

Supplemental Environmental Impact Assessment Report

**Prepared for Portion of Land Proposed to be Rezoned
From PRD to PI2 and C1 on Lower State Road and Limekiln Pike in
Warrington Township, Bucks County, PA**

June 21, 2010

*This report is a collaboration of information from licensed professionals as required by the Warrington Township Zoning Ordinance. The following is a list of licensed professionals involved with the preparation of this report:

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1. OVERVIEW

Teva Pharmaceuticals USA ("Teva") is the equitable owner of approximately 161.94 acres located along Lower State Road and Limekiln Pike, being all or a portion of tax parcel nos. 50-4-85; 50-4-94; 50-4-89; 50-4-90; and 50-4-96, and being bound by Limekiln Pike to the west, Lower State Road to the east, Quarry zoning district to the north and southerly boundary of a proposed Limekiln Pike Spur right-of-way to the south (the "Teva Property"). The Teva Property is being subdivided from a larger tract of land consisting of approximately 361.49 acres that includes all of tax parcel nos. 50-4-85; 50-4-94; 50-4-89; 50-4-90; and 50-4-96, and being bound by Limekiln Pike to the west, Lower State Road and Pickertown Road to the east, Mill Creek Road to the north and County Line Road to the south (the "Total Tract"). The Total Tract is currently owned by Eureka Stone Quarry, Inc. ("Eureka"). Ownership of the portion of lands remaining after subdividing the Teva Property from the Total Tract, which will consist of approximately 199.55 acres, will remain with Eureka. See Minor Subdivision Plan prepared by T&M Associates ("T&M"), dated May 11, 2010, a copy of which is currently on file with the Township.

The Total Tract is currently zoned RA, P11, PI2, C1, Q and PRD and consists of agricultural fields, woodlands, and several residential single family homes and a working quarry. See the Existing Features Plan prepared by T&M, dated May 11, 2010 (the "Existing Features Plan"), a copy of which is currently on file with the Township. Teva and Eureka have proposed to rezone the portion of the Total Tract currently zoned PRD (+/-32.27 acres) to PI2 (23.18 acres) and C1 (9.09 acres) as depicted on the Zoning Change Petition Plan prepared by T&M, last revised June 1, 2010 (the "Proposed Rezoning"). Teva and Eureka have also proposed to amend the Warrington Township Comprehensive Plan so that the Plan is consistent with the Proposed Rezoning. Teva has proposed to construct a warehouse/distribution center on the Teva Property, which will consist of approximately 1.5M s.f. of warehouse space, along with associated parking and loading areas.

Teva submitted Preliminary Subdivision and Land Development Plans proposing to construct a warehouse/distribution center on the Teva Property without the Proposed Rezoning (the "By-Right Layout"). However, Teva also submitted a sketch plan showing a preferred layout for the same warehouse/distribution center, but assuming the Proposed Rezoning; as more particularly shown on the Engineered Sketch Plan prepared by T&M, dated May 11, 2010 (the "Preferred Layout"), a copy of which is currently on file with the Township. The proposed total building square footage is the same on both the By-Right Layout and the Preferred Layout; however, it is the opinion of Teva and its consultants that the Preferred Layout is a better plan for the Township and the surrounding community than the By-Right Layout for the following reasons:

- The Preferred Layout proposes that the building be setback 115 feet from Lower State Road instead of a setback of 77 feet on the By-Right Layout.

