East Rockhill Township Board of Supervisors

August 23, 2022

Regular Business Meeting Minutes

DRAFT

The regular business meeting of the East Rockhill Township Board of Supervisors was held at 7:00p.m. on August 23, 2022, in the meeting room at the East Rockhill Township Municipal Office, 1622 North Ridge Road, Perkasie, PA 18944.

Present:	Gary Volovnik	Supervisor Chairperson
	Dave Nyman	Supervisor Vice-Chairperson
	Jim Nietupski	Supervisor Member
	Marianne Morano	Township Manager
	Will Oetinger, Esq.	Township Solicitor
	Steve Baluh, P.E.	Township Engineer
	Jeff Scholl	Public Works Director
	Chief Dickinson, Jr.	Pennridge Regional Police Department

The meeting was called to order at 6:58p.m. by Mr. Volovnik with the Pledge of Allegiance.

Members of the public and press were present.

Announcements or Presentations:

An Executive Session will follow the meeting for real estate potential preservation.

Zoning Map Amendment Request.

Mr. Greg Landis and Mr. Scott Mease P.E. were present to request a zoning map amendment from RR Rural Residential to C-E Cultural Education consisting of 3.1429 acres located at First Baptist Church of Perkasie, 1600 N. Fifth Street. It was noted the parcel currently has split zoning.
Consensus of the Board was to grant the request.

Public Comment #1:

- Tina O'Rourke, 1819 Old Bethlehem Pike, asked for the status of the McClennen Tract land development and potential public sewer and water connection. The final plan has been submitted and is anticipated to be discussed at the September Planning Commission meeting. East and West Rockhill are progressing with an amendment to their Act 537 plans but cannot make a formal planning module submission until DEP approves the McClennen Tract Planning Module. Perkasie Regional Authority provides public water. It was also noted Perkasie Regional Authority has sewer jurisdiction in West Rockhill.

Approval of Minutes and Bills Payable:

Approval of Minutes from July 26, 2022, Regular Meeting.

On motion by Mr. Nietupski, seconded by Mr. Nyman, to approve the meeting minutes from the Board of Supervisors' July 26, 2022, Regular Meeting as presented. With no additional discussion, all present voted in favor.

Payment of Unpaid Bills dated August 19, 2022, in the amount of $164,602.37.

On motion by Mr. Nyman, seconded by Mr. Nietupski, to approve payment of the Bills List dated August 19, 2022, for a total amount of $164,602.37 as presented. With no additional discussion, all present voted in favor.

Township Manager's Report: Marianne Morano
Willard H. Markey Centennial Park.
Consider authorizing tree trimming in response to PennDOT Bureau of Aviation report dated August 2, 2022.
On motion by Mr. Nietupski, seconded by Mr. Nyman, to authorize Willard H. Markey Centennial Park tree line be trimmed. With no additional discussion, all present voted in favor.

Consider authorizing a Children's Ministry of First Baptist Church event on Wednesday, September 28, 2022, from 6:30-7:30pm to allow 170 participants. Mr. Greg Landis was present to answer any questions. Consensus of the Board was to support the application contingent on applicant providing traffic control at the Park entrance, application to the Township and coordination with sport group use.

Salt Bids 2022-2023 Season.
On motion by Mr. Nyman, seconded by Mr. Nietupski, to award the 2022-2023 salt bids to Morton Salt, Inc. through Bucks County Consortium at the rate of $67.76 per ton delivered and $67.00 per ton undelivered as presented. With no additional discussion, all present voted in favor.

2023 Preliminary Draft Budget.
Consensus of the Board was to authorize advertising 2023 preliminary budget work session meetings for 6:15pm on September 27, 2022, and October 25, 2022. With no additional discussion, all present voted in favor.

On motion by Mr. Nietupski, seconded by Mr. Nyman, to approve the Township Manager report. With no additional discussion, all present voted in favor.

Public Works Report:
Mr. Scholl updated the Board on Public Works activities as of August 19, 2022. The report is on file.
On motion by Mr. Nietupski, seconded by Mr. Nyman, to approve the Township Public Works report. With no additional discussion, all present voted in favor.

Township Engineer Report: Steve Baluh, P.E.
Amendment to East Rockhill Township Code of Ordinance Chapter 26.
On motion by Mr. Nyman, seconded by Mr. Nietupski, to authorize the advertisement of the Stormwater Ordinance to be consistent with the requisite the requirements of the DEP MS4 program as presented. With no additional discussion, all present voted in favor.

Release of Escrow Vouchers Woods Edge.
On motion by Mr. Nietupski, seconded by Mr. Nyman, to approve the Woods Edge Escrow Voucher 22 dated August 16, 2022, payable to Wynn Associates, Inc. in the amount of $368.77 for construction

observation and Escrow Voucher 23 dated August 16, 2022, payable to Lynn Builders LLC in the amount of $23,673.92 for final escrow release as presented. With no additional discussion, all present voted in favor.

On motion by Mr. Volovnik, seconded by Mr. Nietupski, to approve the Township Engineer report. With no additional discussion, all present voted in favor.

Township Solicitor Report: Will Oetinger, Esq.

Conservation Easement 1800 Three Mile Run Road.

Applicant was present to request a compliance statement to allow a micro drip mound septic system in a Conservation Easement at 1800 Three Mile Run Road the Township purchased July 2022 stating the property has been sold.

On motion by Mr. Nietupski, seconded by Mr. Nyman, to approve a micro mound septic system in the conservation easement highest protection area as presented. With no additional discussion, all present voted in favor.

Condemnation at 426 Three Mile Run Road.

On motion by Mr. Nyman, seconded by Mr. Nietupski, to adopt **Resolution 2022-08** for the condemnation of 426 Three Mile Run Road Bucks County tax map parcel 12-020-030 for open space purposes as presented. With no additional discussion, all present voted in favor.

Agreement of Sale for 426 Three Mile Run Road.

On motion by Mr. Nyman, seconded by Mr. Nietupski, to authorize the Chairperson execution of an Agreement of Sale for an open space fund purchase for Township purposes at 426 Three Mile Run Road tax map parcel 12-020-030 totaling 2.96 acres for the purchase price of $395,000.00 as presented. With no additional discussion, all present voted in favor.

Elected Tax Collector Waiver of Additional Charges. Mr. Oetinger stated the draft Resolution was presented to be in compliance with Pennsylvania Act 57 which mandated Municipalities enact to allow first time home buyers still pay real estate tax but receive a one-time exemption of additional charges. Consensus of the Board was to table the draft Resolution.

809 Three Mile Run Road

Conditional Use Hearing has been scheduled for September 12, 2022, 7:00pm.

Mr. Oetinger stated a civil complaint on SR313 for a recreational camper has been filed which has an August 31, 2022, default date. It was noted the former Wagon Wheel non-compliant contracting use has been removed.

On motion by Mr. Nyman, seconded by Mr. Nietupski, to accept the Township Solicitors' report. With no additional discussion, all present voted in favor.

Board and Commission Reports

Pennridge Regional Police Department: Chief Dickinson, Jr.

The Chief shared the July 2022 Pennridge Regional Police activity report. The report is on file.

- Mr. Nyman stated the firework state law has been updated. The law will be reviewed to determine if the Township Ordinance needs to be revised.
- Larry Wheatley, 5 Boulder Drive, asked if the Pennridge School District has a resource officer and stated there was a fire at the Rock Hill Quarry. The School District has an Officer on staff.

On motion by Mr. Nietupski, seconded by Mr. Nyman, to accept the Pennridge Regional Police Department report. With no additional discussion, all present voted in favor.

Planning Commission: Anne Fenley

Mrs. Fenley noted the Pennridge School District proposed accessory building at their operation facility was reviewed and recommended for preliminary / final approval and 809 Three Mile Run Road Conditional Use Hearing proposal was reviewed with a second review to take place at their September meeting. The August agenda and draft minutes were provided to the Board.

On motion by Mr. Nyman, seconded by Mr. Nietupski, to accept the Planning Commission report. With no additional discussion, all present voted in favor.

Pennridge Wastewater Treatment Authority: Dave Nyman

Mr. Nyman noted as a result of sludge material going to the Boyertown facility which has been shut down by DEP, PWTA may have to pay a fine of $120,000.00 which may be put into their 2023 budget. Mr. Nyman stated the 1975 Agreement signed by all members requires one voting member from each Municipality however Perkasie Borough (3) and Sellersville Borough (2) continue to have additional voting members. An August 19, 2022, Pennridge Wastewater Treatment Authority Re-Certification of PWTA Correspondence was received requesting approval of a draft resolution to re-certify as currently structured. It was noted the Board took action June 28, 2022 to not authorize the re-certification until all items of the 1975 Agreement, specifically Section 10.09, were adhered to.

The July 2022 minutes and flow reports were provided to the Board.

On motion by Mr. Nietupski, seconded by Mr. Nyman, to accept the Pennridge Wastewater Treatment Authority report. With no additional discussion, all present voted in favor.

Department and Emergency Services Reports

On motion by Mr. Nyman, seconded by Mr. Nietupski, to acknowledge receipt of the Department and Emergency Services reports. With no additional discussion, all presented voted in favor.

New or Other Business – Supervisors' Items:

- Mr. Nietupski followed up on his prior request to amend Zoning language for immediate family member in Agricultural use.
- Mr. Nietupski recently met with Roy and Betty Moyer at 236 W. Schwenkmill Road that believe a road pipe that was replaced in kind during a public water project approximately 15 years ago has resulted in water flow which deteriorated their private property. It was noted the water is directed from across the street, through the crossover pipe, downhill along their driveway to several adjacent properties and ends at the Creek. Township Solicitor stated no work can take place on private property which is out of the scope of Township operations. Mr. Nyman opposed work on private property which would set a precedent; Mr. Nietupski was in favor of spending township

funds for materials for the private property improvement; Mr. Volovnik stated the item needed further review.

- Mr. Nietupski requested an Executive Session to discuss real estate acquisition.

Public Comment #2:

- Doug Vogel, 6 Boulder Drive, asked how DEP determined the fine for material dropped off at the Boyertown site. Truck sludge quantity records.
- Larry Wheatley, 5 Boulder Drive, asked how the fire department accessed the Rock Hill Quarry site. The lock was cut. Mrs. Morano will notify DEP of the fire.

Adjournment:

On motion by Mr. Nietupski, seconded by Mr. Nyman, to adjourn the regular meeting into executive session. With no additional discussion, the meeting was adjourned at 8:10p.m.

Respectfully submitted,

DRAFT

Township Manager

East Rockhill Township Board of Supervisors

September 12, 2022

Special Business Meeting Minutes

DRAFT

The special business meeting of the East Rockhill Township Board of Supervisors to conduct a conditional use hearing was held at 7:00p.m. on September 12, 2022, in the meeting room at the East Rockhill Township Municipal Office, 1622 North Ridge Road, Perkasie, PA 18944.

Present:	Gary Volovnik	Supervisor Chairperson
	Dave Nyman	Supervisor Vice-Chairperson
	Jim Nietupski	Supervisor Member
	Marianne Morano	Township Manager
	Will Oetinger, Esq.	Township Solicitor
	Steve Baluh, P.E.	Township Engineer
	Scott MacNair, Esq.	Special Council for Township
	Gregg Adelman, Esq.	Applicant Representation

The meeting was called to order at 7:00p.m. by Mr. Volovnik with the Pledge of Allegiance.

Members of the public were present.

Public Comment on Non-Agenda:
There was none.

Stenographic Record: A stenographic record of the Conditional Use Hearing for the Pennington Property Group, LLC was taken and will provide a record of the proceedings. A request can be made to Wendy Crowley Wendy.Crowley@yahoo.com. Transcripts are stored for five years.

Conditional Use Hearing. *Legal Notice: The Conditional Use Application for the construction of 46 townhomes as a B-3 Performance Standard Development upon the property located at 809 and 901 Three Mile Run Road, Perkasie, PA 18944, more particularly described at Tax Map Parcels No. 12-008-125, 12-008-126, 12-008-126-001, and 12-009-126, which is located in the S- Suburban Zoning District. The Applicant, in accordance with Sections 27-701 and 27-304 of Chapter 27 of the East Rockhill Township Code of Ordinances, filed a Conditional Use Application and requested approval for the proposed Performance Development Use on the property.*
Mr. Oetinger read the legal notice as advertised and announced how the hearing would be conducted, how citizens can participate and how the law requires all uses be permitted for. The B3 performance subdivision is a concentrated development with open space and is a permitted use in the Suburban Zoning District in which it is located by Conditional Use which allows for reasonable conditions to protect the public safety and welfare.

Party Status requests received and approved:

- Jessica McCauley, 711 Three Mile Run Road
- Amanda Crouthamel, 913 Three Mile Run Road

Party Status request received and denied:

- Jeffrey Herot, 2000 Three Mile Run Road, resides 1.8 miles from the property under review.

Mr. Oetinger entered Board exhibits.

Mr. Adelman entered Applicant exhibits and provided an opening statement.

Testimony: Was provided by Robert Cunningham, P.E. reviewing a Conditional Use Site plan last revised September 6, 2022 and the HC Holmes Cunningham LLC letter dated September 6, 2022 responding to Township Engineer August 8, 2022 review letter. Testimony was completed.

The hearing was continued to Monday, October 17, 2022 7:00pm at the same location.

Adjournment:

On motion by Mr. Nietupski, seconded by Mr. Nyman, to adjourn the Hearing and reconvene October 17, 2022. With no additional discussion, the Hearing was adjourned at 9:35p.m.

Respectfully submitted,

DRAFT

Township Manager

East Rockhill Township

Unpaid Bills List

September 22, 2022

Summary of Fund Expenses

FUND NAME	DESCRIPTION	TOTAL
General	*General Purposes*	$ 134,344.35
Fire	*Revenue from Real Estate 1.0 mil. Expenses related to Fire Volunteer Services.*	$ -
Open Space	*Revenue from Earned Income 0.25. Expenses for preservation and maintenance per HB1523.*	$ 5,124.46
Sewer	*Revenue from sewer rates and connections. Expenses for sewer operations.*	$ 35,701.09
Park & Recreation / Golf Driving Range	*Revenue from token sales, park reservations & contributions. Expenses for driving range and park maintenance.*	$ 6,900.48
Street Light	*Revenue from annual street light assessment for properties in district. Expenses payable to PPL for street light rental and maintenance.*	$ 1,598.71
Capital Improvement	*Revenue from Real Estate 1.25 mil. Expenses for capital projects as budgeted and approved by Board of Supervisors.*	$ -
Building Debt	*Revenue from Real Estate 1.26 mil. Expenses for Police Headquarter and Municipal Complex building debt.*	$ 5,797.22
Capital Reserve	*Revenue from grants and contributions. Expenses per allocations as budgeted and approved by Board of Supervisors.*	$ 8,025.00
State Aid (Liquid Fuels)	*Revenue from State fuel tax. Expenses according to PennDOT guidelines for road and vehicle maintenance.*	$ 7,472.51
Escrow	*Revenue for consultant review time. Expenses for projects under review with escrow requirements.*	$ 32,273.03
	Unpaid Bills Total	**$ 237,236.85**

East Rockhill Township

Unpaid Bills List

September 22, 2022

Detail of Fund Expenses

Payable To	Memo	Amount	
General Fund - 01			
21st Century Media	Advertising	28.79	
Arlo Eby	ZHB Andolina	25.00	
BCATO	Event - JN	50.00	
BIU	Code Services	1,984.50	
BR Scholl	Diesel Fuel	125.00	
Bucks County Court Reporters	ZHB Andolina	195.00	
Chase Credit Card	Lowes	79.56	*
Chase Credit Card	Harbor Freight	14.99	*
Chase Credit Card	Amazon	49.70	*
Chase Credit Card	The Stamp Maker	146.05	*
Clemens Uniform	Uniforms	237.08	
Clemons Richter & Reiss	Andolina	735.00	
Clemons Richter & Reiss	Pennington	2,345.00	
Clemons Richter & Reiss	Appleton	420.00	
Delaware Valley Health Insurance (DVHT)	Insurance Premium	11,843.75	
Dunlap SLK	2021 Audit	1,000.00	
Emerald Garden	Lawn Maintenance	870.00	
Grim, Biehn & Thatcher	Township Solicitor General Matters	2,352.00	
Grim, Biehn & Thatcher	Township Solicitor Litigation	112.38	
Hot Frog Media	Fall 2022 Township Newsletter Mailing	1,033.42	
IPFone	Phone Service	540.00	
IT Business Solutions	Monthly Service	459.00	
J&J Arbor Care	Tree Removal	1,920.00	
John Fenley	ZHB Andolina	25.00	
Kathleen Hart	ZHB Andolina	25.00	
Keystone Collections Group	EIT Commission	1,962.14	*
Keystone Collections Group	Costs Retained by Tax Officer (Act 192)	561.35	*
Keystone Collections Group	EIT Taxpayer Refunds	239.99	*
Keystone Collections Group	LST Commission	164.77	*
Lawson	Supplies	65.69	
LocaliQ	Advertising	358.48	
Manko Gold Katcher Fox	Township Environmental Solicitor	4,190.00	
Neat & Clean	Township Office	420.00	
PP&L Electric	Emergency Aux Bldg. + Break Room	109.25	
PP&L Electric	Parking Lot Lights	138.70	
PP&L Electric	Municipal Office	137.70	
PP&L Electric	Garage/Shop	58.13	

East Rockhill Township

Unpaid Bills List

September 22, 2022

Detail of Fund Expenses

Payable To	Memo	Amount	
Pennridge Regional Police	Police Service	83,114.33	
Phillips & Donovan Architects	Public Works Complex	6,923.95	
Pitney Bowes	Postage	600.00	
Principal Financial Group	Insurance Premium	381.32	
Reiss Hauling & Recycling, Inc.	Trash & Recycling Service	2,585.00	
Ricoh	Prepay Copier Rental	132.23	
Riggins	Unleaded Fuel	487.99	
Riggins	Diesel Fuel	1,576.24	
Shadywood Communications	Enews	215.00	
Staples Credit Plan	Supplies	222.12	
Sprint	Cell Phone Service	132.81	
Verizon	FIOS service	109.00	
Wynn Associates	Township Engineer General	1,478.87	
Wynn Associates	Township Engineer MS-4	1,010.60	
Wynn Associates	Township Engineer PRA	191.27	
Wynn Associates	Township Engineer Rockhill Quarry	161.20	
	General Fund	***$ 134,344.35***	

Fire Fund - 03

	Fire Fund	***$ -***	

Open Space Fund - 05

Grim, Biehn & Thatcher	Township Solicitor Land Preservation	1,215.00	
Heritage Conservancy	Conservation Easement	2,500.00	
Keystone Collections Group	EIT Commission	961.79	*
Keystone Collections Group	Taxpayer Refunds	120.00	*
Wynn Associates	Township Engineer Tohickon Campground	327.67	
	Open Space Fund	***$ 5,124.46***	

Sewer Fund - 08

Anchor Pump	Pump Repair	3,062.98	
BR Scholl	Repair	886.24	
Bullseye	Pumping Station Alarm Service	142.43	
Chase Credit Card	Lowes	129.98	*
Chase Credit Card	Tractor Supply	226.97	*
CKS Engineers	Engineering Pump Station	3,319.11	
Comcast	Treatment Plant Phone Service	25.14	*
Delaware Valley Health Insurance (DVHT)	Insurance Premium	3,683.87	
Emerald Garden	Lawn Maintenance	200.00	

East Rockhill Township

Unpaid Bills List

September 22, 2022

Detail of Fund Expenses

Payable To	Memo	Amount	
GA Peak	Sludge Removal	3,174.00	
Grim, Biehn & Thatcher	Township Solicitor Sewer	530.54	
Kevin Franks	Treatment Plant	1,850.00	
MJ Reider Associates	Lab Analysis	559.90	
ORE	Equipment Rental	2,976.00	
PA Dept of Agriculture	Pesticide Applicator Cert - KR	10.00	
PA One Call	Monthly Activity	38.82	
PP&L Electric	Pump Station Adjustment	(325.35)	*
PP&L Electric	Pump Station	129.92	
PP&L Electric	Treatment Plant	1,842.37	
Pioneer Crossing	Sludge Removal	5,616.44	
Plasterer	Equipment Rental	2,680.00	
Principal Financial Group	Insurance Premium	294.54	
Sprint	Cell Phone Service	88.56	
Univar	Aluminum Sulfate	4,453.83	
USA Blue Book	Treatment Plant	104.80	
	Sewer Fund	***$ 35,701.09***	

Park & Recreation / Driving Range Fund -09

Chase Credit Card	Lowes	77.94	*
Chase Credit Card	Carnell Sales	359.98	*
Chase Credit Card	Lowes	16.96	*
Chase Credit Card	Eagle Power	81.82	*
Chase Credit Card	Eagle Power	52.61	
Davis Feed	Supplies	139.95	
Emerald Garden	Lawn Maintenance	550.00	
George Allen Portable Toilets Inc.	Markey Centennial Park	320.00	
H&K Materials	Supplies	158.92	
Lapps Landscape Products	Supplies	4,032.00	
Miller Tire	Parts	19.04	
ORE	Equipment Rental	256.50	
PP&L Electric	Markey Centennial Park Sign	26.73	
PP&L Electric	Markey Centennial Park Buildings	38.50	
Sunbelt Rentals	Equipment Rental	769.53	
	Park & Rec / Driving Range Fund	***$ 6,900.48***	

East Rockhill Township

Unpaid Bills List

September 22, 2022

Detail of Fund Expenses

Payable To	Memo	Amount	
Street Light Fund - 13			
PP&L Electric	Street Lights	1,598.71	
	Street Light Fund	***$ 1,598.71***	
Capital Improvement Fund - 19			
	Capital Improvement Fund	***$ -***	
Building Debt Fund - 22			
Pennridge Regional Police Department	Principle and Interest Debt Payment	5,797.22	
	Building Debt Fund	***$ 5,797.22***	
Capital Reserve Fund - 30			
Monarch	East Rock Road BCCD Grant	8,025.00	
	Capital Reserve Fund	***$ 8,025.00***	
State Aid (Liquid Fuel) Fund - 35			
Auto Plus	Supplies	69.36	
BR Scholl	Repair	161.00	
Chase Credit Card	Lowes	51.98	*
Chase Credit Card	Flail Master	1,245.50	*
Daniel Beardsley	Supplies	140.00	
Davis Feed	Supplies	190.90	
Hart Mechanical	Repair	390.00	
H&K Materials	Supplies	2,053.37	
LB Water	Supplies	1,807.16	
Miller Bros.	Repair Traffic Signal	587.15	
Naceville Materials	Supplies	225.38	
NAPA Auto Parts	Parts	15.72	
Plasterer	Parts	165.60	
PP&L Electric	Signal 313 & 5th	29.00	
PP&L Electric	Flasher 5th Street	24.57	
PP&L Electric	Signal Campus & 5th	34.34	
PP&L Electric	Signal 313 & 563	29.55	
PP&L Electric	Flasher Schwenkmill Road	24.71	
PP&L Electric	Signal 313 & Mountain View	42.54	
PP&L Electric	Flasher Mountain View	24.85	
Warehouse Battery Outlet	Supplies	159.83	
	State Aid Fund	***$ 7,472.51***	

