

ORDINANCE NO. 2014-05

AN ORDINANCE AMENDING THE EAST COCALICO TOWNSHIP CODE OF ORDINANCES, CHAPTER 220, ZONING, BY (1) ADDING REGULATIONS GOVERNING THE USE OF ALTERNATIVE ENERGY SYSTEMS AS ACCESSORY USES, (2) ADDING REGULATIONS GOVERNING POWER GENERATION FACILITIES, (3) ADDING REGULATIONS GOVERNING WIND AND/OR SOLAR FARMS, (4) STRENGTHENING REGULATIONS RELATING TO RIPARIAN BUFFERS, (5) REVISING REGULATIONS GOVERNING FORESTRY USES IN ACCORDANCE WITH STATE LAW (6) STRENGTHENING THE REQUIREMENTS FOR VEHICULAR ACCESS FOR LOTS AND PRINCIPAL USES, (7) CLARIFYING FLOODPLAIN REGULATIONS, (8) CLARIFYING LANGUAGE REGARDING MULTIPLE PRINCIPAL USES ON A SINGLE PROPERTY, (9) UPDATING INFORMATION RELATING TO THE WELLHEAD PROTECTION ZONES, (10) ADDING CARBONATE GEOLOGIC FORMATIONS TO THE EAST COCALICO TOWNSHIP HISTORIC SITES AND RIPARIAN BUFFER OVERLAY ZONES MAP, (11) PROVIDING FOR THE COLLOCATION OF WIRELESS TELECOMMUNICATION FACILITIES BY RIGHT WITHIN THE AGRICULTURAL AND CONSERVATION ZONES, (12) UPDATING PUBLIC WELLHEAD PROTECTION ZONE INFORMATION AND BASEMAP INFORMATION TO A NEW OFFICIAL ZONING MAP, (13) ADDING WELLHEAD PROTECTION TO WELLS OWNED BY DENVER BOROUGH, AND (14) INCORPORATING RECENT CHANGES TO THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE RELATING TO ELECTRONIC AND MAILED NOTICES FOR ZONING AMENDMENTS.

WHEREAS, East Cocalico Township enacted its Official Zoning Ordinance on December 8, 2003;

WHEREAS, Township Officials believe that the use of alternative forms of energy production both as accessory uses and principal uses is increasing.

WHEREAS, Township Officials believe that the use of such energy production is appropriate within prescribed settings and under certain circumstances.

WHEREAS, Township Officials believe that the use of such energy production unless strictly regulated could pose adverse impacts to adjoining properties and uses.

WHEREAS, Township Officials believe that there is a need to update regulations governing riparian buffers, collocated wireless telecommunication facilities, notices for zoning amendments and forestry uses in accordance with state law.

WHEREAS, Township Officials believe that there is a need to strengthen regulations vehicular access to lots and principal uses.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED THAT THE FOLLOWING AMENDMENT BE MADE TO THE OFFICIAL ZONING ORDINANCE OF EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA:

SECTION 1. §220-11.C. The following definitions are alphabetically added as follows:

ALTERNATIVE ENERGY SYSTEMS – Any device installed as an accessory use that supplies energy principally for the principal use of the property that is derived from natural sources (e.g. solar panels, wind turbines, hydro turbines, geo-thermal exchangers, outdoor furnaces and similar and emerging technologies.) This definition shall permit the limited exchange, transfer and/or sale of excess energy to a public or private utility company and use conducted pursuant to and part of power purchase agreements.

ANAEROBIC DIGESTION- The process in which microorganisms in the absence of oxygen convert the energy stored in volatile acids in livestock and poultry manure or other organic materials into biogas.

BIOGAS-A fuel consisting of methane, carbon dioxide, and small amounts of water and other compounds produced as part of anaerobic digestion processes.

COLLOCATED TOWERS AND EQUIPMENT – the placement or installation of new wireless telecommunication facilities on previously approved and constructed wireless support structures, including self-supporting or guyed monopoles and towers, electrical transmission towers, water towers or any other structure not classified as a wireless support structure that can support the placement or installation of wireless telecommunication facilities if approved by the Township. This term includes the placement, replacement or modification of accessory equipment within a previously approved equipment compound serving a wireless telecommunication facility.

ELECTRONIC NOTICE - Notice given by a municipality through the Internet of the time and place of a public hearing and the particular nature of the matter to be considered at the hearing.

EMERGENCY RESPONDERS – The Township police department and emergency preparedness coordinator, the Township Fire Official, the first due EMS company and the PA State Police.

EMISSIONS RELEASE POINT – That location where an exhaust chimney of an outdoor furnace permits the unrestricted flow of exhaust into the environment.

GEOTHERMAL BOREHOLES - A hole drilled or bored into the earth into which piping is inserted for use in a closed vertical loop geothermal system.

GEOTHERMAL SYSTEM - Any device installed as an accessory use that supplies energy principally for the principal use of the property that is derived from the exchange of underground temperature.

HUB HEIGHT - The distance measured from the surface of the tower foundation to the highest height of the wind turbine hub, to which the blade is attached.

INVASIVE PLANT SPECIES OF PENNSYLVANIA - Invasive plants displace naturally occurring native vegetation and, in the process, upset nature's balance and diversity. Invasive plants are characterized by rapid growth and prolific reproductive capabilities, highly successful seed dispersal, germination and colonization processes, rampant spreading that takes over native species and are very costly to control. In general, aggressive, non-native plants have no enemies or controls to limit their spread. For the purposes of satisfying landscape requirements of this Ordinance the use of invasive plant species are prohibited except in cases where a Pennsylvania Certified Horticulturalist, landscape architect or engineer registered in the Commonwealth presents credible

evidence the use of such invasive species is necessary for vegetation to be sustained at the proposed location for the proposed use. Invasive plant species are listed below; however, this definition shall expressly include any future listing of invasive species for the Township determined by the Federal or State government or any agency designated for such purpose by the Federal or State government:

Trees:

Acer platanoides, commonly known as Norway Maple
Acer pseudoplatanus commonly known as Sycamore Maple
Ailanthus altissima commonly known as Tree-of-Heaven
Elaeagnus angustifolia commonly known as Russian Olive
Populus alba commonly known as White Poplar
Ulmus pumila commonly known as Siberian Elm
Viburnum lantana commonly known as Wayfaring Tree

Shrubs and Vines:

Berberis thunbergii, commonly known as Japanese Barberry
Elaeagnus umbellata, commonly known as Autumn Olive
Euonymus alatus, commonly known as Winged Euonymus (excluding compacta cultivar)
Ligustrum vulgare, commonly known as European Privet
Lonicera japonica, commonly known as Japanese Honeysuckle
Lonicera maackii, commonly known as Amur Honeysuckle
Lonicera morrowii, commonly known as Morrow's Honeysuckle
Lonicera tatarica, commonly known as Tartarian Honeysuckle
Lonicera x bella, commonly known as Hybrid Honeysuckle
Lythrum salicaria, commonly known as Purple Loosestrife (herbaceous)
Morus alba, commonly known as White Mulberry
Morus rubra, commonly known as Red Mulberry
Phyllostachys, commonly known as aubea Bamboo
Rhamnus cathartica, commonly known as Common Buckthorn
Frangula alnus, commonly known as Glossy Buckthorn
Rosa multiflora, commonly known as Multiflora Rose
Viburnum opulus, commonly known as European Highbush Cranberry

Source: PA Department of Natural and Cultural Resources

MAILED NOTICE - Notice given by a municipality by first class mail of the time and place of a public hearing and the particular nature of the matter to be considered at the hearing.

MANURE DIGESTER - A facility which main purpose is to use anaerobic digestion processes to convert livestock and poultry manure (primary catalyst) into biogas, which is generally burned on-site to produce electricity, heat, and water; as well as to manage livestock and poultry manure. Manure digesters may include "co-digestion" in which the livestock and poultry manure (primary catalyst) may be mixed with other organic materials (secondary catalysts). Types of manure digesters include covered anaerobic lagoons, plug-flow, and/or complete mix (or continually stirred tank reactor), along with other appurtenant sites, structures and buildings, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

NOXIOUS SPECIES – Plants identified by the Pennsylvania Department of Agriculture's Noxious Weed Control list. The following lists the current known species; however, this definition shall also expressly include any future listing of such species:

(Source:http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/http%3B/10.41.0.77/AgWebsite/ProgramDetail.aspx?name=Noxious-Invasive-and-Poisonous-Plant-Program&navid=12&parentnavid=0&palid=116&)

Cannabis sativa L, commonly known as Marijuana
Cirsium arvense, commonly known as Canadian thistle
Rosa multiflora, commonly known as Multiflora rose
Sorghum halepense, commonly known as Johnson grass
Persicaria perfoliatum, commonly known as Mile-a-minute
Pueraria montana var. lobata, commonly known as Kudzu-vine
Cirsium vulgare, commonly known as Bull or Spear Thistle
Carduus nutans, commonly known as Musk or Nodding Thistle
Sorghum bicolor, commonly known as Shattercane
Datura stramonium, commonly known as Jimsonweed
Lythrum salicaria, commonly known as Purple Loosestrife, including all cultivars
Heracleum mantegazzianum, commonly known as Giant Hogweed
Galega officinalis, commonly known as Goatsrue

OUTDOOR FURNACE - A freestanding or attached accessory structure or appliance designed to be located outside of a principal use which is designed to provide heat and/or hot water to said principal use through the consumption of clean wood, coal, natural gas, kerosene, propane, domestic heating oil provided that such fuels comply with all applicable sulfur limits. For the purposes of this definition clean wood fuel shall include all wood intended to be used as fuel, including but not limited to trees, cordwood, logs, lumber, sawdust, and wood from manufacturing processes (butt offs, shavings, turnings, sander dust) wood pellets, slabs, bark, chips, and waste pallets. Clean wood fuel does not include materials chemically treated with any preservative, paint, or oil.

Phase 2 Outdoor Furnace – An outdoor furnace that has been certified by the United States Environmental Protection Agency as meeting a particulate matter emission limit of 0.32 pounds per million British Thermal Units (BTUs) of output.

PA – Commonwealth of Pennsylvania.

PA DCNR – Pennsylvania Department of Conservation and Natural Resources.

PA DEP – Pennsylvania Department of Environmental Protection.

PA DOT - Pennsylvania Department of Transportation.

POWER GENERATION FACILITIES – Except as permitted under the definition of wind and solar farm, a principal use devoted to the creation, storage, conversion, distribution and transmission of electrical energy for use at another location (e.g. fossil fuel plants, hydro-electric plants, waste-to-energy plants, bio-fuel plants, methane plants, etc.)

RIPARIAN BUFFER – An area delineated along and generally parallel to a surface water course in which naturally successive vegetation is allowed to grow which offers environmental and ecological benefit.

ROOF ACCESS POINTS - Areas where ladders are not placed over openings (i.e., windows or doors) and are located at strong points of building construction and in locations where they will not conflict with overhead obstructions (i.e., tree limbs, wires, or signs.)

ROOF RIDGE – The highest axis or axes associated with adjacent roof surfaces.

SAFETY ACCESS CORRIDORS – Areas of unrestricted rooftop access located between roof-mounted solar panels, the roof access points and the roof ridge.

SHADOW FLICKER - means alternating changes in light intensity caused by a moving wind rotor blade casting shadows on the ground and stationary objects.

SOLAR ACCESS – Direct exposure to sunlight in sufficient intensity and duration to make practical use of one or more solar panels.

SOLAR ENERGY – Radiant energy (direct, diffuse and/or reflective) derived from the sun.

SOLAR ENERGY SYSTEM - An energy conversion system or device, including any structural design features and all appurtenances and parts thereof, whose primary purpose is to provide for the collection, storage and distribution of solar energy for space heating or cooling, for water heating and/or for electricity.

SOLAR PANEL (MODULE) - That part or portion of a solar energy system containing one or more receptive cells or units, the purpose of which is to convert solar energy for use in space heating or cooling, for water heating and/or for electricity.

SOLAR PANEL STANDOFFS – Supportive hardware that is used to affix and raise solar panels on a sloped roof.

SOLAR SHINGLES – A solar energy system that approximates and/or replaces a roof surface.

TMDL – Total maximum daily load.

TURBINE HEIGHT - The distance measured from the mean level of the ground abutting the tower foundation upon which the wind turbine is attached to the highest point of the turbine rotor blades at their highest point of rotation or the highest point of any feature of the turbine at its maximum distance from the abutting ground, whichever is the highest point.

WETLANDS – Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas, and which shall be identified using the Northeast and North Central Regional Supplement (2012) to the 1987 Corps of Engineers Wetlands Delineation Manual.

WIND AND/OR SOLAR FARM – A principal use devoted to the generation of electrical energy for consumption elsewhere by means of solar panels and/or wind energy conversion systems.

WIND AND/OR SOLAR FARM OPERATOR – That person or entity responsible for the day-to-day operation of the wind and solar farm.

WIND AND/OR SOLAR FARM OWNER – That person or entity having legal or equitable interest in the wind and solar farm.

WIND FARM OPERATOR – That person or entity responsible for the day-to-day operation of the wind farm.

WIND FARM OWNER – That person or entity having legal or equitable interest in the wind farm.

WIND TURBINE - Any device which converts wind energy to mechanical or electrical energy.

SECTION 2. §220-31.E. is deleted in its entirety and replaced as follows:

- “E. Except as noted for outdoor furnaces in §220-31.E.(21) of this Chapter, within every Zone, alternative energy systems, as defined herein, are permitted accessory uses by right, subject to the following requirements:
- (1) Alternative energy systems constructed prior to the effective date of this Ordinance shall not be required to meet the requirements specified under this section of the Zoning Ordinance. Any physical modification to an existing alternative energy system that materially alters the size, type and quantity of the facilities shall require a building permit and shall comply with the applicable provisions specified under this section of the Zoning Ordinance.
 - (2) Alternative energy systems shall be primarily utilized by the principal use of the lot upon which it is located and energy generated must first be used to meet the demand on-site. Surplus energy may be exchanged, transferred and/or sold to a public or private utility company, if the applicant submits written expert evidence that the proposed alternative energy system is designed not to generally exceed the peak energy demands of the principal use, including foreseeable expansions.
 - (3) The owner of any alternative energy system connected to an electric utility grid shall provide the Township with written authorization from the utility acknowledging and approving such connection.
 - (4) Alternative energy systems may be erected as detached accessory structures or attached to a building provided that the structural components of such systems do not exceed the permitted height requirements of the Zone in which it is located except that:
 - a) the total height of a building or structure with solar panels shall not exceed by more than one (1) foot the maximum permitted height in the applicable zone;
 - b) ground-mounted solar panels shall not exceed a height of 20 feet at the highest point of the structure;
 - c) the maximum height of a freestanding wind turbine and any supporting structure shall be fifty (50) feet for residential uses and one-hundred fifty feet (150) for non-residential uses, as measured from the ground surface to the tip of the blade at its highest turning movement; and,
 - d) a roof-mounted wind turbine and any supporting structures may extend no more than ten feet (10') above the highest roof surface to the tip of the blade at its highest turning movement or the highest point of any feature of the turbine at its maximum height, whichever is the highest point, provided such height is not greater than five feet (5') higher than the maximum permitted height for the attached roof.
 - (5) Except as noted in §220-31E.(17)(b) of this Chapter, alternative energy systems may be erected as detached accessory structures or attached to a building provided that the structural components of such systems (along with other site improvements) do not exceed the maximum permitted lot coverage requirements of the Zone in which it is located.
 - (6) Alternative energy systems may be erected as detached accessory structures or attached to a building provided that the structural components of such systems comply

with all applicable setbacks of the zone in which it is located. Detached accessory systems shall comply with applicable accessory use setbacks. Systems attached to a principal structure will be required to comply with principal use setbacks. In Zones with no accessory use setbacks, principal use setbacks shall apply.

