

**SUMMIT COUNTY ENGINEER
SURFACE WATER MANAGEMENT DISTRICT UPDATE
Presented February 1, 2021 / Updated February 5, 2021**

SURFACE WATER MANAGEMENT DISTRICT

ADMINISTRATIVE

The 2020 Invoices were sent out, and 3,536 full and 109 partial (89.9% of 4,056) have been paid through December 2020. 228 calls and 85 emails have come in so far, with 29 drainage concerns sent to me for engineering follow-up. I have researched all, visited 14 (2 with Bath's Caine Collins) and spoken to 20. So far 3 are township roadside ditch issues that have been referred to Bath, 2 are assessed subdivision SWMFs that the new or potential owner wants to improve, 3 are in the Wye Rd. Drainage Project area, and 4 are erosion issues that I have asked Summit Soil & Water Conservation District to review.

The Yellow Creek Conservancy District may be formed to address drainage issues in accordance with ORC 6101. A group of citizens collected signatures and submitted petitions in 2017, asking for the formation of a conservancy district to repair damage to and preserve the Yellow Creek watershed. They also formed the nonprofit Yellow Creek Foundation to support their effort. The petitions have been ruled to be sufficient, so the next step is to appoint a conservancy court whose judges will hold a public hearing and determine if the conservancy district is necessary and shall be formed. Judge Alison McCarty has recused herself from this, so it was assigned to Judge Kelly McLaughlin. In Medina, there's just one common pleas Judge Joyce Kimbler. No action yet by the courts, but the pro- and anti- groups have been active. In response to the many fallacies about the SWMD on the Yellow Creek Foundation website, our first SWMD Quarterly Newsletter included a two-page point-by-point response.

I prepared a presentation for Northfield Center Twp. and gave it June 11, 2019. Their interest seemed genuine, but the audience was only 4 citizens, including former Dorwick petitioner Rick Patz.

Springfield Twp. asked for a presentation on the SWMD at a trustees meeting, probably a work session, but wanted to wait until after the fall 2019 elections and hasn't followed up. This may come about soon, as Mr. Brubaker has suggested that they and the Village of Lakemore consider joining SWMD in order to address their concerns with pollution in Springfield Lake. I listened in on a Springfield Lake Task Force meeting on October 1st, and right now there doesn't seem to be a great degree of cooperation between Lakemore and Springfield. Resolution of the Springfield Lake pollution problems will likely involve Summit DSSS taking over and renovating the Lakemore sanitary sewer system and could include stormwater BMPs.

PERMITS

On Sept. 23, 2020, I became aware of extensive grading at 4603 Daylesford (Arbour Green). When I investigated, I found that contractor Joe Kowalski had dredged 300-600 CY of material from an existing pond that he deepened and enlarged. A SWMD Grading Permit is required, per Chapter 942 Appendix A, and a Riparian Corridor restriction is in place, per Stephanie Deibel of Summit SWCD. The owner claims to have spoken to Bath Zoning Official Bill Funk, who told him that no permit was required. The owner referred to a U.S. Fish & Wildlife Nationwide Wetland Inventory Map to try to keep the work out of the wetland, and he has contacted wetlands consultant Eric Flickinger for assistance. We are working with Stephanie Deibel and Bill Funk to determine the extent of soil removal required to resolve this, and we'll issue a permit for the work done and any work still required. We all met onsite Friday, October 23. ***Owner will request waiver from USACE and a variance from Bath BZA. Our permit will correspond with BZA decision.***

DAMS

We have determined that there are 46 dams in the Yellow Creek watershed, derived from the walk-through by Sustainable Streams and our review of ODNR dam records. Of the 32 that are in Bath Twp., none are Class I, 1 is Class II, 3 are Class III, 3 are Class IV, 17 are Exempt, 2 are Unclassified, 1 is Abandoned, and 5 are not on the ODNR list. We will notify all dam owners of their responsibility to maintain these dams and their liability in case of failure, and of their requirements for permits from ODNR, Bath Twp., and SWMD.