- The Preferred Layout proposes that the building be setback approximately 480 feet from the existing greenhouse property instead of a setback of only approximately 120 feet on the By-Right Layout.
- The Preferred Layout proposes that a portion of the loading areas and truck parking areas be located internally on the site adjacent to another commercial property (i.e., between the building and the existing greenhouse property); whereas, the By-Right Layout proposes that a portion of the loading areas and truck parking areas to be located adjacent to residential properties along Limekiln Road.
- The car parking lots on the Preferred Layout are setback farther from Limekiln Road than the car parking lots shown on the By-Right Layout.
- The Preferred Layout has greater potential for providing buffering, berming and landscaping along the residential areas than the By-Right Layout, given the increased setbacks and the location and layout of the car access drive on the Preferred Layout.
- The Preferred Layout provides a truck access drive and loading areas internal to the site as opposed to the By-Right Layout, which provides truck access and a portion of the loading areas around the outer perimeter of the proposed buildings.
- The Preferred Layout has less impact to the environmental features on the property than the By-Right Layout.
- The Preferred Layout allows more options to design the truck and car entrances off of the proposed spur road, rather than Lower State Road.
- The By-Right Layout would leave the land zoned PRD available for development as high density residential in accordance with the Zoning Ordinance. Developing a high density residential community adjacent to an industrial use could result in planning conflicts and would generate additional traffic. The Preferred Layout would eliminate the development of the 23 acres of the PRD zoned land for residential housing and allow the balance, 9 acres, to be merged with and become part of the adjacent lands already zoned C1.

The purpose of this Supplemental Environmental Impact Assessment Report is to analyze the environmental, fiscal, traffic and community impacts associated with the Proposed Rezoning.

2. LOCATION

A location map at a scale of 1"= 1000' is shown on the Cover Sheet of the Engineered Sketch Plan for the Preferred Layout.

3. DESCRIPTION OF PROJECT

The Proposed Rezoning involves the portion of the Total Tract currently zoned PRD (+/- 32.27 acres) to PI2 (23.18 acres) and C1 (9.09 acres) as depicted on the Zoning Change Petition Plan prepared by T&M, last revised June 1, 2010, a copy of which is currently on file with the Township.

4. PHYSICAL RESOURCES INVENTORY

Physical resources associated with the lands within the Proposed Rezoning include such features as geology, topography and soils.

(a) Geologic Characteristics – The lands are underlain by the Lockatong Formation. The Lockatong Formation consists of mostly gray and black argillite, with layers of shale and siltstone. There also can be subordinate purple and red mudstone (shale + siltstone). These rocks are hard, resistant to weathering, and generally have poor groundwater potential. The entire site is underlain by this formation. The geologic characteristics defining the location and boundaries of the rock are depicted on the Existing Features Plan.

(b) Topographic Characteristics – The topography is moderately sloping, with average site grades approximately 8%. There are very limited steep slopes as illustrated on the Existing Features Plan. The plan shows contours at 2 foot intervals.

(c) Soil Characteristics - The soil characteristics are depicted on the Existing Features Plan. The plan identifies the soil characteristics pertinent to the Proposed Rezoning and each soil type is listed on the plan and in a chart. Generally, the soils formed from three different parent materials; residual soils that formed from the underlying Lockatong argillite (Abbottstown, Buckingham, Readington), soils that formed in wind-blown (Aeolian) silts overlying the residual Lockatong argillite (Chalfont, Doylestown, Lawrenceville), and soils that formed in fill material from human activities (Pits, quarries).

The soils are generally somewhat poorly and poorly drained. During a site investigation in which thirteen test pits were advanced (on March 11th, 2010), the depth to redoximorphic features (drainage mottling) ranged from 9 to 21 inches below existing grade. In all cases, the soils contained a hydraulically restrictive soil layer, called a fragipan.

(d) Hydrological Characteristics - The hydrologic characteristics are depicted on the Existing Features Plan. Groundwater yields are generally low in the Lockatong Formation due to the lack of weathering in the rock, causing few fractures in which groundwater can accumulate. In the Lockatong Formation, wells are usually drilled to greater depths to store water for meeting short-term peak demands in this formation. While seepage was encountered during the onsite soils investigation, this was due to a perched condition within the soils and shallow bedrock, which was extremely firm in resistance. The quarry, adjacent to the property is (several hundred) feet deep, and has no

evidence of groundwater at its bottom. Aquifers under this site are very deep (several hundred feet below the ground surface) and are poor yielding. Aquifer recharge on this site is very limited. The site lies within the Mill Creek and Little Neshaminy Creek watersheds. Both are listed as Warm Water Fisheries and Migratory Fisheries according to Pennsylvania Code, Title 25, Chapter 93. In the northern portion of the site, there is an un-named tributary to Mill Creek; this tributary empties into the adjacent quarry. However, all surface water flows West to East. Due to the deep depth of groundwater at this site, there is no baseflow to any of the water features on the land within the Proposed Rezoning. All surface water flows due to hydraulically restrictive soil and rock layers and is not related to groundwater flow.

