

STORMWATER MANAGEMENT

124 Attachment 7

Township of Tobyhanna

Appendix G

Exemption Criteria and Samples

Any Regulated Activity described in Section 124-4 of this Ordinance that is less than or equal to 5,000 square feet of impervious area is exempt from the plan preparation provisions of this Ordinance. The following sliding scale (based upon tract size in excess of one acre) may be utilized for impervious area that may be exempt from the plan preparation provisions of this Ordinance.

ACT 167 IMPERVIOUS AREA EXEMPTIONS

For Pennsylvania Act 167 Plans, it has been found that under certain circumstances proposed development may not affect the runoff potential on a given parcel of land. Typical ordinances have exemption criteria of 10,000 square feet of proposed impervious areas which serves as the cut off for requiring a storm water management plan. The reasoning is that this amount of impervious area on a parcel of land would equate to an approximate 1 cfs increase in runoff peaks from pre- to post-development conditions. In practical application to a small parcel of land, say a 1/2 acre lot in which the owner wishes to create an impervious area, he is limited to paving 10,000 square feet, approximately 46% of his parcel, without requiring a storm water management plan. However, if another parcel owner with 30 acres of land wishes to create an impervious area, he is still limited to the 10,000 square feet while the change in impervious area for the parcel is only 0.7%. It was therefore realized that a sliding scale which took a more comprehensive look at the effect of adding impervious area to parcels would be more preferable than a flat cut off point for exemption from requirement of a storm water management plan.

A comprehensive analysis was performed to evaluate when exemptions could be applied. It took into account several factors which affect storm water runoff. These factors included the slope of the land, the overall tract size, the contributing area draining towards the proposed development, soils, and the location of the proposed improvements on the tract with respect to downstream property lines. Several computations were made in which these factors were adjusted. These computations compared the pre-development with the post-development runoff rate for a sample tract. Areas of impervious cover were increased on the sample tract until a change in runoff rate of greater than 1.0 cfs was reached. This area of impervious was then accepted as the maximum impervious area that can be created without requiring a storm water management plan. This analysis was run for several varying factors as described above. The maximum limit of each computation was then plotted on a scale and a trend analysis was performed to develop a best fit line through the results of the analysis. The trend lines showed that as the percentage of proposed change impervious area on the parcel decreases and the distance of the proposed change from the downstream property line increases, a larger exemption can be tolerated. A chart was then created from these lines which plots the distance of the proposed impervious area from down slope property lines versus the percent proposed impervious area in relation to total site area. The trend lines shown exemptions grouped into five categories: 5,000 square feet; 10,000 square feet; 15,000 square feet; 20,000 square feet;

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and 40,000 square feet. This chart was developed with the property owner in mind so that the determination can be made and approved without having to consult an engineer. At the discretion of the Township, the following table which produces similar results and which breaks down categories and ranges may be considered.

ACT 167 STORMWATER MANAGEMNT EXEMPTION CRITERIA

Total Parcel Size	Minimum Distance* (feet)	Impervious Areas Exemption**
< 1 acre	0	5,000 square feet
1-2 acres	100	10,000 square feet
2-5 acres	250	15,000 square feet
> 5 acres	500	20,000 square feet

* The minimum distance between the proposed impervious area and/or stormwater controls/structure discharge point to the downslope property line.

** Any exemption identified above is from the Drainage Plan submission requirements of this Ordinance. An exemption shall not relieve the applicant from providing adequate stormwater management for regulated activities to meet the purpose of this Ordinance; however, Drainage Plans will not have to be submitted to the Municipality. The Township reserves the right to require stormwater management design and implementation for any regulated activity.