East Rockhill Township

Unpaid Bills List

September 22, 2022

Detail of Fund Expenses

Payable To	Memo	Amount
Escrow Fund - 90		
Bentz	Escrow Closure	475.27
First Bank	Escrow Closure	17,646.65
Grim, Biehn & Thatcher	Township Solicitor Select/McClennan	342.00
Grim, Biehn & Thatcher	Township Solicitor Pennridge SD	304.00
Grim, Biehn & Thatcher	Township Solicitor Pennington	779.00
Grim, Biehn & Thatcher	Township Solicitor 1800 Three Mile Run	285.00
Grim, Biehn & Thatcher	Township Solicitor Renew Bible Church	209.00
LocaliQ	Pennington	452.86
Traffic Planning & Design	McClennan	1,608.75
Wendy A. Crowley	Stenographer - Pennington	250.00
Wynn Associates	Township Engineer Fox Hill	213.77
Wynn Associates	Township Engineer 400 Branch Rd	124.00
Wynn Associates	Township Engineer Marr	216.07
Wynn Associates	Township Engineer Bowman	30.00
Wynn Associates	Township Engineer Rapkin	24.80
Wynn Associates	Township Engineer Diebler Elementary	86.80
Wynn Associates	Township Engineer Pennridge SD	971.10
Wynn Associates	Township Engineer Pennridge SD	3,367.82
Wynn Associates	Township Engineer McClennan	3,338.47
Wynn Associates	Township Engineer Mager	67.27
Wynn Associates	Township Engineer Scholl	74.40
Wynn Associates	Township Engineer 809 Three Mile Run Rd	1,406.00
	Escrow fund	***$ 32,273.03***
	Total Unpaid Bills	**$ 237,236.85**

**denotes already paid*

EAST ROCKHILL TOWNSHIP
BUCKS COUNTY, PENNSYLVANIA

RESOLUTION NO. 2022-11

OPPOSING THE SALE OF
BUCKS COUNTY WATER AND SEWER AUTHORITY'S ASSETS
TO AQUA PENNSYLVANIA

WHEREAS, Bucks County Water and Sewer Authority (BCWSA) provides services to about 100,000 households, nearly one-third of the County population, in 31 municipalities and is the largest single provider of water and sewer services in the County;

WHEREAS, BCWSA is considering an offer from Aqua to purchase its assets for $1.1 billion dollars;

WHEREAS, Aqua's rates are set through rate-making procedures before the Pennsylvania Public Utility Commission and Aqua has a history of increasing its sewer rates substantially, including those municipalities which sold their private wastewater systems to Aqua including Limerick Township whose rates increased 82%, East Bradford Township whose rates increased 64%, Cheltenham Township whose rates increased 65%, East Norriton Township whose rates increased 57% and New Garden Township whose rates increased 53%;

WHEREAS, Aqua in May of 2019 offered to purchase the wastewater system owned by Warrington Township for $40,200,000, and anticipated a rate increase of 66% when Aqua next appeared before the PUC;

WHEREAS, in September of 2019 Warrington Township sold its wastewater system to BCWSA for a base price of $16,150,000- far less than half of what it could have received from Aqua based on its belief that BCWSA had no intention of selling its system to a private utility;

WHEREAS, the Public Utility Commission recently approved a rate increase of 59% for Aqua's wastewater customers, less than the increase that Aqua requested;

WHEREAS, at a time when costs are increasing for all Bucks County residents, through no fault of our local elected officials, residents can scarcely afford an increase in sewer fees;

WHEREAS, the Board of Supervisors believes it is unconscionable for BCWSA to sell its assets to Aqua as the long-term financial impacts that major increases in sewer rates will have on the residents and businesses being served and on Bucks County in general;

WHEREAS, Wastewater services such as those provided by BCWSA are essential to protecting the environment and it is imperative that those services be provided at cost-effective and reasonable fee structures; and

WHEREAS, privatization of BCWSA's assets ultimately results in negative impacts for local municipalities and their residents.

NOW, THEREFORE, be it resolved that the Board of Supervisors is opposed to the sale of BCWSA's assets to Aqua, Pennsylvania, and implores BCWSA to abandon negotiations with Aqua and to continue to operate as an independent, non-profit agency.

FURTHER, the Board of Supervisors respectfully implores the County Commissioners to take all reasonable and necessary steps to compel BCWSA to abandon its negotiations and to continue operating as an independent, non-profit agency, as intended when it was created in 1962 by the Bucks County Commissioners. If there is no other recourse, we believe the County should disband the BCWSA and take over the assets and operation of the sewer system until a public entity is found to sell the system to.

EAST ROCKHILL TOWNSHIP
BOARD OF SUPERVISORS

_____
Gary W. Volovnik, Chairperson

NOT APPROVED

_____
David R. Nyman, Vice-Chairperson

ATTEST:

_____
James C. Nietupski, Member

_____
Marianne Morano, Secretary

3850-FM-BCW0356 Rev. 5/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code No.
1-09922-242-3J

RESOLUTION FOR PLAN REVISION FOR NEW LAND DEVELOPMENT

DRAFT

RESOLUTION OF THE (SUPERVISORS) ~~(COMMISSIONERS) (COUNCILMEN)~~ of East Rockhill (TOWNSHIP) ~~(BOROUGH) (CITY)~~, Bucks COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the *Pennsylvania Sewage Facilities Act*, as Amended, and the rules and Regulations of the Pennsylvania Department of Environmental Protection (DEP) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new land development conforms to a comprehensive program of pollution control and water quality management, and

WHEREAS Select Properties, Inc. (land developer) has proposed the development of a parcel of land identified as McClennen Tract Subdivision (name of subdivision), and described in the attached Sewage Facilities Planning Module, and proposes that such subdivision be served by: (check all that apply), ☒ sewer tap-ins, ☒ sewer extension, ☐ new treatment facility, ☐ individual onlot systems, ☐ community onlot systems, ☐ spray irrigation, ☐ retaining tanks, ☐ other, (please specify). Proposed existing gravity sewer lateral, which converys to a sewer main in Three Mile Run Road which ultimately conveys to the Pennridge Wastewater Treatment Authority for treatment and disposal.

WHEREAS, East Rockhill Township (municipality) finds that the subdivision described in the attached Sewage Facilities Planning Module conforms to applicable sewage related zoning and other sewage related municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the (Supervisors) ~~(Commissioners) (Councilmen)~~ of the (Township) ~~(Borough) (City)~~ of East Rockhill hereby adopt and submit to DEP for its approval as a revision to the "Official Sewage Facilities Plan" of the municipality the above referenced Sewage Facilities Planning Module which is attached hereto.

I _____ (Signature), Secretary, East Rockhill Township Board of Supervisors (Borough Council) (City Councilmen), hereby certify that the foregoing is a true copy of the Township (Borough) (City) Resolution # _____, adopted, _____, 2022.

Municipal Address:

Marianne Moreno, Secretary /Township Manager
East Rockhill Township
1622 North Ridge Road
Perkasie, PA 18944
Telephone 215-257-9156

NOT APPROVED

Seal of
Planning Body

EAST ROCKHILL TOWNSHIP
Bucks County, Pennsylvania

DRAFT

ORDINANCE NO. _____

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF EAST ROCKHILL AMENDING EAST ROCKHILL TOWNSHIP CODE OF ORDINANCES CHAPTER 27, ZONING, BY REZONING A PORTION OF TAX MAP PARCEL 12-014-004 FROM RR-RURAL RESIDENTIAL TO C-E CULTURAL-EDUCATIONAL

WHEREAS, the Township of East Rockhill ("***Township***") is empowered to enact zoning ordinances to regulate the use of land pursuant to the Pennsylvania Municipalities Planning Code, 53 P.S. § 10601, *et. seq*.; AND

WHEREAS, the Board of Supervisors has enacted the East Rockhill Township Zoning Ordinance, as amended ("***Zoning Ordinance***"), which contains the East Rockhill Township Zoning Map; AND

WHEREAS, Bucks County Tax Map Parcel No. 12-014-004, bearing a street address of 1602 N. Fifth Street, Perkasie, PA ("***Property***") is currently split zoned with the larger portion of the Property zoned C-E Cultural-Educational and the smaller portion of the Property zoned RR-Rural Residential; AND

WHEREAS, the Property is currently owned by a single owner and as a single parcel, despite the disparate zoning districts found on the Property; AND

WHEREAS, the current owner of the Property is First Baptist Church of Perkasie which has formally requested that the entirety of the Property be zoned C-E Cultural-Educational; AND

WHEREAS, the Board of Supervisors, after reasonable investigation, has found and determined that it is within the authority of the Township and consistent with the Township Comprehensive Plan, the Township Zoning Ordinance and the Pennsylvania Municipalities Planning Code to make the change set forth within this Ordinance; AND

WHEREAS, the Township has determined that the rezoning a portion of Tax Map Parcel No. 12-14-004 from RR to C-E is in the best interests of the health, safety and welfare of the residents of the Township and is in keeping with the surrounding zoning and land use; and

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the East Rockhill Township Board of Supervisors as follows:

SECTION 1.

A portion of Tax Parcel No. 12-14-004 as shown on the attached plan, marked as Exhibit "A", and the attached legal description, marked as Exhibit "B", is hereby rezoned from Zoning

District RR- Rural Residential to Zoning District C-E Cultural-Educational, and the East Rockhill Township Zoning Map shall be modified to reflect such change.

SECTION 2. REPEALER.

All ordinances or parts of ordinances, which are inconsistent herewith are hereby repealed.

SECTION 3. SEVERABILITY.

If any sentence, clause, section, or part of this ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, sections or parts of this ordinance. It is hereby declared as the intent of the Board of Supervisors that this ordinance would have been adopted had such unconstitutional, illegal, or invalid sentence, clause, section or part thereof not been included herein.

SECTION 4. EFFECTIVE DATE.

This ordinance shall become effective five (5) days after its adoption by the Board of Supervisors.

ENACTED AND ORDAINED by the Board of Supervisors this ____ day of _____, 2022.

EAST ROCKHILL TOWNSHIP
BOARD OF SUPERVISORS

_____
Gary W. Volovnik, Chair

NOT APPROVED

ATTEST:

_____
David R. Nyman, Vice-Chair

_____
Township Manager

_____
James C. Nietupski, Member

Bucks County Parcels

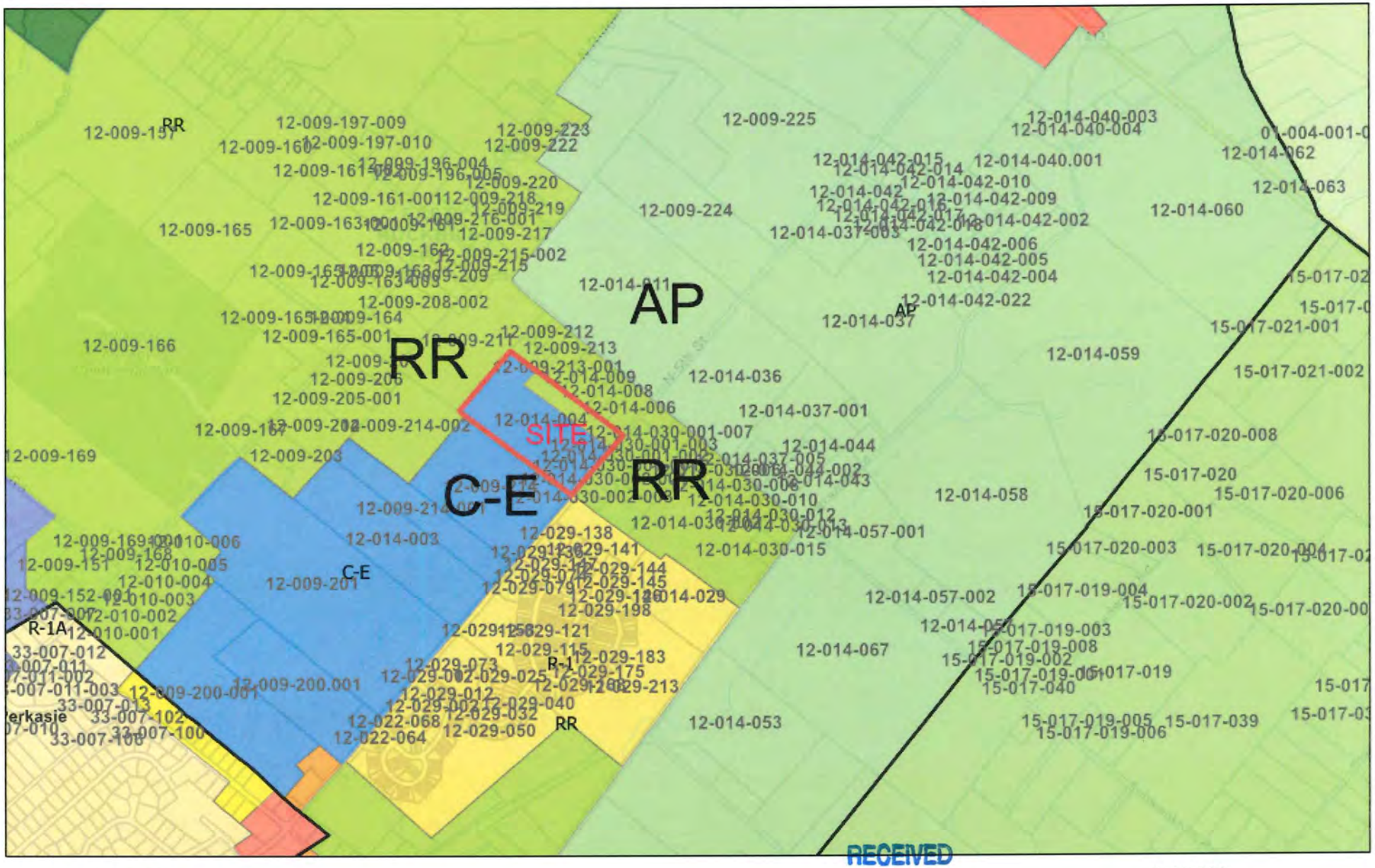

Exhibit "A"

EXHIBIT "B"

LEGAL DESCRIPTION OF PORTION OF PARCEL 12-14-004
TO BE REZONED FROM RR – RURAL RESIDENTIAL TO C-E CULTURAL-EDUCATIONAL

BEGINNING at a spike a corner of lands of William H. Catanach and Samuel S. Fisher, in the middle of Haversville Road, thirty-three feet (33 ft.) wide; thence along the middle of the Hagersville Road South forty-five degrees eight minutes West the distance of one hundred fifty feet (S. 45 deg. 08 min. W. 150.00 ft.) to a spike a corner; thence along other land of Samuel S. Fisher, of which this was a part, North forty-nine degrees thirty minutes West the distance of nine hundred eighteen and fifty one-hundredths feet (N. 49 deg. 30 min. W. 918.50 ft.) to an iron pin a corner in line of land of William H Catanach; thence along the same the next two (2) courses and distances North forty-seven degreees fifteen minutes East the distance of one hundred fifty and fifty-five hundredths feet (N. 47 deg. 15 min. E. 150.55 ft.) to an iron pin a corner; thence South forty-nine degrees thirty minutes East the distance of nine hundred twelve and ninety-two hundredths feet (S. 49 deg. 30 min. E. 912.92 ft.) to the place of BEGINNING.

Containing three and one thousand four hundred twenty-seven ten-thousandths acres (3.1427 ac.) of land, more or less.

BEING THE SAME PREMISES which Paul O. Kulp and Lenor M. Kulp, husband and wife, by Deed dated April 15, 1999 and recorded in Deed Book 1818, page 363, granted and conveyed unto The First Baptist Church of Perkasie.

TOWNSHIP OF EAST ROCKHILL
BUCKS COUNTY, PENNSYLVANIA

DRAFT

ORDINANCE NO. ____

AN ORDINANCE AMENDING AND RESTATING CHAPTER 26, PART 3, STORMWATER MANAGEMENT, OF THE EAST ROCKHILL TOWNSHIP CODE OF ORDINANCE TO COMPLY WITH THE REQUIREMENTS OF THE TOWNSHIP'S NPDES PERMIT FOR STORMWATER DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4).

SECTION 1.

The East Rockhill Township Board of Supervisors hereby ordains that Chapter 26, Part 3 of the East Rockhill Township Code shall be amended and restated to read as follows:

Part 3
STORMWATER MANAGEMENT

A.
General Provisions.

§ 26-301 **Statement of Findings.**
[Ord. 273, 12/17/2013]

The governing body of the municipality finds that:

A. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases runoff volume, flood flows, and velocities, contributes to erosion and sedimentation, degrades water quality, 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, and threatens public health and safety, and increases nonpoint source pollution of water resources..

B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated erosion, 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.

C. 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.

D. Federal and state regulations require the municipality to obtain a permit for discharges from its municipal separate storm sewer system (MS4) and to implement a program of stormwater controls.

E. Stormwater is an important resource that provides groundwater recharge for water supplies and supports the base flow of streams. **[Added by Ord. 276, 10/21/2014]**

§ 26-302 **Purpose.**
[Ord. 273, 12/17/2013]

The purpose of this comprehensive stormwater management Part **3** is to promote health, safety, and welfare within East Rockhill Township and its watersheds by minimizing the harms and maximizing the benefits described in § 26-301A of this Part **3** through provisions designed to:

A. Promote alternative project designs and layouts that minimize impacts to surface water and groundwater.

B. Promote nonstructural best management practices.

C. Minimize increases in stormwater volume.

D. Minimize impervious surfaces.

E. Manage stormwater runoff close to the source, reduce runoff volumes, mimic predevelopment hydrology and manage accelerated runoff and erosion and sedimentation problems at their source by regulating activities that cause these problems.

F. Utilize and preserve the existing natural drainage systems.

G. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.

H. Maintain the predevelopment peak and volume of stormwater runoff and prevent degradation of surface water quality.

I. Minimize non-point-source pollutant loadings to the ground and surface waters.

J. Minimize impacts on stream temperatures.

K. Maintain existing flows and quality of streams and watercourses in the municipality and the commonwealth, including prevention of accelerated erosion, scour, aggradation and degradation.

L. Preserve natural drainage systems and restore the flood-carrying capacity of streams.

M. Provide proper operation and maintenance of all permanent stormwater management BMPs that are constructed in the municipality.

N. Provide procedures ans performance standards and design criteria for stormwater management and planning.

O. Provide standards to meet NPDES MS4 permit requirements.

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

Q. Prevent scour and erosion of stream banks and streambeds, and reduce accelerated erosion, scour, aggradation, and degradation. **[Added by Ord. 276, 10/21/2014]**

§ 26-303 **Statutory Authority.**
[Ord. 273, 12/17/2013]

The municipality is empowered to regulate land use activities that affect runoff by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. § 680.1 et seq., as amended, the Storm Water Management Act, and by the authority of Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended by Act 170 of 1988, as further amended by Act 209 of 1990 and Act 131 of 1992, 53 P.S. § 10101 et seq.

§ 26-304 **Applicability; Regulated Activities.**
[Ord. 273, 12/17/2013]

1. This Part 3 shall apply to all regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity within the municipality .

2. This Part **3** shall apply to temporary and permanent stormwater management facilities constructed as part of any of the regulated activities listed in this section, and all activities related to proper operation and maintenance of all stormwater management BMPs, and all activities that may contribute nonstormwater discharges to the municipality's regulated small MS4. Stormwater management and erosion and sedimentation control during construction activities which are specifically not regulated by this Part shall continue to be regulated under existing laws and ordinances. **[Amended by Ord. 276, 10/21/2014]**

3. This Part 3 contains only the stormwater management performance standards and design criteria that are necessary or desirable from a watershed-wide perspective. Stormwater management design criteria (e.g., inlet spacing, inlet type, collection system design and details, outlet structure design, etc.) shall continue to be regulated by applicable ordinances.

4. The following activities are defined as regulated activities and shall be regulated by this Part **3**, except as exempted by § **26-305** of this Part **3**:

A. Land development.

B. Subdivision.

C. Construction of new, or reconstruction of, or addition of new impervious or semi-impervious surfaces (e.g., driveways, parking lots, roads, etc.; except for reconstruction of roads where there is no increase in impervious surface) and/or construction of new buildings or additions to existing buildings.

D. Redevelopment.

E. Diversion piping or encroachments in any natural or man-made stream channel.

F. Installation or modification of stormwater management facilities, nonstructural and structural stormwater management best management practices (BMPs) or appurtenances thereto.

G. Temporary storage of impervious or pervious material (rock, soil, etc.) where ground contact exceeds 5% of the lot area or 5,000 square feet (whichever is less) and where the material is placed on slopes exceeding 8%.

H. Earth disturbance which modifies existing grades and/or alters the existing/natural hydraulic regime.

§ 26-305 **Exemptions.**
[Ord. 273, 12/17/2013]

1. Exemptions from any provision permitted by this section shall not relieve the applicant from all other requirements of this Part **3**.

A. General Exemptions. The following land use activities are exempt from stormwater management peak rate and plan requirements of this Part **3**. On all sites where a cumulative area of less than 1,000 square feet of impervious surface since September 17, 2002 (the date Ordinance No. 199 was adopted), is proposed, the applicant is exempt from the stormwater management plan submission requirements of § **26-312** of this Part **3** and Stormwater Management Capital Fund contribution. **[Amended by Ord. 285, 12/13/2016]**

(1) Use of land for gardening for home consumption.

(2) Agricultural activity when operated in accordance with requirements of 25 Pa Code Chapter 102, a conservation plan, nutrient management plan, or erosion and sedimentation control plan approved by

the Bucks County Conservation District, including activities such as growing crops, rotating crops, the tilling of soil, and grazing animals. Installation of new, or expansion of existing, farmsteads, animal housing, waste storage, production areas, or other areas having impervious surfaces shall be subject to the provisions of this Part **3** unless exempt pursuant to § **26-305**, Subsection 1C.

(3) Forest management operations following the Department of Environmental Protection's management practices contained in its publication "Soil Erosion and Sedimentation Control Guidelines for Forestry" and operating under requirements of 25 Pa Code Chapter 102 and which have zoning permit approval from East Rockhill Township.

(4) Public road replacement, replacement paving, repaving and/or maintenance.

(5) Any aspect of BMP maintenance to an existing SWM facility made in accordance with plans and specifications approved by the Township.

(6) Lot line adjustment subdivisions when there is no proposed increase in the amount of impervious surface.