- (7) Above-ground alternative energy systems shall be clear-coated, transparent, and/or be designed with a non-obtrusive color such as white, off-white or gray and a flat finish. Wind turbine towers may be painted brown up to the height of nearby trees. All such facilities shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety.
- (8) On-site electrical transmission and power lines connected to or associated with the alternative energy system that are not contained within a building shall be located underground.
- (9) Clearly visible warning signs concerning voltage must be placed at the base of all above-ground transformers and substations. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten (10) feet from the ground.
- (10) The applicant shall provide written evidence that the proposed alternative energy system shall comply with the noise standards listed in §220-48.A. of this Chapter. A manufacturer's certificate of specification may be used to demonstrate compliance with this standard.
- (11) The applicant shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television or similar signals, and shall mitigate any harm caused by the alternative energy system.
- (12) The design and installation of the alternative energy system shall conform to applicable industry standards, including those of the American National Standards Institute and the Township's Building Code and be subject to all applicable permit requirements thereof as well as all other applicable laws, codes and regulations.
- (13) In addition to those materials required in §220-148.B. of this Chapter for a building permit, applicants for alternative energy systems shall be required to submit:
 - a) a narrative describing the system and its principal components including, but not limited to related ancillary facilities;
 - b) information about its potential energy generating capacity and anticipated generation; and,
 - c) a site plan depicting the system and its principal components including, but not limited to related ancillary facilities as they relate to property lines, required setbacks, adjoining roads, utility rights-of-way and lines, and on-site buildings and structures. Such information shall be depicted upon the site plan even if it is located underground.
- (14) All solar energy systems shall comply with the following requirements:
 - a) Solar energy panels and solar shingles shall be designed and located in order to minimize reflective glare and/or heat towards any adjoining use and/or road.
 - b) All solar energy systems must be installed by a professional firm from a list of approved solar electric installers provided on the PA Sunshine Program website operated by the PA Department of Environmental Protection or from the North American Board of Certified Energy Practitioners.

- c) The design and installation of solar energy systems shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories, the American Society for Testing and Materials (ASTM), or other similar certifying organizations. The manufacturer specifications shall be submitted as part of the application.
- d) Solar energy systems shall not be used for displaying advertising except for reasonable identification of the manufacturer of the system. In no case shall such identification exceed 200 square inches.
- e) Upon residential properties, when a building is necessary for the storage of cells and/or equipment or components related to the solar energy system, the building must not exceed 400 square feet in area, must not exceed fifteen (15) feet in height and must comply with all applicable accessory use setbacks. Where no accessory use setbacks apply, principal use setbacks shall apply.
- f) All solar panels shall, to the extent feasible, be sited inconspicuously when viewed from adjacent street rights-of-way and be sited so that tree removal is not required.
- g) Stone storm water infiltration trenches or other best management practices shall be installed, that in the opinion of the Township Engineer, properly manage stormwater runoff from the solar panels in accordance with §185 of the Township Code and other requirements such as NPDES permitting if deemed applicable..
- h) The location of all solar panels shall comply with the following locational hierarchy. In order for an applicant to use a lower locational rank as listed below, he/she must demonstrate by credible evidence that the higher locational rank prevents the solar energy system from operating as designed, as certified in writing by the manufacturer or installer. An applicant's reluctance to remove potential obstructions such as vegetation shall not be considered sufficient cause for permitting panel installation on a lower locational rank:

Rank	Solar Panel Locational Hierarchy*
1	Rooftop or attached mounts facing opposite any front lot line(s)
2	Rooftop or attached mounts facing any side lot lines
3	Rooftop or attached mounts facing any front lot lines
4	Freestanding - located within the rear yard
5	Freestanding - located within the side yard
6	Freestanding - located within the front yard provided that the solar panel(s) is: <ul style="list-style-type: none"> • located within the C, A or R zone; • no less than 100 feet from each property line; and, • screened in accordance with §220-31.E(17)d) of this Chapter.
*Regardless of the preceding ranking system, freestanding solar panels located upon lots of five or more acres where such panels are located no closer than two hundred feet (200') from the nearest property line are permitted.	

- i) All owners of property upon which a solar energy system is installed shall maintain the solar energy system in a safe condition and good repair at all times. Whenever a solar energy system becomes structurally unsafe or endangers the safety of the structure or premise, or endangers the public safety, the Zoning Officer shall give written notice to the owner of the premises on which the solar energy system is located that such solar energy system shall be made safe or removed. The disposal of solar energy systems shall comply with all applicable Township, county, state, and federal regulations.
 - j) All owners of property upon which a solar energy system is installed shall be required, as a condition of the issuance of the building permit to acknowledge in writing to the Township that the issuance of a building permit for a solar energy system shall not and does not create in the property owner, its, his, her or their successors and assigns in title or, create in the property itself:
 - i. the right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or,
 - ii. the right to prohibit the development on, or growth of any trees or vegetation on, such property.
- (15) Roof-mounted solar energy systems shall also comply with the following requirements:
- a) Solar panels shall not extend horizontally beyond any portion of a roof's surfaces nor above the roof ridge at its highest point.
 - b) Solar panels on sloped roofs shall be affixed to roofs by solar panel standoffs as defined herein. Solar panel standoffs shall be used that raise the solar panel at least 3 inches above the surface of the roof and incorporate flashing of such design that does not violate any warranty (materials and workmanship) of the roof and is a minimum of at least 2.5 inches wide.
- (16) Ground-mounted solar energy systems shall also comply with the following requirements:
- a) The surface area of a ground-mounted solar energy system, regardless of the mounted angle of any solar panels, shall be considered part of and cumulatively calculated in the lot coverage of the lot on which the system is located. The surface area of a ground-mounted solar energy system shall not exceed three percent (3%) of maximum lot coverage of the lot.
 - b) Solar panels shall not be mounted on any pole or tower such that the closest point of the solar panel is less than three (3') foot above the grade directly below the solar panel. Vegetation beneath a ground mounted, free standing solar energy system shall be properly maintained at all times in accordance with §63 of the Township Code. Ground-mounted solar panels must have a fence.
 - c) In those instances when the solar energy system is proposed as a freestanding installation within the front yard, the applicant must provide vegetative screening to serve as a barrier to visibility and glare, in accordance with §220-44. of this Chapter. Prior to issuance of a building permit, a site plan showing the proposed arrangement, placement, species and size of all screen planting material shall be submitted for approval to the Zoning Officer.
- (17) The following provisions shall specifically apply to ground-mounted wind turbines:
- a) One ground-mounted wind turbine shall be permitted upon lots with a minimum of one (1) acre. Only one wind turbine shall be permitted per principal residential use.

- b) The minimum height of a ground-mounted wind turbine shall be such that there shall be maintained a minimum of fifteen (15) feet ground clearance, as measured between the ground surface and the tip of the blade at its closest point of the turning movement or any other feature of the turbine at its closest point to the ground.
- c) Ground mounted wind turbines shall be setback the following distances as measured from the center of the wind turbine base to the nearest point of the respective feature listed below:

Feature	Minimum setback
Occupied building on site	Turbine height plus ten feet
Above ground utility line right-of-way	Turbine height plus ten feet
Adjoining property	1.5 times turbine height
Adjoining street right-of-way or private street*	1.5 times turbine height
*This Section shall not be interpreted to permit the location of a wind turbine in the front yard if such structure is not permitted in the front yard within its respective Zone.	

- d) Ground mounted wind turbines and any supporting structure shall be enclosed by a six (6) foot fence with locking gate or the base of the wind turbine and any supporting structure shall not be climbable for a minimum height of twelve (12) feet. All access doors to wind turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.
- (18) The following provisions shall specifically apply to all wind turbines:
- a) The design and installation of all wind energy systems shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energies, the American Society for Testing and Materials (ASTM), or other similar certifying organizations, or as approved under an emerging technology program such as the California Energy Commission, International Electrotechnical Commission, or any other wind certification program recognized by the American Wind Energy Association (AWEA) or the U.S. Department of Energy. The manufacturer specifications shall be submitted as part of the application.
 - b) All wind turbines and wind energy systems shall be equipped with a redundant braking system, which shall include both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.
 - c) The applicant shall make reasonable efforts to minimize shadow flicker to adjoining properties.
 - d) No wind turbine shall cause ground vibrations perceptible beyond the property line of the site.
 - e) No wind turbine shall cause ice to be thrown or shredded beyond the property line of the site.

- f) No trees or landscaping required by Township Ordinance, or as otherwise required by the Board of Supervisors or Zoning Hearing Board as a condition of approval for any plan, application or permit may be removed to facilitate installation or operation of a wind turbine.
 - g) Prior to the issuance of a building permit for the installation of a wind energy system, the applicant shall provide the Zoning Officer with:
 - i. A site plan showing:
 - (a) Lot lines, structures and physical features of the subject and adjoining properties within two (2) times the total height of the turbine height as measured from the base of the turbine location.
 - (b) Location, dimensions, and types of existing structures on the property.
 - (c) Location of the proposed wind energy system tower, foundations, guy anchors, and associated equipment.
 - (d) The right-of-way of any public and private street abutting the property.
 - (e) Any overhead utility lines.
 - ii. Wind energy systems system specifications, including manufacturer and model, rotor diameter, tower height, and tower type—freestanding or guyed.
 - iii. Certification from a professional engineer registered by the Commonwealth of Pennsylvania that the tower has been designed and will be constructed in accordance with the current industry standards and applicable requirements of the Township Building Code. A copy of the foundation analysis shall also be provided.
 - iv. Confirmation that the public utility company has been informed of the customer's intent to install an interconnected customer-owned generator and also approval of such connection. Off-grid systems shall be exempt from this requirement.
 - h) The owner of the wind energy system shall be required to dismantle and remove the wind energy system, including all structures, facilities, appurtenances, etc., within sixty (60) days of the time when the wind energy system is no longer in use.
 - i) The owner of the wind energy system shall be required to maintain the wind energy system in a safe condition and good repair at all times. Whenever a wind energy system becomes structurally unsafe or endangers the safety of the structure or premise, or endangers the public safety, the Zoning Officer shall give written notice to the owner of the premises on which the wind energy system is located that such wind energy system shall be made safe or removed. The disposal of wind energy systems shall comply with all applicable Township, county, state, and federal regulations.
- (19) The following provisions shall specifically apply to geothermal systems:

- a) Only closed loop geothermal systems shall be permitted. Any anti-freeze fluid circulated through the pipes shall be a biodegradable mixture such as food grade propylene glycol.
- b) The vertical geothermal system well (or wells) installation will be made only by a Pennsylvania-licensed well driller;
- c) No geothermal system sub-surface loops and/or related geothermal boreholes shall be located closer than one hundred feet (100') from any existing or planned drinking water wells that serve one principal use, twenty-five feet (25') from any existing or planned on-lot sewage disposal systems or twenty feet (20') from any property lines and street rights-of-way;
- d) In addition to the preceding setbacks, each geothermal boreholes shall be setback no less than five hundred feet (500') from each public water well except that each geothermal borehole shall be setback no less than ½ mile from public water wells 3, F and M. as referenced in §220-27.D(2) of this Chapter and depicted on the Zoning Map. Any variance requested to the setbacks listed in this section shall require prior to approval a finding by the Zoning Hearing Board that, in addition to those required by §220-142.D.2., the design, installation and maintenance methods used for each borehole will prevent the contamination or loss of water to any public water wells or public water treatment facilities. The applicant must submit written credible expert evidence to support such a finding as part of the variance application.
- e) The vertical loop in a geothermal system well (or wells) shall be pressure-grouted bottom to top with a bentonite-based or cement-based material of 0.0000001 centimeter per second or lower permeability;
- f) The applicant shall maintain the geothermal system in a safe condition and good repair at all times. Whenever a geothermal system endangers the public safety, the Zoning Officer shall give written notice to the owner of the premises on which the geothermal system is located that such geothermal system shall be made safe or removed. The disposal of geothermal systems shall comply with all applicable Township, county, state, and federal regulations.
- g) With respect to each geothermal system well installation, the Pennsylvania-licensed well driller and/ or system installer shall provide to the Township, before activation of the system, copies of:
 - i. Accurate written records and a written geologic log;
 - ii. Accurate records with respect to grouting for each such well;
 - iii. Proposed plans and related documentation for each such system and geothermal well location showing the relation to property lines and street rights-of-way, existing or planned drinking water wells that serve one principal use within one hundred feet (100') feet, existing or planned on-lot sewage disposal systems that serve one principal use within twenty-five feet (25') and the distance to the closest public water wells or public water treatment facilities.
 - iv. Written documentation of the geothermal system testing and certification; and
 - v. A written "plan" for the operation of the geothermal system proposed by the

applicant and approved by the system installer which, among other matters, provides that:

- a. Any geothermal system leaks or releases will be reported by the applicant (and subsequent owner) to the Township Zoning Officer within twenty-four (24) hours of the discovery of same, and the applicant (and subsequent owner) covenants and agrees to take appropriate action to minimize any fluid release to the ground and to promptly repair any system leaks; and
- b. In the event of the proposed discontinuance of the use of the geothermal system, a system closure plan will be prepared and submitted to the Township for its approval by the landowner prior to the conveyance by the landowner of the land to any third party.

(20) Manure digester facilities are permitted as an accessory use to a principal agricultural use within the Agricultural zone subject to the following requirements.

