

WORCESTER TOWNSHIP

ORDINANCE NO. 124

AN ORDINANCE OF THE TOWNSHIP OF WORCESTER PROVIDING FOR REGULATIONS AFFECTING  
TOWNSHIP PARKS AND PROVIDING FOR PENALTIES FOR THE VIOLATION THEREOF.

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The Board of Supervisors of the Township of Worcester does hereby Enact  
and Ordain the following:

Section 1. Definitions

Unless otherwise expressly stated, the following shall, for the  
purposes of this Ordinance, have the meaning herein indicated:

(a) Park: Any park, playground, open space, or municipal  
facility owned, leased, maintained by or dedicated to the Township of Worcester  
and specifically including any park land owned and maintained by another  
municipality, but located (in whole or in part) within the geographic boundaries  
of Worcester Township;

(b) Litter: Litter shall include rubbish, paper, trash, ashes,  
junk, waste, liquid or solid vegetable or animal matter, and garbage;

(c) Weapon: Any firearm, air, spring or hydraulically-operated  
gun, bows and hard-tipped arrows such as those commonly used for target or  
hunting purposes, slingshots, or large knives;

(d) Township Officials: Shall be the Township Manager or the  
Board of Supervisors.

Section 2. Park Regulations

All persons using park facilities in the Township of Worcester shall  
abide by the following regulations:

(a) No person or persons, without a special permit, shall be  
allowed in the park except between the hours of eight o'clock (8:00) a.m. to  
dark, except in parks where other hours are posted;

- (b) Persons shall enter and leave a park by the entrances and exits provided for that purpose;
- (c) Automobiles or other vehicles shall not be parked in any roadway or section of ground, except in areas designated for parking purposes or driven on any areas other than designated roads within the parks;
- (d) The washing or repair of any motor vehicle shall not be allowed in any park;
- (e) Intoxicating beverages shall not be possessed, sold, distributed or consumed within a park;
- (f) Intoxicated persons shall not be allowed in a park;
- (g) Gambling or any obscene or indecent act shall not be allowed in a park;
- (h) Abusive, indecent or threatening language or any conduct that may annoy others shall not be allowed in a park;
- (i) Firearms or other weapons shall not be allowed in a park, except for use in a properly designated area under adequate supervision;
- (j) No person or persons shall in any way injure or foul any building, equipment or water within a park;
- (k) No person or persons shall cut, injure or destroy flowers, plants, shrubbery or trees within a park;
- (l) Pet animals shall not be allowed within a park;
- (m) No persons shall scatter, drop or leave litter in any portion of a park, except in the receptacles provided for that purpose;
- (n) No persons shall injure, deface or destroy any notices, rules or regulations for the government of a park, posted or in any manner permanently fixed within the limits of same;
- (o) No persons shall annoy, strike, injure, maim or kill any animals or birds in a park;
- (p) No persons shall remove, disturb, interfere with or take any of the blossoms or fruit growing upon any tree, shrub or bush in a park;
- (q) Fires in parks shall only be allowed in designated areas where fireplaces or stoves are provided;
- (r) Groups or parties wishing to reserve a park facility shall apply for a permit prior to occupying such a facility. Applications for a

permit must be made at least twenty-four (24) hours before the time the group or party desires to occupy the park and a scheduled reservation fee must be paid;

(s) Use of parks owned or leased by Worcester Township shall be restricted to persons who are residents of Worcester Township or persons who are guests of Township residents, except for parks funded in part by State or Federal Grants;

(t) Activities and games within a park shall take place in areas designated for such;

(u) It shall be unlawful for any person or persons in any park to bring into same any weapon other than for use in a properly designated area thereof; to in any way molest bird or animal life, birds' nests or houses therein; or to bring within the limits of any park any dog or other animal, the intent thereof being to create and maintain conditions favorable to birds and animal life, and for the benefit and enjoyment of the public to whom the park will be open;

(v) No soliciting or vending or any commercial activity is permitted in any Township park, except any concession as may be duly established by the Board of Supervisors.

### Section 3. Enforcement

Subject to Section 6 below, the State Police serving the Township of Worcester shall enforce these regulations and exercise general supervision over persons occupying or using the parks. The employee of the State Police assigned to a particular park for supervisory reasons shall enforce the rules and regulations set forth in this Ordinance and shall have jurisdiction in the enforcing of same. Such personnel shall have the right to evict violators from the parks and to suspend the use thereof for up to one (1) year in duration.

### Section 4. Supervision

Subject to Section 6 below and any applicable police protection agreement, the Board of Supervisors of the Township of Worcester, along with other Township Officers shall exercise general supervision over persons

occupying or using the parks, and over the care, maintenance and replacement of Township property and equipment in the parks, and shall keep such property and equipment in a clean and sanitary condition.

Section 5. Fees

The Board of Supervisors may from time to time, by resolution, adopt a schedule of fees and charges and other use regulations for Township facilities.

Section 6. Exceptions for Parks Located in Worcester Township,  
but Owned by Other Municipalities

The provisions of this Ordinance related to enforcement and supervision shall not apply to parks or portions of parks located in Worcester Township, but owned and operated by another municipality. Provided Worcester Township has entered into a police protection agreement with such other municipality in connection with such park land, the issues of enforcement and supervision shall be governed by the said police protection agreement and the ordinances of such other municipality.

Section 7. Violations

Any person or persons who shall violate any of the above regulations relating to parking of a motor or other vehicle within any park, shall be notified by the State Police, or by the authorized police department if Section 6 applies, of such violation, said notice to be served by affixing a written ticket or notice upon the vehicle unlawfully operated or personally serving the owner or operator of the vehicle. The traffic notice shall consist of a heavy paper tag upon which the Police Officer making the notification shall indicate the violation, the model of the vehicle, the license number, the name and address of the owner, if such information is immediately available, the place and time of the violation, and the officer's name.

(a) Subject to Section 6 above, any person receiving a notice of such a violation shall report within seventy-two (72) hours to the Township Building and settle the charge by paying Ten Dollars (\$10.00) for said violation to the proper Township employee for the use of the Township of Worcester and thus, avoid further proceedings.

(b) Subject to Section 6 above, in case such person fails to report to the Township Building within seventy-two (72) hours, or having reported, fails to settle the charge by paying the prescribed sum of money to the Township of Worcester, the officer who served the notice shall lodge an information against such person before a District Justice in the Township of Worcester and thereafter, the said District Justice shall follow the procedure and prescribe such fines as are set forth hereinbelow.

(c) The procedures and charges set forth in this Section shall be in addition to and not a substitution for the fines and penalties prescribed for violation of any other Township Ordinance.

#### Section 8. Penalty

Any person or persons violating the provisions of this Ordinance shall, upon summary conviction before a District Justice, be sentenced to pay a fine of not less than Twenty-Five Dollars (\$25.00) nor more than One Thousand Dollars (\$1,000.00), costs of prosecution, restitution of damages, and in default of the payment thereof, shall undergo imprisonment as provided by law.

#### Section 9. Saving Clause

Nothing in this Ordinance shall be construed to affect any suit or proceeding pending in any court, or any rights acquired or liability incurred, or any permit issued, or any cause or causes of action existing prior to the adoption of this Ordinance.

Section 10. Severability

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

Section 11. Effective Date

This Ordinance shall take effect and be in force from and after its enactment as required by law. *February 19, 1992*

WORCESTER TOWNSHIP

By: *John H. Graham*  
John H. Graham, Chairman  
Board Of Supervisors

Attest: *George R. Lewis*  
George R. Lewis, Secretary

WORCESTER TOWNSHIP

ORDINANCE NO. 125

**ORDINANCE TO ADOPT THE INTERGOVERNMENTAL COOPERATION  
AGREEMENT WITH TOWAMENCIN TOWNSHIP TO ALLOW  
POLICE ENFORCEMENT IN CERTAIN RECREATIONAL AREAS  
BY THE TOWAMENCIN TOWNSHIP POLICE FOR PARKS AND  
RECREATIONAL AREAS OWNED BY TOWAMENCIN TOWNSHIP  
BUT LOCATED WITHIN THE BOUNDARIES OF WORCESTER TOWNSHIP**

Section 1 - Legislative Intent

It is the intent of this Ordinance to adopt the attached Agreement in accordance with 53 P.S. 481 et seq. which allows for adoption of such Agreement. Additionally, this Ordinance is adopted pursuant to 63 P.S. 65590 which allows townships of the second class to contract police service with townships adjacent thereto.

Section 2 - Adoption of Agreement

The Agreement attached hereto and marked Exhibit "A" is a Police Service Agreement for a Towamencin Township park located primarily within Worcester Township, but owned by the Township of Towamencin. Said Agreement allows for implementation and enforcement of various ordinances by the Towamencin Township Police Department. The attached Agreement is adopted herein as if set forth at length, said Agreement meeting the terms of 53 P.S. 487. The Board of Supervisors is hereby authorized to execute said Agreement.

Section 3 - Duration of the Term of the Agreement

The term of the Agreement shall be from November 30, 1991 to November 30, 1992 with the Agreement automatically renewing for a one year period and continuing to renew from year to year until terminated as provided by the Agreement.

Section 4 - Powers and Scope of Authority

Towamencin Township shall provide Worcester Township with police protection and service in the area designated only with the Supervisors of Towamencin Township and the Police Chief of Towamencin Township retaining management and control of the Towamencin Township Police Department. Fines incurred or collected within the boundaries of Worcester Township as designated in the Agreement will be collected by Towamencin Township. No entity is created under the Agreement.

Section 5 - Manner and Extent of Financing the Agreement

The Agreement does not call for and therefore does not provide for any financing.

Section 6 - Organizational Structure Necessary to Implement the Agreement

The Towamencin Township Police Department shall retain its organizational structure in order to implement the Agreement and the Pennsylvania State Police will no longer include the areas designated in the Agreement within in its routine patrol of Worcester Township.

Section 7 - Acquisition, Management, Licensing or Disposal of Real or Personal Property

Other than the collection of fines referenced above, no real or personal property shall be acquired, managed, licensed, or disposed of under the Agreement.



Section 8 - Severability

If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be separate, distinct and independent, and such holding shall not affect the validity of the remaining portions of this Ordinance.

ENACTED and ORDAINED this 19 day of February, 1992.

