

**APPENDIX A**

**OCCUPATIONAL SAFETY AND HEALTH PROGRAM**

APPENDICES

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**APPENDIX I. ORGANIZATIONAL CHART****SAMPLE FOR MUNICIPAL GOVERNMENT**

<u>Department, Agency, Office, Board, Etc.</u>	<u>Number of Employees</u>
MAYOR'S OFFICE	1
RECORDER	1
TREASURER	2
POLICE DEPARTMENT	51
COMMUNICATIONS	15
FIRE DEPARTMENT	37
SANITATION DEPARTMENT	6
STREET DEPARTMENT	17
PARKS DEPARTMENT	12
PLANNING/CODES	5
MUNICIPAL COURT	5
CEMETERY	3
SENIOR CENTER	5
GREATER DICKSON GAS AUTHORITY	58
DICKSON HOUSING AUTHORITY	8
DICKSON ELECTRIC DEPARTMENT	65
TOTAL NUMBER OF EMPLOYEES	<u>291</u>
(as added by Ord. #1076, Nov. 2000, and replaced by Ord. #1118, May 2002, and Ord. #1290, Dec. 2010)	

**APPENDIX II. SAFETY AND ORGANIZATIONAL HEALTH CHART**

**[RESERVED]**

**APPENDIX III. NOTICE TO ALL EMPLOYEES OF CITY OF DICKSON**

The Tennessee Occupational Safety and Health Act of 1972 provides job safety and health protection for Tennessee's workers through the promotion of safe and healthful working conditions. Under a plan reviewed by the Tennessee Department of Labor, this government, as an employer, is responsible for administering the Act to its employees. Safety and health standards are the same as State standards and jobsite inspections will be conducted to insure compliance with the Act.

Employees shall be furnished conditions of employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious injury or harm to employees.

Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this program which are applicable to his or her own actions and conduct.

Each employee shall be notified by the placing upon bulletin boards or other places of common passage of any application for a temporary variance from any standard or regulation.

Each employee shall be given the opportunity to participate in any hearing which concerns an application for a variance from a standard.

Any employee who may be adversely affected by a standard or variance issued pursuant to this program may file a petition with the Safety Director or the City Manager.

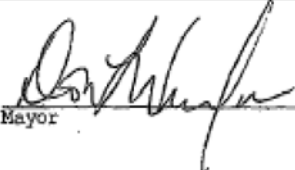
Any employee who has been exposed or is being exposed to toxic materials or harmful physical agents in concentrations or at levels in excess of that provided for by an applicable standard shall be notified by the employer and informed of such exposure and corrective action being taken.

Subject to regulations issued pursuant to this program, any employee or authorized representative(s) of employees shall be given the right to request an inspection.

No employee shall be discharged or discriminated against because such employee has filed any complaint or instituted or caused to be instituted any proceedings or inspection under, or relating to, this program.

Any employee who believes he or she has been discriminated against or discharged in violation of these sections may, within thirty (30) days after such violation occurs, have an opportunity to appear in a hearing before City Manager for assistance in obtaining relief or to file a complaint with the Commissioner of Labor alleging such discrimination.

A copy of the Occupational Safety and Health Program for the Employees of the City of Dickson available for inspection by any employee at City of Dickson Municipal Building during regular office hours.



Mayor

(as added by Ord. #1076, Nov. 2000)

**APPENDIX IV. PROGRAM BUDGET**

1. Prorated portion of wages, salaries, etc., for program administration and support.
2. Office space and office supplies.
3. Safety and health educational materials and support for education and training.
4. Safety devices for personnel safety and health.
5. Equipment modifications.
6. Equipment additions (facilities).
7. Protective clothing and equipment (personnel).
8. Safety and health instruments.
9. Funding for projects to correct hazardous conditions.
10. Reserve fund for the program.
11. Contingencies and miscellaneous,

OR

**STATEMENT OF FINANCIAL RESOURCE AVAILABILITY**

Be assured that the City of Dickson has sufficient financial resources available or will make sufficient financial resources available as may be required in order to administer and staff its Occupational Safety and Health Program and to comply with standards. (as added by Ord. #1076, Nov. 2000)

**APPENDIX V. ACCIDENT REPORTING PROCEDURES**

- (1-15) Employees shall report all accidents, injuries, or illnesses directly to the Safety Director as soon as possible, but not later than twenty-four (24) hours, of their occurrence. Such reports may be verbal or in writing. All fatalities or accidents involving the hospitalization of three (3) or more employees shall be reported to the Safety Director and/or recordkeeper immediately, either by telephone or verbally, and will be followed by a written report within four (4) hours after their occurrence. The Safety Director will insure completion of required reports and records in accordance with Section VIII of the basic plan.
- (16-50) Employees shall report all accidents, injuries, or illnesses to their supervisor as soon as possible, but not later than two (2) hours after their occurrence. All fatalities or accidents involving the hospitalization of three (3) or more employees shall be reported to the Safety Director and/or recordkeeper immediately, either by telephone or verbally, and will be followed by a written report within four (4) hours after their occurrence. The supervisor will investigate the accident or illness, complete an accident report, and forward the accident report to the Safety Director and/or recordkeeper within twenty-four (24) hours of the time the accident or injury occurred or the time of the first report of the illness.
- (51-250) Employees shall report all accidents, injuries, or illnesses to their supervisor as soon as possible, but not later than two (2) hours, after their occurrence. The supervisor will provide the Safety Director and/or recordkeeper with the name of the injured or ill employee and a brief description of the accident or illness by telephone as soon as possible, but not later than four (4) hours, after the accident or injury occurred or the time of the first report of the illness. All fatalities or accidents involving the hospitalization of three (3) or more employees shall be reported to the Safety Director and/or recordkeeper immediately, either by telephone or verbally, and will be followed by a written report within four (4) hours after their occurrence. The supervisor will then make a thorough investigation of the accident or illness (with the assistance of the Safety Director or Compliance Inspector, if necessary) and will complete a written report on the accident or illness and forward it to the Safety Director within seventy-two (72) hours after the accident, injury, or first report of illness and will provide one (1) copy of the written report to the recordkeeper.

- (51-Plus) Employees shall report all accidents, injuries, or illnesses to their supervisors as soon as possible, but not later than two (2) hours after their occurrence. The supervisor will provide the administrative head of the department with a verbal or telephone report of the accident as soon as possible, but not later than four (4) hours, after the accident. If the accident involves loss of consciousness, a fatality, broken bones, severed body member, or third degree burns, the Safety Director will be notified by telephone immediately and will be given the name of the injured, a description of the injury, and a brief description of how the accident occurred. The supervisor or the administrative head of the accident within seventy-two (72) hours after the accident occurred (four (4) hours in the event of accidents involving a fatality or the hospitalization of three (3) or more employees).

Since a Workers' Compensation Form 6A or OSHA NO. 101 Form must be completed, all reports submitted in writing to the person responsible for recordkeeping shall include the following information as a minimum:

1. Accident location, if different from employer's mailing address and state whether accident occurred on premises owned or operated by employer.
2. Name, social security number, home address, age, sex, and occupation (regular job title) of injured or ill employee.
3. Title of the department or division in which the injured or ill employee is normally employed.
4. Specific description of what the employee was doing when injured.
5. Specific description of how the accident occurred.
6. A description of the injury or illness in detail and the part of the body affected.
7. Name of the object or substance which directly injured the employee.
8. Date and time of injury or diagnosis of illness.
9. Name and address of physician, if applicable.



10. If employee was hospitalized, name and address of hospital.
11. Date of report.

**NOTE:** A procedure such as one of those listed above or similar information is necessary to satisfy Item Number 6 listed under **PROGRAM PLAN** in Chapter IV, Part IV of the Tennessee Occupational Safety and Health Plan. This information may be submitted in flow chart form instead of in narrative form if desired. These procedures may be modified in any way to fit local situations as they have been prepared as a guide only.

The four (4) procedures listed above are based upon the size of the work force and relative complexity of the organization. The approximate size of the organization for which each procedure is suggested is indicated in parenthesis in the left hand margin at the beginning, i.e., (1-15), (16-50), (51-250), and (251 Plus), and the figures relate to the total number of employees including the Chief Executive Officer but excluding the governing body (County Court, City Council, Board of Directors, etc.).

Generally, the more simple an accident reporting procedure is, the more effective it is. Please select the one procedure listed above, or prepare a similar procedure or flow chart, which most nearly fits what will be the most effective for your local situation. Note also that the specific information listed for written reports applies to all three of the procedures listed for those organizations with sixteen (16) or more employees. (as added by Ord. #1076, Nov. 2000)

**APPENDIX B**

**STORM WATER MANAGEMENT**

Appendices A through G

(as added by Ord. #1296, July 2011)

**APPENDIX A****Storm Water Management  
2006 International Building Code  
Grading****SECTION J101  
GENERAL**

**J101.1 Scope.** The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the soils report, the soils report shall govern.

**J101.2 Flood hazard areas.** The provisions of this chapter shall not apply to grading, excavation and earthwork construction, including fills and embankments, in floodways within flood hazard areas established in Section 1612.3 or in flood hazard areas where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

**SECTION J102  
DEFINITIONS**

**J102.1 Definitions.** For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

**BENCH.** A relatively level step excavated into earth material on which fill is to be placed.

**COMPACTION.** The densification of a fill by mechanical means.

**CUT.** See Excavation.

**DOWNDRAIN.** A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility

**EROSION.** The wearing away of the ground surface as a result of the movement of wind, water or ice.

**EXCAVATION.** The removal of earth material by artificial means, also referred to as a cut.

**FILL.** Deposition of earth materials by artificial means.

**GRADE.** The vertical location of the ground surface.

**GRADE, EXISTING.** The grade prior to grading.

**GRADE, FINISHED.** The grade of the site at the conclusion of all grading efforts.

**GRADING.** An excavation or fill or combination thereof.

**KEY.** A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

**SLOPE.** An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

**TERRACE.** A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

### **SECTION J103 PERMITS REQUIRED**

**J103.1 Permits required.** Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefor from the building official. A grading permit does not include the construction of retaining walls or other structures.

**J103.2 Exemptions.** A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.
7. Exploratory excavations performed under the direction of a registered design professional.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

## **SECTION J104 PERMIT APPLICATION AND SUBMITTALS**

**J104.1 Submittal requirements.** In addition to the provisions of Section 105.3, the applicant shall state the estimated quantities of excavation and fill.

**J14.2 Site plan requirements.** In addition to the provisions of Section 106, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

**J104.3 Soils report.** A soils report prepared by registered design professionals shall be provided which shall identify the nature and distribution of existing soils; conclusions and recommendations for grading procedures; soil design criteria for any structures or embankments required to accomplish the proposed grading; and, where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

**Exception:** A soils report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

**J104.4 Liquefaction study.** For sites with mapped maximum considered earthquake spectral response accelerations at short periods ( $S_s$ ) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans.

**Exception:** A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.

### **SECTION J105 INSPECTIONS**

**J105.1 General.** Inspections shall be governed by Section 109 of this code.

**J105.2 Special inspections.** The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the building official.

### **SECTION J106 EXCAVATIONS**

**J106.1 Maximum slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 horizontal to 1 vertical (50 percent) unless the applicant furnishes a soils report justifying a steeper slope.

