

## *ARTICLE 5*

### *CONSERVATION OVERLAY DISTRICTS*

#### **Section 501: Statement of Intent**

- (A) The purpose and objective of the Conservation Overlay Districts is to implement the goals, objectives and policies of the Upper Bern Township Comprehensive Plan of 1992, the Joint Comprehensive Plan for Northern Berks County of 2005, and the Berks County Conservation Zoning Incentive Program, which pertain to conservation management, environmental resource protection, natural resources, and open space preservation. In order to strategically implement these goals, objectives and policies, the following Conservation Overlay Districts are hereby established:

**Floodplain Overlay District**

**Wetlands and Hydric Soil Overlay District**

**Steep Slope Overlay District**

**Woodland Protection and Management Overlay District**

**Riparian Buffer Overlay District**

**Northkill Creek Overlay District**

**Well Head Protection Overlay District**

- (B) The Conservation Overlay Districts incorporated under this Article include provisions to supplement and enhance the existing underlying district regulations for certain land areas and water features. These supplemental regulations should not replace the existing underlying zoning district regulations. In cases where the Conservation Overlay Districts should overlap, the more restrictive standards and specifications shall apply.
- (C) The land and water areas encompassed by the Conservation Overlay Districts shall be subject to the interpretation of the Zoning Officer.
- (D) Should a dispute arise concerning the interpretation of the boundaries or limits of those land or water areas encompassed by the Conservation Overlay Districts, the person aggrieved by the interpretation may file an appeal with the Zoning Hearing Board. In all cases, the burden of proof and submission of technical evidence shall be the responsibility of the person appealing the interpretation of the Zoning Officer.

#### **Section 502: Floodplain Overlay District**

- (A) The Floodplain Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Floodplain Overlay District is outlined as follows:
- (1) To promote the general health, welfare and/or safety of the community.
  - (2) To encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future.
  - (3) To minimize danger to public health by protecting water supply and natural drainage.
  - (4) To reduce the financial burdens imposed on the community, governmental or municipal units, and its resident, by preventing excessive development in areas subject to flooding.
  - (5) To require all those uses, activities and development that do occur in flood-prone areas to be protected and or flood-proofed against flooding and flood damage.

- (6) To comply with federal and state floodplain management requirements.
  - (7) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Upper Bern Township Comprehensive Plan (1992) and as further endorsed by the Joint Comprehensive Plan for Northern Berks County (2005).
- (B) The Floodplain Overlay District shall include the land or water areas of Upper Bern Township, which are inundated or contained within such flood-prone features including the floodway, the floodway fringe, the 100-year floodplain, special flood hazard area, and other flood-prone features defined by the Federal Emergency Management Agency (FEMA). These flood hazard areas are subject to periodic inundation of flood waters, which could result, or has resulted, in loss of property, damage to structures, loss of soils and other detrimental effects of erosion and may result in loss of life, injury to people, disruption of public and private activities and services, burdensome public expenditures for flood protection and impairment of the tax base, all of which do or may adversely affect the public health, safety and general welfare. The flood losses are or will be caused by the cumulative effect of obstructions in flood hazard areas causing increases in flood heights and velocities and the occupancy of flood hazard areas by uses vulnerable to floods.
- (C) The limits of the Floodplain Overlay District are identified in the most recent Flood Insurance Rate Study and on Flood Insurance Rate Maps (FIRM), as prepared and issued by the FEMA. The following flood hazard areas and districts are hereby defined:
- (1) The flood area is the bed or channel of any perennial stream, river or other watercourse, or any lake, pond, impoundment or other contained body of water, provided that such lake, pond, impoundment or other body of water is in excess of one acre in area, and the lands adjacent to any of the foregoing that must be reserved in order to discharge a flood of a one-hundred-year frequency. The Floodplain Overlay District consists of all land within the flood hazard area, as defined by this Zoning Ordinance and by the Flood Insurance Study prepared for Upper Bern Township.
  - (2) The most recent version of the Flood Insurance Study for Upper Bern Township, as prepared by FEMA shall provide the basis for the Floodplain Overlay District as follows:
    - (a) For watercourses studied in detail, the base flood profiles of the Flood Insurance Study shall provide the elevation of the outermost boundaries of the Floodplain Overlay District. For those areas in which the base flood elevations are given but no floodway has been calculated, no new construction, substantial improvements or other development, including fill, shall be permitted unless it is demonstrated that the cumulative effects of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood.
    - (b) For areas mapped as approximate one-hundred-year floodplain by the Flood Insurance Study, these areas shall constitute the Floodplain Overlay District, but the precise location of the boundaries of the district shall be determined by the rules for interpretation as specified by the Upper Bern Township Zoning Ordinance.
    - (c) No modification or revision of that portion of the Floodplain Overlay District based on data provided by the Flood Insurance Study shall be made without prior approval of the appropriate state and federal authorities.
- (D) The Floodplain Overlay District shall be shown on the most recent FIRM, as incorporated herein by reference, shall be available for inspection at the Upper Bern Township Municipal Building.
- (E) The Floodplain Overlay District shall not be deemed to be an independent zoning district, but rather shall be deemed a district overlay to the end that, to the extent that any building use or structure is permitted by the terms of this Zoning Ordinance or other order of any administrative office, agency or body or any judicial determination, the same shall be governed by the general terms of this chapter applicable to the uses, structures and other regulations pertaining to the zoning district in which the building, use or structure is situated.
- (F) The rules for determination of the district boundaries within the Floodplain Overlay District shall be as follows:

- (1) The initial determination of the boundaries for the Floodplain Overlay District shall be made by scaling distances on the FIRM.
- (2) In the event of any dispute as to the accuracy of the boundaries of said district and their precise location, as for example where there appears to be conflict between the mapped boundary and actual field conditions, the peak discharge based on a one-hundred-year storm frequency shall be determined by the greater of any one of the design criteria listed within this Zoning Ordinance, which are the minimum standards accepted by the Pennsylvania Department of Environmental Protection. These design criteria shall be considered in the determination of the boundaries for the Floodplain Overlay District.
- (3) Among the data, which should be gathered to estimate extreme runoffs are statistics of rainfall, temperature, physical characteristics of the watershed and previously measured (if available) flow data and high water marks. Methods taking into consideration the amount, duration and intensity of rainfall and the nature of the watershed with reference to area, shape, slope, porosity of soil and state of cultivation, antecedent moisture conditions and degree of urbanization of the drainage basin should be employed. Calculation of flood flows shall assume the watershed to be completely urbanized for drainage areas of less than 1.5 square miles. Consideration of urbanized factors must be done for watersheds of more than 1.5 square miles.
- (4) In all cases, a safety factor shall be used in calculating the design flood. The computed or measured land flow is multiplied by a safety factor or some formula to obtain the design flood flow, based on the following criteria:

<b>Resulting backwater or loss of structure will cause:</b>	<b>Safety Factor (multiply calculated runoff by)</b>	
	<b>For drainage areas under 150 square miles</b>	<b>For drainage areas over 150 square miles</b>
No or negligible damage	1.0	1.0
Minor damage	1.3	1.2
Moderate damage	1.5	1.4
Great damage	2.0	1.7
Catastrophic or probable loss of human life	2.5	2.0

- (5) If a formula is used to determine the design flood, it should include all or some of the following factors: risk; development or urbanized factor; undeveloped area or woods factor; limestone factor (negative or reducing factor); or other factors peculiar to the site as determined by the Upper Bern Township Engineer or Zoning Officer.
- (6) The following method or methods are recommended for computing runoff for ungaged streams for small drainage areas:
  - (a) Rational method (for watersheds of 1.5 square miles or less), available in many engineering handbooks.
  - (b) Method outlined in Urban Hydrology for Small Watersheds (for watersheds of less than 2,000 acres), Technical Release No. 55 (TR 55) from the United States Department of Agriculture Soil Conservation Service.
  - (c) Soil Conservation Service method outlined in United States Department of Agriculture Soil Conservation Service, Hydrology, National Engineering Handbook.
  - (d) Potters Method, developed by the Federal Highway Administration, listed as the alternate method in the Pennsylvania Department of Transportation Design Manual (for watersheds of 0.5 square miles to 25 square miles).
  - (e) Other methods accepted by FEMA and the Upper Bern Township Engineer.