BOARD OF SUPERVISORS of  
WORCESTER TOWNSHIP

BY: John H. Graham  
John H. Graham, Chairman

Attest: George J. Jones  
Secretary

ORDINANCE NO. 126

**AN ORDINANCE SETTING FORTH THE REQUIREMENTS RELATING TO  
REGISTRATION AND TESTING OF AUTOMATIC WARNING DEVICES  
AND TO ESTABLISH THE CONDITIONS FOR THE IMPOSITION OF  
FINES FOR RESPONSE TO FALSE ALARMS IN WORCESTER TOWNSHIP**

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The Board of Supervisors of the Township of Worcester hereby enacts and ordains:

**SECTION 1. Definitions.**

Unless otherwise expressly stated, the following words and phrases shall, for the purpose of this ordinance have the meanings herein indicated:

- (a) AUDIBLE ALARM - Any device, bell, horn or siren which is attached to the interior or exterior of a building and emits a warning signal audible outside the building, designated to attract attention when activated, and thus necessitating the police or a fire company to respond.
- (b) AUTOMATIC WARNING DEVICE [hereinafter referred to as "AWD's"] - Any instrument composed of sensory apparatus and related hardware which automatically transmits a prerecorded signal over regular telephone lines, by direct or indirect connection to a communications center, upon receipt of a stimulus from a sensory apparatus that has detected a physical force or condition inherently characteristic of a fire or intrusion.
- (c) FALSE ALARM - Any signal activated by an automatic warning device, any audible alarm or any other kind of direct or indirect signal transmitted to the police or fire communications center (or of which the police or fire communications center is made aware) to which police or firemen respond and which is reasonably determined by such responding police or firemen not to be the result of a burglary, fire, robbery or a similar emergency.

**SECTION 2. Registration of Installations.**

- (a) A registration statement shall be filed with the Township within ninety (90) days from the effective date of this chapter for each and every Audible

Alarm or AWD which exists in the Township as of the effective date hereof. Beginning on the effective date hereof, every owner or lessee of any residence, building or other structure within the Township who installs an Audible Alarm or AWD in such structure shall, within fifteen (15) days of installation, furnish to the Township a registration of such installation. The registration statement shall include the following information:

- (1) The name, residence and telephone number of the user.
  - (2) The address where the device is installed and the telephone number of that address.
  - (3) The name, address and telephone number of a central station system or any other person or firm (other than the police or fire company) who is authorized to respond to an emergency and gain access to the address where the device is installed.
  - (4) The name and telephone number of the alarm equipment supplier and of any person other than the alarm equipment supplier who is responsible for the maintenance and repair of the automatic warning device and/or has the knowledge or expertise to turn off the alarm or AWD if that becomes necessary in the absence of the property owner.
- (b) All information furnished pursuant to these subsections shall be kept confidential and shall be for the use of the police and fire companies only.
  - (c) Each user shall enter into an agreement with the Township whereby the Township would be rendered harmless for any damage or breakage caused by the Township or other authorized personnel while making a forced entry to answer an AWD alarm, whether a false alarm or an authentic alarm.
  - (d) The property owner (or tenant of a property) who has installed or caused to be installed an alarm or AWD who fails to register same in accordance with this Section 2 shall be liable to pay the Township a fine of \$50.00, in addition to any fines payable to the Township pursuant to Section 4 hereof.
  - (e) All locations with an AWD shall have its street number posted so that the same will be visible at night from the street.

**SECTION 3. Testing and Demonstrations.**

No test or demonstration of an automatic warning device shall be conducted in the Township without first providing notice to any police, fire or rescue communications centers who might inadvertently direct a response to any such alarm in the absence of such notice. Any test conducted without such notice shall constitute a false alarm under Section 4.

**SECTION 4. False Alarms.**

- (a) False intrusionary alarms. The property owner (or tenant on a property who has installed or caused to be installed an alarm or AWD) of a property on which a false intrusionary alarm occurs for any reason, shall pay the Township a fine for each false alarm to which the police respond in each calendar year as follows:

Number of False Intrusionary Alarms in Each Calendar Year	Fine
First & Second	No Fine
Third	\$ 50.00
All over three (each)	\$100.00

- (b) False fire alarms. The property owner (or tenant of a property who has installed or caused to be installed an alarm or AWD) of a property on which a false fire alarm occurs for any reason shall pay the Township a fine for each false alarm to which any fire Company responds in each calendar year as follows:

Number of False Fire Alarms in Each Calendar Year	Fine
First & Second	No Fine
Third	\$100.00
Fourth	\$200.00
Fifth and over (each)	\$300.00

- (c) Alarms or signals sent by AWD's shall not be deemed false alarms if there is demonstrable evidence of intrusion, illegal entry or attempted entry (in the case of an intrusionary alarm), or evidence of a fire (in the case of a fire alarm), or if obviously caused by extraordinary occurrence beyond the

owner's control, such as power failure or surge or the like. Mere malfunctions of an alarm or AWD which result in a false alarm shall not be excused even if unexplained or unexplainable.

- (d) Notwithstanding anything contained herein to the contrary, provided that the property owner (or tenant, as appropriate) of a property in which a new alarm or AWD has been installed has complied with the registration requirements of Section 2 hereof, such property owner (or tenant, as appropriate) shall not be chargeable for any false intrusory or fire alarm which occurs during the first thirty (30) days following initial installation of the alarm or AWD.

**SECTION 5. Disclaimer.**

Nothing in this ordinance shall be construed to affect any suit or proceeding pending in any court, or any rights acquired or liabilities incurred, or any permit issued, or any cause or causes of action existing under the ordinances of the Township of Worcester prior to enactment of this Ordinance.

**SECTION 6. Severability.**

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

**SECTION 7. Failure To Enforce Not A Waiver.**

The failure of the Township to enforce any provision of this ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

SECTION 8. Effective Date.

This Ordinance shall take effect and be in force from and after its approval as required by law.

ORDAINED AND ENACTED by the Board of Supervisors of the Township of Worcester, Montgomery County, Pennsylvania this 15<sup>th</sup> day of July, 1992.

BOARD OF SUPERVISORS OF THE  
TOWNSHIP OF WORCESTER

BY: John H. Graham  
John H. Graham, Chairman

Attest:

George R. Lewis  
George R. Lewis, Secretary

THIS IS A TRUE AND CORRECT COPY.

Attest:

George R. Lewis  
George R. Lewis, Secretary

ORDINANCE #127

1992-127

THE BOARD OF SUPERVISORS OF  
WORCESTER TOWNSHIP HEREBY ADOPTS  
THE MODEL STORM WATER MANAGEMENT ORDINANCE  
PREPARED UNDER ACT 167 BY THE  
MONTGOMERY COUNTY PLANNING COMMISSION  
AS FOLLOWS:

SECTION 101. STATEMENT OF FINDINGS

The governing body of the municipality finds that:

- A. Inadequate management of accelerated runoff of storm water resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, generally increases the cost of public facilities to carry and control storm water, undermines floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, and threatens public health and safety.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety and welfare and the protection of the people of the municipality and all the people of the Commonwealth, their resources, and the environment.

SECTION 102. PURPOSE

The purpose of this ordinance is to promote the public health, safety and welfare within those areas of the Township in the Stony Creek/Saw Mill Run watershed by minimizing the damages associated with increased stormwater runoff from new development, described in Section 101(A) of this Ordinance by provision designed to:

- A. Control accelerated runoff and erosion problems at their source by regulating activities which cause such problems.
- B. Utilize and preserve the integrity of existing natural drainage systems.
- C. Enhance groundwater recharge where possible.
- D. Maintain the existing flows and quality of streams and water courses in the municipality and the Commonwealth.
- E. Preserve and restore the flood carrying capacity of streams.
- F. Provide for proper maintenance of all permanent storm water management structures which are constructed in the municipality.

### SECTION 103. STATUTORY AUTHORITY

The municipality is empowered to regulate these activities by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), the "Storm Water Management Act" and the Municipalities Planning Code.

### SECTION 104. APPLICABILITY

A. This ordinance shall only apply to those areas of the municipality which are located within the Stony Creek and Saw Mill Run drainage basins. The release rates for the different sub-watershed areas will determine the level of control to be achieved in the development of a site.

B. The location of the watershed and sub-watershed areas shall be determined by the official map available for inspection at the municipal office. It is the responsibility of the applicant to determine the location of his property in relation to the watershed boundary and sub-watershed area boundary. Should there be any question as to the location of the property with respect to the watershed boundary or the sub-watershed area boundary, the municipality shall make the final determination.

C. This ordinance shall only apply to permanent storm water management facilities constructed as part of any of the activities listed in this section. Storm water management and erosion and sedimentation control during construction involved with any of these activities are specifically not regulated by this Ordinance, but shall continue to be regulated under existing laws and ordinances, including those of the Montgomery County Soil Conservation Service.

D. This Ordinance contains only those storm water runoff control criteria and standards that are necessary or desirable from a total watershed perspective. Additional storm water management design criteria (i.e. inlet spacing, inlet type, collection system details, etc.) which represent sound engineering practice may be regulated either by separate storm water ordinance provisions or as part of the general responsibilities of the municipal engineer.

E. The following activities are defined as Regulated Activities and shall be regulated by this Ordinance, except those that meet the waiver specifications presented thereafter:

1. Land Development
2. Construction of new or additional impervious surfaces (driveways, parking lots, etc.), including residential subdivision with improvements such as roads, curbs, sewers etc.
3. Construction of new buildings or additions to existing buildings.
4. Diversion or piping of any natural or man-made stream channel.
5. Installation of storm water systems or appurtenances thereto.



#### SECTION 105. WAIVER

Any proposed Regulated Activity, except those defined in Section 104 E.4 and 104.E.5, that would create 5,000 square feet or less of additional impervious cover would be exempt from meeting the provisions of this Ordinance. For development taking place in stages, the entire development plan must be used in determining conformance with this criteria. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as a part of or for the proposed Regulated Activity. Any areas that may be designed to initially be semi-pervious (e.g. gravel, crushed stone, etc.) shall be considered impervious areas for the purposes of waiver evaluation. No waiver shall be provided for Regulated Activities as defined in Section 104.E.4 and 104.E.5.

#### SECTION 106. REPEALER

Any ordinance of the municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

#### SECTION 107. SEVERABILITY

Should a section or provision of this Ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

#### SECTION 108. COMPATIBILITY WITH OTHER ORDINANCE REQUIREMENTS

Approvals issues pursuant to this Ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or ordinance.

### ARTICLE II DEFINITIONS

Cistern - An underground reservoir or tank for storing rainwater.

Conservation Service - The Montgomery County Conservation Service.

Culvert - A pipe, conduit, or similar structure including appurtenant works that carries surface water.

Dam - Any artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or any other fluid or semifluid or any refuse bank, fill, or structure for highway, railroad or any other purposes which does or may impound water, fluid or semifluid.

**Design Storm** - The magnitude of precipitation from a storm event measured in probability of occurrence (e.g. 50 yr. storm) and duration (e.g. 24-hour), and used in computing storm water management control systems. The design storm for the Stony Creek/Saw Mill Run Watershed is the Type II, 10 year, 24 hour storm.