5. BIOLOGICAL RESOURCES INVENTORY

The vegetation characteristics of the site are depicted on the Vegetation Characteristics and Wildlife Habitat Plan prepared by T&M, dated May 11, 2010 (the "Vegetation and Wildlife Plan"), a copy of which is currently on file with the Township. This plan includes woodlands and forest boundaries and shows all individual trees 12" caliper and greater located within the Proposed Rezoning lands.

The wildlife habitats on the site are depicted on the Vegetation and Wildlife Plan.

There are four different biological zones that are present on the lands within the Proposed rezoning: forested uplands, forested wetlands, palustrine emergent marsh, and existing agricultural fields:

(a) Forested Uplands – These areas are characterized by trees such as: Norway Maple (*Acer platanoides*), Red Maple (*Acer rubrum*), Pin Oak (*Quercus palustris*), Black cherry (*Prunus serotina*), Shagbark Hickory (*Carya ovata*), Black Walnut (*Juglans nigra*), White Oak (*Quercus alba*), Green Ash (*Fraxinus pennsylvanica*). The understory consists of Poison Ivy (*Toxicodendron radicans*), Multiflora Rose (*Rosa multiflora*), Arrow-wood (*Viburnum dentatum*), Choke-cherry (*Prunus virginiana*), Greenbrier (*Smilax rotundifolia*).

In terms of wildlife, this investigation was conducted in the winter of 2009-2010, so very little wildlife was observed. There was evidence, however, in these woodlands of habitation by animals such as whitetail deer (*Odocoileus virginianus*), eastern wild turkey (*Meleagris gallopavo*), and the woodchuck (*Marmota monax*).

(b) Forested Wetlands– These areas are characterized by trees such as: Red Maple (*Acer rubrum*), Green Ash (*Fraxinus pennsylvanica*). Slippery Elm (*Ulmus rubra*), Pin Oak (*Quercus palustris*). The understory consists of Spicebush (*Lindera benzoin*), Japanese Stilt Grass (*Microstegium vinineum*), Sedges (*Carex sp.*), Virginia knotweed (*Polygonum virginianum*), Sensitive Fern (*Onoclea sensibilis*), and Silky Dogwood (*Cornus amomum*).

In terms of wildlife, this investigation was conducted in the winter of 2009-2010, so very little wildlife was observed. There was evidence, however, in these woodlands of

habitation by animals such as whitetail deer (*Odocoileus virginianus*) and eastern wild turkey (*Meleagris gallopavo*).

(c) Palustrine Emergent Marsh – There are few if any canopy trees in these areas. These areas are characterized by vegetation such as: Woolgrass (*Scirpus cyperinus*), Sensitive Fern (*Onoclea sensibilis*), Silky Dogwood (*Cornus amomum*), and Reed Canarygrass (*Phalaris arundinacea*).

(d) Existing Agricultural Fields – This area is characterized by the monoculture of the crop that is planted in the fields. It appears that conventional tillage was utilized in the past in the preparation and planting of these fields. During the winter of 2009-2010, there was stubble from corn (*Zea mize*) present in the fields. No other vegetation was observed beyond evidence of dead summer annual weeds from late fall of 2009, including: Fall Panicum (*Panicum dichotomiflorum*), Giant Foxtail (*Setaria Faberi*), and Shattercane (*Sorghum bicolor*).

