

**Storm Water
And Sediment
Control Policy
Of The
City Of Cambridge**

January 2011

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SECTION I. INTRODUCTION

During construction, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes. In addition, clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat.

The purpose of this policy is safeguard persons, protect property, and prevent damage to the environment in Cambridge, Ohio. This policy will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any applicable activity that disturbs or breaks the topsoil or results in the movement of earth on land in Cambridge, Ohio. Additionally, this policy reinforces the need for those sites less than one acre in size to be classified as “Permit By Rule” construction sites required to implement and maintain best management practices until land disturbing activities have ceased and permanent stabilization has been achieved.

SECTION II. DEFINITIONS

Accidental Release	A discharge prohibited by this Article into the Municipal Separate Storm Sewer System (MS4) or community water that occurs by chance and without planning or consideration prior to occurrence.
OEPA	Ohio Environmental Protection Agency
Adverse Impact	Any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics, or usefulness, for human or natural uses which are or may be potentially harmful or injurious to human health, welfare, safety or property or to biological productivity, diversity or stability, or which would unreasonably interfere with the enjoyment of life or property.
Agriculture	Activities undertaken on land for the production of plants, crops, and animals that is useful to man.
Applicant	Any person, firm, corporation, or governmental agency, that executes the necessary forms to procure approval of an Erosion and Sedimentation Control Plan from the Authority.
Authority	The City of Cambridge and its authorized representatives.
Basin	(1) The surface of the area tributary to stream or lake. (2) Space above or below ground capable of retaining or detaining water or debris.

Best Management Practices (BMP)	Activities, prohibitions of practices, maintenance, procedures and management practices, designed to prevent or reduce the pollution of water to the Municipal Separate Storm Sewer System (MS4). BMP also includes treatment requirements, operating procedures, and practices, to control facility runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage and construction sites.
Best Management Practices (BMP Plan)	A set of drawings and/or other documents submitted by the applicant as a prerequisite to obtaining a permit. The site-specific BMP Plan contains all of the information and specifications pertaining to that site's BMP, including the long-term operation and maintenance of the BMP.
Buffer	A vegetated zone adjacent to a stream, wetland, or shoreline where development is restricted or controlled to minimize the effects of development.
Clean Water Act	The Federal Act (33 U.S.C. §1251 through §1387) which was formerly referred to as the Federal Water Pollution Control Act and Federal Water Quality Control Act Amendments of 1972, Public Law 95-576, Public Law 96-483 and Public Law 97-117, 33 U.S.C. § 12511-1387.
Clearing	The removal of trees and brush from the land, not including the ordinary mowing of grass to the maintenance of previously cleared land.
Community Water	Any or all rivers, streams , creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells, and other bodies of natural or artificial surface or subsurface water into which the MS4 outfalls flow.
Contour	A line of equal elevation above a specified datum. The datum most commonly used is mean sea level.
Contour Line	A line joining points having or representing equal elevations.
Detention Pond	A permanent storm water structure whose primary purpose is to temporarily store storm water runoff and release the stored runoff at controlled rates.

Discharge	The passing of water or other liquid through an opening or along a pipe, conduit, or channel. The rate of flow of water, silt or other mobile substance emerging from the pipe, conduit or channel is usually expressed as cubic feet per second, gallons per minute, or million gallons per day.
Drainage	The removal of surface water from a given area either by gravity or by pumping commonly applied to surface water and ground water.
Drainage Area	The area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridgeline; the area of a drainage basin or watershed, expressed in acres, square miles or other units of area.
Engineer	A person currently licensed by the Ohio State Board of Registration for Professional Engineers.
Erosion	A process by which, land surface is worn away by the action of the wind, water, ice or gravity.
Erosion Control	The application of measures to reduce erosion of land surfaces.
Erosion and Sediment Control Plan (ESC Plan)	A site-specific drawing or set of drawings prepared by a Qualified Credentialed Professional (QCP) utilizing approved BMP to control erosion and sediment for development.
Grading	Any act by which soil is cleared, stripped, stockpiled, excavated, scarified, or filled, or any combination thereof.
Illicit Connection	Any man-made conveyance connecting an illicit discharge directly to the MS4.
Illicit Discharge	Any discharge that is not composed entirely of storm water, except discharges pursuant to an NPDES Permit and discharges that are specifically exempted from this policy.
Land Disturbing Activities	Activities that include any land changing, which may result in soil erosion from water or wind and the movement of sediment to the MS4, including but not limited to the clearing, dredging, grading, excavation, transporting, and filling of land.
Local Approval	written approval from the authority indicating the submitted ESC plan was in compliance with this policy.
Maintenance	Owner of a BMP shall prepare and execute a Maintenance Agreement with the City that obligates the Owner to inspect and maintain the permanent BMPs installed.