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ACT 167 STORMWATER MANAGEMENT
EXEMPTION CRITERIA

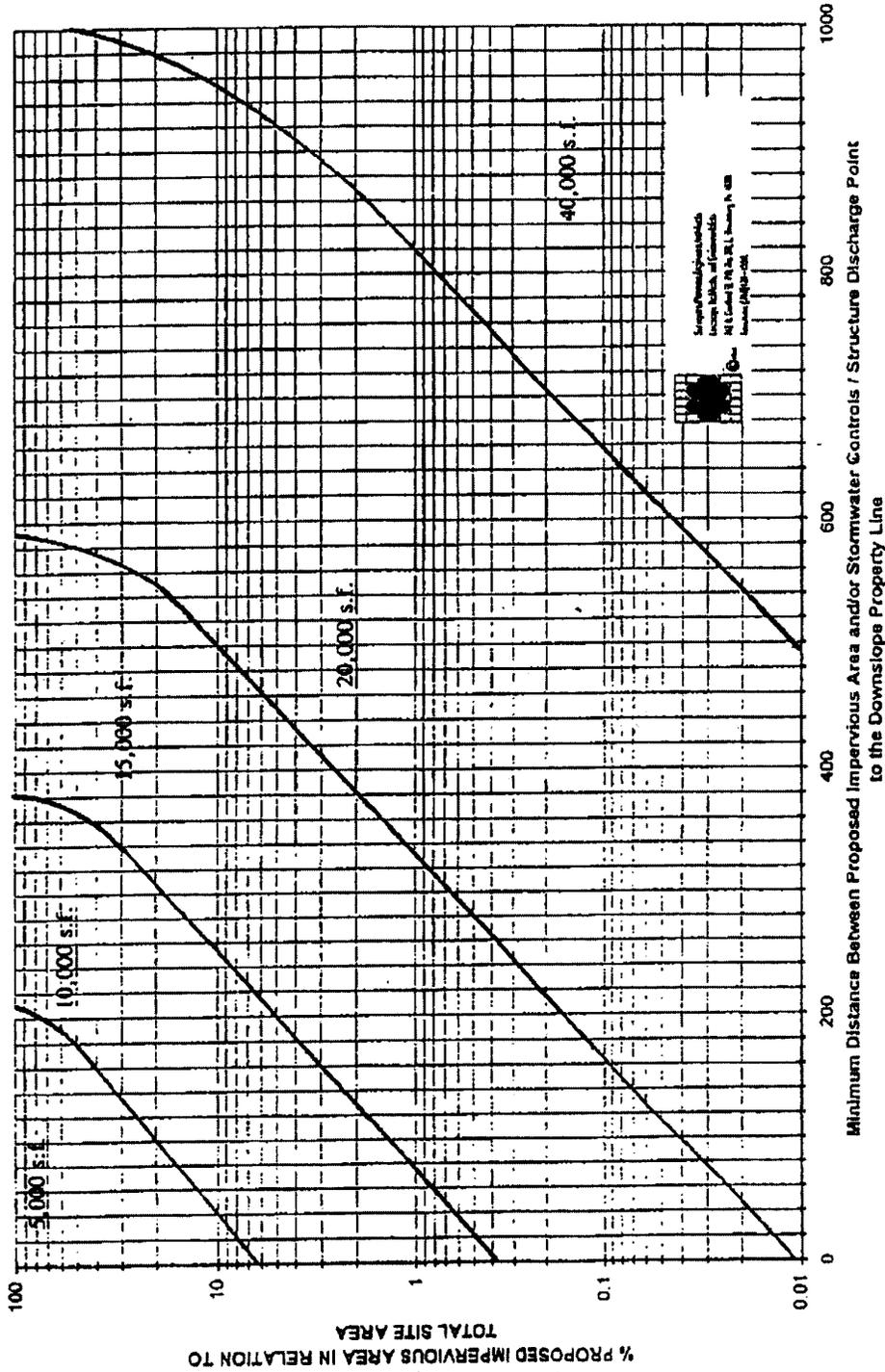


Figure A-1

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Example 1.

40,000 square feet (sf) lot -- 9,000 sf proposed impervious area is 200 feet from the downslope property line.

$$9,000 \text{ sf}/40,000 \text{ sf} = 22.5\% \text{ impervious area}$$

From Figure A-2 exemption is 10,000 sf

9,000 sf < 10,000 sf therefore exempt from the ordinance

Example 2.

50 acre parcel -- 30,000 sf proposed impervious area is 900 feet from the downslope property line

$$30,000 \text{ sf}/(50 \text{ ac by } 43.560 \text{ sf/ac}) = 1.37\% \text{ impervious area}$$

From Figure A-2 exemption is 40,000 sf

30,000 sf < 40,000 sf therefore exempt from the ordinance

Example 3.

