

QUITTAPAHILLA WATERSHED ASSOCIATION
Meeting Minutes DRAFT
Annville Town Hall and Remotely Via Zoom (Hybrid Meeting)
Tuesday, November 19, 2024

Present: Michael Schroeder (President), Joseph Beidler, Alyssa Bellucci, Alexis Biondi, Willy Bixler, Bob Connell, Joseph Connor, Kent Crawford, Karen Feather, Bryan Hoffman, Katie Hollen (LCCD), Kara Lubold (LCCD), with special guests Hannah Horengic and Ben Mitchell

The meeting opened at 7:02 p.m.

1. **Minutes.** The minutes of the Oct. 15 meeting were circulated electronically before the meeting and approved by consensus.
2. **Summer 2024 Student Interns Presentation.** Special guests Hannah Horengic and Ben Mitchell offered a remote PowerPoint presentation on their work this past summer assessing conditions on Beck Creek and Bachman Run. A 17-minute Zoom recording of their presentation; a PDF file of their PowerPoint presentation; a link to a Google Drive folder housing a collection of more than 3,000 photographs documenting their work; and Rocky Powell's 80-page final report on their work this past summer are all housed on the Studies & Documents page of our QWA website, at <https://www.quittiecreek.org/documents.html> (date: November 2024). Hannah, Ben, and Rocky were applauded for their excellent work. Mike noted a technical issue with the photos, which were taken on an iPhone and carry .HEIC extensions, which many devices will not open, and thus will need to be converted to .JPEG files. Ben said he would look into finding a technical solution that does not involve converting each photo individually.
3. **Monitoring Program Updates**
 - **Fieldwork.** Katie reported that biological monitoring fieldwork took place on Tues. Nov 12 and Wed. Nov 13 at all six monitoring sites, with the samples delivered to Prof. Becky Urban at LVC for analysis. Nov. 12 fieldworkers: Katie Hollen, Lydia Mohn, Michael Schroeder, and Tony Shaw. Nov. 13 fieldworkers: Katie Hollen, Bob Connell, Charles Katona, and Michael Schroeder. Katie also reported that she will be scheduling streamflow & water-quality monitoring fieldwork for December.
 - **Equipment.** Kara reported that a group will meet on Wed Dec 4 at 12 noon at her house to test the auto-samplers using buckets of water. The goal is to get the auto-samplers ready to deploy by spring. Kara also reported that she recently picked up needed supplies from PA-DEP, and that Hannah Hartman at the LCCD can also do so

as needed. Bob reported that the Hobo sensor on Snitz Creek was not working last he checked and he is looking into a fix.

- **Data Management.** Bob reported that all monitoring data has been uploaded into our Water Quality Portal and that everything is up to date except the automated sensor data, which he's working on. LVC student intern Joseph Beidler reported that he has not been successful in his efforts to automate the uploading of data produced by our 2023 and 2024 summer student interns into the Water Quality Portal and that doing so will likely need to be done manually.

4. NFWF Grant. Mike reported on a Zoom meeting with QWA representatives and Tali MacArthur at POWR on Friday, Nov. 8 regarding our NFWF grant. Notes from that meeting appear below in these minutes in **Appendix 1**. Following that meeting, Kent reported that he is working on the revising our Quality Assurance Project Plan (QAPP) for EPA approval for the grant, and that he expects to complete his revisions in a week or so, which he will circulate to Bob, Katie, and Mike for review. Kent noted that Bob kindly contributed a section on data management as well as an updated map of our monitoring sites. Mike reported that before our December meeting he expects to circulate a draft description of the goals & objectives that the QWA hopes to achieve with the help of the consultant whose services the grant will allow us to engage. Upon their completion, the updated QAPP and description of our scope of work will be sent to Tali for her review. Bob circulated a document titled, "Developing a Report Card for Quittie Water Quality" for possible inclusion in the scope of work, included below in **Appendix 2**.

5. Second Countywide Strategizing Meeting. Mike reported that he and Kara will be drafting a meeting agenda and sending out invitations to this second countywide strategizing meeting, to be held sometime in the first half of December.