The design storm is actually a two-tiered standard, as follows:

1. A 10-year design storm is to be used in determining stormwater runoff control requirements, such as a detention or volume, for individual projects. The implementation of the assigned release rate must be based on 10-year storm calculations.

2. Stormwater management systems for individual projects must provide control of post development flows to predevelopment peak rates for the greater than 10-year storm through the 100-year storm.

**Detention Basin** - A basin designed to retard storm water runoff by temporarily storing the runoff and releasing it at a predetermined rate.

**Developer** - A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity of this ordinance.

**Development Site** - The specific tract of land for which a Regulated Activity is proposed.

**Drainage Easement** - A right granted by a land owner to a grantee, allowing the use of private land for storm water management purposes.

**Drainage Plan** - The documentation of the proposed storm water management controls, if any, to be used for a given development site, the contents which are established in Section 403.

**Erosion** - The removal of soil particles by the action of water, wind, ice, or other geological agents.

**Groundwater Recharge** - Replenishment of existing natural underground water supplies.

**Impervious Surface** - A surface which prevents the percolation of water into the ground.

**Infiltration Structures** - A structure designed to direct runoff into the ground, e.g. french drains, seepage pits, seepage trench.

**Land Development** - 1. The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or (b) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups of other features. 2. A subdivision of land.

**Peak Discharge** - The maximum rate of flow of storm runoff at a given point and time resulting from a specified storm event.

**Regulated Activities** - Actions or proposed actions which have an impact on proper management of storm water runoff and which are governed by this Ordinance as specified in Section 104.

**Release Rate** - The level of control of the post-development peak rate of runoff to be achieved for a particular site, expressed as a percentage of the pre-development peak rate of runoff.

Return Period - The average interval in years over which an event of a given magnitude can be expected to recur.

Runoff - That part of precipitation which flows over the land.

SCS - Soil Conservation Service, U.S. Department of Agriculture.

Seepage Pit/Seepage Trench - An area of excavated earth filled with loose stone or similar material and into which surface water is directed for infiltration into the ground.

Soil-Cover Complex Method - A method of runoff computation developed by SCS which is based upon relating soil type and land use/cover to a runoff parameter called a Curve Number.

Storage Indication Method - A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage for a given time interval) and based on outflow being a unique function of storage volume.

Storm Sewer - A system of pipes or other conduits which carries intercepted surface runoff, street water, and other wash waters, or drainage, but excludes domestic sewage and industrial wastes.

Storm Water Management Plan - A Plan for managing storm water runoff adopted by Montgomery County for the Stony Creek/Saw Mill Run watershed as required by the Act of October 4, 1978, P.L. 864 (Act 167), and known as the "Storm Water Management Act".

Stream - A watercourse.

Sub-area - The smallest unit of watershed breakdown for hydrologic modeling purposes for which the runoff control criteria have been established in the Storm Water Management Plan.

Subdivision - The division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels, or other divisions of land including changes to existing lot lines for the purpose, whether immediate or future, of lease, transfer of ownership, or building or lot development.

Swale - A low-lying stretch of land which gathers or carries surface water runoff.

Watercourse - Any channel of conveyance of surface water having defined bed or banks, whether natural or artificial, with perennial or intermittent flow.

ARTICLE III  
STORM WATER MANAGEMENT REQUIREMENTS

SECTION 301. GENERAL REQUIREMENTS

- A. Storm drainage systems shall be provided in order to permit unimpeded flow of natural watercourses except as modified by storm water detention facilities or open channels consistent with this Ordinance.
- B. The existing points of concentrated drainage discharge onto adjacent property shall not be altered.
- C. Areas of existing diffused drainage discharge onto adjacent property shall be managed such that, at minimum, the peak diffused flow does not increase in the general direction of discharge, except as otherwise provided in this Ordinance. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that there are adequate downstream conveyance facilities to safely transport the concentrated discharge or otherwise prove that no harm will result from the concentrated discharge. Areas of existing diffused drainage discharge shall be subject to any applicable release rate criteria in the general direction of existing discharge whether they are proposed to be concentrated or maintained as diffused drainage areas.
- D. Where a subdivision is traversed by watercourses other than permanent streams, there shall be provided a drainage easement conforming substantially with the line of such watercourse. The width of the easement shall be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with Section 304 for the 100-year return period runoff and to provide a freeboard allowance of one-half (0.5) foot above the design water surface level. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations which may adversely affect the flow of storm water within any portion of the easement. Also, periodic maintenance of the easement to ensure proper runoff conveyance shall be required.
- E. Any drainage facilities required by this Ordinance that are located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
- F. When it can be shown that, due to topographic conditions, natural drainage swales on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage swales. Capacities of such open channels shall be calculated using the Manning equation.
- G. Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in watercourse channels and at all points of discharge.

- H. Consideration should be given to the design and use of volume controls for storm water management, where geology permits.
- I. Any stormwater management facilities required by this ordinance shall be designed to provide a minimum 1.0 foot of freeboard above the maximum 100-year water surface elevation for postdevelopment conditions. Should any stormwater management facility qualify as a dam under PADER Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.
- J. Roadway crossings, including pipes, bridges, storm sewers of any other drainage conveyance facility must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the roadway. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100 year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Any facilities that constitute stream enclosures, as described in PADER Chapter 105 regulations (as amended or replaced from time to time by PADER), shall be designed in accordance with chapter 105 and will require a permit from PADER. Other requirements can be added, such as methods of detention or control, which may be utilized in stormwater management systems. These would include: detention basins, roof-top storage, parking lot and street ponding, seepage pits and cisterns, porous pavement, grassed channels, swales, vegetative strips, and decrease of impervious coverage.

## SECTION 302. STORM WATER MANAGEMENT DISTRICTS

### A. MAPPING OF STORM WATER MANAGEMENT DISTRICTS

In order to implement the provisions of the Stony Creek/Saw Mill Run Water Management Plan, the municipality is hereby divided into storm water management districts consistent with the Stony Creek/Saw Mill Run release rate map presented in the Plan. The boundaries of the storm water management districts are shown on an official map which is available for inspection at the municipal office.

Three broad categories of storm water management districts, namely the Release Rate District, the Provisional No Detention District, and the 100% Release Rate District, may be applied in the municipality, as described following.

### B. RELEASE RATE DISTRICTS

Release Rate Districts - Within a given district, the post-development peak rate of storm runoff must be controlled to the stated percentage of the pre-development peak rate of storm runoff in order to protect downstream watershed areas. There are numerous release rate districts which differ in the extent to the which post-development runoff must be controlled. The release rates range from 50% to 100%.

#### C. PROVISIONAL NO DETENTION DISTRICTS

Provisional No Detention Districts - These watershed areas may discharge post-development peak runoff without detention without adversely affecting the total watershed peak flow. In certain instances, however, the "local" runoff conveyance facilities, which transport runoff from the site to the main channel, may not have adequate capacity to safely transport increased peak flows associated with no detention for a proposed development. In those instances, the developer shall either use a 100% release rate control, or provide increased capacity of downstream drainage elements to convey increased peak flows consistent with Section 303.J. In determining if adequate capacity exists in the local watershed drainage network, the developer must assume that the entire local watershed is developed per current zoning and that all new development would use the runoff controls specified by this Ordinance. Similarly, any capacity improvements must be designed to convey runoff from development of all areas tributary to the improvement consistent with the capacity criteria specified in Section 303.C.

#### D. PROVISIONAL 100% RELEASE RATE DISTRICTS

Provisional 100% Release Rate Districts - These areas should use a 100% release rate control to protect the areas downstream of the development site. A 100% release rate control would result in the post-development peak rate being controlled to the pre-development level. Direct discharge of post-development flows with no detention could be appropriate for these areas if the developer could prove that adequate downstream capacity exists to convey the increase peak flows generated with development of the sub-area(s) within which the development site is located, without detention controls, to the mainstem. Evaluation of downstream capacity must assume development of all areas tributary to the local drainage network consistent with current zoning, and that all new development would use the runoff controls specified by this Ordinance, except as otherwise specified.

### SECTION 303. STORM WATER MANAGEMENT DISTRICT IMPLEMENTATION PROVISIONS

A. Any storm water management controls required by this Ordinance and subject to release rate criteria (50% to 100%) shall meet the applicable release rate criteria for each of the 2-, 5-, 10-, 25-, 50- and 100-year return period runoff events consistent with the calculation methodology specified in Section 304.

B. The exact location of the Storm Water Management District boundaries as they apply to a given development shall be determined by mapping the boundaries using the two-foot topographic contours provided as part of the Drainage Plan. The District boundaries as originally drawn coincide with topographic divides, or in certain instances are drawn from the intersection of the watercourse and a physical feature such as the confluence of the watercourse and a physical feature obstruction (road, culvert, bridge, etc.) to the topographic divide consistent with topography.

- C. Any downstream capacity analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy for accepting peak flow rates:
1. Natural or man-made channels or swales must be able to convey the increased runoff associated with a two-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DER Soil Erosion and Sedimentation Control Manual (February, 1988).
  2. Natural or man made channels or swales must be able to convey the increased 25-year return period runoff peak within their banks or otherwise not create any hazards to persons or property.
  3. Culverts, bridges or storm sewers or any other facilities that must pass or convey flows from the tributary area must have sufficient capacity to pass or convey the increased flows associated with the 25-year return period runoff event, except for facilities located within a designated floodplain area that must be capable of passing or conveying the 100-year return period runoff. Any facilities that constitute stream enclosures per DER's Chapter 105 regulations shall be designed to convey the 100-year return period runoff.
- D. For a proposed development site located within a single release rate category area, the total runoff from the site shall meet the applicable release rate criteria. For development sites with multiple points of concentrated runoff discharge, individual drainage points may be designed for up to a 100% release rate, so long as the total runoff from the site is controlled to the applicable release rate.
- E. For a proposed development site located within two or more release rate category areas, the maximum peak rate of runoff that may be discharged at any point is limited to the pre-development peak rate of runoff at that point multiplied by the applicable release rate. The control rates shall apply regardless of any grading modifications that may change the drainage area that discharges at a given point.
- F. For proposed development sites located partially within a release rate category area and partially within a provisional no detention area, in no event shall a significant portion of the site area subject to the release rate control be drained to the discharge point(s) located in the no detention area.
- G. "No Harm" Option - For any proposed development site not located in a provisional no detention district, the developer has the option of using a less restrictive runoff control (including no detention) if the developer can prove that "no harm" would be caused by discharging at a higher runoff rate than that specified by the Plan. Proof of "no harm" must be shown from the development site through the remainder of the downstream drainage network to the confluence of the Stony Creek or Saw Mill Run with the Schuylkill River. Proof of "no harm" must be shown using the capacity criteria specified in section 303.C. if downstream capacity analysis is a part of the "no harm" justification.

