

**TREASURER'S REPORT
AND OTHER MONTHLY REPORTS**

MAY 2017

1. Treasurer's Report
2. Planning, Zoning, Parks & Grants Report
3. Permit Activity Report
4. Public Works Department Report
5. Fire Marshal Report
6. Township Engineer Report
7. Worcester Volunteer Fire Department Report
8. Pennsylvania State Police Report

TOWNSHIP OF WORCESTER
Statement of Revenue and Expenditures

Revenue Account	Description	To Last to Last	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
Revenue Account Range: First Expend Account Range: First Print Zero YTD Activity: No									
Include Non-Anticipated: No Include Non-Budget: No									
Year To Date As Of: 05/31/17 Current Period: 05/01/17 to 05/31/17 Prior Year As Of: 05/31/17									
001-301-100-000	Property Taxes- Current		46,361.79	47,200.00	1,842.41	43,208.93	0.00	3,991.07-	92
001-301-500-000	Property Taxes- Liened		594.30	770.00	126.31	305.60	0.00	464.40-	40
001-301-600-000	Property Taxes- Interim		255.86	260.00	30.35	33.94	0.00	226.06-	13
	Segment 3 Total		47,211.95	48,230.00	1,999.07	43,548.47	0.00	4,681.53-	90
001-310-010-000	Per Capita Taxes- Current		4,628.78	4,755.00	1.10	92.08	0.00	4,662.92-	2
001-310-030-000	Per Capita Taxes- Delinquent		904.72	1,010.00	37.40	212.90	0.00	797.10-	21
001-310-100-000	Real Estate Transfer Taxes		327,124.66	245,000.00	31,559.78	115,618.88	0.00	129,381.12-	47
001-310-210-000	Earned Income Taxes		2,625,725.54	2,535,000.00	585,239.89	1,386,729.84	0.00	1,148,270.16-	55
001-310-220-000	Earned Income Taxes- Prior Year		0.00	100.00	0.00	0.00	0.00	100.00-	0
*001-310-900-000	Impact Fees		32,038.40	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total		2,990,422.10	2,785,865.00	616,838.17	1,502,653.70	0.00	1,283,211.30-	54
001-321-800-000	Franchise Fees		229,986.84	220,000.00	59,094.96	118,393.32	0.00	101,606.68-	54
	Segment 3 Total		229,986.84	220,000.00	59,094.96	118,393.32	0.00	101,606.68-	54
001-322-820-000	Road Opening Permits		400.00	500.00	0.00	150.00	0.00	350.00-	30
001-322-900-000	Sign Permits		122.15	250.00	0.00	0.00	0.00	250.00-	0
001-322-910-000	Yard Sale Permits		200.00	140.00	35.00	55.00	0.00	85.00-	39
001-322-920-000	Solicitation Permits		900.00	250.00	630.00	930.00	0.00	680.00	372
	Segment 3 Total		1,622.15	1,140.00	665.00	1,135.00	0.00	5.00-	100
001-331-120-000	Ordinance Violations		1,713.73	1,000.00	288.67	1,264.37	0.00	264.37	126
	Segment 3 Total		1,713.73	1,000.00	288.67	1,264.37	0.00	264.37	126
001-341-000-000	Interest Earnings		41,068.43	1,000.00	40.50	5,181.41	0.00	4,181.41	518
	Segment 3 Total		41,068.43	1,000.00	40.50	5,181.41	0.00	4,181.41	518
001-342-000-000	Rents & Royalties		15,311.00	17,681.00	1,451.00	8,001.00	0.00	9,680.00-	45
001-342-120-000	Cell Tower Rental		127,683.05	140,632.32	10,661.64	60,301.84	0.00	80,330.48-	43

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Revenue Account	Description	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
	Segment 3 Total	142,994.05	158,313.32	12,112.64	68,302.84	0.00	90,010.48-	43
001-354-090-000	Grants	0.00	4,275.00	0.00	0.00	0.00	4,275.00-	0
	Segment 3 Total	0.00	4,275.00	0.00	0.00	0.00	4,275.00-	0
001-355-010-000	Public Utility Realty Tax	2,823.49	2,823.00	0.00	0.00	0.00	2,823.00-	0
001-355-040-000	Alcohol License Fees	800.00	1,000.00	0.00	400.00	0.00	600.00-	40
001-355-050-000	Foreign Casualty- State Aid	56,870.40	56,870.32	0.00	0.00	0.00	56,870.32-	0
001-355-070-000	Foreign Fire	101,086.86	101,086.86	0.00	0.00	0.00	101,086.86-	0
	Segment 3 Total	161,580.75	161,780.18	0.00	400.00	0.00	161,380.18-	0
*001-357-080-000	Tennis Court Grant	8,822.00	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	8,822.00	0.00	0.00	0.00	0.00	0.00	0
001-361-300-000	Land Development Fees	7,850.00	2,250.00	0.00	1,000.00	0.00	1,250.00-	44
001-361-330-000	Conditional Use Fees	0.00	2,350.00	0.00	0.00	0.00	2,350.00-	0
001-361-340-000	Zoning Hearing Board Fees	9,250.00	5,300.00	800.00	5,600.00	0.00	300.00	106
001-361-350-000	Zoning Amendment Fees	0.00	1,350.00	0.00	0.00	0.00	1,350.00-	0
001-361-500-000	Map And Publication Sales	49.66	50.00	0.00	109.00	0.00	59.00	218
	Segment 3 Total	17,149.66	11,300.00	800.00	6,709.00	0.00	4,591.00-	59
001-362-410-000	Building Permit Fees	166,141.61	120,000.00	15,592.65	40,964.25	0.00	79,035.75-	34
001-362-420-000	Zoning Permit Fees	13,892.50	8,500.00	820.00	2,965.00	0.00	5,535.00-	35
001-362-450-000	Commercial U&O Fees	775.00	500.00	0.00	0.00	0.00	500.00-	0
001-362-460-000	Driveway Permit Fees	490.00	195.00	135.00	335.00	0.00	140.00	172
	Segment 3 Total	181,299.11	129,195.00	16,547.65	44,264.25	0.00	84,930.75-	34
*001-367-342-000	Park Cell Tower Rental	20,863.62	0.00	0.00	0.00	0.00	0.00	0
001-367-400-000	PRPS Ticket Sales	5,695.95	8,000.00	96.50	2,649.53	0.00	5,350.47-	33
001-367-408-000	Sports & Lesson Fees	20,528.00	23,000.00	1,956.00	4,469.00	0.00	18,531.00-	19
001-367-409-000	Park Trips	9,114.89	7,000.00	674.00	4,041.90	0.00	2,958.10-	58
001-367-420-000	Park Miscellaneous	8,289.16	4,900.00	2,551.00-	15,321.24	0.00	10,421.24	313
	Segment 3 Total	64,491.62	42,900.00	175.50	26,481.67	0.00	16,418.33-	62

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Revenue Account	Description	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
001-361-000-000	Miscellaneous Income	27,824.98	8,160.00	0.00	30,460.18	0.00	22,300.18	373
001-361-001-000	Service Charge Fees	0.00	1,200.00	28.50	121.12	0.00	1,078.88-	10
	Segment 3 Total	27,824.98	9,360.00	28.50	30,581.30	0.00	21,221.30	327
001-383-200-000	Escrow Administration	800.00	800.00	0.00	0.00	0.00	800.00-	0
	Segment 3 Total	800.00	800.00	0.00	0.00	0.00	800.00-	0
001-392-300-000	Transfer From Capital Fund	383,872.00	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	383,872.00	0.00	0.00	0.00	0.00	0.00	0
001-395-000-000	Refund of Prior Year Expenditures	159.95	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	159.95	0.00	0.00	0.00	0.00	0.00	0
	Fund 001 Revenue Total	4,301,019.32	3,575,158.50	708,590.66	1,848,915.33	0.00	1,726,243.17-	52

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
001-400-000-000	LEGISLATIVE BODY:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-400-110-000	Legislative- Payroll	7,560.00	7,500.00	630.00	3,150.00	0.00	4,350.00	42
001-400-150-000	Legislative- Benefits	65,708.76	68,917.14	5,494.10	27,758.84	0.00	41,158.30	40
001-400-312-000	Legislative- Consultant Services	40,797.00	26,100.00	0.00	8,872.00	0.00	17,228.00	34
001-400-337-000	Legislative- Mileage Reimbursement	311.04	500.00	299.92	299.92	0.00	200.08	60
001-400-420-000	Legislative- Dues & Subscriptions	3,249.00	5,950.00	0.00	163.00	0.00	5,787.00	3
001-400-460-000	Legislative- Meetings & Seminars	4,118.67	4,725.00	1,423.08	3,033.08	0.00	1,691.92	64
	Segment 3 Total	121,744.47	113,692.14	7,847.10	43,276.84	0.00	70,415.30	38
001-401-000-000	MANAGER:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-401-120-000	Management- Payroll	77,975.74	139,050.00	10,384.62	57,115.41	0.00	81,934.59	41
001-401-150-000	Management- Benefits	45,609.88	68,868.99	5,322.98	28,153.83	0.00	40,715.16	41
001-401-312-000	Management- Consultant Services	3,164.58	5,000.00	0.00	0.00	0.00	5,000.00	0
001-401-321-000	Management- Mobile Phone	600.00	600.00	50.00	250.00	0.00	350.00	42
001-401-337-000	Management- Mileage Reimbursement	4,800.00	4,800.00	400.00	2,000.00	0.00	2,800.00	42
001-401-460-000	Management- Meetings & Seminars	842.06	2,350.00	0.00	113.50	0.00	2,236.50	5

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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
	Segment 3 Total	132,992.26	220,668.99	16,157.60	87,632.74	0.00	133,036.25	40
	FINANCIAL ADMINISTRATION:							
001-402-000-000	Finance- Payroll	0.00	0.00	0.00	0.00	0.00	0.00	0
001-402-120-000	Finance- Benefits	53,416.39	63,375.90	5,038.48	27,383.43	0.00	35,992.47	43
001-402-150-000	Finance- Mobile Phone	30,629.71	28,436.27	1,760.99	9,616.14	0.00	18,820.13	34
001-402-321-000	Finance- Mileage Reimbursement	18.94	300.00	25.00	125.00	0.00	175.00	42
001-402-337-000	Finance- Meeting & Seminars	219.60	300.00	0.00	105.83	0.00	194.17	35
001-402-460-000	Finance- Meeting & Seminars	266.94	1,300.00	0.00	198.88	0.00	1,101.12	15
	Segment 3 Total	84,551.58	93,712.17	6,824.47	37,429.28	0.00	56,282.89	40
	TAX COLLECTION:							
001-403-000-000	Tax Collection- Payroll	0.00	0.00	0.00	0.00	0.00	0.00	0
001-403-110-000	Tax Collection- Benefits	2,383.42	2,411.50	0.00	70.23	0.00	2,341.27	3
001-403-150-000	Tax Collection- Office Supplies	182.33	184.72	0.00	5.37	0.00	179.35	3
001-403-210-000	Tax Collection- Professional Services	5,074.84	4,740.00	0.00	2,035.30	0.00	2,704.70	43
001-403-310-000	Tax Collection- Professional Services	32,483.31	32,956.30	7,539.56	17,642.54	0.00	15,313.76	54
	Segment 3 Total	40,123.90	40,292.52	7,539.56	19,753.44	0.00	20,539.08	49
	LEGAL SERVICES:							
001-404-000-000	Legal- General Services	0.00	0.00	0.00	0.00	0.00	0.00	0
001-404-310-000	Legal- RTK Services	62,565.78	69,000.00	3,924.76	15,878.76	0.00	53,121.24	23
001-404-320-000	Legal- RTK Services	50,622.62	12,000.00	0.00	552.00	0.00	11,448.00	5
	Segment 3 Total	113,188.40	81,000.00	3,924.76	16,430.76	0.00	64,569.24	20
	CLERICAL:							
001-405-000-000	Clerical- Payroll	0.00	0.00	0.00	0.00	0.00	0.00	0
001-405-140-000	Clerical- Benefits	68,082.02	80,150.48	5,273.52	28,362.63	0.00	51,787.85	35
001-405-150-000	Clerical- Office Supplies	50,870.20	31,475.85	1,798.27	9,649.06	0.00	21,826.79	31
001-405-210-000	Payroll Services	5,313.03	7,900.00	386.48	1,968.06	0.00	5,931.94	25
001-405-310-000	Clerical- Telephone	13,664.05	14,850.00	1,127.63	6,093.79	0.00	8,756.21	41
001-405-321-000	Postage	5,646.61	5,085.00	245.21	1,716.62	0.00	3,368.38	34
001-405-325-000	Clerical- Mileage Reimbursement	4,822.21	4,181.00	507.98	2,228.19	0.00	1,952.81	53
001-405-337-000	Clerical- Advertising	132.19	240.00	0.00	121.06	0.00	118.94	50
001-405-340-000	Clerical- Meetings & Seminars	3,779.03	9,000.00	130.44	2,710.83	0.00	6,289.17	30
001-405-460-000	Computer Expense	2,698.60	5,150.00	0.00	198.87	0.00	4,951.13	4
001-405-465-000	Clerical- Other Expense	20,531.56	25,589.00	927.25	5,861.45	0.00	19,727.55	23
001-405-470-000	Clerical- Other Expense	14,686.22	16,740.00	773.40	1,925.20	0.00	14,814.80	12
	Segment 3 Total	190,225.72	200,361.33	11,170.18	60,835.76	0.00	139,525.57	30

TOWNSHIP OF WORCESTER
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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
001-408-000-000	ENGINEERING SERVICES:							
001-408-310-000	Engineering Services	0.00	0.00	0.00	0.00	0.00	0.00	0
		30,439.42	41,500.00	1,555.92	5,655.18	0.00	35,844.82	14
	Segment 3 Total	30,439.42	41,500.00	1,555.92	5,655.18	0.00	35,844.82	14
001-409-000-000	GOVERNMENT BUILDINGS & PLANT:							
001-409-136-000	Administration- Utilities	0.00	0.00	0.00	0.00	0.00	0.00	0
001-409-137-000	Administration- Maintenance & Repairs	8,321.08	10,260.00	427.79	3,087.04	0.00	7,172.96	30
001-409-142-000	Administration- Alarm Service	18,920.69	16,779.00	1,058.54	5,362.34	0.00	11,416.66	32
001-409-147-000	Administration- Other Expenses	2,470.44	3,612.00	173.00	1,279.12	0.00	2,332.88	35
001-409-236-000	Garage- Utilities	1,372.01	2,400.00	124.44	695.25	0.00	1,704.75	29
001-409-237-000	Garage- Maintenance & Repairs	10,046.71	12,420.00	924.77	5,624.91	0.00	6,795.09	45
001-409-242-000	Garage- Alarm Service	9,682.37	9,464.40	511.90	2,317.40	0.00	7,147.00	24
001-409-247-000	Garage- Other Expenses	1,002.96	1,416.00	45.00	225.00	0.00	1,191.00	16
001-409-373-000	Preserve Farmhouse	1.70	1,500.00	88.80	285.42	0.00	1,214.58	19
001-409-436-000	Community Hall- Utilities	15,403.09	0.00	0.00	0.00	0.00	0.00	0
001-409-437-000	Community Hall- Maintenance & Repairs	3,446.21	5,340.00	82.68	1,645.10	0.00	3,694.90	31
001-409-447-000	Community Hall- Other Expenses	5,446.48	5,172.00	531.00	1,726.18	0.00	3,445.82	33
001-409-536-000	Historical Bldg- Utilities	425.52	600.00	0.00	0.00	0.00	600.00	0
001-409-537-000	Historical Bldg- Maintenance & Repairs	2,858.42	3,829.00	72.41	1,879.13	0.00	1,949.87	49
001-409-636-000	Hollow Rd rental- Utilities	2,664.32	1,699.92	0.00	0.00	0.00	1,699.92	0
001-409-637-000	Hollow Rd Rental- Maintenance & Repairs	104.32	250.00	0.00	62.41	0.00	312.41	25
001-409-737-000	Springhouse- Maintenance & Repairs	2,105.51	4,080.00	234.00	3,959.00	0.00	121.00	97
		350.00	1,000.00	0.00	0.00	0.00	1,000.00	0
	Segment 3 Total	53,815.65	79,822.32	4,274.33	28,023.48	0.00	51,798.84	35
001-411-000-000	FIRE:							
001-411-380-000	Fire Protection- Hydrant Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0
001-411-540-000	Fire Protection- W/FPD Contributions	39,436.59	25,398.00	806.65	3,273.07	0.00	22,124.93	13
		301,286.86	316,036.86	0.00	206,250.00	0.00	109,786.86	65
	Segment 3 Total	340,723.45	341,434.86	806.65	209,523.07	0.00	131,911.79	61
001-413-000-000	UCC & CODE ENFORCEMENT:							
001-413-110-000	Fire Marshal- Payroll	0.00	0.00	0.00	0.00	0.00	0.00	0
001-413-110-150	Fire Marshal- Benefits	4,632.00	9,640.80	479.64	2,678.77	0.00	6,962.03	28
001-413-140-000	Code Enforcement- Payroll	450.69	942.48	40.76	227.68	0.00	714.80	24
001-413-150-000	Code Enforcement- Benefits	103,810.18	43,775.00	3,320.00	18,215.50	0.00	25,559.50	42
001-413-210-000	Code Enforcement- Supplies	46,165.21	26,773.33	1,626.01	8,775.50	0.00	17,997.83	33
001-413-312-000	Code Enforcement- Consultant Services	2,472.50	7,855.00	0.00	4,337.03	0.00	3,517.97	55
		69,796.00	77,880.00	5,766.00	17,577.00	0.00	60,303.00	23

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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
001-413-337-000	Code Enforcement- Mileage Reimbursement	615.60	660.00	92.02	208.65	0.00	451.35	32
001-413-460-000	Code Enforcement- Meetings & Seminars	312.50	1,000.00	0.00	25.00	0.00	975.00	2
	Segment 3 Total	228,254.68	168,526.61	11,324.43	52,045.13	0.00	116,481.48	31
001-414-000-000	PLANNING & ZONING:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-414-140-000	Zoning- Payroll	1,200.00	1,600.00	200.00	800.00	0.00	800.00	50
001-414-150-000	Zoning- Benefits	91.92	122.56	15.32	45.96	0.00	76.60	38
001-414-310-000	Zoning- Professional Services	2,938.50	2,700.00	490.50	1,422.00	0.00	1,278.00	53
001-414-313-000	Zoning- Engineering	3,640.28	1,500.00	0.00	0.00	0.00	1,500.00	0
001-414-314-000	Zoning- Legal	11,648.00	10,800.00	3,485.00	14,680.50	0.00	3,880.50	136
001-414-315-000	Zoning- Conditional Use	84,638.16	4,500.00	0.00	3,534.00	0.00	966.00	79
001-414-341-000	Zoning- Advertisement	2,591.20	2,750.00	0.00	729.30	0.00	2,020.70	27
001-414-460-000	Zoning- Meetings & Seminars	62.82	200.00	0.00	0.00	0.00	200.00	0
	Segment 3 Total	106,810.88	24,172.56	4,190.82	21,211.76	0.00	2,960.80	88
001-419-000-000	OTHER PUBLIC SAFETY:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-419-242-000	PA One call	2,013.40	3,840.00	41.22	340.51	0.00	3,499.49	9
	Segment 3 Total	2,013.40	3,840.00	41.22	340.51	0.00	3,499.49	9
001-430-000-000	PUBLIC WORKS - ADMIN:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-430-140-000	Public Works- Payroll	356,850.36	396,706.44	26,373.42	145,595.89	0.00	251,110.55	37
001-430-150-000	Public Works- Benefits	165,190.98	172,336.31	12,194.44	62,857.93	0.00	109,478.38	36
001-430-238-000	Public Works- Uniforms	6,857.01	9,397.00	1,285.95	2,961.44	0.00	6,435.56	32
001-430-326-000	Public Works- Mobile phones	2,625.17	1,260.00	97.47	384.80	0.00	875.20	31
001-430-460-000	Public Works- Meetings & Seminars	1,841.27	3,100.00	154.59	409.59	0.00	2,690.41	13
001-430-470-000	Public Works- Other Expenses	3,116.23	2,540.00	693.00	882.29	0.00	1,657.71	35
	Segment 3 Total	536,481.02	585,339.75	40,798.87	213,091.94	0.00	372,247.81	36
001-432-000-000	WINTER MAINTENANCE- SNOW REMOVAL:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-432-200-000	Snow Removal- Materials	0.00	44,268.75	0.00	32,336.98	0.00	11,931.77	73
001-432-450-000	Snow Removal- Contractor	0.00	15,000.00	0.00	4,378.75	0.00	10,621.25	29
	Segment 3 Total	0.00	59,268.75	0.00	36,715.73	0.00	22,553.02	62
001-433-000-000	TRAFFIC CONTROL DEVICES:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-433-313-000	Traffic Signal- Engineering	5,690.41	6,500.00	0.00	0.00	0.00	6,500.00	0

TOWNSHIP OF WORCESTER
Statement of Revenue and Expenditures

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
001-433-361-000	Traffic Signal- Electricity	3,831.53	3,240.00	258.00	1,044.51	0.00	2,195.49	32
001-433-374-000	Traffic Signal- Maintenance	20,095.06	18,050.00	524.60	4,503.35	0.00	13,546.65	25
	Segment 3 Total	29,617.00	27,790.00	782.60	5,547.86	0.00	22,242.14	20
001-437-000-000	REPAIRS OF TOOLS AND MACHINERY:							
001-437-250-000	Machinery & Tools- Vehicle Maintenance	0.00	0.00	0.00	0.00	0.00	0.00	0
001-437-260-000	Machinery & Tools- Small Tools	37,776.67	83,064.00	0.00	8,306.04	0.00	74,757.96	10
001-437-370-000	Machinery & Tools- Small Tool Repairs	7,342.17	6,850.00	474.59	3,486.75	0.00	3,363.25	51
	Segment 3 Total	384.67	500.00	425.00	425.00	0.00	75.00	85
001-438-000-000	ROADS & BRIDGES:	45,503.51	90,414.00	899.59	12,217.79	0.00	78,196.21	14
001-438-231-000	Gasoline	0.00	0.00	0.00	0.00	0.00	0.00	0
001-438-232-000	Diesel Fuel	3,989.08	5,267.00	249.11	1,275.90	0.00	3,991.10	24
001-438-242-000	Road Signs	12,255.29	22,330.00	974.97	4,945.72	0.00	17,384.28	22
001-438-245-000	Road Supplies	3,378.04	3,200.00	0.00	363.34	0.00	2,836.66	11
001-438-300-000	Contractor- Snow	14,995.64	35,900.00	42.00	2,503.30	0.00	33,396.70	7
001-438-313-000	Engineering	7,062.50	0.00	0.00	0.00	0.00	0.00	0
001-438-370-000	Road Program- Contractor	70,874.30	55,000.00	5,467.87	12,868.72	0.00	42,131.28	23
	Segment 3 Total	391,409.63	15,500.00	0.00	0.00	0.00	15,500.00	0
001-446-000-000	STORM WATER MANAGEMENT:	503,964.48	137,197.00	6,733.95	21,956.98	0.00	115,240.02	16
001-446-313-000	Stormwater Management- Engineering	0.00	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	22,285.82	44,500.00	2,767.00	9,153.70	0.00	35,346.30	21
001-451-000-000	RECREATION- ADMINISTRATION:	22,285.82	44,500.00	2,767.00	9,153.70	0.00	35,346.30	21
001-451-140-000	Recreation- Payroll	0.00	0.00	0.00	0.00	0.00	0.00	0
001-451-150-000	Recreation- Benefits	32,750.00	47,586.00	3,606.40	19,728.80	0.00	27,857.20	41
001-451-337-000	Recreation- Mileage Reimbursement	26,873.69	26,861.25	1,651.45	8,932.13	0.00	17,929.12	33
001-451-460-000	Recreation- Meetings & Seminars	0.00	300.00	0.00	0.00	0.00	300.00	0
	Segment 3 Total	0.00	1,025.00	0.00	120.00	0.00	905.00	12
001-452-000-000	PARTICIPANT RECREATION:	59,623.69	75,772.25	5,257.85	28,780.93	0.00	46,991.32	38
001-452-247-000	Discounted Tickets (PRPS)	0.00	0.00	0.00	0.00	0.00	0.00	0
001-452-248-000	Camps & Sport Leagues	5,757.00	7,900.00	0.00	2,514.00	0.00	5,386.00	32
001-452-249-000	Bus Trips	18,475.99	22,100.00	378.00	738.00	0.00	21,362.00	3
	Segment 3 Total	10,944.07	6,800.00	0.00	440.00	0.00	6,360.00	6

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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
001-452-250-000	Community Day	0.00	6,500.00	7,856.63	10,673.85	0.00	4,173.85-	164
001-452-520-000	Library	6,000.00	6,300.00	0.00	0.00	0.00	6,300.00	0
	Segment 3 Total	41,177.06	49,600.00	8,234.63	14,365.85	0.00	35,234.15	29
001-454-000-000	PARKS:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-454-337-000	Park Auto/Mileage	373.10	0.00	0.00	0.00	0.00	0.00	0
001-454-436-000	Heebner Park- Utilities	3,299.03	3,180.00	216.03	1,010.56	0.00	2,169.44	32
001-454-437-001	Heebner Park- Athletic Fields	13,126.52	16,400.00	48.00	1,230.02	0.00	15,169.98	8
001-454-437-002	Heebner Park- Expenses	9,492.57	12,000.00	696.44	1,710.51	0.00	10,289.49	14
001-454-438-001	Mount Kirk Park- Athletic Fields	3,027.89	3,000.00	16.00	311.51	0.00	2,688.49	10
001-454-438-002	Mount Kirk Park- Expenses	610.54	1,450.00	0.00	37.70	0.00	1,412.30	3
001-454-439-001	Sunny Brook Park- Athletic Fields	4,005.22	4,400.00	16.00	410.00	0.00	3,990.00	9
001-454-439-002	Sunny Brook Park- Expenses	1,883.23	4,900.00	83.43	1,089.74	0.00	3,810.26	22
001-454-440-000	Trail Expenses	4,509.61	0.00	0.00	0.00	0.00	0.00	0
001-454-446-000	Sunny Brook Park- Utilities	850.37	1,560.00	100.09	475.89	0.00	1,084.11	31
001-454-450-000	Nike Park Expense	93.58	0.00	0.00	0.00	0.00	0.00	0
001-454-460-000	Parks- Seminars & Meetings	1,095.04	0.00	0.00	0.00	0.00	0.00	0
001-454-470-000	Heyser Park- Horse Ring	0.00	500.00	0.00	0.00	0.00	500.00	0
001-454-471-000	Heyser Park- Expenses	45.00	1,300.00	0.00	0.00	0.00	1,300.00	0
001-454-480-000	Trail Expenses	79.66	5,600.00	112.39	390.84	0.00	5,209.16	7
001-454-490-000	Other Parks	0.00	4,400.00	0.00	0.00	0.00	4,400.00	0
	Segment 3 Total	42,491.36	58,690.00	1,288.38	6,666.77	0.00	52,023.23	11
001-459-000-000	PUBLIC RELATIONS:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-459-340-000	Public Relations- Community Newsletter	12,342.16	14,400.00	0.00	3,022.12	0.00	11,377.88	21
001-459-341-000	Public Relations- Other Communications	0.00	1,400.00	0.00	0.00	0.00	1,400.00	0
001-459-430-000	Public Relations	179.99	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	12,522.15	15,800.00	0.00	3,022.12	0.00	12,777.88	19
001-461-000-000	CONSERVATION OF NATURAL RESOURCES:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-461-711-000	North Penn Lra Acquisition	21,536.98	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	21,536.98	0.00	0.00	0.00	0.00	0.00	0
001-481-000-000	EMPLOYER PAID BENEFITS AND WITHHOLDING I	0.00	0.00	0.00	0.00	0.00	0.00	0
001-481-430-000	Inter Gov- Real Estate Taxes	0.00	7,160.00	0.00	0.00	0.00	0.00	0
							7,160.00	0