- a) A manure digester facility shall provide power for use on-site except that a manure digester facility may serve more than one farm when operated as a community digester system. Excess electric power generated incidentally may be sold to a power utility with written authorization from the power utility. Interconnection and net metering shall be in accordance with the policies of the power utility.
- b) Manure (primary catalysts) and feedstock or other organic materials (secondary catalysts) to be used for the digestion or co-digestion process shall be stored in accordance with Pennsylvania Nutrient Management Program requirements, as may be amended.
- c) Manure digester facilities shall be designed and constructed in accordance with the Pennsylvania Department of Environmental Protection's Bureau of Water Quality Management guidelines for such systems, as may be amended. Evidence of applicable Federal and State regulatory agencies' written approvals shall be included with the building permit application.
- d) Manure digester facility structures shall be located in accordance with the special setback requirements of §220 Attachment 1 – Agricultural Zone Area and Design Requirements.
- e) Manure digester facilities, except for appurtenant electrical wiring, shall be located a minimum of 100 feet from existing potable water wells and surface waters, such as streams, springs, ponds, and lakes.
- f) Manure storage associated with a manure digester facility shall be sited and operated as required under an approved nutrient and odor management plan.
- g) The applicant for a manure digester facility permit shall provide the following information at the time of application for the zoning permit:
 - i. A sketch plan depicting the location of all structures, significant trees, existing potable water wells and surface waters, such as streams, springs, ponds, and lakes, within 100 feet of the proposed manure digester facility;

- ii. Information provided by the manufacturer of the manure digester facility including, but not limited to, the make and model, the manufacturer's design data, construction plans and installation instructions;
- iii. Documentation of the intent and proposed capacity of the digester system, including holding ponds, tanks, and/or pools;
- iv. The type and quantity of wastes and supplemental feedstock for which the digester is designed;
- v. Evidence that the use, handling, and disposal of materials will be accomplished in a manner that complies with State and Federal regulations.

h) Decommissioning

- i. The owner/operator shall submit a plan for shutdown of the manure digester facility when it becomes functionally obsolete or is no longer in use. The plan shall specify the dismantling and disposal of operational components and associated wastes.
- ii. The owner/operator shall notify the Township at least 30 days prior to cessation or abandonment of the operation.
- iii. The owner/operator shall ensure that all pits, tanks, and pipes are empty and clean by removing the liquids and accumulated sludge. Tanks shall be covered securely with lids or hatch covers after content removal.
- iv. Insulation, piping, and similar materials that cannot be re-used or recycled shall be disposed of in the appropriate manner consistent with Pennsylvania DEP's waste management program requirements.

(21) Within the (A, C and R) Zones, outdoor furnaces are permitted as an accessory use to a principal residence or an agricultural or horticultural use provided that the applicant has met his/her burden of proof that the proposed use meets all applicable regulations contained within §79 of the Code and the following specific criteria:

- a) Outdoor furnaces which utilize any fuel or combustible material other than wood, natural gas, kerosene, propane, domestic heating oil, or electricity are prohibited. For the purposes of this definition wood fuel shall only include all wood intended to be used as fuel, including but not limited to trees, cordwood, logs, lumber, sawdust, and wood from manufacturing processes (butt offs, shavings, turnings, sander dust) wood pellets, slabs, bark, chips, and waste pallets. Wood fuel does not include materials chemically treated with any preservative, paint, or oil. The use of lighter fluids, gasoline and chemicals to start combustion within an outdoor furnace are expressly prohibited
- b) The installation and use of Phase 2 outdoor furnaces is permitted subject to the following criteria:
 - i. No outdoor furnace shall be located upon a property that has a minimum lot area of less than one (1) acre.
 - ii. No more than one (1) outdoor furnace shall be permitted per principal use.
 - iii. No outdoor furnace shall be located within the front yard.

- iv. No outdoor furnace shall be located within two hundred feet (200') of any front lot line, one-hundred feet (100') of any side or rear property line or the closest principal use located on the subject property or five hundred feet (500') from:
 - a. any land within the (R-1, R-2, R-3, MHP, VO and MR) Zones;
 - b. the nearest property line of any existing residence;
 - c. The nearest property line of any approved lot which has been subdivided during the last five (5) years for residential purposes, which has not yet been constructed; and,
 - d. The nearest property line of any lot proposed for residential purposes for which has been submitted a plan for preliminary or final subdivision approval.
 - v. Outdoor furnace shall only be operated between September 15 and May 15 of each calendar year.
 - vi. Except for limitations and requirements that may impose greater restriction as listed in this Section, the operation, location and fuels to be used within an outdoor furnace shall comply with the applicable manufacturer's specifications. A copy of the manufacturer's specifications shall be submitted to the Zoning Officer at the time of building permit application.
- c) Should an applicant design and construct his/her own outdoor furnace without manufacturer specifications, the applicant shall be required to obtain a special exception in accordance with all applicable regulations contained within this Code including but not limited to those general criteria contained within §220-142.C.(2) and the following specific criteria:
- i. The applicant must submit written evidence demonstrating that the unit has been certified by the United States Environmental Protection Agency as meeting a particulate matter emission limit of 0.32 pounds per million British Thermal Units (BTUs) of output.
 - ii. The proposed use meets all applicable regulations contained within this §220-31.E. of the Code.
 - iii. The applicant must present qualified expert evidence that his/her outdoor furnace is suitable and safe for the use of that fuel to be consumed as limited by §220-31.E.(21)a) of the Code.
 - iv. Then, if approved, the fuel to be used within the outdoor furnace shall be limited to those that the Zoning Hearing Board determines can be safely consumed.
- d) For the purposes of this section the term "elevation" shall mean the specified vertical distance measured in relation to the National Geodetic Vertical Datum of 1929 (NGVD). At all times a completely enclosed exhaust chimney from an outdoor furnace shall extend to its emissions release point at an elevation equal to no less than two (2) feet higher than the highest elevation of the principal building that the unit serves and any other principal use located with three hundred feet (300') of the outdoor furnace release point. Notwithstanding the foregoing, in no event shall the exhaust chimney height for any outdoor furnace be less than the manufacturer's guidelines, or for outdoor furnaces that are

designed and built without manufacturer specifications, the height as suggested by qualified expert evidence that will enable suitable and safe operation and emissions. Any exhaust chimney exceeding thirty-five feet in height shall comply with §220-34. of this Chapter.

- e) The design and use of an outdoor furnace must be such that no exterior surface of the outdoor furnace or its exposed above ground appurtenances shall at any time exceed a temperature of 120 degrees Fahrenheit.
- f) All components used to convey heat between the outdoor furnace and the principal use building must be located within the outdoor furnace enclosure, buried underground and contained within the enclosed principal use building. No exposed conveyances shall be permitted between the outdoor furnace and the principal use building.
- g) All outdoor furnaces shall be equipped with a properly functioning spark arrestor.
- h) The applicant is required to submit written information indicating that the disposal of all materials and wastes will be accomplished in a manner that complies with State and Federal regulations. Such evidence shall, at a minimum include, copies of contracts with waste haulers licensed to operate within Lancaster County, which have been contracted to dispose of the materials and wastes used, or generated, on-site or some other legal means of disposal. The building permit for the outdoor furnace shall remain valid, only so long as such contracts remain in effect and all materials and wastes are properly disposed of on a regular basis. Should the method of waste disposal change in the future, the owner of the outdoor furnace shall so inform the Zoning Officer, and shall provide additional evidence demonstrating continued compliance with the requirements of this Section.
- i. Any outdoor furnace or other wood-fired heating or energy source device installed and in use prior to the effective date of this Ordinance shall be permitted to remain in its present location and continue to be used provided the owner shall register the device with the Township Zoning Officer within 60 days of the effective date of this Ordinance. Registration shall not be complete unless all information requested in the registration form has been timely provided. No fee shall be imposed for the registration of such device. The use of any such device not so registered shall be discontinued and the device shall be promptly removed from the property.
- ii. Upon the expiration of the useful life of such device, but in no event later than 30 years from the effective date of this Ordinance, the use of such device shall be discontinued and the device shall be removed from the property; provided, nothing herein shall be construed to prohibit the installation or use of an outdoor furnace which fully complies with the provisions of the Code, any amendments thereto, and with all applicable local, state or federal laws or regulations.

SECTION 3. §220-23.C. is added to as follows:

- (12) Power generation facilities (see §220-129.2.).
- (13) Wind and/or solar farms (see §220-129.3.).

SECTION 4. A new §220-129.2. is added as follows:

§ 220-129.2. Power generation facilities.

Within the (I-1) Zone, power generation facilities as a principal use are permitted by special exception, subject to the following criteria:

- A. All power generation facilities that rely upon “municipal and residual wastes,” as defined by the PA DEP, shall be operated by the Lancaster County Solid Waste Management Authority;
- B. Any processing and/or treatment of materials (including but not limited to incineration, composting, steaming, shredding, compaction, material separation, refuse derived fuel, pyrolysis, etc.) shall be conducted within a wholly-enclosed building;
- C. No materials or waste shall be deposited, stored or disposed of, and no building or structure shall be located, within two hundred feet (200') of any property line, and five hundred feet (500') of any adjoining land within the (R-1, R-2, R-3, MHP, VO and MR) Zones;
- D. Any external area used for the unloading, transfer, storage, or deposition of material or waste must be completely screened from view at the property line. (The use of an earthen berm is encouraged where practicable.) In addition, such areas must also be completely enclosed by a minimum eight foot (8') high fence, with no openings greater than two inches (2") in any direction;
- E. The applicant must demonstrate compliance (through a written statement) and continue to comply with all applicable State and Federal standards and regulations;
- F. The use shall be screened from all adjoining land within the (R-1, R-2, R-3, MHP, VO and MR) Zones;
- G. All uses shall provide sufficiently-long stacking lanes into the facility, so that waiting vehicles will not back-up onto public roads;
- H. All access drives onto the site shall be paved for a distance of at least two hundred feet (200') from the street right-of-way line. In addition, if portions of on-site access drives are unpaved, then a fifty foot (50') long gravel section of driveway shall be placed just beyond the preceding two hundred foot (200') paved section to help collect any mud that may have attached to a vehicle's wheels;
- I. Access to the site shall be limited to those posted times when an attendant is on duty. All areas of the site shall be protected by locked barricades, fences, gates or other positive means designed to deny access to the area at unauthorized times or locations;
- J. The unloading, processing, treatment, transfer, and disposal of material/waste shall be continuously supervised by a qualified facility operator;
- K. Any waste that is to be recycled shall be stored in leak- and vector-proof containers. Such containers shall be designed to prevent their being carried by wind or water. These containers shall be stored within a completely-enclosed building;
- L. All storage of material or waste shall be indoors in a manner that is leak- and vector- proof. During normal operation, no more waste shall be stored on the property than is needed to keep the facility in constant operation; but, in no event for more than seventy-two (72) hours;
- M. A contingency plan for the disposal of waste during a facility shutdown, shall be submitted to the Township;
- N. All structures shall be set back at least a distance equal to their height;
- O. The applicant shall submit an analysis of raw water needs (groundwater or surface water) from either private or public sources, indicating quantity of water required. If the source is from a

municipal system, the applicant shall submit documentation that the public authority will supply the water needed.

- P. If the facility is to rely upon non-public sources of water, a water feasibility study will be provided to enable the municipality to evaluate the impact of the proposed development on the groundwater supply and on existing wells. The purpose of the study will be to determine if there is an adequate supply of water for the proposed development and to estimate the impact of the new development on existing wells in the vicinity. No use shall be approved without sufficient water and/or for a use that poses adverse impact on existing wells in the vicinity. A water feasibility study shall include the following minimum information:
- (1) calculations of the projected water needs;
 - (2) a geologic map of the area with a radius of at least one mile from the site;
 - (3) the location of all existing and proposed wells within one thousand feet (1,000') of the site, with a notation of the capacity of all high-yield wells;
 - (4) the location of all existing on-lot sewage disposal systems within one thousand feet (1,000') of the site;
 - (5) the location of all streams within one thousand feet (1,000') of the site and all known point sources of pollution;
 - (6) based on the geologic formation(s) underlying the site, the long-term safe yield shall be determined;
 - (7) a determination of the effects of the proposed water supply system on the quantity and quality of water in nearby wells, streams, and the groundwater table; and,
 - (8) a statement of the qualifications and the signature(s) of the person(s) preparing the study;
- Q. The applicant shall provide a qualified traffic impact report in accordance with §220-50 of this Chapter;
- R. The applicant shall furnish expert testimony regarding emergency preparedness measures provided and/or otherwise available to respond to potential hazards regarding the spill of fuel, waste or materials during transport to and from the site, and potential hazards regarding Township fire fighting of fuel, waste or materials upon the site.
- S. Power generation systems may be erected as detached structures or attached to a building provided that the structural components of such systems (along with other site improvements) do not exceed the maximum permitted lot coverage requirements of the (I-1) Zone.
- T. Power generation systems may be erected as detached structures or attached to a building provided that the structural components of such systems comply with all applicable setbacks of the (I-1) Zone.
- U. The following provisions shall specifically apply to geothermal systems:
- (1) Only closed loop geothermal systems shall be permitted. Any anti-freeze fluid circulated through the pipes shall be a biodegradable mixture such as food grade propylene glycol
 - (2) Prior to installation, all installation specifications and drawings for the geothermal system must be certified by a registered engineer within the Commonwealth of PA as conforming to the installation standards of the International Ground Source Heat Pump Association (IGSHPA), the American Society for Testing and Materials (ASTM), the Air-Conditioning and Refrigeration Institute (ARI), or other similar certifying organizations. The manufacturer specifications shall be submitted as part of the application;