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Minor Extension	An addition to an existing utility pipeline or utility line in which the land disturbed consists of less than 1 acre.
Municipal Separate Storm Sewer System (MS4)	A system of conveyances to include roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains which are owned and operated by a city, town, county or other public body created by or pursuant to State Law and having jurisdiction over storm water.
NPDES	An acronym for National Pollutant Discharge Elimination System.
Outfall	A point source (meaning any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged, but not including return flows from agricultural activities) at the point of a discharge to waters of the State.
Permit by Rule	The approval of a regulated activity without a formal application and approval process, under the condition that the activity is performed in compliance with all applicable rules. Any failure to comply with applicable rules would subject the activity to penalties for violation and normal application and approval requirements.
Permittee	A person, party, government entity and all others who receive a permit to discharge under the NPDES.
Pollutant	As defined by ORC 6111.01.
Pollutant Loading	The amount of pollutant entering the MS4.
Qualified Credentialed Professional	A Certified Professional in Erosion and Sediment Control (CPESC) as determined by the Soil and Water Conservation Society or the International Erosion Control Association (IECA). In addition, Other registered or certified professionals such as a professional engineer, landscape architect, registered land surveyor, Registered Environmental Manager as determined by the National Registry of Environmental Professionals (NREP), Certified Professional Soil Scientist (CPSS), as determined by the American Registry of Certified Professionals in Agronomy, Crops and Soils (ARCPACS), who can document the necessary education, training and professional certification, registration, or credentials acceptable to the Official and can demonstrate proven experience in the field of erosion and sediment control shall be

	<p>considered a qualified credentialed professional. The QCP must be in good standing with the authority granting the registration. The QCP must be familiar and have expertise with current industry standards for erosion and sediment controls and must be able to inspect and assure that nonstructural BMP or other pollution control devices (silt fences, erosion control fabrics, rock check devices etc.) and erosion control efforts, such as grading, mulching, seeding and growth management, or management strategies have been properly implemented and regularly maintained according to standard practices and Permit requirements. A Professional Engineer registered in the State of Ohio must certify the design and structural practices such as Spill Prevention Control and Counter-measure (SPCC) plan, containment structures, dam construction, etc.</p>
Sediment	<p>Solid material settled from suspension in a liquid that has been transported and deposited from its site of origin by air, water, ice or gravity as a product of erosion and has come to rest on the earth's surface either above or below a water surface, usually inorganic or organic particles origination from weathering, chemical precipitation or biological activity.</p>
Sedimentation	<p>Process by which eroded material is transported and deposited by action of water, wind, ice, and gravity.</p>
Settling Basin	<p>A temporary sediment trap or ponding area formed by excavation or construction of embankments where run-off is detained and sediment can settle.</p>
Silviculture	<p>The care and cultivation of forest trees, including site preparation, planting, pruning, thinning and harvesting.</p>
Site	<p>Any tract, lot, or parcel of land or combination of contiguous tracts, lots or parcels of land which are in one ownership, and any combination of tracts, lots or parcels of land which are contiguous and are owned by two or more parties and are to be developed as a unit, subdivision or project.</p>
Stabilization	<p>The prevention of soil movement by any of various vegetative and/or structural means.</p>
Storm Water	<p>The excess water running off from the surface of a drainage area during and immediately after a period of rain. It is that portion of the rainfall and resulting surface flow that is in excess of that</p>