SWAC

We requested volunteers for a citizens Storm Water Advisory Committee. On 6/19/19, we selected 7 committee members and 5 alternates. The first meeting was held August 1, 2019 at 7:00 PM in Bath Twp. Hall; all 7 members and 3 alternates attended, along with Al Brubaker and me. The group is very interested and anxious to review the Sustainable Streams report, which I provided on 10-15-19. I also provide the ms Wye Creek report alternates attended and were very involved. They had a number of questions and comments, and met again on 1/16/2020 at 6:30 PM. My goal was to get the SWAC to recommend an assessment percentage for the Wye Creek project, but they could not reach a consensus. I am developing 2 or 3 options to prompt their decision at their next meeting on March 26, 2020, but this was postponed, so I will email info to them. I have provided an update to them and copies of the two BRIC funding application. ***We'll set up a Zoom meeting the week of 2/15 or 2/22/2021.***

STUDIES

The Yellow Creek Watershed Study by Sustainable Streams, LLC. Sustainable Streams is extensive and includes over 80 projects with a total preliminary estimated cost of approx. \$40 Million. SS's Dr. Bob Hawley met with SCE staff on 8/20 to review the draft report, and we provided comments on 9/6 and 9/20, and received the Final Report on 9/23, and had it printed for Bath trustees and SWAC. Bob Hawley and I presented a summary of their study at the Ohio CEO Stormwater Conference on 3/11/20. Bob and I presented this on 5/27/20 as a Webinar preview / substitute for the 2020 Ohio Stormwater Conference. On 3/11 & 12, Bob conducted field visits of several priority concept locations, and revised his recommendations, especially greater detention volumes. He provided a draft memo on this, and on 4/17 we discussed them.

The Wye Road Drainage Study was performed by ms consultants under a SWMD Task Order. The studied stream flows through and downstream of the Sanctuary of Bath subdivision along Wye Rd., past the Bake Shop in Ghent to Yellow Creek. We authorized a \$40,000 CO for ms to perform survey and preliminary design of the proposed SWM basins, to verify the feasibility, as step 1 of the design. This CO was approved by BOC and by council on 12/9/19. ms came in to meet us on 1/10/20, to discuss the 2 proposed basins, which look good. The design will be on hold until after authorized by Council in accordance with the ditch petition process.

NPS-IS

We shared the report with Stephanie Deibel of Summit Soil & Water, who was promoted to watershed coordinator. She referred to it as she prepared a NPS-IS for Yellow Creek, and we had SS assist with this. Stephanie submitted the draft NPS-IS to OEPA on May 1, 2020. OEPA replied with comments on May 11, and Stephanie corresponded with OEPA and submitted the Final Draft NPS-IS on Nov. 18. ***OEPA approved the NPS-IS on January 25, 2021! Congratulations to Stephanie Deibel and all of those who assisted!***

PROJECTS

Wye Road - The trustees on 3/16/20 expressed that they are reluctant to sign as petitioner and asked if a member of the SWAC could be the petitioner. Instead, perhaps the owner of the Bake Shoppe in Ghent could be the petitioner. I have developed a preliminary petition and preliminary engineering report and will investigate the deposit and bonding requirements. Owners of 2 of the lots where SWM basins are proposed have called about erosion, and 3 other owners called about drainage issues, so these could be 5 petitioners. ms submitted an EMA BRIC grant application for the project, for \$600,000 (max) of the \$835,924 estimated project cost. ***Ohio***

EMA's Steve Ferryman called me and said they need the projects to address specific flooding problems. ms conferred with Steve Ferryman about the project and will perform BCA calculation. I provided to ms a map of properties that could be impacted by eroding slopes or flooding, along with approximate finished floor elevations. I prepared a draft 319 App for the local share of the BRIC grant, but this project doesn't fit the 319 criteria well. On 12/23, ms advised me that the BCA calculations are not working out well for this grant. However, they are exploring ways to repackage this or others for 2021 when \$3.2B may be available for the round which starts in Feb 2021. (Versus \$0.5B in 2020 and \$0.25B in 2019.) The trustees advised that the Bake Shoppe building has taken in floodwater several times, and the sandstone foundation has been threatened. We will contact the owner and look into filing reports for these past events with EMA.