6. Projects update.

- **Beck Creek Project 6.** Mike reported the good news that on Wed. Oct. 16, PA-DEP announced that Beck Creek Project 6 was among the 12 Growing Greener Plus projects that received funding in this round. The press release reads: "Lebanon. West Cornwall Township – Beck Creek 6 Project, Doc Fritchey Trout Unlimited: \$761,021 to restore 2,000 linear feet of Beck Creek. The restoration design objectives include creating a stable stream channel that meanders across the center of a restored floodplain. The restoration of the floodplain will create 5.15 acres of high value emergent, scrub-shrub and forested wetlands and 10.2 acres of riparian buffer that provide water quality and habitat functions."

On Oct. 21, Rocky emailed the QWA and DFTU members to clarify, as follows: “Folks, for clarification: We started off in June 2023 with the following grant requests:

- Growing Greener Plus (GGP) - \$494,449.00
- Community and Economic Development (DCED) - \$266,587.00
- Agricultural Conservation Assistance Program (ACAP) - \$173,110.00
- Total - \$934,146.00

In August 2023, PADEP contacted Russ Collins and me, indicating they wanted to switch the project over to EPA 319 given its larger budget. In addition, they indicated they would roll the DCED grant into the 319 for a total of \$761,036. Yes I know there is a discrepancy in the budgets. Their bad, which they said they would correct during the contracting phase. As of 2 weeks ago, we also found out there is an issue with how ACAP handles their grants related to Construction vs Engineering costs. Russ and I discussed this with PADEP and obtained permission to swap out some construction tasks for engineering tasks. We met with the LCCD Board last week on the same issue and they voted to approve the swap. Both budgets remain unchanged. See the project updates in the WAT meeting minutes of Oct. 3 in Appendix 2 to these minutes. . . .”

- **“Lebanon County Conservation District Countywide Action Plan (CAP) Grants 2025.”** On Tues. Oct. 29, Rocky Powell circulated a 32-page document with the foregoing title, prepared for the QWA, Doc Fritchey Trout Unlimited, and the LCCD, that focuses on two projects: Gingrich Run Project 1, and Beck Creek Project 1. This document is housed on the Studies & Documents page of the QWA website, under the date Oct. 29, 2024.
- **From Rocky Powell** as recorded in the LCCD’s CAP Watershed Action Team minutes of the meeting of Nov. 8:
 - 1) Killinger Creek.** Have all cost estimates for Phase 1 construction (Huber & Burkholder properties). TLVC submitted a NFWF grant application for Phase 1 construction and Phase 2 (Kreider property) design and permitting. The application was submitted on Nov 5th and NFWF will announce decisions in early spring 2025.
 - 2) Bachman Run.** Final stream design is on track. SESI is working on the replacement of the bridge with a box culvert. SESI had to get additional money from DFTU for survey work.
 - 3) Snitz 4.** Wetland delineation and PNDI are completed. Working on design criteria for stream channel and retrofit of stormwater pond.

7. Lebanon County Stormwater Consortium Update. Bryan reported nothing substantial of note to add from last month's meeting; PA-DEP still has not issued its new MS4-NPDES requirements for the next permitting cycle, leaving everyone unclear about what comes next. At the Nov. 8 LCCD Watershed Action Team meeting, Darren Heisey of Steckbeck Engineering reported:

- SQ1 Phase 1: Contractor replaced some plantings (this is the legacy sediment removal project between the end of the Hazel Dike and the 22nd St. bridge).
- SQ1 Phase 2: Delayed with the 22nd St Bridge realignment (possibly 2026).
- SQ6: Moving slowly because of the extended permit period and lack of new permit requirements (this is the section of the Quittie mainstem between Dairy Road and Mill Street).
- Lions Lake: Accepted Flyway Excavating's bid, which included lake restoration and general park improvements. Flyway plans to begin work at the lake in February. This will coincide with a drawdown (the lake is currently drawn to about 4 ft but will need to be lowered more to remove the island and diving pier).
- Final PRP (Pollution Reduction Plan) reports are due next September.

