Agenda for the Regular Meeting of New Britain Borough Council
Tuesday, June 14, 2022 at 7:30PM

1) Call to Order
2) Public hearing—hold hearing on and consider adoption of Ordinance 420: New Britain Borough Stormwater Management Comprehensive Ordinance Update and Ordinance 421: Subdivision and Land Development Ordinance Stormwater Management Update
3) Consideration of Consent Agenda Items
    a) May 10, 2022 Minutes
    b) Bills list for May 2022
    c) Approval of updated 2022 Shade Tree Commission Borough Native Plant List
    d) Consider 84 Lumber—Final Release from the ZHB Escrow in the amount of $1,000
    e) Consider Comcast-Final Release from the Road Opening Escrow in the amount of $500
    f) Consider County Builders-Final Release from the Legal and Engineering account in the amount of $3,151.40
    g) Consider Forest Park HOA-Final Release from the Engineering escrow in the amount of $626.25
    h) Consider Lenape Valley Church-Final Release from the Engineering Escrow in the amount of $4,396.45
    i) Consider Old School Burgers-Final Release from the ZHB Escrow in the amount of $2,500
    j) Consider PECO Road Openings- Final Release from the Road Opening Escrow in the amount of $2,000
4) Resident Remarks
5) Review of Written Staff Reports and Elected Official Reports
    a) Manager's Report
    b) Police Department Report
6) Committee Activity Review, Questions, and Announcements
7) Business Items
    a) MS4 Education Presentation
    b) Personnel Matters—Borough Manager/Interim Borough Manager
    c) Borough Council Meeting Date Change
8) Resident Remarks
9) Adjournment

General Committee Meeting Schedule (see calendar on Borough website for details/changes)

Appointment Advisory	4th Thursday of every month	7:30 PM	Burkart Hall
Bird Town	1st Monday of most months	6:30 PM	Burkart Hall
Borough Council	2nd Tuesday of every month	7:30 PM	Burkart Hall
Community and Business	4th Tuesday of every month	6:30 PM	Burkart Hall
Financial Advisory	1st Tuesday of every month	7:00 PM	Admin Office
Historic Preservation	3rd Wednesday of every month	10:00 AM	Admin Office
Human Relations	1st Tuesday of every month	7:30 PM	Burkart Hall
Nature Preserve	2nd Monday of most months	7:30 PM	Burkart Hall
Parks & Recreation	1st Monday of most months	7:30 PM	Burkart Hall
Planning Commission	3rd Tuesday of every month	7:30 PM	Burkart Hall
Police Commission	4th Thursday of most months	7:00 PM	229 N. Broad Street, Doylestown
Public Safety	4th Wednesday of every month	7:00 PM	Burkart Hall
Shade Tree Commission	3rd Monday of most months	7:30 PM	Burkart Hall

Committee Vacancies

Bird Town Committee – 1 vacancy	Historic Preservation Committee – always open to new members;	Human Relations Commission – 1 vacancy	Finance Committee-1 vacancy
Nature Preserve- 1 vacancy	Public Safety Committee – 1 vacancy	Shade Tree Commission – 1 vacancy	Zoning Hearing Board – 1 member vacancy; 2 alternate vacancies

BOROUGH OF NEW BRITAIN
45 Keeley Avenue● New Britain, Pennsylvania, 18901● (215) 348-4586

Public Hearing

NOTICE

TO THE RESIDENTS OF THE BOROUGH OF NEW BRITAIN:

NOTICE is hereby given that the Borough Council of the Borough of New Britain, Bucks County, Commonwealth of Pennsylvania will hold a hearing on, and consider adoption of, the following ordinances at its meeting on Tuesday, June 14, 2022, at 7:30 PM, at Burkart Hall, 56 Keeley Ave., New Britain, PA 18901.

AN ORDINANCE OF THE BOROUGH OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, AMENDING ARTICLE VI *REQUIRED IMPROVEMENTS* OF CHAPTER 385 *SUBDIVISION AND LAND DEVELOPMENT* OF THE CODE OF ORDINANCES OF THE BOROUGH OF NEW BRITAIN BY REPEALING AND REPLACING SECTION 385-34 *STORMWATER MANAGEMENT AND SURFACE RUNOFF CONTROL* IN ITS ENTIRETY; REPEALING ALL PRIOR INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

The following is a summary of the ordinance under consideration:

The ordinance amends the Borough's Subdivision and Land Development Ordinance ("SALDO"), found at Chapter 385 of the Borough's code of ordinances. The ordinance amends the SALDO's requirements related to stormwater management and surface runoff controls, by setting requirements for construction and installation of drainage structures on and off site, setting requirements regarding submission and review of drainage area boundary plans, allowing the Borough to require additional studies or higher levels of control as may be required to ensure adequate protection to life and property, and requiring additional study upon identification of special geological hazards or soil conditions. The ordinance contains requirements regarding retention of existing watercourses and natural drainage features. The ordinance incorporates Chapter 375 *Stormwater Management* of the Borough's code of ordinances and requires control of stormwater runoff from alteration or development by best management practices ("BMPs") pursuant to the SALDO, Chapter 375, and the Pennsylvania Department of Environmental Protection's *Pennsylvania Stormwater Best Management Practices Manual* ("BMP Manual"). The ordinance contains design criteria and specifications for infiltration BMPs, bioretention facilities BMPs, and aboveground basin BMPs beyond those set forth in the BMP Manual, and requires all other stormwater management BMPs to be designed in accordance with the BMP Manual and sound engineering principles and practices. The ordinance contains design criteria for drainage channels and swales, and drain pipes, inlets, and manholes. The ordinance repeals inconsistent ordinances or parts of ordinances and contains a severability clause and an effective date.

AN ORDINANCE OF THE BOROUGH OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, AMENDING CHAPTER 375 *STORMWATER MANAGEMENT*, OF THE BOROUGH'S CODE OF ORDINANCES BY REPEALING THE CURRENT PROVISIONS IN THEIR ENTIRETY AND REPLACING THEM WITH UPDATED PROVISIONS AMENDED TO BE CONSISTENT WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S MODEL STORMWATER MANAGEMENT ORDINANCE AS PART OF THE SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT PROGRAM; REPEALING ALL PRIOR INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

The following is a summary of the ordinance under consideration:

The ordinance repeals Chapter 375 *Stormwater Management* of the Borough's code of ordinances in its entirety by replacing the current provisions with new provisions attached to the ordinance as exhibit "A" as the "New Britain Borough Stormwater Management Ordinance" ("SWMO"). Certain appendices to the existing Chapter 375 will carry over into the new ordinance, as set forth therein. Under the ordinance, the new SWMO will contain the following provisions.

Article I *General Provisions* of the SWMO contains the short title, the statement of findings, the purposes, the statutory authority, the SWMO's applicability and the activities regulated under the SWMO, compatibility with other ordinance or legal requirements, and addresses erroneously issued/approved permits under the SWMO. Article II *Definitions* contains the ordinance's interpretation standards and definitions. Article III *Stormwater Management Standards* contains the SWMO's general requirements for activities regulated under the SWMO, exemptions from the SWMO's requirements, volume control requirements (including mathematical equations therefor), provisions for stormwater peak rate control and management districts, calculation methodology for runoff calculations, and contains other requirements for hot spot land use areas (areas with highly contaminated runoff, as further defined in the SWMO), and West Nile guidance.

Article IV *Stormwater Management (SWM) Site Plan Requirements* of the SWMO contains site plan requirements, including general requirements, specific plan requirements, plan submission procedures, plan review procedures, modification to submitted plans, resubmission of disapproved plans, authorization to construct pursuant to approved stormwater management plans (which lasts for a maximum period of five years from approval, with the Borough having the power to specify a shorter term of validity), inspection of phased installation of BMP or stormwater management facilities, and provisions for as-built plans and completion certificates. Article V *Fees and Expenses* contains the SWMO's review and inspection fees and outlines the expenses covered by the fees.

Article VI of the SWMO *Operation and Maintenance Responsibilities* contains provisions for performance guarantees for the timely installation and proper construction of stormwater management facilities, responsibilities for operations and maintenance of stormwater facilities and BMPs, municipal review of stormwater facilities and BMP operations and maintenance plans, requirements for an operations and management agreement for privately owned stormwater facilities and BMPs, and stormwater management easement requirements. Article VII

Prohibitions contains prohibitions against certain discharges and connections, restrictions for roof drains and sump pumps, and restriction against alteration of installed stormwater management BMPs. Article VIII *Enforcement and Penalties* contains provisions related to the right of entry of Borough officials to access stormwater management facilities and BMPs for inspection, contains specific inspection requirements, and contains enforcement provisions under the SWMO, provisions for suspension and revocation of permits and approvals, provisions for violations and penalties under the SWMO, and appeal provisions under the SWMO.

The ordinance repeals inconsistent ordinances or parts of ordinances and contains a severability clause and an effective date.

A copy of the full text of the ordinances under consideration may be examined at Borough Hall, 45 Keeley Avenue, New Britain, PA, by e-mailing azimmerman@newbritainboro.com and requesting a copy, or may be reviewed by requesting a copy from the newspaper wherein the notice is published.

Amanda Zimmerman
Borough Manager

NEW BRITAIN BOROUGH

BUCKS COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF THE BOROUGH OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, AMENDING CHAPTER 375 *STORMWATER MANAGEMENT*, OF THE BOROUGH'S CODE OF ORDINANCES BY REPEALING THE CURRENT PROVISIONS IN THEIR ENTIRETY AND REPLACING THEM WITH UPDATED PROVISIONS AMENDED TO BE CONSISTENT WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S MODEL STORMWATER MANAGEMENT ORDINANCE AS PART OF THE SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT PROGRAM; REPEALING ALL PRIOR INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Borough Code, 8 Pa.C.S. § 101, *et seq.*, grants authority to the Borough Council of the Borough of New Britain to enact regulations for the health, safety, and welfare of the Borough, its residents, property owners, visitors, etc.;

WHEREAS, the Borough Council has adopted a stormwater management ordinance at Chapter 375 *Stormwater Management* of the Borough's Code of Ordinances;

WHEREAS, as part of the implementation of the Borough's Small Municipal Separate Storm Sewer System (MS4) the Borough's Engineer analyzed Chapter 375 *Stormwater Management* to determine consistency with the Pennsylvania Department of Environmental Protection's Model Stormwater Management Ordinance (the "Model Ordinance");

WHEREAS, the Borough Engineer has identified certain amendments to Chapter 375 *Stormwater Management* necessary for consistency with the Model Ordinance, and has recommended the amendments set forth hereinbelow; and

WHEREAS, the Borough Council of the Borough of New Britain has determined it to be in the best interest of the Borough to adopt the amendments identified by the Borough Engineer.

NOW THEREFORE, be it **ORDAINED** and **ENACTED**, by the Borough Council of the Borough of New Britain as follows:

SECTION 1. The Code of Ordinances of the Borough of New Britain, Chapter 375 *Stormwater Management*, is hereby amended by repealing the provisions of Part 1 *Regulations* in their entirety, including Appendices I, II, and V referenced therein.

SECTION 2. The Code of Ordinances of the Borough of New Britain, Chapter 375 *Stormwater Management*, is hereby amended by repealing the provisions of Part 2 *Neshaminy Creek Watershed*, in their entirety, except that Appendices A through J, referenced therein, shall remain in full force and effect. As a result of the repeal of Part 1 and Part 2, Chapter 375 *Stormwater Management* shall no longer be broken into Parts.

SECTION 3. Chapter 375 *Stormwater Management* of the Code of Ordinances of the Borough of New Britain is hereby amended by inserting the provisions set forth on Exhibit "A" hereto in their entirety. The Appendices referenced in Exhibit "A" (Appendices A through J) are the same Appendices retained in Section 2 hereinabove, which Appendices shall apply in full force and effect. As set forth in Exhibit "A", Chapter 375 *Stormwater Management* shall be broken into Articles.

SECTION 4. Repealer. Any and all other Ordinances or parts of Ordinances in violation or in conflict with the terms, conditions and provisions of this Ordinance are hereby repealed to the extent of such irreconcilable conflict.

SECTION 5. Severability. The terms, conditions and provisions of this Ordinance are hereby declared to be severable, and, should any portion, part or provision of this Ordinance be found by a court of competent jurisdiction to be invalid, enforceable or unconstitutional, the Council hereby declares its intent that the Ordinance shall have been enacted without regard to the invalid, enforceable, or unconstitutional portion, part or provision of this Ordinance.

SECTION 6. Effective date. This Ordinance shall become effective at the earliest date permitted by Pennsylvania law.

ORDAINED and **ENACTED** an ordinance of the Borough of New Britain this ____ day of _____, 2022.

NEW BRITAIN BOROUGH COUNCIL

By:

_____

Council President

Approved this _____ day of _____, 2022.

_____
Mayor

Attest:

_____
Borough Secretary

EXHIBIT "A"
TO ORDINANCE AMENDING CHAPTER 375 *STORMWATER MANAGEMENT*
OF THE CODE OF ORDINANCES OF THE BOROUGH OF NEW BRITAIN

Article I
General Provisions

§ 375-101 **Short title.**
This Ordinance shall be known and may be cited as the "Neshaminy Creek Watershed Stormwater Management Ordinance" (aka New Britain Borough Stormwater Management Ordinance).

§ 375-102 **Statement of Findings.**
The governing body of the municipality finds that:

A. Inadequate management of accelerated stormwater runoff resulting from development and redevelopment throughout a watershed increases runoff volumes, flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood-reduction efforts in upstream and downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.

B. Inadequate planning and management of stormwater runoff resulting from land development and redevelopment throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of streambeds and stream banks, thereby elevating sedimentation), destroying aquatic habitat, and elevating aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals, and pathogens.

C. A comprehensive program of stormwater management (SWM), including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, welfare, and the protection of the people of the municipality and all the people of the commonwealth their resources, and the environment.

D. Stormwater is an important water resource that provides groundwater recharge for water supplies and supports the base flow of streams, which also protects and maintains surface water quality.

E. Public education on the control of pollution from stormwater is an essential component in successfully addressing stormwater.

F. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES) program.

G. The use of green infrastructure and low impact development (LID) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices and LID contribute to the restoration or maintenance of pre-development hydrology.

§ 375-103 **Purpose.**

The purpose of this Ordinance is to promote the public health, safety, and welfare within the Municipality and the Neshaminy Creek watershed by maintaining the natural hydrologic regime and by minimizing the harms and maximizing the benefits described in § **375-102** of this Ordinance, through provisions designed to:

A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code Ch. 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this commonwealth.

B. Minimize increases in stormwater volume and control peak flows.

C. Minimize impervious surfaces.

D. Provide review procedures and performance standards for stormwater planning and management.

E. Preserve the natural drainage systems as much as possible.

F. Manage stormwater impacts close to the runoff source, requiring a minimum of structures and relying on natural processes.

G. Focus on infiltration of stormwater to maintain groundwater recharge, to prevent degradation of surface and groundwater quality, and to otherwise protect water resources.

H. Preserve and restore the flood-carrying capacity of streams.

I. Prevent scour and erosion of streambanks and stream beds.

J. Provide standards to meet National Pollution Discharge Elimination System (NPDES) permit requirements.

K. Address certain requirements of the Municipal Separate Stormwater Sewer System (MS4) NPDES Phase II Stormwater Regulations.

L. Address the requirements of the Neshaminy Creek Watershed Act 167 Stormwater Management Plan.

M. Provide for proper operation and maintenance of all stormwater management facilities and best management practices (BMPs) that are implemented in the municipality.

§ 375-104 **Statutory Authority.**
The municipality is empowered to regulate land use activities that affect runoff, surface, and groundwater quality and quantity by the authority of:

A. Pennsylvania Municipalities Planning Code, Act 247, as amended.

B. Cite applicable municipal code [e.g., Borough Code (Act 581 of 1965, P.L. 1656; 8 Pa.C.S.A. § 101 et seq., as amended)].

C. The Stormwater Management Act 167, as amended.

§ 375-105 **Applicability; Regulated Activities.**
A. All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance.

B. Regulated activities include, but are not limited to:

(1) Land development;

(2) Subdivisions;

(3) Prohibited or polluted discharges;

(4) Alteration of the natural hydrologic regime;

(5) Construction or reconstruction of, or addition of new impervious or semi-pervious surfaces (i.e., driveways, parking lots, roads, etc.), except for reconstruction of roads where there is no increase in impervious surface;

(6) Construction of new buildings or additions to existing buildings;

(7) Redevelopment;

(8) Diversion piping or encroachments in any natural or man-made channel; and

(9) Nonstructural and structural stormwater management best management practices (BMPs) or appurtenances thereto.

§ 375-106 **Repealer.**
Any other ordinance provision(s) or regulation of the Municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

§ 375-107 **Severability.**
In the event that a court of competent jurisdiction declares any section or provision of this Ordinance invalid, such decision shall not affect the validity of any of the remaining portions of this Ordinance.

§ 375-108 **Compatibility with other ordinance or legal requirements.**
Approvals issued and actions taken pursuant to this Ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or ordinance.

§ 375-109 **Erroneous Permit.**
Any permit or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency or employee of the Municipality purporting to validate such a violation.

Article II
Definitions

§ 375-201 **Word usage.**
For the purposes of this Ordinance, certain terms and words used herein shall be interpreted as follows:

A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.

B. The word "includes" or "including" shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.

C. The word "person" includes an individual, firm, association, organization, partnership, trust, company, corporation unit of government or any other similar entity.

D. The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.

E. The words "used" or "occupied" include the words "intended designed, maintained or arranged to be used, occupied or maintained."

§ 375-202 **Definitions.**
These definitions do not necessarily reflect the definitions contained in pertinent regulations or statutes and are intended for this Ordinance only. As used in this Ordinance, the following terms shall have the meanings indicated:

ACCELERATED EROSION

The removal of the surface of the land through the combined action of man's activity and the natural processes of a rate greater than would occur because of the natural process alone.

AGRICULTURAL ACTIVITY

Activities associated with agriculture such as agricultural cultivation, agricultural operation, and animal heavy use areas. This includes the work of producing crops including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

ALTERATION

As applied to land, a change in topography as a result of the moving of soil and rock from one location or position to another; also the changing of surface conditions by causing the surface to be more or less impervious as the result of changing the land cover including the water, vegetation and bare soil.

APPLICANT

A landowner, developer, or other person who has filed an application to the Municipality for approval to engage in any regulated activity at a project site in the Municipality.

AS-BUILT DRAWINGS/PLANS

Drawings meeting the requirements of **§ 375-409**.

BANKFULL

The channel at the top-of-bank, or point from where water begins to overflow onto a floodplain.

BASE FLOW

Portion of stream discharge derived from groundwater; the sustained discharge that does not result from direct runoff or from water diversions, reservoir releases, piped discharges, or other human activities.

BEST MANAGEMENT PRACTICES (BMPs)

Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "non-structural." In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

BIORETENTION

A stormwater retention area that utilizes woody and herbaceous plants and soils to remove pollutants before infiltration occurs.

BUFFER

The area of land immediately adjacent to any stream, measured perpendicular to and horizontally from the top-of-bank on both sides of a stream (see "top-of-bank").

CHANNEL

An open drainage feature through which stormwater flows. Channels include, but shall not be limited to, natural and man-made watercourses, swales, streams, ditches, canals, and pipes that convey continuously or periodically flowing water.

CISTERN

An underground reservoir or tank for storing rainwater.

CONSERVATION DISTRICT

The Bucks County Conservation District.

CULVERT

A structure with its appurtenant works, which carries water under or through an embankment or fill.

CURVE NUMBER

Value used in the Soil Cover Complex Method. It is a measure of the percentage of precipitation which is expected to run off from the watershed and is a function of the soil,

vegetative cover, and tillage method.

DAM

A man-made barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid. A dam may include a refuse bank, fill or structure for highway, railroad or other purposes which impounds or may impound water or another fluid or semifluid.

DEPARTMENT

The Pennsylvania Department of Environmental Protection (PADEP).

DESIGN PROFESSIONAL (QUALIFIED)

A Pennsylvania registered professional engineer, registered landscape architect or registered professional land surveyor trained to develop stormwater management plans.

DESIGN STORM

The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a 5-year storm) and duration (e.g., 24 hours), used in the design and evaluation of stormwater management systems. Also see Return Period.

DESIGNEE

The agent of the Bucks County, Bucks County Conservation District, and/or agent of the governing body involved with the administration, review, or enforcement of any provisions of this Ordinance by contract or memorandum of understanding.

DETENTION BASIN

An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely soon after a rainfall event and become dry until the next rainfall event.

DETENTION VOLUME

The volume of runoff that is captured and released into the waters of the commonwealth at a controlled rate.

DEP

The Pennsylvania Department of Environmental Protection

DEVELOPER

A person that seeks to undertake a land development or subdivision.

DEVELOPMENT

Any human-induced change to improved or unimproved real estate, whether public or private, including but not limited to land development, construction, installation, or expansion of a building or other structure, land division, street construction, drilling, and site alteration such as embankments, dredging, grubbing, grading, paving, parking or storage facilities, excavation, filling, stockpiling, or clearing. As used in this Ordinance, "development" encompasses both new development and redevelopment.

DEVELOPMENT SITE (SITE)

The specific tract or parcel of land where any regulated activity in the Municipality is planned, conducted, or maintained.

DIFFUSED DRAINAGE DISCHARGE

Drainage discharge that is not confined to a single point location or channel, including sheet flow or shallow concentrated flow.

DISCHARGE

A. Verb: To release water from a project, site, aquifer, drainage basin or other point of interest.

B. Noun: The rate and volume of flow of water such as in a stream, generally expressed in cubic feet per second. See also "peak discharge."

DISCHARGE POINT

The point of discharge for a stormwater facility.

DISCONNECTED IMPERVIOUS AREA (DIA)

An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system and is redirected or directed to a pervious area, which allows for infiltration, filtration, and increased time of concentration as specified in Appendix F, Disconnected Impervious Area.

DISTURBED AREA

Unstabilized land area where an earth disturbance activity is occurring or has occurred.

DITCH

A man-made waterway constructed for irrigation or stormwater conveyance purposes.

DRAINAGE CONVEYANCE FACILITY

A stormwater management facility designed to transport stormwater runoff that includes channels, swales, pipes, conduits, culverts, and storm sewers.

DRAINAGE EASEMENT

A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

DRAINAGE PERMIT

A permit issued by the municipality after the SWM Site Plan has been approved.

EARTH DISTURBANCE ACTIVITY

A construction or other human activity that disturbs the surface of land, including but not limited to: clearing and grubbing, grading, excavations, embankments, land development, agricultural plowing or tilling, timber harvesting activities, road maintenance activities, building construction, mineral extraction, and the moving, depositing, stockpiling, or storing of soil, rock or earth materials.

EMERGENCY SPILLWAY

A conveyance area that is used to pass peak discharge greater than the maximum design storm controlled by the stormwater facility.

ENCROACHMENT

A structure or activity that changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water.

EROSION

The process by which the surface of the land, including water/stream channels, is worn away by water, wind, or chemical action.

EROSION AND SEDIMENT CONTROL PLAN

A site-specific plan identifying BMPs to minimize accelerated erosion and sedimentation. For agricultural plowing or tilling activities, the Erosion and Sediment Control Plan is that portion of a conservation plan identifying BMPs to minimize accelerated erosion and sedimentation.

EXCEPTIONAL VALUE WATERS

Surface waters of high quality which satisfy Pennsylvania Code Title 25 Environmental Protection. Chapter 93, Water Quality Standards, § 93.4b(b) (relating to antidegradation).

EXISTING CONDITIONS

The dominant land cover during the 5-year period immediately preceding a proposed regulated activity.

EXISTING RECHARGE AREA

Undisturbed surface area or depression where stormwater collects and a portion of which infiltrates and replenishes the groundwater.

EXISTING RESOURCES AND SITE ANALYSIS MAP

A base map which identifies fundamental environmental site information including floodplains, wetlands, topography, vegetative site features, natural areas, prime agricultural land and areas supportive of endangered species.

FEMA

Federal Emergency Management Agency

FLOOD

A temporary condition of partial or complete inundation of land areas from the overflow of streams, rivers, and other waters of the Commonwealth.

FLOODPLAIN

Any land area susceptible to inundation by water from any natural source or as delineated by applicable FEMA maps and studies as being a special flood hazard area. Also includes areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania DEP Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).

FLOODWAY

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodway, it is assumed--absent evidence to the contrary--that the floodway extends from the watercourse to 50 feet from the top of the bank of the watercourse.

FOREST MANAGEMENT/TIMBER OPERATIONS

Planning and associated activities necessary for the management of forestland. These include timber inventory, preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

FREEBOARD

A vertical distance between the elevation of the design high water and the top of a dam, levee, tank, basin, swale, or diversion berm. The space is required as a safety margin in a pond or basin.

GOVERNING BODY

The Borough Council of the Borough of New Britain.

GRADE

A. Noun: A slope, usually of a road, channel or natural ground specified in percent and shown on plans as specified herein.

B. Verb: To finish the surface of a roadbed, the top of an embankment, or the bottom of excavation.

GREEN INFRASTRUCTURE

Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.

GROUNDWATER

Water beneath the earth's surface that supplies wells and springs, and is often between saturated soil and rock.

GROUNDWATER RECHARGE

The replenishment of existing natural underground water supplies from rain or overland flow.

HEC-HMS

The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) — Hydrologic Modeling System (HMS). This model was used to model the Neshaminy Creek watershed during the Act 167 Plan development and was the basis for the standards and criteria of this Ordinance.

HIGH-QUALITY WATERS

Surface waters having quality which exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water by satisfying Pennsylvania Code Title 25, Environmental Protection, Chapter 93, Water Quality Standards, § 93.4b(a).

HOT SPOT

An area where land use or activity generates highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. Typical pollutant loadings in stormwater may be found in Chapter 8, Section 6, of the Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection (PADEP) No. 363-0300-002 (2006). More information concerning hot spots may be found in § **375-306**.

HYDROGRAPH

A graph representing the discharge of water versus time for a selected point in the drainage system.

HYDROLOGIC REGIME

The hydrologic cycle or balance that sustains quality and quantity of stormwater, baseflow, storage, and groundwater supplies under natural conditions.

HYDROLOGIC SOIL GROUP (HSG)

A classification of soils by the Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff. The soils in the area of the development site may be identified from a soil survey report that can be obtained from the local NRCS offices or conservation district office.

IMPERVIOUS SURFACE (IMPERVIOUS AREA)

A surface that does not absorb water or prevents the infiltration of water into the ground. All buildings, roofs, parking areas, driveways, roads, sidewalks, and any areas in concrete, asphalt, and packed stone shall be considered impervious surfaces. In addition, other areas determined by the Municipal Engineer to be impervious within the meaning of this definition will also be impervious surfaces.

IMPOUNDMENT

A retention or detention basin designed to retain stormwater runoff and release it at a controlled rate.

INFILL DEVELOPMENT

Development that occurs on smaller parcels that remain undeveloped but are within or very close proximity to urban or densely developed areas. Infill development usually relies on existing infrastructure and does not require an extension of water, sewer or other public utilities.

INFILTRATION

Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

INFILTRATION STRUCTURES

A structure designed to direct runoff into the underground water (e.g., French drains, seepage pits, or seepage trenches).

INITIAL ABSTRACTION (IA)

The value used to calculate the volume or peak rate of runoff in the Soil Cover Complex Method. It represents the depth of rain retained on vegetation plus the depth of rain stored on the soil surface plus the depth of rain infiltrated prior to the start of runoff.

INLET

The upstream end of any structure through which water may flow.

INTERMITTENT STREAM

A stream that flows only part of the time. Flow generally occurs for several weeks or months in response to seasonal precipitation or groundwater discharge.

KARST

A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst is formed on carbonate rocks, such as limestone or dolomite.

LAND DEVELOPMENT

Any of the following activities:

A. The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:

   (1) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots, regardless of the number of occupants or tenure; or

   (2) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features.

B. A subdivision of land;

C. Development in accordance with Section 503(1.1) of the Pa. Municipalities Planning Code.

LOT

A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit.

LOW-IMPACT DEVELOPMENT (LID) PRACTICES

Site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater. LID can be applied to new development, urban retrofits, and revitalization projects. LID utilizes design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site.

MAIN STEM (MAIN CHANNEL)

Any stream segment or other runoff conveyance used as a reach in the Neshaminy Creek hydrologic model.

MANNING EQUATION (MANNING FORMULA)

A method for calculation of velocity of flow (e.g., feet per second) and flow rate (e.g., cubic feet per second) in open channels based upon channel shape, roughness, depth of flow and slope. "Open channels" may include closed conduits so long as the flow is not under pressure.

MUNICIPAL ENGINEER

A professional engineer licensed as such in the Commonwealth of Pennsylvania, duly appointed as the engineer for a municipality, planning agency or joint planning commission.

MUNICIPALITY

New Britain Borough, Bucks County, Pennsylvania.

NATURAL HYDROLOGIC REGIME

See "hydrologic regime."

NONPOINT SOURCE POLLUTION

Pollution that enters a water body from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

NONSTORMWATER DISCHARGES

Water flowing in stormwater collection facilities, such as pipes or swales, which is not the result of a rainfall event or snowmelt.

NPDES

National Pollutant Discharge Elimination System, the federal government's system for issuance of permits under the Clean Water Act, which is delegated to PADEP in Pennsylvania.

NRCS

USDA Natural Resource Conservation Service (previously Soil Conservation Service).

OUTFALL

"Point source" as described in 40 CFR 122.2 at the point where the municipality's storm sewer system discharges to surface waters of the commonwealth.

OUTLET

Points of water disposal to a stream, river, lake, tidewater or artificial drain.

PARENT TRACT

The parcel of land from which a land development or subdivision originates, determined from the date of municipal adoption of this Ordinance.

PEAK DISCHARGE

The maximum rate of stormwater runoff from a specific storm event.

PENN STATE RUNOFF MODEL (PSRM)

The computer-based hydrologic model developed at the Pennsylvania State University.

PERENNIAL STREAM

A stream which contains water at all times except during extreme drought.

PERVIOUS SURFACE

Any area not defined as impervious.

PIPE

A culvert, closed conduit, or similar structure (including appurtenances) that conveys stormwater.

PLANNING COMMISSION

The Planning Commission of New Britain Borough.

POINT SOURCE

Any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, or conduit from which stormwater is or may be discharged, as defined in state regulations at 25 Pa. Code § 92.1.

POSTCONSTRUCTION

Period after construction during which disturbed areas are stabilized, stormwater controls are in place and functioning and all proposed improvements in the approved land development plan are completed.

PREDEVELOPMENT

See "existing condition."

PRETREATMENT

Techniques employed in stormwater BMPs to provide storage or filtering to trap coarse materials and other pollutants before they enter the system, but not necessarily designed to meet the volume requirements of § **375-303**.

PROJECT SITE

The specific tract or parcel of land where any regulated activity in the municipality is planned, conducted, or maintained.

QUALIFIED PROFESSIONAL

Any person licensed by the Pennsylvania Department of State or otherwise qualified by law to perform the work required by this Ordinance.

RATIONAL METHOD

A rainfall-runoff relation used to estimate peak flow.

RECHARGE

The replenishment of groundwater through the infiltration of rainfall, other surface waters, or land application of water or treated wastewater.

REDEVELOPMENT

Any development that requires demolition or removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces. Maintenance activities such as top-layer grinding and repaving are not considered to be redevelopment. Interior remodeling projects and tenant improvements are also not considered to be redevelopment. Utility trenches in streets are not considered redevelopment unless more than 50% of the street width including shoulders is removed and repaved.

REGULATED ACTIVITIES

Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

REGULATED EARTH DISTURBANCE ACTIVITY

Activity involving earth disturbance subject to regulation under 25 Pa. Code Ch. 92, 25 Pa. Code Ch. 102, or the Clean Streams Law.

RELEASE RATE

The percentage of existing conditions peak rate of runoff from a site or subarea to which the proposed conditions peak rate of runoff must be reduced to protect downstream areas.

REPAVING

Replacement of the impervious surface that does not involve reconstruction of an existing paved (impervious) surface.

REPLACEMENT PAVING

Reconstruction of and full replacement of an existing paved (impervious) surface.

RETENTION BASIN

A structure in which stormwater is stored and not released during the storm event. Retention basins are designed for infiltration purposes, and do not have an outlet. The retention basin must infiltrate stored water in four days or less.

RETENTION VOLUME/REMOVED RUNOFF

The volume of runoff that is captured and not released directly into the surface waters of the commonwealth during or after a storm event.

RETURN PERIOD

The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the 25-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a 25-year storm occurring in any one year is 0.04 (i.e., a 4% chance).

RIPARIAN BUFFER

A permanent area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.

ROAD MAINTENANCE

Earth disturbance activities within the existing road cross-section, such as grading and repairing existing unpaved road surfaces, cutting road banks, cleaning or clearing drainage ditches and other similar activities.

ROOF DRAINS

A drainage conduit or pipe that collects water runoff from a roof and leads it away from the structure.

RUNOFF

Any part of precipitation that flows over the land surface.

SALDO

Subdivision and Land Development Ordinance.

SEDIMENT

Soils or other materials transported by surface water as a product of erosion.

SEDIMENT POLLUTION

The placement, discharge or any other introduction of sediment into the waters of the commonwealth.

SEDIMENTATION

The process by which mineral or organic matter is accumulated or deposited by the movement of water or air.

SEEPAGE PIT/SEEPAGE TRENCH

An area of excavated earth filled with loose stone or similar coarse material, into which surface water is directed for infiltration into the underground water. More information on seepage pits may be found in the PA BMP Manual, December 2006, Chapter 6, Section 4, or the latest edition, chapter, and section.

SEPARATE STORM SEWER SYSTEM

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) primarily used for collecting and conveying stormwater runoff.

SHALLOW CONCENTRATED FLOW

Stormwater runoff flowing in shallow, defined ruts prior to entering a defined channel or waterway.

SHEET FLOW

A flow process associated with broad, shallow water movement on sloping ground surfaces that is not channelized or concentrated.

SOIL COVER COMPLEX METHOD

A method of runoff computation developed by the NRCS that is based on relating soil type and land use/cover to a runoff parameter called "curve number" (CN).

SOURCE WATER PROTECTION AREAS (SWPA)

The zone through which contaminants, if present, are likely to migrate and reach a drinking water well or surface water intake.

SPECIAL PROTECTION SUBWATERSHEDS

Watersheds that have been designated in Pennsylvania Code Title 25, Environmental Protection, Chapter 93, Water Quality Standards, as exceptional value (EV) or high-quality (HQ) waters.

SPILLWAY

A conveyance that is used to pass the peak discharge of the maximum design storm that is controlled by the stormwater facility.

