

ARTICLE 5
ENVIRONMENTAL PROTECTION

501. **ENVIRONMENTAL PRESERVATION REQUIRED**

- A. All uses shall be developed in a manner consistent with the preservation of the quality of the existing environment and of any natural amenities present on the site.
- B. All uses shall provide for the preservation and the minimum destruction of natural drainage areas, minimum grading and destruction of the ground surface, the preservation of substantial stands of trees and forested areas, and the preservation of attractive views and any other natural features existing on the site.

502. **NUISANCES PROHIBITED**. No land or structure in any Zoning District shall be used or occupied in any manner that creates any:

- A. Dangerous, injurious, noxious, or otherwise objectionable condition;
- B. Fire, explosive, other hazards;
- C. Heat, electromagnetic or other radiation;
- D. Noise or vibration;
- E. Dust nuisance; or;
- F. Any other condition in such manner or in such amount as to adversely affect the reasonable use or value of the surrounding area or adjoining premises or be dangerous to public health or safety. See also the Township Open Burning Ordinance.

503. **STEEP SLOPES**.

- A. Steep slopes are those slopes in excess of 15 percent (15 ft. vertical distance over 100 ft. horizontal distance).
 - 1. When a lot contains steep slopes, the lot shall meet one of the following conditions:
 - a. The lot must contain a minimum of contiguous area of slopes less than 15 percent equal to or greater than the minimum required lot area for the zoning district in which the lot is located. (Note: No non-contiguous areas and slopes less than 15 percent may be totaled to achieve the required minimum area. Furthermore, no areas of over 15 percent slope may be included in the minimum area); or
 - b. The lot area must be at least 3 acres (not including floodplains, wetlands or slopes in excess of 25 percent) and have a width of at least 225 feet.
 - 2. When a lot complies with Section 503A.1.(a), all development (excluding septic systems) shall occur in that area not in excess of 15 percent. When development is to occur in a steep slope area (i.e. 15% to 25%) the requirements of Sections 503A.3. and 503A.1.(b) shall be met.
 - 3. When a building site's natural grade exceeds 15 percent over a minimum building site area of 80 feet by 70 feet and/or when a steep slope over 15 percent will be disturbed, a site plan shall be submitted to the Planning Commission for review. The site plan shall:
 - a. Include lot lines, a scale bar and north arrow, existing and proposed contours at 2 foot intervals for all slopes to 25 percent and 5 foot intervals for slopes over 25 percent, proposed

site improvements, alterations, certification of ownership and acknowledgment of plan signed by owner or developer, and

- b. Address sedimentation and erosion control measures, and site drainage.
- c. The Zoning Officer may require the drawings to be prepared by a registered land surveyor, registered landscape architect or professional or engineer.

B. *No building shall be constructed or placed and no re-grading shall occur on areas with a slope of 25 percent or greater. If trees or other vegetation are removed from areas of 25 percent or greater slope, they shall be replaced with new trees and vegetation that serve the same purposes. See also limits on forestry on steep slopes in Section 311 and limits on tree cutting in Section 515. This Section 503 shall not apply to areas where that were re-graded prior to the enactment of this Ordinance and clearly did not have a naturally-occurring steep slope.*

504. **AREAS WITH HYDRIC SOILS AND HIGH WATER TABLE SOILS.**

A. Purposes. This section is intended to promote the public health, safety and general welfare and to minimize these losses by establishing provisions designed to:

1. Protect the long-term integrity of the structures constructed in the Township.
2. Protect the water resources of Upper Milford Township.
3. Prevent development or use of land in a manner tending to affect adversely the quality or quantity of water recharged to aquifers.
4. Minimize adverse effects on the natural balance of soils, vegetation, natural drainage, and subsurface features which contribute to beneficial filtering of contaminants and recharge of waters to aquifers.
5. Regulate or prevent the erection of structures or location of uses in areas which may have a substantial adverse effect on water quality by virtue of the creation, handling, or disposal of potentially harmful substances.
6. Carry out Section 603(b) of the Pennsylvania Municipalities Planning Code, as amended, which allows zoning ordinances to permit, prohibit, regulate, restrict and determine uses of land, watercourses and other bodies of water; and protection and preservation of natural resources.
7. Carry out Section 603(d) of the Pennsylvania Municipalities Planning Code, as amended, which allows zoning provisions which regulate the siting, density, and design of residential, commercial, industrial and other developments in order to assure the availability of reliable, safe and adequate water supplies to support the intended land uses within the capacity of available water resources.
8. Recognize that Upper Milford Township is a unique hydrological entity in that a significant portion of Township residents rely on the groundwater supply as their sole source of potable water.
9. Recognize that aquifers used for the water supply are mainly ground water or semi-confined aquifers which are recharged or replenished primarily from rainfall.
10. Recognize that continued development in recharge areas which contain favorable soil, vegetative and hydrogeologic conditions which serve to replenish water table aquifers will decrease the recharge capacity because fewer natural areas will be available to absorb rainfall and will increase the volume and speed of surface water runoff, which in turn will increase the amount of water lost to streams and to evapo-transpiration.
11. Recognize that the natural vegetation and soil associations within the high water table areas provide superior filtration of waters recharging the water table aquifers, therefore reducing the amounts of natural and man-made contaminants reaching the groundwater supply.