B. All regulated activities as described in § **26-304** of this Part **3** shall comply with the stormwater management requirements hereof except those activities meeting criteria listed in the "Stormwater Management Peak Rate Exemption Criteria" table. Those activities listed in "Stormwater Management Peak Rate Exemption Criteria" table are, to the extent stated herein, exempt from peak rate control provisions of § **26-313**; however, if located within a high quality or exceptional value watershed (as may be designated by PADEP), are subject to compliance with water quality requirements of § **26-316** and groundwater recharge requirements of § **26-317**. Groundwater recharge and water quality requirements may be addressed with nonstructural stormwater management BMPs as detailed in Appendix H. These requirements shall apply to the total development even if development is to take place in phases. The starting point from which to consider tracts as "parent tracts" is September 17, 2002 (the date of adoption of Ordinance No. 199). All impervious surface area constructed on or after the date of adoption of this Part 3 shall be considered cumulatively. Impervious surface existing on the "parent tract" prior to the date of adoption of this Part 3 shall not be considered in cumulative impervious area calculations for exemption purposes. An exemption shall not relieve the applicant from implementing such stormwater control measures and erosion control measures as are necessary to protect health, safety, and property.

Table 26-305.1 and Table 26-305.2, Stormwater Management Peak Rate Exemption Criteria

(1) Regulated activities included within § **26-304** are exempt from peak rate control requirements of § **26-313** where the amount of impervious surface and proposed location on a parcel conforms to the following tables:

Table 26-305.1

Total Parcel Area (acres)	**Maximum Impervious Surface Area (square feet)**
<0.5	1,200
0.5 to 1.0	2,500
>1.0 to 2.0	4,000
>2.0 to 5.0	5,000

Table 26-305.1

Total Parcel Area (acres)	Maximum Impervious Surface Area (square feet)
>5.0	7,500

Table 26-305.2

The maximum amount of the impervious surface area permitted pursuant to Table 26-305.1 within a setback (excluding driveway access) measured from the downslope property boundary shall conform to the following table:

Setback* (feet)	Maximum Impervious Surface Area Permitted Within the Setback (square feet)
10	None permitted
20	1,000
50	2,500
100	4,000
200	5,000
500	7,500

NOTES:

* The minimum setback distance is measured between the proposed impervious area (excluding driveway access) and/or the stormwater control/structure discharge point to the downslope property boundary. The maximum allowable impervious surface area is the amount of impervious surface area permitted within the setback distance. For example, a total of 4,000 square feet of impervious surface is permitted within the setback of 100 feet, of which none is permitted within the setback of 10 feet, not more than 1,000 square feet is permitted within the setback of 20 feet, and not more than 2,500 square feet is permitted within the setback of 50 feet.

In lieu of meeting the minimum distance criteria, the applicant may provide documentation from a design professional that the increased flows from the site leave the site in the same manner as the predevelopment condition and that there will be no adverse affects to properties along the path of flow(s). The Township may require the above-referenced documentation on any site, including a site meeting the minimum distance or parcel size criteria when deemed necessary at the sole discretion of the Township.

(2) Construction or reconstruction of buildings or additions to existing buildings or other impervious surface (activities regulated pursuant to § **26-304**) are exempt where the following conditions are met:

(a) An area of impervious surface is removed from the site equal to, or in excess of, the proposed impervious surface area.

(b) The area where existing impervious surface is removed pursuant to Subsection **1B(2)(a)** above must be restored with a minimum of 12 inches of topsoil and stabilized pervious ground cover.

C. Simplified Procedure for Single Residential Lots (which do not meet peak rate exception criteria of § **26-305**, Subsection 1B). Construction projects on existing single residential dwelling lots which result in less than 2,500 square feet cumulative (from the date of this Part **3**) of new impervious area (including the building footprint, driveway, sidewalks, swimming pools, patios, and parking areas) and less than 5,000 square feet of earth disturbance that do not meet exemption criteria of § **26-305**, Subsection 1B, may utilize the simplified procedure within Appendix G to meet requirements of Part **3** and are not required to submit formal stormwater management plans to the Township; however, a plot plan and design worksheets consistent with Appendix G must be submitted for Township review. This procedure may not be utilized for a proposed subdivision or land development.

D. Additional Exemption Criteria.

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

(2) Drainage problems. Where drainage problems are documented or known to exit downstream of, or are expected from, the proposed activity, the Township may deny an exemption.

(3) HQ/EV Streams. An exemption shall not relieve the applicant from meeting the special requirements for watersheds draining to high quality (HQ) or exceptional value (EV) waters (if designated by PADEP) contained in § **26-312**, Subsection **13**, of this Part **3**.

E. The municipality, upon request by the applicant, may grant an exemption from the provisions of this Part **3** for a project qualifying under § **26-305**, Subsection 1B. If an exemption is granted, the municipality shall require the developer to pay a fee in an amount established by separate resolution of the Board of Supervisors to the Municipal Stormwater Management Capital Fund. **{Amended by Ord. 276, 10/21/2014]**

F. All applicants seeking an exemption of stormwater management peak rate requirements based upon criteria contained in § **26-305**, Subsection 1B, shall, at a minimum, submit the following documentation for review:

(1) Three copies of the completed Township stormwater management application form.

(2) Stormwater management review fee and escrow, as established by separate resolution of the Board of Supervisors.

(3) Three copies of a plot plan for the parcel, which is the subject of the exemption application, containing, at a minimum, the following information:

(a) Property boundaries and area of the site, based on deed information, or field survey.

(b) Location map identifying the site relative to streets and other parcels in the vicinity of the site.

(c) Location of significant natural and existing man-made features, including wetlands, watercourses, woodlands, steep slopes, structures, parking areas, driveways, utilities, wells, and septic systems within 200 feet of proposed impervious surface, regardless of the location of the property boundary.

(d) Location and dimensions of existing and proposed impervious surface and other improvements, with setbacks drawn to relate the location of same to property lines, streets, and existing features.

(e) North arrow.

(f) Plan scale, as applicable.

(g) Information regarding existing/proposed topography and drainage patterns, within 200 feet of proposed impervious surface based on field survey, USGS mapping, and/or field observation.

(h) Other information deemed necessary by the Township Engineer to determine compliance with exemption criteria contained in § **26-305**, Subsection 1B.

G. The Municipality may deny or revoke any exemption pursuant to this Section at any time for any project that the Municipality believes may pose a threat to public health and safety or the environment.

§ 26-306 **(Reserved)**
[Ord. 273, 12/17/2013]

§ 26-307 **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.

§ 26-308 **Compatibility With Other Requirements.**
[Ord. 273, 12/17/2013]

Approvals issued pursuant to this Part 3 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.

§ 26-309 **Adherence to Approved Plan.**
[Ord. 273, 12/17/2013]

1. It shall be unlawful for any person to undertake any regulated activity on any property except as provided for in the approved stormwater management plan and pursuant to the requirements of this Part 3. It shall be unlawful to alter or remove any BMP required by the stormwater management plan pursuant to this Part 3 or to allow the property to remain in a condition which does not conform to the approved stormwater management plan.

2. 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. **[Added by Ord. 276, 10/21/2014]**

§ 26-310 **Modifications.**
[Ord. 273, 12/17/2013]

A. If the Municipality determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity, the Municipality may, after an evaluation of alternatives, approve measures other than those in this Ordinance, subject to Section 26-310, paragraphs B and C.

B. Waivers or modifications of the requirements of this Ordinance may be approved by the Municipality if enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that the modifications will not be contrary to the public interest and that the purpose of the Ordinance is preserved. Cost or financial burden shall not be considered a hardship. Modification may be considered if an alternative standard or approach will provide equal or better achievement of the purpose of the Ordinance. A request for modifications shall be in writing and accompany the Stormwater Management Site Plan submission. The request shall provide the facts on which the request is based, the

provision(s) of the Ordinance involved and the proposed modification.

C. No waiver or modification of any regulated stormwater activity involving earth disturbance greater than or equal to one acre may be granted by the Municipality unless that action is approved in advance by the Department of Environmental Protection (DEP) or the delegated county conservation district.

B.
Terminology.

§ 26-311 **Interpretation; Definitions.**
[Ord. 273, 12/17/2013]

1. For the purposes of this Part 3, 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, 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."

2. As used in this Part 3, 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 the pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

ALLUVIAL SOILS (FLOODPLAIN SOILS)
Areas subject to periodic flooding and listed in the Soil Survey of Bucks and Philadelphia Counties, Pennsylvania, United States Department of Agriculture Soil Conservation Service, as being "on, or in, the floodplain" or subject to flooding. The following soil types are alluvial and/or floodplain soils:

Alluvial land

Alton gravely load, flooded

Bowmansville silt loam

Hatboro silt loam

Marsh

Pope loam

Rowland silt loam

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; land disturbance.

APPLICANT
A landowner or developer who has filed an application for approval to engage in any regulated activities as defined in § **26-304** of this Part **3**.

AS-BUILT DRAWINGS
Those maintained by the contractor as he constructs the project and upon which he documents the actual locations of the building components and changes to the original contract documents. These, or a copy of the same, are turned over to the engineer at the completion of the project.

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

BASE FLOW
The portion of stream flow that is sustained by groundwater discharge.

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

BMPs (BEST MANAGEMENT PRACTICE)
Activities, facilities, 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 this Part 3. Stormwater BMPs are commonly grouped into one or two broad categories or measures: "structural" or "nonstructural." In this Part 3, nonstructural BMPs or measures refer to operation 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 largescale 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.

BMP MANUAL
Pennsylvania Best Management Practices Manual, December 2006, as amended.

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.

CHANNEL EROSION
The widening, deepening, and headward cutting of channels and waterways, due to erosion caused by moderate to large floods.

CISTERN

An underground reservoir or tank for storing rainwater.

CONSERVATION DISTRICT

Bucks Conservation District. – A conservation district, as defined in Section 3(c) of the Conservation District Law (3 P. S. § 851(c)) that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code 102.

COUNTY

Bucks County.

CULVERT

A pipe, conduit, or similar structure, including appurtenant works, which conveys surface water under or through an embankment or fill.

CURVE NUMBER (CN) VALUE USED IN THE SOIL COVER COMPLEX METHOD

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

An artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid, or a refuse bank, fill or structure for highway, railroad, or other purposes which does or may impound water or another fluid or semifluid.

DEP

The Pennsylvania Department of Environmental Protection.

DEPARTMENT

The Pennsylvania Department of Environmental Protection.

DESIGN STORM

The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., fifty-year storm) and duration (e.g., 24 hours), used in the design and evaluation of stormwater management systems. Also refer "return period."

DESIGNEE

The agent of the governing body involved with the administration, review, or enforcement of any provisions of this Part 3 by contract or memorandum of understanding.

DETENTION BASIN

An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

DETENTION DISTRICT

Those subareas in which some type of detention is required to meet the plan requirements and goals of Act 167.**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, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any regulated activity of this Part 3.

DEVELOPMENT

Any man-made change to improved or unimproved real estate, including, but not limited to, the construction or placement of buildings or other structures, mobile homes, streets and other paving, utilities, mining, dredging, filling, grading, excavation, or drilling operations, and the subdivision of land.

DEVELOPMENT PLAN

The provisions for development, including a planned residential development, a plat of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space and public facilities. The phrase "provisions of development plan" when used in this Part 3 shall mean the written and graphic materials referred to in this definition.

DEVELOPMENT SITE

The specific tract of land for which a regulated activity is proposed. Also refer Project Site.

DIFFUSED DRAINAGE DISCHARGE

Drainage discharge not confined to a single point location or channel, such as sheet flow or shallow concentrated flow.

DISCHARGE

(1) (Verb) To release water from a project, site, aquifer, drainage basin or other point of interest.

(2) (Noun) The rate and volume of flow of water, such as in a stream, generally expressed in cubic feet per second (CFS).

DISCONNECTED IMPERVIOUS AREA (DIA)

An impervious 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.

DISTURBED AREAS

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

DOWNSLOPE PROPERTY LINE

That portion of the property line of the lot, tract, or parcels of land being developed located such that all overland or pipe flow from the site would be directed toward it.

DOWNSTREAM HYDRAULIC CAPACITY ANALYSIS

Any downstream capacity hydraulic analysis conducted in accordance with this Part 3 shall use the following criteria for determining adequacy for accepting increased peak flow rates:

(1) Natural or man-made channels or swales must be able to convey the increased rate of runoff associated with a two-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP Erosion and Sediment Pollution Control Program Manual.

(2) Natural or man-made channels or swales must be able to convey the increased twenty-five-year return period rate of runoff without creating any hazard to persons or property.

(3) Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP Chapter 105 regulations (if applicable) and, at a minimum, pass the increased twenty-five-year return period rate of runoff.

(4) No new channels or conveyance facilities shall be authorized by this language.

DRAINAGE CONVEYANCE FACILITY

A stormwater management facility designed to transmit stormwater runoff which shall include streams, channels, swales, pipes, conduits, culverts, storm sewers, etc.

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 Township governing body after the drainage plan has been approved. Said permit is issued prior to or with the final Borough approval.

DRAINAGE PLAN

The documentation of the stormwater management system, if any, to be used for a given development site, the contents of which are established in § **26-326**.

EARTH DISTURBANCE ACTIVITY

A construction or other human activity which 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.

ENGINEER

A licensed professional civil engineer registered by the Commonwealth of Pennsylvania.

EROSION

The natural process by which the surface of the land is worn away by water, wind, or chemical action.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

A plan which is designed 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.

FEMA

Federal Emergency Management Agency.

FLOOD

A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers, and other waters of this commonwealth.

FLOODPLAIN

Those areas of East Rockhill Township which are subject to the one-hundred-year flood, as

identified in the Flood Insurance Study (FIS), latest edition , and the accompanying maps prepared for the Township by the Federal Emergency Management Agency (FEMA), or most recent revision thereof, and also those areas along streams, ponds, or lakes not identified within the Flood Insurance Study which are inundated by the one-hundred-year reoccurrence internal flood. 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 the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the one-hundred-year frequency flood. 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 one-hundred-year-frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

FOREST MANAGEMENT/TIMBER OPERATIONS

Planning and activities necessary for the management of forestland. These include timber inventory and 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, or diversion ridge. The space is required as a safety margin in a pond or basin.

GRADE

(1) (Noun) A slope usually of a street, other public way, land area, drainage facility or pipe specified in percent.

(2) (Verb) To finish the surface of a roadbed, top of embankment or bottom of excavation, and general grading of property.

GRASSED WATERWAY

A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from cropland.

GROUNDWATER RECHARGE

Replenishment of natural underground water supplies.

Green Infrastructure

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

HEC-HMS

The United States Army Corps of Engineers, Hydrologic Engineering Center (HEC)-Hydrologic Modeling System (HMS).

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 Appendix J of this Part **3**.

HYDRIC SOIL

A soil that is saturated, flooded, or ponded long enough during the growing season to develop an aerobic condition in the upper part.

HYDROLOGIC REGIME (NATURAL)

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

HYDROLOGIC SOIL GROUP (HSG)

Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS^1,2).

HYETOGRAPH

A graphical representation of average rainfall, rainfall excess rates, or volumes over specified areas during successive units of time during a storm.

IMPERVIOUS SURFACE (AREA)

Those surfaces that prevent infiltration of water into the ground. All buildings, parking areas, driveways, roads, sidewalks, swimming pools, and any areas containing concrete, asphalt, packed stone, compacted soils, or other equivalent surfaces shall be considered impervious within this definition. In addition, other areas determined by the Township Engineer to be impervious within the meaning of this definition will be classified as impervious surfaces.

IMPOUNDMENT

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

INFILL

Development that occurs on smaller parcels that remain undeveloped but are within or in very close proximity to urban areas. The development 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 ground (e.g., french drains, seepage pits, seepage trench, biofiltration swale).

INLET

A surface connection to a closed drain. A structure at the diversion end of a conduit. The upstream end of any structure through which water may flow.

INVERT

The inside bottom of a culvert or other conduit.

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: (in accordance with Section 503(1.1) of the PA Municipalities Planning Code.)

(1) The improvement of one or two or more contiguous lots, tracts or parcels of land for any purpose involving:

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

(b) 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.

(2) A subdivision of land.

(3) "Land development" does not include development which involves:

(a) The conversion of an existing single-family detached dwelling or single-family semidetached dwelling into not more than three residential units, unless such units are intended to be a condominium;

(b) The addition of a residential accessory building, including farm building, on a lot or lots subordinate to an existing principal building; or

(c) The addition or conversion of buildings or rides within the confines of an enterprise which would be considered an amusement park. For the purposes of this subsection, an amusement park is defined as a tract or area used principally as a location for permanent amusement structures or rides. This exclusion shall not apply to newly acquired acreage by an amusement park until initial plans for the expanded area have been approved by the proper authorities.

LAND/EARTH DISTURBANCE

Any activity involving the grading, tilling, digging, or filling of ground or stripping of vegetation or any other activity that causes an alteration to the natural condition of the land.

LIMITING ZONE

A soil horizon or condition in the soil profile or underlying strata which includes one of the following:

(1) A seasonal high water table, whether perched or regional, determined by direct observation of the water table or indicated by soil mottling.

(2) A rock with open joints, fracture or solution channels, or masses of loose rock fragments, including gravel, with insufficient fine soil to fill the voids between the fragments.

(3) A rock formation, other stratum or soil condition which is so slowly permeable that is effectively limits downward passage of effluent.

LOW-IMPACT DEVELOPMENT (LID)

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 facility used as a reach in the watershed 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 and appointed by the Township pursuant to Article V of the Second Class Township Code.

MUNICIPALITY
East Rockhill Township, Bucks County, Pennsylvania.

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

NPDES
National Pollution 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
Natural Resources Conservation Service (previously SCS).

OPEN CHANNEL
A drainage element in which stormwater flows with an open surface. Open channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

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 from a stream, river, lake, tidewater or artificial drain.

PARENT TRACT
The parcel of land from which a land development or subdivision originates as of the date of adoption of the original Stormwater Management Ordinance on September 17, 2002 (Ordinance No. 199) and/or the existing impervious surface area of a tract of land as of the above date.

PARKING LOT STORAGE
Involves the use of impervious parking areas as temporary impoundments with controlled release rates during rainstorms.

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

PENN STATE RUNOFF MODEL (CALIBRATED)
The computer-based hydrologic modeling technique adapted to the watershed for the Act 167 plan. The model has been "calibrated" to reflect actual recorded flow values by adjoining key model input

parameters.

Pervious Area

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 East Rockhill Township.

PMF (PROBABLE MAXIMUM FLOOD)

The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in any area. The PMF is derived from the probable maximum precipitation (PMP) as determined on the basis of data obtained from the National Oceanic and Atmospheric Administration (NOAA).

PRETREATMENT

Techniques employed in stormwater BMPs to provide storage or filtering to help trap coarse materials and other pollutants before they enter the system.

PROJECT SITE

The specific area of land where any regulated activities in the municipality are planned, conducted, or maintained.

QUALIFIED PERSON OR QUALIFIED PROFESSIONAL

Any person licensed by the Pennsylvania Department of State or otherwise qualified by law to perform the work required by this Part 3.

RATIONAL FORMULA

A rainfall-runoff relation used to estimate peak flow.

RECHARGE AREA

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

RECHARGE VOLUME

A calculated volume of stormwater runoff from impervious areas which is required to be infiltrated at a site and may be achieved through use of structural or nonstructural BMPs.

REDEVELOPMENT

Development or modification of real estate which was subject to a previously approved subdivision or land development plan.

REGULATED ACTIVITY

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

[Amended by Ord. 276, 10/21/2014]

REGULATED EARTH DISTURBANCE ACTIVITY

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

RELEASE RATE

The percentage of predevelopment peak rate of runoff from a site or subarea to which the post-development peak rate of runoff must be reduced to protect downstream areas.

RETENTION BASIN

A basin designed to retain stormwater runoff so that a permanent pool is established.

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 recur. 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).

RISER

A vertical pipe extending from the bottom of a pond that is used to control the discharge rate from the pond for a specified design storm.

Riparian Buffer (Corridor)

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 a structure.

ROOFTOP DETENTION

Temporary ponding and gradual release of stormwater falling directly onto flat roof surfaces by incorporating controlled-flow roof drains into building designs.

RUNOFF

Any part of precipitation that flows over the land surface.

Sediment

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

SEDIMENT BASIN

A barrier, dam, or retention or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

SEDIMENT POLLUTION

The placement, discharge or any other introduction of sediment into the waters of the commonwealth occurring from the failure to design, construct, implement or maintain control measures and control facilities in accordance with the requirements of this Part 3.

SEDIMENTATION

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

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 ground.

SHEET FLOW
Runoff that flows over the ground surface as a thin, even layer, not concentrated in a channel.

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 a "curve number" (CN).

SOIL GROUP, HYDROLOGIC
A classification of soils by the NRCS 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.

SPILLWAY
A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the pond.

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.

STORAGE INDICATION METHOD
A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage), with outflow defined as a function of storage volume and depth.

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

STORMWATER MANAGEMENT PERMIT
A permit issued by the Township governing body after the drainage plan has been approved. Said permit is issued prior to or with the final Township approval.

STORMWATER MANAGEMENT PLAN
The plans for managing stormwater runoff within the Township adopted as required by the Act of October 4, 1978, P.L. 864 (Act 167), as amended, and known as the "Storm Water Management Act," including Perkiomen Creek watershed and Tohickon Creek watershed plans as adopted by Bucks County.

STORMWATER MANAGEMENT SITE PLAN (SWM SITE PLAN)

The plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site according to this Part 3. Stormwater Management Site Plan will be designated as SWM Site Plan throughout this chapter.

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

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

SUBDIVISION
As defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247.

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

SWM
Refer to "stormwater management facility."

TIMBER OPERATIONS
Refer to "forest management/timber operations."

TIME OF CONCENTRATION (TC)
The time 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.

TOWNSHIP
Refer to "municipality."

TRIBUTARY AREA
The portion of a watershed that contributes runoff to a particular point in that watershed.

USDA

United States Department of Agriculture

VOLUMETRIC RUNOFF COEFFICIENT
A variable indicative of stormwater runoff volume and dependent on the impervious coverage for a site.

WATER QUALITY VOLUME
A calculated volume of stormwater runoff from impervious areas which is required to be captured and treated at a site and may be achieved through use of structural or nonstructural BMPs. Numerically, the water quality volume is a product of the volumetric runoff coefficient, the site area, and a depth of rainfall of one inch.

WATERCOURSE
An intermittent or perennial stream of water, river, brook, creek, or swale identified on USGS or

SCS mapping and/or delineated waters of the commonwealth.

WATERS OF THE 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 this commonwealth.

WATERSHED

Region or area drained by a river, watercourse, or other surface water of this Commonwealth.

WETLAND

Those areas that are inundated or saturated by surface water 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, ferns, and similar areas.