STATE WATER QUALITY REQUIREMENTS

The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

STORM FREQUENCY

The number of times that a given storm "event" occurs or is exceeded on the average in a stated period of years. See "return period."

STORM SEWER

A system of pipes and/or open channels that convey intercepted runoff and stormwater from other sources, but excludes domestic sewage and industrial wastes.

STORMWATER

Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES

"BMPs" or "SWM BMPs" throughout this Ordinance.

STORMWATER MANAGEMENT FACILITY

Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff quality, rate or quantity. Typical stormwater management facilities include, but are not limited to detention and retention basins, open channels, storm sewers, pipes, and infiltration structures.

STORMWATER MANAGEMENT PLAN

The watershed plan, known as the "Neshaminy Creek Watershed Act 167 Stormwater Management Plan," for managing those land use activities that will influence stormwater runoff quality and quantity and that would impact the Neshaminy Creek watershed adopted by Bucks and Montgomery Counties as required by the Act of October 4, 1978, P.L. 864 (Act 167).

STORMWATER MANAGEMENT SITE PLAN (SWM SITE PLAN)

The plan prepared by the applicant or his representative indicating how stormwater runoff will be managed at the particular site of interest according to this Ordinance.

STREAM

A flow of water in a natural channel or bed, as a brook, rivulet, or a small river

STREAM BUFFER

The land area adjacent to each side of a stream, essential to maintaining water quality. (See "buffer.")

STREAM ENCLOSURE

A bridge, culvert, or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated water of the commonwealth.

STREAM BANK EROSION

The widening, deepening, or headward cutting of channels and waterways, caused by stormwater runoff or bankfull flows.

SUBAREA (SUBWATERSHED)

The smallest drainage unit of a watershed for which stormwater management criteria have been established in the stormwater management plan.

SUBDIVISION

The division or redivision of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels, or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership, or building or lot development, provided the subdivision by lease of land for agricultural purposes into parcels of more than 10 acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

SURFACE WATERS OF THE (THIS) COMMONWEALTH

Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface waters, or parts thereof, whether natural or artificial, within or on the boundaries of the commonwealth.

SWALE

A low-lying stretch of land that gathers or carries surface water runoff.

SWM SITE PLAN

The documentation of the stormwater management system to be used for a given development site, the contents of which are established in § **375-402**.

TIMBER OPERATIONS

See "forest management."

TIME-OF-CONCENTRATION (TC)

The time required for surface runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. This time is the combined total of overland flow time and flow time in pipes or channels, if any.

TOP-OF-BANK

Highest point of elevation in a stream channel cross-section at which a rising water level just begins to flow out of the channel and over the floodplain.

USDA

United States Department of Agriculture

VEGETATED SWALE

A natural or man-made waterway, usually broad and shallow, covered with erosion-resistant grasses, used to convey surface water.

VERNAL POOL

Seasonal depressional wetlands that are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall.

WATERCOURSE

A channel or conveyance of surface water having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

WATERS OF THE (THIS) COMMONWEALTH

Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of the commonwealth.

WATERSHED

Region or area drained by a river, watercourse, or other surface water of the Commonwealth, whether natural or artificial.

WET BASIN

Pond for urban runoff management that is designed to detain urban runoff and always contains water.

WETLAND

Those areas that are inundated or saturated by surface or groundwater 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, fens, and similar areas.

Article III
Stormwater Management Standards

§ 375-301 **General requirements.**

A. Applicants proposing regulated activities in the Neshaminy Creek watershed that do not fall under the exemption criteria shown in §**375-302** shall submit a stormwater management (SWM) Site Plan consistent with the Neshaminy Creek Watershed SWM Plan to the municipality for review. The SWM criteria of this Ordinance shall apply to the total proposed development even if development is to take place in stages. Preparation and implementation of an approved SWM Site Plan is required. No regulated activities shall commence until the municipality issues written approval of a SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.

B. SWM Site Plans approved by the municipality, in accordance with Article **IV**, shall be on-site throughout the duration of the regulated activity.

C. The municipality may, after consultation with the DEP, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.

D. For all regulated earth disturbance activities, erosion and sediment (E&S) control best management practices (BMPs) shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the *Erosion and Sediment Pollution Control Program Manual* No. 363-2134-008, as amended and updated.

E. Impervious areas:

(1) The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.

(2) For development taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.

(3) For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance.

F. Stormwater flows onto adjacent property shall not be created, increased, decreased,

relocated, or otherwise altered without written notification of the adjacent property owner(s). Such stormwater flows shall be subject to the requirements of this Ordinance.

G. All regulated activities shall include such measures as necessary to:

(1) Protect health, safety, and property;

(2) Meet the water quality goals of this Ordinance by implementing measures to:

(a) Minimize disturbance to floodplains, wetlands, and wooded areas.

(b) Create, maintain, repair or extend riparian buffers.

(c) Avoid erosive flow conditions in natural flow pathways.

(d) Minimize thermal impacts to waters of this commonwealth.

(e) Disconnect impervious surfaces (i.e., disconnected impervious areas/DIAs) by directing runoff to pervious areas, wherever possible. See Appendix F for detail on DIAs.

(3) To the maximum extent practicable, incorporate the techniques for low-impact development practices (e.g., protecting existing trees, reducing area of impervious surface, cluster development, and protecting open space) described in the *Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection* (PA BMP Manual) No. 363-0300-002(2006), as amended and updated. See Appendix E for a summary description.

H. Infiltration BMPs should be spread out, made as shallow as practicable, and located to maximize the use of natural on-site infiltration features while still meeting the other requirements of this Ordinance.

I. The design of all facilities over karst shall include an evaluation of measures to minimize the risk of adverse effects.

J. Storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm.

K. The design storm volumes to be used in the analysis of peak rates of discharge should be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service Hydrometeorological Design Studies

Center, Silver Spring, Maryland, using data from the Doylestown station (36-2221). NOAA's Atlas 14 can be accessed at http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html

L. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Stormwater Management Act.

M. Various BMPs and their design standards are listed in the *Pennsylvania Stormwater Best Management Practices Manual* (PA BMP Manual).

§ 375-302 **Exemptions.**

A. Regulated activities that create impervious surfaces less than or equal to 1,000 square feet are exempt from the peak rate control requirements, volume control, and the SWM Site Plan preparation located in Article **IV** of this Ordinance unless the activity is found to be a significant contributor of pollution to the waters of this Commonwealth.

B. Regulated activities that create impervious surfaces between 1,001 square feet up to and including 5,000 square feet are exempt only from the peak rate control requirements of this Ordinance. Regulated activities that create impervious surfaces between 1,001 square feet up to and including 5,000 square feet shall be subject to Appendix I hereof.

C. Agricultural activity is exempt from the SWM Site Plan preparation requirements of this Ordinance, provided the activities are performed according to the requirements of 25 Pa. Code Ch. 102.

D. Forest management and timber operations are exempt from the SWM Site Plan preparation requirements of this Ordinance, provided the activities are performed according to the requirements of 25 Pa. Code Ch. 102.

E. Any aspect of BMP maintenance to an existing SWM system made in accordance with plans and specifications approved by the Municipality is exempt.

F. The use of land for gardening for home consumption is exempt from the requirements of this Ordinance.

G. Exemptions from any provisions of this Ordinance shall not relieve the applicant from the requirements in § **375-301.D** through **L**.

H. Additional exemption criteria:

(1) The Municipality may deny or revoke any exemption pursuant to this Ordinance at any time for any project that the Municipality believes may pose a threat to public

health and safety or the environment.

(2) Exemption responsibilities. An exemption shall not relieve the applicant from implementing such measures as are necessary to protect public health, safety, and property.

(3) Drainage problems. Where drainage problems are documented or known to exist downstream of or is expected from the proposed activity, the Municipality may deny exemptions.

(4) Exemptions are limited to this Ordinance.

(5) HQ and EV streams. The Municipality may deny exemptions in high-quality (HQ) or exceptional value (EV) waters and source water protection areas (SWPA).

§ 375-303 **Volume control.**

Volume controls will mitigate increased runoff impacts, protect stream channel morphology, maintain groundwater recharge, and contribute to water quality improvements. Stormwater runoff volume control methods are based on the net change in runoff volume for the two-year storm event.

The green infrastructure and low impact development practices provided in the PA BMP Manual shall be utilized for all regulated activities wherever possible.

Volume controls shall be implemented using the *Design Storm Method* in Subsection A or the *Simplified Method* in Subsection B below. For regulated activities equal to or less than one acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic limitations of the procedures associated with each methodology, and other factors. All regulated activities greater than one acre and those that require hydrologic routing to design the stormwater facilities must use the *Design Storm Method*.

A. The *Design Storm Method* (CG-1 in the PA BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions. For modeling assumptions, refer to § **375-305**.

(1) Post-development total runoff cannot be increased from pre-development total runoff for all storms equal to or less than the 2-year 24-hour duration precipitation.

(2) The following applies in order to estimate the increased volume of runoff for the 2-year 24-hour duration precipitation event:

To calculate the runoff volume (cubic feet) for existing site conditions (pre-development) and for the proposed developed site conditions (post-development), it is recommended to use the Soil Cover Complex method as shown below. The calculated volume shall be either reused, evapotranspired, or infiltrated through structural or nonstructural means. Runoff volume must be calculated for each land use type and soil. The use of a weighted CN value for volume calculations is not acceptable. Table B-3 in Appendix B is available to guide a qualified professional and/or an applicant to calculate the stormwater runoff volume.

Soil Cover Complex Method:

Step 1: Runoff (in) = Q = $(P-0.2S)^2/(P + 0.8S)$

Where:

P	=	Two-year rainfall (inches)
S	=	(1,000/CN) — 10; the potential maximum retention (including initial abstraction, Ia)

Step 2: Runoff Volume (cubic feet) = Q x Area x 1/12

Where:

Q	=	Runoff (inches)
Area	=	Stormwater management area (square feet)

B. The *Simplified Method* (CG-2 in the PA BMP Manual) is independent of site conditions and should be used if the *Design Storm Method* is not followed. This method is not applicable to regulated activities greater than one acre or for projects that require design of stormwater storage facilities. For new impervious surfaces:

(1) Stormwater facilities shall capture the runoff volume from at least the first two (2) inches of runoff from all new impervious surfaces.

Volume (cubic feet) = (2 inches runoff/12 inches)* impervious surface (square feet)

(2) At least the first one inch of runoff volume from new impervious surfaces shall be permanently removed from the runoff flow; i.e. it shall not be released into the surface waters of the Commonwealth. The calculated volume shall be removed through reuse, evapotranspiration, or infiltration through structural or nonstructural means.

Volume (cubic feet) = (1 inch runoff/12 inches)* impervious surface (square feet)

(3) Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases where soils

are suitable for infiltration based on the criteria of **§375-303.C.(5)** and §**375-303.C.(6)**, at least the first 1/2 inch of the permanently removed runoff should be infiltrated.

(4) No more than one inch of runoff volume from impervious surfaces shall be released from the site. The release time must be over 24 to 72 hours.

C. Stormwater control measures. The applicant must demonstrate how the required volume is controlled through stormwater best management practices (BMPs) which shall provide the means necessary to capture, reuse, evaporate, transpire or infiltrate the total runoff volume.

(1) If natural resources exist on the site, the applicant who is required to submit a SWM Site Plan shall determine the total acreage of protected area where no disturbance is proposed. The acreage of the protected area should be subtracted from the total site area and not included in the stormwater management site area acreage used in determining the volume controls.

Stormwater Management Site Area =

Total Site Area (for both pre and post development conditions) *minus* Protected Area

Natural resource areas should be calculated based upon the municipality's own natural resource protection ordinance requirements in §**450-38**. See Table B-2 in Appendix B for guidance to assess the protected area. For additional reference, see Chapter 5 Section 5.4.1 of the PA BMP manual.

(2) Calculate the volume controls provided through nonstructural BMPs. Table B-5 in Appendix B is recommended as guidance.

(3) Volume controls provided through nonstructural BMPs should be subtracted from the required volume to determine the necessary structural BMPs.

Required Volume Control (feet^3)	*minus*	Nonstructural Volume Control (feet^3)	=	Structural Volume Requirement (feet^3)

(4) Calculate the volume controls provided through structural BMPs. Table B-6 in Appendix B is recommended as guidance. See PA BMP Manual Chapter 6 for description of the BMPs.

(5) Infiltration BMPs intended to receive runoff from developed areas shall be selected

based on the suitability of soils and site conditions (see Table B-6 in Appendix B for a list of Infiltration BMPs). Infiltration BMPs shall be constructed on soils that have the following characteristics:

(a) A minimum soil depth of 24 inches between the bottom of the infiltration BMPs and the top of bedrock, seasonally high water table, or other limiting zone.

(b) An infiltration rate sufficient to accept the additional stormwater load and dewater completely as determined by field tests. A minimum of 0.2 inches/hour should be utilized and for acceptable rates a safety factor of 50% should be applied for design purposes (e.g., for soil which measured 0.4 inch/hour, the BMP design should use 0.2 inch/hour to ensure safe infiltration rates after construction).

(c) All open-air infiltration facilities shall be designed to completely infiltrate runoff volume within three days (72 hours) from the start of the design storm.

(6) Soils. A soils evaluation of the project site shall be required to determine the suitability of infiltration facilities. All regulated activities are required to perform a detailed soils evaluation by a qualified design professional which at minimum address soil permeability, depth to bedrock, and subgrade stability. The general process for designing the infiltration BMP shall be:

(a) Analyze hydrologic soil groups as well as natural and man-made features within the site to determine general areas of suitability for infiltration practices. In areas where development on fill material is under consideration, conduct geotechnical investigations of subgrade stability; infiltration may not be ruled out without conducting these tests.

(b) Provide field tests such as double-ring infiltrometer or hydraulic conductivity tests (at the level of the proposed infiltration surface) to determine the appropriate hydraulic conductivity rate. Percolation tests are not recommended for design purposes.

(c) Design the infiltration structure based on field-determined capacity at the level of the proposed infiltration surface and based on the safety factor of 50%.

(d) If on-lot infiltration structures are proposed, it must be demonstrated to the municipality that the soils are conducive to infiltrate on the lots identified.

(e) An impermeable liner will be required in detention basins where the possibility of groundwater contamination exists. A detailed hydrogeologic investigation may be required by the municipality.

§ 375-304 **Stormwater peak rate control and management districts.**

Peak rate controls for large storms, up to the 100-year event, is essential in order to protect against immediate downstream erosion and flooding. The following peak rate controls have been determined through hydrologic modeling of the Neshaminy Creek Watershed.

A. Standards for managing runoff from each subarea in the Neshaminy Creek Watershed for the 2-, 5-, 10-, 25-, 50-, and 100-year design storms are shown in Table 304.1. All of New Britain Borough is located with District A. Development sites must control proposed development conditions runoff rates to existing conditions runoff rates for the design storms in accordance with Table 304.1 below:

Table 304.1

Peak Rate Runoff Control Standards

in the Neshaminy Creek Watershed

(includes Little Neshaminy Creek)

District	**Design Storm Post-development (Proposed Conditions)**	**Design Storm Pre-development (Existing Conditions)**
A	2-year	1-year
	5-year	5-year
	10-year	10-year
	25-year	25-year
	50-year	50-year
	100-year	100-year

Table 304.1

Peak Rate Runoff Control Standards

in the Neshaminy Creek Watershed

(includes Little Neshaminy Creek)

District	Design Storm Post-development (Proposed Conditions)	Design Storm Pre-development (Existing Conditions)
A	2-year	1-year
	5-year	5-year
	10-year	10-year
	25-year	25-year
	50-year	50-year
	100-year	100-year

B. General. Proposed conditions rates of runoff from any regulated activity shall not exceed the peak release rates of runoff from existing conditions for the design storms specified on the Stormwater Management District Watershed Map (Appendix D) and in this section.

C. District boundaries. The boundaries of the Stormwater Management Districts are shown on official maps and are available for inspection at the municipal office and county planning offices. A copy of the map at a reduced scale is included in Appendix D.

D. Off-site areas. When calculating the allowable peak runoff rates, developers do not have to account for runoff draining into the subject development site from an off-site area. On-site drainage facilities shall be designed to safely convey off-site flows through the development site.

E. Site areas. The stormwater management site area is the only area subject to the management district criteria. Non-impacted areas or nonregulated activities bypassing the stormwater management facilities would not be subject to the management district criteria.

F. Alternate criteria for redevelopment sites. For redevelopment sites, one of the following minimum design parameters shall be accomplished, whichever is most appropriate for the given site conditions as determined by the Borough.

(1) Meet the full requirements specified by Table 304.1 and § **375-304.A** through **E**; or

(2) Reduce the total impervious surface on the site by at least 20% based upon a comparison of existing impervious surface to proposed impervious surface.

§ 375-305 **Calculation methodology.**

A. The following criteria shall be used for runoff calculations:

(1) For development sites not considered redevelopment, the ground cover used to determine the existing conditions runoff volume and flow rate shall be as follows:

(a) Wooded sites shall use a ground cover of "woods in good condition." Wooded sites is defined as an area of trees which occupies at least 1/4 acre, containing any tree or trees either three inches in diameter or 20 feet tall, and including the natural layers of vegetation beneath the canopy and understory plants. Diameter shall be measured at 4.5 feet above ground level.

(b) Other pervious portions of the site, including agriculture, bare earth, and fallow ground, shall be considered as "meadow in good condition," unless the natural ground cover generates a lower curve number (CN) or Rational "c" value (i.e. woods) as listed in Tables B-4 or B-7 in Appendix B of this Ordinance.

(2) For development and redevelopment sites, the ground cover used to determine the existing conditions runoff volume and flow rate for the developed portion of the site shall be based upon actual land cover conditions, except that 20% of the existing impervious surface area shall be considered meadow in good condition in the model for existing conditions.

B. Stormwater runoff peak discharges from all development sites with a drainage area equal to or greater than one acre shall be calculated using a generally accepted calculation technique that is based on the NRCS Soil Cover Complex Method. Table 305.1 summarizes acceptable computation methods. The method selected by the design professional shall be based on the individual limitations and suitability of each method for a particular site. The municipality may allow the use of the Rational Method (Q=CIA) to estimate peak discharges from drainage areas that contain less than one acre.

Where:

Q	**=**	**Peak flow rate, cubic feet per second (CFS)**
C	**=**	**Runoff coefficient, dependent on land use/cover**
I	**=**	**Design rainfall intensity, inches per hour**
A	**=**	**Drainage area, acres**

C. All calculations consistent with this Ordinance using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms according to the latest version of the National Oceanic and Atmospheric Administration (NOAA) Atlas

14 rain data corresponding to the Doylestown rain gage. This data may also be directly retrieved from the NOAA Atlas 14 website: http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html If a hydrologic computer model such as PSRM or HEC-1/HEC-HMS is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours.

Table 305.1

Acceptable Computation Methodologies for Stormwater Management Plans

Method	Method Developed By	Applicability
TR-20 (or commercial computer package based on TR-20)	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary
TR-55 (or commercial computer package based on TR-55)	USDA NRCS	Applicable for land development plans within limitations described in TR-55
HEC-1/HEC-HMS	U.S. Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary
PSRM	Penn State University	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 1 acre, or as approved by the municipality and/or municipal engineer
Other methods	Varies	Other computation methodologies approved by the municipality and/or municipal engineer

D. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration for overland flow and return periods from NOAA Atlas 14, Volume 2, Version 3 corresponding to the Doylestown rain gage. This data may also be directly retrieved from the NOAA Atlas 14 website: hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html. Times of concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of *Urban Hydrology for Small Watersheds*, NRCS TR-55 (as amended or replaced from time to time by NRCS). Times of concentration for channel and pipe flow shall be computed using Manning's equation.

E. Runoff curve numbers (CN) for both existing and proposed conditions to be used in the Soil Cover Complex Method shall be based on Table B-4 in Appendix B.

F. Runoff coefficients (C) for both existing and proposed conditions for use in the Rational Method shall be consistent with Table B-7 in Appendix B.

G. Runoff from proposed sites graded to the subsoil will not have the same runoff conditions as the site under existing conditions because of soil compaction, even after topsoiling or seeding. The proposed condition "CN" or "C" shall increase by 5% to better reflect proposed soil conditions.

H. The Manning equation is preferred for one-dimensional, gradually varied, open channel flow. In other cases, appropriate applicable methods should be applied; however, early coordination with the municipality is necessary.

I. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using the generally accepted hydraulic analysis technique or method of the municipality.

J. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities using the Storage-Indication Method. For drainage areas greater than 200 acres in size, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The municipality may approve the use of any generally accepted full hydrograph approximation technique that shall use a total runoff volume that is consistent with the volume from a method that produces a full hydrograph.

§ 375-306 **Other requirements.**

A. Hot spots.

(1) The use of infiltration BMPs is prohibited on hot spot land use areas. Examples of hot spots are listed in Appendix G.

(2) Stormwater runoff from hot spot land uses shall be pretreated. In no case may the same BMP be employed consecutively to meet this requirement. Guidance regarding acceptable methods of pretreatment is located in Appendix G.

B. West Nile guidance requirements. All wet basin designs shall incorporate biologic controls consistent with the West Nile Guidance found in Appendix H.

Article IV

Stormwater Management (SWM) Site Plan Requirements

§ 375-401 **General requirements.**

For any of the activities regulated by this Ordinance, the preliminary or final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, the commencement of any earth disturbance, or activity may not proceed until the property owner or applicant or his/her agent has received written approval of a SWM Site Plan from the municipality and an approval of an adequate Erosion and Sediment (E&S) Control Plan review from the municipality and Bucks County Conservation District as applicable.

§ 375-402 **SWM Site Plan requirements.**

The SWM Site Plan shall consist of a general description of the project, including calculations, maps, and plans. A note on the maps shall refer to the associated computations and E&S Control Plan by title and date. The cover sheet of the computations and E&S Control Plan shall refer to the associated maps by title and date. All SWM Site Plan materials shall be submitted to the municipality in a format that is clear, concise, legible, neat and well organized; otherwise, the SWM Site Plan shall not be accepted for review and shall be returned to the Applicant. The following items shall be included in the SWM Site Plan:

A. General.

(1) General description of the project including plan contents described in Subsection **B** of this section.

(2) General description of proposed SWM techniques to be used for SWM facilities.

(3) Stormwater runoff design computations and documentation as specified in this Ordinance, including Article III.

(4) Complete hydrologic and hydraulic computations for all SWM facilities.

(5) All reviews and letters of adequacy from the Bucks County Conservation District for the erosion and sedimentation plan as required by the municipal, county, and state regulations.

(6) A general description of proposed nonpoint source pollution controls.

(7) The SWM Site Plan application and completed fee schedule form and associated fee(s) for all regulated activities not already paid pursuant to the SALDO regulations (Appendix C-1).

(8) The SWM Site Plan Checklist (Appendix C-2).

(9) Appropriate sections from Chapter 385, Subdivision and Land Development, and

other applicable local ordinances shall be followed in preparing the SWM Site Plan.

B. Plans. SWM Site Plan shall provide the following information:

(1) The overall stormwater management concept for the project.

(2) A determination of natural site conditions and stormwater management needs in accordance with the PA BMP Manual. This shall include, but not be limited to:

(a) Site features:

[1] The location of the project relative to highways, municipal boundaries or other identifiable landmarks.

[2] The locations of all existing and proposed utilities, sanitary sewers, and water lines on site and to within 50 feet of property lines.

[3] Proposed structures, roads, paved areas, and buildings.

[4] The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

[5] Plan and profile drawings of all SWM BMPs, including drainage structures, pipes, open channels, and swales. At a minimum this should include pre- and post-drainage area maps, an overall post-construction stormwater management plan, stormwater details sheets, and landscape plans (if proposing landscaped SWM BMPs, including bioretention facilities, low-impact development, bioretention, and vegetative basins).

[6] The locations and minimum setback distances of existing and proposed on-lot wastewater facilities and water supply wells.

[7] The location of all erosion and sediment control facilities.

(b) Natural site conditions:

[1] An Existing Resource and Site Analysis Map (ERSAM) showing environmentally sensitive areas including, but not limited to: steep slopes; ponds; lakes; streams; wetlands; hydric soils; hydrologic soil groups A and B; vernal pools; stream buffers; open channels; existing recharge areas; and floodplains. The area of each of these sensitive areas shall be calculated and should be consistent with the runoff volume calculation required pursuant to § **375-303** of this Ordinance.

[2] A detailed site evaluation for projects proposed in areas of frequent flooding, carbonate geology or karst topography, and other environmentally sensitive areas, such as brownfields and source water protection areas.

[3] Existing and proposed contour lines at intervals of two feet, or one foot as appropriate.

[4] The total extent of the drainage area upstream from the site and all downgradient receiving channels, swales and waters to which stormwater runoff or drainage will be discharged.

(c) Stormwater runoff design computations and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance, including the recommendations and general requirements in § **375-301**.

(d) The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing stormwater conveyance system that may be affected by the project.

(3) The format of the plan shall include the following:

(a) The expected project time schedule.

(b) The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.

(c) The date of submission.

(d) A graphic and written scale of one inch equals no more than 50 feet (a larger scale may be required as determined by the Borough Engineer).

(e) A North arrow.

(f) An access easement around all stormwater management facilities is required that would provide ingress to and egress from a public right-of-way. The size of the easement shall be commensurate with the maintenance and access requirements determined in the design of the BMP and as necessary to implement the Operation and Maintenance (O&M) Plan.

(g) A key map showing all existing man-made features beyond the property boundary that would be affected by the project.

(h) A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities. All facilities shall meet the performance standards and design criteria specified in this Ordinance.

(i) The following signature block for the design engineer: "I, (Design Engineer), on this date (date of signature), hereby certify that the SWM Site Plan meets all design standards and criteria of the New Britain Borough Stormwater Management Ordinance."

(j) A statement, signed by the applicant, acknowledging that any revision to the approved SWM Site Plan must be approved by the municipality and that a revised E&S Plan must be submitted to the Bucks County Conservation District.

(k) The following signature block for the municipal official or designee: "I, (municipal official or designee), on this date (date of signature), have reviewed and hereby certify that the SWM Site Plan meets all design standards and criteria of the New Britain Borough Stormwater Management Ordinance."

(4) A soil erosion and sediment control plan, where applicable, as prepared for and submitted to the approval authority.

(5) The SWM Site Plan shall include an Operations and Maintenance (O&M) Plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.

§ 375-403 **Plan submission.**

The municipality requires submission of a complete SWM Site Plan, as specified in this Ordinance.

A. Proof of application or documentation of required permit(s) or approvals for the programs listed below shall be part of the plan:

(1) NPDES permit for stormwater discharges from construction activities.

(2) Any other permit under applicable state or federal regulations.

B. Six copies of the SWM Site Plan shall be submitted by the Applicant to the following agencies:

(1) Two copies to the municipality accompanied by the requisite municipal review fee, as specified in this Ordinance.

(2) One copy to the Municipal Engineer (where applicable).

(3) Two copies to the Bucks County Conservation District, if required.

(4) One copy to the Bucks County Planning Commission if the regulated activity is also required to submit a subdivision and/or land development plan to the County Planning Commission in accordance with the Pennsylvania Municipal Planning Code.

C. Any submissions to the agencies listed above that are found to be incomplete shall not be accepted for review and shall be returned to the applicant with a notification in writing of the specific manner in which the submission is incomplete.

D. Additional copies shall be submitted as requested by the municipality or PADEP.

§ 375-404 **Stormwater management (SWM) Site Plan review.**

A. The SWM Site Plan shall be reviewed by a qualified professional on behalf of the municipality for consistency with the provisions of this Ordinance. After review, the qualified professional shall provide a written recommendation for the municipality to approve or disapprove the SWM Site Plan. If it is recommended to disapprove the SWM Site Plan, the qualified professional shall state the reasons for the disapproval in writing. The qualified professional also may recommend approval of the SWM Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing. The SWM Site Plan review and recommendations shall be completed within the time allowed by the Municipalities Planning Code for reviewing subdivision plans.

B. The municipality will notify the applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved. If the SWM Site Plan involves a subdivision and land development plan, the notification period is 90 days or as waived by the applicant. If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the municipality. If the municipality disapproves the SWM Site Plan, the municipality shall cite the reasons for disapproval in writing.

C. The Municipality shall not approve any SWM Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, the Municipality may either disapprove the submission, require a resubmission, or accept the SWM Site Plan with conditions.

§ 375-405 **Modification of plans.**

A modification to a submitted SWM Site Plan that involves a change in SWM BMPs or techniques, or that involves the relocation or redesign of SWM BMPs or that is necessary because soil or other conditions are not as stated on the SWM Site Plan as determined by the municipality shall require a resubmission of the modified SWM Site Plan in accordance with this article.

§ 375-406 **Resubmission of disapproved SWM Site Plans.**
A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the municipality's concerns, to the municipality in accordance with this article. The applicable review fee must accompany a resubmission of a disapproved SWM Site Plan.

§ 375-407 **Authorization to construct and term of validity.**
The municipality's approval of an SWM Site Plan authorizes the regulated activities contained in the SWM Site Plan for a maximum term of validity of five (5) years following the date of approval. The municipality may specify a term of validity shorter than five (5) years in the approval for any specific SWM Site Plan. Terms of validity shall commence on the date the municipality signs the approval for an SWM Site Plan. If an approved SWM Site Plan is not completed according to this § **375-407** within the term of validity, then the municipality may consider the SWM Site Plan disapproved and may revoke any and all permits. SWM Site Plans that are considered disapproved by the municipality shall be resubmitted in accordance with § **375-406**.

§ 375-408 **Inspection of Phases**

A. The Municipality shall inspect all phases of the installation of the best management practices (BMPs) and/or stormwater management (SWM) facilities as deemed appropriate by the Municipality.

B. During any stage of the work, if the Municipality determines that the BMPs and/or stormwater management facilities are not being installed in accordance with the approved SWM Site Plan, the Municipality shall revoke any existing permits or other approvals and issue a cease-and-desist order until a revised SWM Site Plan is submitted and approved, as specified in this Ordinance and until the deficiencies are corrected.

C. A final inspection of all BMPs and/or stormwater management facilities may be conducted by the Municipality to confirm compliance with the approved SWM Site Plan prior to the issuance of any occupancy permit.

§ 375-409 **As-Built Plans, Completion Certificate**

A. The applicant and/or developer shall be responsible for providing as-built plans of all SWM BMPs included in the approved SWM Site Plan. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to the municipality.

B. The as-built plans shall include, but not be limited to: plans and profiles showing all pipes with finished grades; location, length, material, and slope of all storm sewer systems, wastewater, water, and gas mains; location of all wastewater laterals and water services; final grading plan for SWM BMPs with design and as-built volume calculations; invert and top elevations for all sanitary manholes, storm manholes, inlets, and endwalls; and location and depth of all public utilities and services, etc. The as-built plans shall be certified as to their correctness by the preparing surveyor or engineer. All plans shall be sealed by a surveyor or engineer licensed in the Commonwealth of Pennsylvania and

labeled "AS-BUILT DRAWINGS" and include the date of preparation and firm name. The as-built submission shall also include electronic files in PDF and CAD format. The as-built plans shall be approved by the Municipality prior to the Municipality accepting the improvements and processing the completion certificate.

C. The as-built submission shall include a certification of completion signed by a qualified professional verifying that all SWM BMPs have been constructed according to the approved plans and specifications. If any qualified professionals contributed to the construction plans, they must sign and seal the completion certificate.

D. The applicant and/or developer shall be responsible for providing the latitude and longitude coordinates for all permanent SWM BMPs, at the central location of each BMP.

Article V
Fees and Expenses

§ 375-501 **Municipal stormwater management (SWM) Site Plan review and inspection fee.**

Fees shall be established by the municipality to cover plan review and construction inspection costs incurred by the municipality. All fees shall be paid by the applicant at the time of SWM Site Plan submission. A review and inspection fee schedule shall be established by resolution of the municipal governing body based on the size of the regulated activity and based on the municipality's costs for reviewing SWM Site Plans, conducting inspections pursuant to § **375-408**, and reviewing as-built plans pursuant to § **375-409**. The municipality shall periodically update the review and inspection fee schedule to ensure that review costs are adequately reimbursed.

§ 375-502 **Expenses covered by fees.**

The fees required by this Ordinance (unless otherwise waived by the municipality) shall at a minimum cover:

A. Administrative costs and clerical processing.

B. Attendance at meetings.

C. The review of the SWM Site Plan by the Municipality.

D. The review of Operations and Maintenance responsibilities and agreements, including financial guarantees.

E. The review of as-built drawings.

F. The inspection of SWM facilities and drainage improvements during construction.

G. The final inspection at the completion of the construction of the SWM facilities and

drainage improvements presented in the SWM Site Plan.

H. Any additional work required to enforce any permit provisions regulated by this Ordinance, correct violations, and assure proper completion of stipulated remedial actions.

Article VI
Operation and Maintenance Responsibilities

§ 375-601 **Performance guarantee.**

A. For subdivisions and land developments, the applicant shall provide a financial guarantee to the municipality for the timely installation and proper construction of all stormwater management (SWM) facilities as:

(1) Required by the approved SWM Site Plan equal to or greater than the full construction cost of the required controls in accordance with the provisions of Sections 509, 510, and 511 of the Pennsylvania Municipalities Planning Code; or

(2) The amount and method of payment provided for in Chapter 385, Subdivision and Land Development.

B. For other regulated activities, the municipality shall require a financial guarantee from the applicant in an amount to be reviewed and approved by the Municipal Engineer.

§ 375-602 **Responsibilities for operations and maintenance (O&M) of stormwater facilities and BMPs.**

A. The owner of any land upon which stormwater facilities and BMPs will be placed, constructed, or implemented, as described in the stormwater facility and BMP O&M plan, shall record the following documents in the Office of the Recorder of Deeds for Bucks County, within 90 days of approval of the SWM and BMP O&M Plan by the municipality:

(1) The O&M Plan, or a summary thereof;

(2) O&M agreements under § **375-604**; and

(3) Easements under § **375-605**.

B. The municipality may suspend or revoke any approvals granted for the project site upon discovery of failure on the part of the owner to comply with this section.

C. The following items shall be included in the stormwater facility and BMP O&M Plan:

(1) Map(s) of the project area, in a form that meets the requirements for recording at the offices of the Recorder of Deeds of Bucks County, and shall be submitted on 24-inch-by-36-inch sheets, or as approved by the Borough Engineer. The contents of the

map(s) shall include, but not be limited to:

(a) Clear identification of the location and nature of stormwater facilities and BMPs;

(b) The location of the project site relative to highways, municipal boundaries or other identifiable landmarks;

(c) Existing and final contours at intervals of two feet, or one foot as appropriate;

(d) Existing streams, lakes, ponds, or other bodies of water within the project site area;

(e) Other physical features including flood hazard boundaries, sinkholes, streams, existing drainage courses, and areas of natural vegetation to be preserved;

(f) The locations of all existing and proposed utilities, sanitary sewers, and water lines on site and within 50 feet of property lines of the project site;

(g) Proposed final changes to the land surface and vegetative cover, including the type and amount of impervious area that would be added;

(h) Proposed final structures, roads, paved areas, and buildings; and

(i) A minimum twenty-foot-wide access easement around all stormwater facilities and BMPs that would provide ingress to and egress from a public right-of-way.

