

ATTENDEES: SWMAC: Paige, Maz, Paul Burgmayer, Regina Majercak, Heather Gill, Joe Schanne, Charles Boschen
CH2M: Daniel Wible and Courtney Finneran

PREPARED BY: CH2M

MEETING DATE: February 9, 2017

SUBJECT: February 2017 meeting

YouTube link:

https://www.youtube.com/watch?v=rsWekPI2IIM&index=21&list=PLWSgQZEOk8cWuk_of0zq2i9J-kzoKsYZx

Review of Previous Meeting Minutes

- January 12, 2017 SWMAC meeting minutes – approved with one minor correction (date in the header needed to be changed from 2016 to 2017)

Public Comment

- Ken Taylor (Willow Ave. resident) asked if Daniel could revisit the N. Wayne flooding presentation he made to the Board of Commissioners (BOC) on 11/14/16 as it was rushed and cut short
 - In his 11/14/16 BOC presentation, Daniel presented CH2M’s flooding analysis results for 3 scenarios of the N. Wayne basin (existing conditions, a cleaned out/restored system with an unobstructed inlet, and Chagrin Valley’s Option “E” design); the results of the analysis were summarized in terms of the flood impacts of these 3 scenarios at various locations downstream from the basin
 - Daniel noted that the 11/14/16 BOC presentation was slightly updated from the 11/10/16 SWMAC presentation
 - Daniel noted that, compared to the cleaned out/restored basin, the Option “E” (proposed) basin has the most benefit (i.e. most significant flood reduction) in the area between the field and Wayne Ave; on Poplar Ave east of Wayne Ave, the proposed basin has a slight advantage over the cleaned out/restored basin, but only for the 2-year storm
 - At Willow Ave, both the cleaned out/restored basin and the proposed basin slightly increase flooding for the 10-year and 25-year storms
 - At Woodland Ave/Plant Ave and Beechtree Lane (west of Oak Lane), the model predicted virtually no impact for either the cleaned out/restored basin or the proposed basin
 - Ken asked if the Poplar Ave pipe realignment was included in the model; Daniel stated that the pipe realignment was excluded from the analysis because it was deemed to have a very minor impact on flooding conditions

Township Wide Assessment (TWA) - Update

- Joe asked what would be included in the final TWA deliverable; Daniel noted that final report would include both a narrative section and numerous attachments (maps, tables, etc.)
- 32 potential flood mitigation projects were modeled; 21 public projects (Township, School District, and PADOT) and 11 private projects (residential and commercial); 21 basin-scale projects (bioretention, underground storage/infiltration, etc.), 9 green street projects, and 2 conveyance projects
- Focused on 10-year, 1-hour event (2.03” rainfall depth); this was deemed the most efficient storm to focus on since most of the conceptual solutions were designed to capture 2” from their contributing impervious area

- Daniel noted the following limitations of the modeled flood mitigation projects and the TWA in general:
 - The potential flood mitigation projects identified and modeled for this effort will help to reduce flooding by varying extents in various locations in each priority problem area
 - These project are conceptual in nature and are likely to change upon more detailed analysis / investigation
 - These projects won't eliminate all flooding in priority problem areas
 - Going forward, it is still important that new projects be considered and that implementation on private properties (residential and commercial) be encouraged and even facilitated
 - In addition, the Township must continue to operate, maintain, and repair its existing stormwater management and/or conveyance facilities
- Daniel briefly discussed the prioritization criteria scoring and weighting approach; Daniel emphasized that the assumed criteria weights could be adjusted by the SWMAC in order to facilitate future decision making
 - Regina noted that one thing currently missing in the prioritization is the location of reduced flooding; in other words, projects that reduce flooding at multiple homes and highly used roads should be given higher scores than those that reduce flooding in less meaningful locations (i.e. locations that can be avoided)
 - Daniel noted that the priority problem areas were selected due to their high concentration of flooding problems in the public right-of-way and on private properties and therefore, in the current ranking approach, any flooding within these areas is considered equally problematic; Daniel also noted that for the sake of future decision-making, additional consideration could be given to the number of homes (or businesses) impacted, as well as the average daily traffic (ADT) of roads impacted
- For each priority problem area, the final report will contain multiple maps as attachments, including a conceptual flood mitigation project map (with project specific callouts), an existing conditions flood map, a map showing the potential flood reduction benefits of each project, a map showing the net impact in flooding compared to existing conditions for each project, and also a map showing the net impact in flooding compared to existing conditions for a combination of projects within the priority problem area
- Each priority problem area has 2 bar charts that allow for a comparison of the potential flood mitigation projects; the first bar chart includes only flood extent reduction, flood depth reduction, and storage volume (quantitative criteria); the second bar chart includes all of the prioritization criteria (quantitative and qualitative)
- For Area A, project A-3 (new inlets and pipes on S. Wayne Ave) appeared to be the most cost-beneficial; Regina noted that project A-3 could also be considered to have storage volume associated with it, as it allows for more efficient use of the Radnor Middle School stormwater system and that this would make this project appear even more beneficial
 - The parking lot retrofit projects A-1 and A-2 had relatively limited flood reduction benefits due to the limited capacity of the storm pipes of Runnymede Ave (and upstream); in order to improve the performance of these projects, these pipes would have to be upsized for a considerable distance upstream from these projects (beyond what is already assumed in the model), which would add significant cost
- Daniel noted that the next contract for the Stormwater Program Administrator (2017/2018) includes budget for miscellaneous engineering analysis, which could potentially be used to perform additional prioritization and/or modeling analysis related to the TWA
- With respect to Area B, Daniel noted that CH2M dropped the Midland Ave bypass pipe concept because it did not appear to have much benefit; as a trade-off, CH2M added project B-4, which is a green street concept on Lancaster Ave (from Louella to Aberdeen)