WETLAND DELINEATION

The process by which wetland limits are determined. Wetlands must be delineated by a qualified specialist according to the 1989 Federal Manuals (as amended) for the Delineation of Jurisdictional Wetlands (whichever is greater) or according to any subsequent federal or state regulation. "Qualified specialist" shall include those persons being certified professional soil scientists as registered with the Registry of Certified Professionals in Agronomy Crops and Soils (ARCPACS) or as contained on consultant's list of Pennsylvania Association of Professional Soil Scientists (PAPSS) or as registered with the National Society of Consulting Soil Scientists (NSCSS) or as certified by state and/or federal certification programs; or by a qualified biologist/ecologist.

C.

Stormwater Management.

§ 26-312 **General Requirements.**
[Ord. 273, 12/17/2013]

1. All regulated activities in the municipality which do not fall under the exemption criteria shown in § **26-305** of this Part **3** shall submit a stormwater management site plan consistent with this Part **3**, Title 25 of the Pennsylvania Code, and the Clean Streams Law to the municipality for review and approval. These criteria shall apply to the total proposed development even if development is to take place in stages.

2. Preparation and implementation of an approved SWM Site Plan is required.

3. No regulated activities shall commence until the municipality issues written approval of an SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.3

4. SWM Site Plans approved by the municipality, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.

5. The municipality may, after consultation with 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.

6. For all regulated earth disturbance activities, erosion and sediment control 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 (E&S Manual3), No. 363-2134-008, as amended and updated.

7. Impervious areas:

   A. 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.

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

   C. For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance; except that the volume controls in Section 303 and the peak rate controls of Section 304 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.

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

   A. Protect health, safety, and property.

   B. Meet the water quality goals of this Ordinance by implementing measures to:

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

      (2). Maintain or extend riparian buffers.

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

      (4). Minimize thermal impacts to waters of this Commonwealth.

      (5). Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.

   C. Incorporate methods described in the Pennsylvania Stormwater Best Management Practices Manual (BMP Manual4). If methods other than green infrastructure and LID methods are proposed to achieve the volume 3800-PM-BCW0100j Rev. 4/2018 Model Ordinance - 10 - and rate controls required under this Ordinance, the SWM Site Plan must include a detailed justification demonstrating that the use of LID and green infrastructure is not practicable.

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

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

11. Normally dry, open top, 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.

12. The design storm volumes to be used in the analysis of peak rates of discharge should be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland. NOAA's Atlas 145 can be accessed at: http://hdsc.nws.noaa.gov/hdsc/pfds/.

13. 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 Storm Water Management Act.

14. Various BMPs and their design standards are listed in the BMP Manual4.

15. Stormwater drainage systems shall be provided in order to permit unimpeded flow along natural watercourses, except as modified by stormwater management facilities designed to encourage infiltration, groundwater recharge, and improved water quality.

16. Existing points of concentrated drainage that discharge onto adjacent property shall not be altered without written approval of the affected property owner(s) and shall be subject to any applicable discharge criteria specified in this Part 3.

17. Areas of existing sheet flow discharge shall be maintained wherever possible. If sheet flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding or other harm will result from the concentrated discharge, and submit written approval from the affected adjacent property owner(s).

18. For all subdivision and land development applications, the tributary area discharging drainage to any location along the site property boundary shall not increase by more than 25% over the predevelopment condition without written approval from the adjacent affected property owner(s).

19. Where a development site is traversed by watercourses, drainage easements shall be provided conforming to the line of such watercourses. The width of the easement shall be adequate to provide for the unimpeded flow of stormwater runoff from the one-hundred-year storm event. Terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may adversely affect the flow of stormwater within any portion of the easement. Periodic maintenance of the easement shall be required by the landowner to ensure proper runoff conveyance.

20. When it can be shown that, due to topographic conditions, natural drainageways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within natural drainageways shall be subject to approval by PADEP through the joint permit application process or, where deemed appropriate by PADEP, through the general permit process.

21. Any stormwater management facilities regulated by this Part 3 that will be located in or adjacent to waters of the commonwealth or wetlands shall be subject to approval by PADEP through the joint permit application process or, where deemed appropriate by PADEP, the general permit process. When there is a question whether wetlands may be involved, it is the responsibility of the developer or his agent to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area must be obtained from PADEP.

22. Any stormwater management facilities regulated by this Part 3 that would be located on state highway rights-of-way, or discharge stormwater to facilities located within a state highway right-of-way, shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).

23. Low-impact development methods should be used to minimize site disturbance and impervious surface. Infiltration of stormwater runoff through seepage beds, infiltration trenches, etc., is encouraged, where soil conditions permit, to reduce the size or eliminate the need for retention/detention facilities.

24. Roof drains and sump pumps shall discharge to a natural watercourse, drainage swale, or stormwater easement. Roof drains and sump pumps shall not be connected to a storm sewer or street drainage structure unless designed as part of a stormwater management facility. In no case shall roof drains or sump pumps be connected to a sanitary sewer.

25. Whenever a watercourse is located within a development site, it shall remain open in the natural state and location and shall not be piped, impeded, or altered (except for road crossings). It is the responsibility of the developer to stabilize existing eroded stream/channel banks.

26. Special requirements for watersheds draining to high-quality (HQ) and exceptional value (EV) waters: The temperature and quality of water and streams that have been declared as exceptional

value and high quality are to be maintained as defined in Chapter 93, Water Quality Standards, Title 25, Pennsylvania Department of Environmental Protection Rules and Regulations. Temperature-sensitive BMPs and stormwater conveyance systems are to be used and designed with storage pool areas and supply outflow channels and shaded with trees. This will require modification of berms for permanent ponds and the relaxation of restrictions on planting vegetation within the facilities, provided that capacity for volumes and rate control is maintained. At a minimum, the southern half of pond shorelines shall be planted with shade or canopy trees within 10 feet of the pond shoreline. In conjunction with this requirement, the maximum slope allowed on the berm area to be planted is 10:1. This will lessen the destabilization of berm soils due to root growth. A long-term maintenance schedule and management plan for the thermal control BMPs is to be established and recorded for all development sites.

27. All stormwater runoff shall be pretreated for water quality prior to discharge to surface water or groundwater as required by § **26-316** of this Part **3**.

28. The applicant shall provide adequate documentation to permit review of any alternate stormwater BMPs not addressed by this Part 3. The municipality may obtain PADEP assistance to evaluate and approve alternative control measures.

§ 26-313 **Stormwater Management Districts, Peak Rate Control.**
[Ord. 273, 12/17/2013]

1. Mapping of Stormwater Runoff Peak Rate Districts. In order to implement the provisions of this Part 3, East Rockhill Township is hereby divided into stormwater runoff peak rate districts consistent with the plan. The boundaries of the districts are indicated on the Runoff Peak Rate District Map that is available for inspection at the municipal building. A large-scale boundary map is included as Appendix E for reference.

2. The exact location of the stormwater runoff peak rate district boundary as it applies to a given development site shall be determined by mapping the boundaries using the two-foot or five-foot topographic contours provided as part of the stormwater management plan developed for the site in accordance with the Subdivision and Land Development Ordinance. The district boundaries as originally drawn coincide with topographic divides or, in certain instances, are drawn from the intersection of the watercourse or a potential flow obstruction to the topographic divide consistent with topography. The locations determined on the stormwater management plan shall be reviewed and verified by the Municipal Engineer.

3. Tohickon Creek Watershed includes the following Stormwater Runoff Hydrologic Peak Rate Districts within East Rockhill Township. Stormwater shall be controlled pursuant to the respective district requirements.

A. Direct Discharge (Conditional No Detention) District (subareas included in this district are 2, 3, 8-10, 18, 20, 42, 43, 52, 54, 56, 57, 59, 61, 62, 67, 70-73, 76, 77, 81-83). These subareas may discharge post-development runoff without detention facilities without adversely affecting the total watershed peak flow provided a Downstream Hydraulic Capacity Analysis as outlined in Section 26-313.3.D of this chapter is submitted for review and approval by the Township. These areas are located adjacent to the Tohickon Creek and Lake Nockamixon, which is capable of absorbing undetained runoff without affecting the watershed level control. In certain instances, the conveyance capabilities of the local receiving facilities and adjoining properties may not be adequate to safely transport the increased peak flows from undetained runoff. In these cases, the developer shall assure that one-hundred-percent release rate control is applied, and/or the developer may provide increased capacity of those receiving facilities in order to ensure safe passage of any undetained runoff, if approved by the Township.

B. One Hundred Percent Release Rate District (subareas included in this district are 4-7, 11-17, 19, 22-28, 31-34, 41, 44-51, 53, 55, 58, 60, 63, 64, 66, 68, 69, 74, 75, 84-98, 101, 109, 111-114, 116, 118, 119, 121-126). These subareas are not expected to incur a great deal of development growth due to

location, topography, soils, or a combination of all three factors. Also, the location in the watershed of these subareas is of minor importance in supporting the overall watershed level runoff control. Therefore, these areas are allowed to release development runoff at a rate that does not exceed the existing rates of runoff.

C. Seventy-five Percent Release Rate District (subareas included in this district are 78-80, 99, 100, 102-108, 110, 115, 117, 120). Certain subareas require the control of stormwater runoff to a portion of the existing runoff equal to 75%. These areas are located in upper reaches of the watershed, specifically, areas around Quakertown Borough and Richlandtown Township which are projected to incur significant development impacts and have existing inadequate storm conveyance facilities. Some of these areas are expected to incur a relatively major increase in development pressure, while some areas may not see much development at all. In order to assure uniform watershed-level runoff control, however, the assignment of this release rate on a widespread basis will uniformly restrict the future runoff in a fashion that favors no particular subwatershed.

D. A Downstream Hydraulic Capacity Analysis shall be performed to ascertain whether runoff from a regulated activity could increase the potential and/or frequency of flooding of existing downstream drainage facilities. In the event that a Downstream Hydraulic Capacity Analysis determines that the regulated activity will increase the potential and/or frequency of flooding of existing downstream drainage facilities, runoff from the regulated activity must be controlled to mitigate the potential and/or frequency of flooding of existing downstream drainage facilities.

For regulated activities in Conditional No Detention (Direct Discharge) Districts that seek to discharge stormwater runoff without detention facilities, the following criteria shall be used for determining adequacy of downstream drainage facilities for accepting increased peak flow rates from the regulated activity:

(1). Natural or man-made channels or swales must be able to convey the increased runoff associated with a 2-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP Erosion and Sediment Pollution Control Program Manual.

(2). Natural or man-made channels or swales must be able to convey the increased 25-year return period runoff without creating any hazard to persons, property, or wildlife and aquatic habitat. Habitat impact should be minimized or avoided.

(3). Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP, Chapter 105 regulations (if applicable) and, at a minimum, pass the increased 25-year return period runoff.

4. East Branch Perkiomen Creek Watershed Stormwater Management Plan includes the following Districts within East Rockhill Township. Stormwater shall be controlled pursuant to the respective district requirements.

A. Management District A.

Design Storm Proposed Conditions	**to**	**Design Storm Existing Conditions**
2-year	1-year	
5-year	5-year	
10-year	10-year	
25-year	25-year	

Design Storm Proposed Conditions	to	Design Storm Existing Conditions
100-year	100-year	

B. Management District B.

Design Storm Proposed Conditions	to	Design Storm Existing Conditions
2-year	1-year	
5-year	2-year	
10-year	5-year	
25-year	10-year	
100-year	50-year	

§ 26-314 **Stormwater Management District Implementation Provisions (Performance Standards). [Ord. 273, 12/17/2013]**

1. General.

A. Proposed conditions peak rates of runoff from any regulated activity shall meet the peak release rates of runoff prior to development for the design storms specified on the Stormwater Management District Watershed Map (chapter Appendix E) and § **26-313** of Part **3**.

B. Post-development rates of runoff from any regulated activity shall not exceed the peak release rates of runoff prior to development for the design storms specified in watershed stormwater management plan, § **26-313** of Part **3**, and using rainfall depths given in Figure A-1, Appendix A, of this Part **3**.

2. District Boundaries. The boundaries of the stormwater management districts are shown on a Watershed Map, which is available for inspection at the municipal office. A copy of the Watershed Map at a reduced scale is included in the Appendix E of this Part 3. The exact location of stormwater management district boundaries as they apply to a given development site shall be determined by mapping the boundaries using topographic contours at an appropriate level of detail, but in no case less than two-foot intervals (or five-foot intervals as applicable). This information shall be provided as part of the stormwater management plan.

3. Sites Located in More Than One District. For a proposed development site located within two or more release category subareas, the peak discharge rate from any subarea shall be the predevelopment peak discharge for that subarea multiplied by the applicable release rate. The calculated peak discharges shall apply regardless of whether the grading plan changes the drainage area by subarea.

4. Off-Site Areas. Off-site areas that drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates or volume reduction. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.

5. Site Areas. Where the site area to be impacted by a proposed development activity differs

significantly from the total site area as determined by the municipality, the municipality may, but is not required to, permit only the proposed impact area to be subject to the release rate criteria.

6. Stormwater Conveyance Corridor Protection (Riparian Corridor Preservation and Vegetation). Runoff from developed areas of the site, including but not limited to areas of impervious surface, shall be managed through a series of riparian corridor vegetation facilities whenever possible. This will be accomplished in a manner satisfactory to the municipality, utilizing the "Pennsylvania Handbook of Best Management Practices for Developing Areas," 1998, Riparian Forested Buffer, and the priority goal of the riparian vegetation will be the reduction of thermal impacts on stormwater runoff associated with impervious areas, with a secondary goal being the protection of capacity of existing stormwater conveyance channels. These goals will be achieved through the use of design criteria in § **26-319**, Subsection **20**, of this Part **3** and shall be in addition to any other municipal ordinance provisions.

7. Regional Detention Alternatives. For certain areas within the study area, it may be more cost effective to provide one control facility for more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas. "Hydrologic model" refers to the calibrated model as developed for the stormwater management plan.

8. Downstream Hydraulic Capacity Analysis. Any downstream capacity hydraulic analysis conducted in accordance with this Part 3 shall use the following criteria for determining adequacy for accepting increased peak flow rates:

A. Natural or man-made channels or swales must be able to convey the increased runoff associated with a two-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP Erosion and Sediment Pollution Control Program Manual.

B. Natural or man-made channels or swales must be able to convey the increased one-hundred-year return period runoff without creating any hazard to persons or property.

C. Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP, Chapter 105, regulations (if applicable) and, at a minimum, pass the increased one-hundred-year return period runoff.

§ 26-315 **Nonstructural Project Design (Sequencing to minimize stormwater impacts). [Ord. 273, 12/17/2013]**

1. The design of all regulated activities shall include the following steps in sequence to minimize stormwater impacts:

A. The applicant is required to find practicable alternatives to the surface discharge of stormwater, the creation of impervious surfaces, and the degradation of waters of the commonwealth and must maintain as much as possible the natural hydrologic regime of the site.

B. An alternative is practicable if it is available and capable of being completed after considering cost, existing technology, and logistics in light of overall project purposes, and other Township requirements.

C. All practicable alternatives to the discharge of stormwater are presumed to have less adverse impact on quantity and quality of waters of the commonwealth unless otherwise demonstrated.

2. The applicant shall demonstrate that regulated activities are designed in the following sequence to

minimize the increases in stormwater runoff and impacts to water quality:

A. Prepare 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, vernal pools, floodplains, stream buffer zones, hydrologic soil groups A, B, C, and D, any existing recharge areas and any other requirements outlined in the Subdivision and Land Development Ordinance.

B. Prepare a draft project layout avoiding sensitive areas identified in Subsection 2A and minimizing total site earth disturbance as much as possible. The ratio of disturbed area to the entire site area and measures taken to minimize earth disturbance shall be included in the ERSAM.

C. Identify site-specific existing conditions drainage areas, discharge points, recharge areas, and hydrologic soil groups A and B.

D. Evaluate nonstructural stormwater management alternatives (refer to Appendix H).

(1) Minimize earth disturbance.

(2) Minimize impervious surfaces.

(3) Break up large impervious surfaces.

E. Satisfy water quality objective (§ **26-316**).

F. Satisfy groundwater recharge (infiltration) objective (§ **26-317**) and provide for stormwater treatment prior to infiltration.

G. Satisfy stream bank erosion protection objective (§ **26-318**).

H. Determine the management district within which the site is located (Appendix E) and conduct a predevelopment runoff analysis.

I. Prepare final project design to maintain predevelopment drainage areas and discharge points, to minimize earth disturbance and impervious surfaces, to reduce runoff to the maximum extent possible, and to minimize the use of surface or point discharges.

J. Conduct a proposed conditions runoff analysis based on the final design and to meet the release rate and in turn the overbank flow and extreme event requirements (§ **26-318**).

K. Manage any remaining runoff through treatment prior to discharge, as part of detention, bioretention, direct discharge or other structural control.

§ 26-316 **Volume Controls (All Watersheds)**

The green infrastructure and low impact development practices provided in the BMP Manual4 shall be utilized for all regulated activities wherever possible. Water volume controls shall be implemented using the Design Storm Method in Subsection A or the Simplified Method in Subsection B below. For regulated activity areas equal 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 on applicability of the analytical procedures associated with each methodology and other factors.

1. The Design Storm Method (CG-1 in the BMP Manual4) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.

   A. Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year 24 hour duration precipitation.

B. For modeling purposes:

(1). Existing (predevelopment) non-forested pervious areas must be considered meadow in good condition.

(2). (Enter a percentage no less than 20%, up to 100%.) of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions.

2. The Simplified Method (CG-2 in the BMP Manual4) provided below 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:

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

B. At least the first one inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth. Removal options include reuse, evaporation, transpiration, and infiltration.

C. Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed runoff should be infiltrated.

D. This method is exempt from the requirements of Section 304, Rate Controls.

§ 26-316.A **Water Quality.**
[Ord. 273, 12/17/2013]

1. The SWM Site plan shall specify permanent stormwater BMPs to be implemented, operated, and maintained to meet water quality requirements. Because water quality requirements vary depending on the "uses" of the water bodies in the watershed, a framework methodology is provided here.

2. In order to protect and maintain water quality, additional stormwater runoff created by the development project must be captured, stored, and treated. In addition, post-construction stormwater infiltration of runoff must replicate preconstruction infiltration of runoff to the maximum extent possible; in high-quality and exceptional value watershed, special requirements may apply.

3. The volume of additional stormwater runoff to be captured, stored, and treated is called the water quality volume (WQv). The WQv as calculated below must be addressed in the SWM Site Plan, unless a greater volume of stormwater is required to be controlled in accordance with Section 352.15 of this Chapter.

Equation: 26-316.1

$$WQv = [(P)(Rv)(A)]/12$$

Where:

WQv	=	Water quality volume (acre-feet).
P	=	Rainfall amount equal to 90% of events producing this rainfall (inches).

Equation: 26-316.1

A	=	Area of the project contributing to the water quality BMP (acres).
Rv	=	0.05 + 0.009(1) where 1 is the percent of the area that is impervious surface (impervious area/A * 100)

P = Rainfall depth in inches, using the "ninety-percent storm": the volume of rainfall for 90% of the storm events which produce runoff in the watershed annually. For PennDOT Region 5, the current P value is 2.04 inches.

In special protection watersheds, as described in 25 Pa. Code Chapter 93, this volume is required to remain on site through infiltration and other methods, to protect water quality. Guidance can be obtained from PADEP.

4. The following factors must be considered when evaluating the suitability of BMPs used to control water quality at a given development site:

A. Total contributing drainage area.

B. Permeability and infiltration rate of the site soils.

C. Slope and depth to bedrock.

D. Seasonal high water table.

E. Proximity to building foundations and wellheads.

F. Erodibility of soils.

G. Land availability and configuration of the topography.

H. Peak discharge and required volume control.

I. Stream bank erosion.

J. Efficiency of the BMPs to mitigate potential water quality problems.

K. Volume of runoff that will be effectively treated.

L. Nature of the pollutant being removed.

M. Maintenance requirements.

N. Creation/protection of aquatic and wildlife habitat.

O. Recreational value.

P. Enhancement of aesthetic and property value.

To accomplish the above, the applicant shall submit original and innovative designs for review. Such designs may achieve the water quality objectives through a combination of BMPs (best management practices).

5. The applicant may, subject to approval of East Rockhill Township, use any of the following nonstructural stormwater credits, generally described in the following table, or pursuant to the

Pennsylvania Stormwater Best Management Practices Manual (BMP Manual), latest edition, in computing the required water quality volume/credits:

Stormwater Credit	Description
Natural area conservation	Conservation of natural areas such as forest, wetlands, or other sensitive areas in a protected easement thereby retaining their predevelopment hydrologic and water quality characteristics. Using this credit, a designer may subtract conservation areas from total site area when computing the required water quality volume.
Vegetated roof	Credit may be given for water quality and volume benefits for vegetated roof covers where vegetation is grown on, and completely covers, an otherwise flat or pitched roof (less than or equal to 30° slope).
Disconnection of roof-top runoff	Credit may be given when rooftop runoff is disconnected and then directed over a previous area where it may either infiltrate into the soil or filter over it. Credit is typically obtained by grading the site to promote overland flow or by providing bioretention on single-family residential lots. If a rooftop area is adequately disconnected, the impervious area may be deducted from the total impervious cover.
Disconnection of nonrooftop runoff	Credit may be given for practices that disconnect surface impervious cover by directing it to pervious areas where it is either infiltrated or filtered through the soil. As with rooftop runoff, the impervious area may be deducted from the total impervious cover, thereby reducing the required water quality volume.
Stream buffer credit	Credit may be given when a stream buffer effectively treats stormwater runoff. Effective treatment constitutes capturing runoff from pervious and impervious areas adjacent to the buffer and treating the runoff through overland flow across a grass or forested area. Areas treated in this manner may be deducted from total site area when computing the required water quality volume.
Grass channel (open section roads)	Credit may be given when open grass channels are used to reduce the volume of runoff and pollutants during smaller storms. If designed according to appropriate criteria, these channels may meet water quality criteria for certain types of residential development.
Environmentally sensitive rural development	Credit may be given when a group of environmental site design techniques are applied to low-density or rural residential development. This

credit eliminates the need for structural practices to address water quality volume.

For design and applicability of nonstructural BMPs, refer to Chapter **5** of the "Pennsylvania Stormwater Management Practices Manual," December 2006, as amended. For the nonstructural BMPs proposed, the applicant shall utilize and submit appropriate checklists included in Chapter **8**, Section 8.8, of the "Pennsylvania Stormwater Best Management Practices Manual," December 2006, as amended (refer Appendix H) to demonstrate that the BMPs are applicable to the project and to determine the amount of volume or peak rate credit is applicable.