- (7) The following method or methods are recommended for computing runoff for ungaged streams for larger drainage areas.
- (a) Method outlined in Flood Peak Frequency Design Manual, P.S.U. III, by Reich, King and White, the Pennsylvania State University, June 1971.
  - (b) United States Geological Survey method outlined in Floods in Pennsylvania: Frequency and Magnitude, by Busch and Shaw (for watersheds over 10 square miles).
  - (c) United States Geological Survey method outlined in Water Supply Paper 1672, Magnitude and Frequency of Floods in U.S. Part I-B, North Atlantic Slope Basins, New York to New York River, by Richard H. Tice (for watersheds over five square miles).
  - (d) United States Geologic Survey method outlined in Water Supply Paper 1675, Magnitude and Frequency of Floods in U.S. Part 3-A, Ohio River Basin Except Cumberland and Tennessee River Basins, by Paul R. Speer and Charles R. Gamble (for watersheds over 30 square miles).
  - (e) Design criteria data referred under Section 502.F, as extrapolated from the Water Obstruction Manual No. 45 published in 1976 by the Bureau of Water Quality Management, Pennsylvania Department of Environmental Protection.
  - (f) Other methods accepted by the Upper Bern Township Engineer.
- (8) Prior to the commencement of any studies to determine the district boundaries of the Floodplain Overlay District, the person, applicant or developer shall consult with the Upper Bern Township Engineer and Zoning Officer to discuss the scope and methodology of the study.
- (G) The data compiled for the Floodplain Overlay District, including plans and runoff computations as involved for single lot or subdivision of less than 25 acres, shall be submitted by the person, applicant or developer to the Zoning Officer for processing by the Upper Bern Township Engineer, who shall render an opinion thereon to the Zoning Officer. The Zoning Officer shall thereupon be bound by the opinion of the Upper Bern Township Engineer with respect to the location of the Floodplain Overlay District. The applicant or any person aggrieved by such determination may appeal to the Zoning Hearing Board for a review thereof. In any proceeding before the Zoning Hearing Board, the party contesting the Upper Bern Township Engineer's determination, as certified to the Zoning Officer, shall have the burden of proof. Data for areas over 25 acres shall be submitted by the applicant to the Pennsylvania Department of Environmental Protection for processing, approval and permit requirements.
- (H) No building or other structure may be erected or used and no lot may be used or occupied within the Floodplain Overlay District without full compliance with the terms of this Zoning Ordinance or any other applicable regulations of this chapter. Any land-altering activity, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or the storage of materials and equipment shall not be commenced without a zoning permit.
- (I) It is not intended by this Zoning Ordinance to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this section of the Zoning Ordinance imposes greater restrictions, the provisions of this Zoning Ordinance shall prevail. All other ordinances inconsistent with this Zoning Ordinance are hereby repealed to the extent of the inconsistency only, and, to the extent that this Zoning Ordinance imposes greater restrictions than do other sections of this Zoning Ordinance, this section of the Zoning Ordinance shall prevail. However, to the extent not inconsistent with this section of the Zoning Ordinance, land within Floodplain Overlay District shall also be deemed to be in and subject to the district classifications shown on either the Zoning Map or the FIRM, as determined by the Zoning Officer.
- (J) The degree of flood protection required by this Zoning Ordinance is considered reasonable for regulatory purposes. Larger floods may occur on rare occasions, or the flood height may be increased by man-made or natural causes. In such instances, the areas of land and water outside the Floodplain Overlay District may be subject to flooding or flood damage. Further, the permitted uses within the Floodplain Overlay District may be subject to flooding or flood damage. This section of the Zoning Ordinance shall not create liability on the part of Upper Bern Township for any flood damages that result from reliance on this Zoning Ordinance or any administrative decision.

- (K) Within the Floodplain Overlay District, all uses not allowed as permitted uses by right, conditional use or special exception shall be prohibited.
- (L) The following uses, and no others, shall be permitted by right within the Floodplain Overlay District to the extent that they are not prohibited by any other provision of the Zoning Ordinance and provided that they do not require structures, fill or outdoor storage of materials or equipment
- (1) Agricultural uses, such as general farming, pasture, orchard, grazing, outdoor plant nurseries, truck farming, forestry and wild crop harvesting.
  - (2) Recreation uses, such as park, picnic grounds, golf course, archery, hiking and riding trails, hunting and fishing areas, game farm, fish hatchery, wildlife sanctuary, nature preserve and swimming areas.
  - (3) The front, side or rear yard setbacks required for a development of any lot or tract in any zoning district wherein the portion of the lot within the flood hazard area may lie.
  - (4) Permeable parking areas and roads to serve other permitted uses in the Floodplain Overlay District or where required by the regulations for any contiguous district.
  - (5) Permitted uses allowing changes in the floodplain should include after development use calculations: The Water Obstructions Act, as written in Chapter 105 of Title 25 of the Pennsylvania State Code, regulates dams, obstructions and other structures "along, across or projecting into all streams and bodies of water," as well as changes in the course, current, cross section or location of any stream in the Commonwealth of Pennsylvania. Submission of plans and calculations in accordance with Department of Environmental Protection criteria must be submitted to the Department of Environmental Protection whenever obstruction or alteration of a stream or body of water is contemplated. The Department of Environmental Protection's definition of "stream" is "all bodies or channels of conveyance of surface waters and parts thereof. The stream or watercourses need not flow constantly." All adjacent communities, the Federal Insurance Administration and the Pennsylvania Department of Community and Economic Development shall be notified prior to any alteration or relocation of any watercourse.
- (M) The following uses and activities are specifically prohibited in the Floodplain Overlay District:
- (1) Sod farming.
  - (2) Removal of topsoil.
  - (3) Cutting or removal of trees, except necessary clearing for authorized construction and landscaping.
  - (4) Outdoor storage.
  - (5) Construction and maintenance of septic tanks and cesspools.
  - (6) Tennis courts with fencing.
  - (7) Mobile homes.
  - (8) Within any floodway, as delineated on the Flood Insurance Rate Map (FIRM) of the Upper Bern Township Flood Insurance Study, any development or activity that would result in any increase in the base flood elevation.
  - (9) Hospitals.
  - (10) Nursing homes.
  - (11) Jails or prisons.

- (12) Production, storage and/or use of the following materials considered dangerous to human life including: acetone; ammonia; benzene; calcium carbide; carbon disulfide; celluloid; chlorine; hydrochloric acid; hydrocyanic acid; magnesium; nitric acid and oxides of nitrogen; petroleum products (gasoline, fuel oil, and similar products); phosphorus; potassium; sodium; sulphur and sulphur products; pesticides (including insecticides, fungicides and rodenticides); radioactive substances, insofar as such substances are not otherwise regulated; and any other materials considered dangerous to human life.