- (3) The vertical geothermal system well (or wells) installation will be made only by a Pennsylvania-licensed well driller;
- (4) No geothermal system sub-surface loops and/or related geothermal boreholes will be located closer than one hundred feet (100') from any existing or planned drinking water wells, twenty-five feet (25') from any existing or planned on-lot sewage disposal systems or twenty feet (20') from any and any property lines;
- (5) In addition to the preceding setbacks, each geothermal boreholes shall be setback no less than five hundred feet (500') from each public water well except that each geothermal borehole shall be setback no less than $\frac{1}{2}$ mile from public water wells 3, F and M. as referenced in §220-27.D(2) of this Chapter and depicted on the Zoning Map. Any variance requested to the setbacks listed in this section shall require prior to approval a finding by the Zoning Hearing Board that, in addition to those required by §220-142.D.2., the design, installation and maintenance methods used for each borehole will prevent the contamination or loss of water to any public water wells or public water treatment facilities. The applicant must submit written credible expert evidence to support such a finding as part of the variance application.
- (6) The vertical loop in a geothermal system well (or wells) shall be pressure-grouted bottom to top with a bentonite-based or cement-based material of 0.0000001 centimeter per second or lower permeability;
- (7) The applicant shall maintain the geothermal system in a safe condition and good repair at all times. Whenever a geothermal system endangers the public safety, the Zoning Officer shall give written notice to the owner of the premises on which the geothermal system is located that such geothermal system shall be made safe or removed. The disposal of geothermal systems shall comply with all applicable Township, county, state, and federal regulations;
- (8) With respect to each geothermal system well installation, the Pennsylvania-licensed well driller and/ or system installer shall provide to the Township, before activation of the system copies of:
 - (a) Accurate written records and a written geologic log;
 - (b) Accurate records with respect to grouting for each such well;
 - (c) Proposed plans and related documentation for each such system and geothermal well location showing the relation to property lines and street rights-of-way, existing or planned drinking water wells that serve one principal use within one hundred feet (100') feet, existing or planned on-lot sewage disposal systems that serve one principal use within twenty-five feet (25') and the distance to the closest public water wells or public water treatment facilities;
 - (d) Written documentation of the geothermal system testing and certification; and
 - (e) A written "plan" for the operation of the geothermal system proposed by the applicant and approved by the system installer which, among other matters, provides that:
 - i. Any geothermal system leaks or releases will be reported by the applicant (and subsequent owner) to the Township Zoning Officer within twenty-four (24) hours of the discovery of same, and the applicant (and subsequent owner) covenants and agrees to take appropriate action to minimize any fluid release to the ground and to promptly repair any system leaks; and

- ii. In the event of the proposed discontinuance of the use of the geothermal system, a system closure plan will be prepared and submitted to the Township for its approval by the landowner prior to the conveyance by the landowner of the land to any third party.
- (9) In the event of the proposed discontinuance of the use of the geothermal system, a system closure plan will be prepared and submitted to the Township for its approval by the landowner prior to the conveyance by the landowner of the land to any third party.
- V. Above-ground power generation systems shall be clear-coated, transparent, and/or be designed with a non-obtrusive color such as white, off-white or gray with flat finishes. All such facilities shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety.
- W. On-site electrical transmission and power lines connected to or associated with the energy system that are not contained within a building shall be located underground.
- X. Clearly visible warning signs concerning voltage must be placed at the base of all above-ground transformers and substations. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten (10) feet from the ground.
- Y. The applicant shall provide written evidence that the proposed power generation system shall comply with the noise standards listed in §220-48.A. of this Chapter. A manufacturer's certificate of specification may be used to demonstrate compliance with this standard.
- Z. The applicant shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television or similar signals, and shall mitigate any harm caused by the power generation system.
- AA. The applicant shall provide written evidence from the Township Fire Official that the proposed use can be adequately protected and that, if necessary, a suitable emergency response plan has been implemented to serve the proposed use.
- BB. The design and installation of the power generation system shall conform to applicable industry standards, including those of the American National Standards Institute and the Uniform Construction Code and be subject to all applicable permit requirements thereof as well as all other applicable laws, codes and regulations.
- CC. In addition to those materials required in §220-148.B. of this Chapter for a building permit, applicants for power generation facilities shall be required to submit:
 - (1) a narrative describing the system and its principal components including, but not limited to related ancillary facilities;
 - (2) information about its potential energy generating capacity and anticipated generation; and,
 - (3) a site plan depicting the system and its principal components including, but not limited to related ancillary facilities as they relate to property lines, required setbacks, adjoining roads, utility rights-of-way and lines, and on-site buildings and structures. Such information shall be depicted upon the site plan even if it is located underground.
- DD. The applicant shall submit a written plan for the removal of the power generation system once it is no longer operational in accordance with the following:
 - (1) The applicant / owner shall, at its expense, complete decommissioning of the power generation system within (12) twelve months after the end of the useful life of the system. The system will presume to be at the end of its useful life if no energy is generated for a continuous period of twelve (12) months.

- (2) The removal of the above-ground power generation system components shall be completed within twelve (12) months of decommissioning of the system. All disturbed earth shall be re-stored, graded and re-seeded unless a building permit has been issued for another use to take its place.
- (3) The landowner or facility operator shall post and maintain decommissioning funds in an amount equal to decommissioning costs. The decommissioning funds shall be posted and maintained with a bonding company or a lending institution approved by the Township.
- (4) An independent and certified professional engineer may be retained by the Township to inspect the decommissioning of the power generation system. All such inspection fees shall be paid by the landowner.
- (5) Decommissioning funds may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable by the Township.
- (6) If the applicant / owner fails to complete decommissioning during the prescribed period of twelve (12) months, the Township may take such measures as necessary to complete decommissioning in accordance with the laws of the Township and the Commonwealth of Pennsylvania.
- (7) The Township may release the decommissioning funds when the landowner or facility operator has satisfactorily demonstrated compliance with the removal plan.
- (8) The applicant shall, at all times, maintain on file with the Township Zoning Officer, the current name and contact information of the party responsible for the operation and maintenance of the power generation system.

SECTION 5. A new §220-12.C.(20) is added as follows:

- (20) Wind and/or solar farms (see §220-129.3.).

SECTION 6. A new §220-13.C.(18) is added as follows:

- (18) Wind farms (see §220-129.3.).

SECTION 7. A new §220-129.3. is added as follows:

§220-129.3. Wind and/or solar farms

Within the (A and I-1) Zones, wind and/or solar farms are permitted by special exception and within the (C) Zone, wind farms are permitted by special exception, all subject to the following specific criteria:

- A. The applicant shall prepare and submit a narrative and mapping describing the proposed wind and/or solar farm, including:
 - (1) an overview of the project;
 - (2) the project location;
 - (3) the approximate generating capacity of the wind and/or solar farm;

- (4) the approximate number, representative types and height or range of heights of wind turbines, solar panels and/or solar shingles to be constructed, including their generating capacity, dimensions and respective manufacturers;
- (5) wind turbine system specifications, including manufacturer and model, rotor diameter, tower height, and tower type—freestanding or guyed;
- (6) a completed glare study ensuring that reflective glare is not directed towards nor upon any adjacent properties as well as any adjacent street rights-of-way. The glare study shall include analyses sufficient to demonstrate:
 - (a) the angle of the solar collector system panels, arrays, cells, shingles, etc. at the location;
 - (b) a diagram showing the maximum and minimum angles of reflective glare from the solar collector system panels, arrays, cells, shingles, etc. at the location and the relationship of that glare to adjacent properties, structures and rights-of-way; and,
 - (c) a mitigation plan that limits or eliminates reflective glare on adjacent properties, structures, and rights-of-way.
- (7) a description of accessory facilities;
- (8) an affidavit or similar evidence of agreement between the property owner(s) and the applicant demonstrating that the applicant has the permission of the property owner(s) to apply for necessary permits for construction and operation of the wind and/or solar farm;
- (9) a listing and map of the properties on which the proposed wind and solar farm will be located, and the properties adjacent to where the wind and/or solar farm will be located; and,
- (10) a site plan showing the planned location of each wind turbine and/or solar panel, property lines, setback lines, access road and turnout locations, substation(s), electrical cabling from the wind and/or solar farm to the substation(s), ancillary equipment, buildings, and structures, including permanent meteorological towers, associated transmission lines, towers and foundations, guy wires, and layout of all structures within the geographical boundaries of any applicable setback.

B. The applicant shall demonstrate with credible expert evidence that:

- (1) to the extent applicable, the wind and/or solar farm shall comply with the Pennsylvania Uniform Construction Code, 34 Pa. Code §§403.1 – 403.142 and the Township Building Code;
- (2) the design of the wind and/or solar farm shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energies, the American Society for Testing and Materials (ASTM), or other similar certifying organizations, or as approved under an emerging technology program such as the California Energy Commission, International Electrotechnical Commission, or any other wind certification program recognized by the American Wind Energy Association (AWEA) or the U.S. Department of Energy. The Applicant shall submit certificates of design compliance obtained by the equipment manufacturers;

- (3) the public utility company has been informed of the applicant's intent to install an interconnected generator and also approval of such connection. Off-grid systems shall be exempt from this requirement;
- (4) each of the proposed wind turbines shall be equipped with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection;
- (5) all electrical components of the wind and/or solar farm shall conform to relevant and applicable local, state and national codes, and relevant and applicable international standards;
- (6) wind turbines shall be a non-obtrusive color such as white, off-white, gray or some color similar to the background of the proposed wind turbine and have a flat finish;
- (7) wind turbines shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety;
- (8) wind turbines shall not be installed in any location where they would interfere with existing fixed broadcast, re-transmission, or reception antennas. This includes interference with residential radio, television, or wireless phone, or other personal communication system reception. No wind turbine shall be installed in any location along the major axis of an existing microwave communication link where its operation is likely to produce electromagnetic interference in the link's operation;
- (9) wind turbines and any supporting structure shall be enclosed by a six (6) foot fence with locking gate or the base of the wind turbine and any supporting structure shall not be climbable for a minimum height of twelve (12) feet. All access doors to wind turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons;
- (10) wind turbines shall be located and designed to minimize shadow flicker to adjoining properties;
- (11) wind turbines shall not cause ground vibrations perceptible beyond the property line of the site;
- (12) wind turbines shall not cause ice to be thrown or shredded beyond the property line of the site;
- (13) wind turbines and/or solar panels shall not display advertising, other than an incidental insignia of the turbine/panel manufacturer. In no case shall such identification exceed 200 square inches per panel or turbine;
- (14) on-site transmission and power lines between wind turbines and/or solar panels shall, to the maximum extent practicable, be placed underground;
- (15) a clearly visible warning sign concerning voltage must be placed at the base of all at-grade transformers and substations.
- (16) visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of each guy wire and along each guy wire up to a height of ten feet from the ground. The applicant shall also submit a working plan for the regular inspection of such guy wires and replacement of any needed flags, reflectors, or tape;

- (17) wind turbines and/or solar panels shall be designed and constructed to be non-climbable up to fifteen (15) feet above ground surface.
- (18) all access doors to wind turbines and/or solar panels and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.
- (19) wind turbines shall be setback the following distances as measured from the center of the wind turbine base to the nearest point of the respective feature listed below:

Feature	Minimum setback
Occupied building on site	Turbine height plus ten feet
Above ground utility line right-of-way	Turbine height plus ten feet
Adjoining property	1.5 times turbine height
Adjoining road right-of-way	1.5 times turbine height

- (20) the minimum height of a wind turbine shall be such that there shall be maintained a minimum of fifteen (15) feet ground clearance, as measured between the closest ground surface to the tip of the blade at its lowest turning movement or any other feature of the turbine at its closest point to the ground.
- (21) the maximum height of a wind turbine shall be fifty (50) feet, as measured from the ground surface to the tip of the blade at its highest turning movement or the highest point of any feature of the turbine at its maximum height, whichever is the highest point.
- (22) solar energy panels and/or shingles shall be designed and located in order to minimize reflective glare and/or heat towards any adjoining use and/or road.
- (23) the applicant shall be responsible for the prompt repair and maintenance of all roads used to transport equipment and parts for construction, operation or maintenance of the wind and/or solar farm. The applicant shall prepare an engineering report that documents road conditions prior to construction and again within thirty (30) days after construction is complete or as weather permits. Such reports shall be reviewed by the Township engineer; any discrepancies shall be mediated by a third engineer selected by mutual acceptance by the applicant's and Township's engineers. The applicant shall demonstrate that it has appropriate financial assurance to ensure the prompt repair of damaged roads and the Township may bond the road in compliance with state regulations.
- (24) the applicant shall provide a copy of the project summary and site plan as required in §220.129.3.A. of this Chapter to the Township Fire Official. The applicant shall prepare and coordinate the implementation of an emergency response plan for the wind and/or solar farm acceptable to the Township Fire Official.
- (25) within the (A) Zone, the location of any ground mounted solar energy system and/or ground mounted wind energy system is not situated upon Class 1 or 2 prime agricultural soils according to the latest USDA soil survey for Lancaster County, PA.

- C. Audible sound from a wind and/or solar farm shall comply with the noise standards listed in §220-48.A. of this Chapter. A manufacturer's certificate of specification may be used to demonstrate compliance with this standard.
- D. The surface area of a ground-mounted solar energy system, regardless of the mounted angle of any solar panels, shall be considered part of and calculated in the lot coverage of the lot on which the system is located. The surface area of a ground-mounted solar energy system and/or a ground mounted wind energy system shall not exceed thirty percent (30%) of maximum lot coverage of the lot. For panels that self-adjust, the lot coverage of each solar panel shall be calculated at that angle with the greatest horizontal exposure.
- E. The applicant shall make reasonable efforts to minimize shadow flicker and to avoid any disruption or loss of radio, telephone, television or similar signals. The applicant shall mitigate any such harm caused by the wind and/or solar farm on any adjoining property.
- F. The applicant shall maintain a current general liability policy covering bodily injury and property damage with limits of at least \$2 million per occurrence and \$2 million in the aggregate. Certificates of insurance coverage shall be made available to the Township each year that the wind and/or solar farm operates.
- G. All owners of a wind and/or solar farm shall maintain the facility in a safe condition and good repair at all times. Whenever any system becomes structurally unsafe or endangers the safety of the structure or premise, or endangers the public safety, the Zoning Officer shall give written notice to the owner of the premises on which the system is located that such system shall be made safe or removed. The disposal of such systems shall comply with all applicable Township, county, state, and federal regulations.
- H. The applicant shall be responsible for the decommissioning of the wind and/or solar farm in accordance with the following requirements:
 - (1) The applicant shall, at his/her expense, complete decommissioning of the wind and/or solar farm, or individual wind turbines, within (12) twelve months after the end of the useful life of the wind and/or solar farm or individual wind turbines or solar panels. The wind and/or solar farm or individual wind turbines or solar panels will presume to be at the end of its useful life if no electricity is generated for a continuous period of twelve (12) months.
 - (2) Decommissioning shall include removal of wind turbines and solar panels, buildings, cabling, electrical components, roads, foundations to a depth of 36 inches, and any other associated facilities.
 - (3) Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
 - (4) An independent and certified Professional Engineer shall be retained to estimate the total cost of decommissioning ("Decommissioning Costs") without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment ("Net Decommissioning Costs"). Said estimates shall be submitted to the Township after the first year of operation and every fifth year thereafter at the applicant's and/or any successor's expense.
 - (5) The applicant shall post and maintain decommissioning funds in an amount equal to net decommissioning costs; provided. The decommissioning funds shall be posted and maintained with a bonding company or Federal or Commonwealth chartered lending institution chosen by the Facility Owner or Operator and participating landowner posting the financial security, provided that the bonding company or lending institution

is authorized to conduct such business within the Commonwealth and is approved by the Township.