- Joe pointed out while that a lot of the flooding in this priority problem area appears to be concentrated at the southeast corner (near the Township Building), the potential projects are higher up in the area; Daniel stated the reasons for this: the southern end of the priority problem area is mostly residential and therefore has few opportunities for meaningful flood reduction; most of the flooding at the southern end is within flood plain; and there are opportunities for flood mitigation project higher up in the area that may help alleviate downstream conditions
- Daniel noted that the potential benefits of upsizing the Iven Ave culverts may need to be evaluated differently than the other potential flood mitigation projects
- Veterans Park (B-1) appeared to be most cost-beneficial in this priority problem area
- Daniel stated that some of the modeled projects could be expanded in order to provide greater flood reduction benefits (i.e. some projects are scalable); projects were generally sized such that their costs would be reasonable with respect to the stormwater budget; if/when a particular project is selected for design, the design scope would likely include additional cost-benefit analysis that was beyond the scope of the TWA
- For Area I, project I-14 (Chagrin Valley’s Option “E” basin) appears to be the most cost-beneficial when considering only the quantitative criteria (flood extent/depth reduction and storage volume); this is partly due to the fact that the engineering costs have already been incurred and it is “shovel ready” (ignoring the ownership issue)
 - When all of the prioritization criteria was considered, project I-3 (West Ave Green Street) proved the highest ranking project
 - Projects I-1 and I-4 proved very expensive (and therefore relatively low with respect to cost-benefit) due to the extensive new storm piping that would be required for both; additional analysis of these projects by others may yield alternative designs worthy of consideration
 - Ken noted that the ownership scoring for Cowan Park and N. Wayne field should not be equivalent, as Cowan Park is owned by the Township and therefore should be considered much more feasible from a project implementation standpoint; Regina agreed, noting that perhaps only Township-owned sites should be considered at all, but that it was still important to consider other sites in case they have willing owners
 - Joe noted that the bar charts should contain estimated project costs, as well as other potential project issues; this will allow decision-makers looking only at these charts to more readily understand the feasibility of various projects; for example, if one were to look at the Area I bar chart in its current form, one would not appreciate the significant cost of a project like Cowan Park
- Regina noted that 2 things are currently missing in the prioritization: existing safety hazards and ownership (specifically that Township-owned sites should be considered a “plus” and other sites should be considered a “minus”)
 - Paul suggested that a third issue is the number of properties that are impacted
- For Area J/K, project J/K-1 (Connor/Filipone parks) is one of those scalable projects discussed earlier; it could be made much larger, but at a much higher cost; further analysis by others would be needed if this project were to be advanced further; this project could also be staged (i.e. broken up into smaller pieces)
 - Project J/K-6 (Radnor Trail) proved to be the most cost-beneficial in this area; this project would entail a storage/infiltration trench beneath the trail, as well as other improvements such as a vegetated swale
 - Project J/K-2 (West Wayne Preserve) was modeled with a new outlet control structure in order to hydraulically simulate the conceptual design developed by the Delaware Riverkeeper Network; Regina suggested that this project has potential merit for pursuing further and that there might be partnership opportunities with PADOT; Daniel agreed, noting that while the flood reduction benefits were fairly minimal (as currently modeled by