(N) Any use permitted by right, conditional use and special exception within the underlying zoning district wherein the lot or parcel may lie and is not a prohibited use as specified under this section of the Zoning Ordinance, shall be permitted within a Floodplain Overlay District if the Zoning Hearing Board affirmatively finds that the criteria established under this sub-section are met. The burden of establishing each criterion hereinafter specified shall be upon the applicant. In granting a special exception under the terms of this section of the Zoning Ordinance, the Zoning Hearing Board may attach certain conditions to meet the objectives of this Zoning Ordinance. As part of the special exception application, the following criteria shall be considered:

- (1) That there is no danger to life or property due to increased flood heights or velocities caused by any encroachment permitted by such granting of a special exception.
- (2) That there is no danger that materials may be swept onto other lands or downstream to the injury of others.
- (3) That the proposed water supply and sanitation systems are safe and adequately protected from flood and that the systems are capable of avoiding the spread of disease, contamination or unsanitary conditions when the lands are inundated to the base flood level. All public utilities and facilities, such as sewer, gas and electrical systems, shall be located and constructed to minimize or eliminate flood damages.
- (4) That the proposed use is not susceptible to flood damage when the lands are inundated to the base flood level.
- (5) That, during inundation to base flood level, there is safe and convenient access to the property for ordinary and emergency vehicles.
- (6) Within any identified floodplain area, any new construction or substantial improvement of a residential building or structure shall have the lowest floor (including basement) elevated a minimum of 1 1/2 feet above the regulatory flood elevation.
- (7) The following flood-proofing requirements for non-residential buildings shall be complied with:
  - (a) Within any identified floodplain area, any new construction or substantial improvement of a nonresidential building or structure shall have the lowest floor (including basement) elevated a minimum of 1 1/2 feet above the regulatory flood elevation or be designed and constructed so that the space enclosed by such structure shall remain either completely or essentially dry during any flood up to that height.
  - (b) Any nonresidential building, structure or part thereof having a lowest floor which is not elevated to at least 1 1/2 feet above the one-hundred-year-flood elevation shall be flood-proofed in a completely or essentially dry manner in accordance with the appropriate space classification standards contained in the publication entitled "Flood-Proofing Regulations," published by the United States Army Corp of Engineers, or with some other equivalent standard. All plans and specifications for such flood-proofing shall be accompanied by a statement certified by a registered professional engineer or architect, which states that the proposed design and methods of construction are in conformance with the above-referenced standards.
- (8) That the granting of a special exception will not, singularly or cumulatively with other relief granted along the same watercourse, impair Upper Bern Township's eligibility to participate in federal flood insurance programs or render Upper Bern Township or its inhabitants subject to any of the penalties or loss of federal programs by reason of the violation of the flood insurance regulation nor violate any valid rules or regulations of the Federal Emergency Management Agency promulgated with reference to the National Flood Insurance Program.

- (9) That the granting of a special exception will not permit any activity in any floodway as delineated on the Flood Insurance Rate Map (FIRM) of the Upper Bern Township Flood Insurance Study that would result in any increase in the base flood elevation.
- (10) That the space below the lowest floor shall comply with the following standards:
- (a) Fully enclosed space below the lowest floor (including basement) is prohibited.
  - (b) Partially enclosed space below the lowest floor (including basement) which will be used solely for the parking of a vehicle, building access or incidental storage in an area other than a basement shall be designed and constructed to allow for the automatic entry and exit of floodwaters for the purpose of equalizing hydrostatic forces on exterior walls. The term "partially enclosed space" also includes crawl spaces. Designs for meeting this requirement must be certified by a registered professional engineer or architect and meet or exceed the following minimum criteria:
    - (i) A minimum of two (2) openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
    - (ii) The bottom of all openings shall be no higher than one (1) foot above grade.
    - (iii) Openings may be equipped with screens, louvers, etc., or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.
    - (iv) Other criteria required by the Upper Bern Township Engineer.
- (11) All new construction and substantial improvements to buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse or lateral movement. All air ducts, large pipes, storage tanks and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed to prevent flotation.
- (O) For lands within the Floodplain Overlay District, upon filing an application for a building permit, a use and occupancy permit, or special exception, whichever shall first be requested, or within such time thereafter as to permit Upper Bern Township adequate opportunity to review the application prior to a hearing or action thereon, the applicant shall furnish six (6) copies of the following material as is necessary for a complete consideration of the matter:
- (1) Plans accurately drawn to scale showing the nature, location, dimensions and elevation of the lot and existing and proposed uses; photographs where necessary or appropriate to demonstrate existing uses and vegetation; and a soil overlay showing the soil types and other pertinent information.
  - (2) A series of cross sections at such intervals as may be necessary along the lot shoreline, showing the stream channel or lake or pond bottom, elevation of adjoining land areas to be occupied by the proposed uses and high-water information.
  - (3) Profile showing the slope of the bottom of the watercourse, stream, channel, lake or pond.
  - (4) Specifications for building materials and construction, flood-proofing, filling, dredging, grading, storage, water supply and sanitary facilities.
  - (5) Computation of the increase, if any, in the height of flood stages which would be anticipated up to the base flood elevation and any additional increases in elevation which would be attributable to the proposed construction.
  - (6) Elevations of the lowest floor, including basements, of any proposed structure.
  - (7) A document, certified by a registered professional engineer or architect, which states that the proposed construction has been adequately designed to withstand the base flood elevations, pressures, velocities,

impacts and uplift forces and other hydrodynamic, hydrostatic and buoyancy forces associated with the base flood.

- (8) Evidence that all other necessary governmental permits such as those required by state and federal laws have been obtained, including those required by the Pennsylvania Sewage Facilities Act, the Dam Safety and Encroachments Act, the United States Clean Water Act, and the Pennsylvania Clean Streams Act.
- (P) All information filed shall be forwarded to the Upper Bern Township Engineer for review prior to any action or hearing, and a copy of any report prepared by the Upper Bern Township Engineer shall be forwarded in advance of the hearing to the applicant.
- (Q) Upon consideration of an application under the terms of this section of the Zoning Ordinance, the Zoning Hearing Board may attach such conditions to the granting of special exception, as it deems necessary to further the purposes of this Zoning ordinance. Such conditions, without limitation because of specific enumeration, may include:
  - (1) Modification or flood-proofing of waste disposal and water supply facilities.
  - (2) Limitations on periods of use and operation.
  - (3) Flood-proofing measures of any nature or kind deemed necessary by the Township Engineer would prevent or lessen damage to a building located in the Floodplain Overlay District or to the safety of the occupant thereof.
  - (4) Imposition of operational controls, surety or guaranty for completion of any flood-proofing measures and deed restrictions.
  - (5) In any case where the Zoning Hearing Board shall grant a special exception to permit the erection of a structure in the flood hazard area, and it shall appear that such premises is to be offered for sale or lease, or where it shall grant a special exception to permit a change in nonconforming use of a structure already existing in the flood hazard area, and it shall appear that the premises is to be offered for sale or lease, the Zoning Hearing Board shall, for the protection of prospective purchasers and lessees, impose the following conditions:
    - (a) Require the applicant to advise prospective purchasers and/or lessees that the lot is either located entirely or partially, as the case may be, in the flood hazard area.
    - (b) Require that before settlement or change in nonconforming use, as the case may be, may take place, the purchaser or lessee shall signify, in writing, that he has been advised that the premises lies partially or entirely in the flood hazard area, and a signed copy of such certifications shall be delivered to Upper Bern Township.
    - (c) Where the premises is to be conveyed, the agreement of sale shall contain the following provision: "This lot is entirely (partially) within a flood hazard area as defined by the Zoning Ordinance of Upper Bern Township, Berks County, Pennsylvania".
  - (6) In any case where the Zoning Hearing Board shall grant any variance or special exception to permit the erection of a structure in the flood hazard area with a lesser standard of elevation and/or flood-proofing than that required by this Zoning Ordinance, the Zoning Hearing Board shall notify the applicant, in writing, that:
    - (a) The granting of the variance may result in increased premium rates for flood insurance.
    - (b) Such variances may increase the risks to life and property.
  - (7) No variance shall be granted for any construction, development, use or activity within any floodway area that would cause any increase in the one-hundred-year-flood elevation.
  - (8) A complete record of all variance requests and related actions shall be maintained by Upper Bern Township. In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Insurance Administration.

