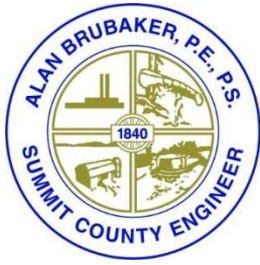


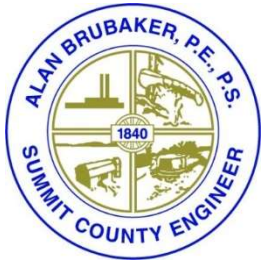
**September 20, 2021 Update to Friends of Yellow Creek**  
**Surface Water Management District**

**Alan Brubaker, P.E., P.S. Summit County Engineer**  
**David Koontz, P.E., S.I. Surface Water Management Coordinator**  
330-643-8010 or [SWMD@summitengineer.net](mailto:SWMD@summitengineer.net)



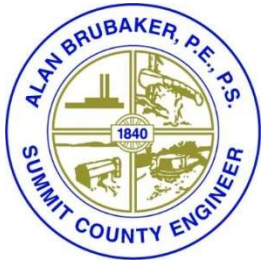
# Surface Water Management District Background

- Road and Bridge funds can not be used to work outside the road right of way, where many drainage problems occur.
- The Drainage Improvement Petition process is available, but has not been used with much success.
- We spent nine years devising and evaluating various solutions to stormwater issues in Summit County.
- SCE developed the Surface Water Management District to function as a utility & charge residents a small monthly fee.
- The SWMD revenue can be used for studies, design, and construction of projects, plus public outreach.
- The petition process can be used for easement acquisition and to generate additional revenue for construction and for ongoing maintenance of the new facility.



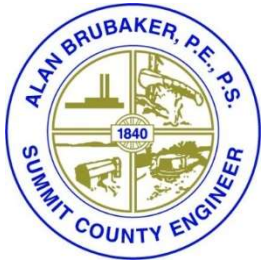
# Surface Water Management District Program Summary

- The new SWMD functions as a utility.
- Participation is entirely voluntary and is open to Summit County townships, cities, and villages.
- Rate for Conventionally Developed Residential and Agricultural properties is \$4/mo., billed Annually.
- There are 25% Credits for parcels with Homestead Exemption, and for parcels in assessed subdivisions.
- The rate for Multi-Family-Residential, Commercial, Industrial, and Institutional parcels is \$4/mo per 3,000 square feet of impervious area.
- All money collected from property owners in Bath will be used to benefit Bath.



