

QUITTAPAHILLA WATERSHED ASSOCIATION
Meeting Minutes – DRAFT
Annville Town Hall
August 15, 2023

Present: Michael Schroeder (President), Karen Feather, Katie Hollen (LCCD), Lauren Rius, Carl Rohr

The meeting opened at 7:02 p.m.

- 1. Welcome & Introductions.** Mike welcomed those in attendance and noted that this is our first in-person meeting since February 2020, before the pandemic. This was Carl Rohr's first meeting. He arrived about 15 minutes into the meeting, at which time we paused to welcome him. He introduced himself as a retired water resources and nutrient management specialist who lives in Hershey and expressed keen interest in our work. He heard about us at Historic Old Annville Day in June when he came by our table, spoke with Bob Connell and Katie Hollen, and put his name and email address on our sign-up sheet.
- 2. Project & grant updates.** Mike reported updates A-E, below, kindly provided by Rocky Powell before the meeting. Mike provided updates F and G.
 - A. Beck Creek Project 6,** Stream and Floodplain Restoration Project. On June 16, 2023 the QWA submitted on behalf of Doc Fritchey Trout Unlimited (DFTU) a grant proposal written by Rocky Powell to PA-DEP's Growing Greener Plus program for \$494,449.00. On June 15, 2023 the Lebanon County Conservation District Board voted to approve an Agriculture Conservation Assistance Program (ACAP) grant for \$173,100 to support this \$934,146 project. A PDF file of the application is housed on the Studies & Documents page of the QWA website.
 - B. Snitz Creek Project 3.** With the exception of the USACOE 404 Permit, all permits and approvals have been obtained.
 - C. Snitz Creek Project 4.** DFTU is wrapping up the paperwork needed to finalize their contract with PADEP. It is anticipated that work on this project will get underway the beginning of September.
 - D. Killinger Creek Project.** After both landowners approved the Preliminary Design. Rocky Powell requested a Pre-Application Site Visit with PADEP, USACOE and LCCD. Because the PADEP reviewer is not available until September, the Site Visit could not be scheduled until September 7th. This put the project schedule at risk of not meeting the October 28, 2023 grant deadline. Russ Collins requested an extension of the deadline to December 31, 2023, which was approved.
 - E. Bachman Run Project.** Preliminary channel alignment and buffer design was approved by landowners. Preliminary Design moving forward. We were made aware that Mrs. B. had put her property up for sale. Rocky Powell contacted Mr. H. the largest landowner along the project area. He confirmed that Mrs. B's property sold at a public auction on June 24, 2023. He indicated that his brother G.H. was the new

owner. On June 30, 2023, Russ Collins and Rocky Powell met with G.H. to discuss the Preliminary Design and provide him with a Landowner-Grantee Agreement for his signature. He indicated he did not like the proposed 35-foot buffer shown on the plans or the idea of having an overgrown area along the stream. He indicated he would discuss it with his wife and get back to us. We aren't sure how this will affect the overall project if they decide not to participate. We did alert our PADEP 319 Grant Advisor of the situation. Follow-up – Russ Collins left a message for G.H. hoping to determine his decision on accepting the project. Waiting to hear back from him.

F. Quittie Mainstem Restoration Project Downstream of Spruce St. Bridge in Annville. Mike reported that this project is expected to commence this fall. Documents describing the project are housed on the Studies & Documents page of the QWA website.

G. Lebanon County Stormwater Consortium Quittapahilla Creek Floodplain Restoration Project. Mike reported that this major project is well underway in the area just downstream of the Hazel Dike to the 22nd St. bridge in North Cornwall Township. He plans a field survey of the project in the coming days.

3. Monitoring Program Update. Mike reported that in the past two weeks, Kent Crawford has organized three Monitoring Program workdays (on Aug. 9, 14, and 15). On Mon. Aug. 7, two days before the first of these workdays, Kent sent an email, pasted below, detailing the activities he anticipated undertaking in the coming days. These activities were then undertaken on the days indicated, with the exception of actually field-testing the the iMoMo app, as noted:

[START OF EMAIL:] We have several water-monitoring activities that need to be completed in the coming days:

Service Pressure Transducers and Data Recorders, Wednesday, August 9, 9:00 a.m.

We need to service our pressure transducers and data recorders at each of our sampling stations. At each of our five stations where we have data recorders, we will:

- Download the gage height and temperature data
- Clean the pressure transducer and data recorder
- Flush out the stand pipe
- Replace the batteries
- Re-install the equipment
- Re-start the data logging

To get started, let's meet at Station Q1, Quittapahilla Creek at Garfield Street. This location is at the Cleona Playground (at the south end of Garfield Street). From there, we will go in order to:

1. Snitz Creek at Dairy Road
2. Beck Creek at Bricker Lane
3. Bachman Run at Louser Road
4. Killinger Creek at Killinger Road

Test Our Velocity Meters: Test a Cellphone App for Discharge, Wednesday, August 9, 11:00 a.m.

Mike Schroeder has identified a cellphone app that will measure stream discharge quickly and easily. The app is called "Discharge" and it is produced by a company called iMoMo. The app is free. I have watched a demonstration video and it could simplify our discharge measurements greatly. There is an academic article testing the app and the results are very good.

So, let's test this app in the Quittapahilla Creek and tributaries. I have downloaded the app to my cellphone, but have not been able to make it work for me. I am hoping that some of our volunteers who are more savvy than me will be able to download the app and work through the setup process so we can test this potentially valuable tool.