12. Recognize that while certain types of development will have no adverse effects on the beneficial aspects of high water table areas, or may actually enhance positive qualities, uncontrolled development will cause substantial destruction of the potential abilities of this area to sustain adequate and quality water supplies for the current and future residents of Upper Milford Township.
- B. Any proposed use which may directly (by means of effluent discharge into the ground) or indirectly (through the leaching of stored materials) result in the pollution of the groundwater shall be prohibited from developing in any area which has a year round or seasonal high water table at a depth of less than 20 inches below the surface.
 - C. This section 504.C shall only apply to a lot that is submitted for its initial subdivision or land development approval after the effective date of this Section. For the purpose of calculating any minimum lot area, any lot developed in a site that contains soils having a water table less than 20 inches below the surface, as indicated by seasonal or actual water level observation shall have a minimum contiguous lot area of at least that required by the district, exclusive of that area located within the high water table area. No occupied structures (for example: a home basement, garage, shed, pool) shall be placed within the delineated high water table area of 20 inches or less.
 1. The lowest enclosed floor of a new occupied structure, including any basement, shall be built a minimum of 6 inches above the seasonal high water table elevation. Any occupied structure shall be constructed to limit the need for ground water pumping.
 - D. At time of building, high water table testing within the building envelope shall be required to be submitted with the building permit application. Water table elevation must be determined in accordance with the herein contained criteria in order to establish the lowest floor's elevation.
 - E. Investigations.
 1. The determination of a water table evaluation shall be made by a qualified soil scientist who is recognized as either:
 - a. an ARCPACS Certified Professional Soil Scientist (CPSS) or Certified Professional Soil Classifier (CPSC), or
 - b. a Professional Member of the Pennsylvania Association of Professional Soil Scientists (PAPSS).
 2. The Township may require that an on-site investigation or evaluation be conducted for the purpose of determining the presence of, location, and extent of a high water table if any of the following conditions exist:
 - a. there is evidence of surface water that persists for more than a two week period or
 - b. "Waters of the United States" or "Waters of the Commonwealth of Pennsylvania" are present on the property or
 - c. there are other visual indicators of the presence of a high water table.
 3. The methodology of testing shall be in general conformance with the United States Department of Agriculture Natural Resources Conservation Service publication titled "Field Indicators of Hydric Soils in the United States, Version 6.0, 2006" or as may be subsequently revised. Test excavations shall be observed by a representative from the Township, with limiting zone elevations measured by field survey tied to a site benchmark.