### **Section 503: Wetlands and Hydric Soil Overlay District**

- (A) The Wetlands and Hydric Soil Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Wetlands and Hydric Soil Overlay District is outlined as follows:
- (1) To direct growth, development and revitalization efforts by considering environmentally sensitive land areas.
  - (2) To achieve and sustain a high quality natural resource system and to protect a natural diversity of ecosystems.
  - (3) To provide aquatic habitats, which are essential breeding, rearing and feeding grounds for many species of fish, plants and other wildlife.
  - (4) To develop a protective zone to serve as a natural filter in the removing of pollutants such as bacteria, acid and sediment from groundwater and surface water.
  - (5) To implement an effective hydrological and stormwater management program that adequately addresses surface drainage, groundwater recharge and soil erosion control measures
  - (6) To implement Best Management Practices.
  - (7) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Joint Comprehensive Plan for Northern Berks County.
  - (8) To implement the goals and objectives of the Berks Count Conservation Zoning Incentive Program.
- (B) The Wetlands and Hydric Soil Overlay District shall include the following land and water features:
- (1) All areas delineated as wetlands on the most recent National Wetlands Inventory Maps as prepared by the United States Fish and Wildlife Service.
  - (2) All areas delineated as wetlands by a qualified professional or soil scientist with experience in delineating wetlands.
  - (3) All areas delineated as wetlands by the United States Army Corps of Engineers, as part of a Jurisdictional Determination.
  - (4) All areas encompassed by hydric soils, as defined and mapped by the United States Department of Agriculture, National Resources Conservation Service.
  - (5) All areas encompassed by high water table soils with hydric characteristics, as defined and mapped by the United States Department of Agriculture, National Resources Conservation Service.
- (C) All uses permitted within the underlying zoning districts shall be permitted as part of the Wetlands and Hydric Soil Overlay District, provided that the land area intended to facilitate the proposed use and related site improvements has not been delineated as a wetlands area by the United States Army Corps of Engineers, the Pennsylvania Department of Environmental Protection, the Berks County Conservation District, or by a qualified professional or soil scientist with experience in delineating wetlands.
- (D) For all subdivision or land development applications involving areas with hydric soils and/or areas considered to be wetlands, a qualified professional or soil scientist with experience in delineating wetlands shall conduct a field investigation and delineate the limits of the wetlands on the parcel of land being subdivided or developed. As part of this requirement, a report containing the field investigation notes, wetland data sheets, summary, conclusions and resume of the person(s) responsible for the field investigation shall be issued to Upper Bern Township for review and consideration. Further, the subdivision plan or land development plan shall contain a certification note that has been endorsed by the qualified person(s) responsible for the field investigation and the wetlands delineation, as accurately depicted on the subdivision plan or land development plan.

- (E) The maximum disturbance area or encroachment area on lands that have been delineated as wetlands shall not exceed ten (10) percent of the total area delineated as wetlands.
- (F) For all areas that have been delineated as a wetlands area, the following provisions and restrictions shall specifically apply:
  - (1) No wetland encroachment or earth disturbance activities shall be permitted unless the appropriate permits or approvals have been obtained from the Pennsylvania Department of Environmental Protection and/or the United States Army Corps of Engineers.
  - (2) If a Jurisdictional Determination has been issued by the United States Army Corps of Engineers, a twenty-five (25) foot buffer zone shall be applied to all areas that have been delineated as wetlands, as measured from the perimeter of the wetlands area. Unless otherwise permitted by Upper Bern Township, no encroachment or earth disturbance activities shall be permitted within the required buffer zone.
  - (3) If a Jurisdictional Determination has not been issued by the United States Army Corps of Engineers, a fifty (50) foot buffer zone shall be applied to all areas that have been delineated as wetlands, as measured from the perimeter of the wetlands area. Unless otherwise permitted by Upper Bern Township, no encroachment or earth disturbance activities shall be permitted within the required buffer zone.
  - (4) Upper Bern Township may allow a reduction in the dimensions or limits of the required buffer zone provided that the applicant can sufficiently demonstrate that there will be no degradation or negative impacts to the wetlands as a result of the reduction of the buffer zone.
  - (5) All areas delineated as wetlands within Upper Bern Township are subject to the land use restrictions and controls, as specified by Upper Bern Township, the Pennsylvania Department of Environmental Protection and/or the United States Army Corps of Engineers. Where encroachments or earth disturbance activities are proposed for any improvements, the required approvals or permits must be obtained by the applicant from the appropriate governing agency.
- (G) No on-lot sewage disposal system or on-lot water supply system shall be located within fifty (50) feet of the Wetlands and Hydric Soil Overlay District.
- (H) Unless otherwise required by Upper Bern Township, a wetlands delineation shall be conducted for all areas in which earth disturbance activities or improvements are proposed within the Wetlands and Hydric Soil Overlay District.

**Section 504: Steep Slope Overlay District**

- (A) The Steep Slope Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Steep Slope Overlay District is outlined as follows:
  - (1) To protect certain land areas classified as “steep slopes” from inappropriate subdivision and land development activity, which could result in accelerated erosion, increased volume and velocity of stormwater, and degradation of surface waters.
  - (2) To permit only those uses of steep slopes, which are compatible with the conservation of the natural conditions, habitats and environment by maintaining existing topographical conditions and minimizing earth disturbance activities.
  - (3) To encourage the utilization of appropriate construction and land development practices.
  - (4) To direct growth, development and revitalization efforts by considering environmentally sensitive land areas.
  - (5) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Joint Comprehensive Plan for Northern Berks County.

(6) To implement the goals and objectives of the Berks Count Conservation Zoning Incentive Program.

(B) The Steep Slope Overlay District shall include the following three (3) slope categories:

**Category 1 Slopes:** All land areas in which the topographical conditions have a range of slope between 10 to 20 percent in slope in pre-development conditions, whereas the difference in vertical elevation ranges between 5 to 10 feet over a horizontal distance of 50 feet, as measured in any given direction

**Category 2 Slopes:** All land areas in which the topographical conditions have a range of slope between 20 to 30 percent in slope in pre-development conditions, whereas the difference in vertical elevation ranges between 10 to 15 feet over a horizontal distance of 50 feet, as measured in any given direction.

**Category 3 Slopes:** All land areas in which the topographical conditions exceed a slope of 30 percent in slope in pre-development conditions, whereas the difference in vertical elevation is 15 feet or more over a horizontal distance of 50 feet, as measured in any given direction.

(C) All uses permitted within the underlying zoning districts shall be permitted as part of the Steep Slope Overlay District, provided that the lot or parcel intended to facilitate the proposed use and related site improvements does not conflict with the provisions of the Steep Slope Overlay District.

(D) The following subdivision and land development provisions shall apply to all lots or parcels, regardless of their size, whereas at least 10 percent of the lot or parcel includes Category 1 Slopes:

(1) Where feasible, the principal building and use shall not be located on Category 1 Slopes. In situations where the entire lot consists of Category 1 Slopes or greater, the applicant shall develop a plan to mitigate excess grading and erosive conditions.

(2) The maximum building coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 10 percent.

(3) The maximum lot coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 10 percent.

(4) The maximum disturbance area of lands that have been exclusively identified as Category 1 Slopes shall be limited to 70 percent of the total area of the Category 1 Slopes on the lot or property being developed.

(5) Unless otherwise permitted by the Upper Bern Township Board of Supervisors as part of a subdivision or land development plan application, the final grading on any lot or parcel with Category 1 Slopes shall not exceed a 3 to 1 side slope or horizontal to vertical ratio for any area, which has been disturbed as a result of the site improvements. Grades exceeding a 3 to 1 ratio may be permitted by Upper Bern Township provided the following conditions apply: the grading and earth disturbance impacts will be minimized; the stabilization of adjacent land areas will be enhanced; the stormwater runoff will be sufficiently controlled; the site improvements will be designed, constructed and installed considering best engineering practices that are acceptable to the Upper Bern Township Engineer and Zoning Officer; and that the health, safety and general welfare of the community has been considered.

