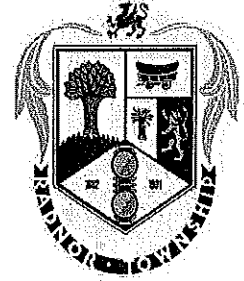


**Radnor Township**  
**Stormwater Management Advisory Committee (SWMAC)**  
**Agenda**  
**7:00pm, Thursday November 12, 2015**



1. Call to Order.
  
2. Review / approve meeting minutes October 15, 2015 SWMAC Meeting.  
***(10 minutes)***
  
3. Public comment.  
***(10 minutes)***
  
4. CH2MHILL to present concept solutions for possible flood reduction sites at Parking Lot on Runnymede Ave/Parking Area on S. Wayne Ave/Parking Lot adjacent to library.  
***(40 minutes)***
  
5. Discussion of ODP Incentive Program.  
***(40 minutes)***
  
6. Old/New Business – Mill Dam Repairs, O’Dorisio Park eroded swale, Highland Road eroded swale.  
***(20 minutes)***
  
7. Set the date and time for the next meeting and adjourn.

**ATTENDEES:** SWMAC: Heather Gill, Paige Maz, , Regina Majercak, Joe Schanne,  
Paul Burgmayer  
CH2M: Daniel Wible

**PREPARED BY:** CH2M

**MEETING DATE:** October 15, 2015

**SUBJECT:** October 2015 meeting

**YouTube link:**

[https://www.youtube.com/watch?v=tjGqlm2T\\_hs&index=3&list=UUvvh6jeMQTvo3ojCTh8wZkbA](https://www.youtube.com/watch?v=tjGqlm2T_hs&index=3&list=UUvvh6jeMQTvo3ojCTh8wZkbA)

**Review of Previous Meeting Minutes**

- September 10, 2015 SWMAC meeting minutes – approved with one comment (change the date of the October SWMAC meeting to October 15)
  - Heather noted that at future SWMAC meetings, comments received from the public regarding the meeting minutes will be discussed

**Public Comment**

- Preston Tyrrell (Oakford Road, Wayne) and Jeff Adams (Arbordale Road, Wayne) discussed an ongoing flooding situation occurring in the vicinity of Arbordale and Oakford Roads (between S. Devon Ave and W. Wayne Ave)
  - Approximately 8 homes are impacted by frequent flooding of Little Darby Creek (Darby Creek Watershed)
  - Flooding occurs after virtually every rain event and can last for days in backyards; flooding also occurs on Arbordale Road
  - The impacted area is immediately south of Warren Filipone/Bo Connor Park

**Ithan Creek Watershed Assessment Recommendations/Solutions by CH2M**

- Daniel presented the concept design for the so-called Banbury Way / Francis Ave / Windsor Ave (BFW) project
  - CH2M reviewed plans of the area prepared by Pennoni in 1997; plans contain existing storm sewer information (sizes, inverts, and types) in Francis Ave and Banbury Way in the vicinity of the Wawa, including the large diameter storage/infiltration pipes under Francis Ave
  - CH2M's concept plan includes major 4 components:
    - Storage/infiltration system under Francis Ave (immediately east of Banbury Ave)
    - Storage/infiltration system under Windsor Ave (immediately west of Banbury Ave)
    - Bioretention with underlying storage/infiltration system under Windsor Ave (entails permanently closing off part of Windsor Ave)
    - Storage/infiltration system further up on Windsor Ave (immediately east of Farm Road)
  - Storage/infiltration systems will consist primarily of open-bottomed concrete chambers surrounding by aggregate
  - Other components of the concept plan: various new inlets, outlet control structures with weirs, vegetated swale on Windsor Ave, several new trees on Francis Ave, etc
  - In order to quantify flood reduction benefits, CH2M modeled the concept plan using EPA's Stormwater Management Model (SWMM) since available storm sewer data was available

- The concept plan will eliminate flooding associated with the 25-year, 1-hour storm event based on the model
- Costs of concept plan: construction - \$980k (with 30% contingency); soft costs - \$294k; total - \$1.27M
- Cost of concept plan without the additional trench on Windsor Ave (79% reduction in 25-year, 1-hour storm flooding): construction - \$800k (with 30% contingency); soft costs - \$240k; total - \$1.04M
- CH2M also modeled residential BMPs in SWMM; assuming that 50% of the residences in the project drainage area have a 150 SF rain garden and 2 rain barrels (100 gal/each) that collectively manage 1.2" from 1500 SF of impervious area, flooding during the 25-year, 1-hour storm would be reduced by approximately 5%
- SWMAC comments on the BFW concept
  - Regina suggest and the other SWMAC members agreed that the bioretention concept should be removed as it would entail permanently closing off part of Windsor Ave and the stormwater reduction benefit was very limited. The storage/infiltration system in Windsor Ave will be expanded in that area
  - SWMAC asked about potential utility conflicts and if utility relocation/protection costs have been included in the cost estimate; existing utility information in that area is limited, but CH2M included a 30% cost contingency
  - SWMAC generally agreed that instead of the storage/infiltration system further up on Windsor, that a storage/infiltration system should be placed under Banbury Way
  - Regina expressed concerned about depth of groundwater in that area and asked if the system be made shallower; CH2M will revisit its modeling assumptions in an effort to decrease the required system depth
  - SWMAC asked CH2M to update conceptual cost estimate (correct mistake in cost summary); in addition, SWMAC asked CH2M to provide several cost/benefit options (e.g. how much it would cost to eliminate flooding for several storm events such 5-year, 10-year, 25-year?)
  - SWMAC would like Daniel to present concept plan at Board of Commissioners (BOC) meeting on 11/9/15; at that meeting, SWMAC would formally ask BOC to authorize project to proceed into RFP for design.
- Ithan Creek watershed assessment – additional potential projects were briefly discussed; Daniel again noted the benefits and limitations of the analysis; mapping/integrating the existing storm sewers with the previously completed flood model was beyond the scope of this analysis and thus only a qualitative assessment of the watershed-wide benefits associated with potential projects can be made
- SWMAC asked Daniel to proceed with a concept plan/cost estimate for a potential stormwater solution to be located either at the existing School District-owned parking lot on Runnymede Ave or the Township-owned parking on S. Wayne Ave across from the Radnor Middle School (or possibly even the library parking lot)

#### Discussion of ODP Incentive Program

- Deferred to the November 2015 meeting

#### Next SWMAC meeting: 11/12/15

#### Action Items

- **CH2M** to commence concept design for a potential stormwater solution either at the School District-owned parking lot on Runnymede Ave and/or the Township-owned parking on S. Wayne Ave (and/or the library parking lot)
- **CH2M** to present updated BFW concept plan to BOC at 11/9/15 meeting

- **CH2M** to work prior to each monthly SWMAC meeting with Steve so that in case he is absent a current status of ongoing stormwater-related activities can be provided and entered into the public record.
- **CH2M** to request a proposal from Gannett Fleming to design the pipe connection from W. Wayne Ave to the Radnor Middle School stormwater system – **Completed 10/23/15**
- **Steve Norcini** to provide an update on miscellaneous stormwater items, including culvert repairs/inspections, the Wayne Train Station, storm sewer televising/locating/cleaning, MS4 compliance, etc – **Completed 10/22/15**
- **Steve Norcini** to reach out to the Delaware Valley Regional Planning Commission (DVRPC) about the potential for getting a Route 30 project on the Transportation Improvement Program (TIP)

DRAFT