TOWNSHIP OF WORCESTER
Statement of Revenue and Expenditures

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
	Segment 3 Total	0.00	7,160.00	0.00	0.00	0.00	7,160.00	0
001-486-000-000	INSURANCE:	0.00	0.00	0.00	0.00	0.00	0.00	0
001-486-350-000	Insurances	108,029.65	119,037.00	1,494.00	37,246.75	0.00	81,790.25	31
	Segment 3 Total	108,029.65	119,037.00	1,494.00	37,246.75	0.00	81,790.25	31
001-492-300-000	Transfer To Capital Fund	0.00	895,566.25	0.00	7,164,815.82	0.00	6,269,249.57	800
	Segment 3 Total	0.00	895,566.25	0.00	7,164,815.82	0.00	6,269,249.57	800
	Fund 001 Expend Total	2,868,116.53	3,575,158.50	143,913.91	8,135,740.19	0.00	4,560,581.69	228

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Statement of Revenue and Expenditures

Revenue Account	Description	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
008-341-000-000	Interest Earnings	742.50	600.00	53.06	349.37	0.00	250.63-	58
	Segment 3 Total	742.50	600.00	53.06	349.37	0.00	250.63-	58
008-364-110-000	Tapping Fees	501,551.74	11,400.00	1,803.27	19,112.81	0.00	7,712.81	168
008-364-120-000	Sewer Fees- Residential	428,757.20	490,104.66	26,206.02	218,761.90	0.00	271,342.76-	45
008-364-130-000	Sewer Fees- Commercial	163,453.39	151,561.21	13,755.27	62,684.31	0.00	88,876.90-	41
008-364-140-000	Late Fees	7,152.96	6,000.00	1,311.93	3,802.75	0.00	2,197.25-	63
008-364-150-000	Certification Fees	1,060.00	1,080.00	140.00	520.00	0.00	560.00-	48
008-364-190-000	Liens	376.00	100.00	0.00	0.00	0.00	100.00-	0
	Segment 3 Total	1,102,351.29	660,245.87	43,216.49	304,881.77	0.00	355,364.10-	46
008-381-000-000	Miscellaneous Income	0.00	100.00	0.00	0.00	0.00	100.00-	0
	Segment 3 Total	0.00	100.00	0.00	0.00	0.00	100.00-	0
008-395-000-000	Refund of Prior Year Expenditures	32.55	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	32.55	0.00	0.00	0.00	0.00	0.00	0
	Fund 008 Revenue Total	1,103,126.34	660,945.87	43,269.55	305,231.14	0.00	355,714.73-	46
Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
008-402-000-000	WASTE WATER FINANCIAL ADMINISTRATION:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-402-470-000	Financial / CD Fees	10.00	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	10.00	0.00	0.00	0.00	0.00	0.00	0
008-405-000-000	WASEWATER CLERICAL:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-405-150-000	Administrative Staff Costs	47,152.72	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	47,152.72	0.00	0.00	0.00	0.00	0.00	0
008-429-000-000	WASTEWATER COLLECTION AND TREATMENT:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-429-242-000	Alarm Services	932.10	982.00	0.00	969.30	0.00	12.70	99
008-429-300-000	Other Expenses	25,421.38	63,570.00	1,328.00	785.30-	0.00	64,355.30	1-
008-429-313-000	Engineering	10,630.91	10,750.00	1,010.00	5,285.28	0.00	5,464.72	49

TOWNSHIP OF WORCESTER
Statement of Revenue and Expenditures

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	balance	% Expd
008-429-314-000	Legal	330.23	3,900.00	0.00	0.00	0.00	3,900.00	0
008-429-316-000	Plant Operations	166,274.02	126,512.40	13,944.75	69,723.75	0.00	56,788.65	55
008-429-321-000	Telephone	861.35	888.00	68.21	340.70	0.00	547.30	38
008-429-361-000	Utilities	121,083.98	101,460.00	7,681.54	33,327.01	0.00	68,132.99	33
008-429-366-000	Water	389.14	0.00	0.00	0.00	0.00	0.00	0
008-429-374-000	Equipment & Repairs	24,954.13	12,600.00	1,281.00	6,936.82	0.00	5,663.18	55
008-429-421-001	Center Point- Operations	11,374.07	9,042.00	996.05	4,980.25	0.00	4,061.75	55
008-429-421-002	Center Point- Utilities & Repairs	8,445.66	4,452.00	297.16	1,462.28	0.00	2,989.72	33
008-429-422-001	Meadowood- Operations	18,580.85	9,042.00	996.05	5,126.65	0.00	3,915.35	57
008-429-422-002	Meadowood- Utilities & Repairs	547.45	1,752.00	34.39	136.92	0.00	1,615.08	8
008-429-423-001	Heritage Village- Operations	10,168.55	9,042.00	996.05	4,980.25	0.00	4,061.75	55
008-429-423-002	Heritage Village- Utilities & Repairs	3,604.92	4,380.00	323.06	1,285.78	0.00	3,094.22	29
008-429-424-001	Fawn Creek- Operations	10,860.54	9,042.00	1,142.45	5,126.65	0.00	3,915.35	57
008-429-424-002	Fawn Creek- Utilities & Repairs	2,905.61	3,804.00	234.22	965.08	0.00	2,838.92	25
008-429-425-001	Chadwick Place- Operations	10,977.50	9,042.00	996.05	4,980.25	0.00	4,061.75	55
008-429-425-002	Chadwick Place- Utilities & Repairs	3,936.34	4,488.00	226.31	1,199.75	0.00	3,288.25	27
008-429-426-001	Adair Pump- Operations	10,295.25	9,042.00	1,135.96	5,120.16	0.00	3,921.84	57
008-429-426-002	Adair Pump- Utilities & Repairs	4,828.84	3,228.00	158.08	651.33	0.00	2,576.67	20
008-429-700-000	Capital Improvements	0.00	90,000.00	0.00	717.20	0.00	89,282.80	1
	Segment 3 Total	447,402.82	487,018.40	32,849.33	152,530.11	0.00	334,488.29	31
008-471-000-000	DEBT PRINCIPAL:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-471-200-000	General Obligation Bond- Principal	0.00	120,000.00	0.00	0.00	0.00	120,000.00	0
	Segment 3 Total	0.00	120,000.00	0.00	0.00	0.00	120,000.00	0
008-472-000-000	DEBT INTEREST:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-472-200-000	General Obligation Bond- Interest	47,890.17	50,821.26	0.00	0.00	0.00	50,821.26	0
	Segment 3 Total	47,890.17	50,821.26	0.00	0.00	0.00	50,821.26	0
008-475-000-000	Fiscal Agent Fees- 2016 Bond	74,471.67	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	74,471.67	0.00	0.00	0.00	0.00	0.00	0
008-486-000-000	INSURANCE:	0.00	0.00	0.00	0.00	0.00	0.00	0
008-486-350-000	Insurance Expense	3,134.40	3,095.00	0.00	0.00	0.00	3,095.00	0
	Segment 3 Total	3,134.40	3,095.00	0.00	0.00	0.00	3,095.00	0

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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
Fund 008	Expend Total	620,061.78	660,934.66	32,849.33	152,530.11	0.00	508,404.55	23

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Revenue Account	Description	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
030-341-000-000	Interest Earnings	14,612.17	17,000.00	1,757.35	12,351.44	0.00	4,648.56-	73
	Segment 3 Total	14,612.17	17,000.00	1,757.35	12,351.44	0.00	4,648.56-	73
030-363-100-000	Traffic Impact Fees	0.00	45,857.00	3,977.00	41,760.00	0.00	4,097.00-	91
	Segment 3 Total	0.00	45,857.00	3,977.00	41,760.00	0.00	4,097.00-	91
030-381-000-000	Miscellaneous Income	0.00	6,000.00	0.00	30,342.00	0.00	24,342.00	506
	Segment 3 Total	0.00	6,000.00	0.00	30,342.00	0.00	24,342.00	506
030-392-010-000	Transfer From General Fund	0.00	895,566.25	0.00	7,164,815.82	0.00	6,269,249.57	800
030-392-040-000	Transfer from Revolving Fund	349,823.02	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	349,823.02	895,566.25	0.00	7,164,815.82	0.00	6,269,249.57	800
	Fund 030 Revenue Total	364,435.19	964,423.25	5,734.35	7,249,269.26	0.00	6,284,846.01	752

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
030-402-000-000	FINANCE ADMINISTRATION:	0.00	0.00	0.00	0.00	0.00	0.00	0
030-402-470-000	Investing/CD Fees	645.68	0.00	0.00	10.00	0.00	10.00-	0
	Segment 3 Total	645.68	0.00	0.00	10.00	0.00	10.00-	0
030-405-000-000	SECRETARY/CLERK:	0.00	0.00	0.00	0.00	0.00	0.00	0
030-405-720-000	Office Equipment	0.00	29,800.00	0.00	12,528.31	0.00	17,271.69	42
	Segment 3 Total	0.00	29,800.00	0.00	12,528.31	0.00	17,271.69	42
030-409-000-000	GOVERNMENT BUILDINGS & PLANTS:	0.00	0.00	0.00	0.00	0.00	0.00	0
030-409-600-000	Building Improvements	0.00	39,700.00	0.00	11,801.40	0.00	27,898.60	30
	Segment 3 Total	0.00	39,700.00	0.00	11,801.40	0.00	27,898.60	30
030-430-600-000	Capital Roads	0.00	504,000.00	6,467.60	31,282.39	0.00	472,717.61	6
030-430-740-000	Equipment Purchases	0.00	207,200.00	0.00	118,151.52	0.00	89,048.48	57

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Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
	Segment 3 Total	0.00	711,200.00	6,467.60	149,433.91	0.00	561,766.09	21
030-433-600-000	Traffic Signs & Signals	0.00	10,100.00	0.00	4,911.00	0.00	5,189.00	49
	Segment 3 Total	0.00	10,100.00	0.00	4,911.00	0.00	5,189.00	49
030-454-600-000	Parks and Trails	0.00	77,500.00	2,185.39	2,493.46	0.00	75,006.54	3
030-454-710-000	Land Acquisition	0.00	80,000.00	74.00	3,131.31	0.00	76,868.69	4
	Segment 3 Total	0.00	157,500.00	2,259.39	5,624.77	0.00	151,875.23	4
030-492-010-000	Transfer to General Fund	383,872.00	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	383,872.00	0.00	0.00	0.00	0.00	0.00	0
	Fund 030 Expend Total	384,517.68	948,300.00	8,726.99	184,309.39	0.00	763,990.61	19

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Revenue Account	Description	Prior Yr Rev	Anticipated	Current Rev	YTD Revenue	Cancel	Excess/Deficit	% Real
035-341-000-000	Interest Earnings	862.46	250.00	0.24	214.19	0.00	35.81-	86
	Segment 3 Total	862.46	250.00	0.24	214.19	0.00	35.81-	86
035-355-020-000	Liquid Fuel Funds	325,426.98	343,000.00	0.00	350,887.21	0.00	7,887.21	102
	Segment 3 Total	325,426.98	343,000.00	0.00	350,887.21	0.00	7,887.21	102
	Fund 035 Revenue Total	326,289.44	343,250.00	0.24	351,101.40	0.00	7,851.40	102

Expend Account	Description	Prior Yr Expd	Budgeted	Current Expd	YTD Expended	Cancel	Balance	% Expd
035-432-000-000	WINTER MAINTENANCE- SNOW REMOVAL:	0.00	0.00	0.00	0.00	0.00	0.00	0
035-432-250-000	Snow & Ice Removal	44,180.25	0.00	0.00	0.00	0.00	0.00	0
	Segment 3 Total	44,180.25	0.00	0.00	0.00	0.00	0.00	0
035-438-000-000	ROADS & BRIDGES:	0.00	0.00	0.00	0.00	0.00	0.00	0
035-438-370-000	Road Maintenance Contractor	344,000.00	340,000.00	0.00	0.00	0.00	340,000.00	0
	Segment 3 Total	344,000.00	340,000.00	0.00	0.00	0.00	340,000.00	0
	Fund 035 Expend Total	388,180.25	340,000.00	0.00	0.00	0.00	340,000.00	0

ERECTED INTO A TOWNSHIP IN 1733
TOWNSHIP OF WORCESTER
AT THE CENTER POINT OF MONTGOMERY COUNTY
PENNSYLVANIA

Board of Supervisors:
SUSAN G. CAUGHLAN, CHAIR
STEPHEN C. QUIGLEY, VICE CHAIR
ARTHUR C. BUSTARD, MEMBER

1721 Valley Forge Road
P.O. Box 767
Worcester, PA 19490

Planning, Zoning, Parks & Grants Report
May 2017

Planning Commission (May 25)

- Reviewed the wireless communications facilities ordinance.
- Discussed the Center Point Village Zoning Ordinance.
- Reviewed the Evans application to the Worcester Township Agricultural Security Area (ASA 17-02), and recommended Board of Supervisors approval.

Zoning Hearing Board (May 23)

- Conducted hearing for Mendis (ZHB 17-05) application; variance sought for pool encroachment in a rear yard setback. No decision made, hearing continued to June 27.

Park Updates:

- Plantings were installed around the Gazebo at Heebner Park as part of an ongoing Girl Scout Project to beautify the gazebo area. This project will continue to progress as more funds are raised.

Grant Updates:

- Received **Montco 2040 Grant** (\$63,000) for the development of Defford Road Park and its connection to the Center Point Shoppes.
- Received **PennDOT Green Light Go Grant** for Traffic Signal Equipment Upgrades along Valley Forge Road at Skippack Pike and Township Line Road (\$141,700) and for Fiber Optic Traffic Signal Interconnection along Germantown Pike at Park Avenue and Trooper Road (\$80,240).



WORCESTER TOWNSHIP
Building and Codes Department
May 2017

Report Dates: 5/1/2017 - 5/31/2017

Item	Count / Fee
Total Issued Permits	37 / \$41,015.45

Issued Permits			
Fee Item	No. Permits	Construction Value	Permit Fee
Building			
1 Accessory Structure	1	\$46,000.00	\$94.00
2 Commercial Alterations	2	\$1,719,269.00	\$12,048.00
3 Garage	2	\$386,123.00	\$298.00
4 General Construction	2	\$16,800.00	\$333.00
5 Generator	3	\$18,915.00	\$257.00
6 New Single Family Dwelling	5	\$2,824,339.00	\$25,505.95
7 Residential Addition	2	\$67,600.00	\$211.25
8 Residential Alterations	1	\$24,000.00	\$570.25
9 Wooden Deck	2	\$70,000.00	\$198.00
Electrical			
10 New Electrical Work	2	\$1,800.00	\$58.00
Mechanical			
11 New Mechanical	1	\$11,446.00	\$84.00
Plumbing			
12 New Plumbing	2	\$5,550.00	\$128.00
Zoning			
13 Accessory Structure	1	\$0.00	\$45.00
14 Driveway Extension	1	\$0.00	\$45.00
15 Fence	3	\$13,300.00	\$135.00
16 Grading	3	\$200,000.00	\$825.00
17 PATIO & DECK LESS THAN 30"	1	\$3,000.00	\$45.00
18 PATIO & DECK LESS THAN 30" ABOVE GRADE	3	\$10,956.00	\$135.00
TOTALS:	37	\$5,419,098.00	\$41,015.45

Other Fees Collected

State Fee	\$100.00
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Public Works Department Report

May 2017

1) Road Maintenance

- A. Cleared inlets and drains throughout the Township**
- B. Filled potholes throughout the Township**
- C. Straightened and pruned around roadway signage throughout the Township**
- D. Cleaned edge of roadway swales throughout the Township**
- E. Upgraded old signage to reflective**
- F. Edge of Roadway mowing throughout the Township**

2) Storm Maintenance

- A. No Storms requiring maintenance for the month of May**

3) Parks

- A. Twice weekly cleaning of public restrooms, emptying trash receptacles, and filling dog bag stations**
- B. Repairing washouts and general trail maintenance**
- C. Performed turf application on Township properties**
- D. Weekly mowing and trimming of all Turf areas**
- E. Weekly dragging of baseball infields**
- F. Filled sink holes at storm inlets in Heebner Park**
- G. Pruned vegetation back from edge of Zacharias trail system**
- H. Installed new hand soap dispensers in the public restrooms**
- I. Fencing repairs in Heebner Park**

4) Vehicle Maintenance

- A. Performed weekly maintenance of all Township vehicles**
- B. Weekly maintenance of all mowing equipment**

5) Miscellaneous

- A. Set and cleaned the Community Hall for all Township events and rentals**
- B. Removed fallen trees from the Zacharias Creek stream bed**
- C. Rake and seed of new berm at the Defford Treatment Plant**

May 2017 Fire Marshal Report to Board of Supervisors

- 1/ Fire Marshal investigations on 6 dispatches.
- 2/ Investigated bollard placement at the driveway entrance to Advance Realty.
- 3/ \$0 fire damage for the month. Substantial damage at a location where a sprinkler head was accidentally activated by a contractor.
- 4/ One open burning letter was sent to resident.
- 5/ The firefighter that fell in parking lot after drill Feb 2nd. Continues to rehab from home.
- 6/ Preparing MSDS sheets for Active 911 and fire ground use
- 7/ Zacharius Trail Emergency 911 marker location information has been provided to the county emergency dispatch center for use in emergency dispatches along the trail.
- 8/ Building access keys replaced at a Knox Box location.
- 9/ PA Aqua has attached snow markers to all their hydrants in Worcester Township.
- 10/ A report regarding the manpower support provided to fire departments by neighboring township road crews was submitted to the township manager.

Respectfully Submitted,

**David Cornish
Fire Marshal**

MEMORANDUM

TO: Worcester Township Board of Supervisors
FROM: Joseph J. Nolan, P.E., Township Engineer
DATE: June 1, 2017
SUBJECT: Engineering Report - Project Status

This memorandum will provide an update and status report on the various projects that are ongoing within the Township as of June 1, 2017.

1. **Heebner Road Soccer Field**
We are in the Maintenance Bond Period for this project. The soccer field did receive re-seeding and erosion touch-up by the contractor.
2. **Heebner Road Parking Lot**
The Heebner Road parking lot construction project is out for public bidding. Bids will be received on June 14, 2017 with potential contract award on June 21, 2017. Construction should be completed by the end of August.
3. **2017 Road Program**
The contract for the road program will begin shortly. CKS has marked all roads to identify the work areas. We have submitted all required documentation to PennDOT for approval of using Liquid Fuels funds for a portion of this work.
4. **Greenhill Road Culvert Replacement**
Design work on the Greenhill Road culvert replacement is complete. The applications for the required permits (three) have been submitted to the regulatory agencies. As soon as the permits are received, we will publicly bid the project. We anticipate completion of the project by the end of the year.
5. **Miscellaneous Items**
 - a. CKS Engineers assisted the Township on numerous zoning and land development related issues as requested during the month.

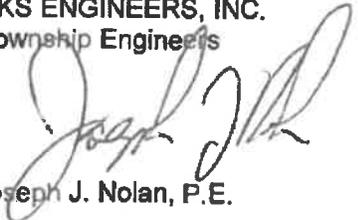
CKS Engineers, Inc.

June 1, 2017
Ref:# 7200-51
Page 2

- b. CKS Engineers performed various site inspections in conjunction with finalizing Use & Occupancy Permits during the month.
- c. CKS reviewed numerous grading permit applications for the Township during the month.
- d. CKS Engineers, Inc. continued to provide inspection services in conjunction with all ongoing land development and subdivision projects throughout the Township. This also included verifying completion of items and preparation of escrow releases for these projects.
- e. CKS assisted in reviewing numerous subdivisions and land developments submitted to the Township. These include Whitehall Estates, 2044 Berks Road, and Meadowood.

The above represents a status report on the projects and services currently being performed by CKS Engineers, Inc. Please contact me if you have any questions on any of these items.

Respectfully submitted,
CKS ENGINEERS, INC.
Township Engineers



Joseph J. Nolan, P.E.

JJN/paf

cc: Tommy Ryan, Township Manager
File

May 2017 WORCESTER VOLUNTEER FIRE DEPARTMENT REPORT

WORCESTER TOWNSHIP

MUTUAL AID

TYPE	NUMBER OF CALLS	TYPE	LOCATION	NUMBER OF CALLS
Automatic Fire Alarm	2	Building Fire	Upper Gwynedd	2
Accident With Injuries	7	Building Fire	Whitpain	1
Building	1	Building Fire	Norristown	1
CO Detector	1	Building Fire	Skippack	2
TOTAL WORCESTER TOWNSHIP	11	Cover Up Assignment	East Norriton	1
TOTAL CALLS	19	Cover Up Assignment	Bridgeport	1
			Total Out of Town	8
AVERAGE MANPOWER PER CALL	14	FIRE POLICE		
HOURS IN SERVICE	22 Hr 15 Min	Assist to other departments	1	
		Total	1	
DRILLS FOR THE MONTH	6			
HOURS IN SERVICE FOR DRILLS	11 hr 30 min	Average Manpower per Call	2	
AVERAGE MANPOWER PER DRILL	15.33	Hours in Service	2 hr 3 min	
Officer Only Calls		Department Totals		
Sprinkler System Activation	1	Man Hours in service on fire calls	282 hr 49 min	
		Man Hours in Service for Fire Police	4 hr 6 min	
FIRE LOSS		Man Hours in Service for Officers only	1 hr 40 min	
LOSS AMOUNT		Man Hours in Service on Drills	199 hrs	
\$0	\$0.00	Total for Month	487 hr 35 min	
		Maintenance Performed		

PENNSYLVANIA STATE POLICE
CALL INFORMATION

Date Report Run : Fri, 2017-Jun-02

SEARCH CRITERIA: cc_data.date_added between '05/01/2017' and '05/31/2017' and cc_data.municipality='46226' and cc_summary.final_case_type<'S'

DATE	TIME	CALL #	TYPE OF CALL	LOCATION	REPORT EXPECT	FOUND	CLEARED BY
2017-May-01	07:32	PA17-443346	MVC - INJURIES		YES	YES	TRACS CRAS
2017-May-01	12:56	PA17-444599	MVCNR MVC - NON-REPORTABLE		YES	YES	TRACS CRAS
2017-May-01	15:41	PA17-445156	MVCNR MVC - NON-REPORTABLE		YES	YES	TRACS CRAS
2017-May-01	19:38	PA17-445957	CANCEL CANCELLED BY COMPLAINANT		NO	YES	CLOSED CAD
2017-May-01	21:40	PA17-446217	DISH DISABLED MOTORIST		NO	YES	CLOSED CAD
2017-May-02	06:31	PA17-446800	REPO VEHICLE REPOSESSION		NO	YES	CLOSED CAD
2017-May-02	09:26	PA17-447382	MVCNR MVC - NON-REPORTABLE		YES	YES	TRACS CRAS
2017-May-02	10:06	PA17-447545	DISNT DISABLED MOTORIST ON ROAD		NO	YES	CLOSED CAD
2017-May-02	11:04	PA17-447822	SUANT SUICIDE - ATTEMPT OR THRE		NO	YES	CLOSED CAD
2017-May-02	13:43	PA17-448464	TROTH TRAF VIOL OTHER		NO	YES	PAPER REPO
2017-May-02	15:38	PA17-448787	TRCRL TRAFFIC CONTROL		NO	YES	CLOSED CAD
2017-May-02	18:56	PA17-449455	SEDFC SEE OFFICER GO		NO	YES	CLOSED CAD
2017-May-02	20:44	PA17-449780	ILNZN INTERSTATE HIGHWAY - CLEA		NO	YES	GENERAL OF
2017-May-03	08:25	PA17-450893	MVC1 MVC - INJURIES		NO	YES	CLOSED CAD
2017-May-03	11:34	PA17-451782	DOMO DOMESTIC - OTHER		YES	YES	TRACS CRAS
2017-May-04	08:01	PA17-454886	ALRMF ALARM FALSE FAULT		YES	YES	GENERAL OF
2017-May-04	08:43	PA17-455017	DISH DISABLED MOTORIST		NO	YES	CLOSED CAD
2017-May-04	09:03	PA17-455084	ALRMF ALARM FALSE FAULT		NO	YES	CLOSED CAD
2017-May-04	09:07	PA17-455098	FOUND FOUND ITRN		NO	YES	CLOSED CAD
2017-May-04	09:26	PA17-455189	SEXOFF SEX OFFENSE - SEXUAL ASSA		YES	YES	GENERAL OF
2017-May-04	09:51	PA17-455254	HARASS HARASSMENT - COMM - STALK		NO	YES	CLOSED CAD
2017-May-04	14:44	PA17-456271	MVC1 MVC - INJURIES		YES	YES	PAPER REPO
2017-May-04	15:10	PA17-456279	DISNT DISABLED MOTORIST ON ROAD		YES	YES	TRACS CRAS
2017-May-05	04:19	PA17-457950	DOMO DOMESTIC - OTHER		NO	YES	CLOSED CAD
2017-May-05	04:44	PA17-457954	CANCEL CANCELLED BY COMPLAINANT		NO	YES	GENERAL OF
2017-May-05	07:07	PA17-458128	INFORM POLICE INFORMATION		NO	YES	CLOSED CAD
2017-May-05	16:34	PA17-459866	DIST DISTURBANCE/NOISE COMPLAI		NO	YES	CLOSED CAD
2017-May-06	18:27	PA17-463544	CANCEL CANCELLED BY COMPLAINANT		NO	YES	GENERAL OF
2017-May-06	18:27	PA17-463544	911 HANG UP CALL		NO	YES	CLOSED CAD
2017-May-06	22:09	PA17-464061	ILNZN INTERSTATE HIGHWAY - CLEA		NO	YES	CLOSED CAD
2017-May-06	23:12	PA17-464195	DISH DISTURBANCE/NOISE COMPLAI		NO	YES	CLOSED CAD
2017-May-07	00:16	PA17-464337	INFORM POLICE INFORMATION		NO	YES	CLOSED CAD
2017-May-07	13:40	PA17-465861	ILNZN INTERSTATE HIGHWAY - CLEA		NO	YES	GENERAL OF
2017-May-07	15:12	PA17-466054	CRR CRIMINAL MISCHIEF		NO	YES	CLOSED CAD
2017-May-07	19:58	PA17-466915	DISH DISABLED MOTORIST		NO	YES	PAPER REPO
2017-May-07	21:15	PA17-467112	SEDFC SEE OFFICER GO		NO	YES	CLOSED CAD
2017-May-08	06:32	PA17-467787	MVC1 MVC - INJURIES		NO	YES	GENERAL OF
2017-May-08	09:00	PA17-468301	DISH DISABLED MOTORIST		YES	YES	TRACS CRAS
2017-May-08	11:11	PA17-468984	SEDFC SEE OFFICER GO		NO	YES	CLOSED CAD
2017-May-08	16:14	PA17-469752	MVCNR MVC - NON-REPORTABLE		YES	YES	TRACS CRAS
2017-May-08	16:00	PA17-470099	MVCNR MVC - NON-REPORTABLE		YES	YES	GENERAL OF
2017-May-08	16:55	PA17-470334	MVCNR MVC - NON-REPORTABLE		YES	YES	TRACS CRAS
2017-May-08	17:04	PA17-470384	REFER REFER TO OTHER AGENCY - P		NO	YES	TRACS CRAS
2017-May-08	22:46	PA17-471356	MVCNR MVC - REPORTABLE, NO INJU		YES	YES	REFER
2017-May-09	08:44	PA17-472405	TREDRR TRAF VIOL ERRATIC DRIVER		NO	YES	TRACS CRAS
2017-May-09	08:51	PA17-472453	MVCNR MVC - NON-REPORTABLE		NO	YES	CLOSED CAD
2017-May-09	08:56	PA17-472480	911 HANG UP CALL		NO	YES	CLOSED CAD
2017-May-09	10:40	PA17-473068	DISH DISABLED MOTORIST		NO	YES	TRACS CRAS
2017-May-09	14:10	PA17-474071	DISH DISABLED MOTORIST		NO	YES	CLOSED CAD
2017-May-10	02:36	PA17-475962	REFER REFER TO OTHER AGENCY - P		NO	YES	CLOSED CAD
2017-May-10	08:45	PA17-476536	MVCNR MVC - NON-REPORTABLE		NO	YES	TRACS CRAS