#### **Exceptions:**

1. A cut surface may be at a slope of 1.5 horizontal to 1 vertical (67 percent) provided that all the following are met:
  - 1.1. It is not intended to support structures or surcharges.
  - 1.2. It is adequately protected against erosion.
  - 1.3. It is no more than 8 feet (2438 mm) in height.
  - 1.4. It is approved by the building official.
2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent).

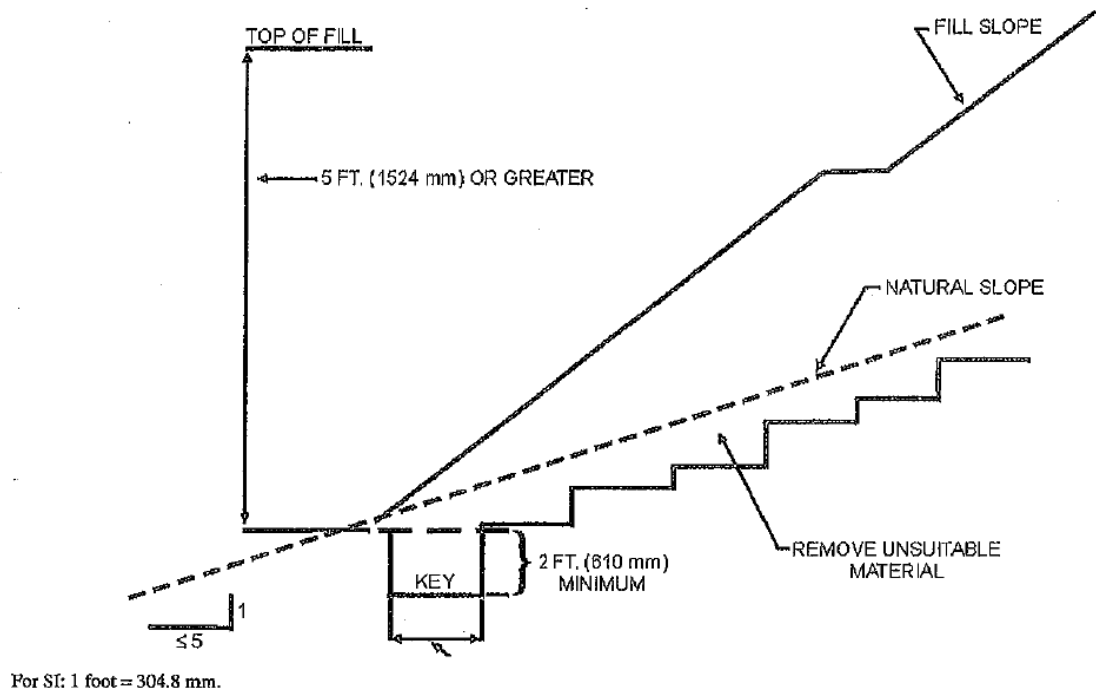


FIGURE J107.3  
BENCHING DETAILS

## SECTION J107 FILLS

**J107.1 General.** Unless otherwise recommended in the soils report, fills shall conform to provisions of this section.

**J107.2 Surface preparation.** The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

**J107.3 Benching.** Where existing grade is at a slope steeper than 5 horizontal to 1 vertical (20 percent) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided in accordance with Figure J107.3. A key shall be provided which is at least 10 feet (3048 mm) in width and feet (610mm) in depth.

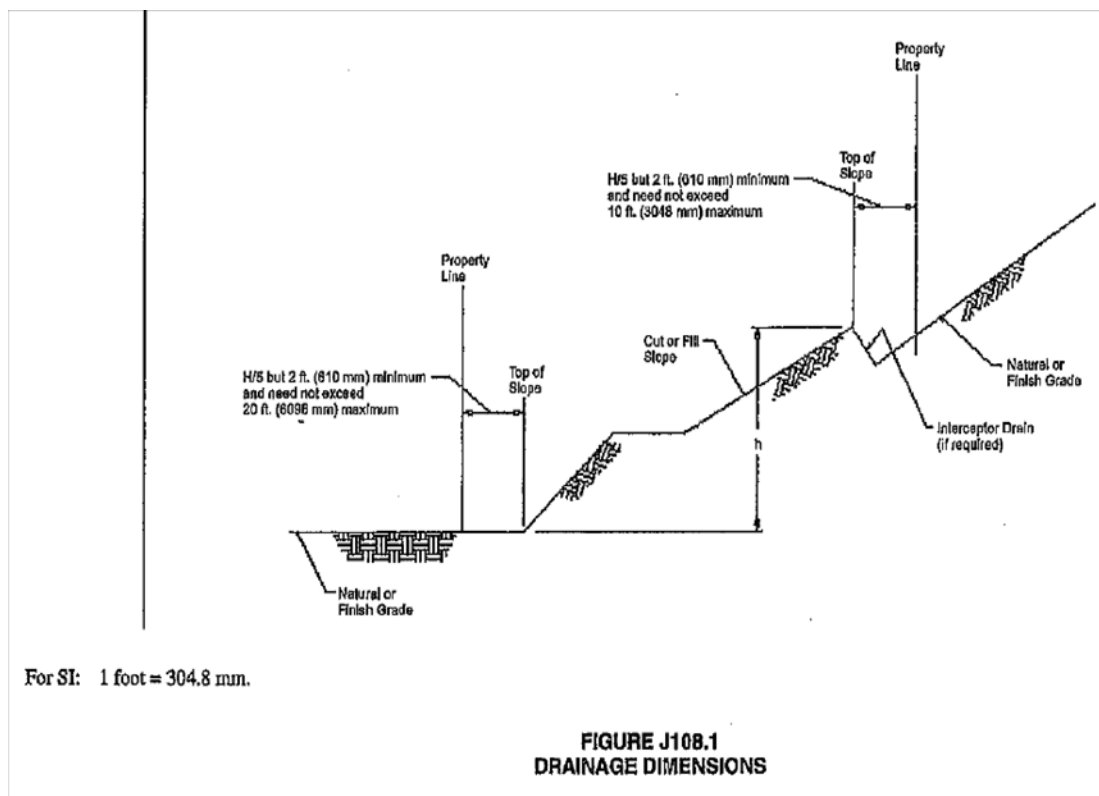
**J107.4 Fill material.** Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches (305 mm) in any dimension shall be included in fills.

**J107.5 Compaction.** All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches (305 mm) in depth.

**J107.6 Maximum slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 horizontal to 1 vertical (50 percent) shall be justified by soils reports or engineering data.

## SECTION J108 SETBACKS

**J108.1 General.** Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks.





**J108.2 Top of slope.** The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater.

**J108.3 Slope protection.** Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

## **SECTION J109 DRAINAGE AND TERRACING**

**J109.1 General.** Unless otherwise recommended by a registered design professional, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

**Exception:** Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).

**J109.2 Terraces.** Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.

Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum gradient of 20 horizontal to 1 vertical (5 percent) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of 5 feet (1524 mm).

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m<sup>2</sup>) (projected) without discharging into a down drain.

**J109.3 Interceptor drains.** Interceptor drains shall be installed along the top of cut slopes receiving drainage from a tributary width greater than 40 feet (12 192 mm), measured horizontally. They shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the building official, but shall not be less than 50 horizontal to 1 vertical (2 percent). The drain shall be paved with concrete not less than 3 inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

**J109.4 Drainage across property lines.** Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of nonerosive down drains or other devices.

## SECTION J110 EROSION CONTROL

**J110.1 General.** The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting.

**Exception:** Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials.

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

**J110.2 Other devices.** Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

## SECTION J111 REFERENCED STANDARDS

ASTM D 1557-e01	Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort [56,000 ft-lb/ft <sup>3</sup> (2,700kN-m/m <sup>3</sup> )].	J107.6
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**APPENDIX B****Storm Water Management  
Post-Construction Storm Water Runoff**

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**Section 1. General Provisions**

## 1.1. Findings of Fact

It is hereby determined that:

Land development projects and associated increases in impervious cover alter the hydrologic response of local watersheds and increase storm water runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition unless mitigated by appropriate measures; this storm water runoff contributes to increased quantities of water-borne pollutants, and; storm water runoff, soil erosion and non-point source pollution can be controlled and minimized through the regulation of storm water runoff from development sites.

Therefore, the City of Dickson establishes this set of water quality and quantity policies applicable to all surface waters to provide reasonable guidance for the regulation of storm water runoff for the purpose of protecting local water resources from degradation. It is determined that the regulation of storm water runoff discharges from land development projects and other construction activities in order to control and minimize increases in storm water runoff rates and volumes, soil erosion, stream channel erosion, and non-point source pollution associated with storm water runoff is in the public interest and will prevent threats to public health and safety.

## 1.2. Purpose

The purpose of this ordinance is to establish minimum storm water management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within this

jurisdiction. This ordinance seeks to meet that purpose through the following objectives:

- (1). minimize increases in storm water runoff from any development in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels;
- (2). minimize increases in non-point source pollution caused by storm water runoff from development which would otherwise degrade local water quality;
- (3). minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practical.
- (4). reduce storm water runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

### 1.3. Applicability

This ordinance shall be applicable to all subdivision or site plan applications, unless eligible for an exemption or granted a waiver by the City of Dickson Planning Commission under the specifications of Section 4 of this ordinance. The ordinance also applies to land development activities that are smaller than the minimum applicability criteria if such activities are part of a larger common plan of development that meets the following applicability criteria, even though multiple separate and distinct land development activities may take place at different times on different schedules. In addition, all plans must also be reviewed by local officials to ensure that established water quality standards will be maintained during and after development of the site and that post construction runoff levels are consistent with any local and regional watershed plans.

To prevent the adverse impacts of storm water runoff, the City of Dickson has developed a set of performance standards that must be met at new development sites. These standards apply to any construction activity disturbing 10,000 or more square feet of land. The following activities may be exempt from these storm water performance criteria:

1. Any logging and agricultural activity which is consistent with an approved soil conservation plan or a timber management plan prepared and approved, as applicable.
2. Additions or modifications to existing single family structures
3. Developments that do not disturb more than 10,000 square feet of land, provided they are not part of a larger common development plan;
4. Repairs to any storm water treatment practice deemed necessary by the City of Dickson.

When a site development plan is submitted that qualifies as a redevelopment project as defined in Section 2 of this ordinance, decisions on permitting and on-site storm water requirements shall be governed by storm water sizing criteria developed through standards of engineering practice appropriate to local design storms. This criterion is dependent on the amount of impervious area created by the redevelopment and its impact on water quantity and quality. All projects shall comply with the minimum permitting requirements provided by the Tennessee Department of Environment and Conservation as applicable to the site based on governing criteria. Final authorization of all redevelopment projects will be determined after a review by the City of Dickson.

#### 1.4. Compatibility with Other Permit and Ordinance Requirements

This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of local, state or federal law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

#### 1.5. Severability

If the provisions of any article, section, subsection, paragraph, subdivision or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this ordinance.