North Fork - On 4/29, Bob Hawley and I had a conference call with the Village of Richfield Planning Director and Engineer, about dropping some trees in order to slow the flow of an upper reach of North Fork and force it into the floodplain on their wooded land west of Highlander Pkwy. They were in favor of our project, and next steps will be determined. **I prepared a draft 319 App for this project, but the low construction cost (\$42,000) with high design fees (\$31,500) were not attractive to Ohio EMA. Also, each community can submit just one 319 application each year.**

Idle Brook - On 4/29, Bob Hawley and I had a conference call with officials of Summit Dept. of Sanitary Sewer Services, about excavating bankfull wetlands along Idle Brook on their land east of N. Hametown in Bath. They acquired the land in the 80s for a potential drinking water wellfield but no longer need the land, so we have prepared legislation for council to authorize the land to be used by SWMD.

- **I met DSSS Dir. Mike Vinay on this issue, and he assured me that he and SC Exec. Shapiro support the project.**
- **I prepared and submitted on 9/11/2020 an EMA BRIC grant application for the project, for \$587,400 (75%) of the \$783,200 estimated project cost for Phase 1. Ohio EMA's Steve Ferryman called me and said this looks pretty good, but they need the projects to address specific flooding problems. Tom Smoot at Summit County EMA provided a list of flood damage claims in Bath from the 2014 flood, but none were directly downstream of the project.**
- **I prepared and submitted on 12/3/2020 a draft 319 App for a revised first phase of this project (to fit better within the 319 traditional funding cap) at \$154,000 for construction, with SWMD paying for the preliminary and final engineering, surveys and permitting.**

I-77 SB Rest Area – On 3/20, I had a teleconference with ODOT officials about a bankfull wetland at their I-77 southbound rest area in Bath, and they were in favor of a joint project by SCE and ODOT forces. **The adjacent downstream homeowner (Jeff Fulton at 3434 Aegean) filed a SWMD Drainage Concern Form, with a complaint of a small stream threatening his home and swimming pool. I spoke to him on Jan. 19, 2021, and he willing to cooperate with extending the project onto his lot, if we fix his problem. I explained that the project should reduce peak flows during storms, but his home is in the riparian corridor which we cannot change. I have re-contacted ODOT to get this demonstration project moving. The Project Cost was estimated at \$54,000 in the Yellow Creek Watershed Study, but the scope and cost may be doubled and/or done in phases over 2 – 3 years.**

I-77 Corridor - ODOT added that they may want to do additional SWM projects along I-77 in Bath, for mitigation relative to their proposed widening project. I discussed it with Bob Hawley, who suggested that we bring First Energy into the loop, as they have parallel transmission lines and he's worked with power companies looking to do SWM BMP projects along their corridors. It was reported that ODOT plans to seek funding in 2021 for the widening, with construction in 2024-26. **I've re-contacted ODOT on this, too, as well as the recently-selected design engineer GPD.**

Ohio EPA Small MS4 Stormwater General Permit

Ohio EPA has verbally expressed to us their opinion that our current county-wide joint stormwater management program (SWMP) and local ordinances do not give Summit County the enforcement authority necessary to properly address the Illicit Discharge Detection and Elimination (IDDE) regulations in the townships, villages and cities. Further, OEPA has found that the storm system mapping is inadequate for use in IDDE efforts. The current OEPA Small MS4 general permit expired September 2019 and we anticipate the new general permit will be issued this year, with more details forthcoming soon. A Task Force of officials from the Engineer, Executive, Council and Prosecutor offices has been formed to address this issue. More information will become available as our State and County officials continue to discuss the corrective actions that may be required.