PENNSYLVANIA STATE POLICE
CALL INFORMATION

Date Report Run : Fri, 2017-Jun-02

Date	Time	Call Number	Call Description	Dist	MVC	General of	Tracs	Cras	Other
2017-May-20	23:23	PA17-518382	DISTURBANCE/NOISE COMPLAI	DIST	MVC - PRIVATE PROPERTY	YES	YES	GENERAL OF	
2017-May-21	13:04	PA17-520037	MVC - PRIVATE PROPERTY	MVCPP	ALARM FALSE FAULT	YES	YES	GENERAL OF	
2017-May-21	13:45	PA17-520133	ALARM FALSE FAULT	ALRMF	DISTURBANCE/NOISE COMPLAI	NO	YES	CLOSED CAD	
2017-May-21	15:18	PA17-520331	DISTURBANCE/NOISE COMPLAI	DIST	MVC - REPORTABLE, NO INJU	YES	YES	GENERAL OF	
2017-May-22	13:53	PA17-523623	MVC - REPORTABLE, NO INJU	MVCRN1	INTERSTATE HIGHWAY - CLEA	YES	YES	TRACS CRAS	
2017-May-22	14:51	PA17-523801	MVC - NON-REPORTABLE	ILNZN	INTERSTATE HIGHWAY - CLEA	NO	YES	CLOSED CAD	
2017-May-22	17:51	PA17-524538	DISABLED MOTORIST ON ROAD	MVCNR	ROAD HAZARD - ANIMAL - DE	YES	YES	TRACS CRAS	
2017-May-23	10:26	PA17-526979	ROAD HAZARD - ANIMAL - DE	DISHT	CANCELLED BY COMPLAINANT	NO	YES	CLOSED CAD	
2017-May-23	12:51	PA17-527705	CANCELLED BY COMPLAINANT	CANCEL	DISABLED MOTORIST	NO	YES	CLOSED CAD	
2017-May-23	13:55	PA17-528030	DISABLED MOTORIST	DISH	911 HANG UP CALL	NO	YES	CANCELLED	
2017-May-23	15:48	PA17-528482	911 HANG UP CALL	911	INTERSTATE HIGHWAY - CLEA	NO	YES	CLOSED CAD	
2017-May-23	16:06	PA17-528558	INTERSTATE HIGHWAY - CLEA	ILNZN	DISABLED MOTORIST ON ROAD	NO	YES	CLOSED CAD	
2017-May-24	12:32	PA17-531978	DISABLED MOTORIST ON ROAD	DISMT	DISABLED MOTORIST	NO	YES	CLOSED CAD	
2017-May-24	12:52	PA17-532081	DISABLED MOTORIST	DISH	SEE OFFICER GO	NO	YES	CLOSED CAD	
2017-May-24	18:37	PA17-533417	SEE OFFICER GO	SEEOFC	MVC - NON-REPORTABLE	YES	YES	GENERAL OF	
2017-May-24	20:17	PA17-533760	MVC - NON-REPORTABLE	MVCNR	INFORM POLICE INFORMATION	YES	YES	TRACS CRAS	
2017-May-25	07:08	PA17-534725	INFORM POLICE INFORMATION	INFORM	CANCELLED BY COMPLAINANT	NO	YES	CLOSED CAD	
2017-May-25	14:37	PA17-536151	CANCELLED BY COMPLAINANT	CANCEL	ROAD CONDITIONS - ALERT C	NO	YES	CLOSED CAD	
2017-May-26	07:34	PA17-538745	ROAD CONDITIONS - ALERT C	RDCOND	911 HANG UP CALL	NO	YES	CLOSED CAD	
2017-May-26	08:37	PA17-539349	911 HANG UP CALL	911	MVC - NON-REPORTABLE	NO	YES	CLOSED CAD	
2017-May-26	12:59	PA17-542296	MVC - NON-REPORTABLE	MVCNR	DISABLED MOTORIST	YES	YES	CLOSED CAD	
2017-May-26	18:21	PA17-545624	DISABLED MOTORIST	DISH	MVC - HIT AND RUN, NO INJ	NO	YES	TRACS CRAS	
2017-May-27	09:42	PA17-550417	MVC - HIT AND RUN, NO INJ	MVCNR	DISABLED MOTORIST	YES	YES	TRACS CRAS	
2017-May-27	14:30	PA17-553228	DISABLED MOTORIST	DISH	SEE OFFICER GO	NO	YES	CLOSED CAD	
2017-May-27	16:16	PA17-554219	SEE OFFICER GO	SEEOFC	INTERSTATE HIGHWAY - CLEA	NO	YES	GENERAL OF	
2017-May-28	11:52	PA17-560592	INTERSTATE HIGHWAY - CLEA	ILNZN	ALARM FALSE FAULT	NO	YES	CLOSED CAD	
2017-May-28	13:44	PA17-561646	ALARM FALSE FAULT	ALRMF	DOMESTIC - OTHER	NO	YES	CLOSED CAD	
2017-May-28	19:02	PA17-563985	DOMESTIC - OTHER	DOMO	HOUSE CHECK	NO	YES	GENERAL OF	
2017-May-28	23:45	PA17-564989	HOUSE CHECK	HOUCHK	ALARM FALSE FAULT	NO	YES	CLOSED CAD	
2017-May-29	05:43	PA17-565527	ALARM FALSE FAULT	ALRMF	DISABLED MOTORIST	NO	YES	CLOSED CAD	
2017-May-29	17:53	PA17-570069	DISABLED MOTORIST	DISH	THEFT	NO	YES	CLOSED CAD	
2017-May-30	05:44	PA17-571934	THEFT	THEFT	MVC - NON-REPORTABLE	YES	YES	PAPER REPO	
2017-May-30	14:24	PA17-573769	MVC - NON-REPORTABLE	MVCNR	CANCELLED BY COMPLAINANT	YES	YES	TRACS CRAS	
2017-May-30	17:26	PA17-574491	CANCELLED BY COMPLAINANT	CANCEL	MVC - HIT AND RUN, NO INJ	NO	YES	CLOSED CAD	
2017-May-31	09:20	PA17-576312	MVC - HIT AND RUN, NO INJ	MVCNR	POLICE INFORMATION	YES	YES	TRACS CRAS	
2017-May-31	11:29	PA17-576909	POLICE INFORMATION	INFORM	TRAF VIOL OTHER	NO	YES	CLOSED CAD	
2017-May-31	18:00	PA17-578477	TRAF VIOL OTHER	TROTH	ROAD HAZARD - ANIMAL - DE	NO	YES	CLOSED CAD	
2017-May-31	18:55	PA17-578631	ROAD HAZARD - ANIMAL - DE	RDOH	DOMESTIC - OTHER	YES	YES	CLOSED CAD	
2017-May-31	18:55	PA17-578631	DOMESTIC - OTHER	DOMO		YES	YES	GENERAL OF	

* END OF SYNOPSIS REPORT *

**WORCESTER TOWNSHIP BOARD OF SUPERVISORS WORK SESSION
WORCESTER TOWNSHIP COMMUNITY HALL
FAIRVIEW VILLAGE, WORCESTER, PA
WEDNESDAY, MAY 17, 2017 – 6:00 PM**

CALL TO ORDER by Chair Caughlan at 6:08 PM

PLEDGE OF ALLEGIANCE

ATTENDANCE

PRESENT: SUSAN G. CAUGHLAN [X]
STEPHEN C. QUIGLEY [X]
ARTHUR C. BUSTARD [X]

INFORMATIONAL ITEMS

- There were no information items announced at this evening's Work Session.

PUBLIC COMMENT

- There was no public comment at this evening's Work Session.

PRESENTATIONS

Valley Forge Tourism and Convention Board – Dan Weckerly, Communications Manager, Valley Forge Tourism and Convention Board, provided an overview of the Board's current effort to market our region, including television and internet promotional advertisements.

Supervisor Quigley commented on the Board's relationship to area Chambers of Commerce.

Chair Caughlan commented on the Board's promotion of points of interest in the Township.

Supervisor Quigley inquired as to visitor length of stay and other visitor demographics.

There was general discussion of planned trail connections to Evansburg State Park.

athletic field sign ordinance – Eric Frey, Solicitor, Methacton School District, provided an overview of proposed dimensional regulations for fence, scoreboard, dugout and spectator stand signage, and on the permitting process for same.

Chair Caughlan commented on sign posting, removal and maintenance.

Chair Caughlan commented on sign illumination. Mr. Frey confirmed the signs would not be illuminated. Tommy Ryan, Township Manager, will amend the ordinance to include this restriction.

OTHER BUSINESS

- There was no other business discussed at this evening's Work Session.

ADJOURNMENT

There being no further business brought before the Board, Chair Caughlan adjourned the Work Session at 6:43 PM.

Respectfully Submitted:

Tommy Ryan
Township Manager

DRAFT

**WORCESTER TOWNSHIP BOARD OF SUPERVISORS BUSINESS MEETING
WORCESTER TOWNSHIP COMMUNITY HALL
FAIRVIEW VILLAGE, WORCESTER, PA
WEDNESDAY, MAY 17, 2017 – 7:30 PM**

CALL TO ORDER by Chair Caughlan at 7:32 PM

PLEDGE OF ALLEGIANCE

ATTENDANCE

PRESENT: SUSAN G. CAUGHLAN [X]
STEPHEN C. QUIGLEY [X]
ARTHUR C. BUSTARD [X]

INFORMATIONAL ITEMS

- Tommy Ryan, Township Manager, provided an overview of an approximate \$220,000 Green Light Go grant award for improvements to certain traffic signals at Valley Forge Road and Germantown Pike.
- Chair Caughlan announced an addition to this evening's Business Meeting agenda, a proposed change of start time for the balance of Work Session meetings in 2017.

PUBLIC COMMENT

- There was no public comment at this evening's Business Meeting.

OFFICIAL ACTION ITEMS

- a) Consent Agenda – Chair Caughlan asked if any Member wished to remove an item from the consent agenda. There were no requests to remove an item from the consent agenda.

Supervisor Bustard made a motion to approve a consent agenda that includes (a) the Treasurer's Report and other Monthly Reports for April 2017, (b) bill payment for April 2017 in the amount of \$183,432.31; (c) the April 19, 2017 Business Meeting minutes; and, (d) the April 19, 2017 Work Session minutes. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- b) waiver – Mr. Ryan provided an overview of a waiver request to install an on-lot septic system in the front yard at 2119 Berks Road.

Supervisor Bustard made a motion to approve a waiver request to install an on-lot septic system in the front yard at 2119 Berks Road. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- c) Resolution 2017-13 – Mr. Ryan provided an overview of a proposed revision to the Worcester Township Personnel Manual to include a health insurance opt-out provision.

Supervisor Bustard made a motion to approve Resolution 2017-13, to revise the Worcester Township Personnel Manual to include a health insurance opt-out provision. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- d) waiver – Mr. Ryan provided an overview of a waiver request to install an on-lot septic system in the front yard at 1545 Kriebel Mill Road.

Supervisor Bustard made a motion to approve a waiver request to install an on-lot septic system in the front yard at 1545 Kriebel Mill Road. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- e) proposal award – Mr. Ryan provided an overview of a proposed contract for sanitary sewer operation services with Private Utilities Enterprises, Inc. Joe Nolan, Township Engineer, commented on his experience with this contractor.

Supervisor Bustard made a motion to execute a contract with Private Utilities Enterprises, Inc. for sanitary sewer operation services, for an 18-month period effective July 1, 2017. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- f) bid award – Mr. Ryan provided an overview of bids received for sludge hauling, and he noted the lowest responsive and responsible bidder was Franc Environmental, Inc.

Supervisor Bustard made a motion to award a bid for sludge hauling to Franc Environmental, Inc., in the amounts noted in the bid opened on May 10, 2017. The motion was seconded by Supervisor Quigley.

Supervisor Quigley commented on potential liability for sludge removal and disposal.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- g) Skippack Creek Watershed – Mr. Nolan provided an overview of a multi-municipal effort to assess the waste load allocation attributable to certain Townships in the Skippack Creek Watershed.

Supervisor Bustard made a motion to approve the Township joining a multi-municipal effort to assess the municipality's waste load allocation for that portion of the Skippack Creek Watershed situated in the Township, as per the T&M Associates May 4, 2017 proposal. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- h) resignation – Supervisor Bustard made a motion to accept the resignation of Doug Fennimore, Public Works Laborer. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

- i) Work Session Meeting start time – Supervisor Bustard made a motion to establish a 6:30pm start time for Work Session meetings for the balance of 2017, and to advertise same. The motion was seconded by Supervisor Quigley.

There was no public comment.

By unanimous vote the Board adopted the motion to approve.

OTHER BUSINESS

- There was no other business discussed at this evening's Business Meeting.

ADJOURNMENT

There being no further business brought before the Board, Chair Caughlan adjourned the Business Meeting at 7:53 PM.

Respectfully Submitted:

Tommy Ryan
Township Manager

DRAFT

2017-267 - Signs		
12/30/16	ordinance approved by BB	BB
3/10/17	to WTPC and MCPC for review	TR
3/23/17	PC review	TR
4/20/17	revised ordinance approved by BB	BB
4/27/17	PC review, recommended approval	TR
5/2/17	legal ad and schedule to BB	TR
5/4/17	legal ad & schedule approved by BB	BB
5/18/17	revised ordinance and legal ad	TR
5/18/17	revised ordinance to MCPC and WTPC	TR
5/18/17	revised ordinance sent to Times Herald	TR
5/18/17	revised ordinance sent to MCLL	TR
5/18/17	revised ordinance placed in lobby	TR
5/18/17	revised ordinance posted to website	LS
5/22/17	revised ordinance #2 to MCPC and WTPC	TR
5/22/17	revised ordinance #2 sent to Times Herald	TR
5/22/17	revised ordinance #2 sent to MCLL	TR
5/22/17	revised ordinance #2 placed in lobby	TR
5/22/17	revised ordinance posted to website	LS
6/1/17	legal ad #1 published	TR
6/8/17	legal ad #2 published	TR
6/21/17	BoS hearing	
6/22/17	send to General Code via ezSupp	KM
6/22/17	send PDF to BB	TR

agenda item b)

TOWNSHIP OF WORCESTER
MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE 2017 - 267

AN ORDINANCE AMENDING THE TOWNSHIP CODE OF WORCESTER TOWNSHIP,
CHAPTER 150, ZONING, ARTICLE XXI, SIGNS

WHEREAS, the Board of Supervisors of Worcester Township desires to amend the Township Code to permit and regulate certain signage specific to educational uses and to otherwise amend the sign ordinance in such a manner as to protect and promote the health, safety and general welfare of the community.

NOW, THEREFORE, the Board of Supervisors hereby ordains and enacts as follows:

SECTION I - The Code of the Township of Worcester, Chapter 150, Zoning, Article XXI, Signs, is hereby amended to include the following:

§150-148.1. Athletic Field Area Signs.

The following signs are permitted at athletic field areas at a public or private school, subject to the noted conditions.

A. Athletic Field Fence Signs are permitted on the fences that immediately surround the playing area of a baseball or softball field, football field, lacrosse field, soccer field, field hockey or similar playing facility.

(1) Signs shall be directed toward the playing field or spectator stands only. Any side of a sign side that is not directed toward the playing field or spectator stands shall be a uniform dark color and shall contain no words, graphics or other content.

(2) No portion of the sign shall be higher than the top of the fence, or ten (10) feet from grade, whichever is less.

B. Athletic Field Spectator Stand Signs are permitted on the railings in front of, or behind the spectator stands that immediately surround the playing area of a baseball or softball field, football field, lacrosse

field, soccer field, field hockey or similar playing facility.

- (1) Signs on the railing in front of spectator stands shall be directed toward the spectator stands. The reverse side of the sign shall be a uniform dark color and shall contain no words, graphics or other content.
- (2) Signs on the railing behind spectator stands shall be directed away from the spectator stands. The reverse side of the sign shall be a uniform dark color and shall contain no words, graphics or other content. No portion of the sign may be visible from neighboring properties.
- (3) No portion of the sign shall be higher than the top of the railing, or five (5) feet from grade, whichever is less.

C. Scoreboard Signs are permitted on one (1) scoreboard that serves a baseball or softball field, football field, lacrosse field, soccer field, field hockey or similar playing facility.

- (1) One (1) sign is permitted on each scoreboard or scoreboard support structure.
- (2) The sign shall be directed toward the playing field. The reverse side of the sign shall be a uniform dark color and shall contain no words, graphics or other content.
- (3) Signs shall not exceed three (3) feet in height, and shall not exceed the width of the scoreboard.
- (4) Signs shall be posted below the scoreboard, and no portion of the sign shall be higher than twenty (20) feet from grade.

D. Dugout Signs are permitted on up to two (2) dugouts that serve a baseball or softball field or similar playing facility.

- (1) Two (2) signs are permitted on each dugout.

- (2) Signs shall not exceed thirty (30) square feet.
 - (3) Signs shall be posted below the lowest point of the dugout roof, and no portion of the sign shall be higher than ten (10) feet from grade.
- E. A permit shall be required prior to the installation of any Athletic Field Area Sign. With the permit application the Applicant shall submit a signage plan that shows all signage to be installed, and all signage that may be installed, at each playing facility, which shall include the field and any spectator stands, scoreboards and dugouts associated with the field. The permit issued shall encompass all proposed signage at the playing facility. No change in the approved signage plan shall be allowed unless a revised signage plan is submitted to the Township and the Township issues a new permit.
- F. Athletic Field Area signs shall not be illuminated in any manner, nor shall they contain moving parts, electronically changeable messages, lighting, video, or sound.

SECTION II - General Provisions.

1. All other terms and provisions of Chapter 150, Zoning, Article III, Definitions, and Article XXI, Signs, of the Worcester Township Code shall remain in full force and effect.
2. The proper officers of the Township are hereby authorized and directed to do all matters and things required to be done by the Acts of Assembly and by this Ordinance for the purpose of carrying out the purposes hereof.
3. In the event that any section, subsection or portion of this Ordinance shall be declared by any competent court to be invalid for any reason, such decision shall not be deemed to affect the validity of any other section, subsection or portion of this Ordinance. The invalidity of section, clause, sentence, or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts. It is hereby declared to be the intention of the Township that this Ordinance would have been adopted

had such invalid section, clause, sentence, or provision not been included therein.

4. To the extent this Ordinance is inconsistent with the Code of Worcester Township, the provisions of this Ordinance shall take precedence. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.
5. The failure of the Township to enforce any provision of this Ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.
6. This Ordinance shall immediately take effect and be in force from and after its approval.

ENACTED AND ORDAINED by the Supervisors of the Township of Worcester, Montgomery County, Pennsylvania on this 21st day of June, 2017.

WORCESTER TOWNSHIP

By: _____

Susan Caughlan, Chair
Board of Supervisors

Attest: _____

Tommy Ryan, Secretary

2017-268 - SWM		
3/16/16	BoS review	
5/18/16	BoS review	
10/19/16	BoS review	
3/27/17	draft ordinance, legal ad and schedule to BB	TR
4/4/17	draft ordinance approved by BB	BB
4/4/17	legal ad & schedule approved by BB	BB
4/5/17	ordinance sent to MCPC	TR
4/21/17	ordinance sent to WTPC	TR
4/27/17	WTPC comment, if any	TR
5/18/17	ordinance sent to Times Herald	TR
5/18/17	ordinance sent to MCLL	TR
5/18/17	ordinance placed in lobby	TR
5/18/17	ordinance posted to website	LS
6/1/17	legal ad #1 published	TR
6/8/17	legal ad #2 published	TR
6/21/17	BoS hearing	
6/22/17	send to General Code via ezSupp	KM
6/22/17	send PDF to BB	TR

agenda item d)

**TOWNSHIP OF WORCESTER
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE 2017-268

AN ORDINANCE TO ENACT A STORMWATER MANAGEMENT ORDINANCE

NOW, THEREFORE, IT IS HEREBY ORDAINED AND ENACTED THAT the Board of Supervisors of Worcester Township does delete the Township Code Section 130-24, Stormwater Management, in its entirety, and does amend the Township Code to include Chapter 129, Stormwater Management, attached hereto as Exhibit A.

1. Miscellaneous provisions.
 - a. In the event that any section, subsection or portion of this Ordinance shall be declared by any competent court to be invalid for any reason, such decision shall not be deemed to affect the validity of any other section, subsection or portion of this Ordinance. The invalidity of section, clause, sentence, or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts. It is hereby declared to be the intention of the Township that this Ordinance would have been adopted had such invalid section, clause, sentence, or provision not been included therein.
 - b. To the extent this Ordinance is inconsistent with the Code of Worcester Township, the provisions of this Ordinance shall take precedence. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.
 - c. This Ordinance shall become effective on January 1, 2018.

ENACTED AND ORDAINED by the Supervisors of the Township of Worcester, Montgomery County, Pennsylvania on this 21st day of June, 2017.

FOR WORCESTER TOWNSHIP

By: _____
Susan G. Caughlan, Chair
Board of Supervisors

Attest: _____
Tommy Ryan, Secretary

EXHIBIT A

**WORCESTER TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA
STORMWATER MANAGEMENT ORDINANCE
CHAPTER 129**

Sixth Draft For Review – March 27, 2017

Prepared by CKS Engineers, Inc.
Ref: #7200-120

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Chapter 129. STORMWATER MANAGEMENT

Article 1. General provisions

§ 129-1. Statement of Findings.

The Board of Supervisors of Worcester Township finds that:

- A. The United States Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (DEP) have mandated that certain Pennsylvania municipalities enact the following stormwater regulations, and have done so without giving full consideration to the financial and other impacts these regulations will have on municipalities and their residents. While Worcester Township shares the goal of protecting our community's watershed and natural resources, we believe a "one size fits all" approach mandated by Federal and State Law is not the best way to achieve this goal. Instead, local governments should be allowed to develop effective solutions to local problems. Individuals may contact our Township's State Representative, State Senator and Members of Congress with any concerns about the following mandated regulations.
- B. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, degrades water quality, overtaxes the carrying capacity of existing 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.
- C. A comprehensive program of stormwater management (SWM), 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 Township and all the people of the Commonwealth, their resources, and the environment.
- D. Through project design, impacts from stormwater runoff can be minimized to maintain the natural hydrologic regime, and sustain high water quality, groundwater recharge, stream baseflow, and aquatic ecosystems. The most cost effective and environmentally advantageous way to manage stormwater runoff is through nonstructural project design, minimizing impervious surfaces and sprawl, avoiding sensitive areas (i.e. stream buffers, floodplains, steep slopes), and designing to topography and soils to maintain the natural hydrologic regime.
- E. Inadequate planning and management of stormwater runoff resulting from land development and redevelopment throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of streambeds and streambanks thereby elevating sedimentation), destroying aquatic habitat and elevating aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals and pathogens.
- F. The aforementioned impacts happen mainly through a decrease in natural infiltration of stormwater.
- G. Stormwater is an important water resource by providing groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- H. Public education on the control of pollution from stormwater is an essential component in successfully addressing stormwater.
- I. Federal and State regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a federal permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES).
- J. Non-stormwater discharges to municipal separate storm sewer systems can contribute to pollution of Waters of the Commonwealth by the Township.

§ 129-2. Purpose.

The purpose of this comprehensive stormwater management ordinance is to promote health, safety, and welfare within Worcester Township by maintaining the natural hydrologic regime and by minimizing the harms and maximizing the benefits described in § 129-1 of this Chapter through provisions designed to:

- A. Meet Water Quality requirements under State law, including regulations at 25 Pa. Code Chapter 93.4a to protect and maintain "existing uses" and maintain the level of water quality to support those uses in all streams, and to protect and maintain water quality in "special protection" streams.
- B. Promote nonstructural Best Management Practices (BMP).
- C. Minimize increases in stormwater volume and control peak flow.
- D. Minimize impervious surfaces.
- E. 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 the pre-development volume of groundwater recharge and prevent degradation of groundwater quality.
- H. Maintain the pre-development peak and volume of stormwater runoff and prevent degradation of surface water quality.
- I. Minimize nonpoint 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 Township and the Commonwealth.
- L. Preserve and restore the flood-carrying capacity of streams.
- M. Provide proper operations and maintenance of all permanent stormwater management facilities and Best Management Practices that are implemented in the Township.
- N. Provide performance standards and design criteria for watershed-wide stormwater management and planning.
- O. Provide review procedures, performance standards, and design criteria for stormwater planning and management.
- P. Manage stormwater impacts close to the runoff source, requiring a minimum of structures and relying on natural processes.
- Q. Infiltrate stormwater to maintain groundwater recharge, to prevent degradation of surface and groundwater quality, and to otherwise protect water resources.

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- (6) Construction of new buildings or additions to existing buildings which cumulatively exceed one-thousand two-hundred (1,200) square feet of impervious surface area since the date of adoption of this Ordinance.
 - (7) Redevelopment.
 - (8) Diversion piping or encroachments in any natural or man-made stream channel.
 - (9) Nonstructural and structural stormwater management Best Management Practices (BMPs) or apparatuses thereto.
 - (10) Temporary storage of impervious or pervious material (rock, soil, etc.) where ground contact exceeds 5 percent of the lot area or 5,000 square feet (whichever is less), and where the material is placed on slopes exceeding 8 percent.
 - (11) Any activity requiring a Grading and Excavations Permit pursuant to Township Ordinance, 2011-229, as amended.
- F. All regulated activities which result in earth disturbance shall comply with the requirements of the Worcester Township Grading and Excavations Ordinance No. 2011-229 (Chapter 81 of the Township Code), as amended.

§ 129-5. Exemptions

- A. Exemption from any provision of this Chapter shall not relieve the applicant from all other applicable requirements of this Chapter, as identified herein.
- B. The following regulated activities, not proposed in conjunction with a subdivision or land development, are exempt from the requirements of this Chapter (except where otherwise identified, herein):
 - (1) Installation of one-thousand two-hundred (1,200) square feet or less of cumulative impervious surface area since the date of adoption of this ordinance.
 - (2) Use of land for gardening for home consumption.
 - (3) Agricultural activities when operated in accordance with a conservation plan, nutrient management plan, or erosion and sedimentation control plan approved by the Montgomery County Conservation District, including activities such as growing crops, rotating crops, 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 Chapter unless exempt pursuant to § 129-5.
 - (4) 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 an EROSION AND SEDIMENTATION CONTROL Plan approved by the Montgomery County Conservation District and which have Zoning approval from Worcester Township.

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- R. Prevent streambank and streambed scour and erosion.
- S. Provide standards to meet National Pollution Discharge Elimination System (NPDES) Permit requirements.
- T. Address certain requirements of the Municipal Separate Stormwater Sewer System (MS4) NPDES Phase II Stormwater Regulations.
- U. Implement an illicit discharge detection and elimination program to address non-stormwater discharges into the MS4.

§ 129-3. Statutory Authority.