#### 1.6. Development of a Storm Water Design Manual

The City of Dickson may furnish additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this ordinance and may provide such information in the form of a Storm Water Design Manual. This manual may include a list of acceptable storm water treatment practices, including the specific design criteria and operation and maintenance requirements for each storm water practice. The manual maybe updated and expanded from time to time, at the discretion of the local authority, based on improvements in engineering, science, monitoring and local maintenance experience. Storm water treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards. In the absence of a Storm Water Design Manual, designers may propose treatment methods that provide 80% total suspended solids (TSS) and 40% phosphorus removal. BMP's shall be designed such that the first one inch of rainfall runoff is contained on the property, either through infiltration,

evaporation or some other appropriate means. Proposed designs shall be submitted for review and shall have all supporting calculations and documentation necessary to evaluate the proposal.

## Section 2. Definitions

**"Accelerated Erosion"** means erosion caused by development activities that exceeds the natural processes by which the surface of the land is worn away by the action of water, wind, or chemical action.

**"Applicant"** means a property owner or agent of a property owner who has filed an application for a storm water management permit.

**"Building"** means any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

**"Channel"** means a natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

**"Dedication"** means the deliberate appropriation of property by its owner for general public use.

**"Design Storm"** means the storm for which the storm water facility is designed. For the purposes of storm water quantity detention the design storm is the 25-year, 24-hour storm. For the purposes of storm water quality, the design storm is the storm which produces one-inch of runoff from the proposed development. This is not to be misconstrued as a one-inch rainfall, but should be understood to be the storm, of whatever total depth, that produces one-inch of runoff.

**"Detention"** means the temporary storage of storm runoff in a storm water management practice with the goals of controlling peak discharge rates and providing gravity settling of pollutants.

**"Detention Facility"** means a detention basin or alternative structure designed by a licensed professional for the purpose of temporary storage of stream flow or surface runoff and gradual release of stored water at controlled rates.

**"Developer"** means a person who undertakes land disturbance activities.

**"Drainage Easement"** means a legal right granted by a landowner to a grantee allowing the use of private land for storm water management purposes. Drainage easements must be recorded prior to approval of construction plans and start of construction.

**"Erosion Prevention and Sediment Control (EPSC) Plan"** means a plan that is designed by a licensed professional to minimize the accelerated erosion and sediment runoff at a site during construction activities. For the purposes of this regulation, professionals authorized to develop EPSC plans are those allowed by the State of Tennessee.

**"Hotspot"** means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in storm water.

**"Hydrologic Soil Group (HSG)"** means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from A soils, with high permeability and little runoff production, to D soils, which have low permeability rates and produce much more runoff.

**"Impervious Cover"** means those surfaces that cannot effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, etc).

**"Industrial Storm Water Permit"** means an National Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial storm water discharges or specifies on-site pollution control strategies.

**"Infiltration"** means the process of percolating storm water into the subsoil.

**"Infiltration Facility"** means any structure or device designed to infiltrate retained water to the subsurface. These facilities may be above grade or below grade.

**"Jurisdictional Wetland"** means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation, and meets all three criteria for designation as a wetland.

**"Land Disturbance Activity"** means any activity which alters the surface characteristics of the ground or changes the volume or peak flow discharge rate of rainfall runoff from the land surface. This may include the grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, construction of buildings, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse.

**"Landowner"** means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

**"Maintenance Agreement"** means a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices. All developments within the City of Dickson shall have in place agreements or restrictive covenants that require the beneficial owners or users of the development to maintain storm water facilities that regulate the discharge of storm water or treat storm water. The City of Dickson shall not be named as the maintenance agency for storm water detention or treatment facilities.

**"Non-point Source Pollution"** means pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

**"Off-Site Facility"** means a storm water management measure located outside the subject property boundary described in the permit application for land

development activity. Agreements, easements and maintenance agreements shall be in place before a development is considered for approval.

**"On-Site Facility"** means a storm water management measure located within the subject property boundary described in the permit application for land development activity.

**"Recharge"** means the replenishment of underground water reserves.

**"Redevelopment"** means any construction, alteration or improvement exceeding 10,000 square feet in areas where existing land use is high density commercial, industrial, institutional or multi-family residential, or the demolition of existing site features for the purpose of constructing new site features.

**"Stop Work Order"** means an order issued which requires that all construction activity on a site be stopped until the conditions of the stop work order have been satisfied and approved by the Building Official.

**"Storm Water Management"** means the use of structural or non-structural practices that are designed to reduce storm water runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat.

**"Storm Water Retrofit"** means a storm water management practice designed for an existing development site that previously had either no storm water management practice in place or a practice inadequate to meet the storm water management requirements of the site.

**"Stormwater Runoff"** means flow on the surface of the ground, or collected in natural or manmade channels, resulting from precipitation.

**"Storm Water Treatment Practices (STPs)"** means measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to storm water runoff and water bodies.

**"Water Quality Volume (wQ<sub>v</sub>)"** means the storage needed to capture and treat 90% of the average annual storm water runoff volume. Numerically (wQ<sub>v</sub>) will vary as a function of long term rainfall statistical data.

**"Watercourse"** means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

### **Section 3. Permit Procedures and Requirements**

#### **3.1. Permit Required.**

No land owner or land operator shall receive any of the building, grading or other land development permits required for land disturbance activities without first meeting the requirements of this ordinance prior to commencing the proposed activity.



### 3.2. Application Requirements

Unless specifically excluded by this ordinance, any land owner or operator desiring a permit for a land disturbance activity shall submit to the City of Dickson a permit application on a form provided for that purpose.

Unless otherwise excepted by this ordinance, a permit application must be accompanied by the following in order that the permit application may be considered: a storm water pollution prevention plan; a storm water management plan; a maintenance agreement; and a non-refundable permit review fee, complete construction plans and supporting calculations.

The storm water management plan shall be prepared to meet the requirements of Sec. 5 of this ordinance, the maintenance agreement shall be prepared to meet the requirements of Sec. 9 of this ordinance, and fees shall be those established by the City of Dickson.

### 3.3. Application Review Fees

The fee for review of any land development application shall be based the current fee structure as shall be established by the City of Dickson. All of the monetary contributions shall be credited to a local budgetary category to support local plan review, inspection and program administration, and shall be made prior to the issuance of any building pennit for the development.

### 3.4. Application Procedure

1. Applications for land disturbance activity permits must be filed with the City of Dickson Planning, Zoning and Codes Department on any regular business day.
2. A copy of this permit application shall be forwarded by the Planning, Zoning and Codes Department to the City Engineer or consultant for review.
3. Permit applications shall include the following: three copies of all site, grading and drainage plans and supporting calculations, three copies of the storm water pollution prevention plan, three copies of the storm water management plan, three copies of the maintenance agreement, and any required review fees.
4. Within 10 business days of the receipt of a complete permit application, including all documents and fees as required by this ordinance, the City of Dickson Planning, Zoning and Codes Department shall inform the applicant whether the application, plans and maintenance agreement are approved or disapproved for submittal to the Planning Commission. Approval of plans by the Planning, Zoning and Codes Department shall neither negate, nor supercede, required approval by the City of Dickson Planning Connission. Conversely, approval by the City of Dickson Planning

Commission shall neither negate, nor supercede, required approval based on codes and technical reviews. Disapproval by the City of Dickson Planning Commission shall prevent the issuance of any permits for the proposed development other than those required for site stabilization.

5. If the permit application, site, grading and drainage plans, storm water pollution prevention plan, storm water management plan or maintenance agreement are disapproved, the applicant may revise the storm water management plan or agreement. If additional information is submitted, the City of Dickson shall have 10 business days from the date the additional information is received in complete form to inform the applicant that the plan and maintenance agreement are either approved or disapproved for submittal to the Planning Commission.
6. If the permit application, final storm water management plan and maintenance agreement are approved by the City of Dickson Planning, Zoning and Codes Department and the City of Dickson Planning Commission, all appropriate land disturbance activity permits shall be issued. No permits shall be issued without both approvals.

### 3.5. Permit Duration

Land disturbance permits issued under this section shall be valid from the date of issuance through the date the City of Dickson notifies the permit holder that all storm water management practices have passed the final inspection required under permit condition. If the developer does not start work within six months of receiving permits under this ordinance, said permit shall become null and void and the developer shall be required to resubmit the complete application with all materials and fees. The developer may request from the Planning Commission one 6-month extension to begin construction prior to the expiration of the 6-month period.

## **Section 4. Waivers to Storm Water Management Requirements**

### 4.1. Waivers for Providing Storm Water Management

Every applicant shall provide for storm water management as required by this ordinance and other state and federal regulations, unless a written request is filed to waive this requirement. Requests to waive the storm water management plan requirements shall be submitted to the City of Dickson Planning Commission, via the Planning, Zoning and Codes Department, for approval. The City may not waive requirements imposed by higher levels of government. The minimum requirements for storm water management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

1. It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance.
2. Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water management plan that has been approved by the City of Dickson and the implementation of the plan is required by local ordinance.
3. Provisions are made to manage storm water by an off-site facility. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of storm water control that is equal to or greater than that which would be afforded by on-site practices and there is a legally-obligated entity responsible for long-term operation and maintenance of the storm water practice.
4. The City of Dickson Planning Commission finds that meeting the minimum on-site management requirements is not feasible due to the natural or existing physical characteristics of a site.
5. Non-structural practices will be used on the site that reduce: a) the generation of storm water from the site, b) the size and cost of storm water storage and c) the pollutants generated at the site. The acceptance of non-structural practices shall be based upon the submittal of designs and calculations demonstrating the effectiveness of said practices and the acceptance of these non-structural practices shall be at the discretion of the City of Dickson Planning Commission based on staff recommendations.

In instances where one of the conditions above applies, the City of Dickson Planning Commission may grant a waiver from strict compliance with these storm water management provisions, providing that acceptable mitigation measures are provided. However, to be eligible for a variance, the applicant must demonstrate to the satisfaction of the City of Dickson Planning, Zoning and Codes Department and the City of Dickson Planning Commission that the variance will not result in the following impacts to downstream waterways:

- Deterioration of existing culverts, bridges, dams, and other structures resulting from erosion, scour, increased frequency of overtopping/inundation or other occurrences;
- Degradation of biological functions or habitat;
- Accelerated stream bank or streambed erosion or siltation;
- Increased threat of flood damage to public health, life, property.

This demonstration must be provided by calculations prepared by a licensed professional experienced in the preparation of these analyses.

Furthermore, where compliance with minimum requirements for storm water management is waived, the applicant will satisfy the minimum requirements by meeting one of the mitigation measures selected by the jurisdictional

authority. Mitigation measures may include, but are not limited to, the following:

- The purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or reforestation. These lands should be located adjacent to the stream corridor in order to provide permanent buffer areas to protect water quality and aquatic habitat,
- The creation of a storm water management facility or other drainage improvements on previously developed properties, public or private, that currently lack storm water management facilities designed and constructed in accordance with the purposes and standards of this ordinance,
- Monetary contributions (Fee-in-Lieu) to fund storm water management activities such as research and studies (e.g., regional wetland delineation studies, stream monitoring studies for water quality and macroinvertebrates, stream flow monitoring, threatened and endangered species studies, hydrologic studies, and monitoring of storm water management practices.