The hedgerows between agricultural fields are dominated by Black Locust (*Robinia pseudoacacia*), Multiflora Rose (*Rosa multiflora*), Privet (*Ligustrum spp.*), and Greenbrier (*Smilax rotundifolia*).

There was evidence in these woodlands of habitation by animals such as whitetail deer (*Odocoileus virginianus*) and the woodchuck (*Marmota monax*).

Teva has obtained a clean PNDI search for the Teva Property.

6. LAND USE INVENTORY

(a) The land cover characteristics are depicted on the Existing Features Plan. This plan depicts existing features including paved and other impervious surfaces, woodland and hedgerows, cultivated areas, field/meadow areas, wetlands and lawns and landscaped areas.

(b) A title search has been completed for the Teva Property by Land Services USA, File number PAST09-6458M/K, Effective November 23, 2009. There are several easements or encumbrances identified in schedule B part II exceptions of the title report; however, the easements and encumbrances will have no adverse impact on the Proposed Rezoning.

(c) Land use on adjacent tracts is consistent with the underlying zoning district. The current land use of the lands within the Proposed Rezoning vary from immediately adjacent tracts, which consist primarily of an active quarry, commercial centers, commercial nurseries and residential subdivisions.

(d) Current and past land uses consist of agricultural fields and woodlands. The lands within the Proposed Rezoning do not contain any current or prior land uses that may necessitate removal, remediation, closure or cleanup to protect human health to the environment.

(e) The Teva Property contains a large stockpile consisting of soil overburden from the active quarry. The pile will be relocated onto the portion of the Total Tract to be retained by Eureka to the north which contains the quarry.

7. SURFACE WATER INVENTORY

The existing surface runoff from the Teva Property and associated watersheds has been calculated by T&M. Calculated floodplains and wetlands have already been flagged and mapped on the Teva Property. Any development of the lands within the Proposed Rezoning will be required to prepare and submit a detailed Stormwater Management Report containing the applicant's plan (supported by calculations) to handle the stormwater flows associated with any such proposed development, all in accordance with the Township Ordinances.

8. EXISTING FEATURES INVENTORY

Features exist on the lands within the Proposed Rezoning that are not considered to be part of the natural environment. This includes 3 single family homes and associated driveways, as well as a soil stockpile on the Teva Property. Adjacent to the lands within the Proposed Rezoning are Lower State Road and Limekiln Pike, which are paved roadways.

9. VISUAL RESOURCES INVENTORY

This area of the Township is not specifically noted for its visual appeal. The Township has a zoning district with the specific purpose of the preservation of scenic beauty within the Township known as the Open Space/Parkland Zoning District, which the lands within the Proposed Rezoning are not a part of. The lands within the Proposed Rezoning are located along several highly traveled roads and adjacent to a working quarry, commercial nursery, and commercial shopping center, which diminishes its ability to function as a visual resource.

10. IMPACTS INVENTORY

The Proposed Rezoning will have beneficial impacts on the Township, community and school district.

General

The Proposed Rezoning will not result in any change in the impact on the environmental resources presently located on the lands within the Proposed Rezoning. If the lands within the Proposed Rezoning were developed under the current PRD zoning, or if they were developed under the Proposed Rezoning, the same land area could be developed. However, if the Proposed Rezoning is approved and Teva develops the Teva Property, per the Preferred Layout, a much smaller portion of the lands within the Proposed Rezoning will be developed than could otherwise be developed as presently zoned.

In addition, the land currently zoned PRD is located between lands zoned commercial and industrial, thereby creating potential conflicts between uses. The Proposed Rezoning would remove any potential conflict by maintaining the existing commercial and industrial zoning surrounding the lands proposed to be rezoned.