The Township is empowered to regulate land use activities that affect runoff by the authority of the Act of October 4, 1978 32 P.S., P.L. 864 (Act 167) Section 680.1 et seq., as amended, the "Storm Water Management Act," 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. Section 10101; and by the authority of the Pennsylvania Second-Class Township Code.

§ 129-4. Applicability and regulated activities

- A. This Chapter shall apply to all areas of the Township that are located within the Skipack Creek, Wissahickon Creek, and Stony Creek/Saw Mill Run Watersheds.
- B. All construction and development activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Chapter.
- C. This Chapter shall apply to temporary and permanent stormwater management facilities constructed as part of any of the regulated activities listed in this section. Stormwater management and erosion and sedimentation control during construction activities which are specifically not regulated by this Chapter, shall continue to be regulated under existing laws and ordinances.
- D. This Chapter contains 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, where not specifically identified herein.
- E. The following activities are defined as "Regulated Activities" and shall be regulated by this Chapter except as may be exempt from provisions of this Chapter pursuant to § 129-5:
 - (1) Land development.
 - (2) Subdivision.
 - (3) Prohibited or polluted discharges.
 - (4) Alteration of the natural hydrologic regime.
 - (5) Construction of new or additional impervious surfaces (e.g. driveways, parking lots, etc.)

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- (5) Public road replacement, replacement paving, repaving and/or maintenance, and roadway shoulder improvements. This includes shoulder improvements conducted within the existing roadway cross-section of municipally owned roadways, provided said improvements do not result in the construction of a new lane of travel. However, if the shoulder improvements require an NPDES permit, the proposed work must comply with all the requirements of this chapter.
 - (6) Any aspect of BMP maintenance to an existing SWM system made in accordance with plans and specifications approved by the Township.
 - (7) Repair and reconstruction of on-lot sewage disposal systems where work is performed in accordance with a valid permit issued by Montgomery County Department of Health.
 - (8) Lots that are part of an approved subdivision containing overall subdivision stormwater management facilities, such as detention basins, rain gardens, etc., are exempt from additional individual lot controls if the total quantity of impervious surface area on the lot (existing plus proposed) is equal to or less than that quantity allocated to the lot, in the stormwater management design approved in conjunction with the subdivision.
 - (9) Construction or reconstruction of buildings or additions to existing buildings or other impervious surface (regulated activities) is exempt where the following conditions are met:
 - (a) An area of impervious surface is removed from the site so that upon completion of the regulated activity, the total increase of impervious surface area is 1,200 square feet, or less.
 - (b) The area where existing impervious surface is removed pursuant to § 129-5.B.9.a above must be restored with a minimum of six (6) inches of topsoil and permanent vegetative groundcover.
 - (10) Grading and Excavations Permit applications (pursuant to Chapter 81 of the Worcester Township Code) where the addition of impervious surface area is 1,200 square feet, or less.
 - (11) Lot line adjustment subdivisions are exempt when no increase in impervious surface is proposed.
 - (12) No exemption shall be provided for regulated activities as defined in § 129-4.E.8 and 9 of this Chapter.
- C. Any regulated activity in Worcester Township, not proposed in conjunction with a subdivision or land development, creating additional impervious surface area cumulatively in excess of 1,200 square feet (on the "parent tract") but less than 7,500 square feet as identified in table 129-5.1, and satisfying the setback criteria identified in Table 129-5.2 below are exempt from the release rate requirements of this Chapter but are required to submit a Simplified Stormwater Management Site Plan, obtain a Stormwater Management Permit (pursuant to Article IV of this Chapter) and install an infiltration/volume control BMP in accordance with Worcester Township design and construction criteria to be provided by the Township at the time of Permit application. This requirement shall apply to the total development even if development is to take place in

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phases. The starting point from which to consider tracts as "parent tracts" is the date of adoption of this ordinance. All impervious surface area constructed after the date of adoption of this ordinance shall be considered cumulatively. Impervious surface area existing on the "parent tract" prior to this date shall not be included in cumulative impervious surface area summation for determination of an exempt regulated activity. Any area designated to be gravel or crushed stone shall be considered impervious surface unless it is part of a designed BMP.

All applicants seeking an exemption of stormwater management requirements based upon criteria contained in § 129-5.B and 129-5.C, and that are required to install an infiltration/volume control BMP in accordance with the Worcester Township design and construction criteria shall at a minimum, submit the documentation identified pursuant to § 129-23 of this Chapter, to the Township for review and approval as a prerequisite to approval of a Stormwater Management Permit and authorization to commence land disturbance activities.

Regulated activities creating impervious surface area greater than the quantities referenced in Tables 129-5.1 and 129-5.2 are NOT exempt from the requirements of this Chapter and shall submit a Stormwater Management Site Plan and Permit application pursuant to Article IV of this Chapter.

- (1) Regulated activities included within § 129-5.C are exempt from certain provisions of this Chapter where the cumulative amount of additional proposed impervious surface area and the location of the impervious surface area conform to the following tables, 129-5.1 and 129-5.2:

Table 129-5.1 - Maximum Exempt Impervious Surface Area

Total Parcel Area (acres)	Maximum Exempt Impervious Surface Area (square feet)
<0.50	1,200
0.50 to 1.0	2,500
>1.0 to 2.0	4,000
>2.0 to 5.0	5,000
>5.0	7,500

- (2) Maximum amount of impervious surface area permitted (pursuant to Table 129-5.1) within a setback (excluding driveway access), measured from the downslope property boundary, shall conform to the following table:

Table 129-5.2 - Maximum Exempt Impervious Surface Area Permitted within the Setback

Minimum Setback* (feet)	Maximum Exempt Impervious Surface Area (square feet) Permitted within the Setback
10	None permitted
20	1,000
50	2,500
100	4,000

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§ 129-8. Compatibility with Other Ordinance Requirements

Approvals issued pursuant to this Chapter 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.

§ 129-9. Modification

The Worcester Township Board of Supervisors may grant a modification of the requirements of one or more provisions of this Chapter if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of this Chapter is observed.

§ 129-10. 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 Township purporting to validate such a violation.

ARTICLE II DEFINITIONS

§ 129-11. Definitions and Word Usage

- A. For the purposes of this Chapter, certain terms and words used herein shall be interpreted as follows:

- (1) 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.
- (2) 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.
- (3) The word "person" includes an individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.
- (4) The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.
- (5) The words "used" or "occupied" include the words "intended", "designed", "maintained", or "arranged to be used", "occupied" or "maintained".

- B. As used in this Chapter, 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 ACTIVITIES. 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

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200	5,000
500	7,500

* The "Minimum Setback" is defined as that distance between the downslope property boundary (where surface stormwater runoff from the regulated activity crosses that boundary) to the nearest point of the proposed impervious improvements, or the stormwater control structure discharge point, whichever is closer. Setback distances may be adjusted at the discretion of the Township Engineer based upon factors such as topography, surface flow path, soil conditions, and location of structures.

- (3) Projects meeting the exemption criteria established by Tables 129-5.1 and 129-5.2 shall provide an infiltration/volume control facility capable of storing the first 2 inches of rainfall generated by the increase in impervious area. The facility, including all necessary construction details and calculations shall be shown on the Simplified Stormwater Management Site Plan. Tree planting may also be utilized toward volume control. See Section 129-23 and Appendix "E" for plan requirements, examples of various standard facilities, and additional design criteria.

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 exist downstream of, or is expected from, the proposed activity, the Township may deny an exemption.
- (3) HQ and EV streams - An exemption or partial exemption shall not relieve the applicant from meeting special requirements for watersheds draining to high quality (HQ) or exceptional value (EV) waters.

- E. All applicants seeking an exemption of stormwater management requirements based upon criteria contained in § 129-5.C shall, at a minimum, submit documentation outlined in Section 129-23 to the Township for review and approval of a Stormwater Management Exemption and authorization to commence land disturbance activities.

§ 129-6. Repealer

Any Ordinance or Ordinance provision of the Township inconsistent with any of the provisions of this Chapter is hereby repealed to the extent of the inconsistency only.

§ 129-7. Severability

Should any section or provision of this Chapter be declared invalid by a court of competent jurisdiction, such decisions shall not affect the viability of any of the remaining provisions of this Chapter.

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crops or pasturing and raising livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

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

APPLICANT. A landowner or developer who has filed an application for approval to engage in any Regulated Activities as defined in § 129-4 of this Chapter.

AS-BUILT DRAWINGS (As-Built Plan). Drawings that are maintained during construction of the project and which document the actual locations of the site improvements. As-built plan must be prepared by a professional land surveyor, landscape architect, or professional engineer licensed in the Commonwealth of Pennsylvania.

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.

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

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

BMP MANUAL. Pennsylvania Stormwater 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.

CONSERVATION DISTRICT. Montgomery County Conservation District.

COUNTY. Montgomery County

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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. It is a measure of the percentage of precipitation which is expected to run off from the watershed and is a function of the soil, vegetative cover, and tillage method.

DAM. 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.

DEPARTMENT. The Pennsylvania Department of Environmental Protection.

DESIGN PROFESSIONAL (Qualified). A Pennsylvania Registered Professional Engineer, Registered Landscape Architect, or a Registered Professional Land Surveyor trained to develop Stormwater Management Site Plans or Simplified Stormwater Management Site Plans.

DESIGN STORM. The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g. 50-year storm) and duration (e.g. 24-hours), used in the design and evaluation of stormwater management systems.

DESIGNEE. The agent of Worcester Township, Montgomery County, Montgomery County Conservation District and/or Governing Body involved with the administration, review, or enforcement of any provisions of this Chapter 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 basins are designed to drain completely soon after a rainfall event.

DETENTION/RETENTION BASIN WATERSHED. All land area whose surface runoff is captured by a detention and/or retention basin.

DETENTION VOLUME. The volume of runoff that is captured and released into the Waters of the Commonwealth at a controlled rate.

DEVELOPER. A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any regulated activity of this Chapter.

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 "development plan" when used in this Chapter 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

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made impervious surfaces shall be considered as "meadow" when developing "cover complex" calculations.

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

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

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 Worcester Township which are subject to the one hundred year flood, as identified in the Flood Insurance Study (FIS) dated December 19, 1996 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 100 year recurrence interval flood.

FLOODWAY. The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-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 100-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 forest land. 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 road bed, top of embankment or bottom of excavation.

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

GROUNDWATER RECHARGE. Replenishment of natural underground water supplies.

HEC-HMS. The US 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

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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.

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

EARTH DISTURBANCE. 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, mineral extraction, and the moving, depositing, stockpiling or skirting of soil, rock or earth materials.

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

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

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

EROSION. The movement of soil particles by the action of water, wind, ice, or other natural forces.

EROSION AND SEDIMENTATION 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 anti-degradation).

EXISTING CONDITIONS. The initial condition of a project site prior to the proposed construction. Farm field, disturbed earth, or undeveloped open conditions of a site or portions of a site used for modeling purposes, shall be considered "meadow" unless the natural groundcover generates lower curve numbers or Rational "C" value, such as forested land. Existing man-

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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).

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

HYDROLOGIC REGIME (NATURAL). The hydrologic cycle or balance that sustains quality and quantity of stormwater, baseflow, storage, and groundwater supplies under the natural conditions.

HYDROLOGIC SOIL GROUP. A classification of soils by the Natural Resources Conservation Service, formerly the Soil Conservation Service, into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff.

IMPERVIOUS SURFACE (Impervious Area). A surface that prevents the infiltration of water into the ground. Impervious surface area shall include, but not be limited to, buildings, parking areas, driveways, roads, and sidewalks. Any areas containing concrete, asphalt, compacted stone, compacted soils, or other equivalent surfaces shall be considered impervious. Decks that do not prevent infiltration shall not be considered as impervious surface. In addition, other areas determined by the Township Engineer to be impervious within the meaning of this definition shall be classified as impervious surface. Any area initially designated to be gravel or crushed stone shall be assumed to be impervious. Pervious paving, when designed above a stormwater storage/infiltration system may be considered as pervious surface as approved by the Township Engineer.

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

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, stepage 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.

LAND DEVELOPMENT. Any of the following activities:

- (1) The improvement of one (1) or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving:

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- (a) A group of two (2) 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 (2) 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 semi-detached dwelling into not more than three (3) 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 grading, tiling, 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 it effectively limits downward passage of effluent.

LOW IMPACT DEVELOPMENT (LID) PRACTICES. Practices that will minimize proposed conditions runoff rates and volumes, which will minimize the need for artificial conveyance and storage facilities.

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.

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

POST-DEVELOPMENT. Period after construction during which disturbed areas are stabilized, stormwater controls are in place and functioning, and all improvements in the approved stormwater management plan are completed.

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

RATIONAL METHOD. 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 non-structural BMPs.

REGULATED ACTIVITIES. Any activity to which this Chapter is applicable pursuant to § 129-4.

REGULATED EARTH DISTURBANCE ACTIVITY. Activity involving earth disturbance subject to regulation under 25 Pa. Code 92, 25 Pa. Code 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. For example, the 25-year return period rainfall would be expected to recur on the average once every 25 years.

RIPARIAN CORRIDOR. A vegetated ecosystem along a waterbody that serves to buffer the waterbody from the effects of runoff by providing water quality filtering, bank stability, recharge, rate attenuation and volume reduction, and shading of the waterbody by vegetation. Riparian corridors also provide habitat and may include streambanks, wetlands, floodplains, and transitional areas.

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.

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

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MS4 – MUNICIPAL SEPARATE STORM SEWER SYSTEM – Pursuant to 40 CFR 122.26(b)(8), municipal separate storm sewer system is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, Township, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2.

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

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

NPDES. National 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 Resource 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 Worcester Township'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.

PADEP. The Pennsylvania Department of Environmental Protection.

PARENT TRACT. The parcel of land from which a land development or subdivision originates as of the date of adoption of this ordinance.

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

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

PLANNING COMMISSION. The Planning Commission of Worcester Township.

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

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

RUNOFF. Any part of precipitation that flows over the land surface.

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 Chapter.

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 underground water (Refer to PA BMP Manual, December 2006, Chapter 6, Section 4).

SEPARATE STORM SEWER SYSTEM. A system of pipes, open channels, streets, and other conveyances intended to carry stormwater runoff.

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

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).

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

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.

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. Refer to "Return Period."

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

STORMWATER. The surface runoff generated by precipitation reaching the ground surface.

STORMWATER CONVEYANCE FACILITY (Runoff Conveyance Facility). A stormwater management facility designed to transmit stormwater runoff which shall include streams, channels, swales, pipes, conduits, culverts, storm sewers, etc.

STORMWATER MANAGEMENT (SWM). The control of surface runoff generated by precipitation reaching the ground surface.

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 after the Stormwater Management Site Plan (SMSF) or the Simplified Stormwater Management Site Plan (SSMSF) has been approved. Said permit is issued prior to or with the final Township approval.

STORMWATER MANAGEMENT PLAN. The plan for managing stormwater runoff within the Township adopted as required by the Act of October 4, 1978, P.L. 854 (Act 167).

STORMWATER MANAGEMENT SITE PLAN (SMSF). The Stormwater Management Site Plan prepared by the applicant indicating how stormwater runoff will be managed at the particular site of interest according to this Chapter.

STORMWATER MANAGEMENT SITE PLAN, SIMPLIFIED (SSMSF). The Simplified Stormwater Management Site Plan prepared by the applicant indicating how stormwater runoff will be managed at the particular site of interest according to this Chapter.

STREAM. Rivers, creeks, springs, and other perennial or intermittent watercourses containing water at least on a seasonal basis during an average water year. The term "stream" shall include all "Intermittent Streams" and all "Perennial Streams".

- (1) Springs or Seeps - The point where groundwater discharges to become surface water.
- (2) Stream, Ephemeral - A reach of stream that flows only during and for short periods following precipitation, and flows in low areas that may or may not be a well-defined channel. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Some commonly used names for ephemeral streams include: stormwater channel, drain, swale, gully, dry stream channel, hollow, or saddle.
- (3) Stream, Headwater - The beginning reach of a stream, which collects water from springs and seeps and provides a hydrologic connection to a perennial stream. These channels may be ill defined and may move from year to year depending upon groundwater input, snowmelt, and runoff, but are typified by hydric soils and hydric vegetation.

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

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

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.

WATERCOURSE. An intermittent or perennial stream of water, river, brook, creek, or swale identified on USGS or SCS mapping; and/or designated Waters of the Commonwealth.

WATERS OF THE COMMONWEALTH. Any and all rivers, streams, creeks, rivulets, 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.

WATERS OF THE UNITED STATES (or WATERS OF THE US)

- (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters, including interstate "wetlands";
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (5) Tributaries of waters identified in paragraphs a through d of this definition;
- (6) The territorial sea; and
- (7) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs a through f of this definition.

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

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(4) Stream, Intermittent - A reach of stream that flows only during wet periods of the year and flows in a continuous well-defined channel. During dry periods, when the water table is depressed by seasonal aridity or drought, intermittent streams may go down to a trickle of water and appear dry, when in fact there is water flowing within the stream bottom or "substrate".

(5) Stream, Perennial or Watercourse, Perennial - A body of water in a channel that flows throughout a majority of the year in a defined channel and is capable, in the absence of pollution, drought, or manmade stream disturbances, of supporting a benthic macroinvertebrate community that is composed of two or more recognizable taxonomic groups of organisms, large enough to be seen by the unaided eye and can be retained by a U.S. Standard No. 30 sieve (28 meshes per inch, 0.595 mm openings) and live at least part of their life cycles within or upon available substrates in a body of water or water transport system. A perennial stream can have Q7-10 flow of zero. For the purposes of this document, a perennial stream includes lakes and ponds.

STREAM BUFFER. The land area adjacent to each side of a stream, essential to maintaining water quality.

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

STREAM ENCLOSURE. A bridge, culvert, or other structure, as defined by 25 Pa. Code 105, which encloses a regulated water of the Commonwealth of Pennsylvania.

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

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

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

TIMBER OPERATIONS. Refer to Forest Management.

TIME OF CONCENTRATION (T_c). 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. Worcester Township, Montgomery County, Pennsylvania.

TOWNSHIP ENGINEER. A professional engineer licensed as such in the Commonwealth of Pennsylvania and appointed by Worcester Township pursuant to the Pennsylvania Second-Class Township Code.

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WETLAND. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, 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 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 National Society of Consulting Soil Scientists (NSCSS), or as certified by State and/or Federal certification programs; or by a qualified Biologist/Ecologist.

ARTICLE III. STORMWATER MANAGEMENT

§ 129-12. General Requirements.

- A. All applicants proposing Regulated Activities in the Township that do not fall under the exemption criteria shown in § 129-5.B and § 129-5.C of this Chapter shall submit a Stormwater Management Site Plan, consistent with this Chapter, to the Township for review. All applicants proposing Regulated Activities that fall under the exemption criteria identified in § 129-5.C shall submit a Simplified Stormwater Management Site Plan, consistent with this Chapter, to the Township for review. These criteria shall apply to the total proposed development even if development is to take place in stages. Impervious surface shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks. Any areas designed to be gravel or crushed stone shall be assumed to be impervious unless designed as a BMP (e.g. pervious paver blocks, reseeded turf, gravel filled grids, etc.). (Refer to definition of Impervious Surface within § 129-11 of this Chapter).
- B. All Regulated Activities shall include such measures as necessary to:
 - (1) Protect health, safety, and property;
 - (2) Meet the water quality goals of this Chapter by implementing measures to:
 - (a) Minimize disturbance to floodplains, wetlands, and wooded areas.
 - (b) Create, maintain, repair or extend riparian buffers.
 - (c) Avoid erosive flow conditions in natural flow pathways.
 - (d) Minimize thermal impacts to waters of this Commonwealth.
 - (e) Disconnect impervious surfaces (i.e. create Disconnected Impervious Areas, DIAs) by directing runoff to pervious areas, wherever possible;
 - (3) To the maximum extent practicable, incorporate the techniques for Low Impact Development Practices (e.g. protecting existing trees, reducing area of impervious

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surface, cluster development, and protecting open space) described in the Pennsylvania Stormwater Best Management Practices Manual, Pennsylvania Department of Environmental Protection (PADEP) no. 363-0300-002 (December 30, 2006).

- C. The Township may, after consultation with the Department of Environmental Protection (PADEP), approve measures for meeting the state water quality requirements other than those in this Chapter, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.
- D. For all Regulated Earth Disturbance activities, Erosion and Sediment (E&S) Control Best Management Practices (BMPs) shall be designed, implemented, operated, and maintained during the Regulated Earth Disturbance Activities (e.g., during construction) to meet the purposes and requirements of this Chapter 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 (March 2012), as amended and updated.
- E. No approval of any subdivision or land development plan, or issuance of any building, zoning, Grading and Excavations Permit, occupancy permit, or the commencement of any regulated earth disturbance at a project site within the Township shall proceed until the requirements of this Chapter are met, including approval of a Stormwater Management Permit pursuant to Article IV and a permit under PADEP regulations, where applicable.
- F. Erosion and sediment control during land disturbance shall be addressed as required by § 129-20.
- G. Infiltration and Water quality protection shall be addressed as required by § 129-15 and § 129-16.
- H. All Best Management Practices (BMPs) shall conform to the design criteria of this Chapter and Pennsylvania Stormwater Best Management Practices Manual, December 30, 2006.
- I. Low Impact Development Techniques as described in Pennsylvania Stormwater Best Management Practices Manual (December 30, 2006, as amended) are encouraged to reduce the costs of complying with the requirements of this Chapter and State Water Quality requirements. Use of nonstructural BMPs is encouraged and design and applicability of such BMPs is identified pursuant to Chapter 5 of the Pennsylvania BMP Manual. For all proposed non-structural BMPs, the applicant shall utilize and submit applicable checklists included in Chapter 5, Section 5.8 of the Pennsylvania BMP Manual, to demonstrate that the BMPs are applicable to the project and to determine the amount of volume credit that may be applied to the development activity.
- J. Infiltration BMPs should be spread out, made as shallow as practicable, and located to minimize the use of natural onsite infiltration features while still meeting the other requirements of this Chapter.
- K. 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.
- L. 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 discharge criteria specified in this Chapter.

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approved by the Township.

- U. Whenever a watercourse is located within a development site, it shall remain open in its natural state and location and shall not be piped, impeded, or altered (except for permitted crossings). It is the responsibility of the applicant to stabilize existing eroded stream/channel bed and banks (Refer to § 129-17).
- V. The temperature and quality of water of streams that have been declared as Exceptional Value (EV) and High Quality (HQ) are to be maintained as defined in Chapter 93, Water Quality Standards, Title 25 Pennsylvania Department of Environmental Protection Rules and Regulations. All regulated development activities within HQ or EV watersheds must provide volume controls and water quality controls pursuant to the requirements of § 129-15 and § 129-16 of this Chapter.
- W. All stormwater runoff shall be pretreated for water quality prior to discharge to surface or groundwater as required by § 129-16 of this Chapter.
- X. Hot Spots
 - (1) Hot spots are sites where the land use or activity produces a higher concentration of trace metals, hydrocarbons, or priority pollutants than normally found in urban runoff. Use of infiltration BMPs is prohibited on hot spot land use areas. Examples of hot spots include but are not limited to the following:
 - (a) Vehicle salvage yards and recycling facilities.
 - (b) Vehicle fueling stations.
 - (c) Vehicle service and maintenance facilities.
 - (d) Vehicle and equipment cleaning facilities.
 - (e) Fleet storage areas (bus, truck, etc.).
 - (f) Industrial sites (based on Standard Industrial Codes defined by the U.S. Department of Labor).
 - (g) Marinas (service and maintenance).
 - (h) Outdoor liquid container storage.
 - (i) Outdoor loading/unloading facilities.
 - (j) Public works storage areas.
 - (k) Facilities that generate or store hazardous materials.
 - (l) Commercial container nursery.
 - (m) Other land uses and activities as designated by the Township.
 - (2) Stormwater runoff from hot spot land uses shall be pretreated. In no case may the same BMP be employed consecutively to meet this requirement. Guidance regarding acceptable methods of pre-treatment is located in The Pennsylvania Stormwater Best Management Practices Manual.

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- M. 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 applicant 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, as verified by the Township or Township engineer; and submit written approval from the affected adjacent property owner(s) if required by the Township or Township engineer.
- N. 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 100 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, as defined by the Commonwealth of Pennsylvania.
- O. 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 Chapter 105 Permit process, or, where deemed appropriate by PADEP, through the General Permit process.
- P. Any stormwater management facilities regulated by this Chapter that will be located in or adjacent to waters of the commonwealth or wetlands shall be subject to approval by PADEP through the Chapter 105 Permit 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 applicant to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area must be obtained from PADEP.
- Q. Any stormwater management facilities regulated by this Chapter 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 (PA DOT).
- R. Site disturbance and impervious surface shall be minimized. Infiltrating stormwater runoff through seepage beds, infiltration basins, etc. shall be required, where soil conditions permit, to reduce the size or eliminate the need for retention/detention facilities.
- S. Roof drains and sump pumps shall discharge to an infiltration structure, natural watercourse, storm sewer system, drainage swale, or stormwater easement. Roof drains and sump pumps shall not be connected to storm sewer unless the storm sewer is designed as part of a stormwater BMP facility. In no case shall roof drains or sump pumps be connected to sanitary sewer or be permitted to discharge directly across a sidewalk or walkway or onto a street. If curbing is present, no drainage pipes shall pass through the curb to discharge onto the street. Sump pump and roof drain discharge pipes shall not extend beyond the building envelope for the lot unless they are directly connected to an infiltration facility, detention basin, storm sewer pipe or as approved by the Township.
- T. 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. (Marker may be bolted to the grate in off road locations). Marker shall have a minimum diameter of 3 1/4 inches and include "No Dumping - Drains to Waterway" and a fish symbol. Alternate designs/sizes may be used if

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- Y. West Nile Guidance Requirements. All wet basin designs shall incorporate biologic controls consistent with the West Nile Guidance found in Appendix C of this Chapter.

§ 129-13. Stormwater Management Performance Standards.

- A. In the design of stormwater management facilities, post-development rates of runoff from any regulated activity shall not exceed 75% of the peak rates of runoff prior to development for two- and ten-year frequency storms and 100% of the peak rates of runoff prior to development for the twenty-five-, fifty-, and one-hundred-year frequency storms. In all other cases where un-retained stormwater directly discharges from the site by bypassing the stormwater management facilities, the post-development runoff rate shall not exceed pre-development runoff rate. The preceding requirements shall apply to each location of concentrated or diffused drainage discharge from the development site.
- B. Site Areas - Where the area of a site being impacted by a proposed development activity, not associated with a subdivision or land development, differs significantly from the total site area as determined by the Township Engineer, the Township may, but is not required to, permit only the proposed impact area, which includes areas of the site that would be compacted due to construction activity, to be subject to the release rate criteria (performance standards).
- C. 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.
- D. 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 Township, utilizing the "Pennsylvania Handbook of Best Management Practices for Developing Areas", 1998, Riparian Forested Buffer, and the primary 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 § 129-18.1 of this Chapter, and shall be in addition to any other Township ordinance provisions.
- E. 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 twenty-five percent (25%) over the predevelopment condition without written approval from the adjacent affected property owner(s) receiving runoff from the site.

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§ 129-14. Project Design (Sequencing to Minimize Stormwater Impacts).

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

- (1) 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.
- (2) 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.
- (3) 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.