- (6) Decommissioning funds may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable to the Township.
- (7) If the applicant fails to complete decommissioning within the period prescribed by §220-129.3.H.(1) of this Chapter, then the landowner shall have six (6) months to complete decommissioning.
- (8) If neither the applicant, nor the landowner complete decommissioning within the periods prescribed by §220-129.3.G.(1) or §220-129.3.G.(7) of this Chapter, then the Township may take such measures as necessary to complete decommissioning. The entry into and submission of evidence of a participating landowner agreement to the Township in accordance with §220-129.3.A.(8) of this Chapter shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning plan.
- (9) The escrow agent shall release the decommissioning funds when the applicant has demonstrated and the municipality concurs that decommissioning has been satisfactorily completed, or upon written approval of the municipality in order to implement the decommissioning plan.
- I. The applicant shall be required to submit written verification that the Township Fire Official has reviewed the proposed plans and the proposed solar farm shall be arranged to provide for fire lanes at acceptable intervals and of sufficient width to ensure adequate fire protection.
- J. All owners of property upon which a wind and/or solar farm is installed shall be required to acknowledge in writing to the Township that the approval of the wind and/or solar farm shall not and does not create in the property owner, its, his, her or their successors and assigns in title or, create in the property itself:
 - (1) the right to remain free of shadows and/or obstructions to solar or wind energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or,
 - (2) the right to prohibit the development on, or growth of any trees or vegetation on, such property.

SECTION 8. Section 220-29 is deleted in its entirety and replaced with the following:

§220-29 Riparian Buffer Overlay Zone (RB)

220-29.A. PURPOSE

- (1) In order for Pennsylvania to meet the goals of the Chesapeake Bay Total Maximum Daily Load (TMDL), communities located within this drainage area will need to implement Best Management Practices (BMPs) to address point and non-point pollution sources; riparian buffers are one of the BMPs that will help the region meets these goals;
- (2) The PA Department of Environmental Protection (DEP) is moving forward with the implementation of the Pennsylvania Chesapeake Watershed Implementation Plan which outlines the Commonwealth's approach to meeting goals for reductions in the

amount of sediments and nutrients such as nitrogen and phosphorus established in the Chesapeake Bay TMDL;

- (3) Local streams contribute to the Susquehanna River drainage area and the Chesapeake Bay as well as the Cocalico Creek and Conestoga River which serve as sources for local drinking water systems;
- (4) The DEP is currently developing total maximum daily load (TMDL) regulations which may result in more stringent regulations to prevent further increased sediment and nutrient loadings to our waterways;
- (5) These signs point to the need for a more coordinated effort at the local municipal level to protect our streams and waterways;
- (6) If local measures such as riparian buffers are not evaluated and implemented to reduce loadings to our streams, the community's healthy economy and environmental well-being could be permanently threatened;
- (7) East Cocalico Township has evaluated and taken the opportunity to pursue the following riparian buffer measures that will help to ensure the future health of valuable water resources. The implementation of riparian buffers is an important step in cooperative water management efforts that will help to:
 - (a) Create, preserve and/or restore wooded buffers along important watercourses and surface water bodies upon the Township's landscape;
 - (b) promote beneficial vegetation to reduce harmful erosion;
 - (c) reduce the amount of nutrients, sediment, organic matter, pesticides, and other harmful substances that reach watercourses, wetlands, subsurface, and surface water bodies by using scientifically-proven processes including filtration, deposition, absorption, plant uptake, and de-nitrification, and by stabilizing concentrated flows;
 - (d) improve and maintain the safety, reliability, and adequacy of the water supply for domestic, agricultural, commercial, industrial, and recreational uses along with sustaining diverse populations of aquatic plants and animals;
 - (e) offer year-round nourishment and habitat for animal wildlife both with and adjoining the water feature;
 - (f) reduce surface water temperature;
 - (g) offer interconnected linear paths for habitat migration and close-to-home passive open spaces amid the developing landscape;
 - (h) regulate land use, siting, and engineering to be consistent with accepted conservation practices;
 - (i) ensure that land use impacts are within the carrying capacity of existing natural resources;
 - (j) work with floodplain, steep slope, wetland and other municipal ordinances that regulate environmentally sensitive areas to minimize hazards to life, property, and important riparian features; and,
 - (k) assist in the implementation of pertinent state laws concerning erosion and sediment control practices, specifically Erosion Control, of the Pennsylvania Clean Streams Law, Act 394, P.L. 1987, Chapter 102 of the Administrative Code (as amended October 10, 1980 Act 157 P.L.), Title 25, and any subsequent

amendments thereto, as administered by the Pennsylvania Department of Environment Protection and the Lancaster County Conservation District.

220-29.B. LEGISLATIVE INTENT

- (1) Under the authority of Chapter I, Section 27 of the Pennsylvania Constitution, Act 247, the Municipalities Planning Code, as amended, other Commonwealth and federal statutes, and in recognition of the fact that natural features contribute to the welfare of its residents, these riparian buffer regulations have been enacted to provide reasonable controls governing the restoration, conservation, disturbance, and management of existing riparian corridors.
- (2) East Cocalico Township's adoption of these regulations **does not** grant public access to private property. Any grant of public access remains the prerogative of each individual property owner.
- (3) Riparian buffer management and protection remains the sole responsibility of each individual property owner.
- (4) In some cases, developers and/or landowners can agree to provide for public access across riparian buffers subject to Township approval. Similarly, riparian buffer management and protection can be delegated to someone or some agency other than the landowner or developer, subject to Township approval in accordance with Section 194-46 of Chapter 194, Subdivision and Land Development.

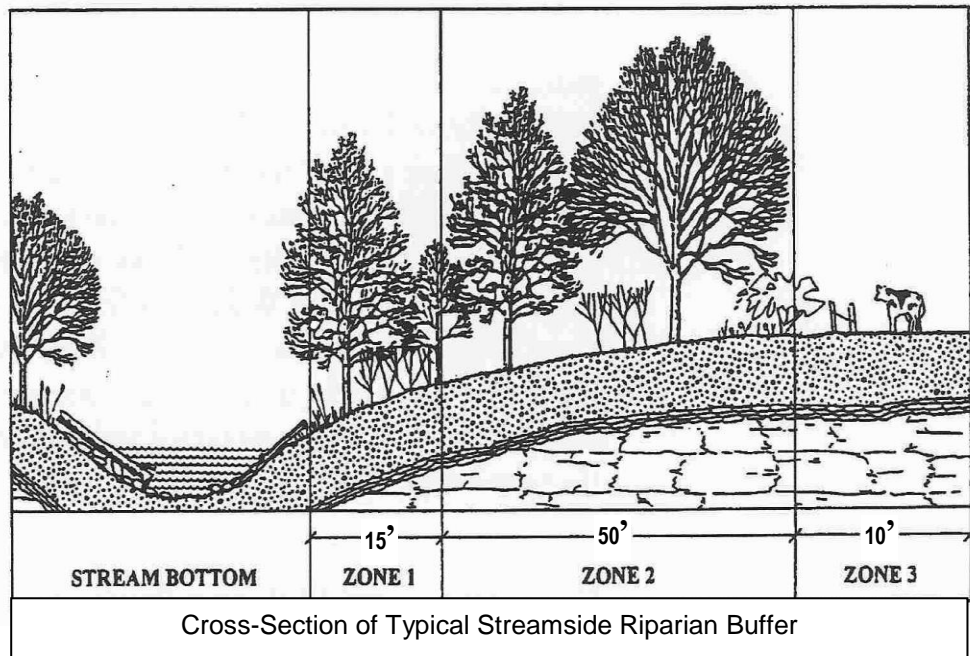
220-29.C. APPLICABILITY

- (1) Uses that require subdivision and/or land development approval upon any property adjoining an unenclosed watercourse that has been previously inventoried within the Township as depicted on the East Cocalico Township Historic and Riparian Buffer Overlay Zones Map, or are within and/or are characterized by those conditions listed in Section 220-29.D(1) of this Chapter shall provide a riparian buffer in accordance with the following standards.
- (2) Principal uses that do not require subdivision and/or land development approval, but require zoning permit approval upon any property adjoining, or within seventy-five feet (75') of an unenclosed watercourse that has been previously inventoried within the Township as depicted on the East Cocalico Township Historic and Riparian Buffer Overlay Zones Map shall provide a riparian buffer in accordance with the following standards to the extent that such riparian buffer can be accomplished upon areas of the subject property that had been free of structural improvement prior to that contemplated by the new zoning permit and to the extent that, in the opinion of the Township Engineer, is reasonably related to the proposed improvement of the subject property.
- (3) Accessory uses that do not require subdivision and/or land development approval, but require zoning permit approval upon any property adjoining, or within seventy-five feet (75') of an unenclosed watercourse that has been previously inventoried within the Township as depicted on the East Cocalico Township Historic and Riparian Buffer Overlay Zones Map shall provide a riparian buffer in accordance with the following standards to the extent that the proposed accessory use can provide some setback from the streambank edge that is consistent with other similar accessory uses on adjoining properties. If no similar accessory uses are located on adjoining properties then the applicant must provide for the required 75-foot setback. Accessory uses are not required to plant new vegetation under §220-29.F. of this Chapter but must maintain and/or improve any existing vegetation that could meet the objectives of this Section.

- (4) It is noted that landowners are encouraged to review the manual entitled "Riparian Forest Buffer Guidance" published by the Pennsylvania Department of Environmental Protection, Bureau of Watershed Management.

220-29.D. RIPARIAN BUFFER DELINEATION

- (1) Except as noted in §220-29.D.2. of this Chapter, the applicant shall provide and clearly depict upon a site plan the proposed riparian buffer comprised of the following three separate Zones:



- (a) Zone 1: The landward area located between the streambank edge under typical flow conditions, or the high water level for pond or lake shorelines and fifteen feet (15'), as measured directly perpendicular from the streambank/shoreline edge.
- (b) Zone 2: The area beginning at the inland edge of the above-described Zone 1 and the largest combined width of all of the following:
- Fifty feet (50'), as measured directly perpendicular from the streambank edge;
 - the 100-year floodplain;
 - any adjoining identified wetlands; and/or,
 - any adjoining area characterized by slopes exceeding twenty-five percent (25%).
- (c) Zone 3: The area beginning at the inland edge of the above-described Zone 2 and extending at least ten feet (10') inland therefrom. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required.
- (2) As an alternative to the buffer required in the above Section 220-29.D.(1) where unique site conditions or design constraints exist, the applicant shall provide and clearly depict

upon a site plan the proposed riparian buffer along with written verification from a qualified expert that the proposed riparian buffer design adheres to the objectives of this Section to the maximum practicable extent. The Township may at its sole discretion may accept this proposed alternative if it determines after receiving input and recommendations from the Township Engineer, that the alternate design equally satisfies the objectives for such buffer at the proposed location as described in §220-29.A of this Chapter.

220-29.E. RIPARIAN BUFFER USE

- (1) Permitted uses - No use shall be permitted that interferes with the natural maturation of the buffer plantings required by Section 220-29.F. of this Chapter, except as follows:
 - (a) Corridor crossings for farm vehicles and livestock and livestock watering facilities , all of which are accompanied by written evidence of approval of a water obstruction permit by the PA DEP;
 - (b) Public roads and improvements thereto that existed on the effective date of this Chapter;
 - (c) Corridor crossings for roads and railroads provided that such crossings are accomplished upon the least possible land area and installed in such a manner that is most compatible with the required buffer plantings as described in Section 220-29.F. of this Chapter;
 - (d) Bridges, with the appropriate federal and/or state permits, used in place of culverts when crossings require a seventy-two (72) inch or greater diameter pipe. Culverts consisting of slab, arch or box culverts and not corrugated metal pipe. Culverts shall be designed to retain the natural stream channel bottom to ensure the passage of water during low flow or dry weather periods
 - (e) Public sewer lines, public water lines and public utility transmission lines, provided such lines are installed in such a manner that is most compatible with the installation and ongoing maintenance of the required buffer plantings as described in Section 220-29.F. of this Chapter;
 - (f) Passive recreation uses when designed to minimize the extent of harmful compaction of soil, tree root damage and avoid the channelization (natural or man-made) of surface water flow. Pedestrian paths can cross Zones 1, 2 and 3 provided that such paths are accomplished upon the least possible land area and disruption of the adjoining riparian buffer is minimized. Pedestrian paths can parallel through Zones 2 and 3. All pedestrian paths shall be provided with stable pervious surfaces;
 - (g) Streambank improvement projects that have been approved by the LCCD and/or the PA DEP.
 - (h) Removal of trees in accordance with §200-29.H. of this Chapter.
 - (i) Wildlife sanctuaries, nature preserves, forest preserves and fishing areas.
 - (j) Low-impact supplemental water quality type best management practice stormwater management facilities that in the opinion of the Township Engineer are consistent with the purpose of the Riparian Buffer Zone as listed in §220-29.A of this Chapter and are not part of the primary stormwater management facilities required to attenuate peak flows.

- (k) Timber harvesting uses as regulated by §220-58. of this Chapter provided that any existing riparian buffer is undisturbed to the extent possible and the activities are in accordance with a soil erosion and sedimentation pollution control plan approved by the LCCD.
- (2) Prohibited uses – The following uses and activities are expressly prohibited within a riparian buffer. This listing of prohibited uses and activities shall not be interpreted to permit other activities not listed, unless they are permitted by Section 220-29.E.(1) of this Chapter:
 - (a) Except as permitted in the above Section 220-29.E.(1), any use that interferes with the natural maturation of the buffer plantings required in Section 220-29.F. of this Chapter;
 - (b) Except as permitted in the above Section 220-29.E.(1), any use that interferes with the maintenance of the buffer plantings required in Section 220-29.F. of this Chapter;
 - (c) Storage and/or disposal of any toxic, hazardous or noxious materials and substances;
 - (d) Application of fertilizers, pesticides, herbicides and/or other chemicals in excess of that permitted on an approved conservation and/or nutrient management plan as approved by the LCCD, the local office of the PA Pennsylvania Natural Resources and Conservation Service and/or as permitted under the Pennsylvania Conservation Resource Enhancement Program (CREP); and,
 - (e) Areas devoted to the on-site absorption of sewage effluent and/or agricultural fertilizers including but not limited to manure.