8. Recent Past Events of Note

- **Tues. Nov. 12: STEM Night at Annville Elementary School.** Mike reported a successful & fun evening at Annville Elementary School in collaboration with LCCD and The Lebanon Valley Conservancy. Mike and Bob Connell represented the QWA and were able to use their new Enviroscape model watershed for the first time, which Mike reported was a big hit with the kids.
- **Thurs. Nov. 14: Meeting with Ariana Genna.** Mike reported on a meeting with Ariana Genna, South Central Regional Coordinator for PA-DEP's Office of Environmental Justice (and Mike's former student at LVC). Mike and Katie Hollen attended. Ariana demonstrated PA-DEP's Environmental Justice mapping platform; see <https://www.dep.pa.gov/PublicParticipation/OfficeofEnvironmentalJustice/Pages/P-A-Environmental-Justice-Areas.aspx> Ariana further noted that she expects to host a community engagement meeting in Lebanon sometime early 2025.
- **Sat. Nov. 16: Lancaster-Lebanon Watershed Forum.** Mike and Katie reported on this successful event, organized by the LCCD and the Lancaster Co. Conservation District, at Middle Creek Wildlife Area Visitors Center – a great opportunity to network with other organizations & individuals in the region.

9. Media & Website.

- **LebTown Article on Monitoring, Tues. Nov. 5.** Mike reported that LebTown reporter Margaret Hopkins joined us for water-quality monitoring fieldwork on Tues. Oct. 12 and published an article on our work on Nov. 5; visit <https://lebtown.com/2024/11/05/a-different-kind-of-field-work-sampling-water-to-assess-stream-health>
- **Website.** Mike noted that several items have been added to the Studies & Documents page of the website, including:
 - October 16, 2024. Beck Creek Project No. 6 Stream & Floodplain Restoration Project (announcement of EPA 319 funding added).
 - October 26, 2024. Temperature Profile of Quittapahilla Creek in Fall 2022, by J. Koch, E. Dyer, and K. Crawford (19-page PDF file).
 - October 29, 2024. Lebanon County Conservation District (LCCD) Countywide Action Plan (CAP) Grants 2025: Proposed Project Information on Gingrich Run Project No. 1 & Beck Creek Project No. 1 November 2024. Summer Intern Stream Reconnaissance Surveys 2024: Summary of Existing Conditions and Recommendations (29-page report by Rocky Powell).
- Mike also asked that folks review our QWA website and point out any pages or sections in need of corrections or updating.

The meeting adjourned at 8:02 pm.

Respectfully submitted,

Michael Schroeder, Secretary Pro Tem

Appendix 1. NFWF Grant First Planning Meeting with POWR Zoom Meeting Notes

Michael Schroeder
 President, Quittapahilla Watershed Association
 November 8, 2024

Present:

- Tali McArthur, Program Manager for Watershed Outreach for the Pennsylvania Environmental Council and Pennsylvania Organization for Watersheds & Rivers (PEC/POWR)
- Michael Schroeder, QWA

- Kara Lubold, Lebanon County Conservation District (LCCD) & QWA
 - Katie Hollen, LCCD & QWA
 - Karen Feather, QWA
 - Kent Crawford, QWA
 - Bob Connell, QWA
1. Tali opened the meeting by summarizing the purpose and scope of the National Fish & Wildlife Foundation (NFWF) grant that she submitted on behalf of the QWA and other community-based watershed organizations (CWOs) this past spring. Before the meeting, she had sent a summary paragraph on the grant and a draft timeline for its implementation. Both items are reproduced below in the appendix to these meeting notes.
 2. Tali recommended that the QWA develop a paragraph describing the goals and scope of work for a consultant to help guide us toward achieving our goals. With this paragraph in hand, from ours and the four other CWOs included in the grant, she will send out requests for proposals (RFPs) to potential consultants in early January 2025.
 3. Tali also noted that federal funds require an EPA-approved Quality Assurance Project Plan (QAPP) for the field data that CWOs like the QWA generate. Kent noted that in August 2020 he developed a draft QAPP for the QWA's Monitoring Program and that we should consider building on and revising that draft QAPP for this NFWF grant. (That Aug. 2020 draft QAPP is housed on the "Monitoring" page of the QWA website; direct link to PDF file: <https://www.quittiecreek.org/documents/Monitoring/211020-QAPP-draft.pdf>) Bob noted that he has drafted a new section for the QAPP that focuses on data management.
 4. After discussion, it was agreed that the QWA will continue to develop its own QAPP and that the RFP for consultants should focus mainly on capacity-building with respect to:
 - a. Public communication and outreach
 - b. Volunteer recruitment and retention
 5. Action items & timeline moving forward: it was agreed that:
 - a. That by the end of December, Kent, Bob, and Alyssa Bellucci (a member of the QWA's data management team) will update and refine our existing draft QAPP for inclusion in the RFP to be sent to potential consultants.
 - b. That also by the end of December, the QWA will develop a more detailed paragraph for the RFP describing the scope of work for (a) public communication & outreach, and (b) volunteer recruitment & retention.
 - c. That these items will be ready to submit to Tali by early January.

