

**State College Borough Water Authority
The Cottages PRD (Toll Brothers), Ferguson Township
Stormwater Management (SWM) Technical Review Matrix**

Prepared By:
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No.	Technical Review Comments (As of May 26, 2015)	Planning Level Drawing Review March 24, 2014	Preliminary PRD Plan Review October 9, 2014	Preliminary PRD Plan Resubmittal Review January 7, 2015	Final PRD Initial Plan Review April 21, 2015
1	Project Location: Thomas-Harter Aquifer, Zone II Well Head Protection Area (Per 2007 Source Water Protection Study)	X			
2	Special Design Considerations: Required to Reduce Potential Due to Groundwater Contamination by Stormwater Runoff	X			
3	Reference Standards: SWM Best Management Practices (BMP) (PADEP Chap 7.6 SWM BMP Manual & Ferguson Twp Code No. 26)	X			
4	Water Quality Concerns: Deicing/Antiskid Agents, Oil & Gas Spills, Nitrates, Lawn Chemicals, Soil Migration to Aquifer (Well Turbidity)	X			
5	SWM Design: Pretreatment Filtering BMP's, Non-Structural BMP's, Infiltration Rates, Pollutant Removal, Amended Soils	X			
6	Alternative BMP's: Incorporate Non-Structural BMS (Vegetated Channels & Buffers) to Distribute Infiltration & Reduce Basin Size	X			
7	Lawn Chemicals: Limit Use of Fertilizers, Pesticides & Herbicides; Provide Material Safety Data Sheets (MSDS) for all Chemicals	X			
8	Minimize Centralized Infiltration Basins: Use Constructed Filters & Natural Vegetated Buffers to Reduce Size of Infiltration Basin		X		
9	Stormwater Decentralization: Design Storm Drainage System & Infiltration Basins to Distribute Stormwater where Possible		X	X	
10	Pretreatment SWM Filtering: Require Amended Soil Layers in Pre-Treatment BMP Facilities & Infiltration Basins		X	X	
11	Sinkhole Development: Provide Remediation Procedures, Repair Details & Contingency Plan; If Developed, Notify SCBWA Immediately			X	X
12	SWM Operation, Maintenance & Remediation Plan Provisions: Include in Township Conditions of Approval (CO&A) Document			X	
13	Construction Practices: Prohibit Compaction of Infiltration Basins by Construction Equipment; Provide Perimeter Fencing at Basins				X
14	Stormwater Inlets Maintenance Plan: Required for Inlet Grate Skimmers; Need for Level Spreading Device for Basin B Inlet Line				X
15	Basin Integrity: Verify Intergrity of Infiltration Basin B				X
16	Geophysical Survey: Require Electrical Resistivity Testing of Infiltration Basins for Possible Sinkholes & Subsurface Voids				X
17	Infiltration Rates for Basin B: Limit Infiltration Basin Permeability to 5 inches/hour				X
18	Basins Embankment Details: Cutoff & Key Trenches for Seepage Control & Anti-Seep Collars Required for Basin A or Infiltration Basin B				X
19	Infiltration Basins C&D: Provide Additional Details on Plan for Basins C&D				X
20	Infiltration Basin Bottoms: Require Seed Mixes for Tall Grass Stands & Deep Root Structures (Ernst ERNMX 180-1); SCBWA to Approve Mixes				X
21	Amended Soils Layers: Require a Proper Mixture of Sand, Clay & Organics for Proper Filtering, Analyzed by a Soil Scientist				X
22	Post-Construction Water Quality Monitoring: Require Installation of a Downgradient Monitoring Well Per SCBWA Details & Criteria				X
23	Infiltration Test Pit Logs: Review Design Engr Subsurface Testing Data Verify Presence of Shallow Bedrock at Infiltration Basins				X
24	Basin Reconfiguration: Redesign Extended Basin "A" & Infiltration "B" to any Avoid Rock Excavation & Maximize Existing Soil Layer				X
25	Rock Excavation: Request Use of Pneumatic Hammers for Site Rock Excavation in Lieu of Avoid Drilling & Blasting				X
25	Drilling & Blasting: Contractor to Adhere to SCBWA Specs for Rock Excavation including Preblast Plan (by PE/PG) and Monitoring/Records				X
26	SCBWA Construction Inspection: Onsite Inspection of SWM Facilities & Footer Excavations with Ability to Stop Noncompliant Work				X
27	SCBWA Post Construction Monitoring: Right to Enter Property to Inspect SWM Facilities & Well Sampling for Compliance with O&M Plan				X