CH2M), there were other potentially significant benefits, such as water quality (MS4) and public amenity

- Area T was very limited with respect to large publicly owned sites that could be used for flood mitigation projects; therefore, the modeled projects consisted of green streets and residential projects (front yard/backyard BMPs)
 - Daniel noted that 2 scenarios of residential projects were modeled: 10% of residential impervious area managed and 100% of residential impervious area managed
 - Green streets and residential projects are highly scalable projects
 - The most cost-beneficial project in this area appeared to be project T-3-A, which was the 10% residential concept (again, 10% of the residential impervious area in the target area)
- Area U was also very limited with respect to large publicly owned sites; therefore, only private sites were considered for projects
 - Residential projects were assumed to include small-scale improvements such as rain gardens and rain barrels
 - The most cost-beneficial project in this area appeared to be project U-1-A (Radnor House Apartments), where a bioretention system was envisioned
 - This area also included the only detention basin project in the TWA (U-3 – Montrose Condominiums)
- Daniel also presented 2 bar charts comparing all of the modeled flood mitigation projects
 - The highest ranked project of all ended up being J/K-6 (Radnor Trail)
 - Project I-14 (Chagrin Valley’s Option “E” basin) was ranked second overall when considering only the quantitative criteria, but fell way down the list once all of the criteria were considered (mostly due to the negative points for public amenity)
- Regina asked if the 2-year storm had been considered; Daniel noted that it would be very time consuming to run another storm event for all of the model scenarios, but that it could be done as part of a more detailed analysis for particular projects
- Paige noted that the flood maps for each potential project in the final TWA deliverable will help the SWMAC to visually determine the number of parcels impacted by each project, as well as the locations of the flood extent/depth impacts
- Maya van Rossum (Radnor resident; Delaware Riverkeeper Network (DRN)) warned that generalizing the problem of how to analyze flooding impacts (and prioritizing flood mitigation) will only create more confusion
- General discussion about selecting a group of projects (e.g. top 8) for additional analysis and refinement; Joe suggested developing a new spreadsheet tool around these projects and layering on the additional criteria that the SWMAC has been discussing (e.g. number of properties impacted)
 - Courtney noted that the MS4 permit requirements, especially the pollutant reduction plan requirements, should also be considered when selecting projects for additional analysis and implementation
- With the respect to the timing of the final report, Daniel noted that the plan was to present to the BOC before finalizing the report; Daniel’s understanding is that he will present to the BOC at their 2/27 meeting
- Maya requested that Daniel provide the DRN with CH2M’s full analysis (full report and data) as they have hired an independent expert to review it
 - Maya echoed Courtney’s comment about MS4 compliance and suggested that this be another prioritization criteria
 - Maya stated erosion is another important prioritization criteria that should be considered, as it has water quality and public safety considerations
 - Additional comments from Maya:
 - Public safety should be weighted higher
 - Grant potential for specific projects should be added to the prioritization criteria

- The West Wayne Preserve is a natural forested wetlands with high quality elements; the “humps and bumps” found at the site is actually fill material that was inappropriately placed there
 - If the Township tries to build a detention basin at the site as it once tried to do, it will be defeated (once again)
 - Maya was disappointed that CH2M only looked at throttling back the flow through the discharge pipe, as it was not what DRN had in mind
 - Daniel clarified that CH2M is not proposing a detention basin at the site; CH2M believes it modeled the project in line with DRN’s conceptual plan