6. The volume and rate of any stormwater discharges allowed under this Part 3 must be managed to prevent the physical degradation of receiving waters, such as by stream bank scour and erosion. If a detention facility is proposed which is part of the BMPs approved for the project, the facility(ies) must be designed to provide for a twenty-four-hour extended detention of the one-year, twenty-four-hour storm event (i.e., the stormwater runoff will be released over a minimum 24 hours for the one-year, twenty-four-hour storm event from the time of peak inflow to zero outflow).

§ 26-317 **Groundwater Recharge.**
[Ord. 273, 12/17/2013]

1. Infiltration BMPs shall meet the following minimum requirements:

A. Where site/soil conditions are suitable, regulated activities must recharge (infiltrate) a portion of the runoff created by the development as part of an overall stormwater management plan designed for the site. The volume of runoff to be recharged (Rev) shall be determined from Subsection **1A(2)(a)** or **(b)**. The Rev, as calculated below must be addressed in the SWM Site Plan, unless a greater volume of stormwater is required to be controlled in accordance with Section 352.15 of this Chapter.

(1) Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils and have the following characteristics:

(a) A minimum depth of 24 inches between the bottom of the BMP and the limiting zone.

(b) An infiltration and/or percolation rate sufficient to accept the additional stormwater load and drain completed as determined by field tests conducted by the applicant's design professional.

(c) The recharge facility shall be capable of completely infiltrating the recharge volume within four days (96 hours).

(d) Pretreatment shall be provided prior to infiltration.

(e) The requirements for recharge are applied to all disturbed areas, even if they are ultimately to be an undeveloped land use such as grass, since studies have found that compaction of the soils during disturbance reduces their infiltrative capacity.

(2) Recharge volume (Re) shall be computed by first obtaining the infiltration requirement using methods in either Subsection **1A(2)(a)** or **(b)** then multiplying by the total proposed impervious area. The overall required recharge volume for a site is computed by multiplying total impervious area by the infiltration requirement.

(a) NRCS Curve Number Equation. The following criteria shall apply. The NRCS runoff shall be utilized to calculate infiltration requirements (P) in inches.

Equation: 26-317.1

For zero runoff: P=I (Infiltration) = (200/CN) - 2

Where:

P=I	=	Infiltration requirement (inches).
CN	=	SCS (NRCS) curve number of the existing conditions contributing to the recharge facility.

This equation can be displayed graphically in and the infiltration requirement can also be determined from Figure 26-317.1.

The recharge volume (Rev) required would therefore be computed as:

Equation: 26-317.2

Rev = I * Impervious Area (SF)/12 = Cubic Feet (CF)

(b) Annual Recharge Water Budget Approach. It has been determined that infiltrating 0.6 inch of runoff from the impervious areas will aid in maintaining the hydrologic regime of the watershed. If the goals of Subsection **1A(2)(a)**, cannot be achieved, then 0.6 inch of rainfall shall be infiltrated from all impervious areas, up to an existing site conditions curve number of 77. Above a curve number of 77, Equation 26-317.1 or the curve in Figure 26-317.1 should be used to determine the infiltration requirement.

Where: I = 0.6 inch.

The recharge volume (Rev) required would therefore be computed as:

Rev = I * percent impervious area (SF)/12 = (CF)

B. The recharge values derived from these methods are the minimum volumes the applicant must control through an infiltration/recharge BMP facility. However, if a site has areas of soils where additional volume of infiltration can be achieved, the applicant is encouraged to recharge as much of the stormwater runoff from the site as possible.

[Image]

SCS Curve Number (CN)

Figure 26-317.1

2. The general process for designing the infiltration BMP shall be: A detached soils evaluation of the project site shall be required to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified applicant and, at a minimum, address soil permeability, depth of bedrock, and subgrade stability.

A. Analyze hydrologic soil groups as well as natural and man-made features within the watershed to determine general areas of suitability for infiltration stability.

B. Provide field tests, such as double ring infiltration tests at the level of the proposed infiltration surface to determine the appropriate hydraulic conductivity rate.

C. Design the infiltration structure for the required storm volume based on field-determined capacity at the level of the proposed infiltration surface.

D. Where the recharge volume requirement cannot be physically accomplished due to the results of the field soils testing, supporting documentation and justification must be submitted with the drainage plan.

E. If on-lot infiltration structures are proposed, it must demonstrate that the soils are conducive to infiltrate on the lots identified.

3. Extreme caution shall be exercised where infiltration is proposed in geologically susceptible limestone areas. Extreme caution shall also be exercised where salt or chloride would be a pollutant since soils do little to filter this pollutant and it may contaminate the groundwater. Extreme caution shall be exercised where infiltration is proposed in source water protection areas. The qualified design professional shall evaluate the possibility of groundwater contamination from the proposed infiltration/recharge facility and perform a hydrogeologic justification study if necessary. The infiltration requirement in high-quality/exceptional value waters shall be subject to DEP's Title 25, Chapter 93, antidegradation regulations. The municipality may require the installation of an impermeable liner in BMP and/or detention basins where the possibility of groundwater contamination exists. A detailed hydrogeologic investigation may be required by the municipality.

4. The plan must include safeguards against groundwater contamination for uses which may cause groundwater contamination, should there be a mishap or spill.

5. Recharge/infiltration facilities shall be used in conjunction with other innovative or traditional BMPs, stormwater control facilities, and nonstructural stormwater management alternatives.

§ 26-318 **Stream Bank Erosion Requirements (All Watersheds).**
[Ord. 273, 12/17/2013]

1. To minimize the impact of stormwater runoff on downstream stream bank erosion, a BMP must be designed to detain the proposed conditions two-year, twenty-four-hour design storm to the existing conditions one-year flow using the SCS Type II distribution. Additionally, provisions shall be made (such as adding a small orifice at the bottom of the outlet structure) so that the proposed conditions one-year storm takes a minimum 24 hours to drain from the facility from a point where the maximum volume of water from the one-year storm is captured (i.e., the maximum water surface elevation is achieved in the facility).

2. Release of water may begin at the start of the storm (i.e., the invert of the water quality orifice is at the invert of the facility). The design of the facility shall minimize clogging and sedimentation. Orifices smaller than three inches in diameter are not recommended. However, if the design engineer can verify that the smaller orifice is protected from clogging by use of trash racks, etc., smaller orifices may be permitted. Trash racks are required for any primary orifice.

3. Whenever a watercourse is located within a development site, it shall remain open in the natural state and location and shall not be piped, impeded, or altered (except for road crossings). It is the responsibility of the developer to restore existing eroded stream/channel banks within a subdivision or land development site and obtain all permits necessary from PADEP, to do so. The developer must submit pictorial documentation of existing stream/channel banks to determine whether existing banks must be stabilized.

§ 26-319 **Design Criteria for Stormwater Management Facilities and Best Management Practices.**
[Ord. 273, 12/17/2013]

1. Increased stormwater runoff which may result from regulated activities listed in § **26-304** shall be

controlled by permanent stormwater runoff control measures that will provide the required standards within Subpart C. The methods of stormwater control or best management practices (BMPs) which may be used to meet the required standards are described in this Part **3** and are the preferred methods of controlling stormwater runoff. Additional design criteria are included in these descriptions and the Pa BMP Manual. The choice of BMPs is not limited to the ones appearing in this Part **3**; however, any selected BMP must meet or exceed the runoff peak rate requirements of this Part **3** for the applicable hydrologic district.

2. Any stormwater facility located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.

3. Collection System Standards.

A. Curb Inlets. Curb inlets shall be located at curb tangents on the uphill side of street intersections and at intervals along the curbline to control the maximum amount of encroachment of runoff on the roadway pavement so that same does not exceed a width of four feet during the design storm event. Design and location of curb inlets shall be approved by the Township.

B. Pipe Materials. All storm sewer piping shall be Class III reinforced concrete pipe, except when pipe class and strength is required to be increased in accordance with PennDOT Specifications. Piping shall be saw-cut at ends, as needed, and not hammered or broken. All pipe joints and lift holes must be mortared except where designed for infiltration. Smooth lined HDPE , Sch 40 PVC, or approved equivalent pipe material may be utilized for privately owned BMPs and collection systems located on individual residential lots, upon approval by the Township Engineer.

C. Minimum Pipe Size. Minimum pipe diameter shall be 18 inches (or an equivalent flow area of 1.76 square feet). Smaller pipe size may be utilized for privately owned BMPs located on individual residential lots, upon approval by the Township Engineer.

D. Inlet and Manhole Construction. Inlet and manhole castings and concrete construction shall be equivalent to PennDOT Design Standards. Manholes shall be equipped with open grate lids. All inlet grates shall be "bicycle safe" heavy-duty structural steel. All storm sewer inlets must be identified with a storm drain marker. Storm drain markers shall be stainless steel affixed to the inlet hood with adhesive, rivets or bolts. (The marker may be bolted to the grate in off-road locations.) The marker shall have a minimum diameter of 3 1/2 inches and include "No Dumping - Drains to Waterway" and a fish symbol. Alternate designs/sizes may be used if approved by the Township.

Alternate concrete, HDPE, or approved equivalent yard inlets may be utilized for privately owned BMPs located on individual residential lots, upon approval by the Township Engineer.

E. Open-end pipes must be fitted with concrete endwalls or wing walls in accordance with PennDOT Standards.

F. Flow Velocity. Stormwater collection systems shall be designed to produce a minimum velocity of 3.0 feet per second when flowing full. The maximum permissible velocity shall be 15.0 feet per second. Pipe slopes shall not be less than 0.50%.

G. Inlets and manholes shall be spaced at intervals not exceeding 300 feet and shall be located wherever branches are connected or sizes are changed and wherever there is a change in alignment or grade. For drainage lines of at least 36 inches diameter, inlets and manholes may be spaced at intervals not exceeding 400 feet.

H. Storm sewer bedding/backfill requirements shall conform to the construction details in Appendix L.

I. Inlets shall be located to intercept concentrated runoff prior to discharge over public/private rights-of-way, sidewalks, streets, and driveways.

J. The capacity of all Type "C" inlets shall be based on a maximum surface flow to the inlets of 4.0 cfs,

calculated based on the one-hundred-year frequency design storm event. The maximum flow to Type "C" inlets located in low points (such as sag vertical curves) shall include the overland flow directed to the inlet as well as all bypass runoff from upstream inlets. The bypass flow from upstream inlets shall be calculated using inlet efficiency curves included in PennDOT Design Manual Part 2, latest edition. If the surface flow to an inlet exceeds 4.0 cfs, additional inlets shall be provided upstream of the inlet to intercept the excessive surface flow. A Type "C" inlet at a low point of a paved area may be designed to accept a maximum of six cubic feet per second (cfs). Type "M" shall be designed to accept a maximum surface flow of six cfs based on the one-hundred-year frequency design storm event, unless otherwise approved by the Township. Double inlets will not be permitted where additional pipe and inlets can be placed upstream to intercept excessive surface flow. A maximum of 12 cfs shall be permitted to be collected by a Type "M" inlet located in an isolated pervious area, provided that the designer can verify that such an inlet would not cause stormwater to accumulate on any adjacent public or private property, outside of an associated storm sewer easement, and that the depth of the accumulated stormwater would not exceed 12 inches.

K. A minimum drop of two inches shall be provided between the inlet and outlet pipe invert elevations within all inlets and manholes. When varying pipe sizes enter an inlet or manhole, the elevation of crown of all pipes shall be matched.

L. Stormwater pipes shall have a minimum depth of cover of 12 inches (including over the bell) or as designated by the American Concrete Pipe Association (whichever is greater), and in no case shall any part of the pipe project into the road subbase or curb. Where cover is restricted, equivalent pipe arches may be specified in lieu of circular pipe. Where smooth-lined high density polyethylene pipe is approved in lieu of reinforced concrete pipe, minimum depth of cover for smooth lined concrete pipe shall be per pipe manufacturer’s specifications, or twelve (12) inches, whichever is greater.

M. The capacity of all stormwater pipes shall be calculated utilizing the Manning Equation for open channel flow as applied to closed conduit flow. The Manning's roughness coefficient shall be 0.13 for all concrete pipe (and 0.012 of SLHDPE). In cases where pressure flow may occur, the hydraulic grade line shall be calculated throughout the storm sewer system to verify that at least one foot of free-board will be provided in all inlets and manholes for the design storm event.

N. Culverts shall be designed based on procedures contained in Hydraulic Design of Highway Culverts, HDS No. 5, U.S. Department of Transportation, Federal Highway Administration. Where pressure flow is anticipated in storm sewer pipes (non-open channel flow), the applicant's designer shall be required to calculate the elevation of the hydraulic grade line through the storm sewer system. Wherever the hydraulic grade line elevation exceeds the pipe crown elevation for the design flow, pipes with watertight joints must be specified.

O. Storm sewer structures (i.e., endwalls, inlets, and sections, etc.) may not be located on top of or within 10 feet of electric, communication, water, sanitary sewer, or gas services and/or mains, unless approval is received from the Township and the authority or utility having jurisdiction over same.

P. Stormwater pipes must be oriented at right angles to electric, water, sanitary sewer, and gas utilities when crossing above or beneath same. Crossing angles of less than 90° will only be permitted at the discretion of the Township. When skewed crossings are permitted, interior angles between alignment of the storm sewer pipe and utility shall not be less than 45°. Vertical and horizontal design of storm sewer must be linear.

Q. Roadway underdrain is required along both sides of all proposed roadways, existing roadways proposed to be widened, and within existing or proposed roadside swales as directed by the Township.

R. Where a public storm sewer system is not located within a right-of-way, or dedicated public property, a twenty-foot-wide easement shall be established to encompass the storm sewer system. For multiple pipes or utilities, the width of the easement shall be a minimum of 30 feet.

S. A minimum of one foot of freeboard, between the inlet grate and the design flow elevation, shall be

provided in all storm sewer systems (inlets and manholes) for the one-hundred-year-frequency design storm event.

4. Open Swales and Gutters. Open swales shall be designed on the basis of Manning's Formula as indicated for collection systems with the following considerations:

A. Roughness Coefficient. The roughness coefficient shall be 0.040 for earth swales.

B. Bank Slopes. Slopes for swale banks shall not be steeper than one vertical to four horizontal.

C. Flow Velocity. The maximum velocity of flow as determined by Manning's Equation shall not exceed the allowable velocities as shown in the following table for the specific type of material, unless otherwise approved by the Township and the Bucks County Conservation District:

NOTE: Source of the following design criteria is the Pennsylvania Department of Environmental Protection, Bureau of Soil and Water Conservation Publication, Erosion and Sediment Control Program Manual.

Allowable Velocity

Material	**Velocity [feet per second (fps)]**
Well-established grass on good soil	
Short pliant bladed grass	4.0 to 5.0
Bunch grass: soil exposed	2.0 to 3.0
Stiff stemmed grass	3.0 to 4.0
Earth without vegetation	
Fine sand or silt	1.0
Ordinary firm loam	2.0 to 3.0
Stiff clay	3.0 to 5.0
Clay and gravel	4.0 to 5.0
Coarse gravel	4.0 to 5.0
Soft shale	5.0 to 6.0
Shoulders	
Earth	(as defined above)
Stabilized	6.0

Paved	10.0 to 15.0

D. Swales shall be stabilized with biodegradable erosion control matting to permit establishment of permanent vegetation. Swales shall be of such shape and size to effectively contain the one-hundred-year Rational Method design storm and to conform to all other specifications of the Township.

E. To minimize sheet flow of stormwater across lots located on the lower side of roads or streets, and to divert flow away from building areas, the cross section of the street as constructed shall provide for parallel ditches or swales or curb on the lower side which shall discharge only at drainage easements, unless otherwise approved by the Township.

F. Gutters and swales adjacent to road paving shall be permitted to carry a maximum flow of four cubic feet per second prior to discharge away from the street surface, unless it is proven to the satisfaction of the Township by engineering calculations that the road slopes or other factors would allow higher gutter or swale capacity.

G. Flows larger than those permitted in gutters and roadside swales may be conveyed in swales outside the required road right-of-way in separate drainage easements or may be conveyed in pipes or culverts inside or outside the required road right-of-way.

H. Existing and proposed swales shall be provided with underdrains as deemed necessary by the Township should overland seepage result in potential maintenance problems. Underdrains must discharge into a natural drainage channel or stormwater management system.

I. Where drainage swales are used to divert surface waters away from buildings, they shall be sodded, landscaped, or otherwise protected as required and shall be of a slope, shape, and size conforming with the requirements of the Township. Concentration of surface water runoff shall be permitted only in swales, watercourses, retention or detention basins, bioretention areas, or other areas designed to meet the objectives of this Part.

5. Bridge and Culvert Design. Any proposed bridge or culvert to convey flow within a perennial or intermittent stream shall be designed in accordance with the following principles:

A. Culverts and bridges shall be designed with an open bottom to maintain natural sediment transport and bed roughness, avoiding acceleration of water velocity above the natural (preexisting) condition. Rock (riprap) lining (native material if possible) shall be installed within the culvert as needed to prevent erosion within the structure. Approximate top of rock lining must be at the level of the existing stream bottom so as to maintain normal water level and unimpeded movement of native animal species.

B. Bottom of opening shall be designed, at a minimum, to match the bankfull channel condition in terms of width and depth. The cross-sectional area of the bankfull channel (measured at a reference location upstream of the structure) shall be matched with area in the crossing structure.

C. Above the bankfull elevation, the width shall increase a minimum of 30% to disperse the energy of higher flow volumes and avoid undermining of the supporting structure by secondary currents.

D. The total cross-sectional area of the structure opening must be equal to or greater than the flood-prone area (cross-sectional stream area at a depth of twice the maximum bankfull depth, measured at a reference location upstream of the structure). The flood-prone area is approximately equal to the area flooded by a fifty-year return flood.

E. All bridges, culverts, and drainage channels shall be designed to convey a flow rate equal to a one-hundred-year, twenty-four-hour storm (refer to Appendix A, Figure A-1). All bridges and culverts shall be designed to convey the one-hundred-year design storm without increasing the extent and depth of the one-hundred-year floodplain.

6. Storm Sewer Design.

A. Design Flow Rate. The storm sewer system shall be designed to carry the one-hundred-year-frequency design storm peak flow rate. The drainage area and runoff coefficient to each inlet shall be indicated on the stormwater management plan. The one-hundred-year flow rate shall be determined by the Rational Method formula:

$$Q = CIA$$

Where:

Q	=	Peak runoff rate measured in cubic feet per second (cfs).
C	=	Runoff coefficient. The coefficient of stormwater runoff includes many variables, such as ground slope, ground cover, shape of drainage area, etc.
I	=	Intensity: average rainfall intensity in inches per hour for a time equal to the time of concentration (in/hr).
A	=	Area: drainage area in acres (ac).

Appropriate values for the rainfall intensity can be found in Appendix A, Figure A-2.

B. Consideration shall be given to future land use changes in the drainage area in selecting the Rational ("C") coefficient. For drainage areas containing several different types of ground cover, a weighted value of "C" shall be used.

C. In determining the peak flow rate to individual storm sewer inlets (or other collection structures), the time of concentration method (as referenced in § **26-320**) shall be used for inlet drainage areas in excess of one acre, unless otherwise approved by the Township. For inlet drainage areas less than one acre, a five-minute time of concentration shall be used unless otherwise approved by the Township.

D. In determining the required design flow rate through a storm sewer piping system, if a five-minute time of concentration (storm duration) results in a pipe size exceeding a thirty-inch-diameter pipe (or equivalent flow area of 4.9 square feet), the time of concentration approach (as defined herein) shall be used in determining storm duration.

E. Overflow System. An overflow system shall be provided to carry all bypass flow and/or flow in excess of storm sewer design capacity to the detention basin (or other approved outlet point) when the capacity of the storm sewer system is exceeded. Stormwater runoff will not be permitted to surcharge from storm sewer structures.

7. Grading and Drainage.

A. After completion of rough grading, a minimum of eight inches of topsoil or the exiting depth of topsoil encountered on the site (whichever is greater) shall be returned to remaining disturbed areas prior to final grading and seeding.

B. Lots shall be graded to secure proper drainage away from buildings and to prevent the collection of stormwater in pools. Minimum two-percent slopes shall be maintained away from and around all structures. Separation between the top of foundation wall (or slab) shall comply with Township Construction Code requirements.

C. Construction. The developer shall construct and/or install such drainage structures and/or pipe which are necessary to prevent erosion damage and to satisfactorily carry off such surface waters to the nearest practical street, storm drain or natural watercourse.

D. Excavation. No excavation shall be made with a cut face steeper in slope than (4:1 = 25%), except under one or more of the following conditions:

(1) The fill is located so that settlement, sliding, or erosion will not result in property damage or be a hazard to adjoining property, streets, alleys or buildings.

(2) A written statement from a professional civil engineer, licensed in the Commonwealth of Pennsylvania and experienced in erosion control, certifying the site has been inspected and that the proposed deviation from the slope specified above will not endanger any property or result in property damage, is submitted to and approved by the Township Engineer.

(3) A concrete, segmental block, or stone masonry wall, constructed in accordance with requirements of the Township Zoning Ordinance (Chapter **27**) and Construction Code is provided to support the face of the excavation.

E. Fill. No fill shall be made which creates any exposed surface steeper in slope than (4:1 = 25%), except under one or more of the following conditions:

(1) The fill is located so that settlement, sliding, or erosion will not result in property damage or be a hazard to adjoining property, streets, alleys, or buildings.

(2) A written statement from a professional civil engineer, licensed in the Commonwealth of Pennsylvania and experienced in erosion control, certifying the site has been inspected and that the proposed deviation from the slope specified above will not endanger any property or result in property damage, is submitted to and approved by the Township.

(3) A concrete, segmental block, or stone masonry wall, constructed in accordance with Township requirements, is provided to support the face of the excavation.

F. Slopes and Fences. The top or bottom edge of slopes shall be a minimum of five feet from property or right-of-way lines of streets or alleys, in order to permit the normal rounding of the edge without encroaching on the abutting property. Where walls or slopes (steeper than two horizontal to one vertical) are approved under the criteria in this Part and are five feet or more in height, a protective fence conforming to Township construction codes shall be required at the top of the wall (or bank).

G. Cleanup. All lots must be kept free of any debris or nuisances whatsoever during construction.

H. Design of erosion and sedimentation control facilities (particularly stormwater/sediment basins) shall incorporate best management practices as defined herein.

I. Cut and fill operations shall be kept to a minimum. Wherever feasible, natural vegetation shall be retained, protected, and supplemented. Cut and fills shall not endanger or otherwise adversely impact adjoining property.

J. No grading equipment shall be permitted to be loaded and/or unloaded on a public street, and no grading equipment shall be permitted to travel on or across a public street unless licensed for operation on public thoroughfares.

K. Grading equipment shall not be permitted to intermittent and perennial streams. Temporary crossing shall only be permitted where application is made, and approval is received, from the Pennsylvania Department of Environmental Protection (where applicable), the Bucks County Conservation District, and East Rockhill Township.