#### 4.2. Fee in Lieu of Storm Water Management Practices.

Where the City of Dickson Planning Commission waives all or part of the minimum storm water management requirements, or where the waiver is based on the provision of adequate storm water facilities provided downstream of the proposed development, the applicant shall be required to pay a fee in an amount as determined by the City of Dickson Planning Commission.

When an applicant obtains a waiver of the required storm water management, the monetary contribution required shall be in accordance with a fee schedule (unless the developer and the storm water authority agree on a greater alternate contribution) established by the City of Dickson, and based on the cubic feet of storage required for storm water management of the development in question. All of the monetary contributions shall be credited to an appropriate capital improvements program project, and shall be made by the developer prior to the issuance of any building permit for the development.

#### 4.3. Dedication of land

In lieu of a monetary contribution, an applicant may obtain a waiver of the required storm water quality management by entering into an agreement with the City of Dickson for the granting of an easement or the dedication of land by the applicant, to be used for the construction of an off-site storm water management facility. The agreement shall be entered into by the applicant and the City of Dickson prior to the recording of plats or, if no record plat is required, prior to the issuance of the building permit. Such land to be dedicated for the construction of a storm water management facility shall be of sufficient size to control and treat storm water from the entire tributary area for storm water

generated that will flow through the area to be dedicated. This shall not be construed to require sufficient area to treat entire stream drainage basins, but to afford treatment of upland sites that contribute storm water to the dedicated area. The tributary drainage area for the dedicated land shall include properties outside the ownership of the applicant, and shall provide a clear public benefit. If these conditions cannot be met, the waiver shall not be granted under this criterion. The developer shall be required to maintain the facility in perpetuity.

### **Section 5. General Performance Criteria for Storm Water Management**

Unless judged by the City of Dickson Planning Commission to be exempt or granted a waiver, the following performance criteria shall be addressed for storm water management at all sites:

- (A). All site designs shall establish storm water management practices to control the peak flow rates of storm water discharge associated with specified design storms and reduce the generation of storm water. These practices should seek to utilize pervious areas for storm water treatment and to infiltrate storm water runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.
- (B). New developments shall not discharge untreated storm water directly into a jurisdictional wetlands or local water bodies without adequate treatment. Where such discharges are proposed, the impact of the proposal on wetland functional values shall be assessed using a method acceptable to the City of Dickson and the Tennessee Department of Environment and Conservation. In no case shall the impact on functional values be any less than allowed by the Army Corp of Engineers (USACE) or the Tennessee Department of Environment and Conservation, or other agencies responsible for natural resources.
- (C). Annual groundwater recharge rates shall be maintained, by promoting infiltration through the use of structural and non-structural methods. At a minimum, annual recharge from the post development site shall mimic the annual recharge from pre-development site conditions. Site BMP's shall be designed to contain the first one-inch of rainfall runoff on site through evaporation, infiltration or other acceptable means.
- (D). For new development, structural storm water treatment practices shall be designed to remove 80% of the average annual post development total suspended solids load (TSS). It is presumed that a STP complies with this performance standard if it is:
  - sized to capture the prescribed water quality volume (WQ<sub>v</sub>);
  - designed according to the specific performance criteria outlined in the local storm water design manual, or in the absence of the

- manual, meets the standards of engineering practice associated with like measures, or using the TDEC manual;
- constructed properly, and;
  - maintained regularly.
- (E). The facilities must be sized to treat the storm water runoff generated on the site for the design storm. For the purposes of storm water quality, the design storm is the storm which produces one-inch of runoff from the proposed development. This is not to be misconstrued as a one-inch rainfall, but should be understood to be the storm, of whatever total depth, that produces one-inch of runoff.
- (F). To protect stream channels from degradation, a specific channel protection criteria shall be provided as prescribed in the current storm water manual, or prescribed by the State of Tennessee, U.S. Environmental Protection Agency or the U.S. Army Corps of Engineers. In the City of Dickson, the channel protection criterion (Cpy) shall be the 24-hour extended detention of the 24-hour one-year storm event. This criterion shall apply to sites that are 10 acres or greater in size, and does not apply to sites that discharge directly to a lake.
- (G). Storm water discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) maybe subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices. Owners and designers shall ascertain if any special conditions, critical areas or sensitive resources are affected by their proposal, and shall indicate their findings in writing as part of their submittal information to the City of Dickson.
- (H). Certain industrial sites are required to prepare and implement a storm water pollution prevention plan, and shall file a notice of intent (NOI) under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit. The storm water pollution prevention plan requirement applies to both existing and new industrial sites. The State of Tennessee shall govern such sites.
- (I). Storm water discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots", may require the use of specific structural STPs and pollution prevention practices. The application of this criterion and interpretation of "hotspots" shall be at the discretion of the City of Dickson Planning, Zoning and Codes Department.
- (J). Prior to design, applicants are required to consult with the City of Dickson Planning, Zoning and Codes Department to determine if they are subject to additional storm water design requirements.
- (K). Calculations for determining peak flows as indicated in the ordinance shall be used for sizing all storm water management practices.

## **Section 6. Basic Storm Water Management Design Criteria**

### **6.1. Minimum Control Requirements**

All storm water management practices will be designed so that the specific storm frequency storage volumes (e.g., recharge, water quality, channel protection, 10-year, 100-year) as identified in the current storm water design manual, or stated guideline, are met, unless the City of Dickson Planning Commission grants the applicant a waiver or the applicant is exempt from such requirements. In addition, if hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the City of Dickson, through the Planning, Zoning and Codes Department, reserves the right to impose any and all additional requirements deemed necessary to control the volume, quality, timing, and rate of runoff.

### **6.2. Site Design Feasibility**

Storm water management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered:

1. Topography
2. Maximum Drainage Area
3. Depth to Water Table
4. Soils
5. Slopes
6. Terrain
7. Head
8. Location in relation to environmentally sensitive features or ultra-urban areas

### **6.3. Conveyance Issues**

All storm water management practices shall be designed to convey storm water to allow for the maximum removal of pollutants and reduction of in-flow velocities. This shall include, but not be limited to:

1. Maximizing of flow paths from inflow points to outflow points
2. Protection of inlet and outfall structures
3. Elimination of erosive flow velocities
4. Providing of underdrain systems, where applicable

### **6.4. Pretreatment Requirements**

Every storm water treatment practice shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current storm water design manual, or this ordinance. Certain storm water treatment practices are prohibited even with pretreatment in the following circumstances:

- A. Storm water is generated from highly contaminated source areas known as "hotspots"

- B. Storm water is carried in a conveyance system that also carries contaminated, non-storm water discharges
- C. Storm water is being managed in a designated groundwater recharge area.
- D. Certain geologic conditions exist (e.g., karst) that prohibit the proper pretreatment of storm water.

#### 6.5. Treatment/Geometry Conditions

All storm water management practices shall be designed to capture and treat storm water runoff according to the specifications outlined in the Storm Water Design Manual, or this ordinance. These specifications will designate the water quantity and quality treatment criteria that apply to an approved storm water management practice.

#### 6.6. Landscaping Plans Required

All storm water management practices must have a landscaping plan detailing both the vegetation to be in the practice and how and who will manage and maintain this vegetation. This plan must be prepared by a registered landscape architect or soil conservation district.

#### 6.7. Maintenance Agreements

All storm water treatment practices, whether for quantity or quality, shall have an enforceable operation and maintenance agreement to ensure the system functions as designed. This agreement will include any and all maintenance easements required to access and inspect the storm water treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the storm water treatment practice. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance of all storm water treatment practices shall be secured prior to issuance of any permits for land disturbance activities. Easements shall include the City of Dickson in rights-of-entry for the purpose of inspecting material condition and maintenance of the storm water facility, and for performing remedial maintenance in the event of the failure of the responsible party to do so.

#### 6.8. Non-Structural Storm Water Practices

The use of non-structural storm water treatment practices is encouraged in order to minimize the reliance on structural practices. Credit in the form of reductions in the amount of storm water that must be managed can be earned through the use of non-structural practices that reduce the generation of storm water from the site. These non-structural practices are explained in detail in the design manuals, and applicants wishing to obtain credit for use of non-structural practices must ensure that these practices are documented and remain unaltered by subsequent property owners.



## **Section 7. Requirements for Storm Water Management Plan Approval**

### **7.1. Storm Water Management Plan Required for All Developments.**

No application for development will be approved unless it includes a storm water management plan detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed. This plan must be prepared by licensed professional and approved by the City of Dickson and must indicate whether storm water will be managed on-site or off-site and, if on-site, the general location and type of practices.

The storm water management plan(s) shall be referred for comment to all other interested agencies, and any comments must be addressed in a final storm water management plan. This final plan must be signed by a licensed professional engineer (PE), who will verify that the design of all storm water management practices meet the submittal requirements. No building, grading, or sediment control permit shall be issued until a satisfactory final storm water management plan shall have undergone a review and been approved by the City of Dickson after determining that the plan is consistent with the requirements of this ordinance.

### **7.2. Storm Water Management Concept Plan Requirements**

A storm water management concept plan shall be required with all permit applications and will include sufficient information (e.g., maps, hydrologic calculations, etc) to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site. The intent of this conceptual planning process is to determine the type of storm water management measures necessary for the proposed project, and ensure adequate planning for management of storm water runoff from future development. To accomplish this goal the following information shall be included in the concept plan:

1. A map (or maps) indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural storm water management and sediment control facilities. The map(s) will also clearly show proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading; A written description of the site plan and justification of proposed changes in natural conditions may also be required.
2. Sufficient engineering analysis to show that the proposed storm water management measures are capable of controlling runoff from the site in compliance with this ordinance.

3. A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project and a description of the watershed and its relation to the project site. This description should include a discussion of soil conditions, forest cover, topography, wetlands, existing stream cross sections downstream and adjacent to the site, and other native vegetative areas on the site. Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development. Additionally, the description should address the presence or absence of threatened or endangered species as identified by federal or state authorities.
4. A written description of the required maintenance burden for any proposed storm water management facility.
5. The City of Dickson, through the Planning Commission and/or Planning, Zoning and Codes Department, may also require a concept plan to consider the maximum development potential of a site under existing zoning, regardless of whether the applicant presently intends to develop the site to its maximum potential.

For development or redevelopment occurring on a previously developed site, an applicant shall be required to include within the storm water concept plan measures for controlling existing storm water runoff discharges from the site in accordance with the standards of this Ordinance to the maximum extent practical with the concurrence of the City of Dickson Planning, Zoning and Codes Department.

### 7.3. Final Storm Water Management Plan Requirements

After review of the storm water management concept plan, and modifications to that plan as deemed necessary by the City of Dickson Planning, Zoning and Codes Department, a final storm water management plan must be submitted for approval. The final storm water management plan, in addition to the information from the concept plan, shall include all of the information required in the Final Storm water Management Plan checklist. This includes:

1. Contact Information  
The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.
2. Topographic Base Map  
A 1" = 200' topographic base map of the site which extends a minimum of 200 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and

manmade features not otherwise shown. The contour interval of the base map shall be no greater than two feet.