B. 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:

- (1) Prepare an Existing Resources 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, riparian corridors, hydrologic soil groups A, B, C, and D, woodlands, surface waters regulated by the State or Federal Government, any existing recharge areas, and any other requirements outlined in the Subdivision and Land Development and Zoning Ordinances.
- (2) Prepare a draft project layout avoiding sensitive areas identified in § 129-14.B.1 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.
- (3) Identify site specific existing conditions, drainage areas, discharge points (points of interest), recharge areas, and hydrologic soil groups A and B.
- (4) Evaluate Nonstructural Stormwater Management Alternatives (Refer Pennsylvania BMP Manual).
 - (a) Minimize earth disturbance.
 - (b) Minimize impervious surfaces.
 - (c) Break up large impervious surface areas.
 - (d) Protect existing trees (not within protected areas as described in § 129-14.B.1).
 - (e) Direct roof top runoff to pervious areas.
 - (f) Re-vegetate and re-forest disturbed areas.

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shall be permitted by the Township only in those cases where the applicant has demonstrated that one or all of the above described conditions exist throughout the site, such that there is no reasonable means of infiltrating required stormwater volumes and that the property cannot be reasonably developed utilizing a stormwater management system which infiltrates the two (2) year frequency storm event volume (difference between the pre and post-development storm). The applicant must demonstrate that there is no area of the site where the runoff volume requirement can feasibly be infiltrated. It is not grounds for approval of the Alternate Standard that infiltrating the runoff volume requirement will utilize areas that could otherwise be developed to obtain the most building area or lots.

(c) Applicants requesting to utilize the Alternate Standard must provide a Feasibility Study for infiltration utilizing BMPs as well as other runoff volume stormwater management systems and provide the following information:

- (1) Site plan demonstrating the extent of site area with seasonal high water table (SHWT) (less than two (2) feet). The site will be evaluated both as to the extent of site with SHWT and the actual locations of SHWT areas. Use of the Alternate Standard shall be permitted by the Township only in those cases where it is demonstrated that site areas free of SHWT are not feasible for use as stormwater BMPs (i.e., they are located upgradient from reasonable site building areas).
- (2) Site plan demonstrating extent of site area with less than two (2) feet to bedrock. The site will be evaluated both as to the extent of site with shallow depth to bedrock and actual locations of shallow bedrock areas. Use of the Alternate Standard shall be permitted by the Township only in those cases where it is demonstrated that site areas free of shallow bedrock constraints are not feasible for use as stormwater BMPs (i.e., they are located upgradient from reasonable site building areas).
- (3) The site plan shall demonstrate the extent of site area with less than 0.20 inches/hour of permeability in accordance with the soil testing protocol set forth in § 129-15.E and Appendix B.
- (4) In order to utilize the Alternate Standard, the applicant must demonstrate that the sum total of limited infiltration areas (the total of areas described in § 129-15.A.1.c.1 through § 129-15.A.1.c.3 exceed the following percentages of the total site:
 - 75 percent (sites less than 5 acres)
 - 80 percent (sites 5 to 10 acres)
 - 85 percent (sites greater than 10 acres)

In addition, the applicant must demonstrate that there is no feasible site area free of the above described infiltration constraining features which exist in a location such that the runoff volume requirement can be achieved.

B. If it is determined to the satisfaction of the Township that the recharge volume standard set forth in § 129-15.A cannot be achieved, then the peak rate standards for post-development runoff are

(g) Utilize natural flow pathways.

- (5) Satisfy volume control standards (§ 129-15).
- (6) Satisfy water quality objective (§ 129-16).
- (7) Satisfy stream bank erosion protection objective (§ 129-17).
- (8) 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.
- (9) Conduct a proposed conditions runoff analysis based on the final design, to meet the release rate criteria (performance standards).
- (10) Manage any remaining runoff through treatment prior to discharge, as part of detention, bioretention, direct discharge or other structural control.

§ 129-15. Volume Control and Infiltration BMPs.

A. For all regulated activities NOT exempt from requirements of this Chapter pursuant to § 129-5.B and § 129-5.C, water volume mitigation controls shall be implemented. The total volume of runoff that must be infiltrated may be calculated based on the Design Storm Method, in which case the post-development total runoff volume shall not be increased from pre-development total runoff volume for all design storms equal to or less than the 2-year, 24-hour duration precipitation. The Design Storm Method requires detailed stormwater runoff modeling based on site conditions. The required recharge volume may also be determined based on Equation 129-15.1, described in § 129-15.D. The Recharge Volume (Re) must be reused, evapotranspired, or infiltrated through structural and/or nonstructural means. An Alternate Standard is allowed in this Chapter where it can be demonstrated that due to existing natural site conditions (Refer § 129-15.A.1.b), substantial infiltration and recharge are not occurring, pre-development, resulting in greater than anticipated runoff volume.

(1) Alternate Standard for Runoff Volume

- (a) Applicants may request from Worcester Township that an Alternate Standard be applied, where a portion of the runoff volume requirement of § 129-15.A is not achieved but at least fifty (50) percent of the total required volume of infiltrated runoff is achieved. Use of this Alternate Standard is permitted by the Township only after thorough scrutiny has been directed toward all possible stormwater management options at all possible locations at the site, consistent with the process set forth in § 129-15.A.1.
- (b) Required Analysis for Allowing Use of Alternate Standard for Runoff Volume. The Alternate Standard shall be used only in those situations where it is demonstrated to the satisfaction of the Township that due to natural site conditions infiltration is not occurring in the pre-development condition, resulting in greater runoff volumes (than would normally be anticipated) due to bedrock near or at the surface (less than two (2) feet in depth); presence of Seasonal High Water Table (SHWT) (less than two (2) feet in depth); and soils with low permeability (e.g. 0.20 inches per hour or less). Alternate Standard

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modified so that peak rate discharges from the site for all storms up to the ten (10) year frequency design storm must be additionally reduced to be equal to or less than seventy-five (75) percent of the design peak rates permitted pursuant to § 129-13.

C. Water volume controls will mitigate increased runoff impacts, protect stream channel morphology, maintain groundwater recharge, and contribute to water quality improvements. The applicant must demonstrate how the required recharge volume is controlled through Stormwater Best Management Practices (BMPs) which shall provide the means necessary to capture, reuse, evaporate, transpire or infiltrate the total runoff volume. The Low Impact Development practices provided in the Pennsylvania BMP Manual shall be utilized for all regulated activities to the maximum extent practicable. Volume controls provided through nonstructural BMPs may be subtracted from the required recharge volume to determine the volume of structural BMPs necessary for compliance with § 129-15.A of this Chapter. Design and applicability of nonstructural BMPs is identified pursuant to Chapter 5 of the Pennsylvania BMP Manual. For all proposed nonstructural BMPs, the applicant shall utilize and submit applicable checklists included in Chapter 3, Section 8.8 of the Pennsylvania BMP Manual, to demonstrate that the BMPs are applicable to the project and to determine the amount of volume credit that may be applied to the development activity.

D. To determine the volume of runoff that must be infiltrated at a site, the Recharge Volume (Re), the following calculation formula may be used:

Equation 129-15.1

$Re_c = [(S)(R_c)(A)]/12$ (inches/foot), where:

- Re_c = Recharge Volume (acre-feet)
- S = Soil specific recharge factor (inches)
- A = Site area contributing to the recharge facility (acres)
- R_v = Volumetric runoff coefficient, R_v = 0.05 + 0.009 (I), where: I = percent impervious area, and "S" shall be obtained based upon hydrologic soil group based upon the table below:

Hydrologic Soil Group	Soil Specific Recharge Factor (S)
A	0.38
B	0.26
C	0.14
D	0.07

If more than one hydrologic soil group (HSG) is present at a site, a composite recharge volume shall be computed based upon the proportion of total site area within each HSG.

E. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on the suitability of soils and site conditions. All applicants proposing regulated activities that are NOT exempt from preparation and submission of a Stormwater Management Site Plan (SMSP) are required to perform a detailed soils evaluation of the project site by a qualified geotechnical engineer, geologist and/or soil scientist, pursuant to Appendix B of this Chapter, which at minimum addresses soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability. Infiltration/permeability tests shall be completed (in conjunction with the soils

evaluation) with an infiltrometer or other method approved by the Township Engineer, pursuant to Appendix B, to determine the saturated hydraulic conductivity of the soil (at the location and the level of the proposed infiltration surface(s)). "Percolation" tests are not permitted for design of infiltration BMPs, unless approved by the Township Engineer.

- F. Infiltration BMPs must include safeguards against groundwater contamination for uses where it is anticipated that pollutants may enter the facility, by mishap or spill or where salt or chloride might be a non-point source contaminant since soils do little to filter this pollutant. If it is anticipated that pollutants may enter the infiltration facility (or other stormwater facility impounding water), resulting in potential groundwater contamination, Worcester Township may require the developer to submit a hydrogeologic justification study of the site and proposed infiltration BMPs, prepared by a qualified design professional, to determine the risk for such contamination. The Township may require the installation of a mitigative layer or an impermeable liner in the BMP and/or detection basins where the possibility of groundwater contamination exists.
- G. Infiltration BMPs within High Quality/Exceptional Value waters shall be subject to PADEP's Title 25, Chapter 93 Antidegradation Regulations.
- H. The requirements for volume control and infiltration are applied to all disturbed areas, even if they are ultimately to be pervious or permeable land use given the extent to which development-related disturbance leads to compaction of the soils and reduces their infiltrative capacity.
- I. If on-lot infiltration structures are proposed, it must be demonstrated that the soils are conducive to infiltrate on the lots identified, or that the applicant's design includes the addition of suitable amounts of material to facilitate infiltration and support the calculations as submitted.
- J. Infiltration BMPs shall be designed in accordance with the design criteria and specifications of the Pennsylvania Stormwater BMP Manual (2006) and as additionally identified pursuant to § 129-18.1 of this Chapter.

§ 129-16. Water Quality Requirements.

- A. In addition to the performance standards and design criteria requirements of Article III of this Chapter, adequate treatment and storage facilities must be provided to capture and treat stormwater runoff from developed or disturbed areas, unless otherwise exempted by provisions of this Chapter. The Recharge Volume computed under § 129-15 may be a component of the Water Quality Volume if the applicant chooses to manage both components in a single facility. Only if the Recharge Volume is less than the Water Quality Volume may the remaining Water Quality Volume be captured and treated by methods other than recharge/infiltration BMPs. The required Water Quality Volume (WQ_q) is the storage capacity needed to capture and to treat a portion of stormwater runoff from the developed areas of the site produced from 90 percent of the average annual rainfall (P).

The following calculation formula is to be used to determine the required water quality storage volume, (WQ_q), in acre-feet of storage:

Equation 129-16.1

$$WQ_q = [(P)(R_c)(A)]/12 \text{ (inches/foot), where}$$

P = Rainfall Amount equal to 90% of events producing this rainfall (in) - the volume of rainfall for 90% of the storm events which produce runoff in the watershed annually.

A = Area of the project contributing to the water quality BMP (acres).

R_c = Volume Runoff Coefficient 0.05 + 0.009(I) where I is the percent of the area that is impervious surface (impervious area ÷ total project study area) x 100%.

- B. Provisions shall be made (such as adding a small orifice at the bottom of the BMP facility outflow control structure) so that the proposed condition, one (1) year frequency design storm takes a minimum of twenty-four (24) hours to drain from the facility from a point where the maximum volume of water from the one (1) year storm is captured (i.e. the maximum water surface elevation is achieved in the facility). The design of the facility shall minimize clogging and sedimentation. Orifices smaller than three (3) 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.
- C. To accomplish the requirements in Subsections A and B above, the applicant may submit original and innovative designs to the Township Engineer for review and approval. Such designs may achieve the water quality objectives through a combination of BMPs. Infiltration BMPs shall be used wherever feasible. Wet ponds, artificial wetlands, or other permanent BMP acceptable to the Township shall be used to the extent that infiltration BMPs are deemed not feasible.
- D. Design of BMPs used for water quality control shall be in accordance with design specifications outlined in the Pennsylvania Stormwater BMP Manual or other applicable manuals. The following factors must be considered when evaluating the suitability of BMPs used to control water quality at a given development site:
 - (1) Total contributing drainage area.
 - (2) Permeability and infiltration rate of the site soils.
 - (3) Topographic slope and depth to bedrock.
 - (4) Seasonal high water table.
 - (5) Proximity to building foundations and wellheads.
 - (6) Erodibility of soils.
 - (7) Land availability and configuration of the topography.
 - (8) Peak discharge and required volume control.
 - (9) Streambank erosion.

- (10) Efficiency of the BMPs to mitigate potential water quality problems.
- (11) Volume of runoff that will be effectively treated.
- (12) Nature of the pollutant being removed.
- (13) Maintenance requirements.
- (14) Creation/protection of aquatic and wildlife habitat.
- (15) Recreational value.
- (16) Enhancement of aesthetic and property value.

§ 129-17. Stream Bank Erosion Requirements.

- A. In addition to the water quality volume, to mitigate the impact of stormwater runoff on downstream stream bank erosion, BMPs must be designed to detain the proposed conditions 2-year, 24-hour design storm to the existing conditions 1-year flow using the SCS Type II distribution.
- B. Whenever a watercourse is located within a development site, it shall remain open in its natural state and location and shall not be piped, impeded, or altered (except for permitted crossings). The applicant shall stabilize all eroded stream/channel beds and banks within a subdivision or land development site and obtain all permits necessary from PADEP to do so. The applicant must submit pictorial documentation of existing stream/channel banks to determine whether existing banks must be stabilized.

§ 129-18. Design and Construction Criteria for Stormwater Management Facilities and Best Management Practices.

- A. Stormwater runoff which may result from regulated activities identified in § 129-4 shall be controlled by permanent stormwater runoff BMPs that will provide the required standards within Article III. The methods of stormwater control or Best Management Practices (BMPs) which may be used to meet the required standards are described in this Chapter and the "Pennsylvania Stormwater Best Management Practice Manual", December 30, 2006, as amended, and are the preferred methods of controlling stormwater runoff. The choice of BMP is not limited to the ones appearing in this Chapter and the Manual; however, any selected BMP must meet or exceed the runoff peak rate requirements of this Chapter.
- B. Any stormwater facility located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
- C. Collection System Standards
 - (1) Curb Inlets - Curb inlets shall be located at curb tangents on the uphill side of street intersections, and at intervals along the curb line 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.

- (2) 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 Specification. 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.
- (3) Minimum Pipe Size - Minimum pipe diameter shall be fifteen (15) inches (or an equivalent flow area of 1.23 square feet).
- (4) Inlet and Manhole Construction - Inlet and manhole castings and concrete construction shall be equivalent to PennDOT Design Standards. Manhole castings and covers shall have the word "STORM" cast in two (2) inch high letters on the top of the cover. All inlet grates shall be "bicycle safe" heavy duty structural steel. All storm sewer inlets must be identified with a storm drain marker ("environmental" type). Storm drain markers shall be stainless steel affixed to the inlet hood with adhesive, rivets or bolts. (Marker may be bolted to the grate in off road locations). Marker shall have a minimum diameter of 3½ inches and include "No Dumping - Drains to Waterway" and a fish symbol. Alternate designs/sizes may be used if approved by the Township.
- (5) Open end pipes must be fitted with concrete endwalls or wing walls in accordance with PennDOT Standards.
- (6) Flow velocity - Stormwater collection systems shall be designed to produce a minimum velocity of three (3) feet per second when flowing full. The maximum permissible velocity shall be fifteen (15) feet per second. Pipe slopes shall not be less than one half of one percent (0.005 ft/ft), with the exception that terminal sections of pipe shall have a minimum slope of one percent (0.01 ft/ft).
- (7) Inlets and manholes shall be spaced at intervals not exceeding three hundred (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 thirty-six (36) inches diameter, inlets and manholes may be spaced at intervals of four hundred (400) feet. Manholes shall be equipped with open grate lids.
- (8) Storm sewer bedding/backfill requirements shall conform to the Worcester Township construction requirements/specifications.
- (9) Inlets shall be located to intercept concentrated runoff prior to discharge over public/private rights-of-way, sidewalks, streets, and driveways.
- (10) The capacity of all Type 'C' inlets shall be based on a maximum surface flow to the inlets of four (4) cfs, calculated based on the 100-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 four (4) 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 (6) cubic feet per second (CFS). Type 'M' inlets shall be designed to accept a maximum surface flow of six (6) CFS based on the one hundred (100) 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 twelve (12) cfs shall be permitted to be collected by a Type 'M' inlet located in an isolated pervious area provided the designer can verify that such an inlet would not cause stormwater to accumulate on any adjoining public or private property, outside of a storm sewer easement, and that the depth of the accumulated stormwater would not exceed twelve (12) inches.

- (11) A minimum drop of two (2) 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. Storm sewer pipes shall enter and exit the sides of inlet boxes and shall not encroach into the corner, wherever possible.
- (12) Stormwater pipes shall have a minimum depth of cover of eighteen (18) 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, to achieve required cover. Stormwater pipes conveying swale flow under driveway crossings shall have a minimum cover of twelve (12) inches, including over the bell, but in no case shall the cover be less than that required for the anticipated traffic loading. For driveway culverts, cover may be less than 12 inches if the design engineer verifies proposed pipe has sufficient strength to withstand loading from anticipated design vehicles. Where cover is restricted, concrete trench drain with bolt-down metal grates may be used.
- (13) 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. 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 freeboard will be provided in all inlets and manholes for the design storm event.
- (14) Culverts shall be designed based on procedures contained in Hydraulic Design of Highway Culverts, HDS #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.
- (15) Storm sewer structures (e.g. endwalls, inlets, pipe sections, etc.) may not be located on top of, or within ten (10) feet of electric, communication, water, sanitary sewer, or gas services and/or mains, and structures, unless approval is received from the Township and the Authority or Utility having jurisdiction over same.
- (16) 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 ninety (90) degrees 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

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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

- (4) Swales shall be stabilized with bio-degradable erosion control blanket to permit establishment of permanent vegetation. Swales shall be of such shape and size to effectively contain the one hundred (100) year, Rational Method design storm, or greater, and to conform to all other specifications of the Township.
- (5) 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.
- (6) Gutters and swales adjacent to road paving shall be permitted to carry a maximum flow of four (4) 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.
- (7) 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.
- (8) 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.
- (9) 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 to 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 Chapter.
- (10) Except for drainage at roadway stream crossings, artificial swale discharge shall be set back 75 feet from a receiving waterway, and shall be diffused or spread out to reduce and eliminate high-velocity discharges to the impacted ground surface.

E. Bridge and Culvert Design

Any proposed bridge or culvert to convey flow within a watercourse, perennial stream, intermittent stream or ephemeral stream shall be designed in accordance with the following principals:

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utility may not be less than forty-five (45) degrees. Vertical and horizontal design of storm sewer must be linear.

- (17) 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.
- (18) Where a public storm sewer system is not located within a right-of-way, or dedicated public property, a twenty (20) feet wide easement shall be established to encompass the storm sewer system and any required access from the public road. For multiple pipes or utilities, the width of the easement shall be a minimum of thirty (30) feet.
- (19) A minimum of one (1) 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 (100) year frequency design storm event.
- (20) Stormwater roof drains and sump pumps shall not discharge water directly onto a sidewalk or a street and shall be constructed to discharge to a dry well/scopage pit or above ground entirely on the subject property, except where such discharge could flow across sidewalk or onto a street. If approved by the Township Engineer, roof drains and sump pumps may be discharged directly to a storm sewer system if such system discharges to a stormwater BMP or water quality facility.

D. 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:

- (1) Roughness Coefficient - The roughness coefficient shall be 0.040 for earth swales.
- (2) Bank Slopes - Slopes for swale banks shall not be steeper than one (1) vertical to four (4) horizontal.
- (3) 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 Montgomery 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 Pollution Control Program Manual (Document No. 363-2134-008).

ALLOWABLE VELOCITY

Material	Velocity in feet per second (fps)
Well established grass on good soil	
Short Plant 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

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- (1) 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 (pre-existing) condition. Rock (rip rap) 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 unimpeded movement of native animal species and a normal water depth of 12 inches unless a greater depth is required by PADEP.
- (2) Bottom of opening shall be designed 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.
- (3) Above the bankfull elevation, the width shall increase a minimum of thirty (30) percent to disperse the energy of higher flow volumes and avoid undermining of the supporting structure by secondary currents.
- (4) 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 (50) year return period flood.
- (5) All bridges, culverts, and drainage channels shall be designed to convey a flow rate equal to a one-hundred (100) year, twenty-four (24) hour storm as defined by the U.S. Department of Agriculture, Soil Conservation Service, Technical Release No. 55. All bridges and culverts shall be designed to convey the one hundred (100) year design storm without increasing the extent and depth of the one hundred (100) year flood plain, upstream or downstream of the structure.

F. Storm Sewer Design

- (1) Design flow rate - The storm sewer system shall be designed to carry the one hundred (100) 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 (100) 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.
 A = Area - Drainage area in acres.

Values for the rainfall intensity shall be based on NOAA Atlas 14, Volume 2, Version 3.0, rain data found in Table A-3 and Figure A-2 of Appendix A of this Chapter.

- (2) 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.

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- (3) In determining the peak flow rate to individual storm sewer inlets (or other collection structures) the time of concentration method (as referenced in § 129-19) shall be used for inlet drainage areas in excess of one (1) acre, unless otherwise approved by the Township. For inlet drainage areas less than one (1) acre, a five (5) minute time of concentration shall be used unless otherwise approved by the Township.
- (4) In determining the required design flow rate through a storm sewer piping system, if a five (5) minute time of concentration (storm duration) results in a pipe size exceeding a thirty (30) 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.
- (5) In determining the required design flow rate through a storm sewer piping system, if a five (5) minute time of concentration results in a pipe size exceeding thirty (30) inches, within any run of pipe, the time of concentration approach may be used for sizing of pipes from that point on, by adjusting the time of concentration.
- (6) Overflow System - An overflow system shall be provided to carry all bypass flow and/or flow in excess of storm sewer pipe design capacity, to the detention basin (or other approved outlet point) when the capacity of the system is exceeded. Stormwater runoff will not be permitted to surcharge from storm sewer structures (Refer § 129-18.C.19).
- (7) Except for drainage at roadway stream crossings, pipe 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.

G. Grading and Drainage

- (1) After completion of rough grading, a minimum of eight (8) inches of topsoil shall be returned to remaining disturbed areas prior to final grading and seeding.
- (2) Lots shall be graded to secure proper drainage away from buildings and to prevent the collection of storm water in pools. Minimum two (2) percent slopes shall be maintained away from and around all structures. Separation between the top of foundation wall (or slab) and final grade shall comply with Worcester Township Building Code requirements.
- (3) Construction - The applicant shall construct and/or install such drainage structures and/or pipe as are necessary to prevent erosion damage and to satisfactorily disperse, infiltrate or carry off such surface waters to the nearest practical BMP, storm drain or natural water course.
- (4) Excavation - No excavation shall be made with a cut face steeper in slope than four (4) horizontal to one (1) vertical (4:1 = 25 percent), except under one or more of the following conditions:
 - (a) The material in which the excavation is made is sufficiently stable to sustain a slope of steeper than 4:1 and a written statement (certification) from a Professional civil engineer, licensed in the Commonwealth of Pennsylvania and experienced in erosion control, to this effect is submitted to the Township Engineer for review. This statement shall indicate the site has been inspected and

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Department of Transportation, FHA, when deemed necessary by the Township, and as approved by the Montgomery County Conservation District.

- (13) To control the dissemination of mud and dirt on to public roads and driveways, tire cleaning areas constructed of AASHTO #1 stone (underlain by geotextile structural fabric), at least fifty (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 applicant shall be responsible for the placement of appropriate signage identifying construction entrances and washing stations. Construction entrances shall be maintained by the applicant during construction, as determined by the Township.
- (14) 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.
- (15) Adequate provision shall be made to prevent surface water from damaging the cut face of excavation and the sloping surfaces of fills.

H. Stormwater Detention/Retention Basins

- (1) If permanent ponds (retention basin) are proposed, the applicant shall demonstrate that such ponds are designed to protect the public's health and safety. Should any stormwater management facility require a dam safety permit under the PADEP Chapter 105 regulations, 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 a one-hundred-year event.
- (2) During construction, duly authorized representatives of Worcester Township may enter at any reasonable time upon any property within the Township to investigate whether construction activity is in compliance with this Chapter.
- (3) When basins are provided, they shall be designed to utilize the natural contours of the land whenever possible. When such design is not practical, the construction of the basin shall utilize slopes as flat as possible to blend the structure into the terrain. To minimize the visual impact of detention basins, they shall be designed to avoid the need for safety fencing. To meet this requirement, detention basins shall be designed as follows:
 - (a) Maximum depth of detained runoff shall be 24 inches for a two-year or ten-year storm event.
 - (b) Maximum depth of detained runoff shall be 36 inches for a one-hundred-year storm event.
 - (c) The basin inflow and outflow structures shall not be located directly across from each other and shall not be in close proximity to one another. A length-to-width ratio in all detention/retention basins and other such storage facilities of at least 2:1 shall be provided to maximize the flow path between the inflow point and the outlet structure. The distance between these two structures must be at least 50%

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that the deviation from the slope specified herein will not result in injury to persons or damage to property.

- (b) A concrete, segmental block, or stone masonry wall, constructed in accordance with Township requirements, is provided to support the face of the excavation.
- (5) Fill - No fill shall be made which creates any exposed surface steeper in slope than four (4) horizontal to one (1) vertical (4:1 = 25 percent) except under one or more of the following conditions:
 - (a) 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.
 - (b) 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.
 - (c) A concrete, segmental block, or stone masonry wall, constructed in accordance with Township requirements, is provided to support the face of the excavation.
- (6) Slopes and Fences - The top or bottom edge of slopes shall be a minimum of five (5) 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 adjoining property. Where walls or slopes (steeper than two (2) horizontal to one (1) vertical) are approved under the criteria in this Chapter, and are four (4) feet or more in height, a protective fence, no less than four (4) feet in height, shall be required at the top of the wall (or berm).
- (7) Clean up - All lots must be kept free of any debris or nuisances whatsoever during construction.
- (8) Design of erosion and sedimentation control facilities (particularly stormwater/sediment basins) shall incorporate Best Management Practices as defined herein.
- (9) 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.
- (10) 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.
- (11) Grading equipment shall not be permitted to cross intermittent and perennial streams. Temporary crossing shall be permitted only where application is made, and approval is received, from the Pennsylvania Department of Environmental Protection (where applicable), the Montgomery County Conservation District, and Worcester Township.
- (12) 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

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of the maximum length of the basin as measured at the top of berm elevation. Alternatively, a means for extending the time of surface flow from basin inflow point to basin outlet structure, designed to the satisfaction of the Township Engineer, may be utilized.

- (4) Except with the one (1) year design storm, basins shall be designed so that they return to normal conditions within approximately twelve (12) hours after the termination of the storm, unless the Township determines that downstream conditions may warrant other design criteria for stormwater release.
- (5) Landscaping and planting in and around the perimeter of basins shall be provided. Proposed planting shall also be in accordance with the provisions of this Chapter, the Subdivision and Land Development Ordinance, and as recommended by the Township Engineer. When a detention basin is not designed as a stormwater management constructed wetland, it shall be planted with low maintenance grass or similar satisfactory to the Township.
- (6) If a stormwater management basin will serve as a temporary sediment control device, the temporary sediment control measures shall be shown including perforated riser pipes or standboxes, filter berms, clean-out stakes and other measures as may be required by Pennsylvania Department of Environmental Protection, Chapter 102 Regulations. Plans for such facilities shall require Montgomery County Conservation District approval prior to implementation. Sedimentation basins shall be in place prior to any earthmoving activities within their tributary drainage areas. A note identifying the above criteria shall be on all plan sheets required to be recorded as well as the development agreement with the Township and the stormwater management facilities operation and maintenance agreement.
- (7) Stormwater management basins shall be in place before the creation of any new impervious surfaces on the site. As-built drawings of the basin(s) shall be submitted to the Township for review. The basin shall not be considered functional until it is proved by the developer that the basin meets the volume requirements and the outflow characteristics of the original design of the basin(s).
- (8) Runoff shall not be directed to any infiltration structure until all tributary drainage areas are permanently stabilized.
- (9) Except where otherwise identified herein, all detention or retention basins shall have slopes of four (4) horizontal to one (1) vertical (4:1 = 25 percent), or flatter on the basin's outer berm and five (5) horizontal to one (1) vertical or less on the basin's inner berm. The top or toe of any slope shall be located a minimum of five (5) feet from any property line. The maximum difference between the top of berm elevation and the invert elevation of the outlet structure shall be seven (7) feet.
- (10) All portions of a detention basin bottom shall have a minimum slope of two (2) percent. For portions of basin bottoms with grades less than 2%, the applicant shall provide a landscape design, which minimizes maintenance provisions and encourages infiltration. These requirements may be altered when approved by the Township Engineer.