Any "no harm" justifications shall be submitted by the developer as part of the Drainage Plan submission per Article IV.

Attempts to prove "no harm" based upon downstream peak flow versus capacity analysis shall be governed by the following provisions:

1. The peak flow values to be used for downstream areas for the design return period storms (2-, 10-, 25-, and 100-year) shall be the values from the calibrated Penn State Runoff Model (PSRM) for the Stony Creek/Saw Mill Run watershed. These flow values would be supplied to the developer by the municipal engineer upon request.
  2. Any available capacity in the downstream conveyance system as documented by a developer may be used by the developer only in proportion to his development site acreage relative to the total upstream undeveloped acreage from the identified capacity (i.e. if his site is 10% of the upstream undeveloped acreage, he may use up to 10% of the documented downstream available capacity).
  3. Developer-proposed runoff controls that would generate increased peak flow rates at documented storm drainage problem areas would, by definition, be precluded from successful attempts to prove "no harm", except in conjunction with proposed capacity improvements for the problem areas consistent with Section 303.J.
- H. Individual Lots Within a Subdivision - When a site is proposed to be subdivided for the sale and development of lots on an individual basis, either by the subdividing party or other party, the subdividing party shall, as part of the subdivision proposal, show all provisions for stormwater control, in accordance with the requirements of this ordinance.
- I. Regional or Sub-Regional Detention Alternatives - For certain regions within the watershed, it may be more cost-effective to provide one control facility for an entire sub-area, group of sub-areas, or portion of a sub area incorporating more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional or sub-regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas.
- "Hydrologic model" refers to the calibrated Stony Creek/Saw Mill Run version of the Penn State Runoff Model as developed for the storm water management Plan.
- J. Capacity Improvements - In certain instances, primarily within the provisional no detention and provisional 100% release rate category areas, local drainage conditions may dictate more stringent levels of runoff control than those based upon protection of the entire watershed. In these instances, if the developer could prove that it would be feasible to provide capacity improvements to relieve the capacity deficiency in the local drainage network, then the capacity



improvements could be provided by the developer in lieu of development controls on the development site. Any capacity improvements would be designed based upon development of all areas tributary to the proposed improvement and the capacity criteria specified in Section 303.C. In addition, all new development upstream of a proposed capacity improvement shall be assumed to implement the applicable runoff controls consistent with this Ordinance except that all new development within the entire sub-area(s) within which the proposed development site is located shall be assumed to implement the developer's proposed discharge control, if any.

Capacity improvements may also be provided as necessary to implement any regional or sub-regional detention alternatives or to implement a modified "no harm" option which proposes specific capacity improvements to document the validity of a less stringent discharge control that would not create any harm downstream.

- K. Runoff Control Based on Minimum Additional Impervious Cover Waiver - Any proposed Regulated Activity, except those defined in Section 104.E.4. and 104.E.5., which would create 5,000 square feet or less of additional impervious cover would be exempt from meeting the runoff control provisions of this Ordinance. For developments that are to take place in stages, the entire development plan must be used in determining conformance to this criteria. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as a part of or for the proposed development. Any areas that may be designed initially to be semi-pervious (e.g. gravel, crushed stone, etc.) shall be considered impervious areas for the purposes of waiver evaluation.

No waiver shall be provided for any Regulated Activities as defined in Section 104.E.4. and 104.E.5.

#### SECTION 304. CALCULATION METHODOLOGY

- A. Storm water runoff from all development sites shall be calculated using either the rational method or a soil cover complex methodology.
- B. The design of any detention basin intended to meet the requirements of this Ordinance shall be verified by routing the design storm hydrograph through the proposed basin. For basins designed using the modified rational method technique, the detention volume shall, at minimum, equal the volume derived from the approximate routing process as contained in SCS Technical Release Number 55 (TR 55).
- C. All storm water detention facilities shall provide a minimum 1.0 foot freeboard above the maximum pool elevation associated with the 2- through 25- year runoff events. An emergency spillway shall be designed to pass the 100-year runoff event with a minimum 1.0 foot freeboard.
- D. All calculations using the soil cover complex method shall use the Soil Conservation Service Type II 24-hour rainfall distribution. The

24-hour rainfall depths for various return periods to be used consistent with this Ordinance are taken from The PennDot Intensity - Duration - Frequency Field Manual (May 1986) for Region 5, as follows:

Return Period	24-Hour Rainfall Depth
2 year	3.3 inches
5 year	4.2 inches
10 year	5.0 inches
25 year	5.8 inches
50 year	6.4 inches
100 year	7.2 inches

- E. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration and return periods and the Intensity-Duration-Frequency Curves, subject to review and approval by the municipal engineer.
- F. Runoff Curve Numbers (CNs) to be used in the soil cover complex method shall be based upon standard engineering practice, subject to review and approval by the municipal engineer.
- G. Runoff coefficients for use in the Rational Method shall be based upon standard engineering practice, subject to review and approval by the municipal engineer.
- H. The Manning equation shall be used to calculate the capacity of watercourses. Manning 'n' values used in the calculations shall be consistent with standard engineering practice, subject to review and approval by the municipal engineer. Pipe capacities shall be determined by methods acceptable to the municipal engineer.
- I. Any detention basin intended to meet the requirements of this Ordinance which requires a Dam Safety Permit from DER shall be designed consistent with the provisions of the Dam Safety and Encroachments Act and the DER Chapter 105 Rules and Regulations.

#### ARTICLE IV DRAINAGE PLAN REQUIREMENTS

##### SECTION 401. GENERAL REQUIREMENTS

For any of the regulated Activities of this Ordinance, prior to the final approval of subdivision and/or land development plans, or the issuance of any permit, or the commencement of any land disturbance activity, the owner, subdivider, developer or his agent shall submit a Drainage Plan for approval.

##### SECTION 402. EXEMPTIONS

Any Regulated Activity which would create 5,000 square feet or less of additional impervious cover is exempt from the Drainage Plan preparation

provisions of this Ordinance. This criteria shall apply to the total proposed development even if development is to take place in stages. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as part of or for the proposed Regulated Activity. Any areas designed to initially be gravel, crushed stone, etc. shall be assumed to be impervious for the purposes of this Section.

#### SECTION 403. DRAINAGE PLAN CONTENTS

The following items shall be included in the Drainage Plan:

##### A. General

1. General description of project.
2. General description of proposed permanent storm water controls.

##### B. Map(s) of the project area showing:

1. The location of the project relative to highways, municipalities or other identifiable landmarks.
2. Existing contours at intervals of two (2) feet. In areas of steep slopes (greater than 15%), five-foot contour intervals may be used.
3. Streams, lakes, ponds or other bodies of water within the project area.
4. Other physical features including existing drainage swales and areas of natural vegetation to be preserved.
5. Locations of proposed underground utilities, sewers and water lines.
6. An overlay showing soil types and boundaries.
7. Proposed changes to land surface and vegetative cover.
8. Proposed structures, roads, paved areas and buildings.
9. Final contours at intervals of two (2) feet. In areas of steep slopes (greater than 15%), five-foot contour intervals may be used.
10. Storm Water Management District boundaries applicable to the site.

##### C. Storm Water Management Controls

1. All storm water management controls must be shown on a map and described, including:

- a. Groundwater recharge methods such as seepage pits, beds or trenches. When these structures are used, the locations of septic tank infiltration areas and wells must be shown.
  - b. Other control devices or methods such as roof-top storage, semi-pervious paving materials, grass swales, parking lot ponding, vegetated strips, detention or retention ponds, storm sewers, etc.
  - c. Water quality controls if necessary.
2. All calculations, assumptions and criteria used in the design of the control device or method must be shown.
- D. Maintenance Program - A maintenance program for all storm water management control facilities must be included. This program must include the proposed ownership of the control facilities, the maintenance requirements for the facilities, and the detail the financial responsibility for the required maintenance.

#### SECTION 404. PLAN SUBMISSION

- A. For Regulated Activities specified in Sections 104.E.1. and 104.E.2.:
1. The Drainage Plan shall be submitted by the developer to the municipal secretary (or other appropriate person) as part of the Preliminary plan submission for the subdivision or land development.
  2. Three (3) copies of the Drainage Plan shall be submitted.
  3. Distribution of the Drainage Plan will be as follows:
    - a. One (1) copy to the municipal governing body.
    - b. One (1) copy to the municipal engineer.
    - c. One (1) copy to the County Planning Commission.
- B. For Regulated Activities specified in Section 104.E.3 the Drainage Plan shall be submitted by the developer to the municipal building permit officer as part of the building permit application.
- C. For Regulated Activities specified in Sections 104.E.4. and 104.E.5.:
1. The Drainage Plan shall be submitted by the developer to the County Planning Commission for coordination with the DER permit application process under Chapter 105 (Dam Safety and Waterway Management) or Chapter 106 (Flood Plain Management) of DER's Rules and Regulations.
  2. One (1) copy of the Drainage Plan shall be submitted.

## SECTION 405. DRAINAGE PLAN REVIEW

- A. The municipal engineer shall review the Drainage Plan for consistency with the adopted Stony Creek/Saw Mill Run Storm Water Management Plan as embodied by this ordinance and against any additional storm drainage provisions contained in the municipal subdivision and land development or zoning ordinance, as applicable.
- B. The County Planning Commission shall provide an advisory review of the Drainage Plan for consistency with the Stony Creek/Saw Mill Run Storm Water Management Plan.
- C. For Regulated Activities specified in Sections 104.E.1. and 104.E.2., the Planning Commission shall provide written comments to the municipality, within a time frame consistent with established procedures under Act 247, as to whether the Drainage Plan has been found to be consistent with the Storm Water Management Plan.
- D. For Regulated Activities specified in Sections 104.E.4. and 104.E.5., the County Planning Commission shall notify DER whether the Drainage Plan is consistent with the Storm Water Management Plan and forward a copy of the review letter to the municipality and developer.
- E. The municipality shall not approve any subdivision or land development (Regulated Activities 104.E.1. and 104.E.2.) or building permit application (Regulated Activities 104.E.3.) if the Drainage Plan has been found to be inconsistent with the Storm Water Management Plan as determined by the municipal engineer.

## SECTION 406. MODIFICATION OF PLANS

Modification to a submitted Drainage Plan for a proposed development site which involves a change in control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not as stated on the Drainage Plan (as determined by the municipal engineer) shall require a resubmission of the modified Drainage Plan consistent with Section 404 subject to review per Section 405 of this Ordinance.