ASSESSED SUBDIVISIONS IN BATH

Sanc of Bath – RFS 8-8-19 & 3-30-20 to unclog storm sewer behind 624 Pine Point. Comp 8-9-19 & 3-31-20

Bath Country Est #1 – RFS 8-21-19 to repair detention basin behind 862 Bath Country Dr. They have repaired the outlet pipe and embankment, excavated the excess siltation, and installed the new outlet structure CB, and repaired the culvert outlet by the street. **Completed 8/21/20.**

Bath Country Est #2 – RFS 8-21-19 to repair detention basin behind 906 Bath Country Dr. SCE Maint graded the top of the dam + or – 3” to a uniform elevation. **Completed 9/22/20.**

Crystal Shores 4955 Tulip – RFS 9-26-19 to check pipe and repair sinkholes beside. Sinkholes appear to have been repaired, but pipe may need to be checked via CCTV.

Crystal Shores 3765 Winterberry – RFS 9-25-19 to check & repair sinkholes along storm pipe. **Comp 9/18/20.**

Pond Maintenance - Davey Resources evaluated, recommended, and carried out maintenance measures in conjunction with Public Works, to remove excess vegetation that has impacted flow through the basins. Pat Dobbins and Kurt Koerber and I met with reps from Davey on 2/7/19 to discuss and plan the project.

- Davey sprayed 7/8-12/19, and again 8/12-16/19. **A \$45,000 CO was approved by BOC and by council on 12/9 for additional biomass removal, which is progressing.**
- **For 2021, we will need to do more work, but not as much as in 2019-20. I'll work out renewal contracts.**

INSPECTION

SWM Facility Inspection by Consultants – EnviroScience inspected 78 SWMFs in 44 subdivisions in District 1 and prepared 17 maps. I will have our summer intern update the field inspections. Davey included thorough swm basin inspections with their vegetation evaluation. Andrea has reviewed and updated the allotment lists. I will determine priority needs and work with Andrea and Dominic to inspect those needed. After just a few, COVID hit, and then Dominic left so I asked EnviroScience for their fee to reinspect the SWMFs this summer, as Best Practical Source. **ES completed their inspections and submitted their 27 reports on Dec. 28, 2020.**

ASSESSMENTS

The CCAO Drainage Law Revision Task Force has suggested 12 revisions to ORC Chapters 940 and 6131 & 6137 to improve and clarify the laws on drainage petitioned improvement projects. The revisions include bond amount, time limitation for revisions, definition of lead county, filing an affidavit with the plat, and increasing the streamside buffer width from 4' to 10'. **HB 340 passed, revising several sections of these laws.**

OTHER DRAINAGE ISSUES

NATURAL STREAMBANK RESTORATION (NSR)

We met with Ron Wine, owner of Channel Maintenance Systems, to view and discuss natural solutions to streamside erosion at three locations in Bath, plus at the Riverview Rd. stone arch bridge. He has developed a draft project description to initiate a funding request for natural repairs at the stone arch bridge and at other locations along the Cuyahoga River. He has spoken with state leaders and feels optimistic, but no details.

Yellow Creek NSR and Landslide Mitigation

CMS was selected and has submitted a fee proposal of \$75,000 for Phase 1, within the existing SMP easement. Phase 1 work was done on Nov. 22-26, 2019, Phase 2 May 25- 27, 2020. CMS was back on July 27-29 to check the work and perform some minor adjustments **and it held up well during the Labor Day storm. On 10/29/20 a local sub planted 40 each of 6-7 ft. American Red Maple trees and Northern Red Oak trees on the hillside. Sycamore seedlings (approximately 25) will be planted in Spring 2021 after additional sedimentation has accumulated in the catchment basins along the south stream bank of Yellow Creek to further stabilize the slope. Trustee Corbett advised that a virus is impacting local sycamores, so we investigated this and were advised by Davy Tree that the disease is not serious enough to kill the trees and they should still be planted.**

West Fork NSR

Davey/TGC/Marks team was selected, met 10/24 and submitted their fee proposal of \$42,450, which was approved by BOC and by council on 12/9. Davey applied for an OEPA Director's Authorization (DA) permit on 11/25/19 which OEPA NEDO finally sent to Columbus on 3/16/20. The storm of 3/28 eroded the bank further, so Davey advised OEPA that they would proceed with the project on 4/6 as an emergency. OEPA issued the DA Permit on 4/3. A Corps pre-construction notification filed. A Summit County Floodplain Permit and a Bath Twp. Riparian Permit were required. The stone work and grading was completed by their subcontractor Marks on 4/6-8, and the plantings were done on 4/9. The repair held up well during the Labor Day storm. **Davey conducted a site viewing and education session for reps of Bath, and 3 of 4 homeowners at 8:30 AM on Wed 9/23/2020.**