(2) A description of how each stormwater facility and BMP will be operated and maintained, and the identity and contact information associated with the person(s) responsible for O&M;

(3) The name of the project site, the name and address of the owner of the property, and the name of the individual or firm preparing the plan; and

(4) A statement, signed by the facility owner, acknowledging that the stormwater facilities and BMPs are fixtures that can be altered or removed only after approval by the municipality.

D. The stormwater facility and BMP O&M Plan for the project site shall establish responsibilities for the continuing O&M of all stormwater facilities and BMPs, as follows:

(1) If a plan includes structures or lots which are to be separately owned and in which streets, sewers and other public improvements are to be dedicated to the municipality, stormwater facilities and BMPs may also be offered for dedication to and

maintained by the municipality.

(2) If a plan includes O&M by single ownership, or if sewers and other public improvements are to be privately owned and maintained, the O&M of stormwater facilities and BMPs shall be the responsibility of the owner or private management entity.

E. The municipality shall make the final determination on the continuing O&M responsibilities prior to final approval of the SWM Site Plan. The Municipality may require a dedication of such facilities as part of the requirements for approval of the SWM Plan. Such a requirement is not an indication that the Municipality will accept the facilities. The municipality reserves the right to accept or reject the O&M responsibility for any or all portions of the stormwater facilities and BMPs.

F. Facilities, areas, or structures used as BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.

G. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.

H. The municipality may take enforcement actions against an owner for any failure to satisfy the provisions of this article and this Ordinance.

§ 375-603 **Municipal review of stormwater facilities and BMP operations and maintenance (O&M) plan.**

A. The municipality shall review the stormwater facilities and BMP O&M Plan for consistency with the purposes and requirements of this Ordinance, and any permits issued by PADEP.

B. The municipality shall notify the applicant in writing whether the stormwater facility and BMP O&M Plan is approved.

C. The municipality shall require an "as-built plan" of all stormwater facilities and BMPs.

§ 375-604 **Operations and maintenance (O&M) agreement for privately owned stormwater facilities and BMPs.**

A. Prior to final approval of the SWM Site Plan, the owner shall sign an O&M agreement with the municipality covering all stormwater facilities and BMPs that are to be privately owned. The O&M agreement shall be transferred with transfer of ownership. The agreement shall be substantially the same as the agreement in Appendix A and subject to the satisfaction of the Borough Solicitor.

(1) The owner, successor, and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M agreement.

(2) The owner shall keep on file with the Municipality the name, address, and telephone number of the person or company responsible for maintenance activities; in the event of a change, new information shall be submitted by the owner to the Municipality within ten (10) working days of the change.

B. Other items may be included in the O&M agreement where determined necessary to guarantee the satisfactory O&M of all stormwater controls and BMPs. The O&M agreement shall be subject to the review and approval of the municipality, including the Borough Solicitor.

C. The owner is responsible for the O&M of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

§ 375-605 **Stormwater management easements.**

A. The owner must obtain all necessary real estate rights to install, operate, and maintain all stormwater facilities in the SWM Site Plan.

B. The owner must provide the municipal easements, or other appropriate real estate rights, to perform inspections and maintenance for the preservation of stormwater runoff conveyance, infiltration, and detention areas.

C. The owner must convey to the Municipality conservation easements to assure access for periodic inspections by the Municipality and maintenance, as necessary.

Article VII
Prohibitions

§ 375-701 **Prohibited discharges and connections.**

A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge, including sewage, process wastewater, and wash water to enter the regulated small MS4 or to enter the waters of the commonwealth is prohibited.

B. No person shall allow, or cause to allow, discharges into the regulated small MS4 or surface waters of this commonwealth which are not composed entirely of stormwater, except:

(1) As provided in Subsection **C** below; and

(2) Discharges allowed under a state or federal permit.

C. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of the commonwealth:

(1) Discharges or flows from firefighting activities;

(2) Discharges from potable water sources, including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC);

(3) Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands;

(4) Diverted stream flows and springs;

(5) Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps;

(6) Non-contaminated HVAC condensation and water from geothermal systems;

(7) Residential (i.e. not commercial) vehicle wash water where cleaning agents are not utilized;

(8) Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.

D. In the event that the municipality or PADEP determines that any of the discharges identified in Subsection **C** significantly contribute to pollution of a regulated small MS4 or the waters of this commonwealth, the municipality or PADEP will notify the responsible person(s) to cease the discharge.

§ 375-702 **Roof drains and sump pumps.**
Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs and, to the maximum extent practicable, satisfy the criteria for disconnected impervious areas (DIAs).

§ 375-703 **Alteration of SWM BMPs.**
A. No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, or structures that were installed as a requirement of this Ordinance unless it is part of an approved maintenance program and written approval of the municipality has been obtained.

B. No person shall place any structure, fill, landscaping, or vegetation into a stormwater facility or BMP or within a drainage easement which would limit or alter the functioning of the stormwater facility or BMP without the written approval of the municipality.

Article VIII
Enforcement and Penalties

§ 375-801 **Right of entry.**

A. Upon presentation of proper credentials, the Municipality or duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to inspect the implementation, condition, or operation and maintenance of the stormwater structures, facilities, or BMPs in regard to any aspect governed by this Ordinance.

B. Landowners with stormwater facilities and BMPs on their property shall allow persons working on behalf of the municipality ready access to all parts of the premises for the purposes of determining compliance with this Ordinance.

C. Persons working on behalf of the municipality shall have the right to temporarily locate on any stormwater facility or BMP in the municipality such devices as are necessary to conduct monitoring and/or sampling of the discharges from such stormwater facilities or BMP.

§ 375-802 **Inspection.**

The landowner or the owner's designee (including the Municipality for dedicated and owned facilities) shall inspect SWM BMPs, facilities and/or structures installed under this Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

A. Annually for the first five years;

B. Once every three years thereafter;

C. During or immediately after the cessation of a ten-year or greater storm; and/or

D. As specified in the operations and maintenance (O&M) agreement.

Inspections should be conducted during or immediately following precipitation events. A written inspection report shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of the BMP, facility or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to the Municipality within 30 days following completion of the inspection.

§ 375-803 **Enforcement.**

A. All inspections regarding compliance with the stormwater management (SWM) Site Plan and this Ordinance shall be the responsibility of the Municipality.

B. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM Site Plan, unless specifically exempted in § **375-302**.

C. It shall be unlawful to violate § **375-703**.

D. Whenever the municipality finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the municipality may order compliance by written notice to the responsible person. Such notice may, without limitation, require the following remedies:

(1) Performance of monitoring, analyses, and reporting;

(2) Elimination of prohibited connections or discharges;

(3) Cessation of any violating discharges, practices, or operations;

(4) Abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

(5) Payment of a fine to cover administrative and remediation costs;

(6) Implementation of stormwater facilities and best management practices (BMPs); and

(7) Operation and maintenance (O&M) of stormwater facilities and BMPs.

E. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Said notice may further advise that, if applicable, should the violator fail to take the required action within the established deadline, the work will be done by the municipality and the expense may be charged to the violator.

F. Failure to comply within the time specified may subject a violator to the penalty provisions of this Ordinance. All such penalties shall be deemed cumulative and shall not prevent the municipality from pursuing any and all other remedies available in law or equity.

§ 375-804 **Suspension and revocation of permits and approvals.**

A. Any building, land development, or other permit or approval issued by the municipality may be suspended or revoked, in whole or in part, by the municipality for:

(1) Non-compliance with or failure to implement any provision of the SWM Site Plan and/or O&M Agreement;

(2) A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity; or

(3) The creation of any condition or the commission of any act during construction or development which constitutes or creates a hazard or nuisance, pollution or which endangers the life, health, or property of others.

B. A suspended permit may be reinstated by the municipality when:

(1) The Municipality has inspected and approved the corrections to the violations that caused the suspension; and

(2) The municipality is satisfied that all applicable violations in this Ordinance have been corrected.

C. Any permit or approval that has been revoked by the municipality cannot be reinstated. The applicant may apply for a new permit under the procedures outlined in this Ordinance.

D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Municipality may provide a limited time period for the owner to correct the violation. In these cases, the Municipality will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, the Municipality may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

§ 375-805 **Violations and penalties.**

A. Any person violating the provisions of this Ordinance shall be subject to penalties that may range from liens against the property to fines for each violation, recoverable with costs. Each day that the violation continues shall constitute a separate offense and the applicable fines are cumulative.

B. In addition, the municipality may institute injunctive, mandamus or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

§ 375-806 **Appeals.**

A. As per the Pennsylvania Municipalities Planning Code (MPC), Section 909.1(9), any person aggrieved by any action pursuant to this Ordinance may appeal to the Borough's Zoning Hearing Board within 30 days of that action.

B. Any person aggrieved by any decision of the Borough Council, relevant to the provisions of this Ordinance, may appeal to the County Court of Common Pleas in the County where the activity has taken place within 30 days of the municipal decision.

375 Attachment 4

Borough of New Britain

Appendix A
Stormwater Controls and Best Management Practices
Operations and Maintenance Agreement

This Agreement, made and entered into this _____ day of _____, 20 ___, by and between _____ (hereinafter the "Landowner"), and New Britain Borough, Bucks County, Pennsylvania (hereinafter "Municipality");

WITNESSETH

Whereas, the Landowner is the owner of certain real property as recorded by deed in the land records of Bucks County, Pennsylvania, Deed Book _____ at Page _____ (hereinafter "Property").

Whereas, the Landowner is proceeding to build and develop the Property; and

Whereas, the Stormwater Controls and BMP Operations and Maintenance Plan approved by the Municipality (hereinafter referred to as the "Plan") for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of Best Management Practices (BMPs); and

Whereas, the Municipality and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site stormwater Best Management Practices be constructed and maintained on the Property; and

Whereas, for the purposes of this agreement, the following definitions shall apply:

BMP — "Best Management Practice"; activities, facilities, designs, measures or procedures used to manage stormwater impacts from land development, to protect and maintain water quality and groundwater recharge and to otherwise meet the purposes of the Municipal Stormwater Management Ordinance, including but not limited to infiltration trenches, seepage pits, filter strips, bioretention, wet ponds, permeable paving, rain gardens, grassed swales, forested buffers, sand filters and detention basins.

Whereas, the Municipality requires, through the implementation of the Plan, that stormwater management BMPs as required by said Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, his successors and assigns; and

Now, therefore, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The BMPs shall be constructed by the Landowner in accordance with the plans and specifications identified in the Plan.

2. The Landowner shall operate and maintain the BMP(s) as shown on the Plan in good working order acceptable to the Municipality and in accordance with the specific maintenance requirements noted on the Plan.

3. The Landowner hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper identification, to inspect the BMP(s) whenever it deems necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.

4. In the event the Landowner fails to operate and maintain the BMP(s) as shown on the Plan in good working order acceptable to the Municipality, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMP(s). This provision shall not be construed to allow the Municipality to erect any permanent structure on the land of the Landowner. It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.

5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Municipality.

6. The intent and purpose of this Agreement is to ensure the proper maintenance of the BMP(s) by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.

7. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Municipality's employees and designated representatives from all damages, accidents, casualties, occurrences or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Municipality. In the event that a claim is asserted against the Municipality, its designated representatives or employees, the Municipality shall promptly notify the Landowner and the Landowner shall defend, at his own expense, any suit based on the claim. If any judgment or claims against the Municipality's employees or designated representatives shall be allowed, the Landowner shall pay all costs and expenses regarding said judgment or claim.

8. The Municipality shall inspect the BMP(s) at a minimum of once every three years to ensure their continued functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Bucks County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL) For the Municipality:

(SEAL) For the Landowner:

ATTEST:

New Britain Borough

County of Bucks, Pennsylvania

I, _____, a Notary Public in and for the County and State aforesaid, whose commission expires on the _____ day of _____, 20 ___, do hereby certify that _____ whose name(s) is/are signed to the foregoing Agreement bearing date of the _____ day of _____, 20 ___, has acknowledged the same before me in my said County and State.

Given under my hand this _____ day of _____, 20__.

_____ _____

NOTARY PUBLIC (SEAL)

375 Attachment 5

Borough of New Britain

Appendix B
Stormwater Management Design Criteria

Table B-1
Design Storm Rainfall Amount
Source: NOAA Atlas 14 website, Doylestown Gage (36-2221)
http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html.

Figure B-1
Atlas 14 Type II S-Curves for all frequency Storms – Doylestown Gage (36-2221)
Source: NOAA Atlas 14 website, Doylestown Gage (36-2221)
http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html.

Table B-2
Natural Resource Protection Stormwater Management Controls
Source: PA BMP Manual Chapter 8, pg. 33

Table B-3
Guidance to Calculate the 2-Year, 24-Hour Volume Increase from Predevelopment to Postdevelopment Conditions
Source: PA BMP Manual Chapter 8, pg. 37

Table B-4
Runoff Curve Numbers
Source: NRCS (SCS) TR-55

Table B-5
Volume Control Calculation Guidance for Nonstructural BMPS
Source: PA BMP Manual Chapter 8, pg. 34

Table B-6
Volume Control Calculation Guidance for Structural BMPS
Source: PA BMP Manual Chapter 8, pg. 38

Table B-7
Rational Runoff Coefficients
Source: New Jersey Department of Transportation, Technical Manual for Stream Encroachment, August 1984

Table B-8
Manning Roughness Coefficients

Table B-1
Design Storm Rainfall Amount (inches)

The design storm rainfall amount chosen for design should be obtained from the National Oceanic and Atmospheric Administration Atlas 14 interactive website: http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html

Source: NOAA Atlas 14 website, Doylestown Gage (36-2221) http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html

Precipitation Frequency Estimates (inches)

ARI* (years)	Minutes						Hours					Days						
	5	10	15	30	60	120	3	6	12	24	48	4	7	10	20	30	45	60
1	0.34	0.54	0.68	0.93	1.15	1.38	1.51	1.89	2.30	2.71	3.13	3.48	4.07	4.61	6.23	7.76	9.85	11.81
2	0.40	0.64	0.81	1.12	1.40	1.67	1.83	2.28	2.78	3.26	3.78	4.19	4.87	5.51	7.39	9.14	11.57	13.83
5	0.47	0.76	0.96	1.36	1.75	2.10	2.30	2.86	3.50	4.11	4.76	5.24	6.02	6.71	8.81	10.65	13.30	15.78
10	0.53	0.84	1.06	1.54	2.01	2.42	2.66	3.32	4.11	4.81	5.57	6.09	6.96	7.68	9.93	11.83	14.60	17.23
25	0.59	0.94	1.19	1.76	2.34	2.86	3.15	3.98	4.99	5.83	6.71	7.30	8.30	9.03	11.44	13.36	16.25	19.04
50	0.63	1.00	1.27	1.92	2.60	3.21	3.54	4.52	5.74	6.70	7.66	8.29	9.41	10.11	12.61	14.52	17.46	20.35
100	0.67	1.07	1.35	2.07	2.85	3.56	3.94	5.09	6.55	7.63	8.67	9.33	10.59	11.23	13.79	15.66	18.61	21.57
200	0.71	1.13	1.42	2.21	3.11	3.92	4.35	5.69	7.43	8.64	9.75	10.44	11.83	12.39	14.98	16.79	19.69	22.70
500	0.76	1.20	1.51	2.40	3.44	4.41	4.90	6.54	8.73	10.12	11.30	12.01	13.60	14.00	16.58	18.23	21.02	24.08
1,000	0.79	1.24	1.56	2.53	3.69	4.78	5.34	7.23	9.82	11.35	12.57	13.29	15.04	15.28	17.80	19.31	21.96	25.04

NOTE:
* These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.

Figure B-1
Atlas 14 Type II S-Curves for All Frequency Storms – Doylestown Gage (36-2221)

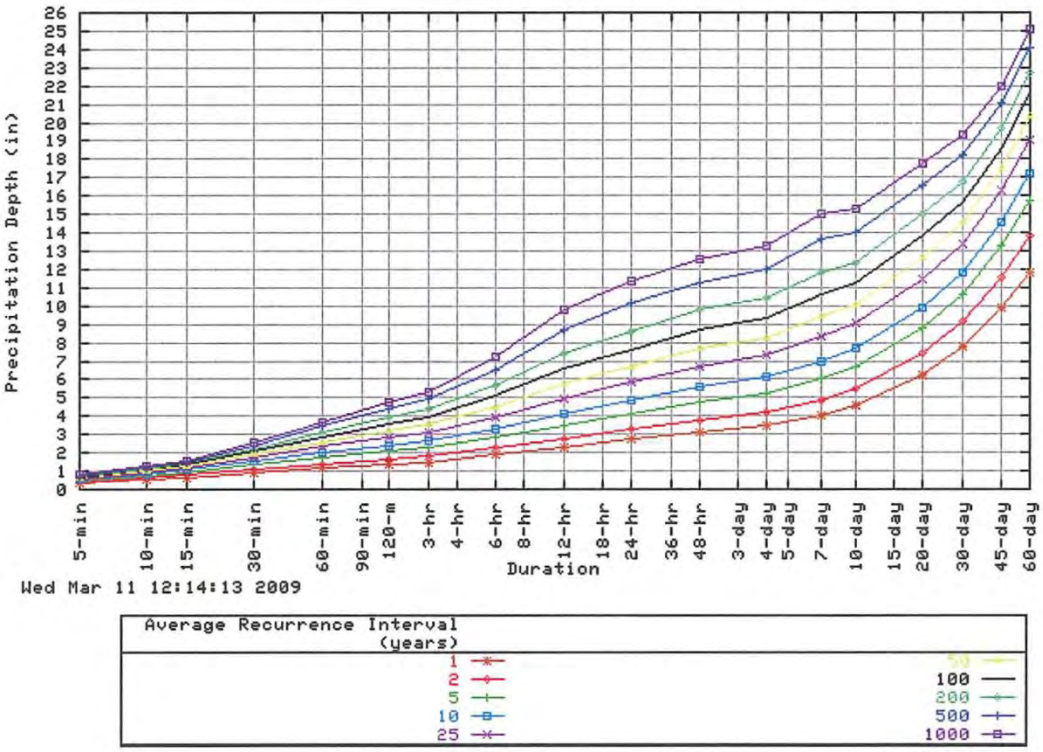

Table B-2
Natural Resource Protection Stormwater Management Controls

Existing Natural Sensitive Resource	Mapped in the ERSAM? Yes / No / n/a	Total Area (acres)	Area to be Protected (acres)
Water bodies			
Floodplains			
Riparian areas/buffers			
Wetlands			
Vernal pools			
Woodlands			
Natural drainage ways			
Steep slopes, 15% to 25%			
Steep slopes, over 25%			
Other:			
Other:			
Total existing:			

Table B-3
Guidance to Calculate the 2-Year, 24-Hour Volume Increase from Predevelopment to Postdevelopment Conditions

Existing Conditions: Cover Type/Condition	Soil Type	Area (square feet)	Area (acre)	CN	S	Ia (0.2*S)	Q Runoff (inch)	Runoff Volume (feet^3)
Woodland								
Meadow								
Impervious								
Total:								

Developed Conditions: Cover Type/Condition	Soil Type	Area (square feet)	Area (acre)	CN	S	Ia (0.2*S)	Q Runoff (inch)	Runoff Volume (feet^3)
Total:								

2-year Volume Increase (feet^3):

Table B-4
Runoff Curve Numbers [from NRCS (SCS) TR-55]

Land Use Description	Hydrologic Condition	Hydrologic Soil Group			
		A	B	C	D
Open space					
Grass cover < 50%	Poor	68	79	86	89
Grass cover 50% to 75%	Fair	49	69	79	84
Grass cover > 75%	Good	39	61	74	80
Meadow		30	58	71	78
Agricultural					
Pasture, grassland, or range – continuous forage for grazing	Poor	68	79	86	89
Pasture, grassland, or range – continuous forage for grazing	Fair	49	69	79	84
Pasture, grassland, or range – continuous forage for grazing	Good	39	61	74	80
Brush-weed-grass mixture with brush the major element	Poor	48	67	77	83
Brush-weed-grass mixture with brush the major element	Fair	35	56	70	77
Brush-weed-grass mixture with brush the major element	Good	30	48	65	73
Fallow bare soil	—	77	86	91	94
Crop residue cover (CR)	Poor	76	85	90	93
	Good	74	83	88	90
Woods – grass combination (orchard or tree farm)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30	55	70	77
Commercial (85% impervious)		89	92	94	95
Industrial (72% impervious)		81	88	91	93
Institutional (50% impervious)		71	82	88	90
Residential districts by average lot size:					
	% Impervious				
1/8 acre or less* (townhouses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Farmstead		59	74	82	86
Smooth surfaces (concrete asphalt, gravel or bare compacted soil)		98	98	98	98
Water		98	98	98	98
Mining/newly graded areas (pervious areas only)		77	86	91	94

* Includes multifamily housing unless justified lower density can be provided.
NOTE: Existing site conditions of bare earth or fallow ground shall be considered as meadow when choosing a CN value.

Table B-5
Volume Control Calculation Guidance for Nonstructural BMPS

Type of Nonstructural BMP

Area (square feet) * Runoff Volume (in) * 1/12 = Volume Reduction (ft^3)

Use of Natural Drainage Feature

Utilize natural flow pathways _____ square feet * 1/4 inch * 1/12 = _____ cubic feet

Minimum Soil Compaction

Lawn _____ square feet * 1/3 inch* 1/12 = _____ cubic feet

Meadow _____ square feet * 1/3 inch* 1/12 = _____ cubic feet

Protecting existing trees (not located in protected area)

For trees within 20 feet of impervious cover:

Tree canopy _____ square feet * 1 inch * 1/12 = _____ cubic feet

For trees within 20–100 feet of impervious cover:

Tree canopy _____ square feet * 1/2 inch * 1/12 = _____ cubic feet

Rooftop Disconnection

For runoff directed to pervious and/or vegetative areas where infiltration occurs

Roof area _____ square feet * 1/4 inch * 1/12 = _____ cubic feet

Impervious Disconnection

For runoff from impervious surfaces such as streets and concrete directed to pervious and/or vegetative areas where infiltration occurs

Impervious area _____ square feet * 1/4 inch * 1/12 = _____ cubic feet

Total Volume Reduction **_____ cubic feet**

* Represents multiply

Table B-6
Volume Control Calculation Guidance for Structural BMPS

Required Volume Control (ft^3) Table B-3	–	**Nonstructural Volume Control (ft^3) Table B-5**	=	**Structural Volume Requirement (ft^3)**

Type	Proposed Structural BMP	Section in BMP Manual	Area (square feet)	Storage Volume (cubic feet)
Infiltration and/or evapotranspiration	Porous pavement	6.4.1		
	Infiltration basin	6.4.2		
	Infiltration bed	6.4.3		
	Infiltration trench	6.4.4		
	Rain garden/bioretention	6.4.5		
	Dry well/seepage pit	6.4.6		
	Constructed filter	6.4.7		
	Vegetative swale	6.4.8		
	Vegetative filter strip	6.4.9		
	Infiltration berm	6.4.10		
Evaporation and/or reuse	Vegetative roof	6.5.1		
	Capture and reuse	6.5.2		
Runoff quality	Constructed wetlands	6.6.1		
	Wet pond/retention basin	6.6.2		
	Dry extended detention basin	6.6.3		
	Water quality filters	6.6.4		
Restoration	Riparian buffer restoration	6.7.1		
	Landscape restoration/reforestation	6.7.2		
	Soil amendment	6.7.3		
Other	Level spreader	6.8.1		
	Special storage areas	6.8.2		
	Other			

Total Volume Control from Structural BMPs: _____

Table B-7
Rational Runoff Coefficients
[Amended 2-11-2020 by Ord. No. 403]

By Hydrologic Soils Group and Overland Slope (%)

	A			B			C			D		
Land Use	**0 to 2%**	**2 to 6%**	**6+ %**	**0 to 2%**	**2 to 6%**	**6+ %**	**0 to 2%**	**2 to 6%**	**6+ %**	**0 to 2%**	**2 to 6%**	**6+%**
Cultivated land	0.08[a] 0.14[b]	0.13 0.18	0.16 0.22	0.11 0.16	0.15 0.21	0.21 0.28	0.14 0.20	0.19 0.25	0.26 0.34	0.18 0.24	0.23 0.29	0.31 0.41
Pasture	0.12 0.15	0.20 0.25	0.30 0.37	0.18 0.23	0.28 0.34	0.37 0.45	0.24 0.30	0.34 0.42	0.44 0.52	0.30 0.37	0.40 0.50	0.50 0.62
Meadow	0.10 0.14	0.16 0.22	0.25 0.30	0.14 0.20	0.22 0.28	0.30 0.37	0.20 0.26	0.28 0.35	0.36 0.44	0.24 0.30	0.30 0.40	0.40 0.50
Forest	0.05 0.08	0.08 0.11	0.11 0.14	0.08 0.10	0.11 0.14	0.14 0.18	0.10 0.12	0.13 0.16	0.16 0.20	0.12 0.15	0.16 0.20	0.20 0.25
Residential Lot Size												
Lot size 1/8 acre	0.25 0.33	0.28 0.37	0.31 0.40	0.27 0.35	0.30 0.39	0.35 0.44	0.30 0.38	0.33 0.42	0.38 0.49	0.33 0.41	0.36 0.45	0.42 0.54
Lot size 1/4 acre	0.22 0.30	0.26 0.34	0.29 0.37	0.24 0.33	0.29 0.37	0.33 0.42	0.27 0.36	0.31 0.40	0.36 0.47	0.30 0.38	0.34 0.42	0.40 0.52
Lot size 1/3 acre	0.19 0.28	0.23 0.32	0.26 0.35	0.22 0.30	0.26 0.35	0.30 0.39	0.25 0.33	0.29 0.38	0.34 0.45	0.28 0.36	0.32 0.40	0.39 0.50
Lot size 1/2 acre	0.16 0.25	0.20 0.29	0.24 0.32	0.19 0.28	0.23 0.32	0.28 0.36	0.22 0.31	0.27 0.35	0.32 0.42	0.26 0.34	0.30 0.38	0.37 0.48
Lot size 1 acre	0.14 0.22	0.19 0.26	0.22 0.29	0.17 0.24	0.21 0.28	0.26 0.34	0.20 0.28	0.25 0.32	0.31 0.40	0.24 0.31	0.29 0.35	0.35 0.46
Industrial	0.67 0.85	0.68 0.85	0.68 0.86	0.68 0.85	0.68 0.86	0.69 0.86	0.68 0.86	0.69 0.86	0.69 0.87	0.69 0.86	0.69 0.86	0.70 0.88
Commercial	0.71 0.88	0.71 0.88	0.72 0.89	0.71 0.89	0.72 0.89	0.72 0.89	0.72 0.89	0.72 0.89	0.72 0.90	0.72 0.89	0.72 0.89	0.72 0.90
Streets	0.70 0.76	0.71 0.77	0.72 0.79	0.71 0.80	0.72 0.82	0.74 0.84	0.72 0.84	0.73 0.85	0.76 0.89	0.73 0.89	0.75 0.91	0.78 0.95
Open space	0.05 0.11	0.10 0.16	0.14 0.20	0.08 0.14	0.13 0.19	0.19 0.26	0.12 0.18	0.17 0.23	0.24 0.32	0.16 0.22	0.21 0.27	0.28 0.39
Parking	0.85 0.95	0.86 0.96	0.87 0.97	0.85 0.95	0.86 0.96	0.87 0.97	0.85 0.95	0.86 0.96	0.87 0.97	0.85 0.95	0.86 0.96	0.87 0.97

NOTES:

[a] Runoff coefficients for storm recurrence intervals less than 25 years.

[b] Runoff coefficients for storm recurrence intervals of 25 years or more.

Source: Rawls, W.J., S.L. Long, and R.H. McCuen, 1981. "Comparison of Urban Flood Frequency Procedures," Preliminary draft, U.S. Department.

Table B-8
Manning's Roughness Coefficients

Description	Manning's n-value
Smooth-wall plastic pipe	0.011
Concrete pipe	0.012
Smooth-lined corrugated metal pipe	0.012
Corrugated plastic pipe	0.024
Annular corrugated steel and aluminum Alloy pipe (plain or polymer coated)	
68 mm x 13 mm (2 2/3 inch x 1/2 inch) corrugations	0.024
75 mm x 25 mm (3 inch x 1 inch) corrugations	0.027
125 mm x 25 mm (5 inch x 1 inch) corrugations	0.025
150 mm x 50 mm (6 inch x 2 inch) corrugations	0.033
Helically corrugated steel and aluminum Alloy pipe (plain or polymer coated)	
75 mm x 25 mm (3 inch x 1 inch), 125 mm x 25 mm (5 inch x 1 inch), or 150 mm x 50 mm (6 inch x 2 inch) corrugations	0.024
Helically corrugated steel and aluminum Alloy pipe (plain or polymer coated) 68 mm x 13 mm (2 2/3 inch x 1/2 inch) corrugations	
a. Lower coefficients*	
450 mm (18 inch) diameter	0.014
600 mm (24 inch) diameter	0.016
900 mm (36 inch) diameter	0.019
1,200 mm (48 inch) diameter	0.020
1,500 mm (60 inch) diameter or larger	0.021
b. Higher coefficients**	0.024
Annular or helically corrugated steel or aluminum alloy pipe arches or other noncircular metal conduit (plain or polymer coated)	0.024
Vitrified clay pipe	0.012
Ductile iron pipe	0.013
Asphalt pavement	0.015
Concrete pavement	0.014
Grass medians	0.050
Grass – residential	0.30

Description	Manning's n-value
Earth	0.020
Gravel	0.030
Rock	0.035
Cultivated areas	0.030 – 0.050
Dense brush	0.070 – 0.140
Heavy timber (little undergrowth)	0.100 – 0.150
Heavy timber (w/underbrush)	0.40
Streams:	
a. Some grass and weeds (little or no brush)	0.030 – 0.035
b. Dense growth of weeds	0.035 – 0.050
c. Some weeds (heavy brush on banks)	0.050 – 0.070

NOTES:

* Use the lower coefficient if any one of the following conditions apply:
a. A storm pipe longer than 20 diameters, which directly or indirectly connects to an inlet or manhole, located in swales adjacent to shoulders in cut areas or depressed medians.
b. A storm pipe which is specially designed to perform under pressure.

** Use the higher coefficient if any one of the following conditions apply:
a. A storm pipe which directly or indirectly connects to an inlet or manhole located in highway pavement sections or adjacent to curb or concrete median barrier.
b. A storm pipe which is shorter than 20 diameters long.
c. A storm pipe which is partly lined helically corrugated metal pipe.

375 Attachment 6

Borough of New Britain

Appendix C-1
SWM Site Plan Application
[Amended 4-14-2015 by Ord. No. 361; 2-11-2020 by Ord. No. 403]]

Application is hereby made for review of the NESHAMINY CREEK WATERSHED MODEL ACT 167 and NPDES STORMWATER MANAGEMENT ORDINANCE and related data as submitted herewith in accordance with New Britain Borough Stormwater Management and Earth Disturbance Ordinance.

Final Plan _____ Preliminary Plan _____ Sketch Plan _____

Date of Submission _____ Submission No. _____

1. Name of subdivision or development _____

2. Name of Applicant _____ Telephone No. _____

   (if corporation, list the corporation's name and the names of two officers of the corporation)
   _____Officer 1
   _____Officer 2

   Address _____
   ZIP _____

   Applicants interest in subdivision or development
   (if other than property owner give owners name and address)

3. Name of property owner_____ Telephone No. _____

   Address _____
   ZIP _____

4. Name of engineer or surveyor_____ Telephone No. _____

   Address _____
   ZIP _____

5. Type of subdivision or development proposed:

_____ Single-Family Lots	_____ Townhouse	_____ Commercial (Multi-Lot)
_____ Two-Family Lots	_____ Garden Apartments	_____ Commercial (One-Lot)
_____ Multifamily Lots	_____ Mobile-Home Park	_____ Industrial (Multi-Lot)
_____ Cluster-Type Lots	_____ Campground	_____ Industrial (One-Lot)
_____ Planned Residential	_____ Other (_____)	

Development

6. Linear feet of new road proposed _____ L.F.

7. Area of proposed and existing impervious area on the entire tract.

   a. Existing (to remain) _____ S.F. _____ % of Property
   b. Proposed _____ S.F. _____ % of Property

8. Stormwater

   a. Does the peak rate of runoff from proposed conditions exceed that flow which occurred for existing conditions for the designated design storm? _____

   b. Design storm utilized (on-site conveyance systems) (24 hr.) _____
   No. of Subarea _____
   Watershed Name _____

   Explain: _____
   _____
   _____

   c. Does the submission and/or district meet the criteria for the applicable Management District?
   _____

   d. Number of subarea(s) from Appendix D of the Neshaminy Creek Watershed Stormwater Management Plan. _____

   e. Type of proposed runoff control _____

   f. Does the proposed stormwater control criteria meet the requirements/guidelines of the Stormwater Ordinances? _____

   If not, what waivers are requested? _____
   _____

   Reasons _____

   g. Does the plan meet the requirements of Article IX of the Stormwater Ordinances? ____

   If not, what waivers are requested? _____

   Reasons Why _____
   _____

   h. Was TR-55, June 1986 utilized in determining the time of concentration? _____
   _____

i. What hydrologic method was used in the stormwater computations? _____
_____

j. Is a hydraulic routing through the stormwater control structure submitted? _____
_____

k. Is a construction schedule or staging attached? _____

l. Is a recommended maintenance program attached? _____

9. Erosion and Sediment Pollution Control (E&S):

a. Has the stormwater management and E&S plan, supporting documentation and narrative been submitted to the Bucks County Conservation District? _____

b. Total area of earth disturbance _____ S.F.

10. Wetlands

a. Have wetlands been delineated by someone trained in wetland delineation? _____

b. Have the wetland lines been verified by a state or federal permitting authority? _____

c. Have the wetland lines been surveyed? _____

d. Total acreage of wetland within the property _____

e. Total acreage of wetland disturbed _____

f. Supporting documentation _____

11. Filing

a. Has the required fee been submitted? _____

Amount of fee paid _____
(*for fees, refer to the Borough's Fee Schedule)*

b. Has the proposed schedule of construction inspection to be performed by the Applicant's engineer been submitted? _____

c. Name of individual who will be making the inspections _____

d. General comments about stormwater management at the development _____
_____
_____

CERTIFICATE OF OWNERSHIP AND ACKNOWLEDGMENT OF APPLICATION:

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF _____ [County Name].