3. Calculations

Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this ordinance. Such calculations shall include (i) description of the design storm frequency, intensity and duration, (ii) time of concentration, (iii) Soil Curve Numbers or runoff coefficients, (iv) peak runoff rates and total runoff volumes for each watershed area (pre- and post-) and routed peak runoff rates at each site outfall, (v) infiltration rates, where applicable, (vi) culvert capacities, (vii) flow velocities, (viii) data on the increase in rate and volume of runoff for the design storms referenced, and (ix) documentation of sources for all computation methods and field test results. Calculations shall be submitted showing post-development peak runoff for the design storm(s) with, and without, water quantity and water quality detention provided at the site. The comparisons shall be illustrated in a table providing a side-by-side comparison of the discharges.

4. Soils Information

If a storm water management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

5. Maintenance and Repair Plan

The design and planning of all storm water management facilities shall include detailed maintenance and repair procedures to ensure their continued function. These plans will identify the parts or components of a storm water management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

6. Landscaping plan

The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district.

7. Maintenance Easements

The applicant must ensure access to all storm water treatment practices at the site for the purpose of inspection and repair by securing all the

maintenance easements needed on a permanent basis. These easements will be recorded with the plan and will remain in effect even with transfer of title to the property. Easements should also allow access to the City of Dickson for periodic inspection and conduct of remedial maintenance in the event of a failure to maintain the facility by the owner.

8. Maintenance Agreement

The applicant must execute an easement and an inspection and maintenance agreement binding on all subsequent owners of land served by an on-site storm water management measure in accordance with the specifications of this ordinance.

9. Erosion Prevention and Sediment Control Plans for Construction of Storm Water Management Measures and Storm Water Pollution Prevention Plan

The applicant must prepare an erosion prevention and sediment control plan and storm water pollution prevention for all construction activities related to implementing any storm water management practices. The storm water pollution prevention plan shall comply with, and contain the required sections of, the State of Tennessee General Permit for Discharge of Construction Storm Water.

10. Other Environmental Permits

The applicant shall assure that all other applicable environmental permits have been acquired for the site prior to approval of the final storm water design plan. These permits include, but may not be limited to, a Notice of Intent, Aquatic Resources Alteration Permit, USACE 404, or TVA 26A.

7.4. Performance Bond/Security

The City of Dickson may, at its discretion, require the submittal of a performance security or bond prior to issuance of a permit in order to insure that the storm water practices are installed by the permit holder as required by the approved storm water management plan. The amount of the installation performance security shall be the total estimated construction cost of the storm water management practices approved under the permit. The performance security shall contain forfeiture provisions for failure to complete work specified in the storm water management plan, whether in manner of construction, timeliness of construction, or completeness.

The installation performance security shall be released in full only upon submission of "as built plans" and written certification by a registered professional engineer that the storm water practice has been installed in accordance with the approved plan and other applicable provisions of this ordinance, and certification that the facility, as constructed, will perform in accordance with the design criteria. The City of Dickson Planning, Zoning and Codes Department will make a final inspection of the storm water practice to

ensure that it is in compliance with the approved plan and the provisions of this ordinance. Provisions for a partial pro-rata release of the performance security based on the completion of various development stages may be done at the discretion of the City of Dickson Planning Commission.

## **Section 8. Construction Inspection**

### **8.1. Notice of Construction Commencement**

The applicant must notify the City of Dickson Planning, Zoning and Codes Department at least five working days in advance of the commencement of construction after all permits have been received. Regular inspections of the storm water management system construction shall be conducted by the staff of the Planning, Zoning and Codes Department or certified by a professional engineer selected by the City of Dickson or their designee. All inspections shall be documented and written reports prepared that contain the following information:

1. The date and location of the inspection;
2. Whether construction is in compliance with the approved storm water management plan
3. Variations from the approved construction specifications
4. Any violations that exist

If any violations are found, the property owner shall be notified in writing of the nature of the violation and the required corrective actions. No added work shall proceed until any violations are corrected and all work previously completed has received approval by the City of Dickson Planning, Zoning and Codes Department. Inspections by the City of Dickson shall not be construed as replacing the twice-weekly inspections required by the Notice of Coverage, or as constituting approval of EPSC measures installed. The owner/developer shall independently implement and maintain an inspection plan with full documentation as required by the terms of the permit provided by the State of Tennessee, and copies of these inspection reports shall be provided to the City of Dickson for each week at the beginning of the subsequent week.

### **8.2. As Built Plans**

All applicants are required to submit actual "as-built" plans for any storm water management practices located on-site after final construction is completed. The plan must show the final design specifications, elevations, sizes, etc., for all storm water management facilities and must be certified by a professional engineer. A final inspection by the City of Dickson Planning, Zoning and Codes Department is required before the release of any performance securities can occur. Failure to submit "as-built" plans, or a finding during final inspection that constructed measures do not comply with approved plans, shall prevent the

issuance of a certificate of occupancy, and shall result in a stop-work order until such plans are received and/or discrepancies are rectified.

### 8.3. Landscaping and Stabilization Requirements

Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be revegetated within fifteen (15) days from the substantial completion of such clearing and construction, or upon the temporary cessation of construction activities. The following criteria shall apply to revegetation efforts:

Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area. Reseeding and remulching shall be done as often as necessary to maintain temporary protection and establish permanent vegetation.

Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district, and must be approved prior to receiving a permit.

## **Section 9. Maintenance and Repair of Storm Water Facilities**

### 9.1. Maintenance Easement

Prior to the issuance of any permit that has a storm water management facility as one of the requirements of the permit, the applicant or owner of the site must execute a maintenance easement agreement that shall be binding on all subsequent owners of land served by the storm water management facility. The agreement shall provide for access to the facility at reasonable times for periodic inspection by the City of Dickson, or their contractor or agent, and for regular or special assessments of property owners and their maintenance contractors to

ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this ordinance. The easement agreement shall be recorded by in the land records of Dickson County.

#### 9.2. Maintenance Covenants

Maintenance of all storm water management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the City of Dickson Planning Commission and recorded into the land record of Dickson County prior to final plan approval. Maintenance, unless accepted by the City, shall be accomplished by the owner of record, or developer, as provided by the maintenance covenant. As part of the covenant, a schedule shall be developed and provided to the City for when and how often maintenance will occur to ensure proper function of the storm water management facility. The covenant shall also include plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts. The City of Dickson, in lieu of a maintenance covenant, may accept dedication of any existing or future storm water management facility for maintenance, provided such facility meets all the requirements of this chapter and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance. Such acceptance shall clearly be in the best interest of the general public to be applicable.

#### 9.3. Requirements for Maintenance Covenants

All storm water management facilities must undergo, at the minimum, a yearly inspection by the owner to document maintenance and repair needs and ensure compliance with the requirements of this ordinance and accomplishment of its purposes. These needs may include; removal of silt, litter and other debris from all catch basins, inlets and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance needs found must be addressed in a timely manner, no more than 30 days barring adverse weather conditions, as determined by the City of Dickson, and the inspection and maintenance requirement may be increased either voluntarily or by direction of the City of Dickson as deemed necessary to ensure proper functioning of the storm water management facility. Increased inspections and maintenance, as required under this ordinance, may be placed upon the owner at the discretion of the City of Dickson if the approved frequency does not, in the opinion of the City's representative, accomplish the storm water goals for the facility. Documentation of inspections shall be provided to the City of Dickson within ten working days of completion of the inspection.

#### 9.4. Inspection of Storm Water Facilities by the City of Dickson

Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins

or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES storm water permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other storm water treatment practices. The City of Dickson shall, at least annually, inspect facilities and review owners' records of inspection and maintenance.

#### 9.5. Right-of-Entry for Inspection

When any new drainage control facility is installed on private property, or when any new connection is made between private property and a public drainage control system, sanitary sewer or combined sewer, the property owner shall grant to the City of Dickson the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when the City has a reasonable basis to believe that a violation of this ordinance is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this ordinance.

#### 9.6. Records of Installation and Maintenance Activities.

Parties responsible for the operation and maintenance of a storm water management facility shall make records of the installation and of all inspections, maintenance and repairs, and shall retain the records for at least five years. These records shall be made available to the City of Dickson during inspections of the facility and at other reasonable times upon request. Copies of annual inspection reports shall be provided to the City of Dickson Planning, Zoning and Codes Department within ten working days after completion of the inspection.

#### 9.7. Failure to Maintain Practices

If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the City of Dickson, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the storm water management facility becomes a danger to public safety or public health, the City of Dickson shall notify the party responsible for maintenance of the storm water management facility in writing. Upon receipt of that notice, the responsible person shall have thirty days to effect maintenance and repair of the facility in an approved manner. After proper notice, the City of Dickson may assess the owner(s) of the facility for the cost of



repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the City. Penalties may extend to the maximum amount per violation per day as provided in TCA 68-221-1106.

## **Section 10. Enforcement and Penalties.**

### 10.1. Violations

Any development activity that is commenced or is conducted contrary to this Ordinance, may be restrained by injunction or otherwise abated in a manner provided by law.

### 10.2. Notice of Violation.

When the City of Dickson determines that an activity is not being carried out in accordance with the requirements of this Ordinance, it shall issue a written notice of violation to the owner of the property. The notice of violation shall contain:

- (1) the name and address of the owner or applicant;
- (2) the address when available or a description of the building, structure or land upon which the violation is occurring;
- (3) a statement specifying the nature of the violation;
- (4) a description of the remedial measures necessary to bring the development activity into compliance with this Ordinance and a time schedule for the completion of such remedial action;
- (5) a statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed;
- (6) a statement that the determination of violation may be appealed to the municipality by filing a written notice of appeal within fifteen (15) calendar days of service of notice of violation.

### 10.3. Stop Work Orders

Persons receiving a notice of violation will be required to halt all construction activities. This "stop work order" will be in effect until the City of Dickson confirms that the development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a notice of violation in a timely manner can result in civil, criminal, or monetary penalties in accordance with the enforcement measures authorized in this ordinance.

### 10.4. Penalties

In addition to, or as an alternative to, any penalty provided herein or by law, any person who violates the provisions of this Ordinance shall be punished by a fine of not less than fifty Dollars (\$50) per day, per violation. Penalties may extend to the maximum amount per violation per day as provided in TCA

68-221-1106. Such person shall be guilty of a separate offense for each day during which the violation occurs or continues.

10.4. Restoration of lands

Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the City of Dickson may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

10.5. Holds on Occupation Permits

Occupation permits will not be granted until corrections to all storm water practices have been made and accepted by the City of Dickson.

Approved by: \_\_\_\_\_ Date \_\_\_\_\_

*APPENDIX C***Stormwater Management  
Non-Stormwater (Illicit) Discharges**

## A. Definitions

**"Community Waters"** means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells and other bodies of surface or subsurface water, natural or man-made, lying within or forming part of the boundaries of the City of Dickson.