Springcrest to Reserve at Waterford

It has been brought to our attention that surface water runoff from Springcrest Dr. runs downhill to impact some homes in The Reserve at Waterford. We have been in contact with the HOA and the township to assist in a resolution and have determined that this is not an issue for SWMD.

PETITION DITCHES

The Dorwick Ditch Petition was initiated by property owner Rick Patz, to replace culverts and reconstruct the ditch to eliminate ponding and standing water. Owners along the Dorwick Ditch performed ditch cleaning of approximately 700' on August 26-27, 2017. Petitioner Rick Patz withdrew this stalled petition and was refunded his \$610 deposit on 4-17-19.

The Pine Point Drive Ditch Petition was initiated by owner at 740 Pine Point Dr. and joined by owner at 715 Pine Point Dr. in Bath, to establish a swale at 740 and repair eroded ditches at 715. Owners of 699 & 715 Pine Point hired Hammontree to design improvements and to construct it. We approved the plans, inspected the construction, and approved the CCTV inspection and report. The replat has not yet been submitted. We met with owners of 740 Pine Point to provide update and discuss options for their proceeding, and the owners came in on 2/27/18 to verify their desire for the project as a petition ditch, not at their own expense.

Summit County Council had public hearings in 2016 and heard objections from the majority of owners that would be assessed, so Council has not authorized proceeding on either petition ditch project.

The City of Green received a request from owners along Heckman Ditch (County Ditch #119) for a ditch improvement. I discussed the ditch petition process with Green's Engineer and Service Director and explained

that any ditch petition submitted to county council would have a greater chance for success if it had the support of the local authority (Green city council in this case).

County Council Rep. Bethany McKenney contacted our office on behalf of landowners adjacent to a pond in New Franklin. I advised her of our discussions with the city about the SWMD, and she'll contact their Service Director.

Barberton's Stormwater Coordinator Caroline Crawford inquired about a petition ditch to resolve an area of flooded backyards on the Barberton-Norton border. I called her back but never got a return call or email.

COORDINATION WITH OTHER AGENCIES

SUMMIT COUNTY SOIL & WATER CONSERVATION DISTRICT

We had our quarterly coordination meeting on July 25. Topics discussed included OEPA MS4 vs. SCO 941 & 943, the Bath SWMD Yellow Creek Watershed Study and SWAC, subdivision and commercial sites, the Stormwater Design Manual, and Sept. 19 PIPE Meeting. We met again 11/13 and 1/23. ***Brian Prunty had a Zoom meeting with us on 1/7/21 to discuss MS4 and two new initiatives that may impact SWMD and MS4:***

- 1. A Special Improvement District (SID) has been established to address lakeshore erosion along Lake Erie, and these SIDs are also available for energy savings districts. It has been proposed that the Ohio legislature revise the law to enable creation of SIDs to address stream erosion.***
- 2. OSU Stormwater Team is looking to collaborate on grants to monitor stormwater restoration or retrofits.***

NORTHEAST OHIO REGIONAL SEWER DISTRICT (NEORS)

SUMMIT METROPARKS - POND BROOK PHASE 3 – Summit Metro Parks (SMP) restored a meandering channel along Pond Brook (former County Ditch #14) from Aurora Rd. SR 82 southerly to the W&LE RR, approx 1,400' from Tinker's Creek. SCE prepared an agreement that SMP will maintain the hydraulic capacity of the waterway, a petition for ditch vacation, and legislation, which council approved on Dec. 12, 2018.