On this the _____ day of _____, 20_____, before me, the undersigned officer, personally appeared _____ who being duly sworn, according to law, deposes and says that _____ owners of the property described in this application and that the application was made with _____ knowledge and/or direction and does hereby agree with the said application and to the submission of the same.

_____Property Owner

My Commission Expires _____ 20_____

Notary Public _____

THE UNDERSIGNED HEREBY CERTIFIES THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF THE INFORMATION AND STATEMENTS GIVEN ABOVE ARE TRUE AND CORRECT.

SIGNATURE OF APPLICANT _____

//

(Information Below This Line To Be Completed By The Municipality)

New Britain Borough official submission receipt:

Date complete application received _____ Plan Number _____

Fees _____ date fees paid _____ received by _____

Official submission receipt date _____

Received by _____

_____
Municipality

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Borough of New Britain

Appendix C-2
SWM Site Plan Checklist

Project: _____

Municipality: _____

Engineer: _____

Submittal No: _____

Date: _____

Project ID: _____ (for Municipal use ONLY)

SECTION I: REGULATED ACTIVITIES

Reference: Section 375-40

1. Is the Proposed Project within the Neshaminy Creek watershed? ☐ Yes ☐ No

2. Does the Proposed Project meet the definition of a "Regulated Activity"? ☐ Yes ☐ No

STOP - If you have checked NO for either of the above questions, you are not required to submit a Stormwater Management Plan under the Neshaminy Creek Stormwater Management Ordinance.

SECTION II: EXEMPTION

Reference: § 375-41

1. Does the regulated activity create an Impervious Surface less than or equal to 1,000 square feet? ☐ Yes ☐ No

2. Does the regulated activity create an Impervious Surface greater than 1,000 square feet but less than 5,000 square feet? ☐ Yes ☐ No

3. Does the regulated activity involve an Agricultural Activity? ☐ Yes ☐ No

4. Does the regulated activity involve Forest Management or Timber Operations? ☐ Yes ☐ No

Parcel IS Exempt from the SWM Site Plan and Peak Rate Control ☐
Parcel IS Exempt from Peak Rate Control ☐
Parcel IS NOT Exempt ☐

SECTION III: VOLUME CONTROLS

Reference: Section 375-47

A. Site Disturbance Minimization

1. Has an Existing Resource and Site Analysis Map (ERSAM) been prepared?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

2. Are any of the following environmentally sensitive areas identified on site?

Steep Slopes	☐ Yes	☐ No	☐ Unknown
Ponds/Lakes/Vernal Pools	☐ Yes	☐ No	☐ Unknown
Streams	☐ Yes	☐ No	☐ Unknown
Wetlands	☐ Yes	☐ No	☐ Unknown
Hydric Soils	☐ Yes	☐ No	☐ Unknown
Flood plains	☐ Yes	☐ No	☐ Unknown
Stream Buffer Zones	☐ Yes	☐ No	☐ Unknown
Hydrologic Soil Groups A or B	☐ Yes	☐ No	☐ Unknown
Recharge Areas	☐ Yes	☐ No	☐ Unknown
Others: _____	☐ Yes	☐ No	☐ Unknown

3. Does the site layout plan avoid environmentally sensitive areas identified on site?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

B. Postdevelopment Runoff Volume Control

1. What method is used to calculate the required volume control?

   ☐ Design-storm method ☐ Simplified method

2. What is the level of runoff volume (feet^3) required to be controlled from the post-development site? _____ (feet^3)

C. Stormwater runoff control measures

1. What is the level of runoff volume (feet^3) controlled through nonstructural BMPs? _____ (feet^3)

2. What is the level of runoff volume (feet^3) controlled through structural BMPs? - _____ (feet^3)

3. Have provisions been installed to promote infiltration on site?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

4. Have provisions been installed to promote evapotranspiration, capture or reuse on site?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

SECTION V: PEAK RATES

Reference: § 375-48

1. In which of the following Stormwater Management District(s) is the site located?

   ☐ A
   ☐ B
   ☐ C

2. Does the Proposed Conditions Runoff meet the Criteria established in Table 304.1?

   ☐ Yes ☐ No, if you answered Yes proceed to Section VI.
   _____

SECTION VI: CALCULATION METHODOLOGY

Reference: § 375-49 and Appendix B

1. Which method(s) are utilized in the site stormwater management plan for computing stormwater runoff rates and volumes?

   ☐ TR-20 ☐ PSRM
   ☐ TR-55 ☐ Rational Method
   ☐ HEC-1/HEC-HMS ☐ Other: _____

2. Was Table B-1 or Figure B-1 utilized in rainfall determination?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

3. Was Table B-4 (Runoff Curve Numbers) or Table B-7 (Rational Runoff Coefficients) utilized in calculations for runoff?

   ☐ Yes ☐ No, Explain _____
   _____
   _____

SECTION IX: OTHER REQUIREMENTS

Reference: § 375-50

1. Is the proposed activity considered a "Stormwater hot spot" as defined in Appendix G? ☐ Yes ☐ No, If yes, what pre-treatment BMPs are planned?

   _____

2. Have proposed wet detention basins incorporated biologic control consistent with the West Nile Virus Guidelines presented in Appendix G?

   ☐ Yes ☐ No ☐ Not Applicable

   _____

SECTION X: FACILITY OPERATION AND MAINTENANCE PLAN

Reference: § 375-62

1. Has a Stormwater Control and BMP Operations and Maintenance Plan been approved by the Municipality?

   ☐ Yes ☐ No, Explain _____
   _____

2. Who shall assume responsibility for implementing the Stormwater Control and BMP Operations and Maintenance Plan?

   ☐ Municipality ☐ Homeowner Association
   ☐ Private Owner ☐ Other _____

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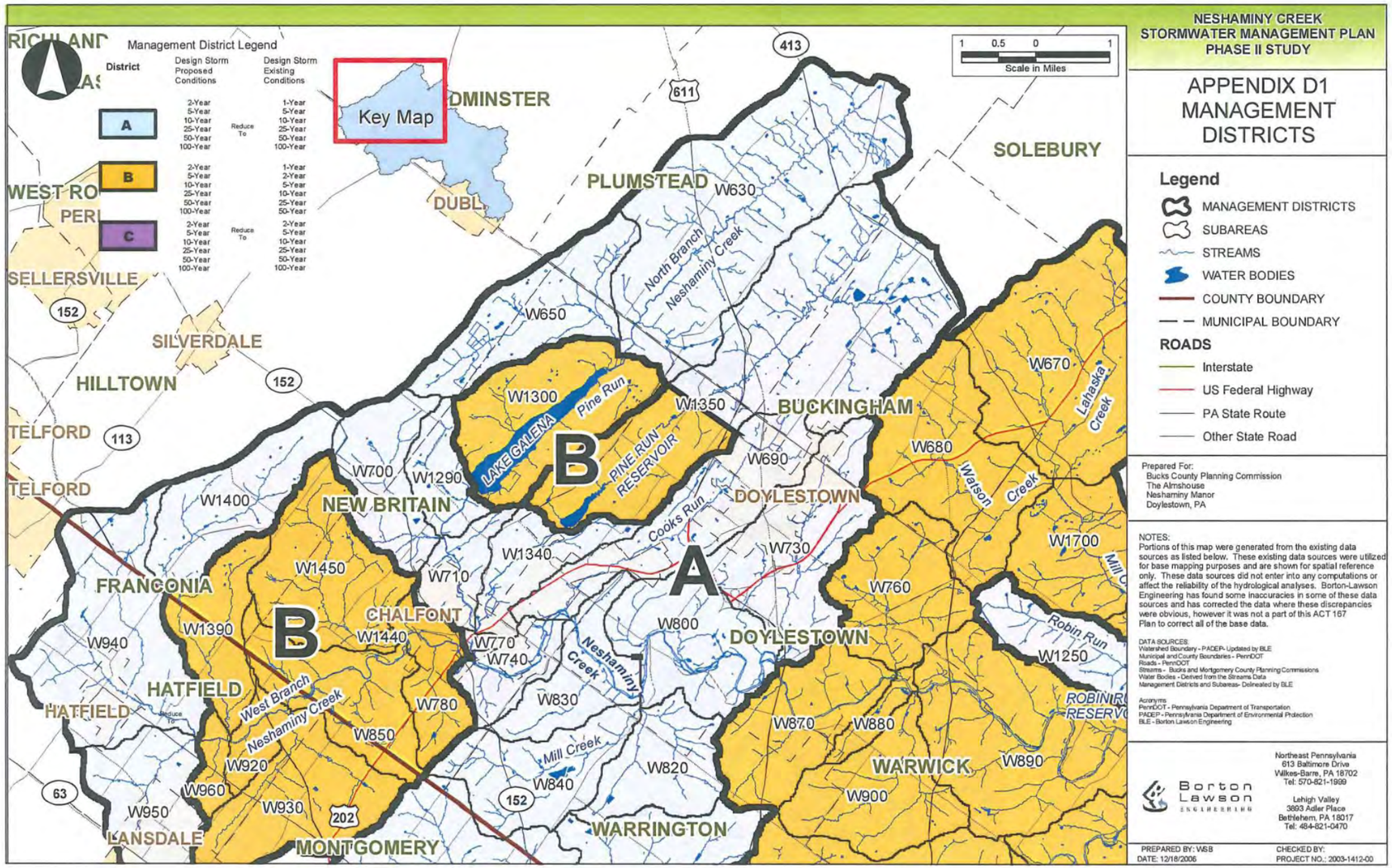
Borough of New Britain

Appendix D
Map of Management Districts (D-1)



375 Attachment 9

Borough of New Britain

Appendix E
Low-Impact Development (LID) Practices

ALTERNATIVE APPROACH FOR MANAGING STORMWATER RUNOFF

Natural hydrologic conditions can be altered radically by poorly planned development practices, such as introducing unnecessary impervious surfaces, destroying existing drainage swales, constructing unnecessary storm sewers, and changing local topography. A traditional drainage approach of development has been to remove runoff from a site as quickly as possible and capture it in a detention basin. This approach leads ultimately to the degradation of water quality as well as expenditure of additional resources for detaining and managing concentrated runoff at some downstream location.

The recommended alternative approach is to promote practices that will minimize post-development runoff rates and volumes and will minimize needs for artificial conveyance and storage facilities. To simulate predevelopment hydrologic conditions, infiltration is often necessary to offset the loss of infiltration by the creation of impervious surfaces. Preserving natural hydrologic conditions requires careful alternative site design considerations. Site design practices include preserving natural drainage features, minimizing impervious surface area, reducing the hydraulic connectivity of impervious surfaces, and protecting natural depression storage. A well-designed site will contain a mix of all those features.

Sometimes regulations create obstacles for an applicant interested in implementing low-impact development techniques on their site. A municipality should consider examining their ordinances and amending the sections which limit LID techniques. For example, a municipality could remove parking space minimums and establish parking space maximums to reduce the area of impervious surface required. Other allowable regulations to promote LID includes permitting curb cuts or wheel stops instead of requiring curbs and allowing sumped landscaping where the runoff can drain instead of requiring raised beds. These small changes to ordinances can remove the barriers which prevent applicants from pursuing LID practices.

The following describes various LID techniques:

1. **Protect Sensitive and Special Value Resources:** See Section 5.4 of the Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection (PADEP) No. 363-0300-002 (2006), or latest edition. **[Amended 2-11-2020 by Ord. No. 403]**

    a. **Preserving Natural Drainage Features.** Protecting natural drainage features, particularly vegetated drainage swales and channels, is desirable because of their ability to infiltrate and attenuate flows and to filter pollutants. However, this objective is often not accomplished in land development. In fact, commonly held drainage philosophy encourages just the opposite pattern—streets and adjacent storm sewers are typically located in the natural headwater valleys and swales, thereby replacing natural drainage

functions with a completely impervious system. As a result, runoff and pollutants generated from impervious surfaces flow directly into storm sewers with no opportunity for attenuation, infiltration, or filtration. Developments designed to fit site topography also minimizes the amount of grading on site.

b. **Protecting Natural Depression Storage Areas.** Depressional storage areas either have no surface outlet or drain very slowly following a storm event. They can be commonly seen as ponded areas in farm fields during the wet season or after large runoff events. Traditional development practices eliminate these depressions by filling or draining, thereby obliterating their ability to reduce surface runoff volumes and trap pollutants. The volume and release rate characteristics of depressions should be protected in the design of the development site. The depressions can be protected by simply avoiding the depression or by incorporating its storage as additional capacity in required detention facilities.

2. **Reduce Impervious Coverage:** See Section 5.7 of the Pennsylvania Stormwater Best Management Practices Manual Pennsylvania Department of Environmental Protection (PADEP) No. 363-0300-002 (2006), or latest edition. **[Amended 2-11-2020 by Ord. No. 403]**

   a. **Avoiding Introduction of Impervious Areas.** Careful site planning should consider reducing impervious coverage to the maximum extent possible. Building footprints, sidewalks, driveways, and other features producing impervious surfaces should be evaluated to minimize impacts of runoff.

   b. **Disconnecting Impervious Surfaces (DIAs):** Impervious surfaces are significantly less of a problem if they are not directly connected to an impervious conveyance system (such as storm sewer). Two basic ways to reduce hydraulic connectivity are routing of roof runoff over lawns and reducing the use of storm sewers. Site grading should promote increasing travel time of stormwater runoff and should help reduce concentration of runoff to a single point in the development. (See Appendix F for additional description.)

   c. **Reducing Street Widths.** Street widths can be reduced by either eliminating on-street parking or by reducing roadway widths. Municipal planners and traffic designers should encourage narrower neighborhood streets which ultimately could lower maintenance.

   d. **Limiting Sidewalks to One Side of the Street.** A sidewalk on one side of the street may suffice in low-traffic neighborhoods. The lost sidewalk could be replaced with bicycle/recreational trails that follow back-of-lot lines. Where appropriate, backyard trails should be constructed using pervious materials.

   e. **Reducing Building Setbacks.** Reducing building setbacks reduces impervious cover associated with driveway and entry walks and is most readily accomplished along low-traffic streets where traffic noise is not a problem.

3. **Disconnect/Distribute/Decentralize:** See Section 5.8 of the Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection (PADEP) No. 363-0300-002 (2006), or latest edition. **[Amended 2-11-2020 by Ord. No. 403]**

    a. **Routing Roof Runoff Over Lawns.** Roof runoff can be easily routed over lawns in most site designs. The practice discourages direct connections of downspouts to storm sewers or parking lots. The practice also discourages sloping driveways and parking lots to the street. By routing roof drains and crowning the driveway to run off to the lawn, the lawn is essentially used as a filter strip.

    b. **Reducing the Use of Storm Sewers.** By reducing use of storm sewers for draining streets, parking lots, and back yards, the potential for accelerating runoff from the development can be greatly reduced. The practice requires greater use of swales and may not be practical for some development sites, especially if there are concerns for areas that do not drain in a "reasonable" time. The practice requires educating local citizens and public works officials, who expect runoff to disappear shortly after a rainfall event.

4. **Cluster and Concentrate:** See Section 5.5 of the Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection (PADEP) No. 363-0300-002 (2006), or latest edition. **[Amended 2-11-2020 by Ord. No. 403]**

In summary, a careful consideration of the existing topography and implementation of a combination of the above mentioned techniques may avoid construction of costly stormwater control measures. Benefits include reduced potential of downstream flooding, water quality improvement of receiving streams/water bodies and enhancement of aesthetics and reduction of development costs. Other benefits include more stable baseflows in receiving streams, improved groundwater recharge, reduced flood flows, reduced pollutant loads, and reduced costs for conveyance and storage.

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Borough of New Britain

Appendix F
Disconnected Impervious Area (DIA)

ROOFTOP DISCONNECTION

When rooftop downspouts are directed to a pervious area that allows for infiltration, filtration and increased time of concentration, the rooftop may qualify as completely or partially DIA and a portion of the impervious rooftop area may be excluded from the calculation of total impervious area.

A rooftop is considered to be completely or partially disconnected if it meets the requirements listed below:

- The contributing area of a rooftop to each disconnected discharge is 500 square feet or less;
- The soil in proximity of the roof water discharge area, is not designated as hydrologic soil group "D" or equivalent; and
- The overland flow path from roof water discharge area has a positive slope of 5% or less.

For designs that meet these requirements, the portion of the roof that may be considered disconnected depends on the length of the overland path as designated in Table F.1.

Table F.1: Partial Rooftop Disconnection

Length of Pervious Flow Path* (feet)	Roof Area Treated as Disconnected (% of contributing area)
0 to 14	0
15 to 29	20
30 to 44	40
45 to 59	60
60 to 74	80
75 or more	100

NOTE:
* Flow path cannot include impervious surfaces and must be at least 15 feet from any impervious surfaces.

If the discharge is concentrated at one or more discrete points, no more than 1,000 square feet may discharge to any one point. In addition, a gravel strip or other spreading device is required for concentrated discharges. For non-concentrated discharges along the edge of the pavement, this requirement is waived; however, there must be a provision for the establishment of vegetation along the pavement edge and temporary stabilization of the area until vegetation becomes stabilized.

REFERENCE

Philadelphia Water Department. 2006. Stormwater Management Guidance Manual, Section 4.2.2: Integrated Site Design, Philadelphia, PA.

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Borough of New Britain

Appendix G
Hot Spots

Hot spots are sites where the land use or activity produces a higher concentration of trace metals, hydrocarbons, or priority pollutants than normally found in urban runoff.

1. Examples of Stormwater Hot Spots

- Vehicle salvage yards and recycling facilities
- Vehicle fueling stations
- Vehicle service and maintenance facilities
- Vehicle and equipment cleaning facilities
- Fleet storage areas (bus, truck, etc.)
- Industrial sites (based on Standard Industrial Codes defined by the U.S. Department of Labor)
- Marinas (service and maintenance)
- Outdoor liquid container storage
- Outdoor loading/unloading facilities
- Public works storage areas
- Facilities that generate or store hazardous materials
- Commercial container nursery
- Other land uses and activities as designated by an appropriate review authority

2. Land Use and Activities Not Normally Considered Hot Spots

- Residential streets and rural highways
- Residential development
- Institutional development
- Office developments
- Nonindustrial rooftops
- Pervious areas, except golf courses and nurseries [which may need an integrated pest management (IPM) plan]

3. List of Acceptable BMPs for Hot Spot Treatment: The following BMPs listed under the Best Management Practice column are BMPs appropriate for application on hot spot sites. BMPs which facilitate infiltration are prohibited by this chapter. In many design manuals, the BMPs with a * designation are designed with infiltration; however, it is possible to design these without infiltration.

The numbers listed under the Design Reference Number column correlate with the Reference Table which lists materials that can be used for design guidance.

Best Management Practice	Design Reference Number
Bioretention*	4,5,11,16
Capture reuse	4,14
Constructed wetlands	4,5,8,10,16
Dry extended detention ponds	4,5,8,12,18
Minimum disturbance/minimum maintenance practices	1,9
Significant reduction of existing impervious cover	N/A
Stormwater filters* (sand, peat, compost, etc.)	4,5,10,16
Vegetated buffers/filter strips	2,3,5,11,16,17
Vegetated roofs	4,13
Vegetated swales*	2,3,5,11,16,17
Water quality inlets (oil/water separators, sediment traps/catch basin sumps, and trash/debris collectors in catch basins)	4,7,15,16,19
Wet detention ponds	4,5,6,8

Reference Table

Number	Design Reference Title
1	"Conservation Design For Stormwater Management — A Design Approach to Reduce Stormwater Impacts From Land Development and Achieve Multiple Objectives Related to Land Use." Delaware Department of Natural Resources and Environmental Control, The Environmental Management Center of the Brandywine Conservancy, September 1997
2	"A Current Assessment of Urban Best Management Practices: Techniques for Reducing Nonpoint Source Pollution in the Coastal Zone," Schueler, T.R., Kumble, P. and Heraty, M. Metropolitan Washington Council of Governments, 1992.
3	"Design of Roadside Channels with Flexible Linings," Federal Highway Administration, Chen, Y.H. and Cotton, G.K., Hydraulic Engineering Circular 15, FHWA-IP-87-7, McLean, Virginia, 1988.
4	"Draft Stormwater Best Management Practices Manual," Pennsylvania Department of Environmental Protection, January 2005.
5	"Evaluation and Management of Highway Runoff Water Quality," Federal Highway Administration, FHWA-PD-96-032, Washington, D.C., 1996.

Number	Design Reference Title
6	"Evaporation Maps of the United States," U.S. Weather Bureau (now NOAA/National Weather Service) Technical Paper 37, Published by Department of Commerce, Washington D.C., 1959.
7	"Georgia Stormwater Manual," AMEC Earth and Environmental, Center for Watershed Protection, Debo and Associates, Jordan Jones and Goulding, Atlanta Regional Commission, Atlanta, Georgia, 2001.
8	"Hydraulic Design of Highway Culverts," Federal Highway Administration, FHWA HDS 5, Washington, D.C., 1985 (revised May 2005).
9	"Low-Impact Development Design Strategies: An Integrated Design Approach," Prince Georges County, Maryland Department of Environmental Resources, June 1999.
10	"Maryland Stormwater Design Manual," Maryland Department of the Environment, Baltimore, Maryland, 2000.
11	"Pennsylvania Handbook of Best Management Practices for Developing Areas," Pennsylvania Department of Environmental Protection, 1998.
12	"Recommended Procedures for Act 167 Drainage Plan Design," LVPC, Revised 1997.
13	"Roof Gardens History, Design, and Construction," Osmundson, Theodore. New York: W.W. Norton and Company, 1999.
14	"The Texas Manual on Rainwater Harvesting," Texas Water Development Board, Austin, Texas, Third Edition, 2005.
15	"VDOT Manual of Practice for Stormwater Management," Virginia Transportation Research Council, Charlottesville, Virginia, 2004.
16	"Virginia Stormwater Management Handbook," Virginia Department of Conservation and Recreation, Richmond, Virginia, 1999.
17	"Water Resources Engineering," Mays, L.W., John Wiley and Sons, Inc., 2005.
18	"Urban Hydrology for Small Watersheds," Technical Report 55, US Department of Agriculture, Natural Resources Conservation Service, 1986.
19	US EPA, Region 1 New England web site (as of August 2005) http://www.epa.gov/NE/assistance/ceitts/stormwater/techs/html.

4. Recommended Pretreatment Methods for "Hot Spot" Land Uses: The following table recommends what is considered the best pretreatment option for the listed land use. These methods are either a BMP or can be applied in conjunction with BMPs.

Hot Spot Land Use	**Pretreatment Method(s)**
Vehicle maintenance and repair facilities including auto parts stores	Water quality inlets
	Use of drip pans and/or Dry Sweep Material Under Vehicles/Equipment
	Use of Absorbent Devices to Reduce Liquid Releases
	Spill Prevention and Response Program
Vehicle fueling stations	Water Quality Inlets
	Spill Prevention and Response Program
Storage areas for public works	Water Quality Inlets
	Use of Drip Pans and/or Dry Sweep Material Under Vehicles/Equipment
	Use of Absorbent Devices to Reduce Liquid Releases
	Spill Prevention and Response Program
	Diversion of Stormwater away from Potential Contamination Areas
Outdoor storage of liquids	Spill Prevention and Response Program
Commercial nursery operations	Vegetated Swales/Filter Strips
	Constructed Wetlands
	Stormwater Collection and Reuse
Salvage yards and recycling facilities*	BMPs that are a part of a Stormwater Pollution Prevention Plan under an NPDES Permit
Fleet storage yards and vehicle cleaning facilities*	BMPs that are a part of a Stormwater Pollution Prevention Plan under an NPDES Permit
Facilities that store or generate regulated substances*	BMPs that are a part of a Stormwater Pollution Prevention Plan under an NPDES Permit
Marinas*	BMPs that are a part of a Stormwater Pollution Prevention Plan under an NPDES Permit
Certain industrial uses (listed under NPDES)*	BMPs that are a part of a Stormwater Pollution Prevention Plan under an NPDES Permit

NOTE:
* Regulated under the NPDES Stormwater Program.

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Borough of New Britain

Appendix H
West Nile Virus Guidance

(This source is from the Monroe County, PA Conservation District, who researched the potential of West Nile Virus problems from BMPs due to a number of calls they were receiving.)

Monroe County Conservation District Guidance:
Stormwater Management and West Nile Virus

Source: Brodhead McMichaels Creeks Watershed Act 167 Stormwater Management Ordinance Final Draft 2-23-2004

The Monroe County Conservation District recognizes the need to address the problem of nonpoint source pollution impacts caused by runoff from impervious surfaces. The new stormwater policy being integrated into Act 167 Stormwater Management regulations by the PA Department of Environmental Protection (PADEP) will make nonpoint pollution controls an important component of all future plans and updates to existing plans. In addition, to meet post-construction antidegradation standards under the state National Pollution Discharge Elimination System (NPDES) permitting program, applicants will be required to employ best management practices (BMPs) to address nonpoint pollution concerns.

Studies conducted throughout the United States have shown that wet basins, and in particular, constructed wetlands, are effective in traditional stormwater management areas such as channel stability and flood control, and are one of the most effective ways to remove stormwater pollutants (United States Environmental Protection Agency 1991, Center for Watershed Protection 2000). From Maryland to Oregon, studies have shown that as urbanization and impervious surface increase in a watershed, the streams in those watersheds become degraded (CWP 2000). Although there is debate over the threshold of impervious cover when degradation becomes apparent (some studies show as little as 6%, while others show closer to 20%), there is agreement that impervious surfaces cause nonpoint pollution in urban and urbanizing watersheds, and that degradation is ensured if stormwater BMPs are not implemented.

Although constructed wetlands and ponds are desirable from a water quality perspective, there may be concerns about the possibility of these stormwater management structures becoming breeding grounds for mosquitoes. The Conservation District feels that although it may be a valid concern, **municipalities should not adopt ordinance provisions prohibiting wet basins for stormwater management.**

Mosquitoes

The questions surrounding mosquito production in wetlands and ponds have intensified in recent years by the outbreak of the mosquito-borne West Nile Virus. As is the case with all vector-borne maladies, the life cycle of West Nile Virus is complicated, traveling from mosquito to bird, back to mosquito and then to other animals including humans. Culex pipiens was identified as the vector species in the first documented cases from New York in 1999. This species is still considered the primary transmitter of the disease across its range. Today there are some 60 species of mosquitoes that inhabit Pennsylvania. Along with C. pipiens, three other species have been identified as vectors of West Nile Virus, while four more have been identified as potential vectors.

The four known vectors in NE Pennsylvania are Culex pipiens, C. restuans, C. salinarius and Ochlerotatus japonicus. All four of these species prefer, and almost exclusively use, artificial containers (old tires, rain gutters, birdbaths, etc.) as larval habitats. In the case of C. pipiens, the most notorious of the vector mosquitoes, the dirtier the water, the better they like it. The important factor is that these species do not thrive in functioning wetlands where competition for resources and predation by larger aquatic and terrestrial organisms is high.

The remaining four species, Aedes vexans, Ochlerotatus Canadensis, O. triseriatus and O. trivittatus, are currently considered potential vectors due to laboratory tests (except the O. trivittatus, which did have one confirmed vector pool for West Nile Virus in PA during 2002). All four of these species prefer vernal habitats and ponded woodland areas following heavy summer rains. These species may be the greatest threat of disease transmission around stormwater basins that pond water for more than four days. This can be mitigated, however, by establishing ecologically functioning wetlands.

Stormwater Facilities

If a stormwater wetland or pond is constructed properly and a diverse ecological community develops, mosquitoes should not become a problem. Wet basins and wetlands constructed as stormwater management facilities, should be designed to attract a diverse wildlife community. If a wetland is planned, proper hydrologic soil conditions and the establishment of hydrophytic vegetation will promote the population of the wetland by amphibians and other mosquito predators. In natural wetlands, predatory insects and amphibians are effective at keeping mosquito populations in check during the larval stage of development while birds and bats prey on adult mosquitoes.

The design of a stormwater wetland must include the selection of hydrophytic plant species for their pollutant uptake capabilities and for not contributing to the potential for vector mosquito breeding. In particular, species of emergent vegetation with little submerged growth are preferable. By limiting the vegetation growing below the water surface, larvae lose protective cover and there is less chance of anaerobic conditions occurring in the water.

Stormwater ponds can be designed for multiple purposes. When incorporated into an open space design, a pond can serve as a stormwater management facility and a community amenity.

Aeration fountains and stocked fish should be added to keep larval mosquito populations in check.

Publications from the PA Department of Health and the Penn State Cooperative Extension concerning West Nile Virus identify aggressive public education about the risks posed by standing water in artificial containers (tires, trash cans, rain gutters, bird baths) as the most effective method to control vector mosquitoes.

Conclusion [Amended 2-11-2020 by Ord. No. 403]

The Conservation District understands the pressure faced by municipalities when dealing with multifaceted issues such as stormwater management and encourages the incorporation of water quality management techniques into stormwater designs. As Bucks County continues to grow, conservation design, groundwater recharge and constructed wetlands and ponds should be among the preferred design options to reduce the impacts of increases in impervious surfaces. When designed and constructed appropriately, the runoff mitigation benefits to the community from these design options will far outweigh their potential to become breeding grounds for mosquitoes.

375 Attachment 13

Borough of New Britain

Appendix I
Small Project Stormwater Management (SWM) Site Plan
[Amended 2-11-2020 by Ord. No. 403]

This Small Project SWM Site Plan is designed to give small regulated activities the opportunity to submit a nonengineered stormwater management plan. The requirements of this site plan alternative are consistent with the volume control requirements of the Neshaminy Creek Watershed Stormwater Management Plan (SMP). This site plan shall apply only to residential development activities proposing between 1,001 and 5,000 square feet of impervious surface and less than one acre of earth disturbance.

Chapter Article or Section	Type of Project	Proposed Impervious Surface		
		0 to 1,000 square feet	1,001 to 5,000 square feet	5,000 + square feet
Article IV, SWM Site Plan Requirements	All development	Exempt	Not exempt	Not exempt
Nonengineered Small Project Site Plan	Only residential development applicable	Exempt	Not exempt (see small projects)	Not exempt
§ 375-47, Volume Control Requirements	All development	N/A	Not exempt	Not exempt
§ 375-48, Peak Rate Control Requirements	All development	Exempt	Exempt*	Not exempt
Erosion and Sediment Control Requirements	Must comply with Title 25, Chapter 102 of the Pa. Code and any other applicable state, county and municipal codes. PADEP requires an engineered post-construction SWM Plan with projects proposing earth disturbance greater than one acre.			

NOTE:

* Peak rate control may be exempt (for the items noted) if it can be displayed that the proposed improvements will not create any detrimental impacts to the protection of public health and safety to downstream properties. A study of the downstream area(s) shall be provided to and approved by the Borough Engineer. A certified letter from a registered Pennsylvania Professional Engineer stating such must accompany the application, the certification must state that there will be no adverse impacts to properties along the downstream flow path.

Small Project Stormwater Management Site Plan

This small project stormwater site plan has been developed to assist those proposing residential projects to meet the requirements of the *Neshaminy Creek Watershed Stormwater Management Plan* Model Ordinance without having to hire professional services to draft a formal stormwater management plan. This small project site plan is only permitted for residential projects proposing less than or equal to 5,000 square feet of impervious surface and less than one acre of earth disturbance.

A. What is an applicant required to submit?

A brief description of the proposed stormwater facilities, including types of materials to be used, total square footage of proposed impervious areas, volume calculations, and a simple sketch plan showing the following information:

- Location of proposed structures, driveways, or other paved areas with approximate surface area in square feet.
- Location of any existing or proposed onsite septic system and/or potable water wells showing proximity to infiltration facilities.
- Bucks or Montgomery County Conservation District erosion and sediment control "Adequacy" letter as required by Municipal County or State regulations.

B. Determination of Required Volume Control and Sizing Stormwater Facilities

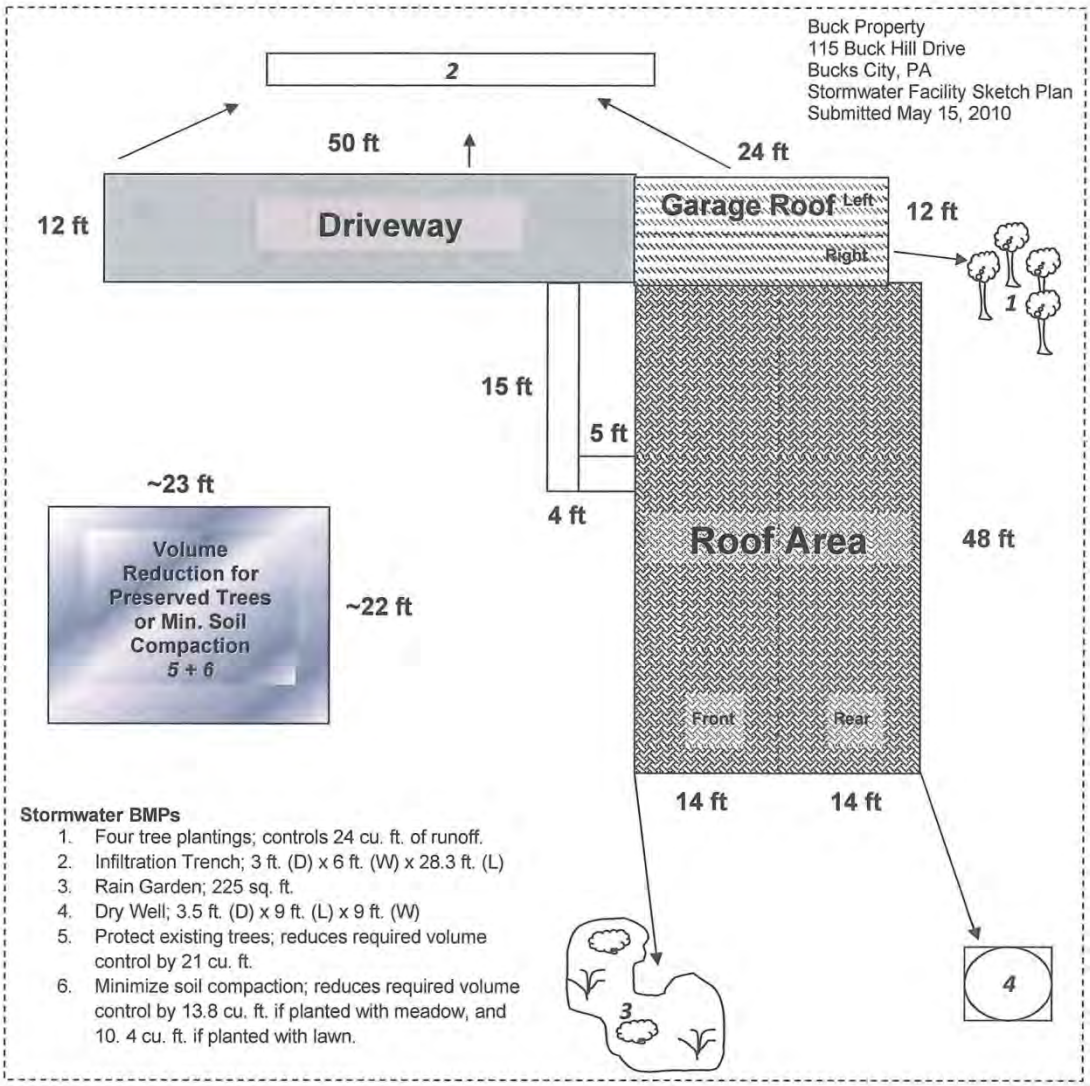
By following the simple steps outlined below in the provided example, an applicant can determine the runoff volume that is required to be controlled and how to choose the appropriate stormwater facility to permanently remove the runoff volume from the site. Impervious area calculations must include all areas on the lot proposed to be covered by roof area or pavement which would prevent rain from naturally percolating into the ground, including impervious surfaces such as sidewalks, driveways, parking areas, patios or swimming pools. Sidewalks, driveways or patios that are designed and constructed to allow for infiltration are not included in this calculation.