505. **DEVELOPMENT ALONG STREAMS AND WETLANDS.**

- A. Permits or approvals may be required for activity within or adjacent to a waterway from the State Department of Environmental Protection, the Army Corps of Engineers, the Federal Emergency Management Agency or other entities.
- B. Any street, driveway or utility crossing of a stream shall be approximately perpendicular to the stream, to the maximum extent feasible. As part of any street, driveway or utility construction within or adjacent to a stream, the applicant shall complete remedial measures to mitigate the impact upon the stream, including planting of trees and thick lower-level vegetation and use of best management practices.
- C. All lots adjacent to streams and wetlands shall contain a contiguous lot area that meets the minimum lot area required for that use and district exclusive of the stream and/or wetland area. If no alteration is proposed of any areas within 300 feet of hydric soil areas and other suspected wetland areas, then a detailed wetland delineation and a deletion of wetlands from minimum lot area is not required by this Zoning Ordinance.
- D. All areas within 50 feet from the top of the primary bank of a stream, natural lake or pond, or wetland shall not be occupied by any of the following: a building, vehicle parking, or business outdoor storage.
 - 1. Setback shall not apply to wetlands that the applicant proves to the satisfaction of the Township Engineer were clearly man-made, such as within detention basins or man-made drainage ditches constructed as part of an approved subdivision or land development plan.
- E. Vegetation. Where existing trees and/or shrubs are removed from lands that are less than 50 feet from the top of the primary bank of a stream or natural lake or pond, as part of, or in preparation to, a subdivision, land development or permitted construction of a new building, then new trees and shrubs shall be planted and maintained. The new trees and shrubs shall have the same or better impact upon controlling erosion and filtering pollutants from runoff as the trees and/or shrubs that were removed. Mature healthy trees shall only be removed within this 50 feet wide area as part of a development where there is no feasible alternative, such as to allow a utility crossing.
 - 1. Publications of the Pennsylvania Department of Conservation and Natural Resources (including "Stream ReLeaf") and/or other governmental or non-profit organizations shall be used as standards for the planting of the buffer. These publications include recommended species. During the time period of any maintenance agreement with the Developer, the Developer shall replace any such trees or plants that do not survive within 100 days afterwards. If such trees and plants do not survive beyond the maintenance agreement time period, they shall be replaced within 100 days afterwards by the current owner of the property.

506. **ALLUVIAL SOILS AREAS.**

- A. Determination of Alluvial Soils Area
 - 1. Based upon mapping by the U.S. Department of Agriculture, the following soil types, or their successor types, shall be considered to be alluvial soils that are subject to the flooding.

Atkins Silt Loam
Atkins Silt Loam, Local Alluvium
Huntington Silt Loam
Melvin Silt Loam
Philo Silt Loam
River wash

2. The Zoning Officer shall require that a detailed on-site survey be made (by a qualified engineer, soil scientist or qualified sanitarian approved by the Board of Supervisors in accordance with accepted on-site survey techniques) to determine the exact extent and nature of areas susceptible to potential problems of flooding, wetness, or pollution before issuing a zoning permit for any proposed use within an "Alluvial Soils" area if it is along a waterway segment that was not studied as part of the Federal Floodplain Mapping.

B. Use Regulations. Within any alluvial soils that is determined to be within the 100 floodplain, the regulations of the 100 year floodplain as provided in the Township Floodplain Ordinance shall apply. See Ordinance Number 43 or its successor ordinance.

507. **FLOODPLAIN REGULATIONS.**

- A. See Township Ordinance No. 43 or as may be amended.
- B. A new principal building shall not be constructed or placed within any portion of the 100 year floodplain that is classified as "AE" or its equivalent successor category under Federal regulations.
- C. A hospital, nursing home, jails, prison, or manufactured home park shall not be newly developed or expanded within any portion of the 100 year floodplain.

508. **FILLING, EXCAVATION, AND GRADING.**

A. All activities which involve disturbance, filling, excavating or regrading of more than 5,000 square feet of earth shall require the submittal of a site grading and soil and erosion control plan. Such 5,000 square feet limit shall be reduced to 2,000 square feet within the Little Lehigh Creek Watershed. Such plan may required to be approved by the County Conservation District. Such plan shall be carried out by each contractor, builder and developer.

B. Grading Regulations

- 1. The existing grade shall not be increased so that unstable slopes are created.
- 2. The surface area of any yard adjacent to a building or structure shall be graded so that surface water will be drained away from such structures.
- 3. The deposit of soils, detritus or other debris (as a result of site preparation, grading or excavating) shall not be unsightly or detrimental to any property, street, sewer, or natural waterways.
- 4. State erosion control regulations shall be met as a condition of any zoning permit.

509. **OUTDOOR STORAGE CONTROL.**

- A. No flammable or explosive liquids, solids or gases shall be stored in bulk above the ground, except for tanks or drums of less than 600 gallons of fuel which is directly connected with engines, heating devices, or appliances located and operated on the same lot as the tanks or drums of fuel and which have been approved by the Township.
- B. All outdoor storage facilities for fuel, raw materials, and products stored outdoors (including those permitted in Section 509.A.) shall be enclosed by a fence of a type, construction and size as shall be adequate to protect the public health, safety and welfare.
- C.
 - 1. No materials or wastes shall be deposited upon a lot in such a form or manner that they may be transported off by natural causes or forces.
 - 2. No substance shall be allowed to enter any groundwater or surface water which can:
 - a. contaminate groundwater or surface water
 - b. render groundwater or surface water undesirable as a source of water supply or recreation, or
 - c. destroy aquatic life.