## SECTION 407. HARDSHIP WAIVER PROCEDURE

- A. The municipality may hear requests for waivers where it is alleged that the provisions of this ordinance inflict unnecessary hardship upon the applicant. The waiver request shall be in writing on an application form promulgated by the municipality and accompanied by the requisite fee based upon a fee schedule adopted by the municipality. A copy of the completed application form shall be provided to each of the following: municipality, municipal engineer, municipal solicitor and County Planning Commission. The application shall fully document the nature of the alleged hardship.
- B. The municipality may grant a waiver provided that all of the following findings are made in a given case:

1. That there are unique physical circumstances or conditions, including irregularity of lot size or shape, or exceptional topographical or other physical conditions peculiar to the particular property, and that the unnecessary hardship is due to such conditions, and not the circumstances or conditions generally created by the provisions of this ordinance in the Storm Water Management District in which the property is located;
2. That because of such physical circumstances or conditions, there is no possibility that the property can be developed in strict conformity with the provisions of this ordinance, including the "no harm" provision, and that the authorization of a waiver is therefore necessary to enable the reasonable use of the property;
3. That such unnecessary hardship has not been created by the applicant;
4. That the waiver, if authorized, will represent the minimum waiver that will afford relief and will represent the least modification possible of the regulation in issue.

In granting any waiver, the municipality may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of Act 167 and this ordinance.

#### ARTICLE V INSPECTIONS

##### SECTION 501. SCHEDULE OF INSPECTIONS

- A. The municipal engineer or his designee shall inspect all phases of the installation of the permanent storm water control facilities and at the completion of the installation.
- B. If at any stage of the work the municipal engineer determines that the permanent storm water control facilities are not being installed in accordance with the approved development plan, the municipality shall revoke any existing permits until a revised development plan is submitted and approved as required by Section 406.

#### ARTICLE VI FEES AND EXPENSES

##### SECTION 601. GENERAL

A fee shall be established by the municipality to defer municipal costs for Drainage Plan review and processing.

##### SECTION 602. EXPENSES COVERED BY FEES

The fees required by this Ordinance shall at a minimum cover:

- A. The review of the Drainage Plan by the municipal engineer.
- B. The site inspection.
- C. The inspection of required controls and improvements during construction.
- D. The final inspection upon completion of the controls and improvements required in the plan.
- E. Any additional work required to enforce any permit provisions, regulated by this Ordinance, correct violations, and assure the completion of stipulated remedial actions.

ARTICLE VII  
MAINTENANCE RESPONSIBILITIES

SECTION 701. MAINTENANCE RESPONSIBILITIES

The maintenance responsibilities for permanent storm water runoff control facilities shall be determined based upon the type of ownership of the property which is controlled by the facilities.

- A. Single Entity Ownership - In all cases where the permanent storm water runoff control facilities are designed to manage runoff from property in a single entity ownership as defined below, the maintenance responsibility for the storm water control facilities shall be with the single entity owner. The single entity owner shall enter into an agreement with the municipality which specifies that the owner will properly maintain the facilities consistent with accepted practice as determined by the municipal engineer. The agreement shall provide for regular inspections by the municipality and contain such provisions as necessary to ensure timely correction of any maintenance deficiencies by the single entity owner. A single entity shall be defined as an individual, association, public or private corporation, partnership firm, trust, estate or any other legal entity empowered to own real estate.
- B. Multiple Ownership - In cases where the property controlled by the permanent storm water control facilities shall be in multiple ownership (i.e. many individual owners of various portions of the property), the developer shall dedicate the permanent storm water control facilities to the municipality for maintenance. The developer shall pay a fee to the municipality corresponding to the present worth of maintenance of the facilities for a ten-year period. The estimated annual maintenance cost for the facilities shall be based on a fee schedule provided by the municipal engineer and adopted by the municipality. The fee schedule must be reasonable.

In certain multiple ownership situations, the municipality may benefit by transferring the maintenance responsibility to an individual or group of individuals residing within the controlled area. These individuals may have the permanent storm water control facilities adjacent to their lots or otherwise have an interest in

the proper maintenance of the facilities. In these instances, the municipality and the individual(s) may enter into a formal agreement for the maintenance of the facilities. The municipality shall maintain ownership of the facilities and be responsible for periodic inspections.

**SECTION 702. RIGHT-OF-ENTRY**

Upon presentation of the proper credentials, duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to investigate or ascertain whether proper maintenance is being provided for any storm water management facilities for which the municipality is not directly responsible for maintenance as provided in Section 701.

ARTICLE VIII - SEVERABILITY

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

ARTICLE IX - FAILURE TO ENFORCE NOT A WAIVER

This failure of the Township to enforce any provision of this ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

ARTICLE X - EFFECTIVE DATE

This Ordinance shall take effect and be in force from and after its approval as required by law.

ORDAINED AND EXECUTED by the Board of Supervisors of the Township of Worcester, Montgomery County, Pennsylvania, this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 1992.

WORCESTER TOWNSHIP

Attest: \_\_\_\_\_  
George R. Lewis, Secretary

By: \_\_\_\_\_  
John H. Graham, Chairman  
Board of Supervisors



IMP. PAPERS.

ORDINANCE NO. 92-128

AN ORDINANCE ADDING A NEW RESIDENTIAL DISTRICT UNDER  
THE WORCESTER TOWNSHIP ZONING ORDINANCE

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The Board of Supervisors of Worcester Township hereby adopts an Ordinance adding a new "R-75" Residential District to the Township Zoning Ordinance as follows:

SECTION A - The following provisions are hereby added to the Township's Zoning Ordinance as Article \_\_\_\_:

"R-75" RESIDENTIAL DISTRICT

In the "R-75" Residential District, the following regulations shall apply.

SECTION 1. Use Regulations. A building may be erected or used and a lot may be occupied for any of the following purposes, and no other.

- A. Agriculture.
- B. One single family detached dwelling.
- C. Accessory uses in accordance with ARTICLE XXV of the Township Zoning Ordinance.

SECTION 2. Lot Area and Width Regulations.

A. Minimum Lot Area - Public Sewer and Water. Twenty thousand (20,000) square feet shall be the minimum lot area that shall be provided for every building or use, provided the lot is served by public water and sewers.

B. Minimum Lot Area - On-Site Water or On-Site Sewers. Forty thousand (40,000) square feet shall be the minimum lot area that shall be provided for every building or use, provided that either on-site water or on-site sewer is proposed.

C. Minimum Lot Width. One hundred (100) feet shall be the minimum lot width provided for every building or use.

**SECTION 3. Yard Regulations.**

A. Front Yard. Fifty (50) feet shall be the minimum size of the front yard on each lot. A corner lot shall have one front yard of fifty (50) feet and the second of thirty-five (35) feet.

B. Rear Yard. Thirty-five (35) feet shall be the minimum size of the rear yard on each lot.

1. A separate structure accessory to a single family residential use may be erected in the rear yard not closer to the rear or side property line than ten (10) feet.

C. Side Yards. An aggregate total of thirty-five (35) feet shall be provided for the two side yards with a minimum of ten (10) feet for any one side.

**SECTION 4. Coverage Regulations.**

A. Building Coverage. Fifteen percent (15%) shall be the maximum total building coverage on a lot.

B. Impervious Coverage. Forty percent (40%) shall be the maximum total impervious coverage on a lot.

1. Forty percent (40%) shall be the maximum total impervious coverage on a lot for non-residential use.

**SECTION 5. Height Regulations.**

A. Building Height. Thirty-five (35) feet, not exceeding two and one-half (2.5) stories, shall be the maximum height for any building or other structure erected or enlarged in this District.

1. Fifteen (15) feet, not exceeding one and one-half (1.5) stories, shall be the maximum height for any structure accessory to a single family detached dwelling.

**SECTION 6. Parking Regulations.**

A. Residential. For each dwelling in this District, no less than two (2) all weather off-street parking spaces shall be provided in accordance with the applicable provisions of ARTICLE XXII of the Township Zoning Ordinance.

B. Non-Residential. For any use other than single family detached residential in this District, off-street parking and loading facilities shall be provided in accordance with ARTICLE XXII of the Township Zoning Ordinance. Further, such parking shall not occupy any portion of the front, side or rear yards required under this Article.

C. Setbacks. No parking area or driveway shall be located within five (5) feet of any property line, for any use, except as required for normal ingress and egress.

**SECTION 7. Special Requirements.**

A. Signs. Signs shall be permitted in accordance with the applicable provisions of ARTICLE XXI of the Township Zoning Ordinance.

B. Non-Dwelling Structures. Swimming pools, tennis courts and animal shelters may be permitted in this District, subject to the applicable regulations under ARTICLE XXV, "General Provisions" of the Township Zoning Ordinance.

C. Additional Regulations. Lots in this District shall be subject to modified and/or additional regulations under ARTICLE XXV, "General Provisions" of the Township Zoning Ordinance as applicable.

D. Detention Basins in Yard Areas. Detention basins shall be allowed in yard areas only in accordance with the applicable regulations under ARTICLE XXV, "General Provisions" of the Township Zoning Ordinance.

**SECTION B - Disclaimer.**

Nothing in this ordinance shall be construed to affect any suit or proceeding pending in any court, or any rights acquired or liabilities incurred, or any permit issued, or any cause or causes of action existing under the ordinances of the Township of Worcester prior to enactment of this Ordinance.

**SECTION C - Severability.**

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

**SECTION D - Failure To Enforce Not A Waiver.**

The failure of the Township to enforce any provision of this ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

**SECTION E - Effective Date.**

This Ordinance shall take effect and be in force from and after its approval as required by law.

ORDAINED AND ENACTED by the Board of Supervisors of the Township of Worcester, Montgomery County, Pennsylvania, this  
18 day of *November*, A.D. 1992.

**WORCESTER TOWNSHIP**

"I HEREBY CERTIFY THIS IS A TRUE AND CORRECT COPY OF THE  
ADOPTED ORDINANCE"

Attest:

*George R. Lewis*  
George R. Lewis, Secretary

By:

*John H. Graham*  
John H. Graham, Chairman  
Board of Supervisors

BRW:slp  
102792

ORDINANCE NO. 92-129

AN ORDINANCE TO AMEND OFFICIAL WORCESTER TOWNSHIP ZONING MAP BY REZONING AN AREA OF THE TOWNSHIP LOCATED GENERALLY AT THE INTERSECTION OF MORRIS ROAD AND VALLEY FORGE ROAD, AS PARTICULARLY DESCRIBED HEREIN FROM THEIR PRESENT CLASSIFICATION OF "AGR" - AGRICULTURAL DISTRICT TO A NEW CLASSIFICATION AS "R-75" RESIDENTIAL DISTRICT

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The Board of Supervisors of Worcester Township hereby ordains:

1. The Official Zoning Map of Worcester Township is hereby amended by rezoning the following lands (located generally at the intersection of Morris Road and Valley Forge Road) from their current classification as "AGR" - Agricultural District to a new classification as "R-75" Residential District:

Block 28, Units 36, 51 and 54  
Block 28A, Units 1 through 78, inclusive  
Block 28B, Units 1 through 94, inclusive  
Block 28C, Units 1 through 55, inclusive  
Block 28D, Units 1 through 55, inclusive

2. Severability.

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

3. Effective Date.

This Ordinance shall take effect and be in force from and after its approval as required by law.