	which can be absorbed through the infiltration capacity of the surface of the basin.
Storm Water Management	The incorporation of a variety of activities and equipment into a plan to address concerns associated with storm water for the purpose of preventing pollution, improving water quality, keeping pollutants out of the run-off, and the implementation of BMP.
Storm Water Management Program	A program which covers the duration of the NPDES Permit. The Program shall include a comprehensive planning process which involves public participation and where necessary, intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable, using management practices, control techniques and system design and engineering methods and other provisions which are appropriate.
Stream	A course of running water usually flowing in a particular direction in a definite channel and discharging into some other course of running water or body of water.
Structural Controls	Measures incorporated into existing storm water drainage systems or newly constructed systems to prevent or to minimize the discharge of pollutants for the purpose of maintaining and/or improving water quantity and quality management, quantitative control by a system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by man-made changes to the land; qualitative control by a system of vegetative, structural and other measures that reduce or eliminate pollutants that might otherwise be carried by surface runoff.
Turbidity	A condition in water or wastewater caused by the presence of suspended matter, resulting in the scattering and absorption of light rays. A measure of fine suspended matter in liquids.
USEPA	United States Environmental Protection Agency
Utility	A business or service which is engaged in regularly supplying the public with some commodity or service which is of public consequence and need such as, electricity, gas, water, wastewater, telephone service and telecommunications service.

Variance	The modification of the minimum storm water management requirements in situations in which exceptional circumstances, applicable to the site with respect to which the variance is requested, exist so that strict adherence to the provisions of this policy would result in unnecessary hardship and the granting of such modification would not result in a condition contrary to the intent of this policy.
Vegetative Control Measures	The establishment of vegetative ground cover that shields the soil surface from raindrop impact and the scouring effects of overland storm water flow.
Watercourse	A defined channel with bed and banks within which water flows, either continuously or in season. A watercourse is continuous in the direction of flow and may extend laterally beyond the definite banks to include overflow channels contiguous to the ordinary channel. The term does not include artificial channels such as canals and drains, except natural channels trained or restrained by the works of man. Neither does it include depressions or swales through which surface or errant waters pass.
2 Year Rainfall Event	The rainfall event having a 50% chance of being equaled or exceeded in any given year.
5 Year Rainfall Event	The rainfall event having a 20% chance of being equaled or exceeded in any given year.
10 Year Rainfall Event	The rainfall event having a 10% chance of being equaled or exceeded in any given year.
25 Year Rainfall Event	The rainfall event having a 4% chance of being equaled to or exceeded in any given year.
100 Year Rainfall Event	The rainfall event having a 1% chance of being equaled to or exceeded in any given year.
100 Year Flood Elevation	The boundary delineated by the crest elevations of the 100 Elevations year flood.

SECTION III. ADMINISTRATION

- A. The authority shall enforce the provisions of this policy. Whenever “Authority” is used in this policy it shall include the authorized agent of the entity (i.e. City Engineer).

SECTION IV. NON-CONSTRUCTION ILLICIT DICHARGE AND CONNECTION ELIMINATION

(A) Purpose/intent. The purpose of this section is to provide for the health, safety, and general welfare of the citizens of the Cambridge through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal, state and local law. This section establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this section are:

- (1) To regulate the contribution of pollutants to the (MS4) by stormwater discharges by any user.
- (2) To prohibit illicit connections and discharges to the MS4.
- (3) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this section.

(B) Applicability. This section shall apply to all water entering the MS4 generated on any developed and undeveloped lands unless explicitly exempted by an authorized enforcement agency.

(C) Discharge prohibitions.

Prohibition of illegal discharges. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to, pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

Waterline flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections or manholes. Infiltration does not include, and is distinguished from, inflow); uncontaminated pumped ground water; discharges from potable water sources; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash water; and discharges or flows from firefighting activities. Discharges specified in writing by the stormwater protection team as being necessary to protect public health and safety. Dye testing is an allowable discharge, but

requires a verbal notification to the Service Director prior to the time of the test. The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the federal environmental protection agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

Prohibition of illicit connections. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

A person is considered to be in violation of this section if the person connects a line conveying sewage to the MS4 or allows such a connection to continue.

(D) Suspension of MS4 access.

- (1) Suspension due to illicit discharges in emergency situations. The service-safety director may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the state. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the state, or to minimize danger to persons.
- (2) Suspension due to the detection of illicit discharge. Any person discharging to the MS4 in violation of this section may have his/her MS4 access terminated if such termination would abate or reduce an illicit discharge. The stormwater protection team will notify a violator of the proposed termination of its MS4 access. The violator may petition the stormwater protection team for a reconsideration and hearing.

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the authorized enforcement agency.

SECTION V. PERMITS

- A. Prior to any construction, land disturbing activities, or local approvals, any person disturbing greater than or equal to one acre shall apply for an NPDES Permit. Approval by the City is also required for construction activity that will disturb less than one acre but that is part of a larger common plan of development or sale that would disturb one acre or more.