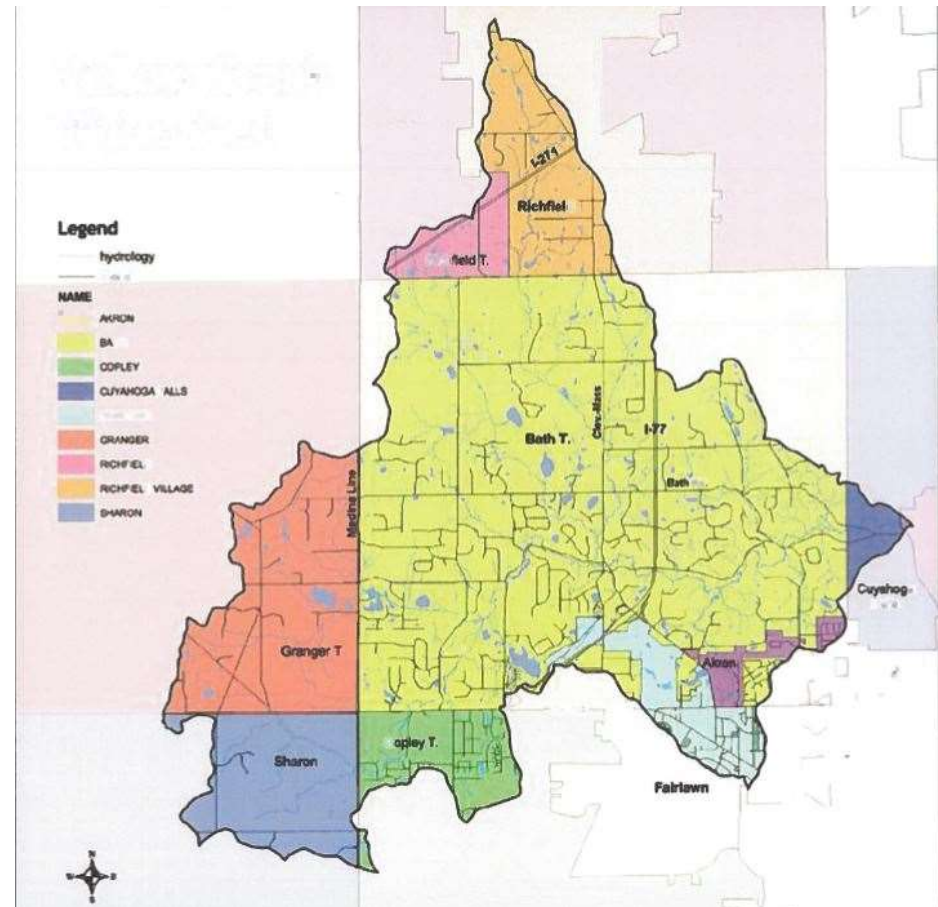
## Bath SWMD Financials

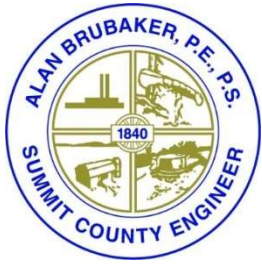
- Total amount invoiced June 2021: \$341,000.
- Conventional residential properties: \$166,000.
- Non-residential properties: \$175,000.
- Amount unpaid & certified on taxes: \$54,000.
- Total amount invoiced 2019 - 2021: \$1,043,000.
- Currently available for projects: \$750,000.



# Surface Water Management District Bath Township Subdistrict

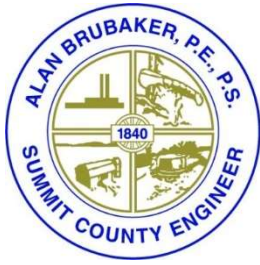
- Bath Twp. has 5 Watersheds
- Others are Rocky River, Furnace Run, Sand Run, and Schocalog Run
- Yellow Creek Watershed extends beyond Bath Twp.





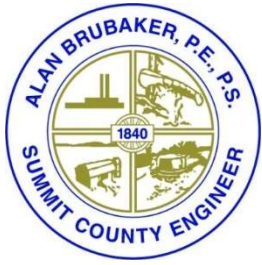
# Surface Water Management District Bath Twp. Status

- Sustainable Streams, LLC prepared Yellow Creek Watershed Study, and continues to provide updates and assistance to SWMD.
- ms consultants prepared Wye Road Drainage Study.
- Rules and Regulations are now in place. SWMD has authority to review plans and issue permits for certain filling, grading, excavating, and pond construction work in order to mitigate flooding and protect waterways.
- We provided information to Summit SWCD for the Yellow Creek NPSIS, approved by OEPA January 2021.
- We've provided guidance to dozens of landowners.

