

Langhorne Manor Borough Stormwater Commission – Agenda & Minutes
Monday, July 25, 2022 7:30pm – Borough Hall

Attendees: Alicia Gasparovic (chair), Fred Tomlinson, Kevin Oessenich, Jim Keba, Dave Bean, Heather Palladino, Jay Ferraro (Borough Manager), Dawn Seader (Council President), Isaac Kessler (RVE), Michael DeAngelis (RVE), Virginia Hankinson (resident visitor).

1. Approve May meeting minutes - approved with 1 minor spelling correction

2. RVE: Isaac Kessler & Michael DeAngelis

- Comly Ave project updates – brief update given
- Potential swale project locations & discussion
 - RVE presented the SWC with larger versions of the borough maps (previously sent via email) depicting swales by type. Some discussion was had about several locations where type of swale was in dispute.
 - In general, maintenance cost is higher for bioswales than for infiltration trenches.
 - Bioswales offer an 80% reduction of sediment in A/B soil, according to MS4 calculations and credits offered. Infiltration trenches offer 90%.
 - A soils are the best for percolation/infiltration. D soils are the worst. There is some D soil in the middle of the borough. RVE to provide a map of soil types.
 - Some swales identified for retrofitting in original MS4 plan from several years ago are not located in favorable soil types, and therefore would not allow for sufficient MS4 credits.
 - Highland Ave swales pull from a large drainage area which means a larger number of credits. However, there are some other considerations such as large trees that would need to be considered. Infiltration trenches could potentially be broken into non-contiguous segments in order to avoid trees LMB wishes to preserve.
 - Prospect Ave swales in front of 306, 304, and 206 Prospect Ave are on B soils, which is a good thing for earning MS4 credits because the soil type would not need to be amended for infiltration trenches to be constructed. There would be an underdrain to capture the water, then geotextile fabric on top of that, then stone, and finally the whole thing would be topped with soil or stone, and then grass if desired. (Rocks or grass as a top layer provide equivalent sediment load reductions). Potentially retrofitting swales along 1 block of W Prospect and 2 small pieces of Hill Ave would approximately provide the same credits as the proposed work on Highland Ave (10,134 lbs/year). Credits from Prospect Ave alone would be perhaps 2/3 of Highland Ave credits.
 - A question was asked about infiltration % vs. pipeflow % in order to help address any community concerns about whether the new infiltration trenches would be able to handle stormwater volume.
 - Infiltration trenches vary, but an average depth might be 4-6' (can be 10'), with the top of the trench being wider (6-7' off the edge of the pavement). The trenches might be 2-3' wide at the bottom. More soil than this would be disturbed during the digging/construction, however. The trenches would stay within the road right-of-way.
 - Driveway aprons could be dug up and replaced, or tunneled under, though tunneling under can weaken the apron long-term.
 - RVE thinks that the Bucks Conservation District Dirt & Gravel grant monies (which the SWC has taken some preliminary steps to qualify for) would be a good source to help pay for these projects.
 - Discussion took place on whether the Rivera subdivision property has infiltration trenches within, or outside of, the right-of-way on Hill Ave. If outside of the ROW,

then that may not preclude adding infiltration trenches at that location in the ROW.

- Swales that run downhill towards the railroad tracks overlap with the drainage area already being credited as part of the Comly project, limiting available credits from any swale work.
- Other Neshaminy Creek Watershed Projects:
 - RVE thinks revisiting the Chubb Run project(s) may be the best way to meet our longer term WLA goals, after meeting the immediate (2024) reduction goals.
 - It was requested that LMB be looped into any conversations RVE may be having with Middletown about a potential Chubb Run project. It was noted that RVE being the SW engineers for both LMB and Middletown is a benefit for such a project.
 - RVE recommends meeting these longer-term goals by 2029 in order to avoid any potential changes to the DEP goals.
 - Discussion was had regarding whether to contact Heritage Conservancy about a potential Chubb Run project. Borough Manager requested a discussion with T. Profy and Middletown's solicitor (Jim Esposito of Curtin & Heefner) before any such conversation takes place.
- Cairn / Mill Creek Watershed:
 - Only need the initial 10% reduction for Mill Creek, no additional future WLA requirements as with the Neshaminy Creek watershed.
 - The planned Cairn projects were not designed to go above and beyond what was needed to meet other requirements, so they will not afford any MS4 credits.
 - Possible combination of infiltration trenches on 1 block on the North side of E Park Ave and 1 block on the West side of S Pine St, with an inlet filter, would satisfy the mill Creek requirements.
 - Alternative to switch to the E side of S Pine was discussed, as that limits/eliminates any disturbances in front of residents' homes, especially if done South of 805 Pine St. There is a rolled asphalt curb there now.
- Other:
 - RVE reviewed the original Rettew study, mapping, and (potentially conservative) assumptions but did not find any major issues that would result in a much different answer or loading at the end of the day. This includes methods to estimate % impervious surface in LMB.
 - RVE to deliver (several days or 1 week prior to the next SWC meeting on 8/22/2022) a "menu" of swale retrofit location options with more definitive credits, costs, etc. This is so the SWC can then decide at the next SWC meeting on a recommendation to Council (for the next Council meeting on 9/13/2022). RVE to attend the September Council meeting as per Council President's request.
 - RVE advised that LMB could qualify for another Growing Greener grant in the future, despite being awarded one already.
 - RVE noted that LMB is still ahead of most other municipalities in terms of meeting the MS4 goals within the DEP timetable. RVE thinks the next set of DEP goals may be more regional-based, rather than municipality-based.

3. Next meeting: Monday, August 22 at 7:30pm

Minutes prepared by Alicia Gasparovic, Stormwater Commission chairperson