- B. Permit by Rule status will be assigned to those non-excluded land disturbing activities less than one acre in size and any existing disturbed sites that are contributing to sediment runoff. These sites, although not required to obtain an NPDES Permit or submit for approval an Erosion and Sediment Control (ESC) Plan, are still required to implement and maintain best management practices at the site and are subject to all provisions of this policy.
- C. The Authority may require the applicant to post a bond in the form of a government security, cash, irrevocable letter of credit, or any combination thereof up to but not to exceed \$10,000 per acre of the proposed land disturbing activity. If the applicant fails to comply with the conditions of his NPDES Permit or the requirements as outlined in the approved ESC Plan, the bond may be called by the Authority and used to bring the site into compliance.
- D. The following land disturbing activities are excluded from the requirements of this policy:
 - 1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources. Immediately upon completion of emergency activity the contractor shall all control measures and initiate restoration/cleanup activities as required by this policy.
 - 2. Agricultural
 - 3. Silviculture (not conducted for development)
 - 4. Such minor land disturbing activities as home gardens, landscaping on individual residential lots (excluding landscaping performed by, on behalf of, a developer or builder, who builds a house on such lot), home repairs, home maintenance work, minor additions to houses the construction, maintenance or repair of accessory structures and other related activities which result in minor soil erosion.
 - 5. Minor land disturbing activities such as individual connections for utility services and sewer services for single or two family residences, minor grading for driveways, yard areas and sidewalks, excluding grading done by, or on behalf of, a developer or builder in connection with the construction of a house.
 - 6. Minor maintenance, minor repair, and minor extension of an existing underground utility, except sewer lines; provided, that the utility company which owns such lines has received approval from the Authority for such maintenance, repair and extension; and provided further, that any utility company making a minor extension in connection must give written notice of such extension prior to commencement of such minor extension.
 - 7. The construction, repair or rebuilding or railroad tracks.

8. Minor subsurface exploratory excavations under the direction of soil engineers, engineering geologists or soil scientists.
 9. The opening of individual burial sites in property which has been approved for such use by all necessary governmental authorities.
 10. The construction of water wells or environmental monitoring wells.
 11. Any work performed by the Ohio Department of Transportation.
- E. Although not required to submit an ESC plan for review and approval, persons engaged in activities IV-D shall remain responsible for otherwise conducting such activities in accordance with the provisions of this policy and any other applicable regulation, including the proper control of sediment and runoff to the MS4. If monitoring and/or complaints indicate a storm water pollution problem, the exclusion can be revoked and a stop order issued until an ESC plan is submitted to the Authority for approval.

SECTION VI. REVIEW AND APPROVAL

- A. Before the commencement of any land disturbing activity that affects one acre or more, the owner of the land on which such activity shall be conducted, or their duly authorized agent, shall file with the Authority copies of the OEPA permit and obtain approval of a site-specific ESC plan and a Post-Construction Operation and Maintenance (O&M) Plan. The ESC Plan and O&M Plan must be in compliance with the requirements of the current Ohio EPA Construction General Permit. The O&M Plan must include an executed Maintenance Agreement with the City.
- B. The Authority will either approve or disapprove the ESC plan. If the ESC plan is disapproved, the Authority must inform the applicant, in writing, of the reason for its disapproval. If the applicant revises the ESC plan or submits to the Authority additional documents or information in connection with the ESC plan, the Authority shall inform the applicant, in writing, of the approval or disapproval of any revisions. The land disturbing activity may not be commenced prior to the issuance of the approval by the Authority. The issuance of the approval shall not excuse the owner from the need to obtain other required state and local permits or licenses.

SECTION VII. EROSION AND SEDIMENTATION CONTROL PLAN

- A. The Erosion and Sedimentation Control Plan filed with the Authority shall include:
1. A natural resources map identifying soils, forest cover, water bodies and other natural resources to be protected. This map should be at a scale no smaller than 1"=100'. Specific map requirements shall be stipulated by the Authority.