220-29.F. RIPARIAN BUFFER PLANTINGS

- (1) Each of the respective Zones of the riparian buffer shall include non-invasive vegetation that already exists or will be planted and maintained by the applicant using a variety of native species that satisfies the following design objectives. The applicant shall submit expert evidence that the existing and/or proposed vegetation is of sufficient size and density so as to satisfy such objectives that shall include a graphic depiction of proposed plantings and a schedule of vegetative species.
 - (a) Zone 1: This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings shall be selected and managed to filter out pollutants, offer habitat and stabilize the streambank. All vegetation selected for this Zone must thrive in wet conditions;
 - (b) Zone 2: This Zone must include mature canopy trees generally three rows deep with a natural undercover. New tree plantings shall be selected that are rapid growing to intercept passing nutrients. Such trees shall be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successive undercover plants shall be allowed to “evolve” with the canopy of this Zone. All vegetation selected for planting within the 100 year floodplain must thrive in wet conditions; and,

- (c) Zone 3: This Zone shall be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses shall be managed to produce uniform overland stormwater flows that do not create channels into Zone 2. New grass plantings shall be selected and managed to enable controlled grazing or haying so long as the grasses are not reduced to a point such that they no longer effectively disperse the surface flow.
- (2) Vegetation Selection - To function properly, dominant vegetation in the riparian buffer shall be selected from the following list of selective native buffer plants list. Plants not included on this list may be permitted by the Township when evidence is provided from qualified sources certifying their suitability for substitution. Selected species shall be noninvasive, native to the region, nursery stock grown within a locale with similar climatic conditions as found within the region, well branched, and free of disease. Any noxious and/or invasive plant species shall be removed and destroyed as defined in Section 220-11. of this Chapter.

SELECTIVE NATIVE BUFFER PLANTS LIST Source: Morris Arboretum of the University of Pennsylvania Botanic Name / Common Name	
<u>FERNS</u> Osmunda cinnamomea / Cinnamon fern Osmunda claytoniana / Interrupted fern Onoclea sensibilis / Sensitive fern <u>GRASSES & SEDGES</u> Andropogon gerardii / Big blue stem Carex scoparia / Broom sedge Cyperus strigosus / False nut sedge Carex lurida / Lurid sedge Elymus riparius / Riverbank wild rye Carex vulpinoidea / Sedge Juncus effusus / Soft rush Panicum virgatum / Switch grass Carex stricta / Tussock sedge Elymus virginicus / Virginia wild rye Scirpus cyperinus / Wool grass	<u>FLOWERING PERENNIALS</u> Penstemon digitalis / Beard-tongue Gentiana andrewsii / Bottle gentian Verbena hastata / Blue vervain Sisyrinchium angustifolium / Blue-eyed grass Eupatorium perfoliatum / Boneset Lobelia cardinalis / Cardinal flower Rudbeckia laciniata / Cut-leaf coneflower Veronica noveboracensis / Ironweed Arisaema triphyllum / Jack-in-the-pulpit Eupatorium fistulosum / Joe-pye weed Aster novae-angliae / New England aster Mitchella repens / Partridgeberry Aster puniceus / Purple stemmed aster Solidago gigantea / Smooth goldenrod Asclepias incarnate / Swamp milkweed Thalictrum pubescens / Tall meadowrue Verbesina alternifolia / Wingstem Geranium maculatum / Wood geranium

SELECTIVE NATIVE BUFFER PLANTS LIST Source: PA Natural Resources and Conservation Service (NRCS) Common (Botanic Name)	
<u>SHRUBS</u> Black Chokeberry (<i>Aronia melanocarpa</i>) High-Bush Blueberry (<i>Vaccinium corymbost</i>) High-Bush Cranberry (<i>Viburnum trilobum</i>) Spicebush (<i>Lindera benzoin</i>) ¹ Elderberry (<i>Sambucus canadensis</i>) Silky Dogwood (<i>Cornus amomum</i>) Grey Dogwood (<i>Cornus racemosa</i>) ¹ Serviceberry (<i>Amelanchier Canadensis</i>) Maple-Leaf Viburnum (<i>Viburnum acerifolius</i>) American Hazelnut (<i>Corylus americana</i>) ¹ Choke Cherry (<i>Prunus virginiana</i>) Staghorn Sumac (<i>Rhus typhina</i>) Winterberry (<i>Ilex verticillata</i>) Arrowwood (<i>Viburnum dentatum</i>)	<u>TREES²</u> Shagbark Hickory (<i>Carya ovata</i>) White Oak (<i>Quercus alba</i>) Red Oak (<i>Quercus rubra</i>) Bur Oak (<i>Quercus macrocarpa</i>) Hackberry (<i>Celtis occidentalis</i>) Butternut (<i>Juglans cinerea</i>) Black Cherry (<i>Prunus serotina</i>) American Crabapple (<i>Malus coronaria</i>) Black Gum (Tupelo) (<i>Nyssa sylvatica</i>) Scarlet Oak (<i>Quercus coccinea</i>) Chestnut Oak (<i>Quercus prinus</i>) Black Willow (<i>Salix nigra</i>) Persimmon (<i>Diospyros virginiana</i>) Yellow Birch (<i>Betula alleghaniensis</i>)

SELECTIVE NATIVE BUFFER PLANTS LIST Source: PA Natural Resources and Conservation Service (NRCS) Common (Botanic Name)	
SHRUBS	TREES²
Blackhaw Viburnum (<i>Viburnum prunifolium</i>) Nannyberry (<i>Viburnum lentago</i>) ¹ Buttonbush (<i>Cephalanthus occidentalis</i>) Red Chokeberry (<i>Aronia arbutifolia</i>) Red-Osier Dogwood (<i>Cornus stolonifera</i>) Silky Willow (<i>Salix sericea</i>) Speckled Alder (<i>Alnus rugosa</i>) Pussy Willow (<i>Salix discolor</i>) Ninebark (<i>Physocarpus opulifolius</i>) ¹ Mountain Laurel (<i>Kalmia latifolia</i>) Witch-hazel (<i>Hamamelis virginiana</i>)	Hop-Hornbeam (<i>Ostrya virginiana</i>) Flowering Dogwood (<i>Cornus florida</i>) Basswood (<i>Tilia americana</i>) American Elm (<i>Ulmus americana</i>) Red (Slippery) Elm (<i>Ulmus rubra</i>) Silver Maple (<i>Acer saccharinum</i>) Sugar Maple (<i>Acer saccharum</i>) Grey birch (<i>Betula populifolia</i>) Honey Locust (<i>Gleditsia triacanthos</i>) Black Locust (<i>Robinia pseudoacacia</i>) Black (Sweet) Birch (<i>Betula lenta</i>) Sycamore (<i>Platanus occidentalis</i>) Sweet Gum (<i>Liquidambar styracflua</i>) Tulip Poplar River Birch (<i>Betula nigra</i>) Paw Paw (<i>Asimina triloba</i>) Hawthorn (<i>Crataegus viridis</i>) Sweet bay Magnolia (<i>Magnolia virginiana</i>) American Wild Plum (<i>Prunus americana</i>) American Basswood (<i>Tilia americana</i>) Eastern White Pine (<i>Pinus strobus</i>) Eastern (Canadian) Hemlock (<i>Tsuga canadensis</i>) Eastern Red Cedar (<i>Juniperus virginiana</i>) White Spruce (<i>Picea glauca</i>)
TREES² Swamp White Oak (<i>Quercus bicolor</i>) Pin Oak (<i>Quercus palustris</i>) Eastern Redbud (<i>Cercis canadensis</i>) Red maple (<i>Acer rubrum</i>) Quaking Aspen (<i>Populus tremuloides</i>) Sassafras (<i>Sassafras albidum</i>) Pignut Hickory (<i>Carya glabra</i>) Black Walnut (<i>Juglans nigra</i>) American Beech (<i>Fagus grandifolia</i>) Red Mulberry (<i>Morus rubra</i>) Bitternut Hickory (<i>Carya cordiformis</i>)	

¹ These shrubs can be toxic to livestock and horses during certain stages.

² No more than five percent (5%) of the number of trees shall be evergreen species.

220-29.G. RIPARIAN BUFFER MAINTENANCE

- (1) Riparian buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly, the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to "over-maintain" the streamside must be overcome. Any noxious and/or invasive plant species shall be removed and destroyed as defined in Section 220-11. of this Chapter.
- (2) Where riparian buffers are to be located upon common property, the applicant must include a working plan that ensures perpetual maintenance of such buffer zones as specified in this Section 220-29.F.
- (3) Where riparian buffers are to be located upon private property, the applicant must include a legally-binding instrument (e.g. easement, covenant, deed restriction, etc.) in a form acceptable to the Township Solicitor which shall designate East Cocalico Township as the grantee and ensures perpetual maintenance of such buffer zones as specified in this Section 220-29.F. Then all affected landowners shall be required to abide by such legal instrument.
- (4) The following lists required maintenance activities for each zone:
 - (a) Zone 1: This Zone compels little maintenance. As trees mature, die and decay, it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and

amphibious animals. However, any debris that may cause a rise in the floodplain due to obstruction or displacement shall be removed promptly. Except as authorized under the Pennsylvania Conservation Reserve Enhancement Program (CREP), streamside grasses shall be allowed to seasonally flourish and recede. Streamside cleanup of junk and man-made debris is permitted.

- (b) Zone 2: This zone requires the most attention, but not for some time after initial planting depending upon the maturity of canopy trees installed. Here, the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and therefore consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, and growth rate and decrease the time to establishment as a closed canopy buffer (a canopy that generally blocks sunlight from reaching the surface), but should not jeopardize the important overhead canopy of shade. Except as authorized under the Pennsylvania Conservation Reserve Enhancement Program (CREP), the natural undercover shall be undisturbed, except for periodic litter cleanup; and,
- (c) Zone 3: This Zone also requires little maintenance. Long summer grasses shall be allowed to flourish and recede with the seasons. Grazing and haying are permitted so long as the residual grass length is sufficient to disperse overland stormwater flows into Zone 2 and avoid channelization.

220-29.H. EMERGENCY TREE CUTTING

- (1) At any time, a landowner may cut-down any tree within the Riparian Buffer Overlay Zone that, because of its condition, location or any other factor, poses an immediate threat to the public health and safety. However, any trees removed shall be replaced in accordance with the requirements of the following Section 220-29.I. of this Chapter. Examples of appropriate emergency tree cutting include, but are not limited to:
 - (a) Partially uprooted trees that are likely to topple onto nearby structures, properties, roads and/or sidewalks;
 - (b) Damaged trees with split trunks due to lightning strike or wind or ice loads;
 - (c) Trees that block emergency vehicle access during times of natural disaster, civil defense or rescue;
 - (d) Trees that have been partially damaged or fallen that threaten to cause an immediate rise in floodwaters;
 - (e) Trees that have been certified by a qualified forester to be afflicted with a contagious disease, blight or infection or damage from natural causes, from which the tree is unlikely to recover;
 - (f) Trees that have been certified by a qualified forester to be dead; and,
 - (g) Trees that have been certified by a qualified forester to be an invasive species.

220-29.I. TREE REPLACEMENT STANDARDS.

- (1) Any person, partnership, corporation, and/or property owner who or which removes or destroys trees required by this Section 220-29 of this Chapter shall be subject to the penalties for violation as outlined herein and is responsible for replacement of said trees. This replacement shall be done on a tree-for-tree basis if the number of trees

removed in violation of this Chapter can be identified. If the number of trees cannot be identified, then the trees shall be replaced at a rate of one tree per seven hundred fifty (750) square feet of area of tree removal as determined by the Township Zoning Officer or as suggested by a qualified forester to accomplish the purposes of this Riparian Buffer Overlay Zone as listed in §220-29.A. of this Chapter.

- (2) Any person, partnership, corporation, and/or property owner who or which removes any tree(s) in accordance with the previous Section 220-29.H. of this Chapter shall be responsible for replacement of said trees. This replacement shall be done on a tree-for-tree basis or as suggested by a qualified forester to accomplish the purposes of this Riparian Buffer Overlay Zone as listed in §220-29.A. of this Chapter.
- (3) Replacement trees shall be deciduous, noninvasive, native to the Township, nursery stock grown within a locale with similar climatic conditions as found within the Township, well branched, and free of disease. Replacement trees shall be selected from the selective native buffer plants list in Section 220-29.F. of this Chapter. Plants not included on this list may be permitted by the Township when evidence is provided from qualified sources certifying their suitability for substitution. The trees shall be balled and burlapped and not less than two (2) inches in caliper measured at breast height. The trees shall be at least ten (10) feet tall after planting and trimming. Branching shall start not less than six (6) feet from the top of the root ball.
- (4) Replacement trees shall be placed in accordance with the standards of Section 220-29.F. of this Chapter as long as such location does not violate any other provision of this Chapter or laws of the State.
- (5) Replacement trees cannot be used as credits to meet other planting requirements of this Chapter to street tree plantings, landscape buffer, unless the original trees would have satisfied such requirements. Any replacement trees that are to be counted as required screening shall comply with the standards listed in Section 220-44.C. of this Chapter.
- (6) Replacement trees shall be planted within ninety (90) days of initial tree removal or, if because of the season, at the soonest time suggested by a qualified forester.

220-29.J. NONCONFORMING USES WITHIN THE RIPARIAN BUFFER OVERLAY ZONE.

Irrespective of any standard contained within Section 220-133 of this Chapter, non-conforming structures or uses within the Riparian Buffer Overlay Zone that are not permitted under Section 220.29.E. of this Chapter may be continued but shall not be expanded or extended.

220-29.K. PENNSYLVANIA CONSERVATION RESOURCE ENHANCEMENT PROGRAM (CREP)

It is the express intent of this Section 220-29. of this Chapter to facilitate landowner participation within the Pennsylvania Conservation Resource Enhancement Program (CREP). Any requirement, except for required buffer delineation, of this Section 220-29. of this Chapter that is inconsistent with an approved CREP management plan shall not apply, but only to the extent that it is inconsistent with the CREP.

SECTION 10 – Section 220-58. is deleted in its entirety and replaced with the following:

§220-58. Forestry uses.