Site Plan Example: Controlling runoff volume from a proposed home site

Step 1: Determine Total Impervious Surfaces

Impervious Surface			**Area (square feet)**
House roof (front)	14 feet x 48 feet	=	672
House roof (rear)	14 feet x 48 feet	=	672
Garage roof (left)	6 feet x 24 feet	=	144
Garage roof (right)	6 feet x 24 feet	=	144
Driveway	12 feet x 50 feet	=	1,000
Walkway	4 feet x 20 feet	=	80
	Total Impervious		3,000

Figure 1: Sample Site Sketch Plan



Step 2: Determine Required Volume Control (cubic feet) using the following equation:

Volume (cubic feet) = (Total impervious area in square feet x 2 inches of runoff)/12 inches
(3,000 square feet x 2 inches of runoff)/12 inches = 500 cubic feet

Step 3: Sizing the Selected Volume Control BMP

Several Best Management Practices (BMPs), as described below, are suitable for small stormwater management projects. However, their application depends on the volume required to be controlled, how much land is available, and the site constraints. Proposed residential development activities can apply both nonstructural and structural BMPs to control the volume of runoff from the site. A number of different volume control BMPs are described below. Note that Figure 1 is an example of how these BMPs can be utilized in conjunction to control the total required volume on one site.

Structural BMPs

1. Infiltration Trench

An infiltration trench is a linear stormwater BMP consisting of a continuously perforated pipe at a minimum slope in a stone-filled trench. During small storm events, infiltration trenches can significantly reduce volume and serve in the removal of fine sediments and pollutants. Runoff is stored between the stones and infiltrates through the bottom of the facility and into the soil matrix. Runoff should be pretreated using vegetative buffer strips or swales to limit the amount of coarse sediment entering the trench which can clog and render the trench ineffective. In all cases, an infiltration trench should be designed with a positive overflow.

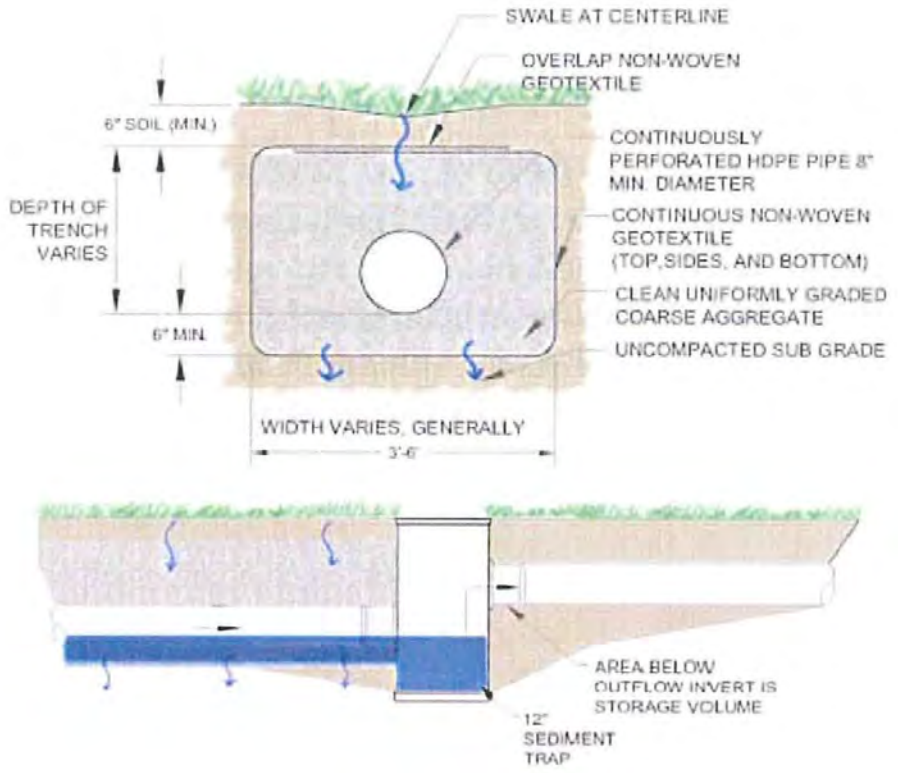
Design Considerations:

- Although the width and depth can vary, it is recommended that infiltration trenches be limited in depth to not more than six feet of stone.
- Trench is wrapped in nonwoven geotextile (top, sides, and bottom).
- Trench needs to be placed on uncompacted soils.
- Slope of the trench bottom should be level or with a slope no greater than 1%.
- A minimum of six inches of topsoil is placed over the trench and vegetated.
- The discharge or overflow from the infiltration trench should be properly designed for anticipated flows.
- Cleanouts or inlets should be installed at both ends of the infiltration trench and at appropriate intervals to allow access to the perforated pipe.
- Volume of facility = Depth x Width x Length x Void Space of the gravel bed (assume 40%).

Maintenance:

- Catch basins and inlets should be inspected and cleaned at least two times a year.
- The vegetation along the surface of the infiltration trench should be maintained in good condition and any bare spots should be revegetated as soon as possible.
- Vehicles should not be parked or driven on the trench and care should be taken to avoid soil compaction by lawn mowers.

Figure 3: Infiltration Trench Diagram



Source: PA BMP Guidance Manual, Chapter 6, page 42.

Figure 4: Example of Infiltration Trench Installation

Source: PA BMP Guidance Manual, Chapter 6, page 46.

Sizing Example for Infiltration Trench

1. Determine total impervious surface to drain to infiltration trench:

Garage roof (left)	6 feet x 24 feet	=	144 square feet
Driveway	12 feet x 50 feet	=	1,000 square feet
Walkway	4 feet x 20 feet	=	80 square feet

2. Determine the required infiltration volume:

   (1224 square feet x 2 inches of runoff)/12 feet = 204 cubic feet/0.4* = 510 cubic feet
   * (0.4 assumes 40% void ratio in gravel bed)

3. Sizing the infiltration trench facility:

   Volume of Facility = Depth x Width x Length

   Set depth to 3 feet and determine required surface area of trench.

   510 cubic feet/3 feet = 170 square feet

   The width of the trench should be greater than 2 times its depth (2 x D); therefore, in this example, the trench width of 6 feet selected.

   Determine trench length: L = 170 square feet/6 feet = 28.3 feet.

   Final infiltration trench dimensions: 3 feet (D) x 6 feet (W) x 28.3 feet (L)

2. Rain Garden

A rain garden is a planted shallow depression designed to catch and filter rainfall runoff. The garden captures rain from a downspout or a paved surface. The water sinks into the ground, aided by deep rooted plants that like both wet and dry conditions. The ideal location for a rain garden is between the source of runoff (roofs and driveways) and the runoff destination (drains, stream, low spots, etc).

Design Considerations:

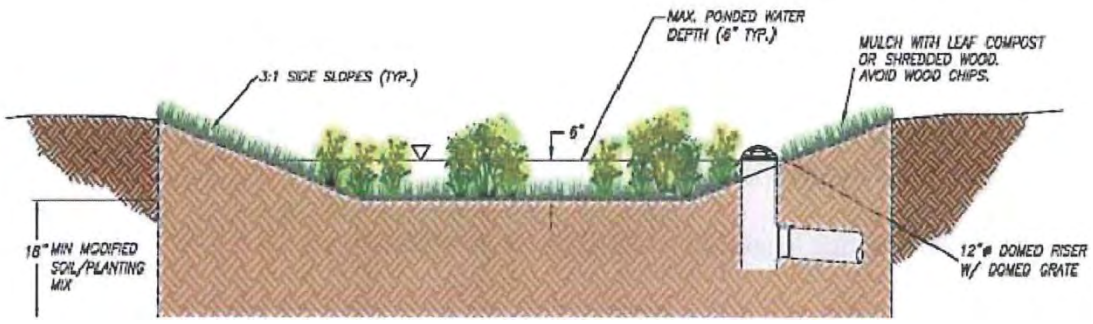
- A maximum of 3:1 side slope is recommended.
- The depth of a rain garden can range from six inches to eight inches. Ponded water should not exceed six inches.
- The rain garden should drain within 72 hours.
- The garden should be at least 10 feet to 20 feet from a building's foundation and 25 feet from septic system drainfields and wellheads.
- If the site has clay soils, soil should be amended with compost or organic material.
- Choose native plants. See http://pa.audubon.org/habitat/PDFs/RGBrochure_complete.pdf for a native plant list. To find native plant sources go to www.pawildflower.org.

- At the rain garden location, the water table should be at least two feet below the soil level. If water stands in an area for more than one day after a heavy rain, you can assume it has a higher water table and is not a good choice for a rain garden.

Maintenance:

- Water plants regularly until they become established.
- Inspect twice a year for sediment buildup, erosion and vegetative conditions.
- Mulch with hardwood when erosion is evident and replenish annually.
- Prune and remove dead vegetation in the spring season.
- Weed as you would any garden.
- Move plants around if some plants would grow better in the drier or wetter parts of the garden.

Figure 5: Rain Garden Diagram



Sizing Example for Rain Garden

1. Pick a site for the rain garden between the source of runoff and between a low-lying area, aka a drainage area.

2. Perform an infiltration test to determine the depth of the rain garden:
   - Dig a hole eight inches by eight inches.
   - Fill with water and put a popsicle stick at the top of the water level.
   - Measure how far it drains down after a few hours (ideally 4).
   - Calculate the depth of water that will drain out over 24 hours.

3. Determine total impervious surface area to drain to rain garden:

House roof (front)	14 feet x 48 feet	=	672 square feet

4. Sizing the rain garden:

   For this example, the infiltration test determined six inches of water drained out of a hole in 24 hours. The depth of the rain garden should be set to the results of the infiltration test so six inches is the depth of the rain garden. The sizing calculation below is based on controlling one inch of runoff. First divide the impervious surface by the depth of the rain garden.

(672 square feet/6 feet) = 112 square feet

In order to control two inches of runoff volume, the rain garden area needs to be multiplied by 2.

112 square feet * 2 = 224 square feet

The rain garden should be about 225 square feet in size and six inches deep.

3. Dry Well (aka "seepage pit")

A dry well, sometimes called a "seepage pit," is a subsurface storage facility that temporarily stores and infiltrates stormwater runoff from the roofs of structures. By capturing runoff at the source, dry wells can dramatically reduce the increased volume of stormwater generated by the roofs of structures. Roof leaders connect directly into the dry well, which may be either an excavated pit filled with uniformly graded aggregate wrapped in geotextile, or a prefabricated storage chamber or pipe segment. Dry wells discharge the stored runoff via infiltration into the surrounding soils. In the event that the dry well is overwhelmed in an intense storm event, an overflow mechanism (surcharge pipe, connection to a larger infiltration area, etc.) will ensure that additional runoff is safely conveyed downstream.

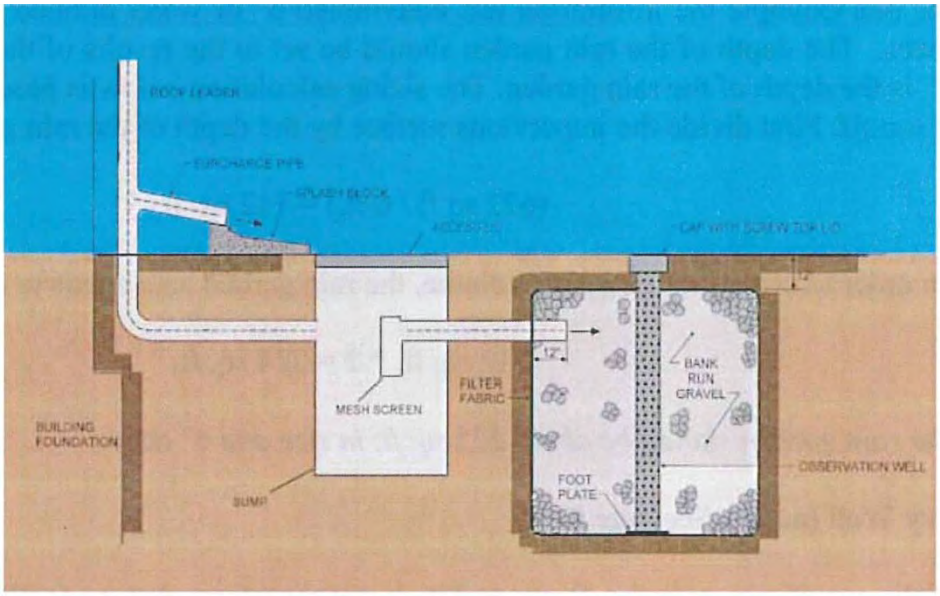
Design Considerations:

- Dry wells typically consist of 18 inches to 48 inches of clean-washed, uniformly graded aggregate with 40% void capacity (AASHTO No. 3, or similar). "Clean" gravel fill should average 1.5 inches to 3.0 inches in diameter.
- Dry wells are not recommended when their installation would create a significant risk for basement seepage or flooding. In general, 10 feet to 20 feet of separation is recommended between dry wells and building foundations.
- The facility may be either a structural prefabricated chamber or an excavated pit filled with aggregate.
- Depth of dry wells in excess of 3.5 feet should be avoided unless warranted by soil conditions.
- Stormwater dry wells must never be combined with existing, rehabilitated, or new septic system seepage pits. Discharge of sewage to stormwater dry wells is strictly prohibited.

Maintenance:

- Dry wells should be inspected at least four times annually as well as after large storm events.
- Remove sediment, debris/trash, and any other waste material from a dry well.
- Regularly clean out gutters and ensure proper connections to the dry well.
- Replace the filter screen that intercepts the roof runoff as necessary.

Figure 6: Dry Well Diagram



Source: PA BMP Guidance Manual. Chapter 6. Page 65.

Sizing Example for Dry Wells:

1. Determine contributing impervious surface area:

House roof (rear)	14 feet x 48 feet	=	672 square feet

2. Determine required volume control:

   (672 square feet * 2 inches of runoff)/12 inches = 112 cubic feet

   112 cubic feet/0.4 = 280 cubic feet (assuming the 40% void ratio in the gravel bed)

3. Sizing the dry well:

   Set depth to 3.5 feet; Set width equal to length for a square chamber.

   280 cubic feet = 3.5 feet x L x L; L = 9 feet

   Dimensions = 3.5 feet (D) x 9 feet (L) x 9 feet (W)

Nonstructural BMPs

1. Tree Plantings and Preservation

Trees and forests reduce stormwater runoff by capturing and storing rainfall in the canopy and releasing water into the atmosphere through evapotranspiration. Tree roots and leaf litter also create soil conditions that promote the infiltration of rainwater into the soil. In addition, trees and forests reduce pollutants by taking up nutrients and other pollutants from soils and water through their root systems. A development site can reduce runoff volume by planting new trees or by preserving trees which existed on the site prior to development. The volume reduction calculations either determine the cubic feet to be directed to the area under the tree canopy for infiltration or determine a volume reduction credit which can be used to reduce the size of any one of the planned structural BMPs on the site.

Tree Considerations:

- Existing trees must have at least a four-inch trunk caliper or larger.
- Existing tree canopy must be within 100 feet of impervious surfaces.
- A tree canopy is classified as the continuous cover of branches and foliage formed by a single tree or collectively by the crowns of adjacent trees.
- New tree plantings must be at least 6 feet in height and have a two-inch trunk caliper.
- All existing and newly planted trees must be native to Pennsylvania. See http://dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029752.pdf for a guide book titled "Common Trees of Pennsylvania" for a native tree list.
- When using trees as volume control BMPs, runoff from impervious areas should be directed to drain under the tree canopy.

Determining the required number of planted trees to reduce the runoff volume:

1. Determine contributing impervious surface area:

Garage roof (right)	6 feet x 24 feet	=	144 feet

2. Calculate the required control volume:

   (144 square feet x 2 inches of runoff)/12 inches = 24 cubic feet

3. Determine the number of tree plantings:
   - A newly planted deciduous tree can reduce runoff volume by six cubic feet
   - A newly planted evergreen tree can reduce runoff volume by 10 cubic feet

   24 cubic feet/6 cubic feet = 4 deciduous trees

Determining the volume reduction for preserving existing trees:

1. Calculate approximate area of the existing tree canopy:

   ~22 square feet x ~23 square feet = 500 square feet

2. Measure distance from impervious surface to tree canopy: 35 feet.

3. Calculate the volume reduction credit by preserving existing trees:
   - For trees within 20 feet of impervious cover:
     Volume Reduction cubic feet = (Existing Tree Canopy square feet x 1 inch)/12
   - For trees beyond 20 feet but not farther than 100 feet from impervious cover:
     Volume Reduction cubic feet = (Existing Tree Canopy square feet x 0.5 inch)/12

   (500 square feet x 0.5 inches)/12 = 21 cubic feet

   This volume credit can be utilized in reducing the size of any one of the structural BMPs planned on the site. For example, the 21 cubic feet could be subtracted from the required infiltration volume when sizing the infiltration trench;

   510 cubic feet – 21 cubic feet = 489 cubic feet

   489 cubic feet/3 feet (Depth) = 163/6 feet (Width) = 27.1 feet (Length)

   Using the existing trees for a volume credit would decrease the length of the infiltration trench to 27.1 feet instead of 28.3 feet

2. Minimize Soil Compaction and Replant with Lawn or Meadow

When soil is overly compacted during construction, it can cause a drastic reduction in the permeability of the soil and rarely is the soil profile completely restored. Runoff from vegetative areas with highly compacted soils similarly resembles runoff from an impervious surface. Minimizing soil compaction and replanting with a vegetative cover like meadow or lawn, not only increases the infiltration on the site, but also creates a friendly habitat for a variety of wildlife species.

Design Considerations:
- Area shall not be stripped of topsoil.
- Vehicle movement, storage, or equipment/material lay down shall not be permitted in areas preserved for minimum soil compaction.
- The use of soil amendments and additional topsoil is permitted.
- Meadow should be planted with native grasses. Refer to Meadows and Prairies: Wildlife-Friendly Alternatives to Lawn at http://pubs.cas.psu.edu/FreePubs/pdfs/UH128.pdf for reference on how to properly plant the meadow and for a list of native species.

Determining the volume reduction by minimizing soil compaction and planting a meadow:

1. Calculate approximate area of preserved meadow:

   ~22 square feet x ~23 square feet = 500 square feet

2. Calculate the volume reduction credit by minimizing the soil compaction and planting a lawn/meadow:

   - For Meadow Areas: Volume Reduction (cubic feet) = (Area of Min. Soil Compaction (square feet) x 1/3 inch of runoff)/12

     (500 square feet x 1/3 inch of runoff)/12 = 13.8 cubic feet

   - For Lawn Areas: Volume Reduction (cubic feet) = (Area of Min. Soil Compaction (square feet) x 1/4 inch of runoff)/12

     (500 square feet x 1/4 inch of runoff)/12 = 10.4 cubic feet

This volume credit can be used to reduce the size of any one of the structural BMPs on the site. See explanation under the volume credit for preserving existing trees for details.

Alternative BMP to Capture and Reuse Stormwater

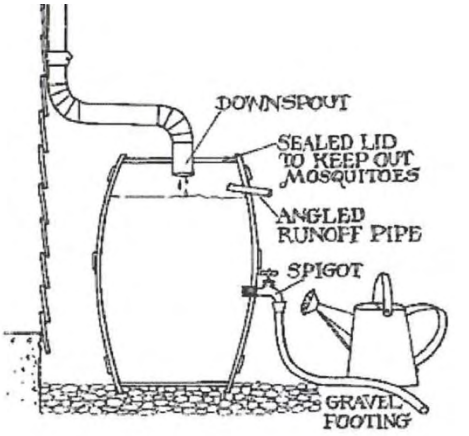
Rain Barrels

Rain barrels are large containers that collect drainage from roof leaders and temporarily store water to be released to lawns, gardens, and other landscaped areas after the rainfall has ended. Rain barrels are typically between 50 gallons and 200 gallons in size. It is not recommended for rain barrels to be used as a volume control BMP because infiltration is not guaranteed after each storm event. For this reason, a rain barrel is not utilized in the site plan example. However, the information is included to provide an alternative for a homeowner to utilize when considering capture and reuse stormwater methods.

Design Considerations:

- Rain barrels should be directly connected to the roof gutter/spout.
- There must be a means to release the water stored between storm events to provide the necessary storage volume for the next storm.
- When calculating rain barrel size, rain barrels are typically assumed to be 25% full because they are not always emptied before the next storm.
- Use screens to filter debris and cover lids to prevent mosquitoes.
- An overflow outlet should be placed a few inches below the top with an overflow pipe to divert flow away from structures.
- It is possible to use a number of rain barrels jointly for an area.

Figure 2: Rain Barrel Diagram and Examples



Sources: (top picture) http://www.citywindsor.ca/DisplayAttach.\asp?AttachID=12348 (bottom picture on left) http://repurposinglife.blogspot.com/2009/05/rainwater-harvesting.html (bottom picture on right) http://www.floridata.com/tracks/transplantedgardener/Rainbarrels.cfm

Sizing Example for a Rain Barrel

1. Determine contributing impervious surface area:

Garage roof (right)	6 feet x 24 feet	=	144 square feet

2. Determine the amount of rainfall to be captured by the rain barrel. A smaller storm, no more than two inches, is recommended to calculate the runoff to be captured. This example chose the one-inch storm event.

3. Calculate the volume to be captured and reused:

   (144 square feet x 1 inch of runoff)/12 inches = 12 cubic feet

4. Size the rain barrel:

   1 cubic feet = 7.48 gallons

   12 cubic feet x 7.48 = 90 gallons

   90 gallons x (0.25*) = 22.5 gallons
   *(assuming that the rain barrel is always at least 25% full)

   90 gallons + 22.5 gallons = 112 gallons

   The rain barrel or barrels should be large enough hold at least 112 gallons of water.

REFERENCES:

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Department of Environmental Protection. (2006). Pennsylvania Stormwater Best Management Practices Manual.

Wissahickon Watershed Partnership. Pennsylvania Rain Garden Guide. Retrieved on May 4, 2010 from http://pa.audubon.org/habitat/PDFs/RGBrochure_complete.pdf.

Building a Backyard Rain Garden. North Carolina Cooperative Extension. Retrieved on May 4, 2010 from http://www.bae.ncsu.edu/topic/raingarden/Building.htm

Delaware County Planning Commission. (2010). Draft Crum Creek Watershed Act 167 Stormwater Management Plan. Ordinance Appendix B. Simplified Approach to Stormwater Management for Small Projects.

Solebury Township. (2008). Solebury Township Stormwater Management Ordinance. "Appendix J Simplified Stormwater Management Procedures for Existing Single Family Dwelling Lots"

375 Attachment 14

Borough of New Britain

Appendix J
References

Articles/Books

DeBarry, P.A., Yang, E., Traver, R. G., Newman, B., Determination of Appropriate Infiltration Requirements For Land Development Using the Water Budget Approach – the Darby – Cobbs Experience.

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Risser, D. W., Cogner, R. W. Ulrich, J.E., and Asmussen, M.P. (2005). Estimates of Ground-Water Recharge Based on Streamflow – Hydrograph methods, Pennsylvania. U.S. Geological Survey Open File Report 1005-1333.

United States Environmental Protection Agency, (rev December 2005). Stormwater Phase II Final Rule Small MS4 Stormwater Program Review. Fact Sheet 2.0. EPA 833-F-00-002. http://www.epa.gov/npdes/pubs/fact2-0.pdf

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Bucks County Planning Commission and Bucks County Conservation District. (1992). Neshaminy Creek Watershed Stormwater Management Plan, Volume I.

Lehigh Valley Planning Commission. (2009). Perkiomen Creek Headwaters Stormwater Management Plan.

BMP Manuals

California
California Stormwater BMP Handbook: New Development and Redevelopment (January 2003) – separate file available at http://www.cabmphandbooks.org/Development.asp

Georgia
Georgia Stormwater Management Manual Volume 2: Technical Handbook (August 2001) separate file (http://www.georgiastormwater.com/)

Maryland
2000 Maryland Stormwater Design Manual -
http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.asp

Massachusetts
Stormwater Management, Volume Two: Stormwater Technical Handbook (Massachusetts, 1997) – separate file available at http://www.mass.gov/dep/water/laws/swmpolv2.pdf

Minnesota
Minnesota Urban Small Sites BMP Manual: Stormwater Best Management Practices for Cold Climates (July 2001) – http://www.metrocouncil.org/environment/Watershed/BMP/manual.htm

New Jersey
STORMWATER Best Management Practices Manual
http://www.nj.gov/dep/stormwater/bmp_manual2.htm

New York
New York State Stormwater Management Design Manual (2001) –
http://www.dec.ny.gov/chemical/29072.html

Pennsylvania
Pennsylvania Stormwater Best Management Practices (2006) -
http://164.156.71.80/WXOD.aspx?fs=2087d8407c0e000080000719000007 19&ft=1

Washington
Stormwater Management Manual for Western Washington (August 2001) -
http://www.ecy.wa.gov/programs/wq/stormwater/manual.html

Federal

Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring (FHWA) – http://www.fhwa.dot.gov/environment/ultraurb/3fs1.htm

USEPA Infiltration Trench Fact Sheet (September 1999) -
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm

Riparian Buffer References

Alliance for the Chesapeake Bay, Pennsylvania Department of Environmental Protection, September 2000. Forest Buffer Toolkit, Stream ReLeaf Program.

Fike, Jean, June 1999. Terrestrial and Palustrine Plant Communities of Pennsylvania, Pennsylvania Natural Diversity Inventory, The Nature Conservancy, Western Pennsylvania Conservancy, and Pennsylvania Department of Conservation and Natural Resources.

Palone, R. S. and A. H. Todd (eds), 1997. Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers. Chesapeake Bay Program and Northeastern Area State and Private Forestry. Natural Resources Conservation Service Cooperative State Research Education and Extension Services.

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The Federal Interagency Stream Restoration Working Group (FISRWG, 10/1998). Stream Corridor Restoration Principles, Processes, and Practices. GPO Item No. 0120-A; SuDocs No. A57.6/2:EN3/PT.653. ISBN-0-934213-59-3. Published October 1998. Revised August 2000.

Modeling Data

The SCS Type II rainfall curve -- National Oceanic and Atmospheric Administration (NOAA) Atlas 14 rain data corresponding to the Doylestown rain gage. This data may be retrieved from the Atlas 14 website: http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html

NEW BRITAIN BOROUGH

BUCKS COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF THE BOROUGH OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, AMENDING ARTICLE VI *REQUIRED IMPROVEMENTS* OF CHAPTER 385 *SUBDIVISION AND LAND DEVELOPMENT* OF THE CODE OF ORDINANCES OF THE BOROUGH OF NEW BRITAIN BY REPEALING AND REPLACING SECTION 385-34 *STORMWATER MANAGEMENT AND SURFACE RUNOFF CONTROL* IN ITS ENTIRETY; REPEALING ALL PRIOR INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Pennsylvania Municipalities Planning Code, 53 P.S. § 10101, *et seq.* grants authority to the Borough Council of the Borough of New Britain to regulate subdivision and land development within the Borough of New Britain, 53 P.S. § 10501;

WHEREAS, the Borough Council has adopted a subdivision and land development ordinance titled "The New Britain Borough and Subdivision Ordinance", codified at Chapter 385 of the Borough's Code of Ordinances, pursuant to section 504 of the Pennsylvania Municipalities Planning Code, 53 P.S. § 10504;

WHEREAS, the Borough Council is authorized to amend the Borough's Subdivision and Land Development Ordinance through enactment of an ordinance amendment, 53 P.S. § 10505;

WHEREAS, concurrently herewith, Borough Council is amending Chapter 375 *Stormwater Management* of the Borough's Code of Ordinances in order to effectuate amendments thereto for the purposes set forth therein, including specifically to ensure that the Borough's stormwater management regulations are consistent with the Pennsylvania Department of Environmental Protection's Model Ordinance pursuant to the Borough's Small Municipal Separate Storm Sewer System (MS4) Permit, and desires to amend the Subdivision and Land Development Ordinance to be consistent with such amendment, with the advice of the Borough Engineer; and

WHEREAS, Borough Council has determined that it is in the best interests of the citizens of New Britain Borough, and those doing business in the Borough, to amend the Subdivision and Land Development Ordinance as set forth herein.

NOW THEREFORE, be it **ORDAINED** and **ENACTED**, by the Borough Council of the Borough of New Britain as follows:

SECTION 1. The Code of Ordinances of the Borough of New Britain, Chapter 385 *Subdivision and Land Development*, Article VI *Required Improvements*, is hereby amended by repealing the provisions of section 385-34 *Stormwater Management and surface runoff control* in its entirety and replacing them with the following provisions:

§385-34 **Stormwater management and surface runoff control.**

A. General.

(1) The applicant shall construct or install such drainage structures, on site and off site, as necessary to:

(a) Prevent erosion damage and to satisfactorily carry off or detain and control the rate of release of surface waters.

(b) Encourage all runoff-control measures to percolate the stormwater into the ground to aid in the recharge of groundwater.

(c) Carry surface water to the nearest adequate street, storm drain, stormwater BMP, natural watercourse, or drainage facility.

(d) Take surface water from the bottom of vertical grades, to lead water away from springs, and to avoid excessive use of cross gutters at street intersections and elsewhere.

(e) Handle the anticipated peak discharge from the property being subdivided or developed and the existing runoff being contributed from all land at a higher elevation in the same watershed.

(f) Maintain the adequacy of the natural stream channels. Accelerated bank erosion shall be prevented by controlling the rate and velocity of runoff discharge to these watercourses so as to avoid increasing the occurrence of streambank overflow.

(g) Preserve the adequacy of existing culverts. Bridges and similar structures shall be preserved by

suppressing the new flood peaks created by new alteration or development of land.

(2) Drainage area boundary plans shall be submitted, reviewed, and approved for all structures, stormwater BMPs, and collection devices.

(3) Additional studies and higher levels of control than the minimum provided in these and other New Britain Borough requirements and criteria may be required by the Borough Council to ensure adequate protection to life and property.

(4) If special geological hazards or soil conditions, such as carbonate derived soils, are identified on the site, the applicant's engineer shall consider the effect of proposed stormwater management measures on these conditions. In such cases, the Borough may require an in-depth report by a qualified soils engineer.

B. Retention of existing watercourses and natural drainage features.

(1) Whenever a watercourse, stream or intermittent stream is located within a development site, it shall remain open in its natural state and location and shall not be piped.

(2) The existing points of natural discharge onto adjacent property shall not be altered without the written approval by the affected landowners.

(3) No stormwater runoff or natural drainage shall be so diverted as to overload existing drainage systems or create flooding or the need for additional drainage structures on private properties or public lands.

C. All subdivisions and land developments are subject, in addition, to the requirements of Chapter **375**, Stormwater Management, of the Code of the Borough of New Britain, which is included in these regulations by reference.

D. Stormwater runoff which may result from alteration or development of land shall be controlled by permanent stormwater runoff BMPs that will provide the required standards within this Section, Chapter **375**, and any other requirements of New Britain Borough. The methods of

stormwater control or best management practices (BMPs) which may be used to meet the required standards are described in this Section and the Pennsylvania Department of Environmental Protection's *Pennsylvania Stormwater Best Management Practices Manual*, dated December 2006, as amended (PA BMP Manual). The choice of BMPs is not limited to those referenced in this Section and/or the manual. Any selected BMP must meet or exceed the required standards and shall incorporate sound engineering principles and practices.

E. Design criteria for infiltration BMPs. In addition to the design criteria and specifications in the PA BMP Manual and any other design criteria in this Section, all infiltration BMPs shall meet the minimum requirements:

(1) A detailed infiltration testing and soils evaluation of the project site shall be performed to determine the suitability of infiltration BMPs. The evaluation shall be performed by a qualified professional and, at a minimum, address soil permeability, depth to limiting zones, karst/susceptibility to sinkhole formation, and subgrade stability. Infiltration BMPs shall be selected based on the suitability of soils and site conditions and shall be constructed on soils that have the characteristics defined in **§ 375-303.C.(5) and (6).**

(2) All infiltration BMPs shall be provided with an overflow or spillway which safely permits the passing of runoff greater than that occurring during the largest design storm. The overflow or spillway shall be set above the maximum proposed ponding depth.

(3) The infiltration BMP shall be positive overflow controls to prevent storage within one foot of the finished surface above the facility.

(4) Infiltration BMPs shall have a bottom slope of no greater than 1% but shall preferably have a level bottom.

F. Design criteria for bioretention facilities. Bioretention facilities BMPs, including rain gardens, shall be designed in accordance with the design criteria and specifications in the PA BMP Manual and shall meet the following the minimum requirements:

(1) All concentrated discharges directed to a bioretention facility shall be conveyed through a pretreatment filter strip. The filter strip shall be designed to reduce the incoming velocities and to filter out coarser sediment particles. Examples of pretreatment filter strips include sand or gravel diaphragms, grass swales, sand filters, stone check dams, etc.

(2) A minimum planting soil bed depth of two feet for herbaceous plants and three feet for trees and shrubs shall be provided. Planting soil shall be a loam soil capable of supporting healthy vegetative cover.

(3) All bioretention facilities shall incorporate an organic mulch layer. The organic mulch layer shall be standard landscape style, single or double, shredded hardwood mulch or chips. The mulch layer shall be well-aged, uniform in color, and free of other materials such as weed seed, soil roots, etc. The mulch layer shall be applied to maximum depth of three inches. Grass clippings shall not be used as mulch material.