2. A sequence of construction of the development site, including stripping and cleaning, rough grading, construction of utilities, infrastructure, buildings, final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sedimentation control measures and establishment of permanent vegetation.
 3. All erosion and sediment control measures necessary to meet the objective of this policy that are required throughout all phases of construction and after completion of development of the site. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.
 4. Seeding mixtures and rates, types of sod, method of seed bed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.
 5. Provisions for the maintenance of ESC measures including easements.
 6. Site drainage/grading plan along with calculations supporting the design shall be submitted for all permanent structural BMP (i.e. detention ponds, outlet structures, etc.). The permanent structural BMP (aka, Post Construction BMP) shall meet the requirements of the current Ohio EPA Construction General Permit as demonstrated by the submitted calculations. The plan and calculations shall be certified by a Professional Engineer licensed in the State of Ohio.
 7. Original and final contour lines shall be shown at a minimum of 5 foot intervals.
 8. Inspection schedule and reporting requirements as required by OEPA permit or the Authority.
 9. Any other pertinent information the Authority deems as necessary to complete its review.
- B. Any proposed modification to the ESC plan shall be communicated within 24 hours or the next business day to the Authority at which time the Authority will determine if a full re-submittal is required or if the modification can be handled as a minor field change.

SECTION VIII. EROSION AND SEDIMENT CONTROL CRITERIA

- A. Grading, erosion control practices, sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the BMP Manual Approved by the OEPA, and any additional requirements set forth by the Authority and shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Authority. Cut and fill slopes shall be no steeper than 3:1, except as approved by the City Engineer. In order for slopes steeper than 3:1 to be considered, the developer/engineer shall submit with the ESC plan a written request stating the reasons steeper slopes are needed and additional supporting information such as soil types, erosion control measures, etc. Erosion control measures such as erosion control blankets, sodding, etc. will be required on all slopes steeper than 3:1 and shall be shown on the ESC plan. In no case shall slopes be steeper than 2:1.
- B. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other federal, state, and local regulations. Clearing techniques that retain natural vegetation and drainage patterns, as described in the BMP Manual, shall be used to the satisfaction of the Authority.
- C. Buffer zones shall be a minimum of 25 ft perpendicular from each side of the stream bank, creek, or waterway under bank-full conditions. Buffers are applicable to any perennial or intermittent stream as indicated on the USGS Survey 7.5 Minute Series topographic map (latest revision) and all water bodies including lakes, ponds, and wetlands. Any area within this buffer shall not be cleared or graded unless written authorization is obtained from the Authority. Utilization or reinforcement of existing vegetation is preferred. However, where improvements are required, sodding, plugging, use of stockpiled vegetation or seeding is acceptable.
- D. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized. Phasing shall be required on all sites disturbing greater than 10 acres, with the size of each phase to be established at plan review and as approved by the Authority.
- E. Erosion control requirements shall include but are not limited to the following:
 - 1. All areas that have been cleared of significant portions of its vegetative cover and will remain so for 15 days or longer without appreciable construction activity shall be seeded and mulched within five (5) days of being disturbed.
 - 2. If seeding or another vegetative erosion control method is used, germination shall be evident within two weeks or the Authority may require the site to be

- reseeded or a non-vegetative option employed. Irrigation may be required to establish vegetative cover.
3. Special techniques that meet the design criteria outlined in the BMP Manual on steep slopes or in drainage ways shall be used to ensure stabilization.
 4. Soil stockpiles must be stabilized or cover at the end of each workday.
 5. Techniques to prevent the blowing of dust or sediment from the site.
 6. Techniques that divert upland runoff around disturbed slopes.
- F. Sediment control requirements shall include but are not limited to the following:
1. Settling basins, sediment traps, or perimeter controls
 2. Settling basins that are designed in a manner that allows adaptation to provide long-term storm water management, if required by the Authority.
 3. Protection from adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.
- G. Waterway and watercourse protection requirements shall include but are not limited to the following:
1. The installation of a temporary water course crossing. If a watercourse will be crossed regularly during construction the Authority may require a temporary crossing to be constructed in order to prevent streambed damage and or erosion. Watercourse crossings shall be constructed to allow movement of aquatic life.
 2. Stabilization of the watercourse channel before, during and after any in channel work.
 3. All on-site storm water conveyance channels designed according to the criteria outlined in the BMP Manual.
 4. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.
- H. Construction access requirements shall include but are not limited to the following:
1. Temporary construction access, as defined y the Authority, at all sites.
 2. Other measures required by the Authority in order to ensure that sediment id=s not tracked onto public streets by construction vehicles or washed into storm drains.
- I. Post Development Runoff Rate. Except as otherwise provided by other regulations the rate of storm water runoff from any development resulting from the two year, five year, ten year, or twenty five year rainfall occurring within the space of one hour shall not exceed the predevelopment storm water runoff rate for an equivalent event. Where conditions make it impractical or unnecessary to meet the above requirements and where it can be shown through a hydrology/hydraulic study from

a licensed engineer that alternative measures are more beneficial to the public and the environment, the City Engineer may approve such alternative measures.