TINKER'S CREEK WATERSHED PARTNERS – TINKER'S CREEK HUDSON TENBROECK RESTORATION – Tinker's Creek Watershed Partners (TCWP) restored a segment of Tinker's Creek (still County Ditch #36), from Hudson-Aurora Rd. 1,000' southerly in Hudson. The project did not alter the ditch alignment, but created variable channel widths, increased stream flow velocity, reconnected the floodplain, and added floodplain storage. The project focused on in-stream habitat improvements by restoring riffles and adding woody habitat features. The goal is to remove the NPS-IS impairment on this stream segment identified in the TCWP 2017 NPS-IS Plan.

SUMMIT COUNTY STORMWATER COMMITTEE –

Summit County Council on Aug. 19, 2019 created a county-wide group, as suggested by the Charter Review Commission. The SCSC will coordinate with all the pertinent entities in the county to develop and implement comprehensive plans, increase public participation & awareness, consider a storm water utility (SWU) and leverage funding. County Council appointed the 7-member committee on Nov. 18: Claire Dickinson, Al Brubaker, Deborah Matz, Jeff Snell, Bill Judge, Josh Garretson and Brian Prunty.

The first meeting was held on Jan 16, and Jeff Snell presented his background of NEORS in Summit County.

On Feb. 13, NEORS's Frank Greenland spoke to the group about his experience in helping to form the NEORS Surface Water Program and manage the operations section.

We had a Zoom Meeting on Thursday June 11 at 1:00 PM, and heard from Tim Miller, Director of the Lake County Stormwater Management Department. Similar to our SWMD, their community members opt in, and

their charge is similar at \$3.50/mo/3,050 SF impervious area. However, because their initial and primary purpose is to address the OEPA Phase 2 MS4 mandates, their user fee is assessed on the property taxes.

On July 16th 15 communities in northern Summit were invited to the Zoom meeting, and 10 participated. Of these 15, 5 are in NEORS and another 5 have SWUs. In summary, they are satisfied with their current programs (or non-program), but most think a countywide comprehensive study and watershed modeling is needed and they would be interested in paying towards the cause.

On August 20, Stantec's David Gleason and staff discussed stormwater utilities.

Jeff Snell was ready to write a scope for a consultant to study the feasibility of establishing a countywide SWU and prepare an implementation plan for this. He has drafted a summary of the SCSC's findings and recommendations and will distribute it to them for review.

Southern Summit County Flooding Task Force –

Gov. DeWine came to Barberton to meet officials from Copley down through Norton, Barberton, New Franklin, Clinton, Canal Fulton, and Massillon. Also in attendance were reps from Summit County, state reps, OEPA, ODOT, EMA, ODOT, and ODNR. The Governor listened to their concerns and was open to helping. He lamented that earmarks are no longer available, so any funding request they may have has to go through the budget process. He'd like a group to form and meet regularly to develop their specific needs; short, mid, and long-term. OEPA and ODNR agreed to lend their expertise. Barberton and Norton have received a grant from USGS to help install LoRa water level sensors for advance flood warning. The second meeting was held on Sept. 3, 2019, and the 3rd meeting was held on Oct. 21, 2019 and progress was made toward monitoring: USGS will pay to install 2 new river gages (Tusc-Clinton and Chippewa-Eastern Rd.) and 3 or 4 rain gages, and OWDA will pay for the annual maintenance of all 4 gages (also Tusc-Barberton and Tusc-Massillon). The next meeting was to be 3/16/20 but postponed. Federal funds of \$390,000 have been authorized for a USACE study to update floodplain data along the Tuscarawas River from the Portage Lakes area to Canal Fulton. I have asked USACE for their scope and schedule.

SENATE BILL 2: STATEWIDE WATERSHED PLANNING AND MANAGEMENT PROGRAM –

This would establish and appoint a planning and management coordinator for each of 7 watershed regions, identified by USGS 6-digit hydrologic unit code (HUC). This would be under the Dept. of Agriculture, administered by the soil & water conservation districts. Summit County would be in Region 2, Eastern Lake Erie Basin Watershed, HUC 041100. The coordinator would assist the SWCD and other organizations with water quality research, planning, and management. They would develop NPS-IS nine-point plans, and a certification program for farmers that implement SWQ BMPs.