Fiscal

The fiscal impact of the Proposed Rezoning was studied and those studies yield the following results:

Existing PRD Zoning

i. First Scenario: If the Limekiln spur road is constructed and the portion of the Total Tract currently zoned PRD remains as such and is developed with the most intensive uses permitted thereon (i.e. an elementary school north of the spur road and 13 single family homes south of the spur road), the result would be a net annual shortfall of \$16,377 for Warrington Township, and a net annual shortfall of \$1,033 for the Central Bucks School District.

ii. Second Scenario: If the Limekiln spur road is not constructed and the entire portion of the Total Tract currently zoned PRD remains as such and is developed with the most intensive use permitted thereon (i.e., the entire area developed as 54 residential units), the result would be a net annual shortfall of \$11,306 for Warrington Township, and a net annual shortfall of \$20,132 for the Central Bucks School District.

With the Proposed Rezoning

i. First Scenario: The Limekiln spur road is constructed and the PRD land is rezoned to P12 and C1, as proposed, and the area north of the proposed spur (P12) remains vacant while the area to the south (C1) is developed with the most intensive uses permitted thereon (i.e., with a 4,000 s.f. bank and a 15,000 s.f. day care center). This scenario would result in a net annual revenue of \$1,313 for Warrington Township; and a net annual revenue of \$52,106 for the Central Bucks School District.

ii. Second Scenario: The Limekiln spur road is constructed and the PRD land is rezoned to P12 and C1, as proposed, and the area north of the spur road (P12) and the area to the south of the spur road (C1) are both developed with the most intensive uses permitted thereon (i.e., 175,000 s.f. manufacturing building north of the spur road and a 4,000 s.f. bank and a 15,000 s.f. day care center south of the spur road). This scenario would result in a net annual revenue of \$23,749 for Warrington Township; and a net annual revenue of \$89,005 for the Central Bucks School District.

Park and Recreation Areas

Warrington Township currently has many areas of open park land and recreational facilities to service its residents. The Proposed Rezoning would not provide for residential use and thus no new residents will draw on existing park and open space land and recreational facilities. Therefore, no additional impact to these areas will result from the Proposed Rezoning. In the alternative, any residential use of the land currently zoned PRD would place increased demands on existing Township open space and park lands.

Libraries

Library services for Warrington Township are provided by Bucks County. There are currently no public libraries located within Warrington Township. Residents must travel to the main branch (located in Doylestown) or a nearby satellite branch of the library such as the one in Warminster. The Proposed Rezoning would not provide for residential use and thus does not contemplate any additional residents (as may result if the zoning remains unchanged) and therefore, no impact will result due to the Proposed Rezoning. In the alternative, any residential use of the land currently zoned PRD would place increased demands on existing Township library services.

Hospitals and Health Care Facilities

The primary hospitals serving the Warrington Township area are the Doylestown Hospital, located in Doylestown, PA and Abington Hospital, located in Abington, PA. The Proposed Rezoning will result in a lesser impact to these facilities than a residential development, which would be permitted under the existing PRD zoning.

Fire Protection

Fire protection services are provided by volunteer fire companies. The Warrington Township Volunteer Fire Company No. 1 provides the closest service to the lands within the Proposed Rezoning. Any development of the lands within the Proposed Rezoning increases the potential need for such fire protection services, regardless of whether or not the lands are rezoned. However, the Proposed Rezoning will result in no greater (if not lesser) impact to these fire protection services than a residential development, which would be permitted under the existing PRD zoning. In addition, the Proposed Rezoning permits only commercial and industrial uses, which would likely require sprinkler systems.

Ambulance and Rescue Service

The Proposed Project will be provided basic life support services by the local providers, which provide basic life support services, first aid, and basic pre-hospital patient care and transport. The Proposed Rezoning will result in a lesser impact to these services than a residential development, which would be permitted under the existing PRD zoning.

Police Protection

The Township has responsibilities for police facilities and services. The Police Department has headquarters at the Warrington Township Municipal Building, located at 852 Easton Road, Warrington. The Proposed Rezoning will not pose any additional adverse impacts on the police services of the Township than development of the land under the current PRD zoning.

Post Offices

The Warrington Post Office will provide service to the area within the Proposed Rezoning. It is not anticipated that the Proposed Rezoning would require any substantial increase in service levels from the post office.