(E) The following subdivision and land development provisions shall apply to all lots or parcels, regardless of their size, whereas at least 10 percent of the lot or parcel includes Category 2 Slopes:

(1) The principal building and use shall not be located on Category 2 Slopes.

(2) All accessory buildings, uses and driveways shall not be located on or traverse through Category 2 Slopes.

(3) The maximum building coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 15 percent.

(4) The maximum lot coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 15 percent.

- (5) The maximum disturbance area of lands that have been exclusively identified as Category 2 Slopes shall be limited to 40 percent of the total area of the Category 2 Slopes on the lot or property being developed.
  - (6) Unless otherwise permitted by the Upper Bern Township Board of Supervisors as part of a subdivision or land development plan application, the final grading on any lot or parcel with Category 2 Slopes shall not exceed a 3 to 1 side slope or horizontal to vertical ratio for any area, which has been disturbed as a result of the site improvements. Grades exceeding a 3 to 1 ratio may be permitted by Upper Bern Township provided the following conditions apply: the grading and earth disturbance impacts will be minimized; the stabilization of adjacent land areas will be enhanced; the stormwater runoff will be sufficiently controlled; the site improvements will be designed, constructed and installed considering best engineering practices that are acceptable to the Upper Bern Township Engineer and Zoning Officer; and that the health, safety and general welfare of the community has been considered.
  - (7) Municipal, utility and conservation uses shall be permitted on Category 2 Slopes.
- (F) The following subdivision and land development provisions shall apply to all lots or parcels, regardless of their size, whereas at least 10 percent of the lot or parcel includes Category 3 Slopes:
- (1) The principal building and use shall not be located on Category 3 Slopes.
  - (2) All accessory buildings, uses and driveways shall not be located on or traverse through Category 3 Slopes.
  - (3) The maximum building coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 20 percent.
  - (4) The maximum lot coverage for the proposed use, as specified by the zoning district requirements, shall be reduced by 20 percent.
  - (5) The maximum disturbance area of lands that have been exclusively identified as Category 3 Slopes shall be limited to 10 percent of the total area of the Category 3 Slopes on the lot or property being developed.
  - (6) Unless otherwise permitted by the Upper Bern Township Board of Supervisors as part of a subdivision or land development plan application, the final grading on any lot or parcel with Category 3 Slopes shall not exceed a 3 to 1 side slope or horizontal to vertical ratio for any area, which has been disturbed as a result of the improvements. Grades exceeding a 3 to 1 ratio may be permitted by Upper Bern Township provided the following conditions apply: the grading and earth disturbance impacts will be minimized; the stabilization of adjacent land areas will be enhanced; the stormwater runoff will be sufficiently controlled; the site improvements will be designed, constructed and installed considering best engineering practices that are acceptable to the Upper Bern Township Engineer and Zoning Officer; and that the health, safety and general welfare of the community has been considered
  - (7) Municipal, utility and conservation uses shall be permitted on Category 3 Slopes.
- (G) Where a lot or parcel of land includes more than one slope category, the more restrictive provisions specified by this section shall apply.
- (H) All applications involving a building permit, subdivision and/or land development plan shall include a detailed topographical analysis, which includes a depiction of the slope categories at a scale of one (1) inch equaling fifty (50) feet. The Upper Bern Township Engineer and/or Zoning Officer shall review the accuracy of the topographical analysis. Where necessary, field verification should be conducted by the applicant to verify the accuracy of the topographical analysis.

## **Section 505: Woodland Protection and Management Overlay District**

- (A) The Woodland Protection and Management Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Woodland Protection and Management Overlay District is outlined as follows:
- (1) To protect areas classified as woodlands from inappropriate subdivision, land development and conservation management activities.
  - (2) To acknowledge that woodlands are a vital resource and provide a number of community benefits including: minimizing erosion on areas of steep slopes and stream banks; improving groundwater quality and quantity by filtering out pollution and sediment; providing wildlife habitats for plants and animals; providing effective stormwater management and erosion control; providing shade from direct sunlight and reduces temperatures; stabilizing adverse climate conditions by providing buffer and wind breaks; providing active and passive recreation opportunities; enhancing the scenic characteristics; and reducing air pollution by absorbing airborne pollutants.
  - (3) To establish forestry and timber regulations that will effectively promote good forest stewardship, protect the rights of adjoining property owners, and minimize the potential of adverse environmental impacts created by inappropriate timber harvesting.
  - (4) To minimize the clear cutting of woodlands and other earth disturbance activities, which may create adverse environmental and ecological impacts.
  - (5) To permit the sale of forestry products
  - (6) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Joint Comprehensive Plan for Northern Berks County.
  - (7) To implement the goals and objectives of the Berks Count Conservation Zoning Incentive Program.
- (B) The Woodland Protection and Management Overlay District shall include the following activities:
- (1) Woodland extraction and tree replacement provisions, which apply to all subdivision and land development activities, shall be subject to Section 505.1 of this Zoning Ordinance.
  - (2) Forestry, timber harvesting, tree harvesting and logging regulations, which apply to all operations involved with the cutting down of trees and removal of logs from woodlands or forests for the primary purpose of sale and commercial processing into wood products, shall be subject to Section 505.2 of this Zoning Ordinance.
  - (3) Tree protection and replacement regulations, which apply to all earth disturbance activities including subdivision and land development activities, shall be subject to Section 505.3 of this Zoning Ordinance.

### **Section 505.1: Woodland Extraction and Replacement**

- (A) Woodland extraction shall be permitted within all underlying zoning districts, provided it is conducted in a manner to facilitate all necessary site improvements, as identified on an approved subdivision plan, land development plan, erosion and sedimentation control plan, and/or building permit. For the purposes of this Zoning Ordinance, “woodland extraction” is hereby defined as the clear cutting or removal of mature trees, as measured six (6) inches or more in caliper, to provide area for improvements on an individual lot or parcel of land, as the mature trees exist in pre-development conditions.
- (B) Woodland extraction should be limited to 20 percent of the total land area encompassed by woodlands on lots or properties being developed with single-family detached land uses or single-family semi-detached land uses.
- (C) Woodland extraction should be limited to 30 percent of the total land area encompassed by woodlands on lots or properties being developed with multi-family residential land uses, non-residential land uses and/or all other land uses that do not contain single-family detached land uses or single-family semi-detached land uses.

(D) The following provisions shall apply to all lots or parcels, regardless of their size, whereas woodland extraction measures are proposed on at least 10 percent but less than 20 percent of the lot or parcel, as the mature trees exist in pre-development conditions:

- (1) The removal of mature trees and other significant vegetation shall be mitigated by the replacement of two (2) trees per lot or parcel. At least one (1) tree shall be considered as a street tree, with a minimum caliper of three (3) inches and located ten (10) feet from the street right-of-way line. The other tree shall have a minimum caliper of three (3) inches and be shall planted within the internal area of each lot or parcel.
- (2) For areas designated as common open space or utility parcels, the removal of mature trees and other significant vegetation shall be mitigated by the replacement of five (5) trees per acre. Where feasible, street trees should be incorporated into the landscaping design. All street trees shall have a minimum caliper of three (3) inches and located at least ten (10) feet from the street right-of-way line. The other trees shall have a minimum caliper of three (3) inches and be shall planted within the internal area of the common open space or unity parcel.
- (3) In order to satisfy these conditions, the applicant shall submit a landscaping plan to Upper Bern Township for review and consideration. Unless otherwise permitted by the Upper Bern Township Board of Supervisors as part of a subdivision or land development plan application, the landscaping plan shall be prepared by a Landscape Architect, registered within the Commonwealth of Pennsylvania. The size, type or species, location, and planting specification of the replacement trees as well as all vegetative shall be specified on the landscaping plan.
- (4) Where the provisions if this section cannot be feasibly implemented, the required replacement trees shall be planted in an area designated as common open space within the development or any parcel of land owned and maintained by Upper Bern Township. The location of these replacement trees shall be subject to the approval by the Board of Supervisors.