L. Design of energy dissipation for high-volume and/or high-velocity discharge from storm sewer pipes and channels shall be in accordance with Hydraulic Engineering Circular No. 14, "Hydraulic Design of Energy Dissipaters for Culverts and Channels," as published by the Department of Transportation, FHA, when deemed necessary by the Township, and as approved by the Bucks County Conservation District.

M. To control the dissemination of mud and dirt onto public roads and driveways, tire cleaning areas constructed of AASHTO No. 1 stone (underlain by geotextile structural fabric), at least 50 feet in length shall be installed at each point of access to the site and individual lots (upon construction of internal streets in a binder condition). When deemed necessary by the Township, washing stations shall also be set up at every construction entrance in order to wash mud and dirt from exiting vehicles. Appropriate measures must be taken to control runoff from such locations. The developer shall be responsible for the placement of appropriate signage identifying construction entrances and washing stations. Construction entrances shall be maintained by the developer during construction, as determined by the Township.

N. During construction activities, necessary measures for dust control shall be exercised, including the application of water to higher-traffic areas of the site.

O. In the event any mud and/or debris is transported from the site onto a public roadway, the debris shall be removed immediately and the roadway swept and/or washed as deemed necessary by the Township at the owner's expense.

P. Adequate provision shall be made to prevent surface water from damaging the cut face of excavation and the sloping surfaces of fills.

8. Any stormwater management facility designed to store runoff and requiring a berm or earthen embankment required or regulated by this Part 3 shall be designed to provide an emergency spillway to handle flow up to and including the one-hundred-year post-development conditions. The height of embankment must be set as to provide a minimum 1.0 foot of freeboard above the maximum pool elevation computed when the facility functions for the one-hundred-year post-development inflow.

9. Emergency spillways discharging over embankment fill shall be constructed of reinforced concrete checker blocks to protect the berm against erosion. The checker block lining shall extend to the toe of the fill slope on the outside of the berm and shall extend to an elevation three feet below the spillway crest on the inside of the berm. Alternate, permanent erosion control matting, or approved equivalent, may be utilized for spillways included in privately owned BMPs located on individual residential lots, upon approval by the Township Engineer.

10. Vegetated spillways may be utilized for spillways constructed entirely on undisturbed ground (i.e., not discharging over fill) if the designer can demonstrate that flow velocities through the spillways will not cause erosion of the spillway. A dense cover of vegetation shall be rapidly established in such spillways by sodding or seeding with a geotextile anchor. Such a vegetated spillway must be stabilized before runoff is directed to the basin.

11. Should any stormwater management facility require a dam safety permit under PADEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety which may be required to pass storms larger than one-hundred-year event.

12. Stormwater management facility outlet piping shall be Class III reinforced O-ring concrete pipe. A minimum of one concrete antiseep collar shall be required (except for privately owned BMP with berm height not exceeding 3 feet on individual residential property). Precast collars shall have a minimum thickness of eight inches; field-poured collars shall have a minimum thickness of 12 inches. Collars may not be installed within two feet of pipe joints. Collars must be designed to project a minimum of two feet around the perimeter of the pipe. Maximum collar spacing is 14 times the design projection around the perimeter. SLHDPE, Sch 40 PVC, or approved equivalent may be utilized for outlet pipes included in privately owned BMPs located on individual residential lots, upon approval by the Township Engineer.

13. No stone gabion baskets may be used in the construction of stormwater management facilities.

14. Retention/Detention Basins BMPs.

A. Pipe outlet shall permit complete drainage of all detained water, unless the stormwater management facility is designed as a retention basin/pond or provides for stormwater renovation with constructed wetlands.

B. When a detention basin is not designed as a stormwater management constructed wetland, the stormwater management facility shall be planted with low-maintenance grass/meadow mix or substitute satisfactory to the Township.

C. All detention basin BMP bottom slopes shall be designed as appropriate for the intended use/maintenance, and pursuant to PaBMP Manual guidelines.

D. To minimize the visual impact of detention basins, the detention basin shall be designed to avoid the need for safety fencing. To meet this requirement, basins shall be designed to the following specifications:

(1) Maximum depth of detained runoff shall be 24 inches for a two-year or ten-year storm event.

(2) Maximum depth of detained runoff shall be 36 inches for a one-hundred-year storm event.

(3) Interior slopes shall not be steeper than a ratio of 4:1 horizontal to vertical.

(4) Ponded water shall never exceed a depth of 24 inches for more than four hours.

Depths and slopes may be exceeded by permission of the Township on a case-by-case basis if lot runoff, topography and/or existing downstream systems make the required pond area unreasonably large. In such case, fence and landscape screens will be required.

E. An access ramp of 10:1, 10 feet wide, shall be provided to allow maintenance equipment to reach the basin floor. The ramp shall coincide with the required gate if fencing is needed.

F. When required by the Township, fencing shall provide a suitable barrier at least four feet in height of material approved by the Township, such as split rail fencing (concrete posts with wood rails or all vinyl or aluminum) with wire backing. Access to the basin shall be provided by a gate or gates having a total opening of at least 10 feet at such location(s) as to permit ready access to the detention basin with maintenance equipment.

G. Landscaping.

(1) The perimeter berms and embankments of retention/detention basins, including wet ponds, and artificial wetland stormwater management facilities shall be designed to create a natural appearance and reduce future maintenance requirements. Landscaping shall include a mixture of native tall grasses and perennial plants, ground cover, shrubs, and trees to eliminate the necessity of periodic mowing.

(2) Artificial wetland basins, and other BMPs shall be designed pursuant to requirements of the Pennsylvania Handbook of Best Management Practices for Developing Areas. Plant material and arrangement shall be subject to approval of the Township. (Refer to Appendix C, Plant Lists for Wetland Management.)

(3) The perimeter of the retention/detention basin shall be landscaped with a mixture of deciduous trees, evergreens, and shrubs arranged in an informal manner. Retention basin (wet ponds) and artificial wetland basin landscaping shall be designed to create a "natural" appearance. Minimum plant material shall include the following per 100 linear feet of basin perimeter measured at the one-hundred-year reoccurrence stormwater elevation:

(a) Three evergreen trees (minimum height four feet).

(b) Two deciduous trees (minimum caliper 2 1/2 inches).

(c) Five shrubs (minimum height three feet).

Retention/detention basin landscaping design is subject to approval by the municipality. Preservation of existing vegetation surrounding the facility may be considered in lieu of some or all required landscaping plantings.

H. Retaining walls shall not be specified for use within the one-hundred-year water surface elevation area of any detention/retention facility or as part of any embankment or cut slope that is appurtenant to the construction of a detention/retention facility.

I. The developer shall provide written assurance, satisfactory to the Township, that the retention/detention basin will be properly maintained. Such assurances shall be in a form to act as a covenant that will run with the land and shall provide Township maintenance at the cost of the landowner in case of default and further provide for assessment of costs and penalties in case of default.

J. As an alternate to the above subsection, the Township may, at its own option, assume responsibility of the basin and may accept dedication of the basin by the developer. If the retention/detention basin is dedicated or offered to the Township for long-term maintenance, the following regulations shall apply:

(1) The dedicated area shall include the entire ponded area for the one-hundred-year storm event and the outside slope at the berm.

(2) The dedicated area shall not be considered part of the open space and recreation land required elsewhere in the Subdivision and Land Development Ordinance and Zoning Ordinance.

(3) If fencing is necessary, the basin design shall provide a level area (two-percent slope) eight feet in width on both the inside and outside of the fence, along the entire length of the fence, for proper access by Township maintenance equipment. The total width of this generally level area shall be at least 16 feet.

(4) The developer shall provide for the special financial burden the Township will be accepting if the Township accepts the detention basin maintenance. To help mitigate this future financial burden, the developer shall contribute to the Township a cash payment in the amount of $15,000 per acre, on a pro rata basis, for any detention/retention basin site or area dedicated to the Township and being accepted by the Township. The detention/retention basin site area is measured to the outside limit of grading necessary to construct the basin and basin berm. The minimum contribution for any basin, regardless of size, shall be $7,500. This requirement may be modified by a resolution of the Township, from time to time, to reflect actual long-term costs of detention basin maintenance in the Township.

K. Basin Berm Construction Requirements.

(1) Site Preparation. Areas under the embankment and any structural works shall be cleared, grubbed, and the topsoil stripped to remove the trees, vegetation, roots or other objectionable material. In order to facilitate cleanout and restoration, the pool area will be cleared of all brush and excess trees.

(2) Cutoff Trench. A cutoff trench will be excavated along the center-line dam on earth fill embankments. The minimum depth shall be two feet. The cutoff trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be eight feet but wide enough to permit operation of compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for the embankment. The trench shall be kept free from standing water during the backfilling operations.

(3) Embankment. (the following requirements must be included on the SWM Site Plan near the basin berm construction detail).

(a) The fill material shall be taken from the selected borrow areas. It shall be free of roots, wood vegetation, oversized stones, rocks or other objectionable material. Areas on which fill is to be placed shall be scarified prior to placement of fill.

(b) The fill material should contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction.

(c) Fill material will be placed in six-inch to eight-inch layers and shall be continuous over the entire length of the fill. Fill material must be compacted to a minimum of 95% of Modified Proctor Density as established by ASTM D-1557. Compaction testing by a certified soils engineer/geologist must be completed as directed by the Township Engineer to verify adequate compaction has been achieved.

(4) Any stormwater basin (BMP) intended to maintain a permanent pool of water shall be designed with a "safety bench" incorporated in the inside side slope grading. Refer "wet pond" requirements below

15. Any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures), and any work involving wetlands as directed in PADEP Chapter 105 regulations (as amended or replaced from time to time by PADEP), shall be designed in accordance with Chapter 105 and will require a permit from PADEP. Any other drainage conveyance facility that does not fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the one-hundred-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Roadway crossings located within designated floodplain areas must be able to convey runoff from a one-hundred-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along surface of the roadway. Any facility that constitutes a dam as defined in PADEP Chapter 105 regulations may require a permit under dam safety regulations. Any facility located within a PADOT right of way must meet PADOT minimum design standards and permit submission requirements.

16. Any drainage conveyance facility and/or channel that does not fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the one-hundred-year design storm. Conveyance facilities to or exiting from stormwater management facilities shall be designed to convey the design flow to or from that structure. Roadway crossings located within designated floodplain areas must be able to convey runoff from a one-hundred-year design storm. Any facility located within a PADOT right-of-way must meet PADOT minimum design standards and permit submission requirements.

17. Adequate erosion protection shall be provided along all open channels and at all points of discharge.

18. Except for drainage at roadway stream crossings, pipe or artificial swale discharge shall be set back 75 feet from a receiving waterway, and the pipe discharge shall be diffused or spread out to reduce and eliminate high-velocity discharges to the impacted ground surface. The conveyance mechanism shall minimize disturbance and velocity of discharge.

19. All infiltration devices and groundwater recharge facilities shall be designed to completely drain all water in three days subsequent to any storm event.

20. Riparian Corridor Preservation. Refer Riparian Buffers, Section 26-323.3 of this chapter 21.
All developments which create impervious surface shall provide capacity for and treatment of the "water quality volume" and "recharge volume," unless exempt from applicability under § **26-304**.

22. Special Requirements for Areas Falling Within Defined Exceptional Value and High-Quality Subwatersheds. The temperature and quality of water and streams that have been declared as exceptional value or high quality is to be maintained as defined in Chapter 93, Water Quality Standards, Title 25, of Pennsylvania Department of Environmental Protection Rules and Regulations. Temperature-sensitive BMPs and stormwater conveyance systems are to be used and designed with storage pool areas and supply outflow channels and shaded with trees. This will require the modification of berms for permanent ponds. At a minimum, the southern half of pond

shorelines shall be planted with shade or canopy trees within 10 feet of the pond shoreline. In conjunction with this requirement, the maximum slope allowed on the berm area to be planted is 10 to one to lessen the destabilization of berm soils due to root growth.

23. Developers shall utilize BMPs to provide for additional water quality improvement and groundwater recharge. In evaluating potential stormwater BMPs, the order of preference is as follows:

    1. Infiltration BMPs.

    2. Flow attenuation methods (e.g., vegetated open swales and natural depressions).

    3. Artificial wetlands, bioretention structures, and wetponds.

    4. Minimum first flush detention or dual-purpose detention (where appropriate).

    Infiltration BMPs shall be utilized unless the applicant can demonstrate use of infiltration techniques is not feasible due to site conditions based upon site-specific soil testing. Vegetated swales, wetlands or artificial wetlands and bioretention structures shall be utilized wherever possible if infiltration BMPs are deemed unfeasible. BMP techniques can and should be used in conjunction with each other (e.g., vegetated swales with infiltration or retention facilities).

A. Infiltration Best Management Practices (BMPs). Infiltration devices shall be selected based upon suitability of soils and site conditions. Soil infiltration tests shall be performed on all sites to determine suitability of the site for infiltration BMPs. Testing shall include evaluation of selected soil horizons by soil probes, deep pits and/or percolation measurements. The soil infiltration rate of discharge from the infiltration area being used in the proposed design shall be based on these measurements. Infiltration BMPs shall be designed in accordance with the design criteria and specifications in Section 5 of the Pennsylvania Handbook of Best Management Practices for Developing Areas (1998), as amended and updated, and shall meet the following minimum requirements:

(1) Infiltration BMPs shall be constructed on soils with a minimum depth of 24 inches between the intended bottom of the facility and the seasonal high water table and/or bedrock (limiting zone).

(2) Infiltration BMPs intended to receive rooftop runoff shall include appropriate measures such as leaf traps and cleanouts to prevent clogging by vegetation.

(3) Where direct discharge is permitted under the requirements of § **26-313**, infiltration BMPs shall be designed to provide adequate storage to accommodate the post-development first flush design storm (one-year twenty-four-hour storm) volume with outlet and overflow controls to convey runoff larger than the first flush design storm volume safely to a natural outfall.

(4) In areas where runoff release rates are specified under the requirements of § **26-313**, regardless of the specified release rate percentage, if infiltration BMPs are intended, they shall be designed to, as a minimum:

(a) Provide adequate storage to accommodate the volume of runoff calculated as the difference between the predevelopment runoff volume and post-development runoff volume based on the one-hundred-year design storm.

(b) Control the post-development peak rate of runoff to the predevelopment peak rate of runoff for all design storms identified in § 26-314A of this Part **3**.

(c) Provide an overflow or spillway that safely permits the passing of runoff greater than that occurring during the one-hundred-year design storm.

B. Noninfiltration Facilities Used as Best Management Practices (BMPs). All facilities shall be designed in accordance to the design criteria and specifications in the Pennsylvania Handbook of Best Management Practices for Developing Areas (1998). This design shall be in particular coordination with Section 8, Descriptions of Selected Best Management Practices.

C. Artificial Wetlands, Wet Ponds, and Bioretention Structures.

(1) Wet pond BMPs shall meet the following requirements:

(a) Wet ponds shall be constructed on hydric or wet soils and/or soils which have an infiltration rate of less than 0.2 inch/hour.

(b) A minimum drainage area of five acres shall be directed to the pond unless a source of recharge is utilized such as a natural spring or well.

(c) The length of the pond between the inflow and outlet points shall be maximized. In addition, an irregular shoreline shall be provided. By maximizing the flow length through the pond and providing an irregular shoreline, the greatest water quality benefit will be achieved by minimizing "short circuiting" of runoff flowing through the pond.

(d) A shallow forebay shall be provided adjacent to all inflow areas. The forebay shall be planted as a marsh with emergent wetland vegetation. The forebay serves to enhance sediment trapping and pollutant removal, as well as concentrating accumulated sediment in an area where it can be readily removed.

(e) All wet ponds shall be designed with public safety as a primary concern. An aquatic safety bench shall be provided around the perimeter of the permanent pool. The depth of the bench shall be a maximum of one foot for a width of at least three feet. A 3:1 slope shall lead from the edge of the safety bench toward the deep-water portion of the pond. At least 15 feet of 3:1 slope shall be provided from the edge of the safety bench. Slopes in the remainder of the pond below the permanent pool elevation shall be a maximum of 2:1.

(f) The perimeter slope above the permanent pool shall have a maximum slope of 4:1 for a distance of at least 20 feet. The remaining areas above the permanent pool shall have a maximum slope of 3:1.

(g) Wet ponds shall have a deep-water zone to encourage gravity settling of suspended fines and prevent stagnation and possible eutrophication.

(h) Wet ponds shall be capable of being substantially drained by gravity flow. Where possible, wet ponds shall be equipped with a manually operated drain that can be secured against unauthorized operation.

(i) A planting plan shall be developed for the wet pond, showing all proposed aquatic, emergent, and upland plantings.

(j) Wet ponds shall be designed to discourage use by Canada geese. Techniques employed shall include the following:

[1] Elimination of straight shorelines, islands, and peninsulas;

[2] Placement of walking paths (where applicable) along the shoreline;

[3] Placement of grassed areas (i.e., playing fields) at least 450 feet from the water surface;

[4] Vegetative barriers;

[5] Rock barriers;

[6] Installation of tall trees within 10 feet of the water surface;

[7] Use of ground covers not palatable to Canada geese.

(2) Artificial wetland BMPs shall meet the following requirements:

(a) Artificial wetlands shall be constructed on hydric or wet soils and/or soils which have an infiltration rate of less than 0.2 inch/hour.

(b) Runoff entering artificial wetlands shall be filtered through a sediment removal device before entering the wetland.

(c) A planting plan shall be developed for the artificial wetland showing all proposed aquatic, emergent, and upland plantings. The planting plan shall be developed to provide a diversity of species resulting in a dense stand of wetland vegetation.

(d) At least 75% of the surface area of the wetland shall be developed as a shallow water emergent wetland, with a water depth of less than 12 inches. The remainder shall be constructed as open water with depths between two feet and four feet.

D. Minimum First Flush Detention/Dual-Purpose BMPs.

(1) Minimum first flush detention/dual-purpose detention basin BMPs shall be designed to meet the following requirements:

(a) Post-development runoff from a "water quality storm" (a one-year, twenty-four-hour event) shall be released over a minimum period of 24 hours.

(b) Two-stage basins shall be utilized where first flush detention will be employed for water quality and conventional detention used for peak rate control of storms exceeding the one-year, twenty-four-hour event.

(c) Two-stage basins shall be constructed so that the lower part of the basin is graded to detain stormwater from the "water quality storm" and the remainder of the basin graded as a flat overbank area to provide storage only for the larger, less-frequent storm events. The overbank area is encouraged to be developed as an active or passive recreational area.

(d) The area inundated by the "water quality storm" is encourage to be maintained as a wetland environment, which will increase the water quality benefits of the first flush/dual-purpose detention basin, and will prevent the need for mowing of a frequently saturated area.

24. All stormwater control facility designs shall conform to the applicable standards and specifications of the following governmental and institutional agencies:

A. American Society of Testing and Materials (ASTM).

B. Asphalt Institute (AI).

C. Bucks Conservation District (BCD).

D. Federal Highway Administration (FHWA).

E. National Crushed Stone Association (NCSA).

F. National Sand and Gravel Association (NSGA).

G. Pennsylvania Department of Environmental Protection (PADEP).

H. Pennsylvania Department of Transportation (PADOT).

I. U.S. Department of Agriculture, Natural Resources Conservation Service, Pennsylvania (USDA,

NRCS, PA).

25. If special geological hazards or soil conditions, such as carbonate-derived soils, are identified on the site, the developer's professional engineer shall consider the effect of proposed stormwater management measures on these conditions. In such cases, the municipality shall require an in-depth report by a registered professional geologist.

26. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. Guidelines established by the Pennsylvania Handbook of Best Management Practices for Developing Areas (1998), as amended, shall be utilized in determining stormwater management facility design, except where specifically modified by this or other municipal ordinance. The municipality shall reserve the right to disapprove any design that would result in the occupancy or continuation of an adverse hydrologic or hydraulic condition within the watershed.

§ 26-320 **Calculation Methodology.**
[Ord. 273, 12/17/2013]

1. Stormwater runoff from all development sites shall be calculated using either the Rational Method or a soil cover complex methodology.

A. Any stormwater runoff calculations shall use generally accepted calculation technique that is based on the NRCS Soil Cover Complex Method. Table 26-320.1 summarizes acceptable computation methods. The method must be selected by the applicant based on the individual limitations and suitability of each method for a particular site. The Rational Method may be used to estimate peak discharges from drainage areas that contain less than 200 acres. The Rational Method is recommended for drainage areas under 100 acres.

Table 26-320.1

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	Applicable where use of full hydrologic

Table 26-320.1

Acceptable Computation Methodologies for Stormwater Management Plans

Method	Method Developed by	Applicability
	Engineers	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 200 acres or as approved by the Municipal Engineer
Other methods	Varies	Other computation methodologies approved by the Municipal Engineer

B. All calculations consistent with this Part 3 using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms according to National Oceanic and Atmospheric Administration (NOAA) Atlas 14 rain data corresponding to the Doylestown rain gauge. The SCS Type 11 rainfall curve from NOAA is found on Figure A-1 in Appendix A of this Part 3. This data may also be directly retrieved from the NOAA Atlas 14 website: 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, the duration of rainfall shall be 24 hours.

C. Runoff curve numbers (CN) for both existing and proposed conditions to be used in the Soil Cover Complex Method shall be obtained from Table A-3 in Appendix A of Part 3. For the purposes of existing conditions flow rate determination for applications, undeveloped land and existing impervious surfaces shall be considered as "meadow" in good condition, unless the natural ground

cover generates a lower curve number or rational "C" value (i.e., forest), as listed in table in Appendix A of this Part 3. Wooded areas shall use a ground cover of "woods in good condition." An area shall be considered wooded if there is a contiguous canopy of trees existing over an area of 1/4 acre or more.

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 2.1 (Table A-1). 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 obtained from Appendix A of this Part 3.

F. Runoff coefficients (c) for both existing and proposed conditions for use in the Rational Method shall be obtained from Appendix A of this Part 3.

G. Where uniform flow is anticipated, the Manning Equation shall be used for hydraulic computations and to determine the capacity of open channels, pipes, and storm sewers. Values for Manning's roughness coefficient (n) shall be consistent with Table A-4 in Appendix A of this Part 3. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Part 3 using any generally accepted hydraulic analysis technique or method.

H. The design of any stormwater management facilities intended to meet the performance standards of this Part 3 shall be verified by routing the design storm hydrograph through these facilities using the Storage Indication Method. For drainage areas greater than 20 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.

I. The municipality has the authority to require that computed existing runoff rates be reconciled with field observations and conditions. If the design professional engineer can substantiate through actual physical calibration that more appropriate runoff and time-of-concentration values should be utilized at a particular site, then appropriate variations may be made upon review and recommendations of the Municipal Engineer. Calibration shall require detailed gauge and rainfall data for the particular site in question.