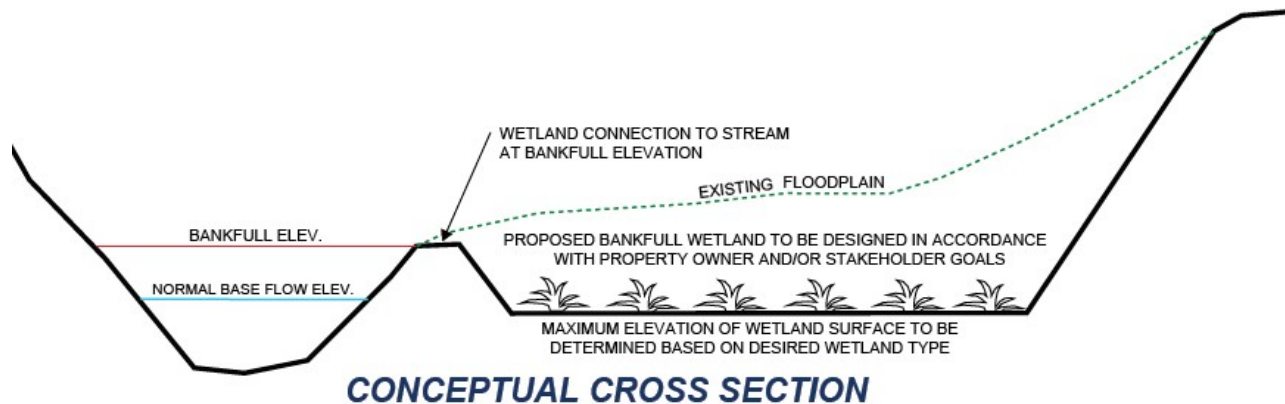


# Drainage Basin Improvement General Plan by Sustainable Streams, LLC

- Comprehensive Watershed Planning
- Review of Existing Data & Conceptual-Level Inventory
- Field-Based Geomorphic/Watershed Assessment, *walked ~41 miles of streams and visited 40 complaint sites*
- Developed Pilot Applications and Example Designs
- As-Authorized Tasks Continue: Targeted Preliminary Watercourse Modeling, Conceptual Opportunity Graphics and Documentation, Stakeholder Engagement, Programmatic/Crediting Assistance

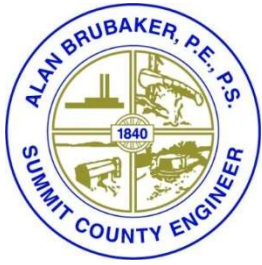


# Bankfull Wetlands Proposed by Sustainable Streams, LLC



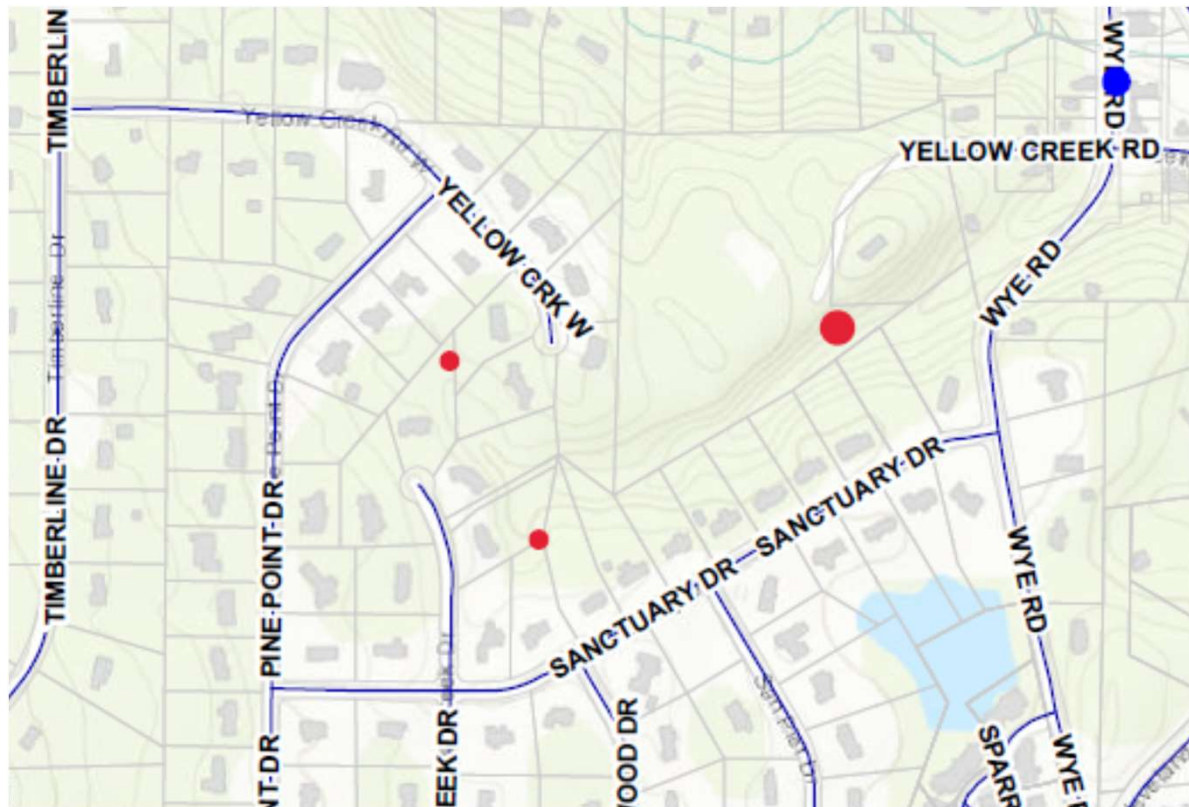
- Add new storage specifically designed to offload erosive flows
- Created in undevelopable floodplain areas
- Could be optimized to reduce the erosive power of the 1-year discharge, particularly during summer storms