ORDAINED AND ENACTED by the Board of Supervisors of the  
Township of Worcester, Montgomery County, Pennsylvania, this  
18 day of *November*, A.D. 1992.

WORCESTER TOWNSHIP

"I HEREBY CERTIFY THIS IS A TRUE AND CORRECT COPY OF THE ADOPTED  
ORDINANCE"

Attest:

  
*George R. Lewis*  
George R. Lewis, Secretary

By:

*John H. Graham*  
John H. Graham, Chairman  
Board of Supervisors

BRW:slp  
091092

THE BOARD OF SUPERVISORS OF  
WORCESTER TOWNSHIP HEREBY ADOPTS  
THE MODEL STORM WATER MANAGEMENT ORDINANCE #130  
PREPARED UNDER ACT 167 BY THE  
MONTGOMERY COUNTY PLANNING COMMISSION  
AS FOLLOWS:

SECTION 101. STATEMENT OF FINDINGS

The governing body of the municipality finds that:

- A. Inadequate management of accelerated runoff of storm water resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, generally increases the cost of public facilities to carry and control storm water, undermines floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, and threatens public health and safety.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety and welfare and the protection of the people of the municipality and all the people of the Commonwealth, their resources, and the environment.

SECTION 102. PURPOSE

The purpose of this ordinance is to promote the public health, safety and welfare within those areas of the Township in the Stony Creek/Saw Mill Run watershed by minimizing the damages associated with increased stormwater runoff from new development, described in Section 101(A) of this Ordinance by provision designed to:

- A. Control accelerated runoff and erosion problems at their source by regulating activities which cause such problems.
- B. Utilize and preserve the integrity of existing natural drainage systems.
- C. Enhance groundwater recharge where possible.
- D. Maintain the existing flows and quality of streams and water courses in the municipality and the Commonwealth.
- E. Preserve and restore the flood carrying capacity of streams.
- F. Provide for proper maintenance of all permanent storm water management structures which are constructed in the municipality.

### SECTION 103. STATUTORY AUTHORITY

The municipality is empowered to regulate these activities by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), the "Storm Water Management Act" and the Municipalities Planning Code.

### SECTION 104. APPLICABILITY

A. This ordinance shall only apply to those areas of the municipality which are located within the Stony Creek and Saw Mill Run drainage basins. The release rates for the different sub-watershed areas will determine the level of control to be achieved in the development of a site.

B. The location of the watershed and sub-watershed areas shall be determined by the official map available for inspection at the municipal office. It is the responsibility of the applicant to determine the location of his property in relation to the watershed boundary and sub-watershed area boundary. Should there be any question as to the location of the property with respect to the watershed boundary or the sub-watershed area boundary, the municipality shall make the final determination.

C. This ordinance shall only apply to permanent storm water management facilities constructed as part of any of the activities listed in this section. Storm water management and erosion and sedimentation control during construction involved with any of these activities are specifically not regulated by this Ordinance, but shall continue to be regulated under existing laws and ordinances, including those of the Montgomery County Soil Conservation Service.

D. This Ordinance contains only those storm water runoff control criteria and standards that are necessary or desirable from a total watershed perspective. Additional storm water management design criteria (i.e. inlet spacing, inlet type, collection system details, etc.) which represent sound engineering practice may be regulated either by separate storm water ordinance provisions or as part of the general responsibilities of the municipal engineer.

E. The following activities are defined as Regulated Activities and shall be regulated by this Ordinance, except those that meet the waiver specifications presented thereafter:

1. Land Development
2. Construction of new or additional impervious surfaces (driveways, parking lots, etc.), including residential subdivision with improvements such as roads, curbs, sewers etc.
3. Construction of new buildings or additions to existing buildings.
4. Diversion or piping of any natural or man-made stream channel.
5. Installation of storm water systems or appurtenances thereto.



#### SECTION 105. WAIVER

Any proposed Regulated Activity, except those defined in Section 104 E.4 and 104.E.5, that would create 5,000 square feet or less of additional impervious cover would be exempt from meeting the provisions of this Ordinance. For development taking place in stages, the entire development plan must be used in determining conformance with this criteria. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as a part of or for the proposed Regulated Activity. Any areas that may be designed to initially be semi-pervious (e.g. gravel, crushed stone, etc.) shall be considered impervious areas for the purposes of waiver evaluation. No waiver shall be provided for Regulated Activities as defined in Section 104.E.4 and 104.E.5.

#### SECTION 106. REPEALER

Any ordinance of the municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

#### SECTION 107. SEVERABILITY

Should a section or provision of this Ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

#### SECTION 108. COMPATIBILITY WITH OTHER ORDINANCE REQUIREMENTS

Approvals issues pursuant to this Ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or ordinance.

#### ARTICLE II DEFINITIONS

Cistern - An underground reservoir or tank for storing rainwater.

Conservation Service - The Montgomery County Conservation Service.

Culvert - A pipe, conduit, or similar structure including appurtenant works that carries surface water.

Dam - Any artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or any other fluid or semifluid or any refuse bank, fill, or structure for highway, railroad or any other purposes which does or may impound water, fluid or semifluid.

**Design Storm** - The magnitude of precipitation from a storm event measured in probability of occurrence (e.g. 50 yr. storm) and duration (e.g. 24-hour), and used in computing storm water management control systems.

The design storm is actually a two-tiered standard, as follows:

1. A 10-year design storm is to be used in determining stormwater runoff control requirements, such as a detention or volume, for individual projects. The implementation of the assigned release rate must be based on 10-year storm calculations.

2. Stormwater management systems for individual projects must provide control of post development flows to predevelopment peak rates for the greater than 10-year storm through the 100-year storm.

**Detention Basin** - A basin designed to retard storm water runoff by temporarily storing the runoff and releasing it at a predetermined rate.

**Developer** - A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity of this ordinance.

**Development Site** - The specific tract of land for which a Regulated Activity is proposed.

**Drainage Easement** - A right granted by a land owner to a grantee, allowing the use of private land for storm water management purposes.

**Drainage Plan** - The documentation of the proposed storm water management controls, if any, to be used for a given development site, the contents which are established in Section 403.

**Erosion** - The removal of soil particles by the action of water, wind, ice, or other geological agents.

**Groundwater Recharge** - Replenishment of existing natural underground water supplies.

**Impervious Surface** - A surface which prevents the percolation of water into the ground.

**Infiltration Structures** - A structure designed to direct runoff into the ground, e.g. french drains, seepage pits, seepage trench.

**Land Development** - 1. The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or (b) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups of other features. 2. A subdivision of land.

**Peak Discharge** - The maximum rate of flow of storm runoff at a given point and time resulting from a specified storm event.

**Regulated Activities** - Actions or proposed actions which have an impact on proper management of storm water runoff and which are governed by this Ordinance as specified in Section 104.

**Release Rate** - The level of control of the post-development peak rate of runoff to be achieved for a particular site, expressed as a percentage of the pre-development peak rate of runoff.

**Return Period** - The average interval in years over which an event of a given magnitude can be expected to recur.

**Runoff** - That part of precipitation which flows over the land.

**SCS** - Soil Conservation Service, U.S. Department of Agriculture.

**Seepage Pit/Seepage Trench** - An area of excavated earth filled with loose stone or similar material and into which surface water is directed for infiltration into the ground.

**Soil-Cover Complex Method** - A method of runoff computation developed by SCS which is based upon relating soil type and land use/cover to a runoff parameter called a Curve Number.

**Storage Indication Method** - A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage for a given time interval) and based on outflow being a unique function of storage volume.

**Storm Sewer** - A system of pipes or other conduits which carries intercepted surface runoff, street water, and other wash waters, or drainage, but excludes domestic sewage and industrial wastes.

**Storm Water Management Plan** - A Plan for managing storm water runoff adopted by Montgomery County for the Stony Creek/Saw Mill Run watershed as required by the Act of October 4, 1978, P.L. 864 (Act 167), and known as the "Storm Water Management Act".

**Stream** - A watercourse.

**Sub-area** - The smallest unit of watershed breakdown for hydrologic modeling purposes for which the runoff control criteria have been established in the Storm Water Management Plan.

**Subdivision** - The division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels, or other divisions of land including changes to existing lot lines for the purpose, whether immediate or future, of lease, transfer of ownership, or building or lot development.

**Swale** - A low-lying stretch of land which gathers or carries surface water runoff.

**Watercourse** - Any channel of conveyance of surface water having defined bed or banks, whether natural or artificial, with perennial or intermittent flow.

ARTICLE III  
STORM WATER MANAGEMENT REQUIREMENTS

SECTION 301. GENERAL REQUIREMENTS

- A. Storm drainage systems shall be provided in order to permit unimpeded flow of natural watercourses except as modified by storm water detention facilities or open channels consistent with this Ordinance.
- B. The existing points of concentrated drainage discharge onto adjacent property shall not be altered.
- C. Areas of existing diffused drainage discharge onto adjacent property shall be managed such that, at minimum, the peak diffused flow does not increase in the general direction of discharge, except as otherwise provided in this Ordinance. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that there are adequate downstream conveyance facilities to safely transport the concentrated discharge or otherwise prove that no harm will result from the concentrated discharge. Areas of existing diffused drainage discharge shall be subject to any applicable release rate criteria in the general direction of existing discharge whether they are proposed to be concentrated or maintained as diffused drainage areas.
- D. Where a subdivision is traversed by watercourses other than permanent streams, there shall be provided a drainage easement conforming substantially with the line of such watercourse. The width of the easement shall be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with Section 304 for the 100-year return period runoff and to provide a freeboard allowance of one-half (0.5) foot above the design water surface level. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations which may adversely affect the flow of storm water within any portion of the easement. Also, periodic maintenance of the easement to ensure proper runoff conveyance shall be required.
- E. Any drainage facilities required by this Ordinance that are located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
- F. When it can be shown that, due to topographic conditions, natural drainage swales on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage swales. Capacities of such open channels shall be calculated using the Manning equation.
- G. Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in watercourse channels and at all points of discharge.