J. All stormwater runoff calculations/reports and design of stormwater management facilities shall be prepared by a registered professional engineer licensed in the Commonwealth of Pennsylvania.

§ 26-321 **Erosion and Sediment Control During Regulated Earth Disturbance Activities. [Ord. 273, 12/17/2013]**

1. Whenever vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules and Regulations, Part **1**, Commonwealth of Pennsylvania, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, Erosion and Sediment Control, and in accordance with the Bucks County Conservation District and the standards and specifications of the municipality.

2. No regulated earth disturbance activities within the municipality shall commence until approval by the municipality of an erosion and sediment control plan for construction activities.

3. PADEP has regulations that require an erosion and sediment control plan for any earth disturbance activity of 5,000 square feet or more, under 25 Pa. Code § 102.4(b). The Bucks County Conservation District must be consulted regarding requirements for plan submission.

4. In addition, under 25 Pa. Code Chapter 92, a PADEP "NPDES construction activities" permit is required for regulated earth disturbance activities.

5. Evidence of any necessary permit(s) for regulated earth disturbance activities from the appropriate PADEP regional office or County Conservation District must be submitted to the municipality.

6. A copy of the erosion and sediment control plan and any required permit, as required by PADEP regulations, shall be available at the project site at all times.

7. Additional erosion and sedimentation control design standards and criteria that must be applied where infiltration BMPs are proposed include the following:

A. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity.

B. Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has received final stabilization.

8. Peak discharges and discharge volumes from the site shall comply with the appropriate sections above, with the following additions:

A. For purposes of calculating required detention storage during land disturbance, peak discharge volumes shall be calculated based upon the runoff coefficients for bare soils during the maximum period and extent of disturbance which shall be clearing, indicated on the development plan. Controls shall insure that the difference in volume and rate of peak discharges before disturbance and during shall not exceed those peak discharges and discharge volumes required in § **26-314** of this Part **3**. Detention storage during the period of land disturbance and prior to establishment of permanent cover may require additional facilities on a temporary basis. Such measures shall be located so as to preserve the natural soil infiltration capacities of the planned infiltration bed areas.

B. Wherever soils, topography, cut and fill or grading requirements, or other conditions suggest substantial erosion potential during land disturbance, the Township may require that the entire volume of all storms up to a two-year storm from the disturbed areas be retained on site and that special sediment trapping facilities (such as check dams, etc.) be installed.

9. Areas of the site to remain undisturbed shall be protected from encroachment by construction equipment/vehicles to maintain the existing infiltration characteristics of the soil.

§ 26-322 **Water Quality Requirements After Regulated Earth Disturbance Activities Are Complete. [Ord. 273, 12/17/2013]**

1. No regulated earth disturbance activities within the municipality shall commence until approval by the municipality of a plan which demonstrates compliance with state water quality requirements after construction is complete.

2. The BMPs must be designed, implemented, and maintained to meet state water quality requirements and any other more stringent requirements as determined by the municipality.

3. To control post-construction stormwater impacts from regulated earth disturbance activities, state water quality requirements may be met by BMPs, including site design, which provide for replication of preconstruction stormwater infiltration and runoff conditions, so that post-construction stormwater discharges do not degrade the physical, chemical or biological characteristics of receiving waters. As described in the PADEP Comprehensive Stormwater Management Policy (No. 392-0300-002, September 28, 2002), this may be achieved by the following:

A. Infiltration: replication of preconstruction stormwater infiltration conditions;

B. Treatment: use of water quality treatment BMPs to filter out the chemical and physical pollutants

from the stormwater runoff; and

C. Stream Bank and Streambed Protection: management of volume and rate of post-construction stormwater discharges to prevent physical degradation of receiving waters (e.g., from scouring).

4. PADEP has regulations that require municipalities to ensure design, implementation, and maintenance of best management practices (BMPs) that control runoff from new development and redevelopment after regulated earth disturbance activities are complete. These requirements include the need to implement post-construction stormwater BMPs with assurance of long-term operations and maintenance of those BMPs.

5. Evidence of any necessary permit(s) for regulated earth disturbance activities from the appropriate PADEP regional office must be submitted to the municipality.

6. BMP operations and maintenance requirements are described in Subpart D of this Part 3.

§ 26-323 **Other Requirements.**
[Ord. 273, 12/17/2013]

1. Hot Spots.

A. Use of infiltration BMPs is prohibited on hot spot land use areas. Examples of hot spots are listed in Part 3 Appendix J.

B. 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 J.

2. West Nile Guidance Requirements. All wet basin designs shall incorporate biologic controls consistent with the West Nile Guidance found in Appendix K.

3. Riparian Buffers

A. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer.

B. Except as required by Chapter 102, the Riparian Buffer Easement shall be measured to be the greater of the limit of the 100 year floodplain or a minimum of 35 feet from the top of the streambank (on each side).

C. Minimum Management Requirements for Riparian Buffers.

(1). Existing native vegetation shall be protected and maintained within the Riparian Buffer Easement.

(2). Whenever practicable invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.

D. The Riparian Buffer Easement shall be enforceable by the municipality and shall be recorded in the appropriate County Recorder of Deeds Office, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area a required by Zoning, unless otherwise specified in the municipal Zoning Ordinance.

E. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.

F. The following conditions shall apply when public and/or private recreation trails are permitted within Riparian Buffers:

(1). Trails shall be for non-motorized use only.

(2). Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.

G. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

D.

Stormwater Management Site Plan Requirements.

§ 26-324 **General Requirement.**
[Ord. 273, 12/17/2013]

For any of the activities regulated by this Part 3, the final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity may not proceed until the property owner or developer or his/her agent has received written approval of a stormwater management plan from the municipality.

§ 26-325 **Stormwater Management Site Plan Contents.**
[Ord. 273, 12/17/2013]

1. The stormwater management plan shall consist of all applicable calculations, maps, and plans. A note on the maps shall refer to the associated computations and erosion and sedimentation control plan by title and date. The cover sheet of the computations and erosion and sedimentation control plan shall refer to the associated maps by title and date. All stormwater management plan materials shall be submitted to the municipality in a format that is clear, concise, legible, neat, and well organized; otherwise, the stormwater management plan shall be disapproved and returned to the applicant. The following items shall be included in the stormwater management plan:

A. A feasibility analysis that evaluates the potential application of infiltration, flow attenuation, bioretention, wetland, or wet pond BMPs must be submitted with the stormwater management plans required in Subpart D, including those developments not intending the use of such facilities.

(1) This analysis shall provide:

(a) A general assessment of the anticipated additional runoff based on the design storm and post-development condition and utilizing the calculation procedures required in § **26-316**;

(b) Indication of drainage areas on the development site resulting in impervious, pervious, and rooftop runoff;

(c) Indication of type of land use (residential, nonresidential) generating the impervious surface runoff;

(d) Delineation of soils on the site from the USDA, NRCS Web Soil Survey and on-site soil study. The soil study shall be conducted by a soil scientist and shall include sufficient probes/deep holes to evaluate application of BMPs;

(e) Indication of soils generally suitable for infiltration and/or wet pond/artificial wetland BMPs as shown in the table entitled "General Soil Suitability for Infiltration, Wet Pond and Artificial Wetland Best Management Practices. With Consideration to Runoff Point of Origin and Land Use Type," including specification of those soils requiring modifications;

(f) Calculated acreage of suitable soils for infiltration BMPs and wet pond or artificial wetland BMPs and percentage of suitable soils based on total site acreage;

(g) Calculated acreage of suitable soils for infiltration BMPs and wet pond or artificial wetland BMPs made unavailable due to proposed development layout and justification that alternative development layout which would reduce impact on suitable soil availability is unfeasible;

(h) Analysis of potential infiltration or wet pond or artificial wetland BMPs which could be implemented to manage the projected post-development runoff with consideration of suitable soil availability runoff point of and type of land use [Subsection **A(1)(b)** and **(c)** above] and the general design standards and maintenance issues included in this Part **3**, including an indication of how most post-development runoff can be managed by these BMPs (e.g., the entire post-development runoff or partial amount of runoff expressed as a percentage); and

(i) Rationale for the decision to not proceed with implementation of infiltration BMPs or wet pond or artificial wetland BMPs, such as excessive cost of implementation, insufficient soil suitability, and development constraints.

(2) The feasibility analysis must allow the municipality to review the general soil characteristics of a site and the proposed development for that site and determine if infiltration BMPs or wet pond or artificial wetland BMPs could have been more thoroughly pursued for use by the developer. The information required in the analysis is detailed enough to determine the potential applicability of these BMPs for a proposed development, but general enough not to force a developer into incurring excessive cost associated with conducting laborious field and/or laboratory soil testing for a site which ultimately may not be suitable for infiltration or wet pond or artificial wetland BMP implementation. However, with the requirements for conducting a feasibility analysis, developers will be aware that they are expected to use these BMPs wherever possible and are required to provide adequate justification if these BMPs are not to be implemented. Essentially, all developers will be conducting feasibility analysis since such analysis would become the preliminary step in evaluating the potential for implementation of these mandatory BMPs where possible. Developers for those sites that are determined to be generally suitable from these analyses (taking into consideration the areal extent of suitable soils necessary to accommodate an infiltration or wet pond or wetland BMP for the type and size of development proposed) are required to conduct the detailed soil testing and other feasibility testing required in other sections of this Part **3** which contain the description and additional design criteria of these BMPs.

B. A detailed geologic evaluation of the project site shall be performed to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified geologist and/or soil scientist and, at minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability.

C. General.

(1) General description of project including stormwater management concept for the project.

(2) General description of permanent stormwater management techniques, including construction specifications of the materials to be used for stormwater management facilities. If BMPs other than green infrastructure methods and LID practices are proposed to achieve the volume, rate, and water quality controls of this Part, written justification for use of these BMPs must be submitted.

(3) Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities.

D. Map(s) of the project area shall be submitted on twenty-four-inch by thirty-six-inch sheets and shall be prepared in a form that meets the requirements for recording at the offices of the Recorder of Deeds of Bucks County. The contents of the maps(s) shall include, but not be limited to:

(1) The location of the project relative to highways, municipalities, or other identifiable landmarks.

(2) Existing contours at intervals of two feet. In areas of steep slopes (greater than 25%), five-foot contours may be used.

(3) Existing streams, lakes, ponds, or other bodies of water within the project area.

(4) Other physical features, including flood hazard boundaries, sinkholes, streams, existing drainage courses, wetlands, areas of natural vegetation to be preserved, and the total extent of the upstream area draining through the site.

A determination of site conditions in accordance with the BMP Manual4. A detailed site evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas, such as brownfields.

(5) The locations of all existing and proposed utilities, sanitary sewers, septic systems, wells, and waterlines located on the site and/or within 50 feet of property lines.

(6) An overlay showing soil names and boundaries. This overlay shall include a table on the map showing the recharge capabilities of each soil represented on site in inches per hour and describe their recharge or infiltration capabilities.

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

(8) Proposed structures, roads, paved areas, and buildings. Where pervious pavement is proposed for parking lots, recreational facilities, nondedicated streets, or other areas, pavement construction specifications shall be noted on the plan.

(9) Final contours at intervals at two feet. In areas of steep slopes (greater than 25%), five-foot contour intervals may be used.

(10) The name of the development, tax parcel number(s), the name and address of the owner of the property, and the name of the individual or firm preparing the plan.

(11) The date of submission.

(12) A graphic and written scale of one inch equals no more than 50 feet. For tracts of 20 acres or more, the scale may be one inch equals no more than 100 feet.

(13) A North arrow.

(14) The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

(15) Existing and proposed land use(s).

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

(17) Horizontal and vertical profiles of all open channels, including hydraulic capacity.

(18) Overland drainage paths and path utilized to determine time of concentration.

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

(20) A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities that would be located off site. All off-site facilities shall meet the performance standards and design criteria specified in this Part 3.

(21) A construction detail of any improvements made to sinkholes and the location of all notes to be posted, as specified in this Part 3.

(22) A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Township, which shall be recorded with the record plan and which shall be applicable to all future landowners.

(23) The location of all erosion and sedimentation control facilities.

(24) The following signature block for the design engineer:

(Design engineer), on this date (date of signature), has reviewed and hereby certify that the stormwater management plan meets all design standards and criteria of East Rockhill Township Watershed Act 167 Stormwater Management Ordinance.

E. Supplemental Information.

(1) A written description of the following information shall be submitted:

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

(b) Stormwater runoff computations as specified in this Part 3, 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 this Chapter.

(c) Stormwater management techniques to be applied both during and after development.

(d) Expected project time schedule.

(2) A soil erosion and sedimentation control plan, where applicable, including all reviews and approvals, as required by PADEP and/or Bucks Conservation District.

(3) A geologic assessment of the effects of runoff on sinkholes and carbonate/karst topography as specified in this Part 3.

(4) The effect of the project (in terms of runoff volume, water quality, and peak flow) on adjacent properties and on any existing municipal stormwater collection system that may receive runoff from the project site.

(5) A declaration of adequacy and highway occupancy permit from the PADOT District Office when utilization of a PADOT storm drainage system is proposed.

(6) Plan and profile drawings of all SWM BMPs, including drainage structures, pipes, open channels, and swales.

(7) SWM Site Plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells.

(8) The SWM Site Plan shall include an 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.

(9) A justification must be included in the SWM Site Plan if BMPs other than green infrastructure methods and LID practices are proposed to achieve the volume, rate and water quality controls under this Ordinance.

(10) Construction details for all stormwater management BMPs, collection systems, and appurtenances.

F. Stormwater Management BMPs.

(1) All existing and proposed stormwater management BMPs must be located on a plan and described in detail.

(2) When groundwater recharge methods such as seepage pits, beds, or trenches are proposed, the locations of existing and proposed septic tank infiltration areas and wells must be shown. A separation distance of no less than 20 feet shall be provided between any septic system and any facility used for stormwater management.

(3) All calculations, assumptions, and criteria used in the design of the stormwater management facilities must be shown. If multiple facilities are proposed in conjunction with each other, such as infiltration best management practices with vegetation-based management practices, a summary narrative shall be included describing any sequence and how the facilities are meant to function with each other to manage stormwater runoff.

§ 26-326 **Plan Submission.**
[Ord. 273, 12/17/2013]

1. For all activities regulated by this Part **3**, the steps below shall be followed for submission. For any activities that require a PADEP joint permit application and regulated under Chapter 105 (Dam Safety and Waterway Management) or Chapter 106 (Floodplain Management) of PADEP's Rules and Regulations, require a PADOT highway occupancy permit, or require any other permit under applicable local, state, or federal regulations, the permit(s) shall be part of the plan.

A. The stormwater management plan shall be submitted by the developer as part of the preliminary plan submission for the regulated activity.

B. A minimum of two hard copies and one digital (pdf) copy of the stormwater management plan and associated documents/reports shall be submitted to the Township.

C. One copy to the Bucks County Conservation District, submitted by the applicant. (for site with over 5,000 SF earth disturbance).

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§ 26-327 **Stormwater Management Plan Review.**
[Ord. 273, 12/17/2013]

1. The Municipal Engineer shall review the stormwater management site plan for consistency with the provisions of this Chapter and applicable municipal ordinances. The municipality shall require receipt of a complete plan, as specified in this Part 3.

2. The Municipal Engineer shall review the stormwater management site plan for any subdivision or land development against the Subdivision and Land Development Ordinance provisions not superseded by this Part 3.

3. For activities regulated by this Part 3, the Municipal Engineer shall notify the municipality in writing, within 45 calendar days of receipt, whether the stormwater management plan is consistent with the provisions of this Chapter. A copy of the Municipal Engineer's review letter shall be forwarded to the developer.

4. Any disapproved stormwater management plans may be revised by the developer and resubmitted consistent with this Part 3.

5. For regulated activities specified in § 26-304C and D of this Part **3**, the Municipal Engineer shall notify the Municipal Building Permit Officer in writing, within a time frame consistent with the Building Code and/or Subdivision and Land Development Ordinance, whether the stormwater

management plan is consistent with the adopted Watershed Act 167 Stormwater Management Plan and forward a copy of the review letter to the developer. Any disapproved stormwater management plan may be revised by the developer and resubmitted consistent with this Part **3**.

6. The municipality shall not approve any subdivision or land development for regulated activities specified in § 26-304A and B of this Part **3** if the stormwater management site plan has been found to be inconsistent with this chapter. All required permits from PADEP must be obtained prior to, or as a requirement of, final approval.

7. For any SWM Site Plan that proposes to any BMPs other than green infrastructure and LID practices to achieve the volume and rate controls required by this Part, the Township will not approve the SWM Site Plan unless it determines that green infrastructure and LID practices are not practicable.

8. The Municipal Building Permit Office shall not issue a building permit for any regulated activity specified in § **26-304** of this Part **3** if the stormwater management plan has been found to be inconsistent with this chapter, as determined by the Municipal Engineer, or without considering the comments of the Municipal Engineer. All required permits from PADEP must be obtained prior to issuance of a building permit.

9. The developer shall be responsible for completing an "as-built survey" of all stormwater management BMPs included in the approved stormwater management plan. The as-built survey and an explanation of any discrepancies with the design plans shall be submitted to the Municipal Engineer for review. In no case shall the municipality approve the as-built survey until the municipality receives a copy of an approved declaration of adequacy, highway occupancy permit from the PADOT District Office, and any applicable permits from PADEP.

10. 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 5 years following the date of approval. The Municipality may specify a term of validity shorter than 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 Section 407 within the term of validity, then the Municipality may consider the SWM Site Plan disapproved and may revoke any and all permits. Stormwater management site plans that are considered disapproved by the municipality shall be resubmitted in accordance with § **26-329** of this Part **3**.

§ 26-328 **Modification of Plans.**
[Ord. 273, 12/17/2013]

1. A modification to a submitted stormwater management site plan for a development site that involves a change in stormwater management BMPs or techniques, or that involves the relocation or redesign of stormwater management BMPs, or that is necessary because soil or other conditions are not as stated on the stormwater management site plan as determined by the Municipal Engineer, shall require a resubmission of the modified stormwater management site plan consistent with § **26-326** of this Part **3** and be subject to review as specified in § **26-327** of this Part **3**.

2. A modification to an already approved or disapproved stormwater management site plan shall be submitted to the municipality, accompanied by the applicable review. A modification to a stormwater management site plan for which a formal action has not been taken by the municipality shall be submitted to the municipality, accompanied by the applicable municipal review fee.

§ 26-329 **Resubmission of Disapproved Stormwater Management Plans.**
[Ord. 273, 12/17/2013]

A disapproved stormwater management site plan may be resubmitted, with the revisions addressing the Municipal Engineer's concerns documented in writing, to the Municipal Engineer in accordance with § **26-326** of this Part **3** and be subject to review as specified in § **26-327** of this Part **3**. The applicable municipal review fee must accompany a resubmission of a disapproved stormwater management plan.

§ 26-330 **Retention of Plans at Project Site.**
[Ord. 273, 12/17/2013]

A set of SWM Site plans approved by the Township shall be on file at the site throughout the duration of the development activity. Periodic inspections may be made by the Township or designee during development activities.

§ 26-331 **Certification of Completion.**
[Ord. 273, 12/17/2013]

1. At the completion of the project, and as a prerequisite for the release of the performance guarantee under § **26-343**, the owner or his representatives shall:

   A. The developer shall be responsible for providing a set of as-built drawings as required pursuant to the Township Building Code and/or Chapter 22, Subdivision and Land Development. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to the Municipality. Additionally, the as-built submission shall include a certification of completion signed by a qualified professional verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.

   B. Upon submission of as-built plan and completion certificate, contact the Township Engineer to request inspection of the site for completion of stormwater management facilities and compliance with the approved plans and specifications.

   .

§ 26-332 **Occupancy Permit.**
[Ord. 273, 12/17/2013]

No occupancy permit for any new structure on the site shall be issued unless the stormwater management BMPs approved for the lot have been installed and found satisfactory to the Township Engineer in accordance with Section 26-331 of this Chapter.

E.
Inspections.

§ 26-333 **Schedule of Inspections.**
[Ord. 273, 12/17/2013]

1. The Municipal Engineer or his assignee shall inspect all phases of the installation of the permanent stormwater management facilities.

2. During any stage of the work, if the Municipal Engineer determines that temporary or permanent erosion and sedimentation control or stormwater management facilities are not being installed in accordance with the approved stormwater management plan, the municipality shall revoke any existing permits until a revised stormwater management plan is submitted and approved, as specified in this Part 3.

§ 26-334 **Right of Entry.**
[Ord. 273, 12/17/2013]

1. During construction, duly authorized representatives of the Township may enter at reasonable times upon any property within the Township to inspect the implementation, condition, or operation and maintenance of the stormwater BMPs, or to verify that construction activity is in compliance with this Part 3.

2. BMP owners and operators shall allow persons working on behalf of the Township ready access to all parts of the premises for the purposes of determining compliance with this Part 3.

3. Persons working on behalf of the Township shall have the right to temporarily locate on any BMP in the Township such devices as are necessary to conduct monitoring and/or sampling of the facility's stormwater discharge.

4. Unreasonable delays in allowing the inspector access to a BMP are a violation of this Part 3.

F.
Fees and Expenses.

§ 26-335 **Municipality Stormwater Management Site Plan Review Fee.**
[Ord. 273, 12/17/2013]

The municipality shall establish a review fee schedule by resolution of the governing body to defray review costs incurred by the municipality, any outside review agencies or entities necessary to review submitted plans, and the Municipal Engineer. The municipality shall periodically update the review fee schedule to ensure that review costs are adequately reimbursed. The applicant shall pay all fees.

§ 26-336 **Expenses Covered by Fees.**
[Ord. 273, 12/17/2013]

1. The fees required by this Part 3 shall, at a minimum, cover the following:

A. Administrative costs.

B. Review of the stormwater management plan by the municipality and the Municipal Engineer, including meeting with applicant.

C. Site inspections by the municipal staff and/or Municipal Engineer.

D. Inspection of stormwater management facilities and stormwater management improvements during construction.

E. Final inspection upon completion of the stormwater management facilities and stormwater management improvements presented in the stormwater management plan.

F. Any additional work required to enforce any permit provisions regulated by this Part 3, correct violations, and ensure proper completion of stipulated remedial actions.

G. Preparation and recording of an operation and maintenance agreement or any other similar documents.

H. Attendance at meetings.

§ 26-337 **Itemization of Cost.**
[Ord. 273, 12/17/2013]

Expenses incurred by the Township and charged to the applicant pursuant to § **26-336** of this Part **3** shall be itemized. A copy of the itemized costs will be provided by the Township to the applicant upon request.