**"Contaminant"** means any physical, chemical, biological or radiological substance or matter.

**"Responsible Official"** means the Mayor of the City of Dickson, or his designee.

**"Discharge"** means any substance disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means, intentionally or unintentionally, into community waters, the waters of the state, the waters of the United States, or any area draining directly or indirectly into the municipal stormwater system of the City of Dickson.

**"Municipal Separate Storm Sewer System (MS4) of the City of Dickson"** means a conveyance, or system of conveyances (including roads with drainage systems, city streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains) designed or used for collecting and conveying stormwater; provided, however that sanitary and combined sewers are not included in the definition of the municipal separate storm sewer system.

**"Non-Stormwater Discharge"** means any discharge to the municipal separate storm sewer system except as permitted by Subsection C of this section.

**"Uncontaminated Ground Water Infiltration"** means 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.

**"Waters of the State"** means any water, surface or underground, lying within or forming a part of the boundaries of the City of Dickson, over which the State of Tennessee, through the Tennessee Department of Environment and Conservation, exercises primary control with respect to stormwater permits.

## B. Except as hereinafter provided, all non-stormwater discharges into community waters, the waters of the state, or the municipal separate

storm sewer system of the City of Dickson are prohibited and declared to be unlawful.

- C. Unless the Responsible Official has identified them as a source of contaminants to community waters, the waters of the state, or the municipal separate storm sewer system of the City of Dickson, the following discharges are permitted:
1. Stormwater as defined in TCA Section 68-221-1102(5);
  2. Water line flushing;
  3. Landscape irrigation;
  4. Diverted stream flows under appropriate permits;
  5. Rising groundwaters;
  6. Uncontaminated groundwater infiltration (as defined in 40 CFR 35.2005(20)) to separate storm sewers;
  7. Uncontaminated pumped groundwater;
  8. Discharges from potable water sources;
  9. Foundation drains;
  10. Air conditioner condensate;
  11. Irrigation water;
  12. Springs;
  13. Water from crawlspace pumps;
  14. Footing drains;
  15. Lawn watering;
  16. Individual residential car washing;
  17. Flows from riparian habitats and wetlands;
  18. Dechlorinated swimming pool discharges;
  19. Street wash waters resulting from normal street cleaning operations;
  20. Discharges or flows from emergency fire fighting activities.
- D. Unauthorized discharges include, but are not limited to:
1. Any discharge not listed in Part C that is not permitted under separate coverage.
  2. Discharges that are mixed with sources of non-stormwater unless such non-stormwater discharges are:
    - i. In compliance with an NPDES permit; and
    - ii. Determined not to be a substantial contributor of pollutants to waters of the state.
  3. Stormwater discharges associated with industrial activity, excluding construction activities, as defined in 40 CFR §122.26(b)(14), which are permitted separately.
  4. Discharges or related activities that are likely to jeopardize the continued existence of any state or federally listed species or result in the adverse modification or destruction of habitat that is

- designated as critical under the Endangered Species Act (ESA) or other applicable state law or rule.
5. Discharge or related activities that will cause a prohibited take of federally listed species (defined under Section 3 of the ESA and 50 CFR §17.3), unless such take is authorized under Sections 7 and 10 of the ESA.
  6. Discharge or related activities that will cause a prohibited take of state listed species (defined in the Tennessee Wildlife Resources Commission Proclamation, Endangered or Threatened Species, and in the Tennessee Wildlife Resources Commission Proclamation, Wildlife in Need of Management), unless such take is authorized under the provisions of Tennessee Code Annotated § 70-8-1 06(e).
  7. Discharges that would cause or contribute to an in-stream exceedance of water quality standards.
  8. Discharges of any pollutant into any water for which a TMDL has been approved by the EPA, where the TMDL establishes a specific wasteload allocation and recommends it be incorporated into an individual NPDES permit.
  9. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damages, provided reasonable and prudent measures have been taken to minimize the impact of the discharges.
  10. Discharges that do not comply with the TDEC anti-degradation policy for water quality standards, pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-06, titled "Tennessee Antidegradation Statement."
- E. The Responsible Official shall have authority to implement this section by appropriate regulations. Such regulations may include, but are not limited to, provisions for inspection of points of origin of known or suspected non-permitted discharges by appropriate personnel of the City of Dickson.
- F. Discharges pursuant to a valid and effective NPDES permit issued by the State of Tennessee are not prohibited by this section.
- G. The provisions of this section, including subsection C of this section, shall not apply to sanitary or combined sewers, which are governed by other statutes.
- H. Violation of this section shall subject the violator to a civil penalty of not less than fifty dollars per day for each violation, up to the maximum

penalty per violation per day as specified in TCA 68-221-1106. Each day of violation may constitute a separate violation.

**APPENDIX D****Storm Water Management  
Storm Water Facility Operation and Maintenance Ordinance****Definitions**

**Best Management Practice (BMP)** - Structural device, measure, facility or activity that helps to achieve storm water management control objectives at a designated site.

**Storm Water Management Plan (SWMP)** - A document approved at the site design phase that outlines the measures and practices used to control storm water runoff at a site.

**Section I. Design**

- A. All storm water BMPs shall be designed in a manner to minimize the need for maintenance, and reduce the chances of failure. Design guidelines are outlined in the most recent version of the state design manual. Design criteria are provided in other City ordinances and regulations governing storm water.
- B. Storm water easements and covenants shall be provided by the property owner for access for facility inspections and maintenance. Easements shall exist in perpetuity, and shall continue even if the property is conveyed to subsequent owners. The owner shall be responsible for all inspections and maintenance, to be accomplished at least twice per year unless specified more frequently during the development of the SWMP. Under the easement agreements the City of Dickson shall be allowed access for periodic inspections for verification purposes. This shall not be interpreted that the City will accept maintenance responsibility for the facility. Maintenance responsibility for the facility will remain with the Owner/Developer/Homeowner's Association, as appropriate. Easements and covenants shall be recorded with the Dickson County Register of Deeds, with copies provided to the City of Dickson prior to the issuance of a permit.
- C. Final design shall be approved the City of Dickson Planning, Zoning and Codes Department.
- D. The owner shall execute with the City of Dickson a maintenance agreement or other equivalent document that shall bind the owner to maintain the storm water BMP's perpetually.

**Section II. Routine Maintenance**

- A. All storm water BMPs shall be maintained according to the measures outlined in the approved SWMP and as approved in the permit.
- B. The person(s) or organization(s) responsible for maintenance shall be designated in the SWMP. Options include:
  - 1. Property owner.
  - 2. Homeowner's association, provided that provisions for financing necessary maintenance are included in deed restrictions or other contractual agreements.
- C. Maintenance agreements shall specify responsibilities for financing maintenance. Responsibility to finance maintenance may not be assigned to the City, unless adopted and accepted by an action of the City Council.

**Section III. Non-Routine Maintenance**

- A. Non-routine maintenance includes maintenance activities that are expensive but infrequent, such as pond dredging or major repairs to storm water structures.
- B. Non-routine maintenance shall be performed on an as-needed basis based on information gathered during regular inspections.
- C. If non-routine maintenance activities are not completed in a timely manner, or as specified in the Plan, the City of Dickson may complete the necessary maintenance at the owner's/ operator's expense, and such expenses may be assessed as a lien upon the property(s), or included with the annual tax bill.

**Section IV. Inspections**

- A. The person(s) or organization(s) responsible for maintenance shall inspect storm water BMPs on a regular basis, as outlined in the Plan, but in no case less than once per calendar year.
- B. Authorized representatives of the City of Dickson may enter at reasonable times to conduct on-site inspections for verification, or routine maintenance if the responsible party is in default with respect to performance of maintenance activities.
- C. For BMPs maintained by the property owner or homeowner's association, inspection and maintenance reports shall be filed with the City of Dickson, as provided for in the Plan.
- D. The BMP owner shall maintain documentation of these inspections for the period of time required by law.
- E. Authorized representatives of the City of Dickson may conduct inspections to confirm the information in the reports filed under Section C.



- F. Inspection reports submitted to the City by the responsible party shall include:
1. Facility type and location,
  2. Inspection date,
  3. Name of inspector,
  4. Latitude and longitude and nearest street address,
  5. BMP owner information (name, address, phone number, email)
  6. Description of the BMP condition including:
    - a. Vegetation and soils,
    - b. Inlet and outlet channels and structures,
    - c. Embankments, slopes and safety benches,
    - d. Spillways, weirs, stand pipes and other control structures,
    - e. Any sediment and/or debris accumulation,
    - f. Photographic documentation of the BMP condition on the date of inspection,
    - g. Specific maintenance items that should be corrected by the BMP owner.

#### **Section V. Verification of Maintenance Responsibilities**

- A. Owners shall provide the City verification of maintenance responsibility. The verification shall include one or more of the following as applicable:
- a. The owner/operator's signed statement accepting responsibility for maintenance with a provision for transferring maintenance responsibility if the property is legally transferred to another party;
  - b. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance;
  - c. Written project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to a home owner's association, or other appropriate group, for maintenance of runoff reduction and pollutant reduction storm water BMP's;
  - d. Any other legally enforceable agreement that assigns permanent responsibility for maintenance of runoff reduction and pollution reduction storm water BMP's.
- B. The presence of permanent BMP's and the responsibility to maintain the BMP's shall be noted on plats prior to recording.

#### **Section VI. Violations**

- A. The City shall, upon discovery of any failure to complete maintenance or comply with storm water regulations, notify the owner of any deficiencies promptly. The owner shall have 30 days from the date of the notice to

initiate corrective action. The owner shall present the City with a plan of corrective action outlining work to be performed and a schedule to complete the work.

- B. Violations of these regulations may result in a minimum fine of \$50 per day, per violation, stop work orders, and other such penalties up to and including the maximum penalties per day for each violation as specified in TCA 68-221-1106.
- C. Remedies shall include the right of the City to perform necessary maintenance or corrective actions upon failure of the owner to comply, and to bill the owner to recover actual expenses for the work completed.

## ***APPENDIX E***

### **Storm Water Management Storm Water Enforcement Standard Operating Procedures**

#### **Introduction**

The following standard operating procedures (SOP's) have been developed for enforcement of requirements of the City Storm Management Ordinance # 1296, and the City's Phase II storm water permit #TNS077542. The SOP's are intended to provide guidance for enforcement of the City's storm water ordinance and other regulatory requirements. SOP's also include an escalation process to ensure that deficiencies are corrected in a timely manner and should be used in conjunction with other adopted ordinances that related to this program. The emphasis of the enforcement process is compliance before enforcement.

These SOP's were developed in accordance with Ordinance #1296 which provides guidance for documenting polices and procedures related to implementation of the City's surface water quality program. SOP's are intended to provide guidance for the Stormwater Coordinator, City inspectors and other City personnel who are responsible and have authority for enforcement of provisions of Title 12 Chapter 8 (Storm Water Management) of the Dickson Municipal Code and other applicable storm water requirements.