Potential RFP for MS4 Permitting

- SWMAC passed a motion to submit its recommendation memo to the BOC that an RFP (SWMAC-2017-01) be put out related to MS4 permitting compliance
 - Courtney noted that CH2M had provided a proposal for this work back in August 2016 and then a revised proposal in November 2016, in which scope and fee had been reduced at the SWMAC’s request
 - Courtney asked what specific scope elements the SWMAC is looking for of the 3 selected engineering firms; Paige noted that Steve will be developing the RFP for this work
 - Heather noted that while CH2M’s proposal was technically sound, the costs seemed high and that the SWMAC had communicated this to CH2M on several occasions
 - Courtney noted that PADEP has publicly stated that Radnor has significant challenges with respect to its MS4 permit requirements, possibly even the most significant in the state
 - Maya echoed this statement and said that the Township will have a difficult time meeting its water quality permit requirements if the Commissioners “nickel and dime” the process
 - Courtney stated that it was unusual to ask a consultant to develop a cost proposal, to then put that proposal out in the public, and then to put that work out to RFP while excluding the original consultant; Heather stated that it was not SWMAC’s intent to exclude CH2M and that it had not selected any firms from which to solicit proposals
 - Courtney expressed concern that putting this work out to RFP might compress the schedule, which could lead to higher costs
 - Heather said that the SWMAC was not aware of any specific firms that were shortlisted for this work; Heather also noted that the SWMAC is trying to balance the capital cost of implementing projects with the cost of MS4 permit compliance and that, from the SWMAC’s perspective, the CH2M proposal was a “Cadillac” approach
 - Regina said the SWMAC’s job is make sure that tax payers dollars are spent wisely and that ultimately, decisions are made by the BOC; the SWMAC did not have an issue with CH2M’s proposed scope but with its price and would like to see what other consultants can offer in the best interests of the Township
 - Courtney stated that there appeared to be a disconnect between MS4 compliance and the Township’s stormwater budget
 - General SWMAC consensus is that there should be a targeted short list of firms from which to solicit proposals in order to reduce the proposal / approval schedule; SWMAC’s memo does not need to be updated because it does not specify the number or names of the target firms

Potential RFP for Maplewood Ave Outfall Project

- Paige noted that the purpose of this RFP is to have a consultant develop 3 conceptual solutions (including cost estimates) that would help stabilize / restore an eroded channel at a stormwater

outfall; the idea behind asking for 3 concepts was to not limit a consultant (i.e. not lock them into one approach)

- The eroded channel is believed to cross several private properties adjacent to Odorisio Park; this site had been discussed at a previous SWMAC meeting
- Regina is concerned that this project seems to be “jumping the list”, though Paul noted that according to Steve, this site is one of the top safety concerns in the Township (along with Highview Drive)
- General SWMAC consensus that CH2M should be allowed to develop concepts of this nature; Daniel noted that this type of work (minor concept development and analysis) may be part of the next Stormwater Program Administrator contract
- SWMAC confused about the process and the apparent urgency of this situation; Paul noted that repair projects require a recommendation from the SWMAC before they go further
- Regina believes that this type of project should be outside of the SWMAC’s purview; Steve should be able to solicit proposals for this type of work at any time, without the SWMAC’s involvement
- SWMAC passed a motion to send to the BOC its memo (SWMAC-2017-02) recommending an RFP be developed for this work

Overview of Possible Changes to Role of SWMAC

- A special BOC Public Works Subcommittee meeting will be held on 2/15/17 to discuss possible changes to the role of the SWMAC
 - Paul discussed a memo he drafted that summarizes the SWMAC’s accomplishments to date
 - Several SWMAC members are planning to attend the meeting
 - Commissioners Curley, Higgins, and Schaefer are expected to attend the meeting
 - Regina suggested that the SWMAC have by-laws to dictate how they operate and to establish things like minimum number of members for a quorum
 - Paige read from Commissioner Curley’s memo summarizing his recommendations for changes to the SWMAC’s role
 - One of the changes to the SWMAC’s role would have to do with the stormwater budget; Township staff would develop the budget and the SWMAC would review / comment on it
 - Regina noted that the SWMAC is finally getting out of its setup stage and is ready to really ramp up; Regina also noted that there is an alliance of 8 Delaware County municipalities that has reached out to Radnor in the past; this alliance has received numerous grants and Regina believes that the SWMAC could lead the effort to work with them, which would greatly improve Radnor’s chances of obtaining grant monies that it would likely not obtain on its own
 - SWMAC concerned that if their responsibilities are stripped back, then the Township will be overwhelmed and things will not get done; both the BOC and Steve are overloaded as it is
 - Courtney noted that Radnor is a Home Rule Municipality and there is no law that requires a stormwater fee be managed by a committee

Misc. Updates

- Paige briefly discussed a wetlands rehabilitation project at the Country Day School of the Sacred Heart
 - This volunteer-based project will mostly involve removing invasive species from the existing wetlands; work will likely occur in 2018 (with some work possibly starting later this year)
 - The SWMAC will likely not need to be involved in this effort

Next SWMAC meeting: 3/9/17 (Radnorshire room)