- J. All building floor elevations, garages and carports shall be one foot or higher above the expected one hundred year flood elevation. The lot shall have a minimum grade of five (5) percent away from a building for a minimum of 10 feet or to the property line. Impervious surfaces of two (2) PERCENT OR GREATER.

SECTION IX. POST CONSTRUCTION MAINTENANCE

- A. The owner(s) of stormwater management facilities and/or BMP's shall at all times properly operate and maintain facilities and systems of stormwater treatment and control (and related appurtenances), and all best management practices which are installed or used by the property owner(s) to achieve compliance with this policy. Maintenance of privately owned stormwater management facilities shall be performed at the sole cost and expense of the owner(s) of such facilities.
- B. All stormwater management facilities shall be maintained per the approved BMP in perpetuity or until redevelopment occurs.
- C. The BMP shall specify the minimum inspection and maintenance requirements to be performed at necessary intervals by the property owner(s).
- D. In order to provide access to stormwater and/or water quality facilities by the Authority the property owner(s) shall provide unobstructed, traversable access.
- E. Owners of the BMPs shall submit inspection and maintenance records to the City by December 31 of each year.

SECTION X. INSPECTION

- A. Plans for grading, stripping, excavating, and filling work bearing the stamp of approval of the Authority shall be maintained at the site during the progress of the work.
- B. The permittee shall notify the Authority at least two working days before the following:
 - 1. Start of construction
 - 2. Installation of sediment and erosion control measures.
 - 3. Completion of site clearing.
 - 4. Completion of rough grading.
 - 5. Completion of final grading.
 - 6. Close of the construction season.
 - 7. Completion of final landscaping.

- C. The permittee or his /her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved ESC Plan. The Qualified Credentialed Inspection Program will be recognized by the Authority. The purpose of such inspections will be to determine the overall effectiveness of the ESC plan and the need for additional control measures. All inspection shall be documented in written form and submitted to the Authority at the time interval specified in the approved ECS Plan.
- D. The Authority or its designated agent shall retain the right to enter the property of the applicant as deemed necessary to address any complaint and to ensure the validity of the reports filed under item C.
- E. Upon observing evidence of erosion and/or sediment leaving the disturbed site or upon discovery of illicit discharges, the Authority will notify the developer or subsequent landowner, in writing, requiring the deficiencies to be corrected. Deficiencies noted must be corrected. Deficiencies noted must be corrected within 72 hours. If the deficiencies are in a highly sensitive area, as deemed by the Authority, the corrective action must occur within 24 hours of receipt of the notification. If the corrective action does not occur within that specified time, the Authority will issue a stop work order and reserves the right to take all steps necessary for reestablishment of the measures with the cost incurred billed to the responsible party. All such expenses are due immediately upon receipt. Non-payment of such expenses may result in further penalties (see Section IX).
- F. All detention ponds approved by the Authority will have complete design data on file with the Authority and will be subject to at least an annual inspection to ensure that they are functioning to their original design criteria. Specific items to be inspected and approved by the Authority shall include, but are not limited to, the following; vegetative cover, sediment, debris, fencing (if applicable), outlet structure and inlets. Any defects discovered by the Authority during such inspection shall be furnished to the owner in writing and the owner shall have fifteen (15) business days from the delivery of said notice to perform the maintenance and any corrective action specified by the Authority. The Authority may, at its discretion, allow the owner additional time as the Authority deems appropriate for the corrective works.

SECTION XI. ENFORCEMENT

- A. Stop Work Order; Revocation of Local Approvals
 - 1. In the event that any person holding a permit or approval pursuant to this policy violates the terms of the permit or implements site development in such a manner as to materially adversely affect the health, welfare, environment, or safety of persons residing or working in the neighborhood or development site

so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the Authority may suspend or revoke the said approval.

B. Violation and Penalties

1. No person shall construct, enlarge, alter, repair or maintain any grading, excavation, or fill, or cause the same to be done, contrary to or in violation of any terms of this policy. Any person violating any of the provisions herein shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions herein is committed, continued, or permitted, shall constitute a separate offense. Upon conviction of any such violation (a Class 2 Misdemeanor), such person, partnership, or corporation shall be punished by a fine of not more than \$500.00 for each offense or imprisonment of not more than three (3) months, or both such fine and imprisonment, at the discretion of the municipal judge trying the case. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions herein shall be required to bear the expense of such restoration.