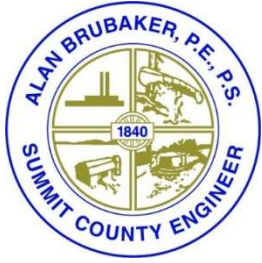




# Surface Water Management District Bath Twp. Project Status

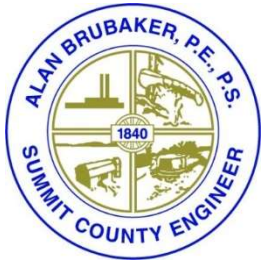
## Wye Road Drainage Improvement Project





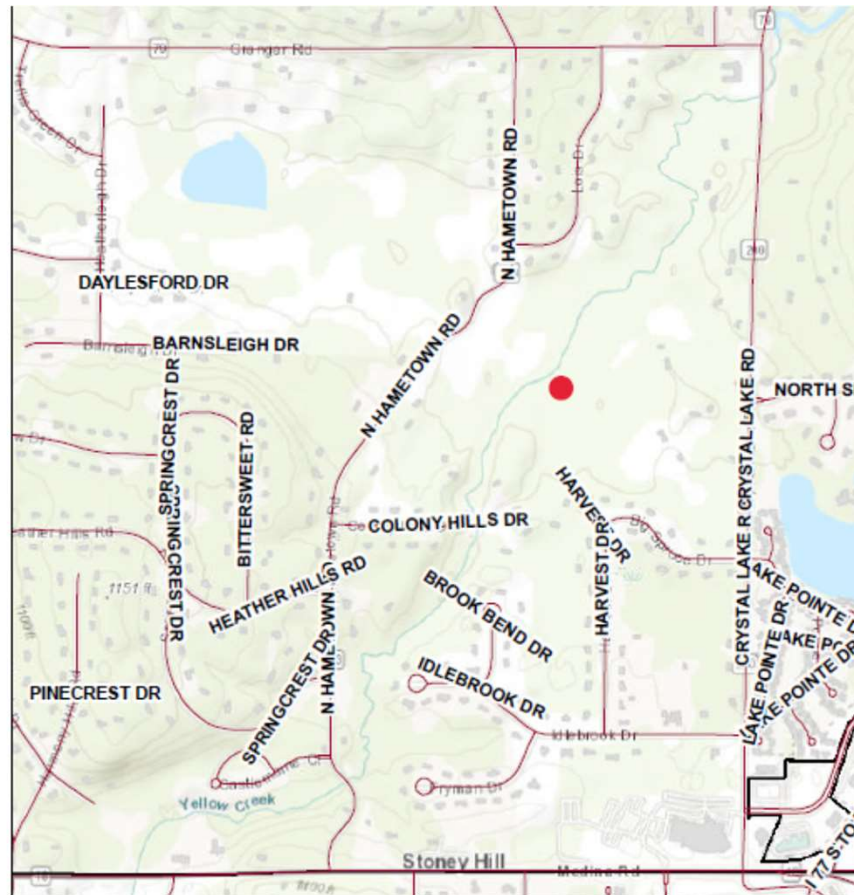
## Surface Water Management District Bath Twp. Project Status