In accordance with State law, forestry (as defined herein) uses are permitted, by right, in every Zone, subject to the following standards:

220-58.A. TIMBER HARVESTING PLAN REQUIREMENTS

- (1) Every landowner on whose land timber harvesting is to occur shall obtain a building permit, as required by this Chapter. In addition to the building permit requirements listed in §220-148. of this Chapter, the applicant shall prepare and submit a written timber harvesting plan in the form specified below. No timber harvesting shall occur until a building permit has been issued. The provisions of the permit shall be followed throughout the operation. The timber harvesting plan shall be available at the harvest site at all times during the operation, and shall be provided to the Zoning Officer upon request. The landowner and the operator shall be jointly and severally responsible for complying with the terms of the timber harvesting plan and the building permit. All timber harvesting operations will be conducted only in accordance with this Chapter and the approved timber harvesting plan.
 - a) A forest regeneration plan that identifies the principle species of trees intended to be logged and their respective method or methods of forest regeneration, including each species' respective forest regeneration schedule (i.e. in terms of years.) As soon as practical and consistent with sound forest management practices, after the conclusion of the timber harvesting operation, the applicant(s)/owner(s) shall cause to be implemented the forest regeneration schedule of the timber harvesting plan.
 - b) Site Plan - Each timber harvesting plan shall include a scaled drawing containing the following information:
 - i. Site location and boundaries, including both the boundaries of the property on which the timber harvest will take place, and the boundaries of the proposed harvest area within that property;
 - ii. Significant topographic features related to potential environmental problems;
 - iii. Location of all earth disturbance activities, such as roads, landings and water control measures and structures;
 - iv. Location of all wetlands and floodplains as defined herein;
 - v. Location of all crossings of waters of the Commonwealth; and,
 - vi. The general location of the proposed operation to municipal and State highways, including any accesses to those highways.
 - c) Required Approval of a Forest Stewardship Plan – All applications for timber harvesting shall include written approval of a Forest Stewardship Plan by the PA DCNR, Bureau of Forestry.
 - d) Compliance With State Law - The application for timber harvesting shall include evidence that the timber harvesting plan addresses and complies with the requirements of all applicable State regulations, including, but not limited to, the following:
 - i. Erosion and sedimentation control regulations contained in Title 25 Pennsylvania Code, Chapter 102, promulgated pursuant to The Clean Streams Law (35 P.S. §691.1. et seq.); and,
 - ii. Stream crossing and wetlands protection regulations contained in Title 25 Pennsylvania Code, Chapter 105, promulgated pursuant to the Dam Safety and Encroachments Act (32 P.S. §693.1 et seq.).

- e) Relationship of State Laws, Regulations and Permits to the Timber Harvesting Plan - Any permits required by State laws and regulations shall be attached to and become part of the timber harvesting plan. An erosion and sedimentation pollution control plan that satisfies the requirements of Title 25 Pennsylvania Code, Chapter 102, shall also satisfy the requirements for the timber harvesting plan and associated maps specified in §220-58.A. of this Chapter, provided that all information required by this section is included or attached.
- f) Compliance with Township Stormwater Management Ordinance – The application must provide written evidence of compliance with Chapter 185 of the Code of the Township of East Cocalico.
- g) Required Marking of Trees - At least forty-eight (48) hours before any permitted timber harvesting operation begins, all trees that are at least six (6) inches in diameter as measured four and one-half feet (4.5') above grade to be felled in connection therewith shall be clearly marked on the trunk and the stump so that the same may be easily identified both before and after a tree has been felled. No tree shall be felled which has not been designated for removal on the approved timber harvesting plan.
- h) Required Notifications
 - i. The holder of a permit to conduct a timber harvesting operation shall notify the Township in writing at least forty-eight (48) hours before any cutting of trees is to begin including, but not limited to, those in connection with the construction of roads or trails. Such notification shall also indicate an estimated completion date.
 - ii. The holder of a permit to conduct a timber harvesting operation shall notify the Township in writing within forty-eight (48) hours of the completion date of the timber harvesting operation.
- i) Required Forest Practices - The following requirements shall apply to all timber harvesting operations:
 - i. Timber harvesting shall be accomplished with those professionally-accepted silvicultural practices that are most appropriate to the particular timber stand as indicated in the approved timber harvest plan.
 - ii. No treetops or slash shall be left within the fifty (50) feet of any public street, private roadway providing access to any adjoining residential property or R-1, R-2, R-3, MHP, VO and MR Zone, adjoining property or designated trail; or within ten (10) feet of any natural or artificial swale or drainage ditch. All tree tops and slash shall be lopped to a maximum height of four (4) feet above the ground.
 - iii. Felling or skidding on or across property of others is prohibited without the express written consent of the owners of such property. No treetops or slash shall be left on or across the boundary of any property adjoining the operation without the consent of the owner thereof.
 - iv. Littering is prohibited and litter resulting from a timber harvesting operation shall be removed from the site on a daily basis.
 - v. All cutting, removing, skidding and transporting of trees shall be planned and performed in such a manner as to minimize the disturbance of or damage to other trees and vegetation and the land itself, unless authorized in the

approved timber harvesting plan.

- vi. Roads and trails shall be constructed, maintained and abandoned in such manner as to prevent soil erosion and permanent damage to soil and waterways.
- vii. Roads and trails shall be only wide enough to accommodate the type equipment used and grades shall be kept as low as possible.
- viii. Where possible, stream crossings shall be avoided, but where deemed to be necessary, crossings shall be made at a right angle across suitable culverts or bridges.
- ix. Skidding across live or intermittent streams is prohibited except over bridges or culverts.
- x. Unless superseded by the Erosion and Sedimentation Control Regulations contained in Title 25 Pennsylvania Code, Chapter 102, promulgated pursuant to The Clean Streams Law (35 P.S. §691.1. et seq.), "No Timber Harvesting Buffer Zones" are established in accordance with the following table. Except for the construction and use of roads and trails described in the approved timber harvesting plan, no trees shall be cut, removed, skidded or transported in a No Timber Harvesting Buffer Zone.

No Timber Harvesting Buffer Zones	
Use	Required Minimum Setback
Adjoining street except as noted below for scenic roads	50 feet
Adjoining property	50 feet
Streams or other watercourse	50 feet
Designated Trails	25 feet
Springs, vernal ponds, seeps, Natural or artificial swale or drainage ditches	25 feet

- xi. Everything practicable shall be done to prevent damage or injury to young growth and trees not designated for cutting unless authorized within the approved timber harvesting plan.
- xii. All limbs and stubs shall be removed from felled trees prior to skidding.
- xiii. All trees bent or held down by felled trees shall be released promptly.
- xiv. No trees shall be left lodged in the process of felling with as little damage as possible to the remaining trees.
- xv. Felling or skidding on or across any public street is prohibited without the express written consent of the Township in the case of Township streets or the Pennsylvania Department of Transportation in the case of state Highways.
- xvi. The stumps of all felled trees shall be permitted to remain for soil for stabilization provided that they extend no more than two feet (2') above grade.

- xvii. During the periods of abnormal forest fire danger, the Township shall have the right to order a suspension of timber harvesting operations until the danger subsides.
- xviii. Upon completion of a timber harvesting operation, all roads shall be graded to eliminate any wheel ruts, and access to such roads from any public street by motor vehicles of any kind shall be effectively blocked.
- j) Responsibility for Road Maintenance and Repair; Road Bonding - Pursuant to Title 75 of the Pennsylvania Consolidated Statutes, Chapter 49; and Title 67 Pennsylvania Code, Chapter 189, the landowner and the operator shall be responsible for repairing any damage to Township roads caused by traffic associated with the timber harvesting operation, to the extent the damage is in excess of that caused by normal traffic, and shall be required to furnish a bond to guarantee the repair of such potential damages, as determined by the Township Board of Supervisors with advice from the Township Engineer.
- k) Township's Right to Inspect
 - i. The Township may, by its own personnel or outside agent, go upon the site of any proposed timber harvesting operation after an application to conduct such operation has been filed for the purpose of reviewing the plans for the proposed operation and thereafter recommending or opposing the proposed operation or recommending or requiring changes or modifications thereto.
 - ii. After a permit for a timber harvesting operation has been issued, the Township shall have the right by its own personnel or agent, to go upon the site before, during and after the timber harvesting operation to insure and require compliance with the plans for said operation as finally approved and all of the terms and provisions of this Chapter.

SECTION 11. The first two columns in §220 Attachment 1 are amended as follows:

Use	Minimum Required Lot Area
Agriculture and horticulture uses	20 acres
Single family detached dwellings ⁴	1 acre ³
Forestry and other principal uses	1 acre ³
Residential accessory buildings	N/A

SECTION 12. §220-26.B.(1) is deleted in its entirety and replaces as follows:

B. Designation of area.

- (1) Areas to be regulated under this section shall be those areas identified as being subject to the one-hundred-year flood in the Flood Insurance Study (FIS) and accompanying Flood Insurance Rate Maps prepared for the Township by the Federal Administrator, dated April 19, 2005 or the most recent revision thereof. [Amended 4-6-2005 by Ord. No. 2005-02] In addition areas to be regulated under this Section shall be those areas defined below in §220-26.B.(3)

SECTION 13. §220-26.B.(3) is deleted in its entirety and replaces as follows:

- (3) For the purpose of this chapter, the following definitions are used in referring to the various kinds of floodplains:

FLOOD-FRIDGE AREA (FF) - That area of the one-hundred-year floodplain not included in the Floodway Area. The basis for the outermost boundary of this area shall be the one-hundred-year flood elevations contained in the flood profiles of the above-referenced Flood Insurance Study (FIS).

FLOODWAY AREA (FW) - The areas identified as "Floodway" in the FIS prepared by the Federal Emergency Management Agency (FEMA). The term shall also include Floodway Areas that have been identified in other available studies, or sources of information for those Floodplain Areas for which no Floodway has been identified in the Flood Insurance Study prepared by FEMA. Where no other studies, sources of information exist, the Floodway shall be considered to be that area contained within the outside edges defined by an inland distance of fifty feet (50') from the streambank edges.

GENERAL FLOODPLAIN AREA (FA) - That floodplain area for which no detailed flood elevations or Floodway information is provided. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study prepared by FEMA. For these areas, elevations and Floodway information from federal, state or other acceptable sources shall be used when available. When such other acceptable information is not available, the applicant for the proposed use, development or activity shall determine the one-hundred-year elevation in accordance with hydrologic and hydraulic engineering techniques.

SECTION 14. §220-38. is amended as follows:

§ 220-38. Establishment of more than one principal use on a lot.

More than one principal use may be established on a single lot, provided that all lot and yard requirements, standards, and other requirements of this chapter shall be met for each structure, as though it were on an individual lot. In addition, such proposals shall gain approval for any required land development or subdivision plan, and provide individually approved methods of sewage disposal. Two-family conversions do not require a land development plan.

SECTION 15. §220-39. is amended as follows:

§ 220-39. Required vehicular access. [Amended 2-15-2006 by Ord. No. 2006-03]

Every building hereafter erected or moved shall be on a lot adjacent to a public street, or with access to an approved private street, except those buildings or structures for minor municipal service and utility facilities. For the purposes of this Section, such building erected or moved on a lot must adjoin and have direct physical vehicular access onto a public or private street that is designed, improved and maintained in accordance with §194-25 (Streets - Subdivision and Land Development). The erection of buildings without approved access shall not be permitted. Approved access shall be defined in terms of Chapter 194, Subdivision and Land Development, as may be amended from time to time, for street design or as subsequently provided for by the Township. Access to lots containing single-family dwellings shall be via driveways (see § 220-40); access to lots containing other uses shall be via access drives (see § 220-41).

SECTION 16. §220-34. is amended as follows:

§ 220-34. Height limit exceptions.

- A. The height regulations do not apply to the following structures or projections, provided such structures or projections are set back a horizontal distance at least equal to their height from any property line:
- (1) Water towers, antennas, utility poles, smokestacks, chimneys, farm silos, flagpoles, or other similar structures, excluding wind turbines and solar panels;
 - (2) Rooftop structures for the housing of elevators, stairways, water storage tanks, ventilating fans, and other mechanical appurtenances, excluding wind turbines and solar panels; and,
 - (3) Parapet walls or cornices used solely for ornamental purposes if not in excess of five feet above the roof line.
- B. In no case shall any freestanding or rooftop structure above the maximum permitted height be used for the purpose of providing additional floor space for residential, commercial or industrial purposes.

SECTION 17. §220-27.D(2) is amended as follows:

- (2) The Wellhead Protection Overlay Zone shall only apply to those areas of the Township which are delineated on the Official Zoning Map, and described as follows. The following lists the minimum required distance from the outside edge of the well to the outside radius of the Wellhead Protection Zone for each well within the Township:

Well Number	Minimum Radius (feet)
2A	160
3A	150
4/12	100
5/6	210
7	100
8A	160
9	180
10	100
11	100
12	100
14	100
F	210
M	185
D1	100
D2	215
D3	100

SECTION 18. A new §220-100.K. is added as follows:

- K. Any property adjoining, or within seventy-five feet (75') of an unenclosed watercourse that has been previously inventoried within the Township as depicted on the East Cocalico Township Historic and Riparian Buffer Overlay Zones Map shall provide a riparian buffer in accordance with §220-29. of this Chapter.

SECTION 19. A new §220-101.U. is added as follows:

- U. Any property adjoining, or within seventy-five feet (75') of an unenclosed watercourse that has been previously inventoried within the Township as depicted on the East Cocalico Township Historic and Riparian Buffer Overlay Zones Map shall provide a riparian buffer in accordance with §220-29. of this Chapter.

SECTION 20. A new §220-12.B.(9)(e) is added as follows:

- (e) Collocation of communication towers and equipment that comply with the Pennsylvania Wireless Broadband Collocation Act, subject to all applicable requirements contained therein.

SECTION 21. A new §220-13.B.(9)(a) is added as follows:

- (a) Collocation of communication towers and equipment that comply with the Pennsylvania Wireless Broadband Collocation Act, subject to all applicable requirements contained therein.

SECTION 22. §220-150.B. is amended as follows:

- B. Hearing and enactment procedures for zoning amendments.
 - (1) Public Hearing. - Before voting on the enactment of Zoning Ordinance and/or Zoning Map amendments, the Board of Supervisors shall conduct a public hearing to inform the general public of the nature of the amendment, and to obtain public comment. Such public hearing shall be conducted after public notice and electronic and/or mailed notice (as defined herein and listed below) has been given.
 - (2) Public Notice - Before conducting a public hearing, the Board of Supervisors shall provide public notice as follows:
 - (a) Notice shall be published once each week for two successive weeks in a newspaper of general circulation in the Township. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than thirty (30) days, and the second publication shall not be less than seven (7) days, from the date of the hearing. Publication of the proposed amendment shall include either the full text thereof or the title and brief summary, prepared by the Township solicitor and setting forth all the provisions in reasonable detail. If the full text is not included:
 - [1] A copy of the full text shall be supplied to a newspaper of general circulation in the Township at the time the public notice is published; and,
 - [2] An attested copy of the proposed Ordinance shall be filed in the County Law Library or other County office designated by the County Commissioners, who may impose a fee no greater than that necessary to cover the actual costs of storing said Ordinances.
 - (b) For Zoning Map amendments, public notice shall also include the Township posting of a sign or signs at one or more conspicuous locations deemed sufficient by the Township; these sign(s) shall be posted at least

one week prior to the hearing and will exhibit the nature, date, time, and location of the hearing.