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(11) Basin Berm Construction Requirements.

- (a) 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 clean-out and restoration, the pool area will be cleared of all brush and excess trees except where designed to retain such existing vegetation as Stormwater BMPs.
- (b) Cut off trench - A cut-off trench will be excavated along the centerline dam on earth fill embankments. The minimum depth shall be two feet. The cut-off 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.

(c) Embankment:

- [1] 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.
- [2] 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.
- [3] Fill material will be placed in 6 to 8 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. Compaction tests shall be run on the leading and trailing edge of the berm along with the top of the berm. Verification of required compaction shall be submitted to the Township prior to utilization of any basin for stormwater management.

- (12) Emergency overflow facilities/spillway shall be provided within basins in order to convey basin inflow in excess of design flows, out of the basin, or in the event the outlet structure becomes blocked and is unable to convey flow. Emergency spillways discharging over embankments shall be constructed of reinforced concrete checker-blocks to protect the berm against erosion. The checkerblocks shall be back-filled with topsoil and seeded. Checkerblock lining shall extend to the toe of the embankment on the outside of the berm, and shall extend to an elevation of three (3) feet below the spillway crest on the inside of the berm. Vegetated spillways may be utilized for spillways constructed entirely on undisturbed ground (i.e., not discharging over fill material). A dome cover of vegetation shall be rapidly established in such spillways by sodding or seeding with a geotextile anchor. The vegetated spillway must be stabilized before runoff is directed to the basin. The minimum capacity of all emergency spillways shall be equivalent to the peak flow rate of the one hundred (100) year, post-development design storm (entering to the basin).

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or other similar paver acceptable to the Township Engineer, over a six (6) inch bed of compacted PennDOT type 3A coarse aggregate (or approved equivalent). Accessways to basins shall be a minimum of ten (10) feet wide and be no steeper in slope than ten (10) feet horizontal to one (1) foot vertical (10:1). In addition, depressed curb and reinforced concrete apron (6-inch minimum thickness) shall be provided where the accessway enters a street/driveway and the stabilized driveway shall extend from the bottom of the interior basin berm embankment to the point of access to the basin from a public right-of-way or paved driveway within an access easement. The access easement shall be owned and maintained by the same entity owning the stormwater management facility and shall allow access by Worcester Township or its designee for emergency inspection and/or maintenance at any reasonable time.

- (23) If the basin is not designed to meet the requirements of § 129-18.H.3, a split rail fence must be provided as follows:

- (a) A level area (two-percent slope) eight feet in width shall be provided on both the inside and outside of the fence, along the entire length of the fence for proper access by maintenance equipment. The total width of this generally level area shall be at least 16 feet.
- (b) Each basin fence installation shall include two points of access with ten (10) feet wide self-closing, self-latch gates to allow for maintenance equipment/vehicle access.
- (c) Fence shall be split-rail consisting of locust posts (two or three rail), four (4) feet high, minimum, with assorted hardwood rails (eight (8) feet to ten (10) feet long), and epoxy coated wire mesh (black or green in color) installed six (6) inches above finished grade. The mesh shall be installed on the outside of the fence.
- (d) Split rail fence shall also be required around any detention or retention basin, where directed by Worcester Township.

(24) Landscaping:

- (a) The perimeter berms and embankments of retention/detention basins including wet ponds, and artificial wetland stormwater management BMPs 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.
- (b) Artificial wetland basins shall be designed pursuant to requirements of the Pennsylvania Stormwater BMP Manual. Plant material and arrangement shall be subject to approval of the Township Engineer.
- (c) 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 100-year

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- (13) In all cases, the discharge end of the basin shall be provided with a properly designed outlet control structure (headwall, orifice structure or other approved flow control structure), culvert pipe, and endwall. Perforated riser pipes alone, without provision for permanent outlet control structure (as stated above), and culvert pipe are not permitted for permanent basins.

- (14) The minimum top of basin berm width (at the design elevation) shall be ten (10) feet.

- (15) The minimum freeboard through the emergency spillway shall be one (1) foot. Freeboard is defined as the difference between the design flow elevation through the spillway and the elevation of the top of the settled basin berm.

- (16) Anti-seep collars shall be installed around the pipe barrel and shall be centered within the normal saturation zone of the berm. The anti-seep collars and their connections to the pipe barrel shall be watertight. The anti-seep collars shall be cast-in-place in the field and extend a minimum of two (2) feet beyond the outside of the principal pipe barrel. Precast collars shall be permitted if approved by the Township Engineer. A minimum of two (2) collars shall be installed on each basin outlet pipe. Collars shall have a minimum thickness of twelve (12) inches and may not be installed within two (2) feet of pipe joints.

- (17) A perforated sediment control structure, sized in accordance with Montgomery County Conservation District requirements, shall be provided at each basin outlet structure (if more than one is to be utilized) for sediment control. Sediment control structures shall not be removed until the entire area tributary to the basin has been permanently stabilized and until approved by the Montgomery County Conservation District.

- (18) Stormwater management facility outlet piping shall be Class III reinforced O-ring concrete pipe. All joints shall be mortared. Crushed stone bedding/backfill shall not be utilized through basin berms.

- (19) The grate of the basin outlet structure shall be at least six (6) inches lower than the elevation of the earthen emergency spillway. Six (6) inches, minimum, is also required between the routed one hundred (100) year water surface elevation and top of grate of the outlet structure.

- (20) Energy dissipating devices (rock lining/trip rap, or other approved materials) shall be provided at all basin outlets and shall be sized in accordance with Pennsylvania Department of Environmental Protection, Bureau of Soil and Water Conservation Publication, Erosion and Sediment Pollution Control Program Manual, latest revision.

- (21) Stone gabion baskets or concrete or segmental block retaining walls shall not be permitted for use in construction of detention/retention basins within the berm or within the 100-year water surface elevation (as measured through the earthen emergency spillway).

- (22) An access easement and stabilized access drive to stormwater detention facilities shall be provided for maintenance and operation. This access easement shall be cleared and, when possible, be at least twenty (20) feet in width. Multiple access shall be encouraged for major facilities. The developer shall provide access easements and drives of interlocked, reinforced pervious paving systems (back-filled with topsoil and seeded)

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water surface elevation:

- [1] Three (3) evergreen trees (minimum height 5 feet)
- [2] Two (2) deciduous trees (minimum caliper 2 1/2 inches)
- [3] Five (5) shrubs (minimum height 3 feet)

Retention/detention basin landscaping design is subject to approval by the Township.

- (25) Special requirements for stormwater detention/retention BMPs within defined Exceptional Value and High-Quality watersheds as defined in Chapter 93, Water Quality Standards, Title 25, Pennsylvania Department of Environmental Protection Rules and Regulations:

- (a) 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. At a minimum, the southern half of pond shorelines shall be planted with shade or canopy trees and understory shrubs 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 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 must be identified on the Stormwater Management Site Plan and recorded at the Montgomery County Recorder of Deeds for all development sites.

- (b) As an alternative to mitigating the temperature of stormwater runoff as described in § 129-18.H.25.a, alternative temperature sensitive BMPs may be utilized, if approved by the Township Engineer, upon the applicant demonstrating such BMPs will effectively reduce the temperature of detained runoff before it is released from the development site. Such alternative BMPs may include, but are not limited to facilities that cool runoff through underground storage and filtration and retention ponds/basins where outflow from the facility is drawn from a depth of 5 feet (or greater) below the permanent pool surface.

- (26) At the conclusion of all construction and after all stormwater facilities have received final approval, the applicant shall offer the facilities for dedication to the township, with the following requirements:

- (a) The dedicated area shall include the entire ponded area for the 100 year storm event and the outside slope of the berm.
- (b) 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.
- (c) The Applicant 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 an amount to be calculated by the Township

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Engineer, which amount shall include all estimated costs to inspect, maintain, and repair the facilities during a ten-year period.

- (27) If the township declines dedication of the basin, the applicant shall provide written assurance, satisfactory to the Township that the retention/detention basin will be properly maintained. Such assurances shall be in a form of a covenant that will run with the land and shall provide for 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.
- I. All developments that create impervious surface shall provide capacity for and treatment of the calculated Water Quality Volume and Recharge Volume unless exempt under § 129-5. In 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 wet ponds; (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).
- (1) Infiltration Best Management Practices (BMPs) – Infiltration BMPs shall be designed in accordance with the design criteria and specifications of the Pennsylvania Stormwater BMP Manual (2006) and shall conform to the following minimum requirements:
- (a) A soils evaluation and infiltration/permeability testing of the project site shall be conducted in accordance with Appendix B of this Chapter.
 - (b) A minimum soil depth of eighteen (18") inches shall be provided between the bottom of the infiltration BMPs and the top of bedrock or seasonally high water table. The minimum required separation between the infiltration surface and these limiting zones shall be increased by the Township should project specific conditions exist (such as anticipated increased contaminants) which dictate greater prevention of groundwater contamination.
 - (c) Infiltration BMPs must have an infiltration rate sufficient to accept the design stormwater load and dewater completely as determined by field permeability tests. The minimum field-tested infiltration rate permitted for construction of infiltration BMPs shall be 0.2 inches/hour (in/hr). A safety factor of 50% shall be applied to field-tested rates to determine the infiltration rate that must be utilized for design of infiltration BMPs (e.g., for soil which measured 0.4 in/hr, the BMP design rate shall be 0.2 in/hr to insure effective infiltration after construction).
 - (d) Infiltration BMPs intended to receive rooftop runoff shall include appropriate measures such as leaf traps and cleanouts to prevent clogging by vegetation. Surface inflows shall be designed to prevent direct discharge of sediment into the infiltration system.

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(3) Artificial wetlands, wet ponds, and bioretention structures.

- (a) Wet Pond BMPs shall meet the following requirements:
- [1] Wet ponds shall be constructed on hydric or wet soils and/or soils which have an infiltration rate of less than 0.2 inches/hour.
 - [2] A minimum drainage area of five (5) acres shall be directed to the pond unless a source of recharge is utilized such as a natural spring or well.
 - [3] 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.
 - [4] 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.
 - [5] 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 fifteen (15) inches and a minimum of 12 (12) inches for a width of at least ten (10) 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.
 - [6] The perimeter slope above the permanent pool shall have a maximum slope of 5:1.
 - [7] Wet ponds shall have a deep water zone of at least five (5) feet to encourage gravity settling of suspended fines, and prevent stagnation and possible eutrophication.
 - [8] Wet ponds shall be capable of being substantially drained by gravity flow. Wet ponds shall be equipped with a manually operated - drain that can be secured against unauthorized operation.
 - [9] A planting plan shall be developed for the wet pond, showing all proposed aquatic, emergent, and upland plantings required pursuant to this Chapter and the Zoning and Subdivision and Land Development Ordinances (where specifically identified).

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- (e) Adequate storage shall be provided to accommodate the volume of runoff calculated as the difference between the pre-development runoff volume and post-development runoff volume based on the 100 year design storm.
 - (f) The facility shall be designed to control the post-development peak rate of runoff to the pre-development peak rate of runoff for all design storms identified in § 129-13 of this Chapter.
 - (g) An overflow or spillway shall be provided that safely permits the passing of runoff greater than that occurring during the 100 year design storm event.
 - (h) Underground infiltration basins and BMPs shall have positive overflow controls to prevent storage within one foot of the finished surface over the basin.
 - (i) When infiltration methods such as seepage pits, beds, or trenches are proposed, the locations of existing and proposed septic tanks, infiltration areas, and wells must be shown. A separation distance of no less than 50 feet shall be provided between any septic system and any facility used for stormwater management and infiltration.
 - (j) A minimum of thirty (30) feet of undisturbed soil shall separate the foundation wall of any building and an infiltration BMP, unless a lesser distance is approved by the Township or Township engineer, based on site conditions or selected BMP.
 - (k) All infiltration facilities shall be designed to completely infiltrate runoff volume within two (2) days (48 hours) from the peak of the design storm.
 - (l) Special attention shall be paid to proper installation of infiltration oriented stormwater management systems during the construction and to careful avoidance of soil compaction during site development. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity.
 - (m) The Township may require the installation of a mitigative layer or an impermeable liner in an infiltration BMP and/or other stormwater structure that impounds runoff, where the possibility of groundwater contamination exists. A detailed hydrogeologic investigation may be required by the Township.
 - (n) Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has achieved final stabilization.
 - (o) Infiltration BMPs shall be designed based on field-tested infiltration/permeability rates at the level of the proposed infiltration surface(s) and based on a safety factor of fifty (50) percent.
- (2) Non-infiltration Facilities used as Best Management Practices (BMPs). All facilities shall be designed in accordance to the design criteria and specifications in the Pennsylvania Stormwater BMP Manual.

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- [10] Wet ponds shall be designed to discourage use by Canada geese. Techniques employed shall include the following:
- (i) Elimination of straight shorelines, islands, and peninsulas;
 - (ii) Placement of walking paths (where applicable) along the shoreline;
 - (iii) Placement of grassed areas (i.e. playing fields) at least 450 feet from the water surface;
 - (iv) Vegetative barriers;
 - (v) Rock barriers;
 - (vi) Installation of tall trees within 10 feet of the water surface;
 - (vii) Use of ground covers not palatable to Canada geese.
 - (ix) Other techniques as approved by the Township Engineer.
- (b) Artificial Wetland BMPs shall meet the following requirements:
- (1) Artificial wetlands shall be constructed on hydric or wet soils and/or soils which have an infiltration rate of less than 0.2 inches/hour.
 - (2) Runoff entering artificial wetlands shall be filtered through a sediment removal device before entering the wetland.
 - (3) A planting plan shall be developed for the artificial wetland showing all proposed aquatic, emergent, and upland plantings required pursuant to this Chapter and the Zoning and Subdivision and Land Development Ordinances (where specifically identified). The planting plan shall be developed to provide a diversity of species resulting in a dense stand of wetland vegetation.
 - (4) 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". The remainder shall be constructed as open water with depths between 2 feet and 4 feet.

(4) Minimum first flush detention/dual purpose BMPs

- (a) Minimum first flush detention/dual purpose detention basin BMPs shall be designed to meet the following requirements:
- (1) Post-development runoff from a "water quality storm" (a 1-year, 24-hour event) shall be released over a minimum period of 24 hours.

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- (2) 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 1-year, 24-hour event.
 - (3) 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.
 - (4) 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/purpose detention basin, and will prevent the need for mowing of a frequently saturated area.
- J. Riparian Corridor Restoration – Within all subdivisions and non-residential land developments, from the top of watercourse bank, seventy-five (75) feet on either side of the watercourse, which contains wetlands and/or floodplain, shall be planted to establish a Zone 1 and Zone 2 buffer as defined and in accordance with the Pennsylvania Handbook of Best Management Practices for Developing Areas, 1998, Riparian Forested Buffer. Where existing vegetation on the site essentially duplicates buffer requirements, this provision shall not apply. Additionally, this requirement may be modified or waived by the Board of Supervisors where existing man-made improvements or agricultural operations to be retained encroach within the buffer area.

K. General Design Requirements

- (1) Prior to finish grading of a development site and final overlay of streets, roads, and driveways, temporary measures, acceptable to the Township, shall be taken to ensure that all runoff intended to be intercepted and collected by an inlet or other facility, will be collected. The plan shall include such details, notes, or specification including bituminous "eyebrows" at inlets, diversion berms, etc.
- (2) Water originating from other than natural sources, such as air conditioning units, sump pumps, or other dry weather flow, wherever practical and possible, shall be connected first to an infiltration BMP, and if that is not possible, then to a storm sewer, street drainage structure, or other approved stormwater conveyance facility that is designed as part of a stormwater management BMP.
- (3) All stormwater runoff and floodplain calculations and stormwater management facilities design shall be prepared by a Professional Engineer licensed in the Commonwealth of Pennsylvania.
- (4) When subdivisions or land developments are submitted to the Township for approval in sections, a complete storm sewer design for the proposed subdivision and land development shall be submitted. The proposed design must include the entire tract and not a portion.
- (5) The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The Township 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.

PSRM	Peru 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)	Applicable sites less than 50 acres, or as approved by the Township engineer.
Other methods	Varies	Other computation methodologies approved by the Township engineer.

- B. All calculations consistent with this Chapter using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms according to the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 2, Version 3.0, rain data corresponding to the Graterford IE rain gage (No. 36-3437), Schwenksville, Pennsylvania as presented in Table A-1 of Appendix A of this Chapter. The SCS Type II rainfall curve data from NOAA is listed in Figure A-1 in Appendix A of this Chapter. This data may also be directly retrieved from the NOAA Atlas 14, Volume 2, Version 3.0 website: hdsc.nws.noaa.gov/hdsc/pfds/. If a hydrologic computer model such as PSRM or HEC-1/HEC-HMS is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours.
- 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-2 in Appendix A of this Chapter.
- D. Suggested runoff coefficients (C) for both existing and proposed conditions for use in the Rational Method are contained in Table A-4 in Appendix A of this Chapter.
- E. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate time-of-concentration for overland flow and return periods from NOAA Atlas 14, Volume 2 Version 3.0, rain data corresponding to the Graterford IE rain gage (No. 36-3437), Schwenksville, Pennsylvania as presented in Table A-3 of Appendix A of this Chapter. The Rational Method rainfall curve data from NOAA is listed in Figure A-2 in Appendix A of this Chapter. 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.
- F. For the purposes of existing conditions flow rate determination for all development activity, undeveloped land and existing impervious surfaces shall be considered as "meadow" in good condition, unless the natural ground cover generates a lower curve number (CN) or Rational 'C' value (e.g. forest), as listed in Tables A-2 and A-4 in Appendix A of this Chapter. 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 one-quarter (1/4) acre or more.
- 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

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

- (1) American Society of Testing and Materials (ASTM)
- (2) Asphalt Institute (AI)
- (3) Montgomery County Conservation District (MCCD)
- (4) Federal Highway Administration (FHWA)
- (5) National Crushed Stone Association (NCSA)
- (6) National Sand and Gravel Association (NSGA)
- (7) Pennsylvania Department of Environmental Protection (PADEP)
- (8) Pennsylvania Department of Transportation (PADOT)
- (9) U.S. Department of Agriculture, Natural Resources Conservation Service, Pennsylvania (USDA, NRCS, PA)

§ 129-19. Calculation Methodology.

- A. Stormwater runoff peak discharges from all development sites with a drainage area equal to or greater than 50 acres shall be calculated using a generally accepted calculation technique that is based on the NRCS Soil Cover Complex Method. The Rational Method may be used to estimate peak discharges from drainage areas that contain less than one hundred (100) acres as approved by the Township Engineer. The Rational Method is recommended for watershed areas under fifty (50) acres.

Table 129-19.1 summarizes acceptable computation methods. The method shall be selected by the applicant based on the individual limitations and suitability of each method for a particular site.

Table 129-19.1 Acceptable Computation Methodologies for Stormwater Management Designs

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	US Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary

for Manning's roughness coefficient (n) shall be consistent with Table A-5 in Appendix A of this Chapter.

- II. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Chapter using any generally accepted hydraulic analysis technique or method.
- I. The design of any stormwater management facilities intended to meet the performance standards of this Chapter shall be verified by routing the design storm hydrograph through these facilities using the Storage Indication Method. For drainage areas greater than twenty (20) acres in area, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph.
- J. The time of concentration (Tc) is the time required for water to flow from the hydraulically most remote point of the drainage area to the point of interest (design point). Use of the rational formula requires calculation of a Tc for each design point within the drainage basin. Travel Time Estimation for the rational method shall be based on NRCS Technical Release No. 55 (2nd Edition). For design purposes the time of concentration may not be less than five (5) minutes. Travel time (Tt) is the time it takes runoff to travel from one location to another in a watershed (subreach) and is a component of time of concentration. Tc is computed by summing all the travel times for consecutive components of the drainage conveyance system.
- K. Water moves through a watershed as sheet flow, shallow concentrated flow, open channel flow, or some combination of these. Sheet flow rates shall be calculated using the NRCS TR-55 (1986) variation of the kinematic wave equation. Sheet flow length may not exceed fifty (50) feet over paved surfaces and one hundred and fifty (150) feet over unpaved surfaces. Maximum permitted sheet flow length shall be one hundred and fifty (150) feet unless site specific conditions exist (that can be demonstrated) that warrant an increase of the sheet flow length. Under no circumstances shall sheet flow length exceed three hundred (300) feet. Shallow concentrated flow time and open channel flow time shall be calculated using standard engineering methodologies.

§ 129-20. Erosion and Sedimentation Control Requirements.

- A. Whenever vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules and Regulations, Part I, Commonwealth of Pennsylvania, Department of Environmental Protection, Sub-Part C, protection of Natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the Montgomery County Conservation District and the standards and specifications of the Township. Various BMPs and their design standards are identified in the PADEP Erosion and Sediment Pollution Control Program Manual (March 2012), as amended and updated.
- B. No Regulated Earth Disturbance activities within the Township shall commence until approval by the Township of an Erosion and Sediment Control Plan for construction activities.
- C. In addition, under 25 PA Code Chapter 92, a PADEP "NPDES Construction Activities" permit is required for Regulated Earth Disturbance activities of one (1) or more acres.
- D. 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 Township.

E. A copy of the Erosion and Sediment Control Plan and any required permit, as required by PADEP or Montgomery County Conservation District regulations, shall be available at the project site at all times.

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

- (1) Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity. Thirty-three (33) inch super fiber fabric fence (or other approved protection mechanism) must be installed around proposed infiltration areas to prevent encroachment and compaction by construction equipment.
- (2) Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has received final stabilization. If necessary, thirty-three (33) inch super fiber fabric fence (or other approved protection mechanism) must be installed in the vicinity of infiltration area to prevent contamination by runoff containing suspended sediment.
- (3) 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. Four (4) feet high orange safety fence or other similar protection fence approved by the Township must be installed around the entire limit of disturbance/clearing prior to commencement of earthmoving activities, and maintained until completion of all construction activity.

G. Peak discharge rates from the site during land disturbance shall comply with the appropriate sections in this Chapter related to allowable post-development stormwater runoff rates, with the following additions:

- (1) For purposes of calculating required detention storage during land disturbance, peak discharges shall be calculated based upon the runoff coefficients for bare soils during the period of maximum anticipated disturbance from clearing and grading, in combination with the entire quantity of proposed impervious surface installation, indicated on the development plan. Runoff controls shall insure that the peak rate of "during construction" runoff does not exceed predevelopment runoff rates for the one (1) year frequency through one hundred (100) year frequency design storm events. Detention storage during the period of land disturbance and prior to establishment of permanent cover may require additional detention facilities on a temporary basis. Such measures shall be located so as to preserve the natural soil infiltration capacities of the planned infiltration areas. Calculations based on the above parameters must be submitted to verify compliance with this requirement.
- (2) 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 (2) year storm from the disturbed areas be retained on site and that special sediment trapping facilities (such as check dams, etc.) be installed.

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C. A feasibility analysis that evaluates the potential application of infiltration, flow attenuation, bio-retention, wetland, or wet pond BMPs must be submitted with the Stormwater Management Site Plans required in Article IV.

The feasibility analysis must allow the Township 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 applicant. The information required in the analysis shall be detailed enough to determine the potential applicability of these BMPs for a proposed development, but general enough not to force an applicant 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. Applicants are expected to use these BMPs wherever possible and are required to provide adequate justification if these BMPs are not to be implemented. Applicants 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 Chapter which contain the description and additional design criteria of these BMPs.

This analysis shall provide:

- (1) A general assessment of the anticipated additional runoff based on the design storm and post-development condition and utilizing the calculation procedures required in § 129-19;
- (2) An indication of drainage areas on the development site resulting in impervious, pervious, and rooftop runoff;
- (3) An indication of type of land use (residential, non-residential) generating the impervious surface runoff;
- (4) A delineation of soils on the site from the NRCS, Soil Survey of Montgomery County and onsite soil study. The soil study shall be conducted by a soil scientist and shall include sufficient probes/deep holes to evaluate application of BMPs;
- (5) An indication of soils generally suitable for infiltration and/or wet pond/artificial wetland BMPs;
- (6) The 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;
- (7) The 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 an alternative development layout which would reduce impact on suitable soil availability is unfeasible;
- (8) An 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 and type of land use (items 2. and 3. above) and the general design standards and maintenance issues included in this Chapter, including an indication of how most post-development runoff can be managed by these BMPs (e.g.

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H. 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.

ARTICLE IV. STORMWATER MANAGEMENT APPLICATION AND PERMIT REQUIREMENTS

§ 129-21. General Requirements.

A. For any of the development activities regulated by this Chapter as defined pursuant to § 129-4.E, the final approval of subdivision and/or land development plans, the issuance of any building, zoning, 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 a Stormwater Management Permit (Permit) or approval of a Stormwater Management Exemption by the Township. Final approval of a subdivision and/or land development plan and recordation of same with the Montgomery County Recorder of Deeds, shall constitute approval of the Stormwater Management Permit for stormwater facilities/BMPs proposed on the plan.

B. A Stormwater Management Site Plan (SMSP) shall be required in conjunction with a Stormwater Management Permit for all regulated development activities that do NOT qualify for exemption from the provisions of this Chapter pursuant to § 129-5.B and § 129-5.C. The SMSP shall include all items identified pursuant to § 129-22. The SMSP approved by the Township shall be on-site throughout the duration of the regulated activity.

C. A Simplified Stormwater Management Site Plan (SSMSP) shall be required in conjunction with a Permit for regulated development activities qualifying for exemption of the provisions of this Chapter pursuant to § 129-5.C. The SSMSP shall include all items identified pursuant to § 129-23. The SSMSP approved by the Township shall be on-site throughout the duration of the regulated activity.

D. A Stormwater Management Permit shall be issued only upon approval of a Stormwater Management Site Plan or Simplified Stormwater Management Site Plan by the Township. A Stormwater Management Permit is not required for regulated activities exempt pursuant to § 129-5.B of this Chapter, but approval of a Stormwater Management Exemption must be issued by the Township pursuant to § 129-5.B and § 129-5.F, prior to commencement of regulated activities.

§ 129-22. Stormwater Management Site Plan (SMSP) Contents and Requirements.

For all regulated activities not exempt from provisions of this Chapter, a Stormwater Management Site Plan (SMSP) is required and 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 SMSP application documents shall be submitted to the Township in a format that is clear, concise, legible, neat, and well organized; otherwise, the Stormwater Management Site Plan shall be disapproved and returned to the applicant.

The following items shall be included in the Stormwater Management Site Plan:

- A. Four (4) copies of the completed Township Stormwater Management Application form.
- B. Stormwater Management Review Fee and Escrow, as established by separate resolution of The Township Supervisors.