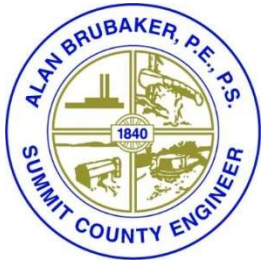
- Wye Road Drainage Improvement Project – will reduce flooding and erosion along this tributary to Yellow Creek. The project will be located primarily in the Sanctuary of Bath subdivision and will enlarge 1 detention basin and build 2 more.
- The project cost is estimated at \$1.0 M, so we applied for funding in 2019 and again this fall.
- The final design process has started, with consultant proposals under review.
- Construction is planned for 2022-23.



# Surface Water Management District Bath Twp. Project Status

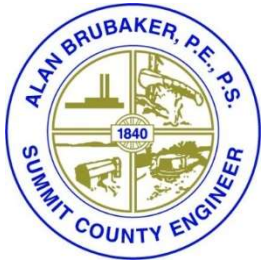
## Idle Brook Bankfull Wetlands Project





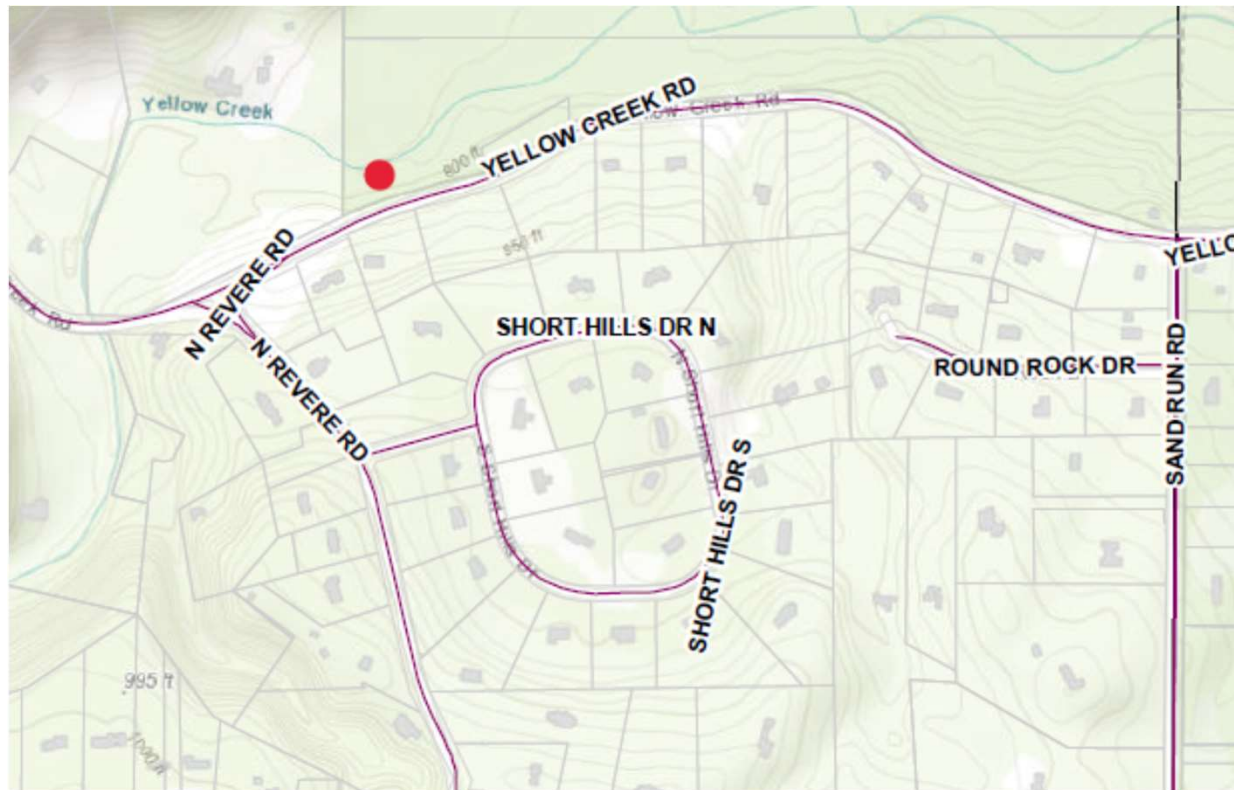
## Surface Water Management District Bath Twp. Project Status