510. **SEWAGE WASTE TREATMENT AND DISPOSAL CONTROL.**

- A. All methods of sewage and waste treatment and disposal shall be approved by the Pennsylvania Department of Environmental Protection and in accordance with the Sewage Plan for the Township.
- B. Recertifications of the adequacy of sewage disposal systems, or demonstration of an adequate replacement systems, shall be required prior to the expansion or conversion of any existing use.

511. **NOISE CONTROL.**

- A. No land or structure, whether located on private or public property, in any zoning district shall be used or occupied in any matter that creates any noise so as to adversely effect the reasonable use or value of the surrounding area or adjoining premises.
- B. The restrictions on noise set forth in the preceding paragraph shall not apply to any of the following noise sources:
 - 1. The emission of sound for the purpose of alerting persons to the existence of an emergency.
 - 2. Emergency work to provide electricity, water, or other public utilities when public health or safety are involved.
 - 3. Domestic power tools between the hours of 6:00 a.m. and 9:00 p.m. on Mondays through Fridays and 6:00 a.m. and 5:00 p.m. on Saturdays or Sundays.
 - 4. Explosives and construction operation.
 - 5. Agriculture.
 - 6. Motor vehicles traveling on roads and highways.
 - 7. Public celebrations, specifically authorized by the Township.
 - 8. Surface carriers engaged in commerce by railroad.
 - 9. The unamplified human voice.
 - 10. Livestock or poultry.

512. **VIBRATION CONTROL.**

- A. No person shall operate or permit the operation of any device or conduct or permit any use to be conducted that creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source (if on private property) or at 50 feet from the source (if on a public space or public right-of-way).
 - B. For the purposes of Section 512.A., "vibration perception "threshold" means the minimum ground-or-structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects, without needing the use of instruments.
513. **DUST AND ODOR CONTROL.** No use shall generate odors or dust that are offensive to persons of average sensitivities beyond the boundaries of the subject lot. This provision shall not apply to Normal Farming Activities that are exempted under the Pennsylvania Right to Farm Act.
514. **CONTROL OF LIGHT AND GLARE.**
- A. Street Lighting Exempted. This Section 514 shall not apply to: a) street lighting that is owned, financed or maintained by the Township or the State or that is required to be placed by the Township, or b) a routine individual porch light of a dwelling (not including a directional spot light or flood light).
 - B. Definitions.
 - 1. Full Cutoff - Attribute of a light fixture from which: a) no light is emitted at or above a horizontal plane drawn through the bottom of the fixture and b) no more than 10 percent of the lamp's intensity is emitted at or above an angle 10 degrees below that horizontal plane, at all lateral angles around the fixture.
 - 2. Fully Shielded - Attribute of a light fixture that is provided with internal devices and/or external shields or louvers to prevent brightness from the luminaire from causing glare at normal viewing angles.
 - 3. Glare - Excessive brightness in the field of view that is sufficiently greater than the brightness to which eyes are adapted, which causes annoyance or loss in visual performance and visibility so as to jeopardize healthy, safety or public welfare.
 - C. Height of Lights. No luminaire, spotlight or other light source that is within 200 feet of a lot line of an existing dwelling or approved residential lot shall be placed at a height exceeding 25 feet above the average surrounding ground level. This limitation shall not apply to lights needed for air safety nor lights intended solely to illuminate an architectural feature of a building, nor lighting of outdoor public recreation facilities or a ski resort.
 - D. Diffusion and Shielding.
 - 1. All light sources, including signs, shall be properly shielded, aimed and diffused, as needed with a translucent or similar cover to prevent exposed bulbs from being directly visible from streets, public sidewalks, dwellings or adjacent lots.
 - 2. All light sources, including signs, shall be shielded around the light source and carefully directed and placed to prevent the lighting from creating a nuisance to reasonable persons in adjacent dwellings, and to prevent the lighting from shining into the eyes of passing motorists.
 - E. Flickering. Flashing, flickering or strobe lighting are prohibited, except for non-advertising seasonal lights between October 25th and January 10th.