Respectfully submitted,

Michael Schroeder, Secretary pro tem

Appendix

1. NFWF Grant Email from Tali MacArthur at POWR

Nov. 6, 2024

from: Tali MacArthur
to: Michael Schroeder, Katie Hollen, Kara Lubold, Bob Connell, Alyssa Bellucci
date: Nov 6, 2024, 1:51 PM
subject: NFWF Grant first Planning Mtg w/ POWR

Hello all,

In preparation for Friday's meeting I wanted to send you all a bit of information- to jog memories and get others up to (some) speed.

First- recall that funding from this NFWF Small Watershed Grant Program will support the one-on-one assistance from a professional consultant to work with you to achieve a version of the following:

Improve understanding, use, and delivery of technical knowledge to assessing local watershed and habitat restoration needs and opportunities: This project will assist the leadership of the Quittapahilla Watershed Association, also located in Lebanon County, develop a strategic plan that will include elements related to water quality data management and interpretation, public communication and outreach, as well as volunteer recruitment and retention. This organization has successfully developed an active water quality monitoring effort but has yet to translate that effort into a sustained and ongoing approach to informing the prioritization and implementation of new restoration projects. Nor have they meaningfully engaged the public with the data and what the findings mean for "the Quitty" and their communities. The group has recently 'onboarded' some new volunteers and they are ready to take on this challenge to be a more public-facing, action-oriented organization.

A general project timeline is attached (note that this award is funding 4 such watershed/consultant partnerships).

The meeting on Friday will provide an opportunity to review anything that might have changed with respect to your needs since this was submitted and to talk about some of the required elements per NFWF/EPA.

The major one being that anytime federal funds are being used for water quality monitoring, interpretation, visualization and communication there must be a federally approved QAPP (Quality Assurance Project Plan).

The good news is that we can build this into the Consultant’s Scope of Work; the bad news is that it may impact the extent to which original objectives and goals as described above can be met within the project timeline.

We will also talk about next steps, the consultant procurement process, tracking time for project match, and any other questions you may have.

Feel free to forward the meeting invitation to anyone else who might want to attend from your group.

Sincerely,

Tali MacArthur
 Program Manager for Watershed Outreach
 Pennsylvania Environmental Council
 and Pennsylvania Organization for Watersheds and Rivers
 105 Lt. Michael Cleary Drive Dallas, PA 18612
 website: www.pawatersheds.org

2. Work Plan Timeline

Activity Description	Associated Deliverables	Responsible Parties	Completion Date
Obtain detailed strategic needs description from CWOs and create consultant portfolios	4 one-two page Strategic Needs and Goal statements and 3-5 consultant portfolios	POWR with participating CWOs and potential consultants	Dec 2024
Plan and host “matching interview sessions” among CWOs and consultants	4-6 virtual meetings held introducing CWOs and consultants to one another	POWR	Feb 2025
Pair CWOs and Presidents Club with selected consultants; Complete subcontracting process	Finalized pairing for strategic outcomes; Sub-contracts between POWR and selected consultants	POWR and consultants	March 2025
Assist in coordination of kick-off meetings among participating entities,	4 kick off mtgs	POWR, CWOs, and consultants	May 2025

attend 1 st mtg of each 'pair'			
Schedule check in mtgs to track progress, troubleshoot, etc.; communicate and assist as necessary	Meetings as necessary, at least 1 per 'pair'	POWR	Aug 2025
Draft plans complete	4 draft plans	CWOs and consultants	Oct 2025
Final Plans complete and Showcase scheduled and held	4 Final plans; 1 showcase held	POWR, CWOs, and Consultants	Nov 2025
Project Evaluation Survey created, administered; results analyzed	Survey responses submitted by all; final data and project analysis report	POWR	Dec 2025