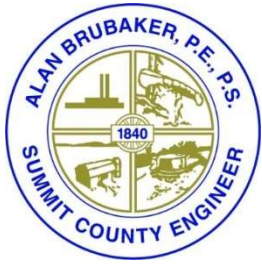
- Idle Brook Bankfull Wetlands Project – will re-establish the stream’s connection to the adjacent wetlands, remove invasive species, and reconstruct the wetlands.
- Project cost is estimated at \$1.5 M - \$2.5 M, so we’ve applied for funding twice and will refine the project and re-apply as funds become available.
- Project Site is on 4 parcels owned by Summit County
- The project consists of 4 different wetland cells and will probably be done in 4 or more phases.



# SWMP Update - Other Projects that Benefited Yellow Creek

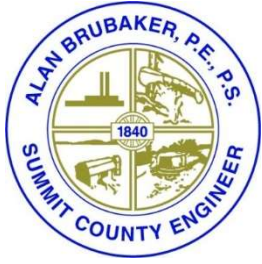
## Yellow Creek Landslide Mitigation Project





## SWMD Update - Other Projects that Benefited Yellow Creek

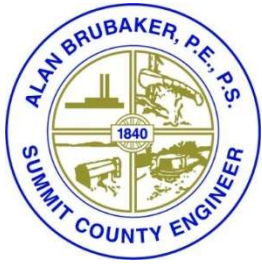
- Yellow Creek Landslide Mitigation Project – SCE did a follow-up check on a landslide repair and roadway reconstruction project along Yellow Creek Road. We found that there were small landslides redeveloping on the slope and the logs placed along the stream had all washed away, except one. Channel Maintenance Systems was hired to determine and implement a natural erosion repair and mitigation system for apx. 130' of streambank.
- *\$156,850 Total Cost - Road and Bridge funds.*