G.
Prohibitions.

§ 26-338 **Prohibited Discharges.**
[Ord. 273, 12/17/2013]

1. 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 a regulated small MS4 or to enter the surface waters of this Commonwealth is prohibited. **[Amended by Ord. 276, 10/21/2014]**

No person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except:

A. As provided in Subsection **2** below; and

B. Discharges allowed under a state or federal permit.

2. The following discharges which may be allowed, based on a finding by the municipality or PADEP that the discharge(s) do not significantly contribute to pollution to surface waters of the commonwealth, are:

A. Discharges from firefighting activities.

B. Potable water sources, including dechlorinated waterline and fire hydrant flushings , if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).

C. Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.

D. Routine external building washdown (which does not use detergents or other compounds).

E. Non-contaminated HVAC condensation and water from geothermal systems.

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

G. Diverted stream flow and Springs.

H. Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.

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

J. Flows from riparian habitats and wetlands.

K. Lawn watering.

L. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.

M. Dechlorinated swimming pool discharges, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).

N. Uncontaminated groundwater infiltration [as defined at 40 CFR 35.2005 (20)]. **[Added by Ord. 276, 10/21/2014]**

O.

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

Q. Rising groundwater.

3. In the event the municipality or DEP determines that any of the discharges identified in Subsection **2** significantly contribute to pollution of waters of the commonwealth, or is so notified by PADEP, the municipality will notify the responsible person(s) to cease the discharge.

4. Upon notice provided by the municipality under Subsection **3**, the discharger will have a reasonable time, as determined by the municipality, to cease the discharge consistent with the degree of pollution caused by the discharge.

5. Upon notice provided by the municipality under Subsection DC, the discharger will have a reasonable time, as determined by the municipality, to cease the discharge consistent with the degree of pollution caused by the discharge.

6. Nothing in this section shall affect a discharger's responsibilities under state law.

§ 26-339 **Prohibited Connections.**
[Ord. 273, 12/17/2013]

1. The following connections are prohibited, except as provided in § **26-338**, Subsection **2**, above:

A. Any drain or conveyance, whether on the surface or subsurface, which allows any nonstormwater discharge, including sewage, process wastewater, and wash water, to enter the separate storm sewer system, and any connections to the storm drain system from indoor drains and sinks; and

B. Any drain or conveyance connected from a commercial or industrial land use to the separate storm sewer system which has not been documented in plans, maps, or equivalent records and approved by the municipality.

§ 26-340 **Roof Drains and Sump Pumps.**
[Ord. 273, 12/17/2013]

1. Roof drains and sump pumpsshall not be connected to streets, sanitary or storm sewers, or roadside ditches, except as provided in § **26-312**, Subsection **11**.

2. Roof drains and sump pumps shall discharge to infiltration areas or vegetative BMPs where possible.

§ 26-341 **Alteration of SWM BMPs.**
[Ord. 273, 12/17/2013]

1. No person shall modify, remove, fill, landscape or alter any stormwater BMPs, facilities, areas, or structures that were installed as a requirement of this chapter, unless it is part of an approved maintenance program, without the written approval of the municipality.

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

§ 26-342 **Waste Disposal Prohibitions.**
[Ord. 273, 12/17/2013]

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, or other component of the Township's separate storm sewer system, any refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

Maintenance Responsibilities.

§ 26-343 **Performance Guarantee.**
[Ord. 273, 12/17/2013]

The applicant shall provide a financial guarantee to the municipality for the timely installation and proper construction of all stormwater management controls as required by the approved stormwater management site plan and this Part 3 equal to the full construction cost of the required controls plus construction contingency and construction inspection costs; in accordance with the provisions of Sections 509, 510, and 511 of the Pennsylvania Municipalities Planning Code.

§ 26-344 **Maintenance Responsibilities of Developers and Landowners.**
[Ord. 273, 12/17/2013]

1. The stormwater management plan for the development site shall contain a BMP operation and maintenance plan (BMP O&M) prepared by the design engineer. The operation and maintenance plan shall outline required routine maintenance actions and schedules necessary to insure proper operation of the BMPs and shall be subject to review and approval of the Township.

2. The (BMP O&M) for the development site shall establish responsibilities for the continuing operation and maintenance of all proposed stormwater control facilities, consistent with the following principles:

A. If a development consists of structures or lots that are to be separately owned and in which streets, sewers, and other public improvements are to be dedicated to the municipality, stormwater control facilities may also be dedicated to and maintained by the municipality, if accepted by the municipality.

B. If a development site is to be maintained in a single ownership or if sewers and other public improvements are to be privately owned and maintained, then the ownership and maintenance of stormwater control facilities shall be the responsibility of the owner or private management entity.

3. The stormwater facility and BMP O&M plan shall include the following:

A. 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.

B. The name of the project site, name and address of the owner of the property, and name of the individual or firm preparing the plan.

C. 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.

4. 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.

5. Stormwater management BMPs, operation and maintenance plans, and agreements shall be recorded as restrictive covenants that run with the land. **[Amended by Ord. 276, 10/21/2014]**

6. The governing body, upon recommendation of the Municipal Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the stormwater management plan. The governing body reserves the right to accept the ownership and operating responsibility for any or all of the stormwater management controls. The right of the Township to accept ownership in the future shall be stated in the maintenance agreement (refer to § **26-346**).

§ 26-345 **Municipal Review of Stormwater Facilities and BMP Operations and Maintenance**

(O&M) Plan.
[Ord. 273, 12/17/2013]

1. The Township shall review the stormwater facilities and BMP O&M plan for consistency with the purposes and requirements of this Part 3 and any permits issued by PADEP.

2. The Township shall notify the applicant in writing whether the stormwater facilities and BMP O&M plan is approved.

3. The Township shall require a "record drawing" of all stormwater facilities and BMPs.

§ 26-346 **Maintenance Agreement for Privately Owned Stormwater Facilities/BMPs.**
[Ord. 273, 12/17/2013]

1. Prior to final approval of the stormwater management site plan, the applicant shall sign and record a maintenance agreement approved by the Township Solicitor covering all stormwater control facilities that are to be privately owned. A sample agreement is contained in Appendix F of this Part 3.

2. The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.

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

4. 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.

5. Other items may be included in the agreement where determined necessary to guarantee the satisfactory maintenance of all facilities. The maintenance agreement shall be subject to review and approval of the Township.

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

§ 26-347 **Stormwater Management Easements.**
[Ord. 273, 12/17/2013]

1. Stormwater management easements shall be provided by the property owner if necessary for 1) access for facility inspections and maintenance, or 2) preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the one-hundred-year storm event. The purpose of the easement shall be specified in the maintenance agreement signed by the property owner.

2. Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Township.

3. Easements shall be recorded with the Bucks County Recorder of Deeds prior to issuance of a building permit or recordation of a subdivision or land development plan.

§ 26-348 **Municipal Stormwater Maintenance Fund.**
[Ord. 273, 12/17/2013]

1. If stormwater BMPs are accepted by the Township for dedication, persons installing stormwater BMPs shall be required to pay a specified amount to the Township Stormwater Maintenance Fund to help defray costs of periodic inspections and maintenance expenses. The amount of the deposit shall cover the estimated costs for BMP maintenance and inspections required pursuant to § **26-349** for 10

years. The Township Engineer will establish the estimated costs upon review of information submitted by the applicant.

2. If stormwater BMPs are to be privately owned and maintained, the applicant shall pay an amount to the Township Stormwater Maintenance Fund, as established by separate resolution, to help defray the costs of periodic inspection by the Township.

3. A financial deposit to the Township Stormwater Management Fund shall be required to be paid by the developer to help defray costs of periodic inspections and maintenance expenses associated with all stormwater management facilities, storm sewer, culverts, and other such improvements to be constructed within the right-of-way of public roadways, that are to be maintained by the Township after dedication. The deposit shall cover the estimated cost for maintenance and inspections for 10 years.

4. If a storage facility is proposed that also serves as a recreation facility (e.g., ball field, pond), the municipality may, but is not required to, reduce or waive the amount of the maintenance fund deposit based upon the value of the land for public recreation purpose.

§ 26-349 **Post-Construction Maintenance Inspections.**
[Ord. 273, 12/17/2013]

1. 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 5 years.

B. At least once every three years thereafter,

C. During or immediately after the cessation of a ten-year or greater storm event.

2. 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.

I.
Enforcement and Penalties.

§ 26-350 **Right of Entry.**
[Ord. 273, 12/17/2013]

Upon presentation of proper credentials, duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Part 3.

§ 26-351 **Notification.**
[Ord. 273, 12/17/2013]

In the event that a person fails to comply with the requirements of this Part **3** or fails to conform to the requirements of any permit issued hereunder, the municipality shall provide written notification of the violation. Such notification shall set forth the nature of the violation(s) and establish a time (30 days) limit for correction of the(se) violation(s). Failure to comply within the time specified shall subject such person to the penalty provision of this Part **3**. All such penalties shall be deemed cumulative. In addition, the municipality may pursue any and all other remedies. It shall be the responsibility of the owner of the

real property on which any regulated activity is proposed to occur, is occurring, or has occurred to comply with the terms and conditions of this Part **3**. In the case where the violation poses an immediate threat to the health, safety, and welfare of the community, no notice under this section shall be required.

§ 26-352 **Enforcement.**
[Ord. 273, 12/17/2013]

1. The governing body is hereby authorized and directed to enforce all of the provisions of this Part 3. All inspections regarding compliance with the stormwater management plan shall be the responsibility of the Municipal Engineer or other qualified persons designated by the municipality as directed by the Board of Supervisors.

A. A set of SWM Site plans approved by the municipality shall be on file at the site throughout the duration of the construction activity. Periodic inspections may be made by the municipality or designee during construction.

B. Adherence to Approved Plan. It shall be unlawful for any person, firm, or corporation to undertake any regulated activity under § **26-304** on any property except as provided for in the approved stormwater management plan and pursuant to the requirements of this Part **3**. It shall be unlawful to alter or remove any control structure required by the stormwater management plan pursuant to this Part **3** or to allow the property to remain in a condition which does not conform to the approved stormwater management plan.

C. It shall be unlawful to violate Section 26-341 of this Chapter.

D. Inspections regarding compliance with the SWM Site Plan are a responsibility of the Municipality.

E. At the completion of the project, and as a prerequisite for the release of the performance guarantee, the owner or his representatives shall:

(1) Provide a certification of completion from a professional engineer verifying that all permanent facilities have been constructed according to the plans and specifications and approved revisions thereto.

(2) Provide one reproducible and two paper prints of as-built drawings.

F. After receipt of the certification by the municipality, a final inspection shall be conducted by the governing body or its designee to certify compliance with this Part 3.

G. Prior to revocation or suspension of a permit, the governing body will schedule a hearing to discuss the noncompliance if there is no immediate danger to life, public health or property.

H. Suspension and revocation of permits.

(1) Any permit issued under this Part 3 may be suspended or revoked by the governing body for:

(a) Noncompliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.

(b) A violation of any provision of this Part 3 or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.

(c) The creation of any condition or the commission of any act during Regulated Activity which constitutes or creates a hazard or nuisance, pollution or which endangers the life or property of others, or as outlined in Subpart I of this Part 3.

(2) A suspended permit shall be reinstated by the governing body when:

(a) The Municipal Engineer or his designee has inspected and approved the corrections to the stormwater management and erosion and sediment pollution control measure(s) that caused the suspension, or the elimination of the hazard or nuisance; and/or

(b) The governing body is satisfied that the violation of the ordinance, law, or rule and regulation has been corrected.

(3) A permit that has been revoked by the governing body cannot be reinstated. The applicant may apply for a new permit under the procedures outlined in this Part 3.

(4) 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.

I. Occupancy Permit. An occupancy permit shall not be issued unless the certification of compliance pursuant to § **26-331** of this Part **3** has been secured. The occupancy permit shall be required for each lot owner and/or developer for all subdivisions and land developments in the municipality.

§ 26-353 **Public Nuisance.**
[Ord. 273, 12/17/2013]

1. The violation of any provision of this Part 3 is hereby deemed a public nuisance.

2. Each day that a violation continues shall constitute a separate violation.

3. Whenever the municipality finds that a person has violated a prohibition or failed to meet a requirement of this Part 3, the municipality may order compliance by written notice to the responsible person. Such notice may require, without limitation:

A. The performance of monitoring, analyses, and reporting;

B. The elimination of prohibited discharges;

C. Cessation of any violating discharges, practices, or operations;

D. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

E. Payment of a fine to cover administrative and remediation costs;

F. The implementation of stormwater BMPs; and

G. Operation and maintenance of stormwater BMPs.

4. Failure to comply within the time specified shall also subject such person to the penalty provisions of this Part 3. 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.

§ 26-354 **Violations and Penalties.**
[Ord. 273, 12/17/2013]

Any person, partnership or corporation who or which has violated or permitted the violation of the provisions of this Part 3 shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Township, pay a judgment of not more than $500 plus all court costs, including reasonable attorneys fees incurred by the Township as a result thereof. Each day that a violation continues

shall constitute a separate violation.

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.

§ 26-355 **Appeals.**
[Ord. 273, 12/17/2013]

1. Appeals from the determination of the Township staff or from the determination of the Township Engineer in the administration of this Part 3 as it relates to stormwater management of a project not involving a subdivision or land development shall be made to the Board of Supervisors within 30 days of that determination or decision.

2. Any person aggrieved by a decision of the Board of Supervisors may appeal to the Bucks County Court of Common Pleas within 30 days of the decision of the Board of Supervisors.

J.
Miscellaneous Provisions.

§ 26-356 **Repealer.**
[Ord. 273, 12/17/2013]

This Part **3** shall amend and replace Chapter **26**, Part **3**, of the Code of Ordinances of East Rockhill in its entirety. Any ordinance or ordinance provision of the municipality inconsistent with any of the provisions of this Part **3** is hereby repealed to the extent of the inconsistency only.

§ 26-357 **Severability.**
[Ord. 273, 12/17/2013]

Should any section or provision of this Part **3** be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this Part **3**.

K

§ 26-358 **References**

1. U.S. Department of Agriculture, National Resources Conservation Service (NRCS). National Engineering Handbook. Part 630: Hydrology, 1969-2001. Originally published as the National Engineering Handbook, Section 4: Hydrology. Available from the NRCS online at: http://www.nrcs.usda.gov/.

2. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. Technical Release 55: Urban Hydrology for Small Watersheds, 2nd Edition. Washington, D.C.

3. Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. Pennsylvania Stormwater Best Management Practices Manual. Harrisburg, PA.

4. Pennsylvania Department of Environmental Protection. No. 363-2134-008 (March 31, 2012), as amended and updated. Erosion and Sediment Pollution Control Program Manual. Harrisburg, PA.

5. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center. 2004-2006. Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, Silver Spring, Maryland. Internet address: http://hdsc.nws.noaa.gov/hdsc/pfds/.

SECTION 2. REPEAL AND RATIFICATION.

All ordinances or parts of ordinances inconsistent herewith or in conflict with any of the specific terms enacted hereby, to the extent of said inconsistencies or conflicts, are hereby specifically repealed. Any other terms and provisions of the ordinances of the Township that are unaffected by this Ordinance are hereby reaffirmed and ratified.

SECTION 3. SEVERABILITY.

Should any section, paragraph, sentence, clause, or phrase in this Ordinance be declared unconstitutional or invalid for any reason, the remainder of the Ordinance shall not be affected thereby and shall remain in full force and effect, and for this reason the provisions of this Ordinance shall be severable.

SECTION 4. EFFECTIVE DATE.

This Ordinance shall become effective five (5) days after enactment.

DULY ENACTED AND ORDAINED this _____ day of _____, 2022, by the Board of Supervisors of East Rockhill Township, Bucks County, Pennsylvania.

EAST ROCKHILL TOWNSHIP
BOARD OF SUPERVISORS

_____
Gary W. Volovnik, Chair

NOT APPROVED

_____
David R. Nyman, Vice Chairman

_____
James C. Nietupski, Member

RESOLUTION 2022-10

A RESOLUTION OF THE BOARD OF SUPERVISORS OF EAST ROCKHILL TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA, REQUIRING THE ELECTED TAX COLLECTOR TO WAIVE ADDITIONAL CHARGES FOR REAL ESTATE TAXES WHERE NOTICE OF THE REAL ESTATE TAXES WAS NOT RECEIVED FOLLOWING THE TRANSFER OF REAL PROPERTY

WHEREAS, Pennsylvania Act 2022-57 requires municipalities to adopt a resolution or ordinance requiring the Tax Collector to waive Additional Charges for real estate taxes under certain circumstances beginning in the first tax year after the effective date of Act 2022-57; AND

WHEREAS, the Board of Supervisors of East Rockhill Township, by Resolution, hereby requires the Tax Collector to waive Additional Charges for real estate taxes following the transfer of real property where such taxes were not received.

NOW, THEREFORE, be it hereby ***RESOLVED*** that

1. The Tax Collector shall waive Additional Charges for real estate taxes in the then current tax year, if the taxpayer does all of the following:

   A. Provides a waiver request of Additional Charges to the Tax Collector in possession of the claim within twelve months of a Qualifying Event;

   B. Attests that a notice was not received;

   C. Provides the Tax Collector in possession of the claim with any one of the following:

      i. A copy of the deed showing the date of real property transfer

      ii. A copy of the title following the acquisition of a mobile or manufactured home subject to taxation as real estate showing the date of issuance or a copy of an executed lease agreement between the owner of a mobile or manufactured home and the owner of a parcel of land on which the mobile or manufactured home will be situated showing the date the lease commences; and

   D. Pays the face value amount of the tax notice for the real estate tax with the waiver request.

2. A form providing for the waiver of Additional Charges will be made available from the Tax Collector and the East Rockhill Township Building.

3. The taxpayer granted a waiver and paying real estate tax as provided in this subsection shall not be subject to an action at law or in equity for an Additional Charge, and any claim existing or lien filed for an Additional Charge shall be deemed satisfied.

4. The Tax Collector accepting a waiver and payment in good faith in accordance with this resolution and Act 57 of 2022 shall not be personally liable for any amount due or arising from the real estate tax that is subject in the waiver.

5. As used in this Resolution, the following words and phrases shall have the following meanings given to them unless the context clearly indicates otherwise:

ADDITIONAL CHARGE- Any interest, fee, penalty, or charge accruing to and in excess of the face amount of the real estate tax as provided in the real estate tax notice.

QUALIFYING EVENT- For the purposes of real property, the date of transfer of ownership. For the purposes of manufactured or mobile homes, the date of transfer of ownership or the date a lease agreement commences for the original location or relocation of a mobile or manufactured home on a parcel of land not owned by the owner of the mobile or manufactured home. The term does not include the renewal of a lease for the same location.

TAX COLLECTOR- A tax collector as defined in Section 2 of the Local Tax Collection Law (72 P.S. §5511.1, *et seq.*), a delinquent tax collector as provided in section 26.1 of the Local Tax Collection Law, the tax claim bureau or an alternative collector of taxes as provided in the Real Estate Tax Sale Law (72 P.S. §5860.101, *et seq.*), an employee, agent or assignee authorized to collect the tax, a purchaser of claim for the tax or any other person authorized by law or contract to secure collection of, or take any action at law or in equity against, the person or property of the taxpayer for the real estate tax or amounts, liens or claims derived from the real estate tax.

SO RESOLVED, this day of , A.D., 2022.

EAST ROCKHILL TOWNSHIP
BOARD OF SUPERVISORS

_____
Gary W. Volovnik

NOT APPROVED

_____
David R. Nyman

_____
James C. Nietupski

Attest: _____
Township Manager

SAMPLE RESOLUTION TO IMPLEMENT ACT 57 OF 2022 PROPERTY TAX PENALTY WAIVER PROVISIONS

*PSATS developed this sample resolution to help townships comply with **Act 57 of 2022**, which takes effect October 10, 2022. Act 57 requires all municipalities, school districts, and counties that levy a real estate tax to adopt a resolution or ordinance directing their tax collector to implement the act's provisions for the tax years beginning on or after January 1, 2023. Townships have from October 10, 2022 (when the act takes effect) to January 9, 2023, to adopt a resolution or ordinance implementing the act.*

A RESOLUTION of the Board of Supervisors of _____ Township, _____ County to implement Act 57 of 2022.

WHEREAS, Act 57 of 2022, amending the Local Tax Collection Law, was signed by Governor Wolf on July 11, 2022, and takes effect on October 10, 2022; and

WHEREAS, Act 57 requires taxing districts that impose taxes on the assessed value of real property to adopt a resolution or ordinance within 90 days of the effective date of the act, or not later than January 9, 2023, directing the tax collector to waive additional charges for real estate taxes in certain situations; and

NOW, THEREFORE, BE IT RESOLVED, that the Tax Collector of _____ Township comply with the provisions of Act 57 and this resolution for tax years beginning on or after January 1, 2023.

DEFINITIONS

The following words and phrases shall have the meanings given to them within this resolution unless the context clearly indicates otherwise:

Additional charge: Any interest, fee, penalty, or charge accruing to and in excess of the face amount of the real estate tax as provided in the real estate tax notice.

Qualifying event:

1. For the purposes of real property, the date of transfer of ownership.
2. For manufactured or mobile homes, the date of transfer of ownership or the date a lease agreement commences for the original location or relocation of a manufactured or mobile home on a parcel of land not owned by the owner of the manufactured or mobile home. The term does not include the renewal of a lease for the same location.

Tax Collector: The elected tax collector for _____ Township, _____ County, any authorized or designated delinquent tax collector, the _____County Tax Claim Bureau, or any alternative collector of taxes as provided for in the act of July 7, 1947 (P.L.1368, No.542), known as the "Real Estate Tax Sale Law," an employee, agent or assignee authorized to collect the tax, a purchaser of claim for the tax or any other person authorized by law or contract to secure collection of, or take any action at law or in equity against the person or

property of the taxpayer for the real estate tax or amounts, liens or claims derived from the real estate tax.

WAIVER

The Tax Collector shall, for tax years beginning on and after January 1, 2023, grant a request to waive additional charges for real estate taxes if the taxpayer does all of the following:

A. Provides a waiver request of additional charges, on a form provided by the state Department of Community and Economic Development, to the Tax Collector in possession of the claim within twelve (12) months of a qualifying event;

B. Attests that a tax notice was not received; and

C. Provides the Tax Collector in possession of the claim with one of the following:
    1. A copy of the deed showing the date of real property transfer; or
    2. A copy of the title following the acquisition of a mobile or manufactured home subject to taxation as real estate showing the date of issuance or a copy of an executed lease agreement between the owner of a mobile or manufactured home and the owner of a parcel of land on which the mobile or manufactured home will be situated showing the date the lease commences; and

D. Pays the face value amount of the tax notice for the real estate tax with the waiver request.

ADOPTED by _____ this ___ day of the month of

_____, 2022.

ATTEST: _____TOWNSHIP

This sample resolution was developed in conjunction with members of the Township Solicitors Association and is provided as an informational resource to townships to use in developing their own resolution or ordinance. PSATS does not guarantee the legal effectiveness of this example and encourages township officials and employees to discuss proposed resolutions with their solicitor.