(E) The following provisions shall apply to all lots or parcels, regardless of their size, whereas woodland extraction measures are proposed on at least 20 percent but less than 30 percent of the lot or parcel, as the mature trees exist in pre-development conditions:

- (1) The removal of mature trees and other significant vegetation shall be mitigated by the replacement of three (3) trees per lot or parcel. At least one (1) tree shall be considered as a street tree, with a minimum caliper of three (3) inches and located ten (10) feet from the street right-of-way line. The other two (2) trees shall have a minimum caliper of three (3) inches and be shall planted within the internal area of each lot or parcel.
- (2) For areas designated as common open space or utility parcels, the removal of mature trees and other significant vegetation shall be mitigated by the replacement of ten (10) trees per acre. Where feasible, street trees should be incorporated into the landscaping design. All street trees shall have a minimum caliper of three (3) inches and located at least ten (10) feet from the street right-of-way line. The other trees shall have a minimum caliper of three (3) inches and be shall planted within the internal area of the common open space or unity parcel.
- (3) In order to satisfy these conditions, the applicant shall submit a landscaping plan to Upper Bern Township for review and consideration. Unless otherwise permitted by the Upper Bern Township Board of Supervisors as part of a subdivision or land development plan application, the landscaping plan shall be prepared by a Landscape Architect, registered within the Commonwealth of Pennsylvania. The size, type or species, location, and planting specification of the replacement trees as well as all vegetative cover shall be specified on the landscaping plan.
- (4) Where the provisions if this section cannot be feasibly implemented, the required replacement trees shall be planted the following locations:
  - (a) In an area designated as common open space within the development;

- (b) On a parcel of land owned and maintained by Upper Bern Township.
- (c) On a parcel of land owned and maintained by either Berks County, the Hamburg Area School District, and any other public, non-profit or conservation group willing to accept responsibility for the replacement trees.

The location of these replacement trees shall be subject to the approval by the Board of Supervisors.

- (F) If additional trees are removed or extracted for the purposes of grading or municipal improvements during the construction sequence, the applicant shall replace all such trees at a ratio of three (3) replacement trees per each mature tree that has been incidentally timbered and/or cleared. The type and location of all such replacement trees shall be subject to the approval of the Board of Supervisors.
- (G) Unless otherwise specified by the requirements of this Section of the Zoning Ordinance, all replacement trees must comply with the all pertinent erosion, sedimentation, grading and landscaping provisions, as adopted by Upper Bern Township.

**Section 505.2: Forestry, Timber Harvesting, Tree Harvesting and Logging**

- (A) Forestry, timber harvesting, tree harvesting and/or logging shall be permitted within all underlying zoning districts, provided it is conducted in accordance with the provisions of this Zoning Ordinance.
- (B) A permit shall be required from Upper Bern Township for any forestry, logging, timber harvesting and/or tree harvesting activities, whereas ten (10) or more mature trees per acre are removed from any lot or parcels per year. It shall be unlawful for any person to engage in any forestry, timber harvesting, tree harvesting and/or logging on any lot or parcel of land within Upper Bern Township without first submitting a forest management plan and securing the proper permits. Unless otherwise required by Upper Bern Township, the following permit application procedures and requirements shall apply:
  - (1) A complete application and filing fee shall be submitted by the applicant or person engaged with the proposed forestry, timber harvesting, tree harvesting or logging activities, as imposed by resolution by the Board of Supervisors.
  - (2) A forest management plan of the property where the proposed forestry, timber harvesting, tree harvesting or logging activity shall occur, which includes the following:
    - (a) An identification of the concerned property; the legal owners of the property; the mailing address(s) and phone number(s) of the legal property owners, operators, and applicant, at which they can be reached during normal business hours.
    - (b) A plan drawn to scale depicting the property boundaries, the areas of the site on which the work is to be performed, the topographic features, soils, existing vegetation, watercourses, man-made features, the affected watersheds and other natural features. The use of tax maps, topographic maps, aerial photography and soils maps may be utilized to prepare the plan.
    - (c) A description of the planned forestry, timber harvesting, tree harvesting or logging operation as well as a description of the planned replanting of the lot, as prepared and submitted by a forester or qualified person. Where no replanting is planned, a statement shall be provided describing the reasons why, in his opinion, the characteristics of the lot and vegetation situate thereon make natural regeneration appropriate or why such replanting is not otherwise necessary.
    - (d) An estimated stalling and completion date for the timber harvesting, tree harvesting or logging activities.
    - (e) The location of the proposed temporary off-street parking and loading spaces, which shall be located outside the street right-of-way, constructed as a mud-free condition, and provide at least one (1) space per vehicle on the site of the timber harvesting activities.

- (4) A soil erosion and sediment control plan of the property where the proposed forestry, timber harvesting, tree harvesting or logging activity shall be submitted in accordance with the provisions of the Commonwealth of Pennsylvania.
  - (5) A complete copy of any other permits or licenses, as may be required by federal or state laws.
- (C) Where applicable, a separate application shall be required for each permit. Three (3) copies of all permit and plan documents, as referred to in this section shall be submitted with each application, one (1) of which, at the discretion of the Upper Bern Township Zoning Officer shall be submitted to the Berks County Conservation District for review and comment.
- (D) The following regulations shall apply to all forestry, timber harvesting, tree harvesting and logging operations within Upper Bern Township:
- (1) Felling or skidding on or across any public road is prohibited without the express written consent of Upper Bern Township or the Pennsylvania Department of Transportation, whichever is responsible for maintenance of the public road.
  - (2) No tops or slash shall be left within 25 feet of any public road right-of-way.
  - (3) All tops and slash, between 25 and 50 feet from a public road right-of-way or private road providing access to adjoining residential property or within 50 feet of adjoining residential property, shall be lopped to a maximum height of four (4) feet above the surface of the ground.
  - (4) No tops or slash shall be left on or across the boundary of any property adjoining the operation.
  - (5) Litter resulting from the forestry, timber harvesting, tree harvesting or logging operation shall be removed from the property at least once every seven (7) days.
  - (6) All holes created in the course of any tree harvesting operation shall be filled or regarded.
  - (7) No timber harvesting, tree harvesting or logging operation shall occur within 100 feet of any perennial watercourse.
  - (8) All land areas and properties, which are used for timber harvesting, tree harvesting or a logging operation, shall be reseeded in compliance with the forest management plan and erosion and sediment control plan.
- (E) The following provisions for inspections, permit fees, and permit approval shall apply to all forestry, timber harvesting, tree harvesting and logging operations within Upper Bern Township:
- (1) The Board of Supervisors shall by resolution, establish a schedule of fees for all permit applications required this Zoning Ordinance. The required fee shall be submitted with the application, which shall not be considered for approval until the application fee is paid.
  - (2) The Upper Bern Township Zoning Officer shall review the applicant's permit application, together with all plans, surveys, schedules, design criteria and other documents submitted or required to be submitted as part of the permit application procedure, together with any and all amendments thereto, and shall prepare a report of his findings and recommendations with respect to the same, as he shall determine necessary prior to the issuance of any permit or permits. The applicant shall pay for the cost of all such plan reviews and inspections.
  - (3) To ensure payment of all review and inspection fees, at the time of application, the applicant shall deposit with Upper Bern Township, a sum sufficient to cover the costs of such plan review, together with the cost of any inspections by the Upper Bern Township Zoning Officer.
  - (4) The Upper Bern Township Zoning Officer shall approve and issue all permits and no work shall commence without the issuance of such permit approval.