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the entire post-development runoff or partial amount of runoff expressed as a percentage); and

- (9) The rationale for a 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.
- D. A detailed geologic evaluation of the project site pursuant to § 129-15.E and Appendix B of this Chapter, shall be performed to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified geologist and/or soil scientist and shall address, at a minimum, soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subsurface stability.
- E. Whenever a stormwater management facility will be located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted to determine susceptibility to sinkhole formations. The design of all facilities over limestone formations shall include measures to prevent ground water contamination and, where necessary, sinkhole formation. Soils used for the construction of basins shall have low-credibility factors ("K" factor). Installation of an impervious liner shall be required in detention basins to be constructed over or in close proximity (less than 150 feet) to limestone.

It shall be the applicant's responsibility to verify whether the site is underlain by limestone. The following note shall be attached to all Stormwater Management Site Plans and signed and sealed by the applicant's professional engineer: "I, _____, certify that the proposed stormwater management facility (circle one) is/is not underlain by limestone."

F. General

- (1) General description of project.
 - (2) General description of permanent stormwater management techniques, including construction specifications of the materials to be used for stormwater management facilities.
 - (3) Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities.
- G. Four (4) copies of the Stormwater Management Site Plan for the parcel shall be submitted on 24-inch x 36-inch sheets and shall be prepared in a form that meets the requirements for recording at the offices of the Recorder of Deeds of Montgomery County. The contents of the plan shall include, but not be limited to:
- (1) The location of the project relative to highways, municipalities, or other identifiable landmarks.
 - (2) Watershed(s) within which the project is located (e.g. Skippack Creek, Wissahickon Creek, Stony Creek/Saw Mill Run)
 - (3) Existing contours at intervals of 2 feet. In areas of steep slopes (greater than 25 percent), 5 foot contours may be used.

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- (4) Existing streams, lakes, ponds, or other bodies of water within the project area and all drainage channels leading to such bodies of water.
- (5) Other physical features including riparian corridors, flood hazard boundaries, sinkholes, streams, existing drainage courses, swales, wetlands, areas of natural vegetation to be preserved, and the total extent of the upstream area draining through the site.
- (6) The locations of all existing and proposed utilities, sanitary sewers, and water lines located on the site and/or within 50 feet of property lines with minimum setback distances for all existing and proposed water supply wells and on-lot sewage disposal systems.
- (7) An overlay showing soil names and boundaries. This overlay shall include a table on the map showing the recharge capabilities of each soil represented onsite in inches per hour and describe their recharge or infiltration capabilities.
- (8) Proposed changes to the land surface and vegetative cover, including a tabulation of impervious surface area which identifies the type of surface and the quantity of existing impervious surface area, existing impervious surface area to be removed and proposed impervious surface area.
- (9) Proposed structures, roads, paved areas, and buildings. Where pervious pavement is proposed for parking lots, recreational facilities, non-dedicated streets, or other areas, detailed pervious pavement construction specifications shall be noted on the plan.
- (10) Final contours at intervals of 2 feet.
- (11) The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.
- (12) The date of submission.
- (13) A graphic and written scale of one (1) inch equals no more than fifty (50) feet. For tracts of twenty (20) acres or more, the scale may be one (1) inch equals no more than one hundred (100) feet.
- (14) A North arrow.
- (15) The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.
- (16) Existing and proposed land use(s).
- (17) A key map showing all existing man-made features beyond the property boundary that may be affected by the project.
- (18) Horizontal and vertical profiles of all open channels, including hydraulic capacity.

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I. Stormwater Management BMPs

- (1) All stormwater management facilities 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 drinking water wells must be shown. A minimum separation distance of no less than 50 feet shall be provided between any septic system and any facility used for stormwater management. An analysis shall be submitted to verify that stormwater infiltration shall not affect groundwater elevations of the septic drain field site if this distance is approved by the Township to be less than 50 feet. In no case shall this distance be less than 20 feet.
- (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.
- (4) All stormwater management/BMP facility easements required by this Chapter must be shown on the Stormwater Management Site Plan, including the bearing and distance of each segment of the easement(s) boundary.

§ 129-13. Simplified Stormwater Management Site Plan (SSMSP) Contents and Requirements.

For all regulated activities that qualify for exemption of certain provisions of this Chapter pursuant to § 129-5.C, and that are required to install a pre-designed infiltration facility(s) in accordance with Worcester Township design and construction criteria (to be provided by the Township at the time of Permit application), a Simplified Stormwater Management Site Plan (SSMSP) is required and shall include the following items:

- A. Four (4) copies of the completed Township Stormwater Management Application form.
- B. Stormwater Management Review Fee and Escrow, as established by separate resolution of The Township Supervisors.

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- (19) All existing and proposed stormwater management facility and/or drainage easements described by metes and bounds, including the purpose and ownership and maintenance provisions for each easement.
- (20) A twenty (20) feet wide access easement around all stormwater management facilities that would provide ingress to and egress from a public right-of-way or paved driveway within an existing or proposed easement that accesses a public right-of-way.
- (21) 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 Chapter.
- (22) A construction detail of any improvements made to sinkholes and the location of all notes to be posted, as specified in this Chapter.
- (23) 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.
- (24) The location of all erosion and sedimentation control facilities.
- (25) 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 Site Plan meets all design standards and criteria of the Worcester Township Stormwater Management Ordinance No. _____.
- (26) The Stormwater Management Site Plan shall include an Operation and Maintenance Plan for all existing and proposed stormwater management/BMP facilities, addressing long-term ownership and maintenance responsibilities for such facilities, including schedule for Operation and Maintenance Activities.

H. Required 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 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 Montgomery County Conservation District.

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C. Four (4) copies of the Simplified Stormwater Management Site Plan for the parcel containing, at a minimum, the following information:

- (1) Property boundaries and area of the site, based on deed information, or field survey.
- (2) Location map identifying the site relative to streets and other parcels in the vicinity of the site.
- (3) Location of significant natural and existing man-made features, including wetlands, watercourses, riparian corridors, woodlands, steep slopes, structures, parking areas, driveways, utilities, flood hazard boundaries, sinkholes, wells, and septic systems within 200 feet of proposed impervious surface, regardless of the location of the property boundary.
- (4) 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. Impervious surface area tabulation must be provided identifying existing area of impervious surface, existing impervious surface area to be removed, and proposed impervious surface area.
- (5) North Arrow.
- (6) Plan scale, as applicable.
- (7) Existing contours at intervals of 2 feet. In areas of steep slopes (greater than 25 percent), 5 feet contours may be used.
- (8) Proposed contours at intervals at 2 feet as well as spot elevations as necessary to provide sufficient clarification of positive slope and drainage divides.
- (9) Infiltration/BMP facility design calculations and construction details.
- (10) An overlay on the site showing soil names and boundaries from the NRCS, Soil Survey of Montgomery and Philadelphia Counties or onsite soil study, conducted by a soil scientist. This overlay shall include a table on the map showing the recharge capabilities of each soil represented onsite in inches per hour and describe their recharge or infiltration capabilities.
- (11) Watershed(s) within which the project is located (e.g. Skipack Creek, Wissahickon Creek, Stony Creek/Saw Mill Run)
- (12) A graphic and written scale of one (1) inch equals no more than fifty (50) feet. For tracts of twenty (20) acres or more, the scale may be one (1) inch equals no more than one hundred (100) feet.
- (13) The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.
- (14) A soil erosion and sedimentation control plan, where applicable, including all reviews and approvals, as required by PADEP and/or Montgomery Conservation District.

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(15) A certification on the plan, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that cannot be altered or removed without written 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.

(16) Other information deemed necessary by the Township Engineer to determine compliance with exemption criteria contained in § 129-5.B.

(17) 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 the Worcester Township Stormwater Management Ordinance No. _____.

(18) Locations of existing and proposed septic tank infiltration areas and all wells must be shown. A minimum separation distance of no less than 50 feet shall be provided between any septic system and any facility used for stormwater management. An analysis shall be required to verify that stormwater infiltration shall not affect groundwater elevations of the septic drain field site, if this distance is approved by the Township to be less than 50 feet. In no case shall this distance be less than 20 feet.

(19) It shall be the applicant's responsibility to verify whether the site is underlain by limestone. The following note shall be attached to all Simplified Stormwater Management Site Plans and signed and sealed by the applicant's professional engineer:

"I, _____, certify that the proposed stormwater management facility (circle one) is/is not underlain by limestone."

§ 129-24. Plan Submission.

For all activities regulated by this Chapter, the steps below shall be followed for submission of a SMSP or SSMSF (both referred to in this section as "Plan"). For any activities that require a PADEP Permit regulated under Chapter 105 (Dam Safety and Waterway Management) or Chapter 106 (Floodplain Management) of PADEP's Rules and Regulations, a PADOT highway occupancy permit, or any other permit under applicable local, state, or federal regulations, the permit(s) shall be supplied as part of the plan.

A. The SMSP shall be submitted by the applicant as part of any preliminary subdivision and/or land development plan submission.

B. A minimum of four (4) copies of the Plan shall be submitted in conjunction with regulated activities not exempt pursuant to § 129-5.B of this Chapter. Additional copies shall be submitted if requested by the Township.

C. Distribution of the Plan will be as follows:

(1) Two (2) copies to the Township accompanied by the requisite Township review fee and escrow, as specified in this Chapter.

(2) Two (2) copies to the Township Engineer.

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facilities or techniques, or that involves the relocation or redesign of stormwater management facilities, or that is necessary because soil or other conditions are not as stated on the Plan as determined by the Township Engineer, shall require a resubmission of a modified Plan consistent with § 129-27 of this Chapter and be subject to review as specified in § 129-25 of this Chapter.

B. A modification to an already approved or disapproved Plan shall be submitted to the Township, accompanied by the applicable Township review fee and escrow. A modification to a Plan for which a formal action has not been taken by the Township shall be submitted to the Township, accompanied by the applicable Township review fee and escrow.

§ 129-27. Resubmission of Disapproved Stormwater Management Site Plans and Simplified Stormwater Management Site Plans.

A disapproved Stormwater Management Site Plan or Simplified Stormwater Management Site Plan may be resubmitted, with revisions addressing the Township Engineer's concerns, documented in writing, to the Township Engineer in accordance with § 129-24 of this Chapter and be subject to review as specified in § 129-25 of this Chapter. The applicable Township review fee must accompany resubmission of a disapproved Plan.

§ 129-28. As-Built Plans.

A. The applicant for any regulated activity requiring a Stormwater Management Site Plan and Stormwater Management Permit shall be responsible for completing an as-built survey, sealed by a professional engineer licensed in the Commonwealth of Pennsylvania or a registered surveyor licensed in the Commonwealth of Pennsylvania, of all stormwater management facilities/improvements included in the approved Plan. An as-built survey is not required for infiltration BMP's installed in conjunction with a Simplified Stormwater Management Site Plan. The as-built survey and an explanation of any discrepancies with the design plans shall be submitted to the Township Engineer for approval. In no case shall the Township approve the as-built survey until the Township receives a copy of an approved declaration of adequacy, highway occupancy permit from the PADOT District Office (if applicable), any applicable permits from PADEP, and NPDES Notice of Termination (if applicable) approved by PADEP or the Montgomery County Conservation District.

B. Completed stormwater management facilities and BMPs, including detention/retention basins, shall be surveyed by a professional land surveyor or engineer licensed in the Commonwealth of Pennsylvania, to verify compliance with the character of stormwater management facilities as depicted on the approved Plan. As-constructed plans shall be submitted to Worcester Township for review and approval, upon completion of construction of all facilities and prior to offer of dedication of any public facilities and/or submission of financial security for the required maintenance period associated with subdivisions and land developments. Public facilities will not be accepted by Worcester Township until such time the as-constructed plans have been reviewed and approved by the Township Engineer.

§ 129-29. Retention of Plans at Project Site.

A set of 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.

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§ 129-25. Review of Stormwater Management Site Plans and Simplified Stormwater Management Site Plans.

A. The Township Engineer shall review the Plan for consistency with the adopted Watershed Act 167 Stormwater Management Plan and applicable Township ordinances. The Township shall require receipt of a complete plan, as specified in this Chapter.

B. The Township Engineer shall review the plan for any subdivision or land development against the Subdivision and Land Development Ordinance provisions not superseded by this Chapter.

C. For activities regulated by this Chapter (not including subdivision or land development), the Township Engineer shall review the plan for conformance with the Watershed Act 167 Stormwater Management Plan. The Township Engineer will forward a review letter to the Township with a copy to the Applicant. Any disapproved Plan may be revised by the developer and resubmitted consistent with this Chapter.

D. The Township shall not approve any subdivision or land development or regulated activities specified in § 129-4.E.1 and 129-4.E.2 of this Chapter if the Plan has been found to be inconsistent with the Watershed Act 167 Stormwater Management Plan. All required permits from PADEP must be obtained prior to, or as a requirement of, final approval.

E. The Worcester Township Building Code Official shall not issue a building permit for any regulated activity specified in § 129-4 of this Chapter if the Stormwater Management Site Plan has been found to be inconsistent with the adopted Watershed Act 167 Stormwater Management Plan, as determined by the Township Engineer, or without considering the comments of the Township Engineer. All required permits from PADEP must be obtained prior to issuance of a building permit.

F. The Township's approval of a Stormwater Management Site Plan or Simplified Stormwater Management Site Plan prepared in conjunction with a Stormwater Management Permit application (for a regulated activity that is not a subdivision or land development, and which is not exempt from provisions of this Chapter pursuant to § 129-5.B), shall be valid for a period not to exceed one (1) year. This time period shall commence on the date that the Township signs and issues a Stormwater Management Permit. If stormwater management facilities included in the approved Plan have not been constructed, or if an as-built survey of these facilities pursuant to § 129-28 of this Chapter has not been approved within this time period, the Township may consider the Plan disapproved and may revoke any and all permits. Plans that are considered disapproved by the Township shall be resubmitted in accordance with § 129-27 of this Chapter.

G. The Township's approval of a Stormwater Management Site Plan prepared in conjunction with an approved subdivision or land development shall remain valid and protected from any change in Township Codes and Ordinances for a period no greater than five (5) years from the date of preliminary subdivision and/or land development plan approval, pursuant to the provisions of the Pennsylvania Municipalities Planning Code.

§ 129-26. Modification of Plans.

A. A modification to a submitted Stormwater Management Site Plan or Simplified Stormwater Management Site Plan for a development site that involves a change in stormwater management

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§ 129-30. Adherence to Approved Plan.

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

§ 129-31. Certification of Completion.

At the completion of the project, and as a prerequisite for the release of the performance guarantee required pursuant to § 129-37, the owner or his representatives shall:

A. Provide a set of as-built drawings pursuant to § 129-28 of this Chapter and/or Subdivision and Land Development Ordinance requirements. The as-built submission shall include a Certification of Completion signed by a licensed, qualified professional verifying that all permanent stormwater management/BMP facilities have been constructed according to the approved Stormwater Management Site Plan and specifications.

B. Contact the Township Engineer to request inspection of the site for completion of stormwater management facilities and compliance with the approved Plan and provisions of this Chapter. This final inspection shall be conducted by the Township after receipt of the Certification of Completion.

§ 129-32. Occupancy Permit.

A Use and Occupancy permit for any improvements constructed in conjunction with a subdivision and/or land development or other Township permit (requiring issuance of use and occupancy permit) shall not be issued unless the Certification of Completion, pursuant to § 129-31 of this Chapter, has been obtained by the Township (in conjunction with regulated development activities requiring a Stormwater Management Site Plan and stormwater improvements/BMPs).

ARTICLE V. INSPECTIONS

§ 129-33. Schedule of Inspections.

A. The Township Engineer shall inspect all phases of the installation of the permanent stormwater management facilities required pursuant to a Stormwater Management Site Plan and Simplified Stormwater Management Site Plan.

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

§ 129-34. Right-of-Entry During Construction.

A. 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

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operation and maintenance of the stormwater BMPs to investigate whether construction activity is in compliance with this Chapter.

- B. 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 Chapter.
- C. 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 storm water discharge.
- D. Unreasonable delay in allowing the direct access to a BMP is a violation of this Chapter.

ARTICLE VI. FEES AND EXPENSES

§ 129-35. Stormwater Management Permit and Review Fees.

The Township shall establish a fee schedule by Resolution of the governing body to defray plan review, construction inspection and administrative costs incurred by the Township from any outside agencies or entities (required to review the Plans) and the Township Engineer. The Township shall periodically update the review fee schedule to ensure that incurred costs are adequately reimbursed. The applicant shall pay all such fees and escrows.

§ 129-36. Expenses Covered by Fees and Escrow.

The fees required by this Chapter shall, at a minimum, cover the following:

- A. Administrative costs.
- B. Review of the Plans by the Township and the Township Engineer.
- C. Site inspections by the Township staff and/or Township 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 As-Built Plan.
- F. Any additional work required to enforce any permit provisions regulated by this Chapter, correct violations, and ensure proper completion of stipulated remedial actions.

ARTICLE VII MAINTENANCE RESPONSIBILITY

§ 129-37. Performance Guarantee

The applicant shall provide a financial guarantee to the Township for the timely installation and proper construction of all stormwater management controls as required by the approved Stormwater Management Site Plan and this Chapter equal to the full construction cost of the required controls plus construction contingency and construction inspection costs, which amount shall be calculated by the Township Engineer.

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- H. In the event a property owner or other entity responsible for maintenance (such as a homeowner's association) fails to honor their maintenance responsibilities set forth in the O&M Plan, in any manner, Worcester Township shall have the right of entry upon and within the area of the easement to undertake any required corrective or maintenance effort. The total cost of such, including administrative, engineering, and legal costs for enforcement, may be imposed upon the responsible party as determined by the O&M Agreement. Failure to pay all costs described above may be subject of the imposition of a lien by the Township against the property in question, in the same manner as the Township might otherwise be empowered by law to assess or impose a lien against a property for municipal improvements.

§ 129-39. Review of Stormwater Facilities and BMP Operations and Maintenance (O&M) Plan.

- A. The Township shall review the Stormwater Facilities and BMP O&M plan for consistency with the purposes and requirements of this Chapter, and any permits issued by PADEP.
- B. The Township shall notify the Applicant in writing whether the Stormwater Facility and BMP O&M plan is approved.

§ 129-40. Maintenance Agreement for Privately Owned Stormwater Facilities.

- A. Prior to final approval of the Stormwater Management Site Plan, the applicant shall sign and record an O&M Agreement prepared and approved by the Township Solicitor covering all stormwater control facilities that are to be privately owned. The form and substance of the agreement shall be consistent with the agreement in Appendix D of this Chapter. The signed O&M Agreement shall be recorded against every affected property as a restrictive deed covenant that runs with the land.
- B. Other items may be included in the agreement where determined necessary to guarantee the satisfactory maintenance of all facilities. The O&M agreement shall be subject to review and approval of the Township.
- C. The owner is responsible for the O&M of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the Township may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property as described in § 129-38.

§ 129-41. Stormwater Management Easements.

- A. Stormwater management easements shall be granted by the property owner(s) as necessary to provide for:
 - (1) Access to the property by the Township for facility inspections and emergency maintenance.
 - (2) Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event.

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§ 129-38. Maintenance Responsibilities.

- A. The Stormwater Management Site Plan for the development site shall contain a BMP operation and maintenance plan (BMP O&M Plan) 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. The governing body, upon recommendation of the Township Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the Stormwater Management Site Plan.
- B. The BMP O&M Plan shall establish responsibilities for the continuing operation and maintenance of all proposed stormwater control facilities, consistent with the following principles:
 - (1) If a development consists of structures or lots that are to be separately owned and in which streets, storm sewers, and other stormwater management public improvements are to be dedicated to the Township, stormwater control facilities may also be dedicated to and maintained by the Township, if accepted by the Township.
 - (2) If a development site is to be maintained in a single ownership or if storm sewers and other stormwater management 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.
- C. The stormwater facility and BMP O&M Plan shall include the following:
 - (1) 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.
 - (2) 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.
 - (3) 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 Township.
- D. 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.
- E. If the facilities are to be privately owned, an Operations and Maintenance Agreement that provides for maintenance responsibilities and cost sharing among the affected property owners, consistent with the O&M plan, shall be recorded against every affected property as a restrictive deed covenant that runs with the land.
- F. The governing body shall have the right, at any time after completion of the stormwater management facilities, to require dedication of any or all of the stormwater management controls. The right of the Township to require dedication in the future shall be stated in the Maintenance Agreement (Refer to § 129-40).
- G. The Township may take enforcement actions against an owner for any failure to satisfy any provision of this Chapter.

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- B. Stormwater management/BMP facilities easements are required for all areas used for off-site stormwater control, unless a waiver is granted by The Board of Supervisors.
- C. All easements shall be recorded with the Montgomery County Recorder of Deeds prior to issuance of a building permit or recordation of a subdivision or land development plan.
- D. The purpose of any easement shall be specified in the O&M Agreement signed by the property owner.
- E. The record plan and development agreement for an approved subdivision or land development shall reference the ownership and maintenance responsibilities as well as access rights for all drainage related easements. Specifically, the record plan shall contain a provision permitting access to such easement(s), at any reasonable time, for inspection and/or emergency repair/maintenance, by Worcester Township or its designee, of all facilities deemed critical to public welfare.

§ 129-42. Stormwater Maintenance Fund.

- A. If stormwater management facilities are accepted by the Township for dedication, the applicant shall pay a specified amount to the Township Stormwater Maintenance Fund to help defray costs of periodic inspections and maintenance expenses. The amount shall be determined as follows:
 - (1) The amount shall include all estimated costs to inspect, maintain, and repair the facilities during a ten-year period, as calculated by the Township Engineer.
 - (2) The amount shall be converted to present worth of the annual series values. The Township Engineer shall determine the present worth equivalents, which shall be subject to the approval of the Board of Supervisors.
- B. If a stormwater management/BMP facility is proposed which also serves as a recreation facility (e.g., ball field, pond), the Township 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.
- C. If at some future time a stormwater management facility (whether publicly or privately owned) is eliminated due to the installation of storm sewers or other stormwater management facility, the unused portion of any maintenance deposit will be applied to the cost of abandoning the facility and connecting to the storm sewer system or other facility. Any amount of the deposit remaining after the costs of abandonment are paid will be returned to the depositor.
- D. The applicant shall pay a fee to the Township Stormwater Maintenance Fund for all stormwater management facilities, storm sewer, culverts, or other such improvements required by PennDOT to be constructed within the right-of-way of public roadways or easement areas, that are to be maintained after dedication by and dedicated to the Township. The fee shall cover the estimated cost for maintenance and inspections for ten (10) years. The Township Engineer will establish the estimated cost upon review of information submitted by the applicant. The amount of the fee shall be converted to present worth of the annual series values. The Township Engineer shall determine the present worth equivalents, which shall be subject to the approval of the Board of Supervisors.

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§ 129-43. Post-Construction Maintenance Inspections.

- A. Stormwater Management BMPs shall be inspected for proper operation by the owner of the facilities on the following basis:
- (1) Twelve (12) months after completion of the facility and acceptance of completion of the facility by the Township,
 - (2) At least once every three (3) years thereafter,
 - (3) During or immediately after the cessation of a 10-year frequency or greater storm, and/or
 - (4) As specified in the Operations and Maintenance (O&M) agreement.
- B. The entity conducting the inspection shall submit a report to Worcester Township summarizing observations of inspection and necessary repairs, if any.

Article VIII PROHIBITIONS

§ 129-44. Prohibited Discharges.

- A. Any drain or conveyance, whether on the surface or subsurface, that allows non-stormwater discharge including, but not limited to, sewage, processed wastewater, and wash water to enter the Waters of the Commonwealth is prohibited.
- B. No person shall allow or cause to allow stormwater discharges into the Township's Municipal Separate Storm Sewer System which are not composed entirely of stormwater, except discharges allowed under a state or federal permit.
- C. Discharges which may be allowed under the Township's NPDES permit based on a finding by the Township that the discharge(s) do not significantly contribute to pollution to surface waters of the Commonwealth by the Township are:
- (1) Discharges from fire-fighting activities.
 - (2) Potable water sources including waterline and fire hydrant flushing.
 - (3) Uncontaminated water from foundation or from footing drains.
 - (4) Flows from riparian habitats and wetlands.
 - (5) Lawn watering.
 - (6) Irrigation drainage.
 - (7) 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.
 - (8) Routine external building wash-down (which does not use detergents or other compounds).
 - (9) Air conditioning condensate.
 - (10) Water from individual residential car washing.

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§ 129-47. Waste Disposal Prohibitions.

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 Municipal 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. Waste or recycling deposited in proper receptacles for the purposes of collection is exempted from this prohibition.

§ 129-48. Alteration of SWM BMPs.

- A. No person shall modify, remove, fill, landscape, or alter any existing stormwater management BMP, unless part of an approved maintenance program, and written approval of the Township has been obtained.
- B. No person shall place any structure, fill, landscaping or vegetation into a stormwater management facility or BMP or within a drainage easement, without the written approval of the Township.

ARTICLE IX. ENFORCEMENT AND PENALTIES

§ 129-49. Right-of-Entry.

Upon presentation of proper credentials, duly authorized representatives of Worcester Township may enter at reasonable times upon any property within the Township to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Chapter.

§ 129-50. Notification.

In the event that a person fails to comply with the requirements of this Chapter, or fails to conform to the requirements of any permit issued hereunder, the Township shall provide written notification of the violation. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Failure to comply within the time specified shall subject such person to the penalty provision of this Chapter. All such penalties shall be deemed cumulative. In addition the Township may pursue any and all other remedies available under state or federal law. 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 Chapter. 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.

§ 129-51. Enforcement.

Worcester Township is hereby authorized and directed to enforce all of the provisions of this Chapter. All inspections regarding compliance with the Stormwater Management Site Plan or Simplified Stormwater Management Site Plan shall be the responsibility of the Township Engineer or other qualified persons designated by the Township.

- A. A set of design plans approved by the Township shall be on file at the site throughout the duration of the construction activity. Periodic inspections may be made by the Township or designee during construction.

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- (11) Dechlorinated swimming pool discharges (pursuant to PADEP requirements).
- (12) Springs.
- (13) Uncontaminated groundwater.
- (14) Water from crawl space pumps or sump pumps.
- (15) Diverted stream flows.

- D. In the event that the Township subsequently determines that any of the discharges identified in § 129-44.C of this Chapter degrade the quality of Waters of the Commonwealth or U.S., the Township will notify the responsible person to cease the discharge.
- E. Upon notice provided by the Township under § 129-44.D, the discharger will have a reasonable time to cease the discharge consistent with the degree of pollution caused by the discharge.
- F. Nothing in this section shall affect a discharger's responsibility under State or Federal Law.

§ 129-45. Prohibited Connections.

- A. Prohibited connections. The following connections are prohibited, except as provided in § 129-44.C above:
- (1) Any drain or conveyance, whether on the surface or subsurface, which allows any non-stormwater discharge, including sewage, process wastewater, and wash water, to enter the regulated small MS4 or the waters of the Commonwealth, and any connections to the storm drain system from indoor waste water drains and sinks; and;
 - (2) Any drain or conveyance connected from a commercial or industrial land use to the regulated small MS4 or the waters of the Commonwealth which has not been documented in plans, maps, or equivalent records, and approved by the Township.
- B. This prohibition expressly includes, without limitation, connections made in the past, regardless of whether the connection, drain or conveyance was previously allowed, permitted, or approved by a government agency, or otherwise permissible under law or practices applicable or prevailing at the time of connection.

§ 129-46. Roof Drains.

- A. Roof drains shall not be connected to streets or sanitary sewers and shall discharge to infiltration areas or vegetative BMPs to the maximum extent practicable to satisfy the criteria for, and encourage disconnection of impervious surfaces. Roof drains may be connected to storm sewers or roadside ditches only when those facilities ultimately discharge to stormwater BMPs or water quality facilities, and only when approved by the Township Engineer.
- B. Roof drains and sump pumps shall not discharge water directly onto a sidewalk, walkway, trail, or street and shall be constructed to discharge to a dry well/catchage pit or above ground entirely on the subject property. Sump pump and roof drain discharge pipes shall not extend beyond the building envelope for the lot unless they are directly connected to an infiltration facility, detention basin, storm sewer pipe or as approved by the Township.