11. TRAFFIC IMPACT

An assessment has been completed comparing the traffic impact of the development potential under the existing zoning (PRD) to that of the Proposed Rezoning. The details of that assessment are contained with the Supplemental Traffic Impact Study, prepared by McMahan Associates, dated June 18, 2010. In summary, it is not expected that the Proposed Rezoning will have substantial traffic implications on the surrounding roadways and intersections as compared to the existing zoning. While the peak volumes of each land use/zoning scenario will be different for the various peak hours, the Proposed Rezoning would have the potential to generate more traffic in the weekday afternoon commuter peak hour and the existing zoning would have the potential to generate more traffic during the weekday morning commuter peak hour. Therefore, the overall impact of the Proposed Rezoning is expected to have a neutral overall impact to peak hour traffic conditions in the area.

It should also be noted that the difference in the peak hour traffic generation of the existing and proposed zoning is relatively minor compared to the existing traffic volumes that travel through the County Line Road/Limekiln Pike/Lower State Road triangle that is adjacent to the site. The calculated higher volume in traffic with the existing PRD zoning equates to a small percentage of the total traffic that currently travels through the triangle during the morning peak hour, as does the projected higher volume in traffic with the Proposed Rezoning during the weekday afternoon commuter peak hour.

12. ALTERNATIVE ANALYSIS

Based upon the characteristics of the lands within the Proposed Rezoning and surrounding zoning districts, uses and improvements, there is no alternative zoning district that would be better suited for the lands proposed to be rezoned. Any commercial and industrial development of the lands within the Proposed Rezoning would be able to mitigate impacts on existing natural resources to recognize the environmental restrictions of the site.

There is no alternate zoning district that is both appropriate for the lands proposed to be rezoned and that would further reduce or lessen any adverse impact to the natural resources located on those lands.

13. ADVERSE IMPACTS

This section requires a summary of “probable adverse impacts, which cannot be precluded”. These are summarized below in the chart provided.

Type of Impact	Comment
a. Water Quality & Quantity	No probable adverse impact.
b. Damage or Destruction of Significant Plant or Wildlife Systems	Limited adverse impact to woodlands. Impacts are in compliance with Township Ordinance requirements. No probable adverse impact to wildlife.
c. Destruction of Natural Resources	Limited adverse impact. Impacts are in compliance with Township Ordinance requirements.
d. Destruction of Man-Made Resources	No probable adverse impact.
e. Disruption of Desirable Community and Regional Growth.	No probable adverse impact.
f. Health Safety and Well-Being on the Public	No probable adverse impact.

14. MITIGATION MEASURES

Mitigation Measures Which Pertain to Existing Procedures and Standards

Mitigation measures will be incorporated into the overall design and construction of the Proposed Project as they apply to the following:

(a) The Warrington Township Zoning Ordinance requires that stormwater management be designed in accordance with Best Management Practices to mitigate the effects of development on the natural systems. Any development under the Proposed Rezoning would be required to be designed in accordance with these requirements, during the preliminary plan approval process. Thus, the Proposed Rezoning will have no impact on these requirements.

(b) The PADEP requires that the Erosion and Sedimentation Control Plan and Post Construction Stormwater Management Plan be designed in accordance with NPDES and PA Code, Title 25, Chapter 102 standards and regulations in order to minimize the effects of the Proposed Project on the natural systems during and after construction. Any development under the Proposed Rezoning would be required to be designed in accordance with these requirements, during the preliminary plan approval process. Thus, the Proposed Rezoning will have no impact on these requirements.

15. IRREVERSIBLE IMPACTS

Any irreversible impacts to the environmental resources will be appropriately mitigated to the extent required by Township Ordinances or Pennsylvania DEP regulations. Any development under the Proposed Rezoning would be required to be designed in accordance with these requirements, during the preliminary plan approval process. Thus, the Proposed Rezoning will have no impact on these requirements.