- H. Consideration should be given to the design and use of volume controls for storm water management, where geology permits.
- I. Any stormwater management facilities required by this ordinance shall be designed to provide a minimum 1.0 foot of freeboard above the maximum 100-year water surface elevation for postdevelopment conditions. Should any stormwater management facility qualify as a dam under PADER Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.
- J. Roadway crossings, including pipes, bridges, storm sewers of any other drainage conveyance facility must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the roadway. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100 year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Any facilities that constitute stream enclosures, as described in PADER Chapter 105 regulations (as amended or replaced from time to time by PADER), shall be designed in accordance with chapter 105 and will require a permit from PADER. Other requirements can be added, such as methods of detention or control, which may be utilized in stormwater management systems. These would include: detention basins, roof-top storage, parking lot and street ponding, seepage pits and cisterns, porous pavement, grassed channels, swales, vegetative strips, and decrease of impervious coverage.

## SECTION 302. STORM WATER MANAGEMENT DISTRICTS

### A. MAPPING OF STORM WATER MANAGEMENT DISTRICTS

In order to implement the provisions of the Stony Creek/Saw Mill Run Water Management Plan, the municipality is hereby divided into storm water management districts consistent with the Stony Creek/Saw Mill Run release rate map presented in the Plan. The boundaries of the storm water management districts are shown on an official map which is available for inspection at the municipal office.

Three broad categories of storm water management districts, namely the Release Rate District, the Provisional No Detention District, and the 100% Release Rate District, may be applied in the municipality, as described following.

### B. RELEASE RATE DISTRICTS

Release Rate Districts - Within a given district, the post-development peak rate of storm runoff must be controlled to the stated percentage of the pre-development peak rate of storm runoff in order to protect downstream watershed areas. There are numerous release rate districts which differ in the extent to which post-development runoff must be controlled. The release rates range from 50% to 100%.

### C. PROVISIONAL NO DETENTION DISTRICTS

Provisional No Detention Districts - These watershed areas may discharge post-development peak runoff without detention without adversely affecting the total watershed peak flow. In certain instances, however, the "local" runoff conveyance facilities, which transport runoff from the site to the main channel, may not have adequate capacity to safely transport increased peak flows associated with no detention for a proposed development. In those instances, the developer shall either use a 100% release rate control, or provide increased capacity of downstream drainage elements to convey increased peak flows consistent with Section 303.J. In determining if adequate capacity exists in the local watershed drainage network, the developer must assume that the entire local watershed is developed per current zoning and that all new development would use the runoff controls specified by this Ordinance. Similarly, any capacity improvements must be designed to convey runoff from development of all areas tributary to the improvement consistent with the capacity criteria specified in Section 303.C.

### D. 100% RELEASE RATE DISTRICTS

100% Release Rate Districts - These areas should use a 100% release rate control to protect the areas downstream of the development site. A 100% release rate control would result in the post-development peak rate being controlled to the pre-development level.

## SECTION 303. STORM WATER MANAGEMENT DISTRICT IMPLEMENTATION PROVISIONS

A. Any storm water management controls required by this Ordinance and subject to release rate criteria (50% to 100%) shall meet the applicable release rate criteria for each of the 2-, 5-, 10-, 25-, 50- and 100-year return period runoff events consistent with the calculation methodology specified in section 304.

B. The exact location of the Storm Water Management District boundaries as they apply to a given development shall be determined by mapping the boundaries using the two-foot topographic contours provided as part of the Drainage Plan. The District boundaries as originally drawn coincide with topographic divides, or in certain instances are drawn from the intersection of the watercourse and a physical feature such as the confluence with another watercourse or a potential flow obstruction (road, culvert, bridge, etc.) to the topographic divide consistent with topography.

- C. Any downstream capacity analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy for accepting peak flow rates:
1. Natural or man-made channels or swales must be able to convey the increased runoff associated with a two-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DER Soil Erosion and Sedimentation Control Manual (February, 1988).
  2. Natural or man made channels or swales must be able to convey the increased 25-year return period runoff peak within their banks or otherwise not create any hazards to persons or property.
  3. Culverts, bridges or storm sewers or any other facilities that must pass or convey flows from the tributary area must have sufficient capacity to pass or convey the increased flows associated with the 25-year return period runoff event, except for facilities located within a designated floodplain area that must be capable of passing or conveying the 100-year return period runoff. Any facilities that constitute stream enclosures per DER's Chapter 105 regulations shall be designed to convey the 100-year return period runoff.
- D. For a proposed development site located within a single release rate category area, the total runoff from the site shall meet the applicable release rate criteria. For development sites with multiple points of concentrated runoff discharge, individual drainage points may be designed for up to a 100% release rate, so long as the total runoff from the site is controlled to the applicable release rate.
- E. For a proposed development site located within two or more release rate category areas, the maximum peak rate of runoff that may be discharged at any point is limited to the pre-development peak rate of runoff at that point multiplied by the applicable release rate. The control rates shall apply regardless of any grading modifications that may change the drainage area that discharges at a given point.
- F. For proposed development sites located partially within a release rate category area and partially within a provisional no detention area, in no event shall a significant portion of the site area subject to the release rate control be drained to the discharge point(s) located in the no detention area.
- G. "No Harm" Option - For any proposed development site not located in a provisional no detention district, the developer has the option of using a less restrictive runoff control (including no detention) if the developer can prove that "no harm" would be caused by discharging at a higher runoff rate than that specified by the Plan. Proof of "no harm" must be shown from the development site through the remainder of the downstream drainage network to the confluence of the Stony Creek or Saw Mill Run with the Schuylkill River. Proof of "no harm" must be shown using the capacity criteria specified in section 303.C. if downstream capacity analysis is a part of the "no harm" justification.

Any "no harm" justifications shall be submitted by the developer as part of the Drainage Plan submission per Article IV.

Attempts to prove "no harm" based upon downstream peak flow versus capacity analysis shall be governed by the following provisions:

1. The peak flow values to be used for downstream areas for the design return period storms (2,5,10,25,50 and 100 year) shall be the values from the calibrated Penn State Runoff Model (PSRM) for the Stony Creek/Saw Mill Run watershed. These flow values would be supplied to the developer by the municipal engineer upon request.
  2. Any available capacity in the downstream conveyance system as documented by a developer may be used by the developer only in proportion to his development site acreage relative to the total upstream undeveloped acreage from the identified capacity (i.e. if his site is 10% of the upstream undeveloped acreage, he may use up to 10% of the documented downstream available capacity).
  3. Developer-proposed runoff controls that would generate increased peak flow rates at documented storm drainage problem areas would, by definition, be precluded from successful attempts to prove "no harm", except in conjunction with proposed capacity improvements for the problem areas consistent with Section 303.J.
- H. Individual Lots Within a Subdivision - When a site is proposed to be subdivided for the sale and development of lots on an individual basis, either by the subdividing party or other party, the subdividing party shall, as part of the subdivision proposal, show all provisions for stormwater control, in accordance with the requirements of this ordinance.
- I. Regional or Sub-Regional Detention Alternatives - For certain regions within the watershed, it may be more cost-effective to provide one control facility for an entire sub-area, group of sub-areas, or portion of a sub area incorporating more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional or sub-regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas.
- "Hydrologic model" refers to the calibrated Stony Creek/Saw Mill Run version of the Penn State Runoff Model as developed for the storm water management Plan.
- J. Capacity Improvements - In certain instances, primarily within the provisional no detention and provisional 100% release rate category areas, local drainage conditions may dictate more stringent levels of runoff control than those based upon protection of the entire watershed. In these instances, if the developer could prove that it would be feasible to provide capacity improvements to relieve the capacity deficiency in the local drainage network, then the capacity



improvements could be provided by the developer in lieu of development controls on the development site. Any capacity improvements would be designed based upon development of all areas tributary to the proposed improvement and the capacity criteria specified in Section 303.C. In addition, all new development upstream of a proposed capacity improvement shall be assumed to implement the applicable runoff controls consistent with this Ordinance except that all new development within the entire sub-area(s) within which the proposed development site is located shall be assumed to implement the developer's proposed discharge control, if any.

Capacity improvements may also be provided as necessary to implement any regional or sub-regional detention alternatives or to implement a modified "no harm" option which proposes specific capacity improvements to document the validity of a less stringent discharge control that would not create any harm downstream.

- K. Runoff Control Based on Minimum Additional Impervious Cover Waiver - Any proposed Regulated Activity, except those defined in Section 104.E.4. and 104.E.5., which would create 5,000 square feet or less of additional impervious cover would be exempt from meeting the runoff control provisions of this Ordinance. For developments that are to take place in stages, the entire development plan must be used in determining conformance to this criteria. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as a part of or for the proposed development. Any areas that may be designed initially to be semi-pervious (e.g. gravel, crushed stone, etc.) shall be considered impervious areas for the purposes of waiver evaluation.

No waiver shall be provided for any Regulated Activities as defined in Section 104.E.4. and 104.E.5.

#### SECTION 304. CALCULATION METHODOLOGY

- A. Storm water runoff from all development sites shall be calculated using either the rational method or a soil cover complex methodology.
- B. The design of any detention basin intended to meet the requirements of this Ordinance shall be verified by routing the design storm hydrograph through the proposed basin. For basins designed using the modified rational method technique, the detention volume shall, at minimum, equal the volume derived from the approximate routing process as contained in SCS Technical Release Number 55 (TR 55).
- C. All storm water detention facilities shall provide a minimum 1.0 foot freeboard above the maximum pool elevation associated with the 2- through 25- year runoff events. An emergency spillway shall be designed to pass the 100-year runoff event with a minimum 1.0 foot freeboard.
- D. All calculations using the soil cover complex method shall use the Soil Conservation Service Type II 24-hour rainfall distribution. The

24-hour rainfall depths for various return periods to be used consistent with this Ordinance are taken from The PennDot Intensity - Duration - Frequency Field Manual (May 1986) for Region 5, as follows:

Return Period	24-Hour Rainfall Depth
2 year	3.3 inches
5 year	4.2 inches
10 year	5.0 inches
25 year	5.8 inches
50 year	6.4 inches
100 year	7.2 inches

- E. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration and return periods and the Intensity-Duration-Frequency Curves, subject to review and approval by the municipal engineer.
- F. Runoff Curve Numbers (CNS) to be used in the soil cover complex method shall be based upon standard engineering practice, subject to review and approval by the municipal engineer.
- G. Runoff coefficients for use in the Rational Method shall be based upon standard engineering practice, subject to review and approval by the municipal engineer.
- H. The Manning equation shall be used to calculate the capacity of watercourses. Manning 'n' values used in the calculations shall be consistent with standard engineering practice, subject to review and approval by the municipal engineer. Pipe capacities shall be determined by methods acceptable to the municipal engineer.
- I. Any detention basin intended to meet the requirements of this Ordinance which requires a Dam Safety Permit from DER shall be designed consistent with the provisions of the Dam Safety and Encroachments Act and the DER Chapter 105 Rules and Regulations.