- (F) Any permit issued under this section may be revoked or suspended by the Upper Bern Township Engineer or Zoning Officer after notice to the permit holder for:
  - (1) Violation of any provision of this Zoning Ordinance or any other applicable law, ordinance, rule or regulation relating to the forestry, timber harvesting, tree harvesting or logging operations.
  - (2) Any conditions or activities conducted on the property, which constitutes or creates a nuisance, hazard or endangers human life or the property of others.
- (G) The landowner and the operator shall be responsible for repairing any excess damage to public or private roads caused by traffic associated with a timber harvesting, tree harvesting or logging operation. Pursuant to Title 67 Pennsylvania Code, Chapter 189, the landowner or operator shall furnish a bond in an amount determined by the Upper Bern Township Zoning Officer to guarantee the repair of such damages.
- (H) The landowner and/or operator shall clean any mud or debris that is tracked onto public roads and shall be responsible for repairing berms, shoulders, swales and/or stormwater management facilities on public roads, which may be damaged due to the timber harvesting, tree harvesting or logging operation. All soil and debris washed or carried onto public streets during timber harvesting, tree harvesting or logging operations shall be cleaned immediately after the occurrence.
- (I) The Upper Bern Township Zoning Office may inspect the property where any forestry, timber harvesting, tree harvesting or logging operation is occurring to determine if the requirements of this section and of the permit, including conditions thereof, or to the plans and specifications submitted with the permit application, including modifications thereof, or to the approved runoff and erosion control plan are being followed.
- (J) If Upper Bern Township determines that the landowner or operator are not complying with permit application, supporting plans, or other provisions established within this Zoning Ordinance, Upper Bern Township shall send a written notice to the landowner, operator and applicant, which notice shall set forth the nature of corrections required and the time within which corrections shall be made. If the landowner, operator or applicant fails to comply with the notice in the time specified, the applicant shall be considered in violation of this Zoning Ordinance, in which case Upper Bern Township is entitled to seek all appropriate remedies at law, including the penalty provisions established by Upper Bern Township.

**Section 505.3: Tree Protection and Replacement**

- (A) The purpose of this section is to provide specific standards for tree protection and replacement, which should complement and not replace other provisions of the Upper Bern Township Zoning Ordinance.
- (B) Unless otherwise required by Upper Bern Township, the following provisions shall be included on a landscape plan:
  - (1) The location of existing tree canopy within the parcel boundaries.
  - (2) The location of individual trees with a caliper of more than six (6) inches measured at breast height, as identified by size and species within the area of development or limits of disturbance.
  - (3) The location of individual trees with a caliper of more than six (6) inches measured at breast height, as identified by size and species outside the area of development or limits of disturbance.
  - (4) The location of individual trees and their respective drip lines noted for preservation within the area of development or limits of disturbance. A ten (10) foot buffer shall be maintained from the drip line and the area designated for site improvements.
  - (5) The location of all required replacement trees, buffer yards and other landscaping requirements.
  - (6) The identification of the area(s) intended for tree and vegetation removal.
  - (7) Tree protection materials along with the appropriate details and limit of disturbance line.
  - (8) All other pertinent information and requirements specified by Upper Bern Township.

- (C) Unless otherwise required by Upper Bern Township, the following provisions shall apply to the construction phase of subdivision or land development plans:
- (1) Tree protection measures and the limit of disturbance line shown on the landscaping plan shall be provided at the lot or site being developed with snow fencing or other durable material. The location of the limits of disturbance shall be verified by the Upper Bern Township.
  - (2) Protective barriers shall not be supported by the plants they are protecting, but shall be self-supporting barriers, which shall be a minimum of four (4) feet high and shall last until construction is complete.
  - (3) If required by Upper Bern Township, a chain link fence shall be required as the barrier for tree protection.
  - (4) The barrier utilized or tree protection shall be firmly secured along a minimum of ten (10) feet from the drip line, as measured outward from the tree or cluster of trees it is protecting.
  - (5) The topography or the grade of the land located within the drip line shall not be raised or lowered, unless the change of topography or grade has been reviewed by a landscape architect and that the developer has guaranteed tree replacements in the event the tree(s) do not survive.
  - (6) No soil stockpiling or storage of building materials, construction equipment or vehicles shall be permitted within ten (10) feet of the drip line of the tree(s) that are to be protected.
  - (7) Any earth disturbance activities within the drip line, shall be completed by hand-operated equipment.
  - (8) Where a tree designated for preservation is severely damaged and unable to survive, tree replacement provisions shall be required.

- (D) Unless otherwise required by Upper Bern Township, the following provisions shall apply to tree replacement:
- (1) Replacement tree(s) shall be of nursery grade quality, balled and burlapped. Where replacement trees are required but not suitable for the particular site prescribed due to the size of the site or other special limitations, the trees shall be utilized for planting on lands designated by Upper Bern Township.
  - (2) The type of replacement tree(s) should be the same as the species removed from the site.
  - (3) All replacement trees shall be nursery grown within the same USDA hardiness zone as the lot or tract of land being developed.
  - (4) Species of replacement plantings shall reflect careful site evaluation, which shall include the existing and proposed site conditions and their suitability for the tree species, based on topography, geology, hydrology, soil, and microclimate.
  - (5) The planting of all replacement trees shall be done by or supervised by a person with horticultural training in tree care and planting methods.

**Section 506: Riparian Buffer Overlay District**

- (A) The Riparian Buffer Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Riparian Buffer Overlay District is outlined as follows:
- (1) To achieve and sustain a high quality natural resource system and to protect a natural diversity of ecosystems.
  - (2) To provide biodiversity corridors enabling wildlife habitats to prosper, migrate, breed and feed within close proximity to surface water features.
  - (3) To develop a protective zone to serve as a natural filter in the removing of pollutants such as bacteria, acid and sediment from surface water.

- (4) To implement an effective hydrological and stormwater management program that adequately addresses surface drainage, groundwater recharge and soil erosion control measures
  - (5) To implement Best Management Practices.
  - (6) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Joint Comprehensive Plan for Northern Berks County.
  - (7) To implement the goals and objectives of the Berks Count Conservation Zoning Incentive Program.
- (B) The Riparian Buffer Overlay District shall apply to all perennial stream corridors within Upper Bern Township. The following provisions shall apply:
- (1) The limits of the Riparian Buffer Overlay District shall be recognized as an conservation overlay as part of the Upper Bern Township Zoning Ordinance. The design standards and specifications for the Riparian Buffer Overlay District shall be contained within the Upper Bern Township Subdivision and Land Development Ordinance.
  - (2) Properties located along or adjacent to a perennial stream corridor, which are not subject to subdivision and land development activity shall be subject to a education and volunteer effort, whereas, the landowner may implement the design standards contained within the Upper Bern Township Subdivision and Land Development Ordinance. All such efforts may be coordinated with local, county, state or federal agencies, provided that such efforts enhances, restores, stabilizes and/or maintains the integrity woodland and vegetation within the of the Riparian Buffer Overlay.
  - (3) Properties located along or adjacent to a perennial stream corridor, which are subject to subdivision and land development activity shall be subject to a mandatory effort, whereas, the landowner or developer shall be required to implement the design standards contained within the Upper Bern Township Subdivision and Land Development Ordinance. All such efforts may be coordinated with local, county, state or federal agencies, provided that such efforts enhances, restores, stabilizes and/or maintains the integrity woodland and vegetation within the of the Riparian Buffer Overlay.
  - (4) All land uses and site improvements should be located, design and conducted in a manner that meets the design standards contained within the Upper Bern Township Subdivision and Land Development Ordinance.
  - (5) Volunteer and mandatory efforts should be reviewed by the Berks County Conservation District to determine if the selected landscape materials will implement the overall purpose and objective of the Riparian Buffer Overlay District.