(4) All bioretention facilities shall incorporate native landscaping. Plant species shall be selected based on the ability to tolerate stresses such as pollutants, variable soil moisture, and ponding fluctuations. A mixture of trees, shrubs, and/or herbaceous plant species shall be selected to ensure diversity.

(5) The maximum side slopes of bioretention BMPs shall be four horizontal to one vertical.

(6) A minimum grade of 2% shall be maintained for areas of sheet flow. For channel flow, a minimum grade of 1% shall be maintained. For bioretention facilities relying on infiltration for drainage, rather than sheet or channel flow, a level bottom is permitted.

(7) Bioretention facilities with an aboveground ponding depth of greater than 2.5 feet during any post-development design storm shall be designed in accordance with the requirements of § 385-34.G.

G. Design criteria for aboveground basins. Aboveground basin BMPs shall be designed in accordance with the design criteria and specifications in the PA BMP Manual and shall meet the following the minimum requirements:

(1) Unless permitted as a special exception by the Zoning Hearing Board, basins shall not be located within floodplains nor within areas of floodplain soils, with the exception that areas of alluvial soils may be utilized if proof is provided by the applicant and accepted by the Borough Council that the area is not subject to flooding.

(2) Basins shall be designed to facilitate regular maintenance, mowing, and periodic desilting and reseeding.

(3) Whenever possible, the side slopes and basin shape shall conform to the natural topography. When such design is impractical, the construction of the basin shall utilize slopes as flat as possible to blend the structure into the terrain. The maximum slope of the earthen basin embankments shall be four horizontal to one vertical.

(4) In order to ensure proper drainage to the basin bottom, a minimum grade of 2% shall be maintained for areas of sheet flow. For channel flow, a minimum grade of 1% shall be maintained. For basins relying on infiltration for drainage, rather than sheet or channel flow, a level bottom is permitted.

(5) The top or toe of any slope shall be located a minimum of five feet from any property line.

(6) The minimum top width of the detention basin berm shall be 10 feet.

(7) If permanent ponds are used, the applicant shall demonstrate that such ponds are designed to protect the public health and safety.

(8) A cutoff trench shall be provided along the center line of any dam or earth fill embankments. The trench shall have a bottom width of not less than four feet, but adequate to allow use of equipment necessary to obtain proper compaction.

Side slopes of cutoff trench shall be no steeper than 1:1 ratio. The trench shall be filled with successive thin layers of relatively impervious material, each layer being thoroughly compacted.

(9) All basin embankments shall be placed in lifts not to exceed eight inches in thickness and each lift shall be compacted to a minimum of 95% of modified proctor density as established by ASTM D-1557. Prior to proceeding to the next lift, the compaction shall be checked by a soils engineer employed by the applicant. Compaction tests shall be run on the leading and trailing edge of the berm along with the top of the berm. Verification of required compaction shall be submitted to the Borough prior to utilization of any basin for stormwater management.

(10) All aboveground basins shall be provided with a primary spillway/outlet pipe meeting the following the minimum requirements:

(a) The sizing of the outlet pipe shall be based on the post-construction one-hundred-year storm without utilizing the emergency spillway.

(b) All outlet pipes through the basin berm shall be reinforced concrete pipe with watertight joints.

(c) The pipe barrel and riser shall be placed on a firm foundation. The fill material around the primary spillway shall be placed in 4-inch lifts and compacted to at least the same density as the adjacent embankment.

(d) Anti-seep collars shall be installed around the pipe barrel within the normal saturation zone of the basin berms and shall be poured in place.

[1] The anti-seep collars and their connections to the pipe barrel shall be watertight.

[2] The anti-seep collars shall extend a minimum of two feet beyond the outside of the principal pipe barrel.

[3] The maximum spacing between the collars shall be 14 times the minimum projection of the collar measured perpendicular to the pipe.

[4] A minimum of two anti-seep collars shall be installed on each outlet pipe.

(e) All outlet pipes shall have endwalls and energy-dissipating devices (riprap, end sills, etc.) designed in accordance with the Pennsylvania Department of Environmental Protection's *Erosion and Sediment Pollution Control Program Manual* No. 363-2134-008, as amended and updated (PA E&S Manual).

(11) All aboveground basins shall be provided with an emergency spillway meeting the following the minimum requirements:

(a) Whenever possible, the emergency spillway shall be constructed on undisturbed ground.

(b) Emergency spillways constructed on undisturbed ground may be constructed of reinforced vegetated earth. All other spillways shall be constructed of riprap, concrete checkerblocks, or similar materials approved by the Borough Engineer.

(c) All emergency spillways shall be constructed so that the basin berm is protected against erosion.

(d) The emergency spillway shall not discharge over earthen fill and/or easily eroded material.

(e) The construction material of the emergency spillways shall extend along the upstream and downstream berm embankment slopes. The upstream edge of the emergency spillway shall be a minimum of three feet below the spillway crest elevation. The downstream slope of the spillway shall, at a minimum, extend to the toe of the berm embankment.

(f) The minimum capacity of all emergency spillways shall be the peak flow rate from the post-development 100-year design storm.

(g) The minimum freeboard through the emergency spillway shall be one foot. Freeboard is defined as the difference between the design flow elevation through the spillway and the elevation of the top of the settled basin berm. Six inches, minimum, is required between the 100-year water surface elevation and the emergency spillway crest.

(12) Sediment basins and sediment traps for sediment control during construction shall be designed in accordance with the PA E&S Manual.

H. All other stormwater management BMPs shall be designed in accordance with the design criteria and specifications in the PA BMP Manual and shall incorporate sound engineering principles and practices.

I. Design criteria for drainage channels and swales.

(1) All drainage channels and swales shall be designed to carry the peak flow from a 25-year storm with a minimum of six inches of freeboard. Provisions shall be made to ensure that larger runoff events do not impair public safety or cause damage to adjacent lands or public property.

(2) All drainage channels and swales shall be designed to prevent erosion of the bed and banks and suitable stabilization shall be provided to prevent erosion. The maximum permissible flow velocity shall not exceed those outlined in Table 6.4 Maximum Permissible Velocities (ft/sec) of Channels Lined with Vegetation and its additional notes of the PA E&S Manual.

(3) Vegetated drainage channels shall have a maximum grade of three horizontal to one vertical on those areas to be mowed.

(4) Swales shall be designed to prevent the passage of water onto the cartway during a 25-year frequency storm of 5-minute duration.

J. Design criteria for storm drain pipes, inlets, and manholes.

(1) Storm sewers, culverts, and related installations shall be provided:

(a) To permit the unimpeded flow of natural watercourses in such a manner as to protect the natural character of said watercourses and to provide regulated discharge.

(b) To ensure adequate drainage of all low points.

(c) To intercept stormwater runoff along streets at intervals reasonably related to the extent and grade of the area of drainage and to prevent substantial flow of water across intersections.

(2) The design discharge for use in determining gutter flow, spacing of inlets, and for pipe sizing of storm sewer shall be computed by the rational formula Q = CIA, in which Q = discharge, cubic feet per second; C = runoff coefficient; I = rainfall intensity, inches per hour; A = area, acres.

(a) The storm drainage system shall be designed to carry runoff from the 25-year storm based on rainfall intensities from the latest version of the NOAA Atlas 14 rain data corresponding to the Doylestown rain gage. This data may also be directly retrieved from the NOAA Atlas 14 website: hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html.

(b) In all cases where storm drainage is picked up by means of a headwall or inlet structure and hydraulic inlet or outlet conditions control, the pipe shall be designed as a culvert for a 50-year storm.

(c) The elevation of the hydraulic gradient at any point in the storm sewer system shall be below of the surface of the ground based on the 100-year storm rainfall intensities from the latest version of the NOAA Atlas 14 rain data corresponding to the Doylestown rain gage.

(d) The runoff factors set forth in Table B-7 in Appendix B of the New Britain Borough Stormwater Management

Ordinance shall be utilized.

(e) A minimum 5-minute storm duration shall be used. Where supported by the drainage area and related plans and calculations, longer storm durations shall be utilized, using the time-of-concentration approach to adjust the time of concentration.

(f) Design shall be based on gravity (non-pressure) flow.

(3) Storm sewer pipes.

(a) All storm sewer pipes shall be reinforced concrete pipe, smooth lined high-density polyethylene, or other pipe material as may be approved by the Borough Engineer.

(b) The Manning's roughness coefficients ('n') set forth in Table B-8 in Appendix B of the New Britain Borough Stormwater Management Ordinance shall be utilized.

(c) The minimum diameter of all storm drainage pipe shall be 15 inches or an equivalent thereto. Where pipe cover is restricted, equivalent pipe arches may be used in lieu of circular pipe.

(d) The minimum slope of any pipe shall be 0.5%.

(e) The top of storm drainage pipes beneath cartways shall be at least six inches below subgrade elevation. Outside of paved areas, all pipes shall have a minimum cover of two feet.

(f) Storm sewers shall be placed within a street right-of-way, parallel to the cartway. When located outside of a right-of-way, storm sewers shall be placed and centered within an easement having a width of not less than 20 feet.

(4) Inlets and manholes.

(a) Abrupt changes in direction or slope of storm drainage pipe shall be avoided. Where there is a such a deflection in the storm pipe system, an inlet or manhole

shall be placed at the point of change.

(b) An inlet or manhole shall be provided at all changes of grade, at all locations where a transition in storm sewer pipe size is required, and at all points of convergence of two or more influent storm sewer pipes.

(c) The spacing on inlets and manholes shall not exceed a maximum distance of 450 feet along any one continuous line.

(d) Inlets, manholes, and related tops, covers, and frames shall conform to Pennsylvania Department of Transportation specifications.

(e) All inlets must be designed to accommodate the 25-year peak flow rate. The capacity of all C-, M-, or S-type inlets shall be determined from the Pennsylvania Department of Transportation Design Manual, Part 2, and any amendments.

(f) Spread of runoff in gutters shall not exceed eight feet in width or 1/2 of the travel lane, whichever is lesser, during a 10-year storm event.

(g) At street intersections, inlets shall be placed in the tangent portion rather than the curved portion of the curbing.

(5) Shoulders in cut areas (without swales).

(a) Water flowing in the shoulder shall not encroach more than 2/3 the shoulder width during a 25-year frequency storm of 5-minute duration.

(b) The maximum velocity, as determined by Manning's Equation, shall not exceed the allowable velocities in outlined in Table 6.4 Maximum Permissible Velocities (ft/sec) of Channels Lined with Vegetation and its additional notes of the PA E&S Manual for the specific type of shoulder material.

(c) Inlets shall be provided to control the shoulder

encroachment and water velocity.

(6) Curbed sections.

(a) The maximum encroachment of water on the cartway shall not exceed two inches in depth at the curb during a 25-year frequency storm of 5-minute duration.

(b) Inlets shall be provided to control the encroachment of water on the cartway.

SECTION 2. Repealer. Any and all other Ordinances or parts of Ordinances in violation or in conflict with the terms, conditions and provisions of this Ordinance are hereby repealed to the extent of such irreconcilable conflict.

SECTION 3. Severability. The terms, conditions and provisions of this Ordinance are hereby declared to be severable, and, should any portion, part or provision of this Ordinance be found by a court of competent jurisdiction to be invalid, enforceable or unconstitutional, the Council hereby declares its intent that the Ordinance shall have been enacted without regard to the invalid, enforceable, or unconstitutional portion, part or provision of this Ordinance.

SECTION 4. Effective date. This Ordinance shall become effective at the earliest date permitted by Pennsylvania law.

ORDAINED and **ENACTED** an ordinance of the Borough of New Britain this ____ day of _____, 2022.

NEW BRITAIN BOROUGH COUNCIL

By:

_____
Council President

Approved this _____ day of _____, 2022.

_____
Mayor

Attest:

_____

Borough Secretary

BOROUGH OF NEW BRITAIN
45 Keeley Avenue● New Britain, Pennsylvania, 18901● (215) 348-4586

Consent Agenda Items

Minutes for the Regular Meeting of Borough Council
May 10, 2022

1. Call to Order/Pledge of Allegiance

Council Present: Mr. Peter LaMontagne, President
Mr. John Wolff, Vice President
Mr. Steven Ascher, Member
Ms. Loren Frasco, Member
Ms. Lori Kesilman, Member
Dr. Robyne Kelemen, Member
Ms. Jennifer Salisbury
Mr. James Donovan, Mayor

Staff Present: Ms. Amanda Zimmerman, Borough Manager
Mr. Michael Peters, Esq., Borough Solicitor

The public meeting of the Borough Council of New Britain Borough, duly advertised, was held in person at Burkart hall and called to order by President LaMontagne at 7:30PM.

Mr. LaMontagne announced that there was an executive session prior to this meeting to discuss land acquisition and legal matters.

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2. Consideration of Consent Agenda

Ms. Zimmerman provided an overview of the Consent Agenda items. Ms. Zimmerman noted that the Shade Tree Commission held their Arbor Day Celebration prior to the start of this meeting where the Proclamation was read.

Mr. Wolff made a motion to approve the Consent Agenda: Seconded by Ms. Kesilman. Mr. LaMontagne asked if there was any discussion from Council or the public.

7-0 Motion Carried.

3. Resident Remarks

June Bair, Matthews Avenue, commented that Borough Councilmembers need to start attending events held by the various committees and that a sign-up sheet may be the solution to ensuring at least one Councilmember attends all Borough events. Ms. Bair also commented on a flooding issue that occurred in the basement of the Administration Building that damaged some of the historical documents and expressed her concern that the Committee was not notified of the situation when it happened sometime in 2020.

Al Marcianti, Matthews Avenue, thanked the Borough for patching the potholes on Woodland Drive. Mr. Marcianti asked that the loop street signs be removed as they are pointing the wrong direction and people are still trying to cut through the road.

4. Review of Written Staff Reports and Elected Official Reports

Ms. Zimmerman commented that Council has her written report. Ms. Zimmerman commented that the Borough is still waiting on the Highway Occupancy Permit from PennDOT that will allow the Butler Avenue Sidewalk project to begin. Delaware Valley University has officially moved out of Burkart Hall to a facility on their own campus, so staff is looking at ways to utilize the first floor including moving the Historic Preservation Committee materials to the building so everything is above ground level and creating an extra meeting space/Council chamber when needed. Mayor Donovan inquired if the space could be used as a rentable space. Mr. Wolff commented that there is a lot of clean up to do before it could be considered rentable, and the first floor is dark and lacking in natural light. Ms. Zimmerman also announced that the real estate tax collection rate is at 80 percent right now but based on discussion with the Tax Collector, the Borough should end up the year with a collection rate close to 99 percent.

Ms. Zimmerman also commented that the Central Bucks Regional Police had a scheduling conflict this evening, but they did not have anything of note to announce this evening.

5. Committee Activity Review, Questions, and Announcements

Tom Price, Chair of Bird Town Committee, provided a detailed history of the Bird Town program itself, what it means, how the Borough achieved the label, and the status of the program within the Borough. Mr. Price also provided a detailed overview of the National Wildlife Habit program and the Borough's honor being a Community Wildlife Habitat that the Borough earned earlier this year.

Mr. LaMontagne commented that the volunteers who had a part in these honors are an excellent example of what New Britain Borough was built on, volunteers, and its stunning what the volunteers and Mr. Price has been able to accomplish.

6. Business Items

a. Planning Commission Membership Update

I. Approval of Resolution 2022-12: Creation of Planning Commission Alternatives and Appointment of an alternate.

Ms. Zimmerman explained that the current Planning Commission consists of nine members, eight appointed and one vacancy currently, but the Committee has been struggling to meeting quorum for months and have not been able to take any action including approving minutes or appointing a chair. After discussions with a couple of the Planning Commission members and Mr. Peters, the decision was made to recommend to Council to amend the size of the Planning Commission. The Municipalities Planning Code allows Planning Commissions to have between 3 and 9 full members and up to three alternates who fill in when a full member is absence. The resolution before Council is to shrink the Planning Commission to seven full members and one alternate, which would ideally equate to a quorum each meeting so that business can be conducted. A member of the Planning Commission has already been approached about being moved to the Alternate role and has agreed. The alternate would still be able to actively participate in all discussions, however, the person would not be able to vote unless they are filling a vacancy for a full member that meeting. Ms. Zimmerman also commented that the decision to shrink the membership to seven can be evaluated at the end of the year and further adjustments to the Planning Commission size can be made if deemed necessary.

Mr. Ascher made a motion to approve Resolution 2022-12; Seconded by Ms. Frasco; Mr. LaMontagne asked if there was any discussion from Council or the public. Hearing None.

7-0 Motion Carried.

*The recording for this meeting can be found on the Borough's YouTube page.

b. Consider approval of Public Works Director Contract with Coleman Landscaping
Ms. Zimmerman explained that Council previously appointed Coleman Landscaping as Public Works Director, this contract will formalize the partnership with Coleman Landscaping, including setting the hourly rates for service, insurance requirements, and contract length.

Mr. Ascher made a motion to the Public Works Director Contract with Coleman Landscaping; Seconded by Ms. Frasco; Mr. LaMontagne asked if there was any discussion from Council or the public. Hearing none.

7-0 Motion Carried.

c. Residential Resale Use and Occupancy Program-Discussion Only

Mr. LaMontagne explained that this topic is for discussion only and no decisions or actions will be taken this evening.

Ms. Zimmerman provided an overview of the program including a draft list of items that could be part of a Resale Use and Occupancy Program should the Borough move forward. The list can be adjusted as appropriate, but this has been used in other municipalities. Ms. Zimmerman explained that the topic of Resale Use and Occupancy had come in discussion with Council members and that is why it is on the agenda for discussion. Ms. Zimmerman reviewed the process of how the program would work and the benefit of additional benefits the Borough can gather utilizing this program.

Many residents voiced their concerns and general disagreement about the program and the fact that some of their homes are older and historic and the proposed list is unreasonable on those properties.

The program was tabled and will not be further discussed later.

7. Resident Remarks
Marie Coia, Butler Avenue, thanked Mr. Price and all his committees for the magnificent work they do in the Borough.

David Holewinski, Tamenend Avenue, inquired about a sign for the east end of town. Mr. Zimmerman commented that she is still waiting on a quote from one other vendor before Council will discuss the item.

Mr. LaMontagne commented that if residents have not tried DeLizia's Pizza, he highly recommends it.

8. Adjournment

Ms. Frasco made a motion to adjourn at 8:47 pm; Seconded by Ms. Kesilman. Mr. LaMontagne asked if there was any discussion from Council or the public, Hearing none.

7-0 Motion Carried.

_____
Amanda Zimmerman, Borough Secretary

*The recording for this meeting can be found on the Borough's YouTube page.

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
Check	**1121**	**05/04/2022**	**Matrix Trust Company**	**101.01 · Penn Comm Gen Fund Operating**	
				260.02 · Andrea Dewhurst Retirement	-855.74
TOTAL					-855.74
Check	**1122**	**05/04/2022**	**Central Bucks Regional Police Department**	**101.01 · Penn Comm Gen Fund Operating**	
				410.31 · Central Bucks Regional Police	-79,123.33
TOTAL					-79,123.33
Check	**1123**	**05/04/2022**	**Minuteman Press**	**101.01 · Penn Comm Gen Fund Operating**	
				406.28 · Newsletter Expenses	-45.60
TOTAL					-45.60
Check	**1124**	**05/04/2022**	**Paist & Noe, Inc.**	**101.01 · Penn Comm Gen Fund Operating**	
				486.20 · Bonds, Liability, Property Ins	-400.00
TOTAL					-400.00
Check	**1125**	**05/04/2022**	**Coleman Landscaping LLC**	**101.01 · Penn Comm Gen Fund Operating**	
				409.37 · Bldgs & Grounds; Administration	-1,623.33
				409.38 · Bldgs & Grounds; Burkart Hall	-1,493.33
				458.00 · Butler Ave Island Maintenance	-1,668.34
TOTAL					-4,785.00
Check	**1126**	**05/04/2022**	**North Penn Water Authority**	**101.01 · Penn Comm Gen Fund Operating**	

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
				409.36 · Bldgs & Grounds; Public Utility	-12.15
TOTAL					-12.15
Check	**1127**	**05/04/2022**	**Hamburg, Rubin, Mullin, Maxwell & Lupin**	**101.01 · Penn Comm Gen Fund Operating**	
				414.40 · Zoning Hearing Expense	-148.50
				414.40 · Zoning Hearing Expense	-379.50
				414.40 · Zoning Hearing Expense	-429.00
				414.40 · Zoning Hearing Expense	-478.50
TOTAL					-1,435.50
Check	**1128**	**05/04/2022**	**PSAB U/C Plan**	**101.01 · Penn Comm Gen Fund Operating**	
				486.30 · PSAB UC Quarter Fees	-570.00
TOTAL					-570.00
Check	**1129**	**05/04/2022**	**ATIS Elevator Inspection LLC**	**101.01 · Penn Comm Gen Fund Operating**	
				409.38 · Bldgs & Grounds; Burkart Hall	-165.00
TOTAL					-165.00
Check	**1130**	**05/04/2022**	**PA Dept of Labor & Industry - B**	**101.01 · Penn Comm Gen Fund Operating**	
				409.38 · Bldgs & Grounds; Burkart Hall	-96.54
TOTAL					-96.54
Check	**1131**	**05/04/2022**	**Schmidt Paving, LLC**	**101.01 · Penn Comm Gen Fund Operating**	
				432.00 · Roads; Snow Removal & Salting	-1,676.00

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
TOTAL					-1,676.00
Check	**1132**	**05/04/2022**	**PECO**	**101.01 · Penn Comm Gen Fund Operating**	
				409.36 · Bldgs & Grounds; Public Utility	-88.92
				409.36 · Bldgs & Grounds; Public Utility	-306.93
				434.36 · Street Lighting Electricity	-1,634.48
TOTAL					-2,030.33
Check	**1133**	**05/04/2022**	**Established Traffic Control**	**101.01 · Penn Comm Gen Fund Operating**	
				430.00 · Roads Supplies and Services	-409.15
TOTAL					-409.15
Check	**1134**	**05/04/2022**	**Delaware Valley Health Insurance Trust**	**101.01 · Penn Comm Gen Fund Operating**	
				486.70 · Health Insurance	-4,573.97
TOTAL					-4,573.97
Check	**1135**	**05/04/2022**	**Cardmember Service**	**101.01 · Penn Comm Gen Fund Operating**	
				413.27 · Contracted Services-MIS	-5.00
				407.20 · Office equip supplies/services	-462.27
				413.29 · UCC State Fee	-72.00
				413.27 · Contracted Services-MIS	-15.89
				409.33 · Bldgs & Grounds; Heating Oil	-845.02
				404.31 · General Legal Services	-702.72
				409.32 · Bldgs & Grounds; Comm. Utility	-188.59
TOTAL					-2,291.49
Check	**1136**	**05/04/2022**	**Wehrung's Hardware**	**101.01 · Penn Comm Gen Fund Operating**	

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
				454.01 · Orchard Park Maint.& Improv.	-89.47
TOTAL					-89.47
Check	**1137**	**05/04/2022**	**Styer Associates**	**101.01 · Penn Comm Gen Fund Operating**	
				402.31 · Audit & Payroll Services	-3,070.00
				402.31 · Audit & Payroll Services	-760.00
TOTAL					-3,830.00
Check	**1138**	**05/04/2022**	**BCS Facilities Group**	**101.01 · Penn Comm Gen Fund Operating**	
				409.31 · Bldgs & Grounds; Profes. Srvcs.	-385.00
TOTAL					-385.00
Check	**1143**	**05/20/2022**	**ICR Specialties**	**101.01 · Penn Comm Gen Fund Operating**	
				409.38 · Bldgs & Grounds; Burkart Hall	-255.00
				409.37 · Bldgs & Grounds; Administration	-2,880.00
TOTAL					-3,135.00
Check	**1144**	**05/20/2022**	**Eastburn & Gray PC**	**101.01 · Penn Comm Gen Fund Operating**	
				404.31 · General Legal Services	-1,023.50
				404.31 · General Legal Services	-1,100.00
				249.19 · Peregrine Land Dev Escrow	-276.00
TOTAL					-2,399.50
Check	**1154**	**05/20/2022**	**Coleman Landscaping LLC**	**101.01 · Penn Comm Gen Fund Operating**	
				430.12 · Roads; Roadmaster Expenses	-560.00

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
				457.03 · Community Garden Expenses	-218.00
TOTAL					-778.00
Check	**1155**	**05/20/2022**	**Gilmore & Assoc. Inc.**	**101.01 · Penn Comm Gen Fund Operating**	
				249.22 · 409 E. Butler-Berger L&E	-65.00
				249.17 · 194 W Butler Land Dev Waiver	-727.50
				408.31 · Engineering Services Fee	-3,507.50
				413.32 · Planning Consultant Services	-412.50
				408.31 · Engineering Services Fee	-1,725.00
TOTAL					-6,437.50
Check	**1156**	**05/20/2022**	**H & K Materials**	**101.01 · Penn Comm Gen Fund Operating**	
				430.00 · Roads Supplies and Services	-120.32
TOTAL					-120.32
Check	**1157**	**05/20/2022**	**Styer Associates**	**101.01 · Penn Comm Gen Fund Operating**	
				402.31 · Audit & Payroll Services	-103.00
TOTAL					-103.00
Check	**1160**	**05/20/2022**	**TRAISR**	**101.01 · Penn Comm Gen Fund Operating**	
				413.27 · Contracted Services-MIS	-500.00
TOTAL					-500.00
Check	**1161**	**05/20/2022**	**Hamburg, Rubin, Mullin, Maxwell & Lupin**	**101.01 · Penn Comm Gen Fund Operating**	
				414.40 · Zoning Hearing Expense	-693.00

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
				414.40 · Zoning Hearing Expense	-610.50
TOTAL					-1,303.50
Check	**1162**	**05/20/2022**	**Central Bucks Regional Police Department**	**101.01 · Penn Comm Gen Fund Operating**	
				410.31 · Central Bucks Regional Police	-79,123.33
TOTAL					-79,123.33
Check	**1163**	**05/20/2022**	**Barry Isett & Associates, Inc.**	**101.01 · Penn Comm Gen Fund Operating**	
				413.30 · Building and Code Inspect. Serv	-32.50
				413.28 · Zoning Adminstration Services	-65.00
				413.31 · Fire Inspection Services	-815.00
				413.30 · Building and Code Inspect. Serv	-71,077.90
TOTAL					-71,990.40
Check	**1164**	**05/20/2022**	**Coleman Landscaping LLC**	**101.01 · Penn Comm Gen Fund Operating**	
				409.37 · Bldgs & Grounds; Administration	-520.00
				409.37 · Bldgs & Grounds; Administration	-520.00
				454.01 · Orchard Park Maint.& Improv.	-1,040.00
				458.00 · Butler Ave Island Maintenance	-780.00
TOTAL					-2,860.00
Check	**1165**	**05/24/2022**	**SWAT Pest Control**	**101.01 · Penn Comm Gen Fund Operating**	
				409.37 · Bldgs & Grounds; Administration	-220.00
TOTAL					-220.00
Check	**1166**	**05/24/2022**	**Established Traffic Control**	**101.01 · Penn Comm Gen Fund Operating**	

New Britain Borough
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
				430.00 · Roads Supplies and Services	-1,700.00
				430.00 · Roads Supplies and Services	-126.00
TOTAL					-1,826.00
Check	**1167**	**05/24/2022**	**PECO**	**101.01 · Penn Comm Gen Fund Operating**	
				409.36 · Bldgs & Grounds; Public Utility	-221.46
				409.36 · Bldgs & Grounds; Public Utility	-93.90
				434.36 · Street Lighting Electricity	-3,281.23
TOTAL					-3,596.59
Check	**1168**	**05/24/2022**	**Port a Bowl Restroom Co.**	**101.01 · Penn Comm Gen Fund Operating**	
				457.02 · Farmers Market Expenses	-97.44
TOTAL					-97.44

New Britain Borough-Groner
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
Check	**1440**	**05/04/2022**	**Thomas Price**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-67.19
TOTAL					-67.19
Check	**1441**	**05/06/2022**	**Britton Industries**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-37.55
TOTAL					-37.55
Check	**1442**	**05/20/2022**	**Britton Industries**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-30.00
TOTAL					-30.00
Check	**1443**	**05/20/2022**	**Coleman Landscaping, LLC**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-455.00
				409.37 · Groner House Maintenance	-35.00
TOTAL					-490.00
Check	**1444**	**05/20/2022**	**Gino's Nursery**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-359.00
TOTAL					-359.00
Check	**1445**	**05/20/2022**	**Dougherty Landscaping Inc.**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-750.00
TOTAL					-750.00
Check	**1446**	**05/20/2022**	**National Wildlife Federation**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-226.75
TOTAL					-226.75

New Britain Borough-Groner
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
Check	**1447**	**05/20/2022**	**Estates Chimney Sweep, Inc.**	**101.01 · Penn Comm Groner Operating**	
				409.49 · Miller House Maintenance	-165.00
TOTAL					-165.00
Check	**1448**	**05/20/2022**	**Lee F. Milhous**	**101.01 · Penn Comm Groner Operating**	
				409.37 · Groner House Maintenance	-134.96
TOTAL					-134.96
Check	**1449**	**05/20/2022**	**Coleman Landscaping, LLC**	**101.01 · Penn Comm Groner Operating**	
				454.01 · Nature Preserve Maintenance	-780.00
TOTAL					-780.00
Check	**1450**	**05/26/2022**	**SWAT Pest Control**	**101.01 · Penn Comm Groner Operating**	
				409.49 · Miller House Maintenance	-100.00
TOTAL					-100.00

Capital Fund
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount
Check	**1168**	**05/20/2022**	**Coleman Landscaping LLC**	**101.01 Capital Operating Fund**	
				451.71 MultiModal SidewalkGrant	-35.00
TOTAL					-35.00
Check	**1169**	**05/20/2022**	**Gilmore & Associates, Inc.**	**101.01 Capital Operating Fund**	
				451.71 MultiModal SidewalkGrant	-890.00
TOTAL					-890.00
Check	**1170**	**05/20/2022**	**Eastburn & Gray PC**	**101.01 Capital Operating Fund**	
				451.71 MultiModal SidewalkGrant	-69.00
				451.71 MultiModal SidewalkGrant	-126.50
TOTAL					-195.50

nbb public safety
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check	**1164**	**05/04/2022**	**Chalfont Fire Company**	**107.02 · Penn Comm Pub Safety Bank A...**		**-2,569.52**
				411.01 · Chalfont Fire Expense	-2,569.52	2,569.52
TOTAL					-2,569.52	2,569.52
Check	**1165**	**05/04/2022**	**Doylestown Fire Company**	**107.02 · Penn Comm Pub Safety Bank A...**		**-1,713.01**
				411.02 · Doylestown Fire Expense	-1,713.01	1,713.01
TOTAL					-1,713.01	1,713.01
Check	**1166**	**05/04/2022**	**Chal-Brit EMS**	**107.02 · Penn Comm Pub Safety Bank A...**		**-1,273.19**
				412.01 · Chalfont EMS Expense	-1,273.19	1,273.19
TOTAL					-1,273.19	1,273.19
Check	**1167**	**05/04/2022**	**Central Bucks EMS**	**107.02 · Penn Comm Pub Safety Bank A...**		**-848.79**
				412.02 · Central Bucks EMS Expense	-848.79	848.79
TOTAL					-848.79	848.79
Check	**1168**	**05/04/2022**	**Aqua Pennsylvania**	**107.02 · Penn Comm Pub Safety Bank A...**		**-340.80**
				411.30 · Fire Hydrants	-276.90	276.90
				411.30 · Fire Hydrants	-63.90	63.90
TOTAL					-340.80	340.80

NB Sanitation Fund
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check	**1001**	**05/20/2022**	**Waste Managment**	**101.00 PCB Sanitat...**		**0.00**
TOTAL					0.00	0.00
Check	**1002**	**05/26/2022**	**Waste Management**	**101.00 PCB Sanitat...**		**-23,847.60**
				427.10- Contract W...	-23,847.60	23,847.60
TOTAL					-23,847.60	23,847.60

CBR Police Debt Service Tax Fund
Check Detail
May 2022

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount

nbb liquid fuels
Check Detail
May 2022

Type	Num	Date	Name	Account	Paid Amount	Original Amount

New Britain Borough

Shade Tree Commission

Approved Tree and Shrub List

Canopy trees (Not for use in the Right of Way)

Acer rubrum – Red Maple	native
Acer saccharum – Sugar Maple	native
Betula alba – European White Birch	
Betula nigra `Heritage' – Heritage River Birch	native
Betula papyrifera – Paper Birch	
Carpinus betulus – European Hornbeam	
Celtis occidentalis – Common Hackberry	native
Cercidiphyllum japonicum – Japanese Katsura Tree	
Fagus grandifolia – American Beech	native
Fagus sylvatica – European Beech	
Gleditsia triacanthos inermis – Thornless Honeylocust	
Liquidambar styraciflua `Rotundiloba` – Roundleaf Seedless Sweet Gum	
Liriodendron tulipifera – Tulip Tree	native
Nyssa sylvatica – Black Tupelo	native
Ostrya virginiana – American Hophornbeam	native
Platanus acerifolia `Bloodgood' – Bloodgood London Planetree	
Quercus alba – White Oak	native
Quercus borealis – Red Oak	native
Quercus coccinea – Scarlet Oak	native
Quercus palustris – Pin Oak	native
Quercus phellos – Willow Oak	native

Tilia americana – American Linden native

Tilia cordata – Littleleaf Linden

Ulmus americana – American Elm `New Harmony'

`Princeton'

`Valley Forge'

`Washington'

**Zelkova serrata* – Japanese Zelkova

Street Trees (May be used in the Right of Way)

Acer rubrum `Armstrong' – Armstrong Red Maple

Acer rubrum `Bowhall' – Bowhall Red Maple

Acer saccharum `Newton Sentry' – Newton Sentry Sugar Maple

Carpinus caroliniana – American Hornbeam native

Ginkgo biloba `Princeton Sentry' – Princeton Sentry Ginkgo

Flowering Trees (May be used in the Right of Way)

Amelanchier spec. – Serviceberry native

**Asimina triloba* – Common Paw Paw native

Cercis canadensis – Eastern Redbud native

Chionanthus virginicus – White Fringetree native

Cladrastis kentuckea – American Yellowwood

Cornus alternifolia – Pagoda Dogwood native

Cornus florida – Flowering Dogwood native

Cornus kousa – Kousa Dogwood

Cornus mas – Corneliancherry Dogwood

Cotinus coggygria – Common Smoketree

Halesia tetraptera – Carolina Silverbell

Laburnum vossi – Goldenchain Tree

Magnolia stellata – Star Magnolia

Magnolia soulangianna – Saucer Magnolia

Magnolia virginiana – Sweetbay Magnolia native

Oxydendrum arboretum – Sourwood

Prunus serrulata `Kwanzan' – Kwanzan Cherry

Prunus x yedoensis – Yoshino Cherry

Sophora japonica `Regent` - Regent Japanese Pagodatree

Stewartia psuedocamellia – Japanese Stewartia

Styrax japonicus – Japanese Snowbell

Syringa reticulata – Japanese Tree Lilac

Evergreen (Not to be used in the Right of Way)

Cedrus atlantica `Glauca` - Blue Atlas Cedar

Cryptomeria japonica – Japanese Cryptomeria

Ilex opaca – American Holly native

Picea abies – Norway Spruce

Picea omorika – Siberian Spruce

Picea pungens – Colorado Spruce

Pinus strobus – Eastern White Pine native

**Thuja plicata* 'Green Giant' – 'Green Giant' Western Arborviitae

Hedge (Not to be used in the Right of Way**)**

Forsythia intermedia – Border Forsythia

Syringa chinensis – Chinese Lilac

Syringa vulgaris – Common Lilac

Shrubs (May be used in the Right of Way)

Aesculus parvifolia – Bottlebrush Buckeye

Aronia arbutifolia – Red Chokeberry native

Aronia melanocarpa – Black Chokeberry native

Azalea spec. – Azaleas	
**Calycanthus floridus* – Common Sweetshrub	
Callicarpa dichotoma – Purple Beautyberry	
Ceanothus americanus – Jerseytea Ceanothus	native
**Cephalanthus occidentalis* – Buttonbush	native
Clethera alnifolia – Summersweet Clethera	native
Cornus amomum – Silky Dogwood	native
Cornus sericea – Redosier Dogwood	native
Corylopsis glabrescens – Fragrent Winterhazel	
Fothergilla gardenii – Dwarf Fothergilla	
Fothergilla major – Large Fothergilla	
Hamamelis vernalis – Vernal Witchhazel	
Hamamelis virginiana – Common Witchhazel	native
Hydrangea arborescens – Smooth Hydrangea	native
Hydrangea quercifolia – Oakleaf Hydrangea	
Ilex spec. – Evergreen Hollies	
Ilex glabra – Inkberry Holly	native
Ilex verticillata – Winterberry Holly	native
Itea virginica – Virginia Sweetspire	
Juniperus spec. – Juniper	
Kalmia latifolia – Mountain-laurel	native
Lindera benzoin – Common Spicebush	native
Myrica pennsylvanica – Norther Bayberry	native
Rhododendron spec. – Rhododendron	
**Symphoricarpos albus* – Common Snowberry	native
Taxus spec. – Yew	
**Vaccinium corymbosum* – Highbush Blueberry	native
Viburnum spec. -	native

NOTE: These non-native Viburnums are considered invasive and are prohibited:

Viburnum dilatatum – Linden Viburnum

Viburnum plicatum – Doublefile Viburnum

Viburnum sieboldi – Siebold Viburnum

Viburnum opulus – European Cranberry Viburnum

The Shade Tree Commission of New Britain Borough recognizes that there are many plants that were omitted from this list. If any homeowner or land owner whom wishes to suggest another tree or shrub to be planted in the right of way, they may submit the name of the species to the Shade Tree Commission for consideration.

