common or standard utilization, so as to give this resolution its most reasonable application.

Best Management Practices – 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 water runoff and which are compatible with the planned land use.

Channel – a natural stream that conveys water; a ditch or channel excavated for the flow of water.

Critical Storm – the longest periods of storm frequency that a structure or facility will be designed for.

Detention - a structure or facility whose primary purpose is to temporarily store stormwater runoff and release the stored runoff at controlled rates.

Development Area – any contiguous (abutting) area owned by one person or operated as one development unit and used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes upon which earth-disturbing activities are planned or underway.

Ditch – an area of concentrated water flow other than a river, stream, ditch, channel or grassed waterway.

Drainage ways – means an area of concentrated water flow other than a river, stream, ditch, channel or grassed waterway.

Dumping – grading, pushing, piling, throwing, unloading or placing

Earth-Disturbing Activity – any grading, excavating, filling or other alteration of the earth's surface where natural or man-made ground cover is destroyed and which may result in, or contribute to, erosion and sediment pollution.

Earth Material – soil, sediment, rock, sand, gravel and organic material or residue associated with, or attached to, the soil.

Erosion – is as follows:

A. The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep: and/or

B. The detachment and movement of soil or rock fragments by wind, water, ice or gravity.

C. Erosion includes:

1. Accelerated Erosion: erosion much more rapid than normal, natural or geologic erosion, primarily as a result of the influence of the activities of man;

2. Floodplain Erosion: abrading and wearing away of the nearly level land situated on either side of a channel due to overflow flooding;

3. Gully Erosion: the erosion process whereby water accumulates in narrow channels during and immediately after rainfall or snow or ice melt and actively removes the soil from this narrow area to considerable depths such that the channel would not be obliterated by normal smoothing or tillage operations;

4. Natural Erosion (geologic erosion): wearing away of the earth's surface by water, ice or other natural environmental condition of climate, vegetation, etc., undisturbed by man;

5. Normal Erosion: the gradual erosion of land used by man which does not greatly exceed natural erosion;

6. Rill Erosion: an erosion process in which numerous small channels only several inches deep are formed (occurs mainly on recently disturbed soils); and/or

7. Sheet Erosion: the removal of a fairly uniform layer of soil from the land surface by wind and water.

Final Site Stabilization–that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of at least 70% cover for the area has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed.

Grassed Waterway - a broad or shallow natural course or constructed channel covered with erosion resistant grasses of similar vegetative cover and used to conduct surface water.

Larger Common Plan of Development – contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

Off-Site – any area, location, or structure outside the limits of the parcel of land for which the earth-disturbing activity is taking place within.

On-Site – the parcel of land upon which the earth-disturbing activity is taking place.

Person – an individual, corporation, partnership, joint venture, agency, unincorporated association, municipal corporation, county or state agency, the federal government, or any combination thereof.

Plan – the Water Management and Sediment Control Plan.

Post-Development – the conditions which exist following the completion of the earth-disturbing activity in terms of topography, vegetation, and land use, as well as the rate, volume and direction of stormwater.

Regulations – the Clinton County Water Management and Sediment Control Regulations.

Residential Subdivision – as defined in Section 711.001 of the Ohio Revised Code, as amended.

Retention – a permanent structure of facility whose primary purposes is to permanently store a given volume of stormwater runoff.

Runoff Coefficient – the fraction of total rainfall that will appear at the conveyance as runoff.

Sediment – solid material both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by wind, water, gravity or ice and have come to rest on the earth's surface.

Sediment Basin – a barrier, dam or other suitable detention facility built across an area of waterflow to settle and retain sediment carried by the runoff waters.

Sediment Pollution – failure to use management or conservation practices to abate wind or water erosion of the soil sediment in conjunction with land grading, excavating, filling or other soil-disturbing activities on land used or being developed for non-farm commercial, industrial, residential or other non-farm purposes.

Sedimentation – the action or process of depositing sediment.

Sloughing – a downward movement of an extended layer of soil resulting from the undermining action of water or the earth-disturbing activity of man.

Soil Loss – soil relocated on, or removed from, a given site by the forces of erosion and the redeposition of the soil at another site on land or in a body of water.

Storm Frequency – the average period of time within which a storm of a given duration and intensity can be expected to be equaled or exceeded.

Storm Water – the 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.

Stream – a body of water running or flowing on the earth's surface or channel in which such flow occurs. Flow may be seasonally intermittent.

Swales – 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.

Topsoil – surface and upper surface soils, which presumable are darker, colored, fertile soil materials, ordinarily rich in organic matter or humus debris.

Variance – the modifications of the minimum water management and sediment control requirements for specific circumstances where strict adherence of the requirements would result in unnecessary hardship and not fulfill the intent of these regulations.

Water Management and Sediment Control Plan – a written description, acceptable to these regulations, of methods for controlling sediment pollution from accelerated erosion and/or accelerated runoff from a development area.

Waters of the State – all streams, lakes, ponds, wetlands, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations, of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, which are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters which do not combine or effect a junction with natural surface or underground waters.