# SWMD Update - Other Projects that Benefited Yellow Creek

## Yellow Creek Landslide Mitigation Project, April 2019



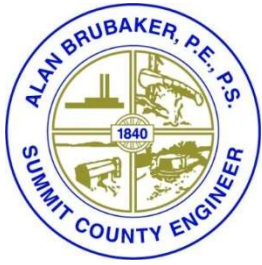


# SWMD Update - Other Projects that Benefited Yellow Creek

## Yellow Creek Landslide Mitigation Project, May 2021

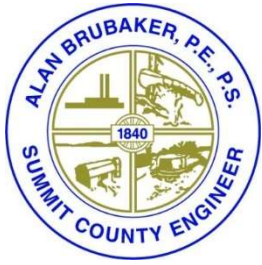






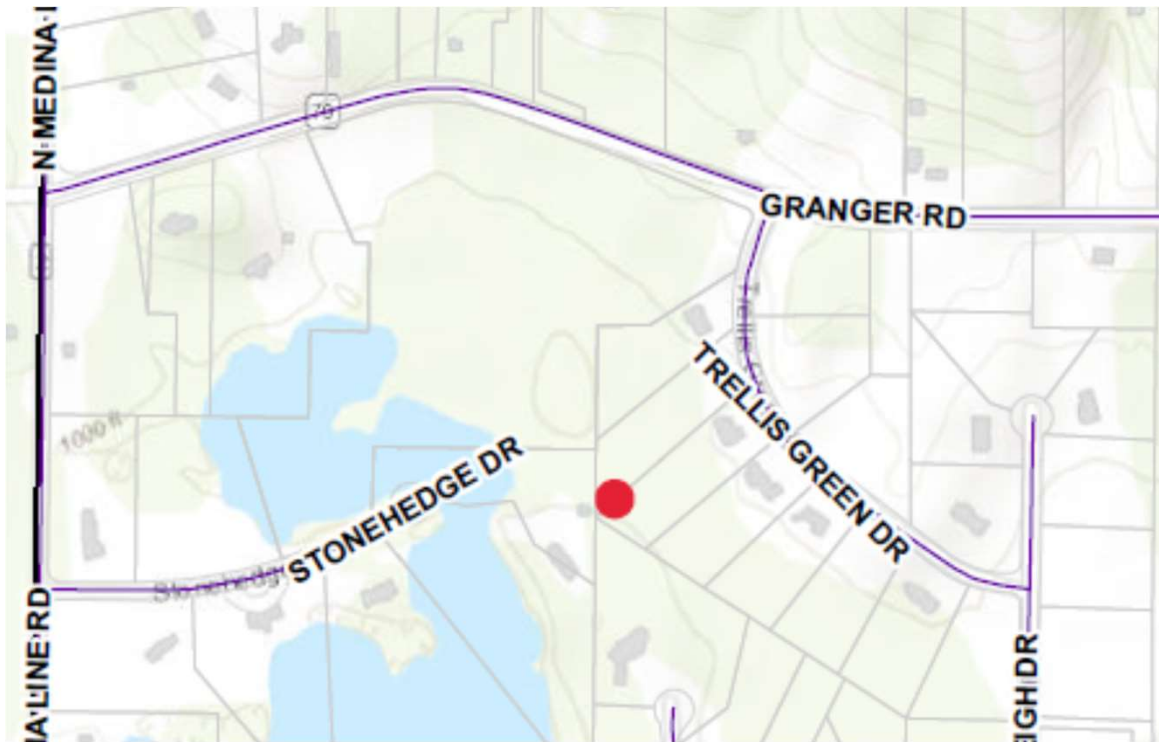
## SWMD Update - Other Projects that Benefited Yellow Creek

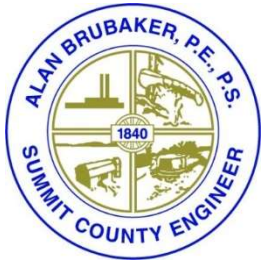
- West Fork Streambank Repair Project – the local property owner brought to our attention that West Fork was eroding the streambank and threatening the Arbour Green subdivision stormwater detention basin. Davey Resource Group and Marks Construction reconstructed and reinforced apx. 100' of streambank with rock and plantings.
- *\$49,184 Total Cost - Assessed Subdivision fund.*