**Section 507: Northkill Creek Overlay District**

- (A) The Northkill Creek Overlay District shall be a conservation overlay to the underlying zoning districts of Upper Bern Township. The purpose and objective of the Northkill Creek is outlined as follows:
- (1) To maintain the Exceptional Value water quality status involving the segment of Northkill Creek from its origin on the Blue Mountain to Interstate 78.
  - (2) To maintain and improve the water quality status involving the segment of Northkill Creek between Interstate 78 and Penn Township.
  - (3) To implement the purpose and objectives of the Floodplain Overlay District, the Wetlands and Hydric Soil Overlay District and the Riparian Buffer Overlay District.
  - (4) To provide biodiversity corridors enabling wildlife habitats to prosper, migrate, breed and feed within close proximity to surface water features.

- (5) To provide opportunities to develop a trail system enabling pedestrian access for passive recreation uses and to establish linkages with other trail systems within the region.
  - (6) To implement the recommendations concerning natural features, conservation management and land use, as outlined within the Joint Comprehensive Plan for Northern Berks County.
  - (7) To implement the goals and objectives of the Berks Count Conservation Zoning Incentive Program.
- (B) The Northkill Creek Overlay District shall apply to the land and water areas within Upper Bern Township that are located along or adjacent to the Northkill Creek, as measured 300 feet from the center of surface water, which also serves as the municipal boundary dividing Upper Tulpehocken Township and Upper Bern Township.
- (C) The following land use and development provisions apply shall apply to land and water areas within the Northkill Creek Overlay District:
- (1) No principal buildings or uses shall be located within the Northkill Creek Overlay District.
  - (2) No accessory building or uses shall be located within 200 feet, as measured from the center of the Northkill Creek.
  - (3) No site improvements or earth disturbances activities shall be permitted within 100 feet, as measured from the center of the Northkill Creek.
  - (4) Environmental and ecological site enhancements may be permitted provided that they are conducted in a manner to implement the goals and objectives of the Riparian Buffer Overlay District.
  - (5) Planned trails and passive recreation uses may be permitted provided that they are conducted in a manner to implement the Joint Comprehensive Plan for Northern Berks County and the Berks County Conservation Zoning Incentive Program.

**Section 508: Well Head Protection**

- (A) The well head protection provisions contained within this Ordinance are designed to prevent pollution of groundwater, which is utilized to support a community water supply system or a municipal water supply system. The following purpose statements and objectives shall apply for well head protection:
- (1) To protect existing and future groundwater supply sources from contamination.
  - (2) To protect groundwater resources from excessive extraction and depletion.
  - (3) To manage land use activities that store, handle, or produce regulated substances, which can contaminate water supply sources through improper stormwater and other inadequate site management.
  - (4) To encourage the use of best management practices for water supply and groundwater recharge.
  - (5) To encourage intergovernmental cooperation with adjacent municipalities in order to promote the protection of groundwater resource areas.
- (B) The provisions for well head protection are contained within the Upper Bern Township Zoning Ordinance shall specifically apply to a well source serving a community water supply system or a municipal water supply system. This authority is provided under the provisions under Article I, Section 27 of the Constitution of the Commonwealth of Pennsylvania and the Pennsylvania Municipalities Planning Code.
- (C) The Upper Bern Township Engineer, Planning Consultant and Zoning Officer shall be responsible for the administration and enforcement of this section of the Ordinance. Upper Bern Township may hear appeals from the decisions, determinations and orders that have been issued relating to administration and enforcement

- (D) Well head protection areas shall consist of three (3) well head protection zones, which are defined as follows:
- (1) Zone 1 shall be defined as a protective area with a radius of three hundred (300) feet from a well serving a community water supply system or a municipal water supply system.
  - (2) Zone 2 shall be defined as a protective area with a radius of one thousand (1,000) feet from a well serving a community water supply system or a municipal water supply system.
  - (3) Zone 3 shall be defined as a protective area with a radius of two thousand (2,000) feet from a well serving a community water supply system or a municipal water supply system.
- (E) Unless otherwise permitted by Upper Bern Township, the following provisions shall apply to land use and development activities within the well head protection areas:
- (1) Parcels of land and water located within the well head protection areas shall comply with the restrictions applicable to the well head protection zone to which such parcels of land and water are located.
  - (2) All principal uses that are defined and permitted under the provisions of the Upper Bern Township Zoning Ordinance shall not be permitted within Zone 1. However, accessory uses and accessory buildings to an existing permitted land use may be permitted and located within Zone 1.
  - (3) Unless specifically prohibited, the principal and accessory uses that are defined and permitted under the provisions of the Upper Bern Township Zoning Ordinance may be permitted within Zone 2 and Zone 3, provided that the principal and accessory uses comply with the provisions of this Zoning Ordinance.
  - (4) The following principal uses, as further define within the Upper Bern Township Zoning Ordinance; are specifically prohibited from Zone 2: intensive agricultural uses; commercial composting facilities; mushroom production facilities; concentrated animal and feeding operations; automobile service stations; commercial water resource uses; kennels; quarrying and mining operations; solid waste disposal and reduction facilities; junk yards and salvage yards; trucking establishments, terminals and convenience centers; shopping centers; and other principal uses that have the potential to contaminate the groundwater within the well head protection zones.
  - (5) Subdivision and land development plan applications within Zones 1, 2 and 3 shall be reviewed by Upper Bern Township for compliance in accordance with the well head protection requirements.
  - (6) Subdivision and land development plan applications within Zones 1, 2 and 3, which are designed with stormwater management facilities shall be required to design such facilities with special emphasis on water quality management and filtration measures in conjunction with the required infiltration best management practices.
  - (7) Subdivision and land development plan applications within Zones 1, 2 and 3, which include on-lot sewage disposal systems shall provide a primary and alternate site for on-lot sewage disposal on each lot.
  - (8) Subdivision and land development plan applications within Zones 1, 2 and 3 shall consult with a qualified professional to conduct the following activities: conduct a site inspection of the property; review aerial photographs to determine areas of influence; review soils, topographic, geologic and hydrologic of the site; and review the special relationship of existing and proposed land uses. As part of these efforts, a site map shall be developed to delineate the following: the soils of the site; closed depressions; seasonal high water table indicators; outcrops of bedrock; surface water and drainage into ground; geologic contacts, faults and fractures; quarries and mines; oil and gas wells; and other features determined essential by the Upper Bern Township Engineer and Planning Consultant.
  - (9) Subdivision and land development plan applications within Zones 1, 2 and 3 shall consult with a qualified professional to determine the type of testing that should be done by the applicant to ensure compliance with this ordinance. The testing methodology shall consider the scale of the proposed development and the any hazards revealed by examination of available data and the site inspection. A report shall be submitted by the qualified professional, which shall include a map of the area, all test results, and the recommendations for the mitigation measures to be taken.

(F) Principal and accessory uses that exist prior to the enactment date of the Upper Bern Township Zoning Ordinance and do not conform with the provisions of this section of the Ordinance, shall be classified as a nonconforming use, as further defined by the Zoning Ordinance. All such nonconforming uses of land may be continued by the present or any subsequent landowner, provided that:

- (1) The nonconforming use remains otherwise lawful and in compliance with all federal, state, and county environmental, pollution control, hazardous substance, and drinking water laws and regulations.
- (2) The nonconforming use has not been and is not discontinued or abandoned for a period of twelve (12) consecutive months.
- (3) The nonconforming use is not, after the enactment date of this Ordinance, materially altered, changed or expanded except to the extent justified under the provisions of the Zoning Ordinance.
- (4) The landowner of the parcel on which such nonconforming use is located is in compliance with this Ordinance.
- (5) The nonconforming use is not an actual source of groundwater contamination.