*Highlighted – newly added

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
84 LUMBER ZONING HEARING BOARD ESCROW CLOSE OUT- Release **$1,000 from** the Legal and Engineer Escrow.

ISSUE:
The applicant is entitled to any remaining balance in their escrow account and all bills have been received for this Zoning Hearing Board application.

ANALYSIS
- Legal and Engineering account sheet
- Check should be made payable to:
  84 Lumber
  1019 ROUTE 519
  Eighty Four, PA 15330

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$1,000** in the Legal and Engineering account.

Register: 249.07 · 84 Lumber ZHB Escrow
From 01/01/2019 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
03/14/2019	24696	Pierce Hardy LP	101.01 · Penn Comm Gen Fund...	84 lumber zhb app	1,000.00			1,000.00
04/08/2019	2151	New Britain Borough	101.01 · Penn Comm Gen Fund...	84 Lumber, ZHB mai...			14.08	985.92
04/19/2019	2167	HRMM&L, P.C.	101.01 · Penn Comm Gen Fund...	84 Lumber ZHB			1,107.15	-121.23
04/19/2019	2169	Barry Isett & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Zoning Service Marc...			71.50	-192.73
04/29/2019	2176	Justine A. Gregor	101.01 · Penn Comm Gen Fund...	Court Reporter Fee f...			192.50	-385.23
05/21/2019	2196	Courier Times, Inc.	101.01 · Penn Comm Gen Fund...	84 Lumber ZHB adv...			248.31	-633.54
05/21/2019	2204	Barry Isett & Associates, Inc.	101.01 · Penn Comm Gen Fund...	84 Lumber ZHB			303.88	-937.42
06/05/2019	2221	HRMM&L, P.C.	101.01 · Penn Comm Gen Fund...	84 Lumber, Legal Fe...			490.05	-1,427.47
07/09/2019	2246	HRMM&L, P.C.	101.01 · Penn Comm Gen Fund...	84 Lumber ZHB relat...			726.00	-2,153.47
07/18/2019	2261	HRMM&L, P.C.	101.01 · Penn Comm Gen Fund...	Bill No. 268750, 84 ...			108.00	-2,261.47
11/12/2019	5729248	84 Lumber	101.01 · Penn Comm Gen Fund...	249.07 zhb escrow 8...	2,261.47			0.00
09/13/2021	586731	84 Lumber	101.01 · Penn Comm Gen Fund...	84 Lumber ZHB Escr...	3,000.00			3,000.00
10/25/2021	3041	84 Lumber	101.01 · Penn Comm Gen Fund...	Escrow Fee Reimbur...			2,000.00	1,000.00

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
COMCAST ROAD OPENING ESCROW CLOSE OUT- Release **$500 from** the Legal and Engineer Escrow.

ISSUE:
The applicant is entitled to any remaining balance in their escrow account and the Borough Public Works Director has signed off on this road opening application.

ANALYSIS

- Legal and Engineering account sheet
- Check should be made payable to:
  Comcast
  Attn: Mike Kimberly
  190 Shoemaker Road
  Pottstown, PA 19464

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$500** in the Legal and Engineering account.

Register: 249.13 · Comcast road opening escrow

From 01/01/2019 through 05/31/2022

Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
02/21/2020	3181	Communications Cable Servi...	101.01 · Penn Comm Gen Fund...	249.13 road opening ...	500.00			500.00

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
COUNTY BUILDERS 409 E. BUTLER AVENUE ESCROW CLOSE OUT- Release **$3,151.40 from** the Legal and Engineer Escrow.

ISSUE:
The applicant sold the property to a new developer who has posted all the necessary escrows and County Builders is entitled to the remaining balance of their account.

ANALYSIS
- Legal and Engineering account sheet

- Check should be made payable to:
  County Builders
  76 Griffith Miles Circle
  P.O. Box 2579
  Warminster, PA 18974

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$3,151.40** in the Legal and Engineering account.

Register: 249.06 · CB Construction Escrow
From 01/01/2018 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
11/21/2018	1084	County Builders, Inc.	101.01 · Penn Comm Gen Fund...	Construction Escrow ...	49,900.41			49,900.41
12/27/2018	2034	Gilmore & Assoc. Inc.	101.01 · Penn Comm Gen Fund...	Knoell Tract			1,879.50	48,020.91
01/18/2019	2070	Eastburn & Gray PC	101.01 · Penn Comm Gen Fund...	Prep and attendance f...			84.53	47,936.38
01/31/2019	2080	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Knoell Tract			734.27	47,202.11
02/22/2019	2103	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #182803, Knoell ...			4,244.63	42,957.48
03/22/2019	2142	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Invoice 183681, Kno...			4,110.25	38,847.23
04/29/2019	2175	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Knoell Tract			7,037.14	31,810.09
05/21/2019	2194	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Knoell Tract, Invoice...			5,849.25	25,960.84
07/09/2019	2253	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Invoice 186625, Kno...			3,577.70	22,383.14
07/29/2019	2270	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #187576 Eng Srv...			6,632.51	15,750.63
08/29/2019	2300	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #188622, Knoell...			3,703.50	12,047.13
09/19/2019	YE 123		404.31 · General Legal Services					12,047.13
10/01/2019	2330	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #189461, Knoell ...			5,497.02	6,550.11
10/23/2019	2360	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Knoell Tract/The Gat...			3,224.02	3,326.09
10/30/2019	1224	County Builders, Inc.	101.01 · Penn Comm Gen Fund...	249.06 county builde...	15,000.00			18,326.09
12/03/2019	2399	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Invoice #191550, Co...			365.75	17,960.34
12/23/2019	2414	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #192169, Knoell ...			920.48	17,039.86
01/31/2020	2458	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #193241; Knoell ...			349.25	16,690.61
02/20/2020	2486	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #194108, Constr...			368.50	16,322.11
04/15/2020	2538	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #195210			843.48	15,478.63
04/27/2020	2550	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	County Builders/Kno...			2,680.10	12,798.53
05/27/2020	2577	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #196794, Knoell ...			1,407.47	11,391.06
06/30/2020	2606	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #197663, Knoell ...			3,670.55	7,720.51
08/03/2020	2645	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	#198752, constructio...			2,440.61	5,279.90
08/31/2020	2661	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #199427, Knoell ...			63.25	5,216.65
09/23/2020	2684	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #200359, Knoell ...			838.30	4,378.35
10/08/2020	2703	Gilmore & Associates, Inc.	101.01 · Penn Comm Gen Fund...	Inv #201075, Knoell ...			479.88	3,898.47
12/31/2020	YE 10		249.04 · Audax Properties LLC...				74.70	3,823.77

Register: 249.06 · CB Construction Escrow
From 01/01/2018 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
01/25/2021	2796	Gilmore & Assoc. Inc.	101.01 · Penn Comm Gen Fund...	gatherings constructi...			94.87	3,728.90
06/28/2021	2922	Gilmore & Assoc. Inc.	101.01 · Penn Comm Gen Fund...	May 2021 Gilmore a...			577.50	3,151.40

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
FOREST PARK HOA GRADING ESCROW CLOSE OUT- Release **$626.26 from** the Legal and Engineer Escrow.

ISSUE:
The applicant is entitled to any remaining balance in their escrow account and the Borough Engineer has signed off on this grading application.

ANALYSIS

- Legal and Engineering account sheet

- Check should be made payable to:
  Forest Park Owners Association
  633 N Easton Road
  Glenside, PA 19038

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$626.25** in the Legal and Engineering account.

Register: 249.12 · Forest Park HOA Grading Permit

From 01/01/2018 through 05/31/2022

Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
12/23/2019	46000	Total Turf Landscape Servic...	101.01 · Penn Comm Gen Fund...	Grading Escrow, For...	750.00			750.00
01/21/2020	2443	Mark G. Hintenlang, P.E.	101.01 · Penn Comm Gen Fund...	Fees for review of Fo...			123.75	626.25

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
LENAPE VALLEY CHURCH ESCROW CLOSE OUT- Release **$4,396.45 from** the Legal and Engineer Escrow.

ISSUE:
The Church has completed their project to the satisfaction of the Borough Engineer and are entitled to all remaining funds.

ANALYSIS
- Legal and Engineering account sheet
- Check should be made payable to:
  Lenape Valley Presbyterian Church
  PO Box 5066
  New Britain, PA 18901

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$4,396.45** in the Legal and Engineering account.

Register: 248.30 · Lenape Valley Pres Ch escrow
From 01/01/2008 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
12/12/2008	12821	Lenape Valley Presbyterian ...	101.00 · General Fund Checkin...		5,000.00			5,000.00
10/14/2009	5088	Michael Goodwin	101.00 · General Fund Checkin...				343.85	4,656.15
11/16/2009	5160	Michael Goodwin	101.00 · General Fund Checkin...				147.20	4,508.95
10/27/2014	8307	Mark G. Hintenlang, P.E.	101.00 · General Fund Checkin...	ROW dedication			112.50	4,396.45

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
OLD SCHOOL BURGERS ZHB CLOSE OUT- Release **$2,500 from** the Legal and Engineer Escrow.

ISSUE:
Old School Burgers ZHB application has been approved and all bills have been received. The applicant is entitled to the remaining escrow balance.

ANALYSIS

- Legal and Engineering account sheet
- Check should be made payable to:
  Virtus Sapientaie LLC
  Old School Burgers
  3355 Fretz Valley Road
  Perkasie, PA 18944

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$2,500** in the Legal and Engineering account.

Register: 249.21 · Old Schoo Burgers ZHB Escrow
From 01/01/2021 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
09/13/2021	192	Old SChool Burgers Corporate	101.01 · Penn Comm Gen Fund...	Old School Burgers ...	2,500.00			2,500.00

BOROUGH OF NEW BRITAIN

To: Borough Council

From: Amanda Zimmerman, Borough Manager

Date: June 14, 2022

TITLE OF AGENDA ITEM:
PECO ROAD OPENING ESCROW CLOSE OUT- Release **$2,000 from** the Legal and Engineer Escrow.

ISSUE:
PECO has completed all work that required road opening permit escrows to the satisfaction of the Borough and are requesting the remaining balance, which they are entitled to.

ANALYSIS

- Legal and Engineering account sheet
- Check should be made payable to:
  PECO Gas Department
  680 Ridge Road
  Plymouth Meeting, PA 19462

FISCAL IMPACT
None

RECOMMENDED ACTION
Release the balance amount of **$2,000** in the Legal and Engineering account.

Register: 249.08 · PECO Road Opening
From 01/01/2019 through 05/31/2022
Sorted by: Date, Type, Number/Ref

Date	Number	Payee	Account	Memo	Increase	C	Decrease	Balance
03/14/2019	0010104966	PECO	101.01 · Penn Comm Gen Fund...	road opening permit	500.00			500.00
10/02/2019	10109198	PECO	101.01 · Penn Comm Gen Fund...	249.08 peco escrow	500.00			1,000.00
10/03/2019	2331	Exelon	101.01 · Penn Comm Gen Fund...	Escrow Reimbursem...			500.00	500.00
03/12/2020	0010112007	PECO	101.01 · Penn Comm Gen Fund...	249.08 peco road	500.00			1,000.00
03/12/2020	0010112008	PECO	101.01 · Penn Comm Gen Fund...	249.08 peco road	500.00			1,500.00
12/07/2020	0010116873	PECO	101.01 · Penn Comm Gen Fund...	249.08 122 iron hill r...	500.00			2,000.00

BOROUGH OF NEW BRITAIN
45 Keeley Avenue● New Britain, Pennsylvania, 18901● (215) 348-4586

Resident Remarks

BOROUGH OF NEW BRITAIN
45 Keeley Avenue● New Britain, Pennsylvania, 18901● (215) 348-4586

Review of Written Staff Reports
And
Elected Official Reports

BOROUGH OF NEW BRITAIN
45 Keeley Avenue● New Britain, Pennsylvania, 18901● (215) 348-4586

To: Borough Council
Date: June 14, 2022
RE: May 2022 Manager's Report

PROJECT UPDATES

- Butler Avenue Sidewalk Project Phase 1
  - Anticipated Start Date August 1
  - Pre Construction Meeting was held June 8
    - Trees/Bushes to be removed were marked by the contractor
- Butler Avenue Sidewalk Project Phase 2-Cedar Road/Pedestrian Bridge Area
  - Parcel will need to be rezoned to Commercial/Industrial in order for the billboard to be able to be moved out of the way of the bridge.
    - PennDOT requirement to issue a new permit
  - Cannot do any work on this phase until after the Local Shares Grant makes a decision on the Borough's application
- PennDOT will be paving Butler Avenue this year and are aware that the sidewalk project will be occurring.

FINANCE UPDATES

- April 2022 Budget v. Actual reports are included in packet.
- Real Estate Transfer Tax and Earned Income Tax are trending better than anticipated to date.
- Real Estate tax collection rate is at 88 percent.

BOROUGH COUNCIL UPCOMING DEVELOPMENT ACTIVITY

- There are no active land developments.
- 194 W. Butler Avenue Gas Station
  - Project is almost completed and ready to open
- No recent action on other 2021 approved developments
  - See Engineer's report for more information.

PLANNING COMMISSION CURRENT ACTIVITY

- The Planning Commission did not meet in May.
- The Planning Commission will meet on June 21, 2022
  - 2022-01 (PF)-76 Industrial Drive Land Development

ZONING HEARING BOARD CURRENT ACTIVITY

- There are no active Zoning Hearing Board applications currently.

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COMMUNITY AND BUSINESS COMMITTEE CURRENT ACTIVITY

- CBC met in May 2022.

- The 2022 Car Cruise and Scarecrow Festival will be held October 1, 2022.
- CBC would like to actively support other Borough committees and the Civic Association on projects.

PUBLIC SAFETY COMMITTEE

- Public Safety did not meet in May 2022.

PERMIT REPORTS (SEE ATTACHED)

- May 2022 Permits, Inspections, and Revenue Report

CONSULTANT REPORTS (SEE ATTACHED)

- Roadmaster's Report
- Engineer's Report

PUBLIC SAFETY REPORTS (SEE ATTACHED)

- Central Bucks EMS
- Central Bucks Regional Police

New Britain Borough
Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Bu...	% of Bud...
Ordinary Income/Expense				
Income				
301.10 · Current Year Property Taxes	841,006.92	948,742.00	-107,735.08	88.6%
301.30 · Delinquent Property Taxes	10,240.68	7,000.00	3,240.68	146.3%
310.10 · Real Estate Transfer Tax	61,524.64	70,000.00	-8,475.36	87.9%
310.20 · Earned Income Taxes	232,677.12	422,500.00	-189,822.88	55.1%
310.50 · Local Services Tax	30,632.67	67,500.00	-36,867.33	45.4%
320.01 · Contractor Registration	450.00	500.00	-50.00	90.0%
320.02 · Deed Registration	140.00	500.00	-360.00	28.0%
320.03 · Temporary Sign Registration	0.00	500.00	-500.00	0.0%
320.04 · Residential Rental Registration	35.00	6,600.00	-6,565.00	0.5%
321.80 · Cable TV Franchise Fee	28,416.31	55,500.00	-27,083.69	51.2%
330.00 · Police Fines and Reports	1,651.40	8,000.00	-6,348.60	20.6%
331.14 · Parking Violations and Fines	0.00	500.00	-500.00	0.0%
341.00 · Interest Income	0.00	1,500.00	-1,500.00	0.0%
342.00 · Burkart Hall Rental Income	160.00	1,000.00	-840.00	16.0%
354.00 · State Fire Relief	0.00	19,000.00	-19,000.00	0.0%
354.15 · State Recycling Grant	0.00	5,000.00	-5,000.00	0.0%
355.01 · PA Utility Realty Tax	0.00	1,425.00	-1,425.00	0.0%
355.06 · Pension State Aid	0.00	9,200.00	-9,200.00	0.0%
355.08 · PA Alcoholic Beverage Tax	0.00	200.00	-200.00	0.0%
361.30 · Development Application Fees	3,200.00	7,000.00	-3,800.00	45.7%
361.33 · Stormwater Management Fees	0.00	1,000.00	-1,000.00	0.0%
361.34 · ZHB Application Fee	5,000.00	1,000.00	4,000.00	500.0%
361.40 · Escrow Administration Fees	0.00	2,000.00	-2,000.00	0.0%
361.50 · Fire Inspection Fees	4,141.50	10,000.00	-5,858.50	41.4%
362.40 · Building Permits	123,179.50	25,000.00	98,179.50	492.7%
362.41 · Zoning Permit Fee	14,940.00	5,000.00	9,940.00	298.8%
362.42 · UCC State Fee Income	166.50	250.00	-83.50	66.6%
362.43 · Road and Concrete Permits	230.00			
367.01 · Newsletter Income	0.00	500.00	-500.00	0.0%
367.02 · Car Cruise Festival	0.00	1,000.00	-1,000.00	0.0%
387.03 · Farmers Market Income	0.00	2,500.00	-2,500.00	0.0%
387.04 · Community Garden Income	939.93	1,000.00	-60.07	94.0%
389.00 · Miscellaneous Revenue	250.00	6,000.00	-5,750.00	4.2%
Total Income	1,358,982.17	1,687,417.00	-328,434.83	80.5%

New Britain Borough
Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Bu...	% of Bud...
Expense				
400.00 · Conferences and Trainings	266.00	3,000.00	-2,734.00	8.9%
401.12 · Boro Manager / Secretary Salary	42,344.47	100,500.00	-58,155.53	42.1%
401.20 · General Supplies & Expenses	1,423.37	10,000.00	-8,576.63	14.2%
401.30 · Gen. Govt.; Dues & Misc.	75.00	1,000.00	-925.00	7.5%
401.46 · Gen. Govt; Dinner Meetings	0.00	500.00	-500.00	0.0%
402.31 · Audit & Payroll Services	8,613.02	7,500.00	1,113.02	114.8%
403.10 · Tax Collector, Salary	1,269.18	3,000.00	-1,730.82	42.3%
403.20 · Tax Coll. Supplies & Svs.	1,075.22	375.00	700.22	286.7%
404.31 · General Legal Services	13,563.72	30,000.00	-16,436.28	45.2%
405.12 · Asst to Manager/TreasurerSalary	20,961.57	50,000.00	-29,038.43	41.9%
406.00 · Other General Government Admin.	100.00	500.00	-400.00	20.0%
406.28 · Newsletter Expenses	45.60	1,000.00	-954.40	4.6%
406.34 · Legal Advertising Expense	4,986.87	3,000.00	1,986.87	166.2%
406.43 · Payroll Tax Expense	4,818.08	10,000.00	-5,181.92	48.2%
407.20 · Office equip supplies/services	1,175.22	0.00	1,175.22	100.0%
407.31 · IT Services	3,890.89	5,000.00	-1,109.11	77.8%
408.31 · Engineering Services Fee	17,885.00	30,000.00	-12,115.00	59.6%
409.31 · Bldgs & Grounds; Profes. Srvcs.	770.00	3,000.00	-2,230.00	25.7%
409.32 · Bldgs & Grounds; Comm. Utility	2,600.23	5,000.00	-2,399.77	52.0%
409.33 · Bldgs & Grounds; Heating Oil	1,938.14	1,500.00	438.14	129.2%
409.36 · Bldgs & Grounds; Public Utility	2,569.46	3,500.00	-930.54	73.4%
409.37 · Bldgs & Grounds; Administration	6,816.46	4,000.00	2,816.46	170.4%
409.38 · Bldgs & Grounds; Burkart Hall	2,970.38	5,000.00	-2,029.62	59.4%
409.45 · Bldgs & Grounds; Contracted Srv	1,155.00	15,000.00	-13,845.00	7.7%
410.31 · Central Bucks Regional Police	482,520.98	953,399.00	-470,878.02	50.6%
411.04 · Fire Workmens Comp	0.00	5,000.00	-5,000.00	0.0%
411.18 · Fire Volunteer Stipend	3,000.00	3,500.00	-500.00	85.7%
411.30 · Public Safety Fire Hydrants	0.00	5,000.00	-5,000.00	0.0%
413.00 · State Fire Aid	0.00	19,000.00	-19,000.00	0.0%
413.27 · Contracted Services-MIS	5,494.45	11,000.00	-5,505.55	49.9%
413.28 · Zoning Adminstration Services	1,243.06	3,000.00	-1,756.94	41.4%
413.29 · UCC State Fee	130.50	250.00	-119.50	52.2%
413.30 · Building and Code Inspect. Serv	76,913.40	17,000.00	59,913.40	452.4%
413.31 · Fire Inspection Services	1,641.00	10,000.00	-8,359.00	16.4%
413.32 · Planning Consultant Services	916.25	10,000.00	-9,083.75	9.2%
414.40 · Zoning Hearing Expense	6,006.00	2,000.00	4,006.00	300.3%
415.00 · Emergency Management	1,200.00	1,200.00	0.00	100.0%

New Britain Borough
Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Bu...	% of Bud...
426.20 · Recycling Services	1,960.00	2,000.00	-40.00	98.0%
430.00 · Roads Supplies and Services	2,518.49	3,000.00	-481.51	83.9%
430.12 · Roads; Roadmaster Expenses	5,127.50	36,000.00	-30,872.50	14.2%
431.00 · Roads; Street Sweeping/Cleaning	0.00	3,500.00	-3,500.00	0.0%
432.00 · Roads; Snow Removal & Salting	17,075.22	35,000.00	-17,924.78	48.8%
433.00 · Traffic Signal Repair & Maint	1,247.36	3,000.00	-1,752.64	41.6%
433.70 · Street Lights Capital	0.00	15,000.00	-15,000.00	0.0%
434.36 · Street Lighting Electricity	12,122.88	20,000.00	-7,877.12	60.6%
436.00 · Roads; Storm Sewer & Drains	2,626.00	1,000.00	1,626.00	262.6%
447.00 · DART Bus Contribution	0.00	5,000.00	-5,000.00	0.0%
453.01 · Historic Preservation	0.00	500.00	-500.00	0.0%
453.02 · Car Cruise Festival Expenditure	0.00	1,000.00	-1,000.00	0.0%
454.01 · Orchard Park Maint.& Improv.	1,404.47	6,500.00	-5,095.53	21.6%
457.00 · Fourth of July Parade	0.00	1,200.00	-1,200.00	0.0%
457.02 · Farmers Market Expenses	2,867.44	2,500.00	367.44	114.7%
457.03 · Community Garden Expenses	218.00	1,000.00	-782.00	21.8%
457.04 · Bird Town/Pop Up Park	0.00	1,000.00	-1,000.00	0.0%
458.00 · Butler Ave Island Maintenance	2,698.34	0.00	2,698.34	100.0%
458.01 · Shade Tree	300.00	500.00	-200.00	60.0%
470.00 · Burkart Hall Groner Loan	1,724.91	4,807.00	-3,082.09	35.9%
472.00 · Burkhart Hall Groner Interest	271.61	750.43	-478.82	36.2%
483.10 · Police Pension MMO	0.00	96,000.00	-96,000.00	0.0%
483.30 · Non-Uniformed Pension MMO	0.00	9,200.00	-9,200.00	0.0%
486.20 · Bonds, Liability, Property Ins	5,809.00	12,000.00	-6,191.00	48.4%
486.30 · PSAB UC Quarter Fees	570.00	1,500.00	-930.00	38.0%
486.70 · Health Insurance	21,507.00	54,888.00	-33,381.00	39.2%
489.00 · PCORF-ACA requirement	0.00	15.00	-15.00	0.0%
492.04 · Transfer to Groner Fund	2,500.00	2,500.00	0.00	100.0%
Total Expense	802,926.74	1,652,084.43	-849,157.69	48.6%
Net Ordinary Income	556,055.43	35,332.57	520,722.86	1,573.8%
Net Income	**556,055.43**	**35,332.57**	**520,722.86**	**1,573.8%**

New Britain Borough-Groner
Profit & Loss Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Budget	% of Budget
Income				
341.00 · Interest Income	605.93	50,000.00	-49,394.07	1.2%
341.10 · Dividend Income	2,060.51			
341.30 · Unrealized Gains and Losses	-47,350.84			
342.00 · Groner Rental Income	8,514.50	20,070.00	-11,555.50	42.4%
342.01 · Miller Rental Income	5,239.50	12,168.00	-6,928.50	43.1%
354.00 · DCNR Acquistion Grant	0.00	0.00	0.00	0.0%
367.00 · Tenant Sewer Payment	0.00	1,300.00	-1,300.00	0.0%
387.00 · Contributions	0.00	0.00	0.00	0.0%
389.00 · Groner Residual	0.00	0.00	0.00	0.0%
389.01 · Miscellanous Income	0.00	0.00	0.00	0.0%
392.01 · Transfer from Gen Fund	2,500.00	2,500.00	0.00	100.0%
392.05 · Revenue from Recreation Fund	0.00	0.00	0.00	0.0%
Total Income	-28,430.40	86,038.00	-114,468.40	-33.0%
Expense				
402.31 · Investment Plan Fees	1,693.03	2,150.00	-456.97	78.7%
404.31 · Legal	0.00	0.00	0.00	0.0%
408.31 · Preserve Mapping	0.00	0.00	0.00	0.0%
409.36 · Water & Sewer	479.00	1,300.00	-821.00	36.8%
409.37 · Groner House Maintenance	2,227.90	5,500.00	-3,272.10	40.5%
409.43 · Real Estate Taxes	1,032.01	3,700.00	-2,667.99	27.9%
409.49 · Miller House Maintenance	4,762.42	2,500.00	2,262.42	190.5%
454.01 · Nature Preserve Maintenance	9,497.89	15,000.00	-5,502.11	63.3%
454.71 · Land Acquisition	0.00	0.00	0.00	0.0%
486.00 · Insurance	0.00	1,500.00	-1,500.00	0.0%
492.01 · Transfer to Gen Fund	0.00	0.00	0.00	0.0%
493.00 · Miscellaneous	0.00	0.00	0.00	0.0%
Total Expense	19,692.25	31,650.00	-11,957.75	62.2%
Net Income	**-48,122.65**	**54,388.00**	**-102,510.65**	**-88.5%**

Capital Fund
Profit & Loss Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Budget	% of Budget
Income				
301.11 Streetlight prop tax	0.00	0.00	0.00	0.0%
341.00 Interest	302.74	150.00	152.74	201.8%
354.05 DCNR Orchard Park Grant	4,981.00	0.00	4,981.00	100.0%
355.09 Multimodal Walk Grant	0.00	600,000.00	-600,000.00	0.0%
355.10 ARPA Grant	0.00	155,381.45	-155,381.45	0.0%
392.01 Transfer from Gen Fund	0.00	0.00	0.00	0.0%
Total Income	5,283.74	755,531.45	-750,247.71	0.7%
Expense				
402.39 Bank Srvcs Charges/Fees	0.00	0.00	0.00	0.0%
451.61 DCNR Orchard Park Grant	0.00	0.00	0.00	0.0%
451.71 MultiModal SidewalkGrant	20,374.59	600,000.00	-579,625.41	3.4%
451.90 ARPA Grant	10,500.00	0.00	10,500.00	100.0%
489.00 Miscellaneous Expenses	0.00	0.00	0.00	0.0%
491.14 Streetlight LED Conver	0.00	0.00	0.00	0.0%
492.01 Transfer to Gen Fund	0.00	0.00	0.00	0.0%
Total Expense	30,874.59	600,000.00	-569,125.41	5.1%
Net Income	**-25,590.85**	**155,531.45**	**-181,122.30**	**-16.5%**

nbb public safety
Profit & Loss Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Budget	% of Budget
Income				
301.11 · Fire Property Taxes	38,756.08	43,720.00	-4,963.92	88.6%
301.12 · Ambulance Property Taxes	15,502.44	17,488.00	-1,985.56	88.6%
301.31 · Fire Delinquent Prop Taxes	282.40	500.00	-217.60	56.5%
301.32 · Amb Delinquent Property Taxes	112.96	200.00	-87.04	56.5%
310.54 · Fire Local Services Tax	3,662.52	0.00	3,662.52	100.0%
310.55 · Ambulance Local Services Tax	3,662.52	13,500.00	-9,837.48	27.1%
341.00 · Interest Income	68.65	60.00	8.65	114.4%
Total Income	62,047.57	75,468.00	-13,420.43	82.2%
Gross Profit	62,047.57	75,468.00	-13,420.43	82.2%
Expense				
411.01 · Chalfont Fire Expense	10,225.23	26,232.00	-16,006.77	39.0%
411.02 · Doylestown Fire Expense	8,318.83	17,488.00	-9,169.17	47.6%
411.30 · Fire Hydrants	1,704.00	0.00	1,704.00	100.0%
412.01 · Chalfont EMS Expense	6,273.48	18,600.00	-12,326.52	33.7%
412.02 · Central Bucks EMS Expense	6,331.33	12,400.00	-6,068.67	51.1%
Total Expense	32,852.87	74,720.00	-41,867.13	44.0%
Net Income	**29,194.70**	**748.00**	**28,446.70**	**3,903.0%**

NB Sanitation Fund
Profit & Loss Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Budget	% of Budget
Income				
341.00- Interest Income	0.00	1,500.00	-1,500.00	0.0%
354.00- Act 101 Recycling Grant	8,335.00	0.00	8,335.00	100.0%
358.00- Recycling Revenue	0.00	0.00	0.00	0.0%
360.10- Waste Fees-Current	171,071.46	214,628.40	-43,556.94	79.7%
360.20- Waste Fees-Prior	0.00	0.00	0.00	0.0%
370.00- Transfer from General	0.00	0.00	0.00	0.0%
Total Income	179,406.46	216,128.40	-36,721.94	83.0%
Expense				
426.00- Recycling Services	0.00	0.00	0.00	0.0%
427.00- BC Hazard Waste	0.00	500.00	-500.00	0.0%
427.10- Contract Waste Collect	23,847.60	214,628.40	-190,780.80	11.1%
427.20- Contract Services-Misc	0.00	0.00	0.00	0.0%
Total Expense	23,847.60	215,128.40	-191,280.80	11.1%
Net Income	**155,558.86**	**1,000.00**	**154,558.86**	**15,555.9%**

nbb liquid fuels
Profit & Loss Budget vs. Actual
January through May 2022

	Jan - May 22	Budget	$ Over Budget	% of Budget
Income				
341.00 · Interest Income	221.79	250.00	-28.21	88.7%
355.02 · Liquid Fuels Allocation	77,982.62	80,968.56	-2,985.94	96.3%
389.00 · Miscellaneous Income	0.00	0.00	0.00	0.0%
392.01 · Transfer from General Fund	0.00	0.00	0.00	0.0%
392.03 · Transfer From Public Safety	0.00	0.00	0.00	0.0%
393.10 · Debt Issuance Proceeds	0.00	0.00	0.00	0.0%
Total Income	78,204.41	81,218.56	-3,014.15	96.3%
Expense				
438.00 · Road Maintenance and Repair	0.00	0.00	0.00	0.0%
470.01 · 2017 Road Loan Debt Service	0.00	77,000.00	-77,000.00	0.0%
472.00 · Interest Expense	4,284.00	8,568.00	-4,284.00	50.0%
492.01 · Transfers to General Fund	0.00	0.00	0.00	0.0%
Total Expense	4,284.00	85,568.00	-81,284.00	5.0%
Net Income	**73,920.41**	**-4,349.44**	**78,269.85**	**-1,699.5%**