# SWMD Update - Other Projects that Benefited Yellow Creek

## West Fork Streambank Repair Project

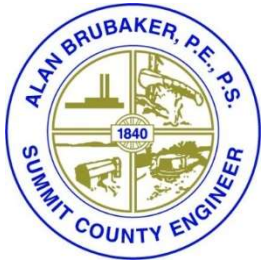




# SWMD Update - Other Projects that Benefited Yellow Creek

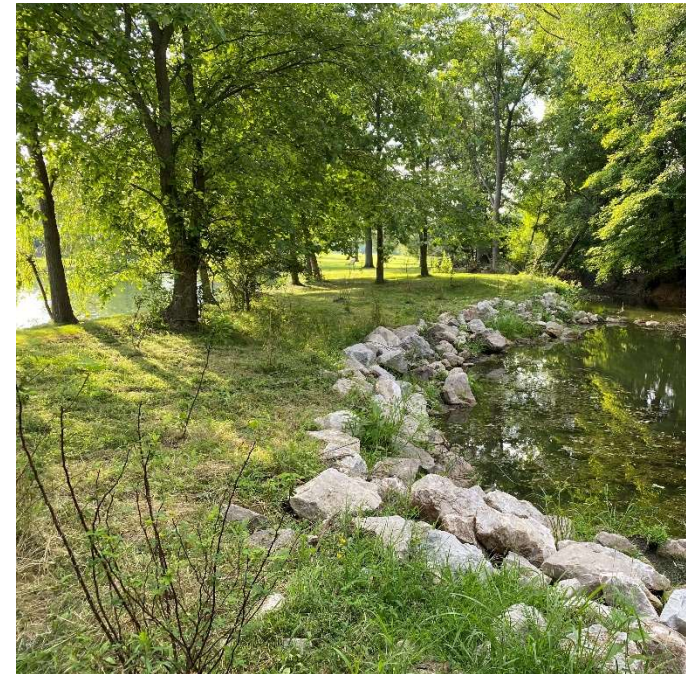
## West Fork Streambank Repair Project – April 2019

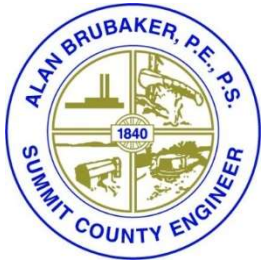




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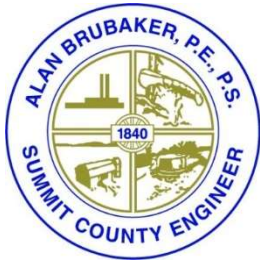
## West Fork Streambank Repair Project – May 2020





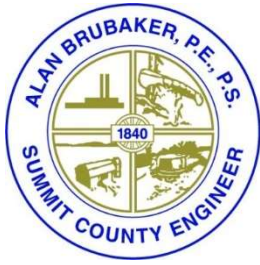
## SWMD Update - Other Projects & Issues That May Impact Yellow Creek

- Yellow Creek Watershed Coordinator – Summit County and Bath Twp. are crafting an agreement that will enable an 80% match from the state toward the coordinator’s continued efforts to help improve water quality in Bath waterways.
- OEPA Updated MS4 Stormwater Permit – in April 2021, OEPA issued their permit renewal. Key elements of the new permit are increased responsibility on the local permit holders (Cities, villages, and townships) to prepare mapping and enforce the Illicit Discharge Detection and Elimination (IDDE) regulations.



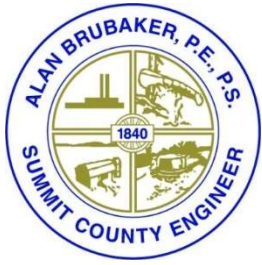
## SWMD Update - Other Projects & Issues That May Impact Yellow Creek

- As townships don't have the power to enforce these rules as required by OEPA, Summit County will have enforcement authority in the townships.
- OEPA Updated MS4 Stormwater Permit – it is anticipated that the SWMD will provide the County's activities and enforcement.
- Revenue for Summit County's OEPA MS4 activities may be generated by a modified SWMD.
- The enhanced MS4 permit regulations will provide real benefits to the quality of water in our streams and rivers.



## SWMD Update - Other Projects & Issues That May Impact Yellow Creek

- Menard's et al – plans have been reviewed by Medina County Engineer and Soil & Water District to assure compliance with construction and post-construction stormwater management rules.
- I-77 Third Lane – we have received and reviewed the Stage 1 plans from ODOT. They will comply with OEPA's construction and post-construction stormwater management rules. They are not required to provide stormwater detention, but they must provide long-term water quality treatment of stormwater runoff, and the Stage 1 plans show 20 Vegetated Filter Strips for this.



# SWMD Update – 9/20/2021



**Questions?**

**SWMD@summitengineer.net**