- F. Spillover. Exterior lighting on an institutional, commercial or industrial property shall not cause a spillover of light onto a residential lot that exceeds 0.5 horizontal foot-candle at a distance 10 feet inside the residential lot line.
- G. Canopies. *Any canopy over gasoline pumps, bank drive-thru, drugstore, or fast-food facility shall have flat-lens light fixtures recessed into the canopy or screened by an extension around the bottom of the canopy so that lighting elements are not visible from another lot or street.*
- H. Lighting of Horizontal Surfaces. For the lighting of predominantly horizontal surfaces such as parking areas and vehicle sales areas, lighting fixtures shall be aimed downward and shall include full cut-off measures as needed to properly direct the light and to meet the maximum spillover requirements of subsection F. and to prevent glare onto streets. The Township may require that light fixtures for non-residential uses be placed along the street and be aimed away from the street in a manner that also minimizes light shining onto residential lots.
- I. Lighting of Non-Horizontal Surfaces. For lighting of predominantly non-horizontal surfaces such as building walls and wall signs, lighting fixtures shall be fully shielded and shall be aimed so as to not project light towards neighboring residences or past the object being illuminated or skyward. Any lighting of a flag shall use a beam no wider than necessary to illuminate the flag. Lighting of a billboard should be attached to the top of the billboard and project downward. However, lighting shall be allowed of the United States flag from dusk to dawn, provided the light source shall have a beam spread no greater than necessary to illuminate the flag.
- J. Signs. See Article 6, including limits on lighting of billboards and other off-premises signs.
- K. Pole Protection. *Poles supporting lighting fixtures within or less than 5 feet directly behind parking spaces, shall be protected by being placed on concrete pedestals at least 30 inches high or suitably protected by other approved means such as by the use of steel bollards.*
- L. Illumination Levels. *Outdoor lighting of business, apartment and institutional parking areas shall have sufficient lighting for safety purposes during hours when the parking area is in use. If more than 5 acres of new commercial development is proposed, then the applicant shall also provide evidence that the use will meet the minimum and maximum illumination levels and uniformity ratios recommended by the Illuminating Engineering Society of North America in their most recent published standards.*

515. **TREE CONSERVATION.**

- A. Purposes. *To protect wildlife and bird habitats, encourage groundwater recharge, reduce air pollution, avoid pollution of creeks by high temperature runoff, maintain the attractive character of residential areas and conserve energy.*
- B. Applicability. *This section 515 shall not regulate the following:*
 - 1. *“Forestry,” as defined in the Zoning Ordinance, if it meets the requirements of Section 311;*
 - 2. *The cutting down of trees that are diseased, dead or represent a hazard to persons or property because of injury or location.*
 - 3. *The cutting down of up to 5 trees per lot per calendar year, provided such cutting does not exceed 30 percent of the total basal area.*

4. *The cutting down of trees where a building, parking area, driveway, street, septic system, well or similar improvement has been approved, or areas within 30 feet of such approved features or where necessary to allow soil testing.*
5. *The cutting down of trees to allow an expansion of an existing crop farming use.*
6. *The cutting down of up to 10 percent of the trees per calendar year on a lot as part of routine thinning of woods or for firewood, provided such cutting does not result in clearcutting.*
7. *The cutting down of trees with a trunk diameter of less than 6 inches (measured at 4.5 feet above the ground).*

C. Tree Cutting.

1. *Where tree cutting is proposed, site plans submitted to the Township shall show the extent of the tree cutting, and the extent of areas where trees are proposed to remain and be protected.*
2. *The applicant shall prove that the number of trees with a trunk diameter of 6 inches or more measured at a height of 4.5 feet above the average surrounding ground height that are cut down or effectively killed will be held to an absolute minimum, while still allowing allowed structures and uses to be developed.*

D. Protection of Trees During Construction.

1. *Reasonable efforts shall be taken during any construction to ensure the protection of trees protected by this Section are not accidentally injured or killed. These efforts shall ensure that equipment does not damage tree trunks, that roots are not compacted by vehicles and that the grade level around trees is not changed by more than 8 inches unless approved tree wells are used. Durable temporary fencing and signs shall be placed around the outer edge of the root systems of trees proposed to be preserved, including but not limited to the areas beneath the canopy of the trees (“the dripline”). Such fencing shall remain in place during all earth disturbance and construction activities.*
2. *If an approved subdivision or land development plan states that certain trees are to be preserved, and if those trees are killed, then the developer shall be required to replace those trees with new mature trees, in addition to any other penalties provided in this Ordinance.*