#### ARTICLE IV DRAINAGE PLAN REQUIREMENTS

##### SECTION 401. GENERAL REQUIREMENTS

For any of the regulated Activities of this Ordinance, prior to the final approval of subdivision and/or land development plans, or the issuance of any permit, or the commencement of any land disturbance activity, the owner, subdivider, developer or his agent shall submit a Drainage Plan for approval.

##### SECTION 402. EXEMPTIONS

Any Regulated Activity which would create 5,000 square feet or less of additional impervious cover is exempt from the Drainage Plan preparation

provisions of this Ordinance. This criteria shall apply to the total proposed development even if development is to take place in stages. Additional impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks constructed as part of or for the proposed Regulated Activity. Any areas designed to initially be gravel, crushed stone, etc. shall be assumed to be impervious for the purposes of this Section.

#### SECTION 403. DRAINAGE PLAN CONTENTS

The following items shall be included in the Drainage Plan:

##### A. General

1. General description of project.
2. General description of proposed permanent storm water controls.

##### B. Map(s) of the project area showing:

1. The location of the project relative to highways, municipalities or other identifiable landmarks.
2. Existing contours at intervals of two (2) feet. In areas of steep slopes (greater than 15%), five-foot contour intervals may be used.
3. Streams, lakes, ponds or other bodies of water within the project area.
4. Other physical features including existing drainage swales and areas of natural vegetation to be preserved.
5. Locations of proposed underground utilities, sewers and water lines.
6. An overlay showing soil types and boundaries.
7. Proposed changes to land surface and vegetative cover.
8. Proposed structures, roads, paved areas and buildings.
9. Final contours at intervals of two (2) feet. In areas of steep slopes (greater than 15%), five-foot contour intervals may be used.
10. Storm Water Management District boundaries applicable to the site.

##### C. Storm Water Management Controls

1. All storm water management controls must be shown on a map and described, including:

- a. Groundwater recharge methods such as seepage pits, beds or trenches. When these structures are used, the locations of septic tank infiltration areas and wells must be shown.
  - b. Other control devices or methods such as roof-top storage, semi-pervious paving materials, grass swales, parking lot ponding, vegetated strips, detention or retention ponds, storm sewers, etc.
  - c. Water quality controls if necessary.
2. All calculations, assumptions and criteria used in the design of the control device or method must be shown.
- D. Maintenance Program - A maintenance program for all storm water management control facilities must be included. This program must include the proposed ownership of the control facilities, the maintenance requirements for the facilities, and the detail the financial responsibility for the required maintenance.

#### SECTION 404. PLAN SUBMISSION

- A. For Regulated Activities specified in Sections 104.E.1. and 104.E.2.:
- 1. The Drainage Plan shall be submitted by the developer to the municipal secretary (or other appropriate person) as part of the Preliminary plan submission for the subdivision or land development.
  - 2. Three (3) copies of the Drainage Plan shall be submitted.
  - 3. Distribution of the Drainage Plan will be as follows:
    - a. One (1) copy to the municipal governing body.
    - b. One (1) copy to the municipal engineer.
    - c. One (1) copy to the County Planning Commission.
- B. For Regulated Activities specified in Section 104.E.3 the Drainage Plan shall be submitted by the developer to the municipal building permit officer as part of the building permit application.
- C. For Regulated Activities specified in Sections 104.E.4. and 104.E.5.:
- 1. The Drainage Plan shall be submitted by the developer to the County Planning Commission for coordination with the DER permit application process under Chapter 105 (Dam Safety and Waterway Management) or Chapter 106 (Flood Plain Management) of DER's Rules and Regulations.
  - 2. One (1) copy of the Drainage Plan shall be submitted.

## SECTION 405. DRAINAGE PLAN REVIEW

- A. The municipal engineer shall review the Drainage Plan for consistency with the adopted Stony Creek/Saw Mill Run Storm Water Management Plan as embodied by this ordinance and against any additional storm drainage provisions contained in the municipal subdivision and land development or zoning ordinance, as applicable.
- B. The County Planning Commission shall provide an advisory review of the Drainage Plan for consistency with the Stony Creek/Saw Mill Run Storm Water Management Plan.
- C. For Regulated Activities specified in Sections 104.E.1. and 104.E.2., the Planning Commission shall provide written comments to the municipality, within a time frame consistent with established procedures under Act 247, as to whether the Drainage Plan has been found to be consistent with the Storm Water Management Plan.
- D. For Regulated Activities specified in Sections 104.E.4. and 104.E.5., the County Planning Commission shall notify DER whether the Drainage Plan is consistent with the Storm Water Management Plan and forward a copy of the review letter to the municipality and developer.
- E. The municipality shall not approve any subdivision or land development (Regulated Activities 104.E.1. and 104.E.2.) or building permit application (Regulated Activities 104.E.3.) if the Drainage Plan has been found to be inconsistent with the Storm Water Management Plan as determined by the municipal engineer.

## SECTION 406. MODIFICATION OF PLANS

Modification to a submitted Drainage Plan for a proposed development site which involves a change in control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not as stated on the Drainage Plan (as determined by the municipal engineer) shall require a resubmission of the modified Drainage Plan consistent with Section 404 subject to review per Section 405 of this Ordinance.

## SECTION 407. HARDSHIP WAIVER PROCEDURE

- A. The municipality may hear requests for waivers where it is alleged that the provisions of this ordinance inflict unnecessary hardship upon the applicant. The waiver request shall be in writing on an application form promulgated by the municipality and accompanied by the requisite fee based upon a fee schedule adopted by the municipality. A copy of the completed application form shall be provided to each of the following: municipality, municipal engineer, municipal solicitor and County Planning Commission. The application shall fully document the nature of the alleged hardship.
- B. The municipality may grant a waiver provided that all of the following findings are made in a given case:

1. That there are unique physical circumstances or conditions, including irregularity of lot size or shape, or exceptional topographical or other physical conditions peculiar to the particular property, and that the unnecessary hardship is due to such conditions, and not the circumstances or conditions generally created by the provisions of this ordinance in the Storm Water Management District in which the property is located;
2. That because of such physical circumstances or conditions, there is no possibility that the property can be developed in strict conformity with the provisions of this ordinance, including the "no harm" provision, and that the authorization of a waiver is therefore necessary to enable the reasonable use of the property;
3. That such unnecessary hardship has not been created by the applicant;
4. That the waiver, if authorized, will represent the minimum waiver that will afford relief and will represent the least modification possible of the regulation in issue.

In granting any waiver, the municipality may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of Act 167 and this ordinance.

#### ARTICLE V INSPECTIONS

##### SECTION 501. SCHEDULE OF INSPECTIONS

- A. The municipal engineer or his designee shall inspect all phases of the installation of the permanent storm water control facilities and at the completion of the installation.
- B. If at any stage of the work the municipal engineer determines that the permanent storm water control facilities are not being installed in accordance with the approved development plan, the municipality shall revoke any existing permits until a revised development plan is submitted and approved as required by Section 406.

#### ARTICLE VI FEES AND EXPENSES

##### SECTION 601. GENERAL

A fee shall be established by the municipality to defer municipal costs for Drainage Plan review and processing.

##### SECTION 602. EXPENSES COVERED BY FEES

The fees required by this Ordinance shall at a minimum cover:

- A. The review of the Drainage Plan by the municipal engineer.
- B. The site inspection.
- C. The inspection of required controls and improvements during construction.
- D. The final inspection upon completion of the controls and improvements required in the plan.
- E. Any additional work required to enforce any permit provisions, regulated by this Ordinance, correct violations, and assure the completion of stipulated remedial actions.

ARTICLE VII  
MAINTENANCE RESPONSIBILITIES

SECTION 701. MAINTENANCE RESPONSIBILITIES

The maintenance responsibilities for permanent storm water runoff control facilities shall be determined based upon the type of ownership of the property which is controlled by the facilities.

- A. Single Entity Ownership - In all cases where the permanent storm water runoff control facilities are designed to manage runoff from property in a single entity ownership as defined below, the maintenance responsibility for the storm water control facilities shall be with the single entity owner. The single entity owner shall enter into an agreement with the municipality which specifies that the owner will properly maintain the facilities consistent with accepted practice as determined by the municipal engineer. The agreement shall provide for regular inspections by the municipality and contain such provisions as necessary to ensure timely correction of any maintenance deficiencies by the single entity owner. A single entity shall be defined as an individual, association, public or private corporation, partnership firm, trust, estate or any other legal entity empowered to own real estate.
- B. Multiple Ownership - In cases where the property controlled by the permanent storm water control facilities shall be in multiple ownership (i.e. many individual owners of various portions of the property), the developer shall dedicate the permanent storm water control facilities to the municipality for maintenance. The developer shall pay a fee to the municipality corresponding to the present worth of maintenance of the facilities for a ten-year period. The estimated annual maintenance cost for the facilities shall be based on a fee schedule provided by the municipal engineer and adopted by the municipality. The fee schedule must be reasonable.

In certain multiple ownership situations, the municipality may benefit by transferring the maintenance responsibility to an individual or group of individuals residing within the controlled area. These individuals may have the permanent storm water control facilities adjacent to their lots or otherwise have an interest in

the proper maintenance of the facilities. In these instances, the municipality and the individual(s) may enter into a formal agreement for the maintenance of the facilities. The municipality shall maintain ownership of the facilities and be responsible for periodic inspections.

#### SECTION 702. RIGHT-OF-ENTRY

Upon presentation of the proper credentials, duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to investigate or ascertain whether proper maintenance is being provided for any storm water management facilities for which the municipality is not directly responsible for maintenance as provided in Section 701.

#### ARTICLE VIII - SEVERABILITY

The provisions of this Ordinance are severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted as if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

#### ARTICLE IX - FAILURE TO ENFORCE NOT A WAIVER

This failure of the Township to enforce any provision of this ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

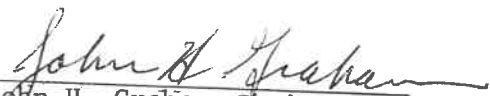
#### ARTICLE X - EFFECTIVE DATE

This Ordinance shall take effect and be in force from and after its approval as required by law.

ORDAINED AND EXECUTED by the Board of Supervisors of the Township of Worcester, Montgomery County, Pennsylvania, this 21 day of October A.D. 1992.

WORCESTER TOWNSHIP

Attest:   
George R. Lewis, Secretary

By:   
John H. Graham, Chairman  
Board of Supervisors