Appendix 2. Draft Scope of Work paragraph, “Developing a Report Card for Quittie Water Quality”

By Bob Connell
 Nov. 18, 2024

Developing a Report Card for Quittie Water Quality

One of the primary activities of the QWA is the collection of accurate information on the water quality of the Quittie. Communicating that information in a form that is readily understood by the public dramatically enhances the value of the QWA’s effort to provide it. It is recommended here that our goal be something along the lines of the example below. Perhaps a scope of work task could be to conduct a workshop(s) with QWA members to develop such a report card. Not doing the report card for us, but instead guiding us through the process so that we can maintain/update it ourselves later on. Over time, the report card will show us our successes with water quality and the areas we need more focus on to address.

One approach to a water quality “Report Card”.¹

1. Chesapeake Monitoring Cooperative, 2018. Data Interpretation and Synthesis Methods Manual.

Overall grade

The overall grade of the river or stream integrates the Water Quality Index (total nitrogen, total phosphorus, conductivity, and turbidity), bacteria, and benthic community results. These four items can be considered indexes that are integrated into an overall score. In addition to showing the overall score, another method for communicating the results that shows more detail is to generate a grid of the indicators that may be spatially averaged (i.e. all but bacteria) along one axis and the list of sub-watersheds on the other axis. The color in each grid cell would then indicate the grade for that indicator in that location.

Sub-regions	Dissolved Oxygen	pH	Temperature	Total nitrogen	Total phosphorus	Turbidity	Conductivity	Benthics
1	Green	Light Green	Green	Red	Yellow	Orange	Light Green	Green
2	Green	Green	Green	Light Green	Orange	Red	Yellow	Light Green
3	Dark Green	Green	Green	Red	Yellow	Orange	Yellow	Light Green
Average watershed score per indicator	Green	Green	Green	Orange	Yellow	Orange	Yellow	Light Green

Using a grid of scores is another method for communicating the results that shows more detail about what is happening with each indicator in each sub-region and the overall watershed.

An example of how this could look using existing data in QWA’s water quality portal.

Quittapahilla Creek Nutrient Report Card

Decade	Phosphorus		Nitrogen		Total	
	Average	# samples	Average	# samples	Average	# samples
1990's	2.43	72	0.00	71	1.22	143
2010's	0.85	287	0.10	293	0.47	580
2020's	1.05	158	0.15	117	0.67	275

Based on scoring from the Chesapeake Monitoring Cooperative:

Ecologically relevant multiple thresholds for total nitrogen by ecoregion.

Score	Piedmont, Valleys, & Ridges (mg·l ⁻¹)	Coastal Plain (mg·l ⁻¹)
5	<0.64	<0.82
4	≥0.64 - <1.65	≥0.82 - <1.52
3	≥1.65 - <2.15	≥1.52 - <2.22
2	≥2.15 - <2.65	≥2.22 - <2.66
1	≥2.65 - <3.66	≥2.66 - <3.61
0	≥3.66	≥3.61

Ecologically relevant multiple thresholds for total phosphorus by ecoregion.

Score	Piedmont, Valleys, & Ridges (mg·l ⁻¹)	Coastal Plain (mg·l ⁻¹)
5	<0.01	<0.02
4	≥0.01 - <0.03	≥0.02 - <0.06
3	≥0.03 - <0.05	≥0.06 - <0.09
2	≥0.05 - <0.06	≥0.09 - <0.12
1	≥0.06 - <0.09	≥0.12 - <0.17
0	≥0.09	≥0.17