- (c) For curative amendments, public notice shall also indicate that the validity of the Ordinance and/or map is in question, and shall give the place where and the times when a copy of the request including any plans, explanatory material or proposed amendments may be examined by the public.
 - (d) If, after any public hearing held upon an amendment, the proposed amendment is changed substantially, or is revised, to include land previously not affected by it, the Board of Supervisors shall hold another public hearing, pursuant to public notice, mailed notice and electronic notice before proceeding to vote on the amendment.
- (3) Electronic and/or Mailed Notice - In addition to the public notice requirements defined herein, an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within a municipality, may request that the municipality provide written or electronic notice of a public hearing which may affect such tract or parcel of land.
- (a) Mailed notice shall be required only if an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality has made a written request that the notice be mailed and has supplied the municipality with a stamped, self - addressed envelope prior to a public hearing.
 - (b) Electronic notice shall be required only if an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality has made a written request that notice be sent electronically and has supplied the municipality with an electronic address prior to a public hearing and only if that municipality maintains the capability of generating an electronic notice. An owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality making the request and supplying an electronic address may at any time notify the municipality that the owner of the tract or parcel of land located within the municipality, or the owner of the mineral rights in the tract or parcel of land within the municipality no longer will accept electronic notice, and in that event the municipality may no longer provide electronic notice.
 - (c) An owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality who has requested a mailed notice shall be solely responsible for the number, accuracy and sufficiency of the envelopes supplied. The municipality shall not be responsible or liable if the owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality does not provide to the municipality notice of any changes in the owner's mailing address.
 - (d) An owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality who has requested electronic notice shall be solely responsible for the accuracy and functioning of the electronic address provided to the municipality. The municipality shall not be responsible or

owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality does not provide to the municipality notice of any changes to the owner's electronic address.

- (e) A municipality shall deposit a mailed notice in the United States mail or provide electronic notice not more than 30 and not less than seven days prior to the scheduled date of the hearing as shown on the notice.
 - (f) For each public hearing, the municipal secretary or zoning officer shall prepare, sign and maintain a list of all mailed notices, mailing dates, electronic notices and electronic notice dates. The signed list shall constitute a presumption that the notice was given.
 - (g) The mailed notice shall be deemed received by an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality on the date deposited in the United States mail.
 - (h) The electronic notice shall be deemed received by an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality on the date the municipality electronically notifies the owner.
 - (i) Failure of an owner of a tract or parcel of land located within a municipality, or an owner of the mineral rights in a tract or parcel of land within the municipality to receive a requested mailed notice or electronic notice shall not be deemed to invalidate any action or proceedings under the Act.
- (4) Enactment Notice - In addition to the public notice requirements defined herein, the Board of Supervisors must publish a reference to the time and place of the meeting at which passage of the Ordinance or amendment will be considered, and a reference to a place within the Township where copies of the proposed Ordinance or amendment may be examined without charge, or obtained for a charge not greater than the cost thereof. Enactment notice shall be published at least once in one newspaper of general circulation in the Township not more than sixty (60) days nor less than seven (7) days prior to passage. The published content of the enactment notice shall be the same as that required for public notice described in the preceding §220-150.B.(2).
- (5) Township Planning Commission referrals.
- (a) For amendments proposed by parties other than the Township Planning Commission, the Board of Supervisors shall submit each amendment to the Township Planning Commission at least 30 days prior to the public hearing on such amendment.
 - (b) A report of the review by the Township Planning Commission, together with any recommendations, may be given to the Board of Supervisors within 30 days from the date of said referral. The recommendation of the Township Planning Commission may include a specific statement as to whether or not the proposed action is in accordance with the intent of this chapter and any officially adopted Comprehensive Plan of the Township;

- (6) Lancaster County Planning Commission referrals. All proposed amendments shall be submitted to the Lancaster County Planning Commission at least 45 days prior to the public hearing on such amendments. The Commission may submit recommendations to the Board of Supervisors; however, if the Lancaster County Planning Commission fails to act within 45 days, the Board of Supervisors may proceed without its recommendations;
- (7) Adjournment of public hearing. If, during the public hearing process, the Board of Supervisors needs additional time to understand the proposal, inform the public, receive public comment, and/or render a decision, it may adjourn the public hearing to a time and place certain; and
- (8) Within 30 days after enactment, a copy of the amendment to the chapter shall be forwarded to the Lancaster County Planning Commission;

SECTION 23. A new East Cocalico Township Historic Sites and Riparian Buffer Overlay Zones Map is adopted in accordance with the attached map.

SECTION 24. A new East Cocalico Township Official Zoning Map is adopted in accordance with the attached map.

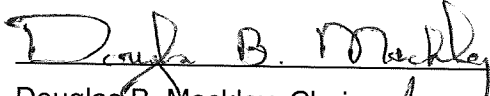
SECTION 25. Any ordinances, or any part thereof, inconsistent herewith and any amendments thereof are hereby expressly repealed.

SECTION 26. Should any section or provision of this Ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the Ordinance as a whole, or any part thereof, other than the part so declared to be unconstitutional or invalid.


SECTION 27. This Ordinance shall become effective five (5) days after the date of its enactment.

ENACTED AND ORDAINED this 19th day of June, 2014.

**EAST COCALICO TOWNSHIP
BOARD OF SUPERVISORS**



Douglas B. Mackley, Chairman



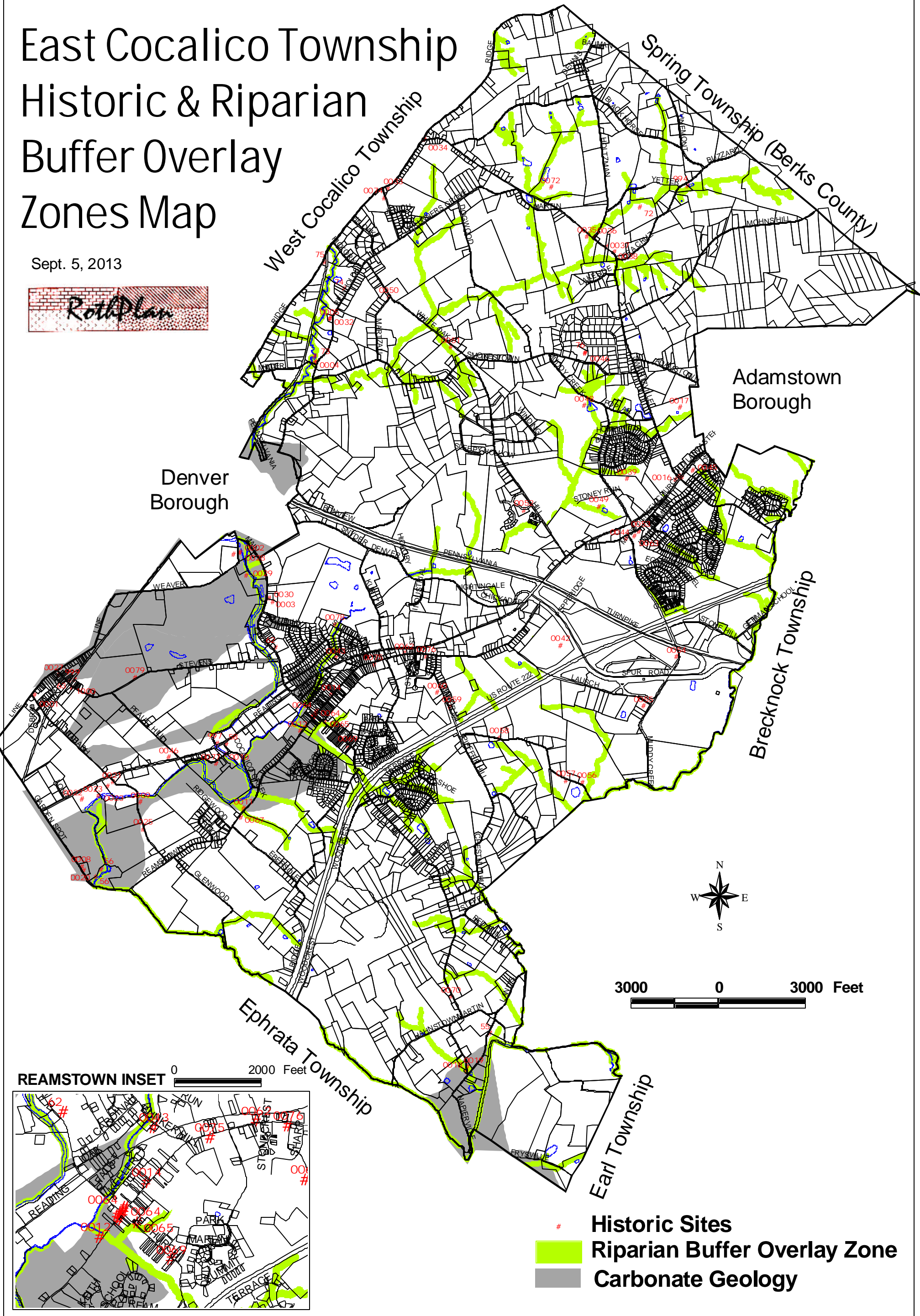
Alan R. Fry, Vice-Chairman



Noelle B. Fortna, Secretary

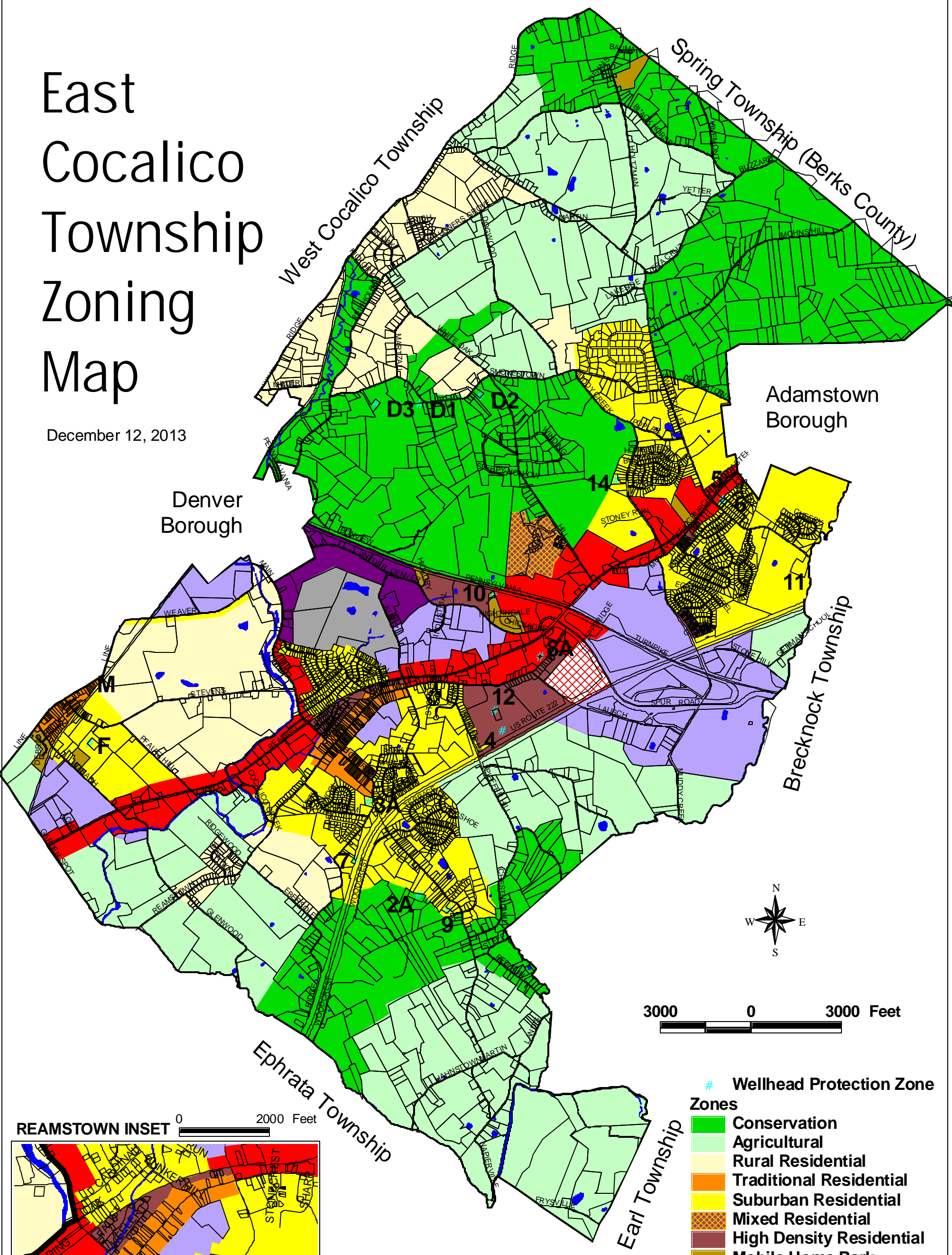
East Cocalico Township Historic & Riparian Buffer Overlay Zones Map

Sept. 5, 2013

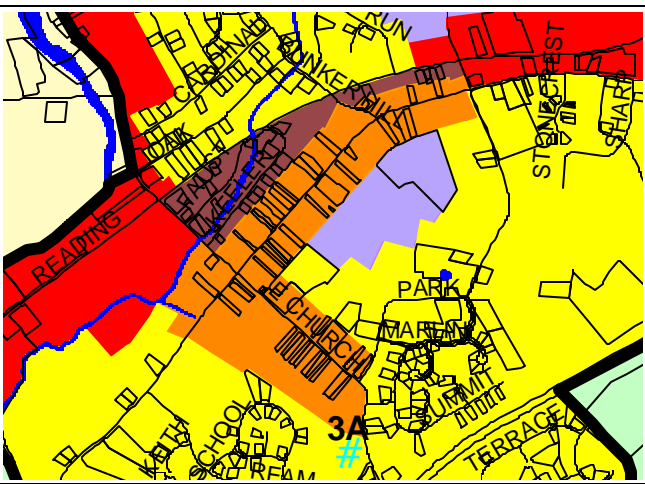


East Cocalico Township Zoning Map

December 12, 2013



REAMSTOWN INSET 0 2000 Feet



RothPlan

- # Wellhead Protection Zone
- Zones**
- Conservation
 - Agricultural
 - Rural Residential
 - Traditional Residential
 - Suburban Residential
 - Mixed Residential
 - High Density Residential
 - Mobile Home Park
 - General Commercial
 - Planned Commercial
 - Light Industrial
 - Heavy Industrial
 - Quarry