Title 12 Chapter 8 of the Dickson Municipal Code provides the legal authority for inspections, enforcement, penalties, and appeals to ensure compliance with provisions of the Stormwater Management Ordinance # 1296.

General responsibilities of personnel involved with the enforcement process are:

#### **Stormwater Coordinator**

The Stormwater Coordinator has the primary responsibility of requiring compliance with Title 12 Chapter 8 of the Dickson Municipal Code. Responsibilities begin prior to start of construction activities with careful review of stormwater components and specifications of plans for proposed construction activities, site visit, and reviewing applicable requirements with the City Engineer. The Stormwater Coordinator designates appropriate staff as inspectors, directs site inspections and ensures contractor's inspections are conducted and inspection reports are submitted and filled.

If immediate action is required due to an imminent threat of sediment discharge; sediment discharge has occurred at a site; or the responsible party

does not respond to a written notification of deficiency in a timely manner, the Stormwater Coordinator shall issue a Stop Work Order until the deficiency is corrected.

### **City Inspectors**

Planning & Zoning / Building Codes staff conducts construction site inspections for residential and commercial subdivisions and City projects. Other utilities are required to obtain their own land disturbance permits and conduct their own inspections.

City inspectors should fill out the appropriate inspection form if deficiencies are observed during a routine or complaint related inspection. The observation deficiency shall be documented with photographs that have a time and date stamps.

The inspection form should clearly identify the procedure that must be followed to correct the deficiency and the time period during which the deficiency must be corrected. If the deficiency results in a potential civil penalty or stop work order a note should be made on the inspection form that a civil penalty or a stop work order may be issued by the Stormwater Coordinator.

The City inspector shall notify the Stormwater Coordinator as soon as possible of any deficiencies that have or may result in discharges of sediment from the site; result in a civil penalty; or issuance of a stop work order. The inspectors should clearly recommend actions on the inspection form required to bring deficiencies into compliance with all applicable permit requirements.

### **Evidence of Deficiencies**

Evidence of deficiencies may be determined by:

- Most deficiencies are obvious and can be visually observed without an official inspection (tracking mud onto street, poor housekeeping practices, location of concrete washouts, installation and lack of maintenance of erosion prevention and sediment control devices, wind erosion, etc.);
- Deficiencies discovered during monitoring, regular inspections, and analytical testing;
- Deficiencies discovered as a result of contractor's failure to comply with administrative requirements such as performing routine inspection and maintenance of erosion prevention and sediment

- controls, submitting inspection reports, annual certifications, SWPPP amendments, etc.; and
- Complaints from public.

### **Inspection Forms**

City personnel from the Planning & Zoning / Building Codes Department who perform normal inspections and inspections as a result of a complaint are responsible for identifying deficiencies to requirements of stormwater components of the City's ordinances and regulations. The following are forms that should be utilized for inspections and documentation of deficiencies.

The Construction Activity Inspection form is used for normal once per month comprehensive inspections of active construction sites. If the deficiencies are noted during the inspection; details of the deficiency should be described on the form; photographs with the time and date of the deficiency should be taken; actions required to correct the deficiency should be described on the form; and time period for correction of deficiencies should be stated on the form. The form should be presented to the responsible person on site for his or her signature. A copy of the form should be submitted to the Stormwater Coordinator.

The Construction Activity - Correction Notice is used for inspections that result from public complaints or for deficiencies that are observed and not the result of a scheduled inspection such as observed while driving by a site. Details of the deficiency should be described on the form; photographs with time and date of the deficiency should be taken; actions required to correct the deficiency should be described on the form; and time period for correction of the deficiencies should be stated on the form. The form should be presented to the reasonable person on site for his or her signature. A copy of the form should be submitted to the Stormwater Coordinator.

### **Enforcement Protocol**

The following protocol should be followed by City inspectors if deficiencies are noted during normal or complaint driven inspections. The goal for correction of deficiencies is compliance before enforcement.

There may be instances when the City inspector should use enforcement discretion to conclude the violation is not worthy of a penalty. Some factors to consider may include minor nature of the violation or a positive change in ownership (contractor)

The extent of the violation should be classified as major, moderate or minor. The following are examples of general deficiencies for each category. The City

inspector should note on the appropriate inspection form whether the deficiency is major, moderate or minor.

Major violations could include appropriate permit(s) not obtained; numerous permit conditions not being met; substantial damage to environment (potential for damage); or illicit discharges.

Moderate violations could include appropriate permit(s) not obtained but most permit requirements and permit conditions are being met; environment is impacted moderately (or has the potential to be moderately impacted); SWPPP is less than 50% complete and/or not up to date; required visual monitoring or annual comprehensive site evaluations are not conducted properly; moderate damage to environment (or potential for moderate damage); and construction activity disturbs an area greater than five (5) acres for a total plan of development.

Minor violations would include permit requirements and conditions are mostly in compliance (no discharge of sediment from site); appropriate permit(s) not obtained but permit requirements and conditions are being met; environment is minimally impacted (or potential to be minimally impacted); and SWPPP is more than 50% complete and/or not up to date.

### **Notice of Violation / Stop Work Order**

The Stormwater Coordinator is responsible for issuing an NOV or SWO. The NOV or SWO form should reference the inspection form that was used to document the deficiency (violation). The NOV / SWO serves as a written notice to the reasonable party of a violation to the City's Stormwater Management Ordinance. The reasonable party has ten (10) days after receiving the NOV / SWO to provide the Stormwater Coordinator an explanation of the violation and a plan for satisfactory correction.

The submission of a plan to correct the violation does not relieve the responsible party of liability for any violations occurring during or prior to receipt of the NOV / SWO nor does the plan relieve the responsible party from requirements of the State of Tennessee Construction General Permit for discharges of storm water associated with construction activities

**APPENDIX F****STORM WATER PROGRAM DOCUMENTS**

1. This memo lays out frame work for documenting policies, procedures, technical notes and the like, related to the City's responsibilities and interest in surface water quality, particular federally mandated (EPA) and state -implemented (TDEC) NPDES requirements of the Stormwater Phase 2 program.
2. The framework will serve as a means of recording and communicating among City Departments, important documents and decisions in the City's management of surface water quality issues. It is also intended to maintain the type of documents the EPA and the State expect as evidence of a Stormwater quality management program.
3. Initiating and developing Stormwater-related documents
  - a. Types of documents to be developed and recorded:
    - Management systems, assignments, directives
    - Policy memorandums, statements
    - Standard Operating Procedures ( S.O.P)
    - Technical notes  
(may also include decisions made in interpreting ordinance and guidance materials)
    - Record of decision  
(e.g., precedent or policy-setting decisions; appeal or enforcement-related decision by a City Board that affects policy, interpretation of ordinance)
  - b. Documents may generally be categorized by the persons or persons necessary for adoption of the policy:
    - Department Director  
(S. O.P.; department policy; technical note)
    - Multiple department involved - department directors and/or City Managers  
(S.O.P multi-departmental; technical note)
    - Board, Commission, or City Council  
(Policy, record of decision)

The above-listed materials are in addition to basic program elements such as ordinances, guidance manuals, handbooks, and educational materials. See item number 6 below.

Examples of documents needed to be recorded and filed (those in plain font are taken from TDEC Stormwater program audit list)

- Management
    - City and program-related organizational chart /maps
    - Stormwater program staff list and roles and responsibilities
  - S.O.P's
    - Enforcement escalation procedures
    - Dry weather screening SOP
    - Plan review checklists
    - Construction site inspection checklist
    - Post-construction inspection checklist
    - Stormwater Committee structure and responsibility
  - Technical notes
    - Storm water hot spots, definition of, and special conditions related to
    - Priority construction activity, definition
    - Application of ordinance in unusual situations
    - Enforcement
- c. In the absence of specific guidance, staff should use professional judgment (city engineer) in determining the significance of an issue and whether or not a written policy or document needs to be recorded and communicated to other city staff. In some cases, a policy of procedure will be only a short (e.g., a definition) memorandum, nevertheless critical to implementing components of the stormwater program
- d. Where staff find a need for a stormwater-related memorandum (policy, procedure, SOP, etc) after director's approval to proceed, staff may draft the policy and according to department procedures then route the draft to other relevant departments for review and comment or as needed refer the development of the document to the more appropriate department. Indicate a date by which comments should be submitted to author. This will initiate the development of the policy.



- e. Documents which involve, or significantly affect, operations and decisions of more than one department should be reviewed by and in normal cases by approved by those departments' directors. Those multi-department documents will be forwarded to the City Manager for approval and signature.
4. Format, name, numbering of stormwater program documents
- a. Intra-department issues

Certain issues will, or may, relate exclusively to one department. (For example, an S.O.P. for street sweeping.) This type of document can be developed within the department and approved by the director. This document should be forwarded to the Stormwater Coordinator for record keeping purposes.

The department director should have this one department materials filed in a way so that those related to stormwater can be identified through the filing records.

If a department already has a filing system for policy documents, technical notes and so forth, the department may continue to use that numbering system for the stormwater related policies. If the department does not have such a filing system, it shall create a system at least for stormwater related documents. This is also recommended for other programs with state or federal regulatory impact. As a default filing system for storm water related documents, number the document with an initial "SW", then with year and then series. For example: **SW09 001, for the first document of 2009.**

- b. Multi-department issues

Certain stormwater-related issues will involve two or more departments to significant degree. In those cases, the document is confirmed by the City Manager's signature.

The standard procedure shall be this: the document is developed within the departments, signed by the directors, forwarded to the City Manager by the initiating department for final approval, signed by the City Manager and returned to the initiating department. The City Manager, of course many have occasion to issue a policy or other guidance with or without department input.

The department that initiates and develops the issue document shall file it according to its filing and recordkeeping procedures. See paragraphs above under 4 .a. A copy shall be forwarded to the stormwater coordinator.

A department may initiate its own stormwater related documents, or depending on content, may refer the issue to a more involved department. E.g., if Planning Department sees a need for a car wash policy on commercial properties, planning may refer that to the appropriate department for policy development.

In developing an issue-document involving more than one department, the document should include a table in which to record the concurrence of department directors, and the date, for each department director with significant interest in the issue.

- c. Stormwater document master files, numbering, filing
- i. The stormwater coordinator shall use the following heading, titling and numbering the documents:

**File no:**      **SWMP Series**                      **Date rec:**  
**Stormwater - category**  
**Dept:** *Dept. name*                                      **Dept. doc. no:**  
**Date:** *use date that document is forwarded to mgt for signature*  
**Re:** *primary subject of document*

This heading shall be incorporated onto the first page of the document, as printed from the electronic version or by a stamp, and if necessary on a cover memo that will also include a short description of the material attached.

- ii. Provide a file number according to the following format:
- SWMP Year Series**  
*SWMP abbreviates Storm Water Management Program. Series (001, 002,003,etc.)*
- iii. Identify a category for the content of the document. Use the best Description of the following:
- Management
  - Policy

- Standard Operating Procedure (S.O.P.)
- Technical note
- Record of decision
- Enforcement
- Other

iv. The Stormwater coordinator may establish a stormwater web page. The documents may be posted in final form, scanned and in secure pdf format, to the web page, by file number, showing also initiating department and subject title.