Here is a suggested testing regimen:

- Go to the Quittapahilla Creek at Palmyra-Bellegrove Road.
- Check the USGS streamflow for this site at:
<https://waterdata.usgs.gov/monitoring-location/01573160/#parameterCode=00060&period=P7D>
- Scroll down to change the reading from "gage height" to "discharge."
- Read the current discharge from the USGS gage.
- Use the iMoMo Discharge app to get a streamflow (discharge) measurement (at point one).
- Compare the iMoMo reading with the USGS reading.
- Repeat the iMoMo discharge reading again to see if it is repeatable.
- Repeat the iMoMo discharge reading a third time to calculate the variability of the readings.
- Go to a different location nearby (point 2) where there are no intervening tributaries or discharges into the creek and do another iMoMo Discharge measurement. Velocity at point 1 and point 2 should be different. Maybe a slower velocity at point 1 and a faster velocity at point 2. If the iMoMo app is accurate, the discharge at point 1 and point 2 should be the same, even with different velocities.

This analysis will allow us to make three tests of the iMoMo app.

- Accuracy -- How close is the iMoMo reading to the true USGS discharge reading.
- Repeatability -- How close is the iMoMo reading to itself in multiple trials.
- Portability -- How does the iMoMo app perform among sites having the same stream discharge, but with different velocities.

I am very encouraged with the possibility of using this cell phone technology for streamflow measurements. I thank Mike for bringing it to my attention. Here is a link to the scientific paper that uses volunteers (not professional scientists) to measure streamflows:

<https://www.sciencedirect.com/science/article/abs/pii/S0022169420309781>

We will also measure stream discharge using our Pygmy velocity meters. This is a test to evaluate their accuracy.

[NOTE: Kent's recommended testing regimen was not conducted in the field, but because of its value it is memorialized here.]

Collect Water-Quality Samples -- Quittapahilla Creek Stations, Monday, August 14, 8:30 a.m. It is time for another round of water-quality sampling. A couple of us will need to go to Lebanon Valley College to load our sampling equipment. Meet at 8:30 in the municipal parking lot at the corner of North White Oak Street and East Lebanon Street. Then, we will go to Station Q1 (Quittapahilla Creek at Garfield Street) for our first sample collection. Expect to arrive there about 9:00 a.m. We will collect the water samples and take a streamflow measurement. Then, we will do it again at Station Q2 (Quittapahilla Creek at Palmyra-Bellegrove Road) and collect our water-quality sample at that location.

We need someone to deliver the samples to the DEP laboratory on the north side of Harrisburg: Department of Environmental Protection, Bureau of Laboratories, 2575 Interstate Drive, Harrisburg, PA 17110-9332. Phone: 717-346-7200

This is an important day for us because Mark Hoyer from the Pennsylvania DEP will be on hand to audit our activities.

Collect Water-Quality Samples -- Quittapahilla Creek Tributaries, Tuesday, August 15, 8:30 a.m. We will collect water-quality samples for the tributary streams going into the Quittapahilla Creek. Meet at 8:30 a.m. at the ball fields parking lot on Dairy Road about 1/2 mile south of US 422. Plan for a long morning of work wrapping up perhaps by 1:30 p.m. The order of work will be:

1. Snitz Creek
2. Beck Creek
3. Bachman Run
4. Killinger Creek

[END OF EMAIL]

Another aspect of our Monitoring Program concerns data management: how we store and manage the large amount of data that is starting to accumulate from our various monitoring activities. Bob Connell has been working with Kent to develop protocols for managing and housing these data. Carl indicated that he also has experience in data management and will be happy to lend a hand. Lauren said she would also gladly help if she can.

- 4. Summer Internship Program Update.** Mike reported that our two LVC student interns, Hannah Horengic and Ilyssa McLaughlin, have completed their fieldwork and are nearing completion of their written report. They have successfully assessed all of Killinger Creek and all of Snitz Creek. Mike noted that this represents a major accomplishment for the QWA, the LCCD, and TLVC (The Lebanon Valley Conservancy, which administered the funds). It was suggested that Hannah and Ilyssa be invited to present their findings at a future QWA meeting – perhaps in September or October. Mike said he would extend an invitation to them.
- 5. Upcoming Special Events.**
 - **Sat. Aug. 26, 10 am—12 noon.** Lebanon Valley College New Student Orientation Day of Service. Mulch-spreading in Quittie Creek Nature Park in Annville. Organized by the Quittie Creek Nature Park Committee of the Friends of Old Annville and LVC. Contact Mike for details.
 - **Sat. Sept. 23, 9-11 am (exact time TBD).** The LCCD is hosting a riparian landowner workshop at Levitz Park in Grantville. The QWA is invited to participate in this event. See the LCCD website, at <https://www.lccd.org/events> Carl noted that this is also National Hunting & Fishing Day, and wondered if the LCCD's event is intended to be part of this national event.
 - **Sat Nov 4, 9 am—12 noon (exact time TBD).** Katie reported that the LCCD is planning a "watershed forum" on Sat. Nov. 4, with presenters, open discussions, and networking opportunities. Plans at this stage remain provisional.
 - **Social event / mixer with nearby watershed associations.** It was suggested that we organize such an event in the future.
- 6. Matters Arising.**

- **Cultivating Connections with Area Schools.** Discussion was also held on the desirability of reaching out to area schools and creating field trip opportunities for area students. Earlier in the meeting, Katie had summarized the basic features of the annual Envirothon event. Consensus was reached that cultivating such connections would be a very good idea.
- **Signage.** Mike noted that he has long envisioned more signage in the Lebanon Valley to let folks know they are in the Quittapahilla watershed, and along roadways where creeks flow under bridges. Only a handful of such signs currently exist in all of Lebanon County. Mike suggested that such signs can help to raise awareness of the existence of our local waterways and the importance of protecting them. Consensus was reached that this would also be a very good idea to pursue.

The meeting adjourned at 7:59 p.m.

Respectfully submitted,

Michael Schroeder, Secretary Pro Tem