C. Detection of Illicit Connections, Improper Disposal and/or Discharges.

1. The Authority shall take appropriate steps to detect and eliminate illicit connections and eliminate improper disposal and or discharge and/or discharge from any property or site, including the required dry weather and wet weather programs to screen illicit connections and improper discharges and identify their source or sources from land disturbing activities.

- D. The Authority shall issue a citation to appear before the municipal judge on charges of violation of these policies. A citation shall be issued to the owner of the property or development, the permittee, the person responsible for performing the work, or in cases of utility, the owner of the utility. In most cases a citation will be issued only after the responsible party has been given the opportunity to rectify the situation. In cases where health or safety is in peril, a citation will be issued immediately.

SECTION XII. VARIANCES AND APPEALS

- A. The Authority may grant a variance from the requirements of this policy if there exist exceptional circumstances applicable to a site such that strict adherence to the provisions of this policy will result in unintended consequences. The developer shall prepare a written request for a variance stating the specific variance sought and the reasons, with supporting data, for granting such variance. This request shall include descriptions, drawings, calculations, and any other information necessary to evaluate the proposed variance. The Authority shall review the submitted material and make a determination to approve or disapprove the variance. There shall be no appeal process for the variance request. The Authority shall be the final arbiter of the variance request.

SECTION XIII. LIABILITY

- A. Neither the approval of an ESC Plan under the provisions of this policy nor the compliance with the provisions under this policy shall relieve any person of the responsibility for damage to any person or property otherwise imposed by law, nor shall it impose any liability upon the Authority for damage to any person or property.

SECTION XIV. CONSTRUCTION SITE WASTE

- A. Materials and Construction Waste Disposal Requirements
 1. Building materials, concrete washout, paint washout, litter, sanitary waste, and other construction site wastes must be properly managed and disposed of in order to prevent stormwater contact from occurring.
 2. Practices such as trash disposal, recycling, proper material handling, and spill prevention and clean up measures must be implemented to reduce the potential for storm water runoff to mobilize construction site wastes and contaminate surface or ground water.
 3. The proper management and disposal of wastes should be practiced at all construction sites to reduce stormwater runoff.
 - a. Waste management practices must be used to properly locate refuse piles.
 - b. Cover materials that may be displaced by rainfall or stormwater runoff.
 - c. Prevent any spills and leaks of hazardous wastes.

4. Guidelines for proper handling, storage, and disposal of construction site wastes must be incorporated as part of the BMP and posted in storage and use areas on site.
- B. Disposal of Construction Site Waste
1. Designate a waste collection area onsite that does not receive a substantial amount of runoff from upland areas and does not drain directly to a water body.
 2. Designate areas for concrete trucks and equipment to wash down that will not flow into storm drains or become surface water runoff that would lead to the storm drains. Under no circumstances should concrete wash out be conducted in the road or directly into storm drains.
 3. Designate areas for paint cans and equipment to wash down that will not flow into storm drains or become surface water runoff that would lead to the storm drains or ground water recharge areas. Under no circumstances should excess paint be washed out in the road or directly into storm drains.
 4. Ensure that containers have lids so they can be covered before periods of rain. Keep containers in a covered area whenever possible.
 5. Schedule waste collection to prevent containers from overflowing, which would prevent them from being able to be covered.
 6. Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill.
 - a. During the demolition phase of construction, provide extra containers and schedule more frequent pick ups.
 - b. Collect, remove, and dispose of all construction site waste at authorized disposal areas.

SECTION XV. SEVERABILITY

- A. The provisions of this policy are declared to be severable, and if any provisions of this policy is declared to be invalid by a court of competent jurisdiction, this determination shall not effect, impair, or invalidate the remainder of this policy, but shall be confined in its operation to the section, paragraph, clause or phrase of this policy in which such determination shall have been made.

SECTION XVI. FEES

A. The following fees shall be submitted along with the ESC Plan.

<u>Site Area</u>	<u>Fee</u>
Less than 1 acre	\$150
1 acre up to 5 acres	\$450
5 acres up to 25 acres	\$750
Greater than 25 acres	\$1500