5. Communicating stormwater management polices

- a. Upon signature by Department Director, Directors and/or City Manager, as the case may be the Department that initiated the document shall forward a copy to the City's stormwater coordinators, who should ensure that all affected City staff are notified.
- b. At least annually, the stormwater coordinator shall transmit a list of stormwater management documents to department directors and the City Manager. Any documents new to the list shall be briefly summarized.
- c. At least annually, the stormwater coordinator may have the documents posted to the web page.
- d. At least annually, the stormwater coordinator shall host a city employee work session to

6. Related program documents

It is necessary to maintain records of other documents, such as those mentioned above- ordinances, guidance manuals, handbooks, watershed or master planning documents, and educational materials.

The stormwater coordinator shall maintain a list of these and either have copies or refer to the department and place where they are readily available.

7. Approval and adoption:

Department	Concurrence	Date
Building and Codes Director		
Engineering Director		
Legal Department Director		
Parks and Recreation Director		
Planning Director		
Solid Waste Director		
Street Dept. Director		
Water and Sewer Director		
Urban Environmental Director		

The City Manager directs that the procedures herein be adopted. Proposed changes to these procedures should be submitted to the City Manager for approval.

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Date

**APPENDIX G****Minor Fill Sites**

1. Purpose. The purpose of this regulation is to protect the quality of storm water and safeguard the aesthetic character, value, utility and safety of land being used for the placement of fill materials transported from other sites. The health, safety and general welfare of the citizens of the City of Dickson require this action.
2. Definitions.
  - a. ARAP - Aquatic Resources Alteration Permit, issued by the State of Tennessee for work affecting waters of the State
  - b. Borrow Pit - an area used for the excavation of earthen materials for the purpose of placement as fill at another location
  - c. City - hereinafter refers to the City of Dickson
  - d. Compaction - the act of applying mechanical effort to increase the density of materials placed on the site. The standard for compaction for fill placed on sites in the City of Dickson is 95% dry density as tested by a geotechnical laboratory.
  - e. Excavation and Grading Permit - refers to the permit issued by the City for land disturbance within the City. This permit is in addition to any federal and state permits that may be required for the project. Threshold limits at which grading permits are required are given in the City's grading ordinance.
  - f. Fill - soil, natural stone, crushed concrete debris, milled asphalt, or other compactable materials allowed under federal, state and local regulations that is placed on a site in such a manner that changes the shape, elevation, drainage pattern or other characteristic of the natural ground.
  - g. NOC - Notice of Coverage provided by the State of Tennessee in response to a Notice of Intent filed by one intending to grade land in excess of the permit threshold. The NOC must be received prior to beginning work, must be posted at the site, and must be copied to the City.

- h. NOI - Notice of Intent filed with the State of Tennessee prior to grading to obtain a Notice of Coverage for the work.
- i. NOT - Notice of Termination filed with the State of Tennessee at the completion of grading after the site has been stabilized and the City Codes Official has given concurrence.
- j. Owner - hereinafter refers to the owner or developer of the subject property
- k. Permit Threshold - the area of ground disturbance at which a permit from the State of Tennessee is required. A City grading permit is required for all ground disturbances that meet the criteria provided in the City's grading ordinance.
- l. Quarry - an area used for the excavation of limestone or other natural rock materials for use as fill, or in manufactured construction products; and as otherwise defined in local, state and federal laws and regulations
- m. Randomly Placed Fill - fill materials placed by various entities on a single property over time as a means of disposal, or as acquired by the property owner on an "as-available" basis or other determining factor. The fill may be part of a plan of development but is not placed continuously until the property is brought to the elevations and slopes of the development plan.
- n. State - hereinafter refers to the State of Tennessee
- o. Stop Work Order - an order issued by the City Codes Official directing the owner to cease work at the site, with the exception of any stabilization work stipulated in the order
- p. TDEC - Tennessee Department of Environment and Conservation  
Tennessee Valley Authority
- q. TVA - Tennessee Valley Authority
- r. Unsuitable Fill - materials that may be characterized as containing contaminants that could pollute the surrounding soils, ground water, surface water or air; materials that cannot be compacted to meet the standard; materials that are organic and will decompose over time (which should be disposed in a sanitary land fill), metals

such as structural steel or rebar, siding, shingles and other such building materials

- s. USACE - U.S. Army Corps of Engineers

3. Applicability.

- a. This regulation shall apply to any area within the City at which fill is placed that meets the criteria for a City grading permit. Further, this regulation applies to sites that accept fill materials at irregular intervals, from various sources, for the purpose of altering the site. The fact that fill may be placed over an extended period of time shall not relieve the owner of the responsibility to comply with this regulation. The placement of fill may be for the purpose of elevating the land to establish grades suitable for further development of the property, or for the disposal of materials excavated at other locations. Traditional projects that develop quickly, and which present plans for City approval under the Zoning Ordinance and Subdivision Regulations, are subject to the requirements in this section in as much as the requirements are contained in other parts of City regulations that apply to normal development. This regulation is intended to apply specifically to sites at which fill is placed (dumped) from various sources over differing, and sometimes extended, periods of time.
- b. This regulation applies to all sites receiving fill material that originates outside the City, if the site does not fall under the criteria of the City's grading and excavation ordinances.
- c. This regulation applies to sites in the City that have received or are currently receiving fill in the manner described in this regulation. These sites shall be notified of this regulation on the date it becomes effective, and the owner shall have 90 days from the date of the notification to bring his site into compliance.
- d. This regulation does not apply to placement of topsoil in residential, commercial and industrial lawns, provided that the entire disturbed area is less than 10,000 square feet and the change in elevation at the placement location is less than, or equal to, 5 feet, nor to the placement of material to fill small depressions in the land that are less than 500 square feet in area and 2 feet in depth, this area and depth being the sum of all depressions filled on the property. However, these exceptions require that the fill placed under these conditions shall be finish-graded and stabilized

with grass or other material within 15 calendar days of placement. The exception does not apply to excavation of any kind, and should not be misconstrued to allow any activity that adversely affects adjoining property owners. Failure to stabilize the area covered by the exception shall void the exception and require the owner to comply with all stipulations of this regulation.

- e. This regulation does not apply to borrow pits, which are also governed by the City's excavation and grading ordinances.

4. Requirements.

- a. All properties that accept fill under this regulation shall present a plan of development to the City Planning Commission. The plan of development may describe only the grading anticipated at the site, without detail of buildings, parking or other constructed features if none are planned at the time, on sites where the intent is to change elevation, drainage, prepare a building pad, or perform similar work. The plan of development (grading plan) shall contain all required information, and meet as a minimum the applicable provisions of the standards contained in the City's Zoning Ordinance and Subdivision Regulations. The grading plan shall depict the ultimate plan for fill, and may be cause for future restrictions on site work if the work at the site exceeds the submitted plan, or if the owner submits periodic plan amendments that would indicate the intent to continue fill well past the approved plan.
- b. All projects that will ultimately disturb an area sufficient to require a permit from TDEC shall prepare, and provide a copy to the City, such permits before fill is placed at the site. This applies to all projects falling under this regulation, regardless of the rate at which fill is placed, unless the ground is properly stabilized in phases that keep the open disturbance below the permit threshold. The stabilization shall be confirmed by the City Codes Official prior to continued placement of fill.
- c. Owners of all projects, regardless of size of the project, shall take sufficient measures to prevent erosion of fill materials and sedimentation, and to prevent excessive dust resulting from the placement of material at the site. The City Codes Official, or his designee, shall inspect the initial installation of measures for adequacy, and the Owner shall maintain all measures until grading is complete.



- d. All sites shall have a stable construction entrance to prevent off-site tracking of materials. Any material tracked onto roadways or adjacent properties shall be immediately cleaned by the Owner.
- e. Any projects that affect a watercourse in the City shall obtain all permits such as an ARAP, USACE Section 404, or TVA 26A permit, as shall be applicable to the work. Copies of the permits shall be provided to the City Codes Official for records.
- f. Sites receiving fill under these provisions shall grade and compact dumped stockpiles each 90 days, in lifts no greater than 8 inches. At the completion of grading, the disturbed soils shall be stabilized, either temporarily or permanently, to prevent erosion and sedimentation. No graded area shall be left without stabilization measures for a period of more than 15 days once substantial grading of the lift is complete. Substantial grading is not defined as the occasionally movement of minor volumes of material with a piece of equipment. Stabilization measures shall be maintained until such time that all grading is complete and the site is permanently stable. Temporary stabilization measures may be removed in order to place additional fill, but must be replaced in accordance with these requirements.
- g. The Codes Official shall have authority to determine the applicability of compaction standards to each site. Compaction standards shall apply to any location that may at some point receive construction of buildings, roadways, parking lots or other such areas in which settlement or lack of compaction can cause undesirable consequences. Locations that are designated as spoil sites for unsuitable fill, permanent open space, or non-buildable areas may be exempted from the compaction standard at the Building Official's discretion. The grading plan submitted shall clearly outline all such areas for which relief is sought from the compaction requirement, and the grading plan shall become a permanent record of the City regarding future proposals for the property. In the absence of a letter from the Codes Official waiving the compaction requirement, the Owner shall assume that compaction is required.
- h. The owner shall maintain positive drainage at the site at all times, and shall honor natural drainage paths.
- i. In the event that the site is developed at some future date, the Owner shall use the site conditions that existed prior to the

placement of fill as the existing conditions analysis for comparison with the development proposal in the storm water calculations for computing rainfall runoff and storm water detention and treatment requirements.

5. Penalties and Enforcement. Sites found to be subject to these requirements, but not in compliance, shall be issued an immediate stop work order. At the time of the stop work order, the owner shall stabilize the site and prepare information required under Section 4 of this regulation. The site shall be stabilized within 15 days of the date of the order, and the Section 4 requirements shall be prepared in a timely manner following stabilization, but no more than 90 days from the date of the order. Failure to do so may result in further action by the City, such as citation to court or referral to higher levels of government for enforcement. Additionally, areas that are not stabilized by the Owner within the timeframes noted may be corrected by the City, with charges for the work billed to the Owner. Charges may be assessed as a tax lien against the property. The stop work order shall not be lifted until the owner brings the site into compliance with City regulations and provides the requisite information. Sites that are not brought into compliance within 90 days shall require the owner to formally request the order to be lifted by the Planning Commission when plans are presented for review and approval. The stop work order shall remain in place indefinitely, in perpetuity, until the owner or subsequent owner, complies with this regulation.
6. Appeals. The Owner has the right to appeal to the Planning Commission regarding a stop work order issued by the Codes Official. The appeal shall be heard at the next regular Planning Commission meeting, provided that the intent to appeal is filed at least five business days prior to the meeting. The owner shall bring to the meeting any information supporting his position that the stop work order is unwarranted and present that information to the Planning Commission, and the Codes Official shall present his information to the Planning Commission for their consideration. Decisions rendered by the Planning Commission shall be considered as the City's final dispensation in the matter. If the Planning Commission decides against the Owner, the Owner has 15 calendar days from the date of the decision to stabilize the site and complete actions to comply with this regulation.