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- B. Adherence to approved plan. It shall be unlawful for any person to undertake any regulated activity under § 129-4 on any property except as provided for in the approved Stormwater Management Site Plan or Simplified Stormwater Management Site Plan and pursuant to the requirements of this Chapter. It shall be unlawful to alter or remove any control structure required by the Plan pursuant to this Chapter or to allow the property to remain in a condition which does not conform to the approved Plan.
- C. Suspension and revocation of permits

- (1) Any permit issued under this Chapter may be suspended or revoked by the Township for:
 - (a) Noncompliance with, or failure to, implement any provision of the permit.
 - (b) A violation of any provision of this Chapter or any other applicable law, Ordinance, rule, or regulation relating to the project.
 - (c) The creation of any condition or the commission of any act during construction or development which constitutes or creates a hazard or nuisance, pollution or which endangers the life or property of others, or as outlined in Article VIII of this Chapter.
- (2) A suspended permit shall be reinstated by the Township when:
 - (a) The Township Engineer has inspected and approved the corrections to the stormwater management and erosion and sedimentation control measure(s), or the elimination of the hazard or nuisance, and/or;
 - (b) The violation of the Ordinance, law, or rule and regulation has been corrected.
- (3) A permit that has been revoked cannot be reinstated. The applicant may apply for a new permit under the procedures outlined in this Chapter.
- (4) The decision to suspend or revoke a permit may be appealed to the Board of Supervisors within thirty (30) days of the date of suspension or revocation.

§ 129-52. Violations Deemed a Public Nuisance.

- A. The violation of any provision of this Chapter is hereby deemed a public nuisance.
- B. Each day that a violation continues shall constitute a separate violation.
- C. Whenever the Township finds that a person has violated a prohibition or failed to meet a requirement of this Chapter, the Township may order compliance by written notice to the responsible person. Such notice may require without limitation:
- (1) The performance of monitoring, analyses, and reporting;
 - (2) The elimination of prohibited discharges;
 - (3) Cessation of any violative discharges, practices, or operations;

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- (4) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
 - (5) Reimbursement to Worcester Township to cover administrative and remediation costs;
 - (6) The implementation of stormwater BMPs to correct a violation or prevent future violations; and
 - (7) Operation and maintenance of approved stormwater BMPs.
- D. Failure to comply within the time specified shall also subject such person to the penalty provisions of this Chapter. All such penalties shall be deemed cumulative and shall not prevent Worcester Township from pursuing any and all other remedies available in law or equity.

§ 129-53. Penalties.

- A. Anyone violating the provisions of this Chapter shall be guilty of a summary offense, and upon conviction shall be subject to a fine of not more than \$1,000 for each violation, recoverable with costs, or imprisonment of not more than 10 days, or both. Each day that the violation continues shall be a separate offense.
- B. In addition, Worcester Township, through its solicitor, may institute injunctive, mandamus or any other appropriate action or proceeding at law or in equity for the enforcement of this Chapter. 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.

§ 129-54. Appeals.

- A. Appeals from the determination of the Township in the administration of this Chapter as it relates to stormwater management of a project shall be made to the Worcester Township Board of Supervisors within thirty (30) days of that determination or decision.
- B. Any person aggrieved by a decision of the Supervisors may appeal to the Montgomery County Court of Common Pleas within thirty (30) days of the date of the decision.

2017-269 - Bamboo		
3/10/17	to WTPC and MCPC for review	TR
3/23/17	PC review	TR
4/27/17	ordinance approved by BB	BB
4/27/17	PC review, recommended approval	TR
5/2/17	legal ad and schedule to BB	TR
5/4/17	legal ad & schedule approved by BB	BB
5/18/17	ordinance sent to Times Herald	TR
5/18/17	ordinance sent to MCLL	TR
5/18/17	ordinance placed in lobby	TR
5/18/17	ordinance posted to website	LS
6/1/17	legal ad #1 published	TR
6/8/17	legal ad #2 published	TR
6/21/17	BoS hearing	
6/22/17	send to General Code via ezSupp	KM
6/22/17	send PDF to BB	TR

agenda item f)

**TOWNSHIP OF WORCESTER
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE 2017-269

**AN ORDINANCE TO PROHIBIT BAMBOO ALONG A PUBLIC
THOROUGHFARE**

WHEREAS, the Board of Supervisors has determined that the encroachment of Bamboo into, on and across public thoroughfares in Worcester Township constitutes a hazard to both motorists and pedestrians;

NOW, THEREFORE, IT IS HEREBY ORDAINED AND ENACTED THAT:

1. Township Code Chapter 126, *Streets and Sidewalks*, is hereby amended to include Article III, as follows:

**ARTICLE III
Bamboo Near Public Thoroughfares**

§126-11 Title. This article shall be known as an "Ordinance to Prohibit Bamboo along a Public Thoroughfare."

§126-12 Intent and Purpose. The Township has determined that the planting, cultivating and growing of certain noxious plants and grasses, particularly those plants and/or grasses commonly referred to as "Bamboo," has a negative impact on the health, safety and welfare of the citizens of Worcester Township and the public at large. The Township has therefore determined that is in the best interests of the citizens of the Township and the public at large to prohibit the planting, cultivating and/or growing of said Bamboo plants and grasses within the public right-of-way.

§126-13 Definitions. For the purposes of this ordinance, the following definitions shall apply:

BAMBOO – Any monopodial tropical or semi-tropical grasses from the genera *Bambusa*, *Phyllostachys*, or *Pseudosasa*, including, but not limited to, *Phyllostachys aurea* (Golden Bamboo), *Bambusa vulgaris* (common Bamboo), and *Pseudosasa japonica* (Arrow Bamboo).

PUBLIC THOROUGHFARE – Public highways, streets, roadways, trails, paths, and sidewalks.

§126-14 Planting restricted. Bamboo shall not be planted, maintained or otherwise be permitted to exist within 40 feet of the edge of the pavement or traveled portion of any public thoroughfare in Worcester Township. This shall apply to all parts of the Bamboo plant, including stalks, leaves, roots, and branches.

§126-15 Removal and abatement. Property owner(s) whose property contains Bamboo shall remove and abate the growth of the Bamboo within 40 feet of the edge of the pavement or traveled portion of a public thoroughfare in Worcester Township. After removal of the Bamboo, all rhizomes shall be disposed of by incineration.

§126-16 Enforcement and administration. The Township may enforce this article by any or all of the following measures;

- A. Provide written notice to a property owner to remove the Bamboo within a certain period of time.
- B. Move or cause the removal of any Bamboo that is interfering with the public thoroughfare and is growing within the right-of-way of a public thoroughfare within 40 feet of edge of the pavement or traveled portion of a public thoroughfare and charge the property owner with the cost of that work.
- C. Issue a non-traffic citation to the property owner(s) for violation of this article.

§126-17 Notice of violation; violations and penalties. A notice of violation may be issued followed by a citation, or a citation may be issued without being preceded by a notice of violation.

- A. Any action by any person, firm, corporation or other entity which violates or does not comply with any provision of this article or any regulation thereof shall be punishable by fine(s) as established in Section 126-17.B of this ordinance. Each day that a violation occurs shall be considered a separate violation.
- B. Any person, firm, corporation or other entity who violates or permits a violation of this article shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Township before a Magisterial District Judge, pay a fine of not more than \$600, plus all court costs, including reasonable attorney's fees, incurred by the Township in the enforcement of this chapter. No judgment shall be imposed until the date of the determination of the violation by the Magisterial District Judge. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment pursuant to the applicable Rules of Civil Procedure. Each day a violation exists shall constitute a separate offense. Further, the appropriate officers or agents of the Township are hereby authorized to seek equitable relief, including injunction, to enforce compliance herewith.

2. Miscellaneous provisions.

- a. In the event that any section, subsection or portion of this Ordinance shall be declared by any competent court to be invalid for any reason, such decision shall not be deemed to affect the validity of any other section, subsection or portion of this Ordinance. The invalidity of section, clause, sentence, or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts. It is hereby declared to be the intention of the Township that this Ordinance would have been adopted had such invalid section, clause, sentence, or provision not been included therein.
- b. To the extent this Ordinance is inconsistent with the Code of Worcester Township, the provisions of this Ordinance shall take precedence. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.
- c. This Ordinance shall become effective immediately upon enactment.

ENACTED AND ORDAINED by the Supervisors of the Township of Worcester, Montgomery County, Pennsylvania on this 21st day of June, 2017.

FOR WORCESTER TOWNSHIP

By:

Susan G. Caughlan, Chair
Board of Supervisors

Attest:

Tommy Ryan, Secretary

ASA 17-02 - Evans		
3/17/17	receipt of application	TR
3/21/17	draft & submit receipt notice	TR
4/19/17	BoS receipt acknowledge	
4/21/17	publish notice	TR
4/21/17	post notices at 5 locs. - 2 at property, TB, CH & USPS	PW
4/21/17	post notice and application to website	LS
5/5/17	clock #1 - expiration of 15-day comment period	
5/8/17	forward to WTPC, MCPC & ASA	TR
5/15/17	draft & submit public hearing notice	TR
5/22/17	five postings - two at the property, TB, CH and USPS	PW
5/22/17	mail public hearing notice to property owner	KM
5/22/17	mail public hearing notice to all ASA property owners	VC
5/22/17	post public hearing notice to website	LS
5/31/17	post MCPC review letter, if any, to website	LS
none	post WTPC review letter, if any, to website	LS
none	post WTASA review letter, if any, to website	LS
5/25/17	PC review & motion	TR
6/2/17	legal ad #1	TR
6/9/17	legal ad #2	TR
6/12/17	clock #2 - expiration of 45-day review period	
6/21/17	public hearing	
6/22/17	notice to property owner	TR
TBD	property description recorded at ROD	TR
TBD	property description to WTPC and MCPC	TR
TBD	property description to PA Secretary of Agriculture	TR
9/12/17	clock #3 - expiration of 180-day processing period	

agenda item h)

**MONTGOMERY COUNTY
BOARD OF COMMISSIONERS**

VALERIE A. ARKOOSH, MD, MPH, CHAIR
KENNETH E. LAWRENCE, JR., VICE CHAIR
JOSEPH C. GALE, COMMISSIONER



**MONTGOMERY COUNTY
PLANNING COMMISSION**

MONTGOMERY COUNTY COURTHOUSE • PO BOX 311
NORRISTOWN, PA 19404-0311
610-278-3722
FAX: 610-278-3941 • TDD: 610-631-1211
WWW.MONTCOPA.ORG

JODY L. HOLTON, AICP
EXECUTIVE DIRECTOR

May 25, 2017

RECEIVED
MAY 31 2017

Tommy Ryan
Worcester Township
1721 Valley Forge Road, Box 767
Worcester, PA 19490

Re: Proposed Additions to Worcester Township Agricultural Security Area

Dear Mr. Ryan:

The Montgomery County Planning Commission received a request to add the following parcel to the Worcester Township's existing Agricultural Security Area (ASA):

- 6700-01810-004 Owned by Michael and Linda Evans

As requested by the Township, we have reviewed the proposed addition in accordance with Act 43, "The Agricultural Area Security Law."

BACKGROUND

The Township has received a proposal by the above-referenced landowners to add their property to the Township's existing Agricultural Security Area (ASA). The total acreage that would be added is 119.47 acres. Act 43 requires review at the Township level to ascertain that the proposal meets the following criteria:

- 50% of the soils must fall in land capability classes I through IV as designated by the USDA Natural Resources Conservation Service.
- Addition of the land must be compatible with the Township's comprehensive plan.
- Zoning of the land must permit agriculture, but other uses need not be excluded.
- The land must be viable agricultural land, judged by soils, climate, topography, nearness to markets, degree of farm development, and economic trends.

Other factors to consider include the amount of fallow land nearby, land uses other than farming, and development patterns.

REVIEW COMMENTS

1. Soils

Our review of soil classifications for this property indicates that the majority of the soils fall in land capability Classes I through IV and is consistent with Act 43.

2. Comprehensive Plan

The Township's Comprehensive Plan (2008) shows the subject area falls within a Priority Agricultural Area designated for Rural/Residential land uses. The rural residential areas are to remain the least developed areas of the township. These areas are to remain the least developed in order to preserve environmental features and to maintain the rural character of the township. Consequently, adding the subject property to the Agricultural Security Area is consistent with the goals of the Comprehensive Plan.

3. Zoning

The property is zoned AGR-Agricultural which includes agriculture as a permitted use. The zoning is, therefore, consistent with Act 43.

4. Viable Agricultural Land

The Montgomery County Farmland Preservation Program has designated much of the area of Worcester Township as part of the county's significant farmland. This is the general area where efforts to preserve farmland have focused and will continue in the future. Significant farmland was deemed to include soils suitable for farming and areas targeted for lower density development or limited development. The area of significant farmland also corresponds with the area of the county where the majority of working farms exist. The listed parcel falls within the County's significant farmland area.

5. Role of Township's Agricultural Security Area Advisory Committee (ASAAC)

The five-member Agricultural Security Area Advisory Committee's role is to provide recommendations based on local knowledge of the farming economy and of individual farms. Even if all other factors appear favorable to adding land to an ASA, it is the committee which may be in the position to determine whether the land actually is being farmed and whether it has the potential to remain viable as a farm, at least in the near future. The committee may wish to consider discussion of these farm properties, including their acquaintance with the owners, the history of the parcels, and their knowledge of nearby ASA land. The ASAAC should confirm that the land is indeed in farming, which includes pasture.

RECOMMENDATION

We recommend that the property be added to the Township's Agricultural Security Area. Please note that the review comments and recommendations contained in this report are advisory and that the final disposition of this proposal will be made by the Township.

Sincerely,



Danielle C. Weiden

Senior Farmland Preservation Administrator

**TOWNSHIP OF WORCESTER
MONTGOMERY COUNTY, PENNSYLVANIA**

RESOLUTION 2017-14

**A RESOLUTION TO APPROVE THE ADDITION OF PROPERTY
TO THE WORCESTER TOWNSHIP AGRICULTURAL SECURITY AREA**

WHEREAS, a Proposal has been submitted to the Worcester Township Board of Supervisors for the addition of the below-noted property to the Worcester Township Agricultural Security Area, in accordance with the "Agricultural Area Security Law," Act of June 30, 1981, P.L. 128, No. 43, §2, and all revisions to the said statute through Act 14 of 2001 ("Act"); and,

WHEREAS, in response to the Proposal, the Board of Supervisors has complied with and completed the procedures and considerations prescribed in Sections 5, 6, and 7 of the Act; and,

WHEREAS, the Proposal includes the following owner, parcel, and acreage within:

- (1) property address: 3110 Heebner Road
- Owner of Record: Michael & Linda Evans
- TPN: 6700-01810-004
- acreage: 119.47 acres

WHEREAS, after duly advertised Public Hearing, and after consideration of the factors included in Section 7 of the Act, Board of Supervisors desires to approve the Proposal to add the aforementioned property to the Worcester Township Agricultural Security Area;

NOW, THEREFORE, BE IT RESOLVED, that the present Resolution, the Proposal and a description of the subject property shall be filed forthwith in the Office of the Recorder of Deeds of Montgomery County, Pennsylvania, with the Worcester Township Planning Commission, Montgomery County, Pennsylvania Planning Commission and the Montgomery County Land Preservation Office.

RESOLVED THIS 21ST DAY OF JUNE, 2017.

FOR WORCESTER TOWNSHIP

By: _____
Susan G. Caughlan, Chair
Board of Supervisors

Attest: _____
Tommy Ryan, Secretary

**TOWNSHIP OF WORCESTER
MONTGOMERY COUNTY, PENNSYLVANIA**

RESOLUTION 2017-15

A RESOLUTION TO DESIGNATE A DEPOSITORY FOR TOWNSHIP FUNDS

WHEREAS, Section 708 of the Commonwealth of Pennsylvania Second Class Township Code requires the Board of Supervisors to appoint a depository for Township funds;

NOW, THEREFORE, BE IT RESOLVED: the Board of Supervisors hereby appoints TD Bank to serve as a depository of Township funds, effective at the time of the above-noted transition.

RESOLVED THIS 21ST DAY OF JUNE, 2017.

FOR WORCESTER TOWNSHIP

By: _____
Susan G. Caughlan, Chair
Board of Supervisors

Attest: _____
Tommy Ryan, Secretary

Patricia Gramm
Worcester Township Tax Collector
P. O. Box 97
Worcester, PA 19490
Phone: 610-489-4070 Fax: 610-489-4529

June 12, 2017

Supervisors:

I have been banking with Key Bank since their buyout of First Niagara. Up to this time in my collecting taxes, I have paid no bank fees. I have been notified by Key Bank that they will begin charging fees to maintain the account effective July 1, 2017. The fees that they are estimating are in the area of \$200 to \$300 per month.

I have had discussions with TD Bank and they are anticipating offering me no fee banking, with the funds still being collateralized. I would like to request that the Township approve TD Bank as a depository for tax funds.

Thank you for your consideration.

Sincerely,

Patricia Gramm

Patricia Gramm
Worcester Tax Collector



CKS Engineers, Inc.
88 South Main Street
Doylestown, PA 18901
215-340-0600 • FAX 215-340-1655

Joseph J. Nolan, P.E.
Thomas F. Zarko, P.E.
James F. Weiss
Patrick P. DiGangi, P.E.
Ruth Cunnane
Michele A. Fountain, P.E.

June 15, 2017
Ref# 7515

Township of Worcester
1721 Valley Forge Road
PO Box 767
Worcester, PA 19490-0767

Attention: Tommy Ryan, Township Manager

Reference: Hebner Park - Soccer Field Parking Lot Improvements Contract - Summary of Bids

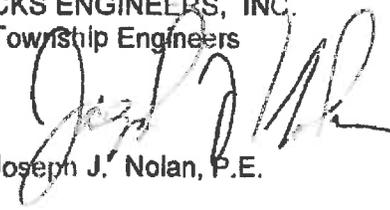
Dear Mr. Ryan:

Bids were opened for the above-referenced contract on June 14, 2017. A total of eight (8) bids were submitted by various contractors to perform the work on this contract. The contract covers the construction of a parking lot adjacent to the soccer field recently completed along Hebner Road.

The low bid was submitted by Polaris Construction Company Inc., of Warminster Pennsylvania, in the amount of \$84,860.50. We have reviewed the documents submitted with the low bid and find everything to be in order. We have also worked previously with this contractor and find him to be qualified to perform the work under this contract.

I have attached to this letter a summary of all bids submitted and a tabulation of all bid items. I am recommending that the Township award this contract to Polaris Construction Company Inc., for the bid amount of \$84,860.50. Once this contract is awarded, I will send out the "Notice of Intent to Award" letter to the low bidder and request that he provide the additional documentation necessary to complete execution of this contract. Please contact me if you have any questions or need any additional assistance on this contract.

Very truly yours,
CKS ENGINEERS, INC.
Township Engineers


Joseph J. Nolan, P.E.

JJN/paf
Enclosure

agenda item k)

WORCESTER TOWNSHIP, MONTGOMERY COUNTY
HEEBNER PARK - SOCCER FIELD PARKING LOT IMPROVEMENTS

SUMMARY OF BIDS

BID DATE: JUNE 14, 2017

	COMPANY	BASE BID
1	Polaris Construction Company, Inc. 1795 Stout Drive Warminster, PA 18974	\$84,860.50
2	James R. Kenney Excavating & Paving, Inc. 3950 Germantown Pike Collegeville, PA 19426	\$85,127.00
3	S&G Asphalt Service, LLC. 3340 Old Post Road Slatington, PA 18080	\$97,927.62
4	AH Cornell & Son, Inc. PO Box 311 Jamison PA 18929	\$102,243.00
5	GoreCon, Inc. PO Box 1778 Doylestown, PA 18901	\$117,244.81
6	T. Schiefer Contractors, Inc. 3864 Old Easton Road Doylestown, PA 18902	\$131,290.00
7	Ply-Mar Construction Co., Inc. 965 Plymouht Road Plymouth Meeting, PA 19462	\$132,447.00
8	Constructiohn Masters Services, LLC 4008 Lancaster Pike Reading, PA 19607	\$142,531.50

WORCESTER TOWNSHIP, MONTGOMERY COUNTY
HEEBNER PARK - SOCCER FIELD PARKING LOT IMPROVEMENTS
BID TABULATION

No.	Description	Unit of Measure	Quantity	1)		2)		3)		4)		5)		6)		7)		Construction Methods Services, LLC	
				Unit Price	Total	Unit Price	Total	Unit Price	Total										
1	Excavation - 12" to 24" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	1910	\$41.25	\$78,787.50	\$41.00	\$78,310.00	\$45.47	\$86,847.70	\$47.00	\$89,770.00	\$52.00	\$100,504.00	\$57.00	\$109,170.00	\$60.00	\$114,180.00	\$89.00	\$171,190.00
2	Excavation - 24" to 36" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	5	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00
3	Excavation - 36" to 48" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	5	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00
4	Excavation - 48" to 60" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	5	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00
5	Excavation - 60" to 72" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	5	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00
6	Excavation - 72" to 84" Aggregate Material, 4-1/2" SuperPave Base Course and 1-1/2" Sub Base Course, including Earthwork, Excavation, Backfill and Subbase Preparation	SY	5	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00	\$50.00	\$250.00
GRAND TOTALS																			

MEMO

to: Board of Supervisors
cc:
from: Tommy Ryan
date: June 16, 2017
re: Center Point Village Zoning Ordinance Assessment

The Township received six responses to the RFP issued (attached) for the above-noted project. The consultants satisfied the terms of submission. Below find the not-to-exceed fee for base services, excluding reimbursables at actual cost, for each:

Carroll Engineering	\$ 8,800
Urban Redevelopment	\$ 12,400
Gilmore & Associates	\$ 15,420
Seidel Planning	\$ 16,700
Boucher & James	\$ 29,580
Simone Collins	\$ 44,763

This matter will be reviewed at the June 21 Business Meeting.

REQUEST FOR PROPOSALS
Worcester Township, Montgomery County
Center Point Village Zoning Ordinance Assessment

Summary

Worcester Township is soliciting proposals from Professional Planning Consultants to prepare an assessment of the proposed Center Point Village Zoning Ordinance.

Proposals

All proposals must be received at the Township Building not later than 4:30pm on Friday, May 26, 2017. Proposals may be delivered to the Township Building at 1721 Valley Forge Road, Monday to Friday, from 7:00am to 4:30pm, or proposals may be mailed to Township Building at:

Worcester Township
Attn: Tommy Ryan, Township Manager
1721 Valley Forge Road
Post Office Box 767
Worcester, PA 19490-0767

Consultants must submit six hard copies and one electronic copy of the proposal. With the proposal the Consultant shall provide (a) a sample contract for services, (b) and a sample invoice, and confirmation that the project will be billed on a frequency not greater than a monthly basis, (b) proposed project schedule, (c) a not-to-exceed cost for the project, not including out-of-pocket expenses, which shall be reimbursed at actual cost; (d) a statement noting that when the project is billed at 75% the Consultant will submit written certification to the Township stating the Consultant will complete the contract obligations with the remaining funds in the not-to-exceed cost; and, (e) three municipal references for similar projects completed during the previous five years. The Consultant shall also identify the person(s) assigned to work on the project, submit a resume/CV for each individual, and designate one person who shall serve as the project liaison to the Township.

All questions regarding this RFP shall be submitted in writing (by mail or e-mail) to the above address, or to tryan@worcestertwp.com. All updates and amendments to this RFP will be posted on the Township website, worcestertwp.com. Notification of these postings will be e-mailed to those Consultants that request same and provide an e-mail address to tryan@worcestertwp.com.

Schedule of Events

The proposed schedule for the RFP process is as follows:

- April 24, 2017 – Request for Proposals issued
- May 19, 2017, 4:30pm – deadline to submit written questions
- May 26, 2017, 4:30pm – deadline to submit proposal
- *to be determined, if necessary* – review and select interviewees
- *to be determined, if necessary* – conduct interviews
- June 21, 2017 – contract awarded

Scope of Assessment

1. General. The Worcester Township Board of Supervisors is soliciting proposals from Professional Planning Consultants to prepare an assessment of the proposed Center Point Village Zoning Ordinance.
2. Specifications. The Center Point Village Zoning Ordinance Assessment shall include the following four components:

- a. **Component 1** – The Consultant shall review and compare the Center Point Village Vision Plan (“Vision Plan”) to current Township Zoning Ordinance and Subdivision and Land Development Ordinances (“Code”), insofar as the Code relates to those properties located in Center Point Village. The Consultant shall provide a written summary that details the extent to which the Code does and does not satisfy the objectives set forth in the Vision Plan. This narrative shall also include a list of recommended amendments to the Code that will serve to best align the Code and the Vision Plan. Component 1 shall be no more than 10 pages in length.
- b. **Component 2** – The Consultant shall review and compare the Vision Plan to the draft zoning ordinance for Center Point Village (“Ordinance”). The Consultant shall provide a written summary that details the extent to which the Ordinance does and does not satisfy the objectives set forth in the Vision Plan. This narrative shall also include a list of recommended revisions to the Ordinance that will serve to better align the Ordinance to the Vision Plan. Component 2 shall be no more than 10 pages in length.
- c. **Component 3** – The Consultant shall recommend which approach the Township should pursue so to better realize the objectives of the Vision Plan – in specific, should the Township amend the Code or should the Township revise the Ordinance? The Consultant shall provide rationale for the recommendation made. Component 3 shall be no more than 3 pages in length.
- d. **Component 4** – The Consultant shall provide a one-page response to each of the three issues, not including any graphics or photographs.
 1. A Village Property Owner has expressed interest in developing a convenience store with gasoline pumps in this property. The Township is undecided as to whether to permit this use in the Ordinance. To what extent can the Township limit or otherwise regulate this use, in specific the number of filling stations and the size of the canopy atop the filling stations, while (a) providing a realistic development opportunity that meets current marketplace requirements, and (b) protecting the “rural feel” of the Village? Submit graphics or photographs that depict various sized uses of this type.
 2. Recommend an appropriate minimum open space requirement and maximum permitted residential density in the Village. As noted above, the recommended provisions must provide a realistic development opportunity while protecting the “rural feel” of the Village.
 3. Recommend an appropriate scale for non-residential development in the Village. In specific identify an appropriate maximum building size, building height and massing. As noted above, the recommended provisions must provide a realistic development opportunity while protecting the “rural feel” of the Village.

Meetings & Deliverables

1. The Consultant shall attend two meetings with the Planning Commission (PC) and one meeting with the Board of Supervisors (BoS), as noted below:
 - PC meeting #1 – discuss project history, Consultant asks questions on areas of concern to PC;
 - PC meeting #2 – present Assessment; and,
 - BoS meeting #1 – present Assessment, revised to include Planning Commission comments.
2. The Consultant shall deliver:
 - ten copies plus one electronic copy of the Assessment to be presented at the PC meeting #2;
 - ten copies plus one electronic copy of the Assessment to be presented at the BoS meeting #1; and,
 - ten copies plus one electronic copy of the Assessment in its final form, which shall include any revisions made per comments received at the BoS meeting #1.

Other

1. Worcester Township reserves the right to waive any technicalities and/or deficiencies in the proposal submissions, and the Township may select the proposal which it deems, at its sole discretion, to be best suited for the intended purpose, and which best serves the interests of Worcester Township and its residents.
2. Consultants who chose to participate in this RFP process will receive no compensation from Worcester Township for their submissions.