Worcester Township

2018 MS4 Permit Application

2018 MS4 Permit

- Due September 16, 2017
- Permit starts March, 2018 for a 5 year permit period
- Requires Updated Total Maximum Daily Load (TMDL) Plan and Pollution Reduction Plans (PRPs) to be submitted with the application
- The TMDL and PRP Plans require discussion at a public meeting and a 30 day public comment period
- The Plans will be advertised for the public comment period starting in the beginning of August

Watersheds in Worcester Township

Watershed	Area (Sq. Mi.)
Skippack Creek	
• Total Watershed Area	55.7
• Area within Township	12.31
• Area of MS4 Responsibility	2.88
Stony Creek	
• Total Watershed Area	21.2
• Area within Township	3.854
• Area of MS4 Responsibility	0.62
Wissahickon Creek	
• Total Watershed Area	64.0
• Area within Township	0.049
• Area of MS4 Responsibility	0.035

TMDL Requirements

- Wissahickon Creek
  - Sediment TMDL Requirement for 14% reduction
  - Discussed with PADEP and they agreed that Worcester Township does not need to address this requirement for the Wissahickon Creek Watershed during this 5 year permit period since the area within the Township is so small
- Skippack Creek
  - Sediment TMDL Requirement for 18% reduction
  - Worcester is participating the Skippack Creek Watershed Group to prepare a joint TMDL Plan
  - This plan will not be ready for the 9/16/17 submission date. It will be submitted later as a revision to the Township's plan.
  - As part of the participation, the Township can use the Skippack Creek Model that has been approved by PADEP which reduces the Township's sediment load by 30%.

Pollution Reduction Plans

- Skippack Creek
  - PRP required for Nutrients
  - Requires a 5% reduction in Total Phosphorus in the 5 year permit term
  - PADEP is allow a "Presumptive Approach" where a 10% reduction of sediment is accepted to achieve a 5% reduction in total phosphorus
- Stony Creek
  - PRP required for Sediment
  - Requires a 10% reduction in Sediment in the 5 year permit term

Skippack Creek Sediment Reductions

Skippack Creek	Lbs/Year
Existing Sediment Load from TMDL Study	4,563,192
Reduction from Use of Model	30%
Revised Existing Sediment Load	3,194,234
Percent of Watershed Area that is Township's MS4 Planning Area (Removes of Non-Urban Areas and Areas outside MS4 Area)	23%
Reduced Sediment Load	748,184
Reduction from Projects Constructed before TMDL	17,981
Reduced Sediment Load	730,203
TMDL Sediment Reduction Requirement	18%
TMDL Sediment Reduction Required	131,437
2018 Permit Reduction Requirement	10%
2018 Permit Reduction Required	73,020

Skippack Creek BMPs

- Projects completed since the TMDL Study was approved by PADEP (2005):

BMP	Sediment Reduction
Basin Conversion along Saddlewood Court	4,395 lbs/year
Basin Conversion of Conrad – Morris Basin (joint project with Upper Gwynedd Twp.)	7,200 lbs/year
Total Completed to Date	11,595 lbs/year
Total Required for TMDL	131,437 lbs/year
Remaining TMDL Requirement	**119,842 lbs/year**
2018 Permit Requirement	**73,020 lbs/year**

Projects for 2018 Permit

Possible Projects	Sediment Reductions
Basin Conversion along Clyston Road	15,012 lbs/year
Amount of Reduction Remaining	58,009 lbs/year
1,300 LF of Streambank Stabilization	58,344 lbs/year
Alternative Projects	
Conversion of Private Basins (Would need to convert 8 private basins)	64,000 lbs/year (8,000 lbs/year/basin average)

Summary of Skippack Creek Pollutant Reductions

	Sediment (lbs/year)
Required Sediment Reduction for TMDL	131,437
Reduction from Projects completed since 2005	11,595
Amount Remaining to be reduced for TMDL	119,842
Required Sediment Reduction for 2018 Permit Period	73,020
Possible BMPs for 2018 Permit	73,356
Amount Remaining for TMDL after 2018 Permit	46,486

- The 2018 Permit Requirement can be met with these projects.
- Worcester Township is participating in the Skippack Creek Watershed Group.
- A revised TMDL Plan is expected to be submitted by the Watershed Group once it is completed and agreements are reached among the group.

Stony Creek Sediment Reductions

Stony Creek	Sediment (lbs/year)
Current Sediment Load	157,922
Reduction Requirement	10%
Reduction Required	15,792
Proposed BMPs	
• Basin Conversion – Stony Creek Road	12,441
• Basin Conversion – Deep Meadow Lane	12,068
Total Sediment Reduction Proposed	**24,509**

Next Steps

- If the Township accepts the Plan, it will be advertised for a 30 day public comment period starting the first week of August
- At the completion of the comment period, any comments will be addressed
- The Plan along with the MS4 Permit Application must be submitted to the PADEP by September 16, 2017