New Britain Borough

45 Keeley Avenue, New Britain, PA 18901
New Britain, PA 18901
Phone: (215) 348-4586 • Fax: (215) 348-5953

Permit Report - 05/01/2022 to 05/31/2022

Permit #	Applicant	Type	Const. Cost	UCC Fee	Paid Date	Issue Date	CO Date	Total Cost
Building								
B-2022-19	Dunbar Construction Management	Alteration	$110,000.00	$4.50	4/18/2022	5/11/2022		$1,714.50
Description: Interior Renovations								
Parcel Info:								
Parcel Number: 25-006-059	Location Address: 447 E BUTLER AVE		Owner: PLUMSTEAD ACQUISITIONS LLC					
B-2022-20	John Vergis	Alteration	$52,000.00	$4.50	4/20/2022	5/19/2022		$609.50
Description: Interior Alterations								
Parcel Info:								
Parcel Number: 25-002-111	Location Address: 94 SIOUX RD		Owner: MURRAY, WILLIAM F & DOROTHY A					
B-2022-28	ERIKSSON, CONSTANCE	Addition	$85,000.00	$4.50	4/29/2022	5/17/2022		$1,154.50
Description: Building of Deck & Screened-In Porch								
Parcel Info:								
Parcel Number: 25-005-049	Location Address: 221 WOODLAND DR		Owner: ERIKSSON, CONSTANCE					
B-2022-29	MCCULLOUGH, SEAN F	Alteration	$43,000.00	$4.50	4/29/2022	5/19/2022		$304.52
Description: Converting Garage to Home Office								
Parcel Info:								
Parcel Number: 25-006-024-010	Location Address: 22 MAPLE CT		Owner: MCCULLOUGH, SEAN F					
B-2022-30	Delran Builders Company, Inc	Alteration	$122,834.00	$4.50	5/4/2022	5/19/2022		$2,275.50
Description: Renovations to James Work Gym - Locker Rooms								
Parcel Info:								
Parcel Number: 25-009-090	Location Address: 700 E BUTLER AVE		Owner: DELAWARE VLY COLL SCIENCE&AGRICULTURE					
B-2022-31	Delran Builders Company, Inc	Alteration	$120,582.00	$4.50	5/4/2022	5/20/2022		$2,937.50
Description: Alumni House Renovations								
Parcel Info:								
Parcel Number: 25-009-090	Location Address: 700 E BUTLER AVE		Owner: DELAWARE VLY COLL SCIENCE&AGRICULTURE					

New Britain Borough

45 Keeley Avenue, New Britain, PA 18901

New Britain, PA 18901

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Permit Report - 05/01/2022 to 05/31/2022

Permit #	Applicant	Type	Const. Cost	UCC Fee	Paid Date	Issue Date	CO Date	Total Cost
Building								
B-2022-32	BECKER, JAMES & ALISON EVANS	Accessory Structure	$27,000.00	$4.50	5/5/2022	5/23/2022		$179.50
Description: Accessory Building								
Parcel Info:								
Parcel Number: 25-009-012	Location Address: 96 IRON HILL RD		Owner: BECKER, JAMES & ALISON EVANS					
B-2022-35	WILMS, HARRY	Swimming Pool/Hot Tub	$2,050.00	$4.50	5/10/2022	5/24/2022		$454.50
Description: Above Ground Pool								
Parcel Info:								
Parcel Number: 25-005-044	Location Address: 156 S TAMENEND AVE		Owner: WILMS, HARRY					
B-2022-36	Colonial Generators	Generator	$12,599.00	$4.50	5/11/2022	5/23/2022		$304.50
Description: Generator Installation								
Parcel Info:								
Parcel Number: 25-006-025	Location Address: 94 MAPLE LN		Owner: GRADY, BOBBY C					
B-2022-38	Superior Tank & Energy Co.	Tank Removal/Installation	$2,100.00	$4.50	5/16/2022	5/31/2022		$154.50
Description: Demolition Underground Oil Tank								
Parcel Info:								
Parcel Number: 25-009-011-001	Location Address: 122 IRON HILL RD		Owner: FRASCO, CHRISTOPHER					
B-2022-39	Elisio Electric	Generator	$9,717.44	$4.50	5/20/2022	5/25/2022		$304.50
Description: 14 KW Generator with 16 Circuit transfer switch								
Parcel Info:								
Parcel Number: 25-001-022	Location Address: 150 PUEBLO RD		Owner: MAPES, ANTHONY H & JULIA A					
			Total UCC Fee:	**$49.50**		**Total Cost:**		**$10,393.52**

New Britain Borough

45 Keeley Avenue, New Britain, PA 18901

New Britain, PA 18901

Phone: (215) 348-4586 • Fax: (215) 348-5953

Permit Report - 05/01/2022 to 05/31/2022

Permit #	Applicant	Type	Const. Cost	UCC Fee	Paid Date	Issue Date	CO Date	Total Cost
Rental Permit								
RP-2022-1				N/A	4/14/2022	5/11/2022		$40.00
Description:	Burkart Hall Rental Application - Chalfont-New Britain Democrats							
Parcel Info:								
Parcel Number:	25-002-018	Location Address:	56 KEELEY AVE	Owner:	NEW BRITAIN BORO			
			Total UCC Fee:	**$0.00**		**Total Cost:**		**$40.00**
Concrete / Street Opening								
C-2022-4			$2,865.00	N/A		5/17/2022		$120.00
Description:	Replacement Sidewalk							
Parcel Info:								
Parcel Number:	25-002-193	Location Address:	105 LENAPE DR	Owner:	KLOSINSKI, CAROL ANN			
			Total UCC Fee:	**$0.00**		**Total Cost:**		**$120.00**
			Grand Total UCC Fee:	**$49.50**		**Grand Total Cost:**		**$10,553.52**

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

New Britain Borough
Engineer's Report
June 2022

Land Development Projects

1. Peregrine Surgical Building (21-04041) Preliminary/Final Land Development Resolution approved at 8/10/21 Council meeting for proposed construction of a light manufacturing building at 17 Industrial Drive, located at the northwest corner of the Industrial Drive and Sand Road intersection. Awaiting submission intended to address conditions of approval.

2. 638 East Butler Avenue (21-04042) Preliminary/Final Land Development Resolution approved at 10/12/21 Council mtg for the proposed construction of a 13 unit multifamily dwelling with 21 parking spaces and a single driveway access onto East Butler Avenue. G&A reviewing revised submission intended to address conditions of approval.

3. Heritage Crown (22-03045) Sketch Plan submission for 12 townhouses, 10 condominiums, and 2 apartments to be added to the existing veterinary use at 341 West Butler Avenue, within the West Butler Avenue Mixed Use Overlay. Project was presented at the 3/15/22 PC mtg. Awaiting land development submission.

4. 44 Industrial Drive (22-05047) Preliminary/Final Land Development to construct a warehouse and manufacturing building at 44 Industrial Drive. Applicant received special exception to permit the use and several variances related to the front yard setback, building coverage and impervious surface ratio. Applicant is scheduled to present at 6/21/22 PC Mtg

Construction Land Development Projects

1. Knoell Tract (16-06032) Pre-construction meeting was held to discuss construction of Building C. Construction began at the end of May.

2. 30 Sandy Ridge Road (20-04023) Escrow release 6 approved at the 1/12/21 Council meeting. G&A issued updated punch list and as-built review on 11/15/21. G&A reviewed revised as-built submission and is awaiting requested closeout documents.

3. 194 West Butler Avenue (20-12022) Waiver of Land Development for improvements to the existing gas station at 194 West Butler Avenue. Application was conditionally approved at the 1/12/21 Council meeting. Construction commenced in January 2022 and is substantially complete. G&A issued TCO and punch list recommendation.

4. 345 North Shady Retreat Road (21-06107) Minor Subdivision application to subdivide the property at 345 North Shady Retreat Road into two lots, with one lot containing the existing residential dwelling and the other lot containing an existing garage. A new driveway is proposed for the residential lot. Record plans recently recorded. Awaiting notice that construction will commence.

Public Improvement Projects

1. Butler Avenue Sidewalk (20-03079) Phase 1 (Keeley – Sandy Ridge) bid was awarded at 2/8/22 Council meeting to Ply-Mar Construction. Easements and PennDOT HOP received. Pre-construction meeting held 6/8/22. Tree removal is scheduled to begin soon. Site work tentatively scheduled to begin mid-June. G&A updated concept plans and opinion of probable cost for Phase 2 (Sandy Ridge – Cedar) and Phase 3 (Cedar – Shady Retreat) to assist the Borough with a grant application.

2. MS4 (20-04007) Borough received PRP/TMDL Plan review comments from the DEP on 6/3/21. G&A received updated PRP/TMDL Plan mapping approval from DEP on 3/7/22, addressing the DEP review comments received on 1/13/22. G&A preparing related calculations and Plan recommendations for 4/22/22 DEP deadline. G&A is anticipating discussion of recommended Stormwater Management Ordinance and stormwater-related Subdivision and Land Development Ordinance revisions at 4/19/22 PC mtg and 6/14/22 Council mtg; Stormwater Management Ordinance update required by 9/30/22. G&A is anticipating annual MS4 presentation at the 6/14/22 Council mtg.

CENTRAL BUCKS REGIONAL POLICE
Police Activity Report – May 2022

POLICE ACTIVITY	CBRPD		Chalfont Borough		Doylestown Borough		New Britain Borough	
	Month	YTD	Month	YTD	Month	YTD	Month	YTD
Total Incidents	1688	7755	293	1378	1087	4862	308	1515
ARRESTS								
Felonies & Misdemeanors	19	73	1	7	13	54	5	12
Summary Offenses	20	71	8	10	11	58	1	3
ACCIDENTS								
Reportable	12	45	2	7	8	35	2	3
Non-Reportable	40	109	7	19	30	76	3	14
TRAFFIC								
Traffic Citations	59	312	7	69	42	187	10	56
Warnings	178	786	34	144	104	455	40	187
PART I CRIMES								
01 Homicide	0	0	0	0	0	0	0	0
02 Rape	0	0	0	0	0	0	0	0
03 Robbery	0	0	0	0	0	0	0	0
04 Assault	3	20	0	1	3	17	0	2
05 Burglary	0	0	0	0	0	0	0	0
06 Larceny Theft	2	24	0	1	1	16	1	7
07 Motor Vehicle Theft	0	6	0	0	0	3	0	3
09 Arson	0	0	0	0	0	0	0	0
PART II CRIMES								
10 Forgery/Counterfeit	0	1	0	0	0	0	0	1
11 Fraud	12	43	3	9	8	27	1	7
12 Embezzlement	0	0	0	0	0	0	0	0
13 Stolen Prop-Receiv, Posses	0	2	0	0	0	1	0	1
14 Vandalism	2	17	0	1	1	14	1	2
15 Weapons	1	11	1	10	0	1	0	0
16 Prostitution	0	0	0	0	0	0	0	0
17 Sex Offenses	5	10	1	1	4	8	0	1
18 Drug Violation	3	20	0	3	1	12	2	5
19 Gambling	0	0	0	0	0	0	0	0
20 Off Against Family/Child	0	0	0	0	0	0	0	0
21 DUI	5	16	0	1	4	13	1	2
22 Liquor Laws	0	1	0	0	0	1	0	0
23 Public Drunkenness	1	20	0	0	1	19	0	1
24 Disorderly Conduct	9	44	0	2	7	36	2	6
25 Vagrancy	4	20	0	0	4	20	0	0
26 All Other Offenses	10	36	0	7	10	23	0	6
3921 Abandoned 911	33	183	9	29	23	134	1	20
3820 Assist Motorists	11	42	3	8	6	24	2	10
3926 Check Well Being	36	153	3	12	29	119	4	22
3801 House Checks	2	6	1	3	0	0	1	3
4031/30 Traffic Enf/Speed Detail	230	1296	50	299	116	652	64	345
9100-04, 9122 Pro-Active Patrols	137	748	26	146	80	437	31	165
Services provided and split evenly amongst municipalities								
8902/04 Live Scan - Assists, Employ.	40	146	13	49	13	48	14	49
8700/08 K9 Training and Assists	2	26	1	9	1	10	0	7
8518 Record Checks	13	58	4	19	4	19	5	20
9121 Training	31	168	10	55	11	57	10	56

New Britain Borough
Total Incidents: 279
May 2022

Incident	Munic.	Date	Description	Street Name
20220501M5991	47	5/1/2022 0:20	TRAFFIC ENFORCEMENT	IRON HILL
20220501M5999	47	5/1/2022 0:55	PATROL CHECKS	KEELEY
20220501M6000	47	5/1/2022 2:45	SECURITY CHECKS	TOWN CENTER
20220501M6010	47	5/1/2022 9:55	TRAFFIC ENFORCEMENT	SHADY RETREAT
20220501M6008	47	5/1/2022 10:05	POLICE INFORMATION	SHADY RETREAT
20220501M6014	47	5/1/2022 11:05	MOTOR VEHICLE WARNINGS	BUTLER
20220501M6025	47	5/1/2022 13:57	POLICE INFORMATION	HICKORY
20220501M6029	47	5/1/2022 18:53	ASSIST AMBULANCE	BUTLER
20220501M6030	47	5/1/2022 21:23	POLICE INFORMATION	BROAD
20220502M6046	47	5/2/2022 7:26	SPEED DETAIL	BUTLER
20220502M6047	47	5/2/2022 8:10	SCHOOL CROSSING	BUTLER
20220502M6054	47	5/2/2022 9:40	TRAFFIC ENFORCEMENT	SIOUX
20220502M6063	47	5/2/2022 15:10	SCHOOL CROSSING	BUTLER
20220502M6069	47	5/2/2022 17:06	LOCKOUTS (VEHICLE/HOUSE/BUILDING)	TOWN CENTER
20220502M6070	47	5/2/2022 17:35	ASSIST AMBULANCE	TAMENEND
20220502M6072	47	5/2/2022 18:45	WELL-BEING CHECK	BUTLER
20220502M6074	47	5/2/2022 21:50	EXTRA PATROLS	KEELEY
20220503M6079	47	5/3/2022 1:00	TRAFFIC ENFORCEMENT	BUTLER
20220503M6087	47	5/3/2022 3:20	SECURITY CHECKS	BUTLER
20220503M6087-A	47	5/3/2022 3:25	OPEN DOORS/WINDOWS - DISCOVERED	BUTLER
20220503M6097	47	5/3/2022 7:29	TRAFFIC ENFORCEMENT	BUTLER
20220503M6103	47	5/3/2022 8:10	SCHOOL CROSSING	BUTLER
20220503M6122	47	5/3/2022 8:10	SPEED DETAIL	BUTLER
20220503M6104	47	5/3/2022 8:40	SPEED STUDY	BUTLER
20220503M6132	47	5/3/2022 13:10	SCHOOL CROSSING	BUTLER
20220503M6130	47	5/3/2022 15:53	HOUSECHECK-RESIDENT REQUESTED-VACATION	TAMENEND
20220503M6133	47	5/3/2022 15:54	TRAFFIC ENFORCEMENT	SIOUX
20220503M6134	47	5/3/2022 16:02	POLICE INFORMATION	BRISTOL
20220503M6143	47	5/3/2022 20:50	TRAFFIC ENFORCEMENT	BUTLER
20220503M6139	47	5/3/2022 20:58	MOTOR VEHICLE WARNINGS	BUTLER
20220503M6142	47	5/3/2022 22:02	MOTOR VEHICLE WARNINGS	BUTLER
20220504M6149	47	5/4/2022 2:50	SECURITY CHECKS	TOWN CENTER
20220504M6158	47	5/4/2022 6:57	MOTOR VEHICLE WARNINGS	BUTLER
20220504M6171	47	5/4/2022 8:10	SCHOOL CROSSING	BUTLER
20220504M6170	47	5/4/2022 8:11	SPEED DETAIL	BUTLER
20220504M6161	47	5/4/2022 8:36	MOTOR VEHICLE WARNINGS	BUTLER
20220504M6162	47	5/4/2022 8:42	MOTOR VEHICLE WARNINGS	BUTLER
20220504M6181	47	5/4/2022 11:15	PATROL CHECKS	KEELEY
20220504M6182	47	5/4/2022 11:26	SPEED DETAIL	LAMP POST
20220504M6184	47	5/4/2022 11:46	MOTOR VEHICLE WARNINGS	LAMP POST
20220504M6178	47	5/4/2022 11:59	POLICE INFORMATION	IRON HILL
20220504M6183	47	5/4/2022 15:16	SCHOOL CROSSING	BUTLER
20220504M6188	47	5/4/2022 16:32	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	TOWN CENTER
20220504M6200	47	5/4/2022 19:20	TRAFFIC ENFORCEMENT	KEELEY
20220504M6207	47	5/4/2022 22:36	TRAFFIC ACCIDENT/REPORTABLE	PAWNEE
20220504M6207-A	47	5/4/2022 22:36	POSSESSION OF DRUG PARAPHERNALIA	PAWNEE
20220505M6211	47	5/5/2022 1:45	PATROL CHECKS	KEELEY
20220505M6212	47	5/5/2022 2:50	SECURITY CHECKS	BRISTOL

20220505M6219	47	5/5/2022 7:45	TRAFFIC ENFORCEMENT	TAMENEND
20220505M6220	47	5/5/2022 8:10	TRAFFIC CONTROL	BUTLER
20220506M6277	47	5/5/2022 21:38	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	BUTLER
20220506M6288	47	5/6/2022 8:00	POLICE INFORMATION	BUTLER
20220506M6283	47	5/6/2022 8:12	SCHOOL CROSSING	BUTLER
20220506M6290	47	5/6/2022 8:44	TRAFFIC ENFORCEMENT	BUTLER
20220506M6287	47	5/6/2022 8:58	MOTOR VEHICLE WARNINGS	BUTLER
20220506M6289	47	5/6/2022 8:58	K9 SEARCH	BUTLER
20220506M6292	47	5/6/2022 10:07	WIRES AND POLES DOWN	PUEBLO
20220506M6305	47	5/6/2022 14:37	POLICE INFORMATION	BUTLER
20220506M6307	47	5/6/2022 15:15	SCHOOL CROSSING	BUTLER
20220506M6320	47	5/6/2022 23:30	PATROL CHECKS	MATHEWS
20220507M6330	47	5/7/2022 7:25	WIRES AND POLES DOWN	WOODLAND
20220507M6334	47	5/7/2022 14:56	TRAFFIC ENFORCEMENT	BUTLER
20220507M6342	47	5/7/2022 17:09	ASSIST AMBULANCE	CEDAR
20220508M6367	47	5/8/2022 2:38	ALARMS - FOUNDED/UNFOUNDED	BEULAH
20220508M6363	47	5/8/2022 3:00	EXTRA PATROLS	MATHEWS
20220508M6369	47	5/8/2022 8:52	TRAFFIC ENFORCEMENT	BUTLER
20220508M6371	47	5/8/2022 9:29	MOTOR VEHICLE CITATIONS	BUTLER
20220508M6372	47	5/8/2022 9:29	K9 SEARCH	BUTLER
20220508M6374	47	5/8/2022 11:34	MOTOR VEHICLE CITATIONS	BUTLER
20220508M6386	47	5/8/2022 15:37	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	TOWN CENTER
20220508M6393	47	5/8/2022 19:00	TRAFFIC ENFORCEMENT	KEELEY
20220508M6394	47	5/8/2022 22:45	PATROL CHECKS	MATHEWS
20220509M6402	47	5/8/2022 23:00	PATROL CHECKS	KEELEY
20220509M6408	47	5/9/2022 4:58	ASSIST AMBULANCE	CEDAR
20220509M6411	47	5/9/2022 8:10	SCHOOL CROSSING	BUTLER
20220509M6418	47	5/9/2022 8:45	SPEED DETAIL	LAMP POST
20220509M6414	47	5/9/2022 9:00	MOTOR VEHICLE WARNINGS	LAMP POST
20220509M6422	47	5/9/2022 10:52	ASSIST MOTORIST/DISABLE VEH	BRISTOL
20220509M6426	47	5/9/2022 11:46	HARASSMENT	IRON HILL
20220509M6434	47	5/9/2022 15:10	SCHOOL CROSSING	BUTLER
20220509M6437	47	5/9/2022 15:39	FRAUD	BUTLER
20220509M6450	47	5/9/2022 20:34	CRIMINAL MISCHIEF TO AUTOMOBILES	BUTLER
20220509M6455	47	5/9/2022 22:01	PATROL CHECKS	KEELEY
20220510M6474	47	5/10/2022 2:42	SECURITY CHECKS	BRISTOL
20220510M6488	47	5/10/2022 8:10	SCHOOL CROSSING	BUTLER
20220510M6490	47	5/10/2022 8:45	SIGNALS/SIGNS OUT	SAND
20220510M6496	47	5/10/2022 9:47	SPEED STUDY	BUTLER
20220510M6501	47	5/10/2022 13:15	PATROL CHECKS	KEELEY
20220510M6510	47	5/10/2022 15:10	SCHOOL CROSSING	BUTLER
20220510M6511	47	5/10/2022 15:40	WELL-BEING CHECK	PUEBLO
20220510M6528	47	5/10/2022 21:45	TRAFFIC ENFORCEMENT	TAMENEND
20220510M6527	47	5/10/2022 22:03	MOTOR VEHICLE WARNINGS	TAMENEND
20220511M6535	47	5/11/2022 0:15	EXTRA PATROLS	BRISTOL
20220511M6539	47	5/11/2022 3:05	SECURITY CHECKS	TOWN CENTER
20220511M6540	47	5/11/2022 3:06	OPEN DOORS/WINDOWS - DISCOVERED	BUTLER
20220511M6542	47	5/11/2022 3:45	EXTRA PATROLS	BRISTOL
20220511M6544	47	5/11/2022 8:10	SCHOOL CROSSING	BUTLER
20220511M6562	47	5/11/2022 9:10	WIRES AND POLES DOWN	SAND
20220511M6566	47	5/11/2022 12:50	TRAFFIC ENFORCEMENT	BUTLER
20220511M6568	47	5/11/2022 14:20	TRAFFIC ENFORCEMENT	BUTLER
20220511M6569	47	5/11/2022 15:10	SCHOOL CROSSING	BUTLER
20220511M6579	47	5/11/2022 21:25	MOTOR VEHICLE WARNINGS	BUTLER
20220512M6585	47	5/11/2022 22:21	PATROL CHECKS	KEELEY

20220518M6955	47	5/18/2022 19:29	ASSIST OTHER POLICE AGENCY	TOWN CENTER
20220518M6961	47	5/18/2022 20:48	PATROL CHECKS	MATHEWS
20220518M6965	47	5/18/2022 21:13	TRAFFIC ENFORCEMENT	SHADY RETREAT
20220518M6966	47	5/18/2022 21:16	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	BUTLER
20220518M6964	47	5/18/2022 21:38	MOTOR VEHICLE WARNINGS	SHADY RETREAT
20220518M6968	47	5/18/2022 22:27	PATROL CHECKS	KEELEY
20220519M6977	47	5/19/2022 2:16	PATROL CHECKS	BRISTOL
20220519M6989	47	5/19/2022 8:10	SCHOOL CROSSING	BUTLER
20220519M6995	47	5/19/2022 10:02	SPEED DETAIL	LAMP POST
20220519M6991	47	5/19/2022 10:15	TRAFFIC ENFORCEMENT	KEELEY
20220519M6994	47	5/19/2022 10:34	MOTOR VEHICLE WARNINGS	LAMP POST
20220519M7014	47	5/19/2022 14:34	ASSIST AMBULANCE	BRITAIN
20220519M7025	47	5/19/2022 18:12	CIVIL COMPLAINTS	WOODLAND
20220519M7033	47	5/19/2022 20:45	TRAFFIC ENFORCEMENT	KEELEY
20220520M7047	47	5/19/2022 21:55	TRAFFIC ENFORCEMENT	TAMENEND
20220519M7039	47	5/19/2022 22:01	MOTOR VEHICLE WARNINGS	TAMENEND
20220520M7053	47	5/20/2022 8:10	SCHOOL CROSSING	BUTLER
20220520M7056	47	5/20/2022 10:00	TRAFFIC ENFORCEMENT	KEELEY
20220520M7057	47	5/20/2022 10:40	FOOT PATROL	MATHEWS
20220520M7065	47	5/20/2022 13:05	ASSIST MOTORIST/DISABLE VEH	BUTLER
20220520M7075	47	5/20/2022 15:10	SCHOOL CROSSING	BUTLER
20220520M7094	47	5/20/2022 17:47	ASSIST AMBULANCE	BUTLER
20220520M7095	47	5/20/2022 23:41	PATROL CHECKS	KEELEY
20220521M7096	47	5/21/2022 0:09	MOTOR VEHICLE WARNINGS	BUTLER
20220521M7112	47	5/21/2022 11:12	TRAFFIC ACC. INVOLVING PROPERTY DAMAGE	BUTLER
20220521M7113	47	5/21/2022 12:23	ASSIST AMBULANCE	BUTLER
20220521M7116	47	5/21/2022 15:00	TRAFFIC ENFORCEMENT	IRON HILL
20220521M7125	47	5/21/2022 19:53	TRAFFIC ENFORCEMENT	BUTLER
20220521M7123	47	5/21/2022 20:01	MOTOR VEHICLE CITATIONS	BUTLER
20220521M7128	47	5/21/2022 22:06	FIREWORKS/GUN SHOTS HEARD COMP.	CEDAR
20220521M7129	47	5/21/2022 22:15	PATROL CHECKS	KEELEY
20220522M7167	47	5/22/2022 13:20	TRAFFIC ENFORCEMENT	KEELEY
20220522M7177	47	5/22/2022 20:40	MOTOR VEHICLE WARNINGS	BUTLER
20220522M7178	47	5/22/2022 20:50	THEFT-$200 & OVER-BICYCLES	BUTLER
20220522M7179	47	5/22/2022 20:55	TRAFFIC ENFORCEMENT	BUTLER
20220522M7180	47	5/22/2022 21:25	PATROL CHECKS	KEELEY
20220522M7185	47	5/22/2022 23:22	DRUGS-POSSESS-MARIJUANA	BUTLER
20220522M7185-A	47	5/22/2022 23:22	FINGERPRINT/BOOKING - CBRPD CRIMINAL	BROAD
20220523M7190	47	5/23/2022 3:11	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	INDUSTRIAL
20220523M7200	47	5/23/2022 8:10	SCHOOL CROSSING	BUTLER
20220523M7211	47	5/23/2022 12:36	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	CEDAR
20220523M7218	47	5/23/2022 15:10	SCHOOL CROSSING	BUTLER
20220523M7223	47	5/23/2022 16:27	ASSIST AMBULANCE	BUTLER
20220524M7236	47	5/24/2022 0:10	PATROL CHECKS	KEELEY
20220524M7259	47	5/24/2022 8:10	SCHOOL CROSSING	BUTLER
20220524M7272	47	5/24/2022 8:15	SPEED DETAIL	BUTLER
20220524M7258	47	5/24/2022 8:34	MOTOR VEHICLE CITATIONS	BUTLER
20220524M7281	47	5/24/2022 14:40	TRAFFIC ENFORCEMENT	KEELEY
20220524M7278	47	5/24/2022 15:18	MOTOR VEHICLE WARNINGS	KEELEY
20220524M7286	47	5/24/2022 18:30	DIRECTED PATROL	KEELEY
20220524M7287	47	5/24/2022 18:34	MOTOR VEHICLE WARNINGS	KEELEY
20220524M7295	47	5/24/2022 23:00	WELL-BEING CHECK	BUTLER
20220525M7301	47	5/25/2022 2:06	ASSIST AMBULANCE	UNAMI
20220525M7310	47	5/25/2022 8:10	SCHOOL CROSSING	BUTLER
20220525M7311	47	5/25/2022 8:10	SPEED DETAIL	BUTLER

20220525M7312	47	5/25/2022 9:21	ABANDONED 911 CALLS	BUTLER
20220525M7314	47	5/25/2022 9:50	TRAFFIC ENFORCEMENT	SIOUX
20220525M7329	47	5/25/2022 19:20	TRAFFIC ENFORCEMENT	SHADY RETREAT
20220525M7336	47	5/25/2022 22:32	PATROL CHECKS	KEELEY
20220525M7337	47	5/25/2022 22:50	SUSPICIOUS PERSONS,AUTOS,CIRCUMSTANCES	TOWN CENTER
20220525M7338	47	5/25/2022 23:24	MOTOR VEHICLE WARNINGS	BUTLER
20220526M7352	47	5/26/2022 8:10	SPEED DETAIL	BUTLER
20220526M7353	47	5/26/2022 8:10	SCHOOL CROSSING	BUTLER
20220526M7351	47	5/26/2022 8:16	MOTOR VEHICLE WARNINGS	BUTLER
20220526M7356	47	5/26/2022 8:27	ALARMS - FOUNDED/UNFOUNDED	PUEBLO
20220526M7372	47	5/26/2022 15:20	TRAFFIC ENFORCEMENT	KEELEY
20220526M7371	47	5/26/2022 15:30	MOTOR VEHICLE WARNINGS	KEELEY
20220526M7382	47	5/26/2022 19:11	MOTOR VEHICLE CITATIONS	KEELEY
20220526M7386	47	5/26/2022 19:11	TRAFFIC ENFORCEMENT	KEELEY
20220531M7615	47	5/26/2022 19:17	CHILDREN & YOUTH INVESTIGATIONS	BUTLER
20220526M7384	47	5/26/2022 20:23	TRAFFIC ACCIDENT/NON-REPORTABLE	BUTLER
20220526M7387	47	5/26/2022 22:15	MOTOR VEHICLE WARNINGS	BUTLER
20220527M7391	47	5/27/2022 1:04	PATROL CHECKS	KEELEY
20220527M7392	47	5/27/2022 2:17	MOTOR VEHICLE WARNINGS	BUTLER
20220527M7399	47	5/27/2022 7:35	TRAFFIC ENFORCEMENT	BUTLER
20220527M7406	47	5/27/2022 9:34	MOTOR VEHICLE WARNINGS	BUTLER
20220527M7414	47	5/27/2022 12:21	MOTOR VEHICLE WARNINGS	BUTLER
20220527M7419	47	5/27/2022 14:08	TRAFFIC ENFORCEMENT	TAMENEND
20220527M7435	47	5/27/2022 17:45	TRAFFIC ENFORCEMENT	KEELEY
20220527M7437	47	5/27/2022 20:40	TRAFFIC ENFORCEMENT	IRON HILL
20220527M7442	47	5/27/2022 22:05	PATROL CHECKS	KEELEY
20220527M7443	47	5/27/2022 23:21	ALARMS - FOUNDED/UNFOUNDED	TOWN CENTER
20220528M7451	47	5/28/2022 3:44	ALARMS - FOUNDED/UNFOUNDED	BUTLER
20220528M7453	47	5/28/2022 5:18	ANIMAL COMPLAINTS	HICKORY
20220528M7469	47	5/28/2022 10:10	TRAFFIC ENFORCEMENT	KEELEY
20220528M7460	47	5/28/2022 10:15	MOTOR VEHICLE WARNINGS	KEELEY
20220528M7463	47	5/28/2022 10:40	MOTOR VEHICLE WARNINGS	KEELEY
20220528M7472	47	5/28/2022 13:40	TRAFFIC ENFORCEMENT	TAMENEND
20220528M7471	47	5/28/2022 14:01	MOTOR VEHICLE CITATIONS	TAMENEND
20220528M7486	47	5/28/2022 18:03	ALARMS - FOUNDED/UNFOUNDED	TOWN CENTER
20220528M7490	47	5/28/2022 20:05	TRAFFIC ENFORCEMENT	KEELEY
20220528M7503	47	5/28/2022 23:30	TRAFFIC ENFORCEMENT	BUTLER
20220529M7516	47	5/29/2022 1:06	PATROL CHECKS	KEELEY
20220529M7520	47	5/29/2022 9:30	PATROL CHECKS	KEELEY
20220529M7522	47	5/29/2022 10:15	ASSIST OTHER POLICE AGENCY	KEELEY
20220529M7531	47	5/29/2022 12:31	MOTOR VEHICLE WARNINGS	BUTLER
20220529M7532	47	5/29/2022 12:50	MOTOR VEHICLE WARNINGS	BUTLER
20220529M7538	47	5/29/2022 13:15	FOOT PATROL	TOWN CENTER
20220529M7548	47	5/29/2022 16:28	MOTOR VEHICLE WARNINGS	BUTLER
20220529M7549	47	5/29/2022 16:38	MOTOR VEHICLE CITATIONS	BUTLER
20220529M7553	47	5/29/2022 17:42	ANIMAL COMPLAINTS	TAMENEND
20220529M7558	47	5/29/2022 22:20	PATROL CHECKS	KEELEY
20220529M7559	47	5/29/2022 22:45	TRAFFIC ENFORCEMENT	IRON HILL
20220530M7565	47	5/30/2022 1:35	SECURITY CHECKS	TOWN CENTER
20220530M7569	47	5/30/2022 7:33	ALARMS - FOUNDED/UNFOUNDED	TOWN CENTER
20220530M7572	47	5/30/2022 10:52	TRAFFIC ENFORCEMENT	BUTLER
20220530M7571	47	5/30/2022 10:59	MOTOR VEHICLE WARNINGS	BUTLER
20220530M7581	47	5/30/2022 14:12	DOMESTIC	TOWN CENTER
20220530M7583	47	5/30/2022 15:36	TRAFFIC ENFORCEMENT	BUTLER
20220531M7595	47	5/30/2022 19:45	TRAFFIC ENFORCEMENT	SIOUX

20220531M7594	47	5/30/2022 21:25	PATROL CHECKS	BUTLER
20220531M7596	47	5/30/2022 21:40	PATROL CHECKS	KEELEY
20220531M7598	47	5/30/2022 21:50	MENTAL SUBJECTS	BUTLER
20220531M7610	47	5/31/2022 7:14	MOTOR VEHICLE CITATIONS	BUTLER
20220531M7613	47	5/31/2022 8:12	SCHOOL CROSSING	BUTLER
20220531M7616	47	5/31/2022 8:42	SPEED DETAIL	LAMP POST
20220531M7617	47	5/31/2022 9:03	MOTOR VEHICLE WARNINGS	LAMP POST
20220531M7627	47	5/31/2022 13:30	CHILDREN & YOUTH INVESTIGATIONS	BUTLER
20220531M7626	47	5/31/2022 13:45	POLICE INFORMATION	BUTLER
20220601M7666	47	5/31/2022 21:35	ASSIST AMBULANCE	BUTLER
20220601M7668	47	5/31/2022 23:05	PATROL CHECKS	KEELEY

BOROUGH OF NEW BRITAIN
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Committee Activity Review, Questions and Announcements

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Business Items

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

- Authorizes the Borough to discharge stormwater to surface waters
- Requires Borough to implement 6 Minimum Control Measures
  - Public Education and Outreach
  - Public Participation and Involvement
  - Illicit Discharge Detection and Elimination
  - Construction Site Stormwater Runoff Control
  - Post-Construction Runoff Control
  - Pollution Prevention/Good Housekeeping

- Requires Borough to implement Total Maximum Daily Load and Pollutant Reduction Plans

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Resident Remarks

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Adjournment