5 acre lot -- 2 acres proposed to be impervious area 100 feet from the downslope property line.

$$2 \text{ ac}/5 \text{ ac} = 40\% \text{ impervious area}$$

From Figure A-2 exemption is 5,000 sf

2 acres (87,120 sf) > 5,000 sf therefore comply with the ordinance or reduce impervious area to 5,000 sf

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ACT 167 STORMWATER MANAGEMENT
EXEMPTION CRITERIA

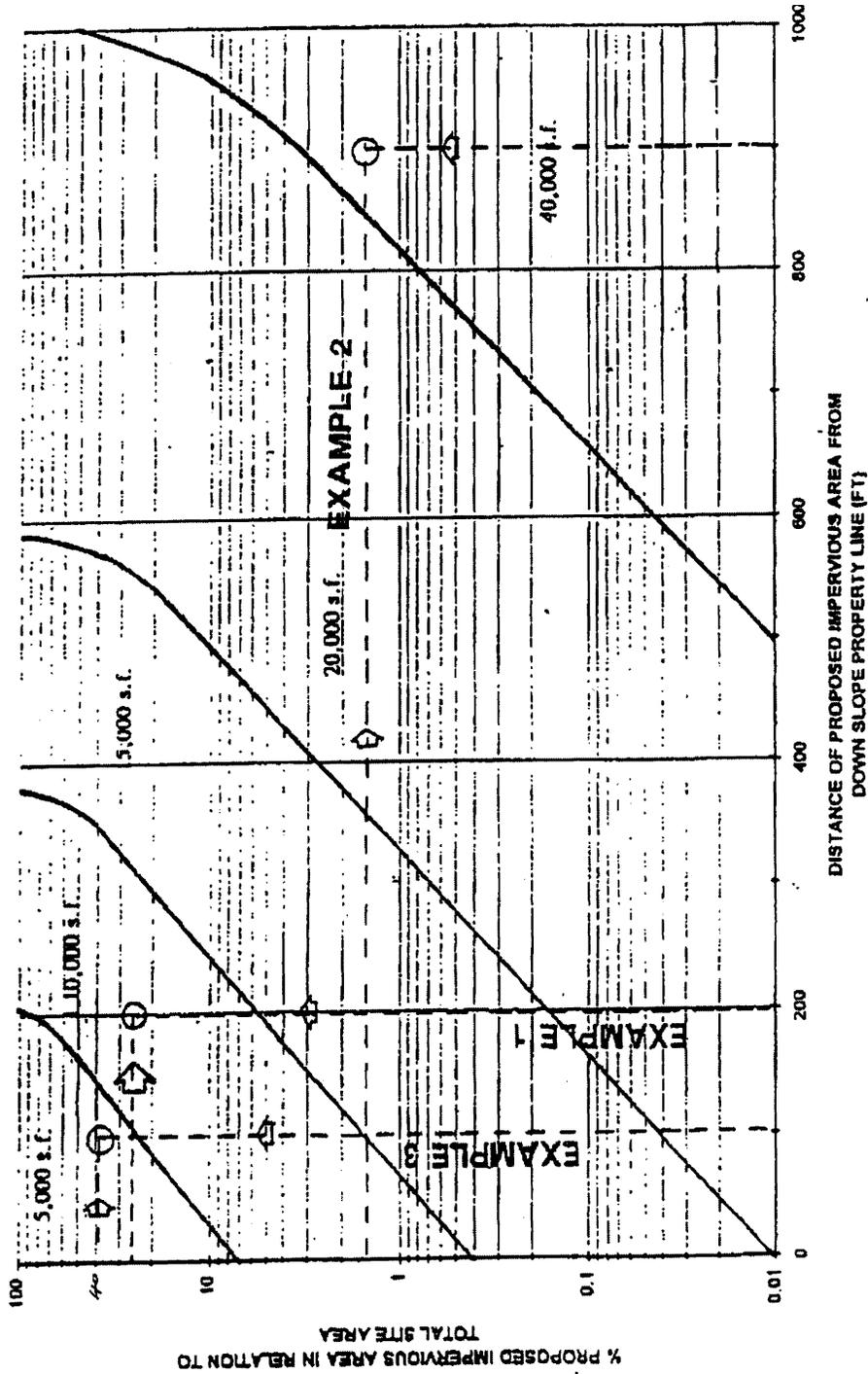


Figure A-2