Meeting Notes: SCWC Technical Work Group Meeting, August 23, 2018
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Introduction

Janie French, Executive Director of Headwaters Charitable Trust, presented an overview of the steps needed by the SCWC for the advancement of the Spring Creek Watershed Plan, Phase II:

- A determination of the current health status of the watershed is needed.
- Existing data and ideas need to be brought together in a useable format.
- Existing wells and spring location are thought to be known.
- Data gaps need to be identified.
- A determination needs to be made of where the state of the watershed health is now in relation to established and desired goals.
- Comparison is needed with the PA Department of Environmental Protection's Integrated Water Plan.
- Water quantity and water quality review is needed.
- Data needs to be understandable to the public.
- A broader public education component is needed.
- Coalition building and consensus is needed.
- The water plan must be science based.
- The overall goal is for Restoration, Protection, and Sustainable Usage of the water in the Spring Creek Watershed.

Participants

Participants included representatives from:

- Susquehanna River Basin Commission (SRBC)
- PA Environmental Protection (DEP) Clean Water Program (not sure if present)
- Water Resource Monitoring Project
- PA Fish & Boat Commission
- University Area Joint Authority (UAJA)
- US Geological Survey (USGS)
- Potter Sewer Authority
- Mid Centre Authority
- Nittany Valley Environmental Coalition
- Spring Creek Watershed Commission
- Spring Creek Watershed Association
- Penn State Physical Plant
- Coca Cola
- Pennoni Associates
- Trout Unlimited
- Clearwater Conservancy
- State College Borough Water Authority
- Water Stewards Group
- Others

Participants introduced themselves and Janie asked certain participants to explain the function of their organizations: (I do not have a list of participant names)

- Susquehanna River Basin Commission: An Interstate Regulatory Agency responsible for regulation of water withdraw, including consumptive use and high volume withdraws, from both surface and groundwater sources. Also has a supportive role for water quality and water protection issues.

- Water Resource Management (DEP?): Maintains 27 water quality monitoring stations in Spring Creek and tributaries recording water flow and temperature. Monitors other water quality parameters such as inorganic chemicals. Reports are available online for years 1999 to 2017 and the 2018 report will soon be posted. Thermal monitoring has an emphasis within their program.
- Water Stewards Group: Has a grant from the Federal EPA to record and share the Spring Creek Watershed Plan as a model.
- USDA Natural Resources Conservation Service: Monitors sedimentation and siltation of waterways. (Role of Conservation Districts?)

Brief Overview of Spring Creek Watershed

- Watershed includes Spring Creek, five major tributaries, and numerous smaller tributaries. Watershed Area - 146 square miles, approximately 43,000 acres.
  (By my calculations 1 inch of rain over 146 square miles equals 2,537,269,760 gallons of water or 339,207,594 cubic feet. With an estimated recharge rate of 30% of precipitation this is equivalent to about 76 million gallons of water from 1 inch of rain, however rapid, extreme rainfall tends to largely runoff without recharging the groundwater. The average annual precipitation of 40 inches in State College area would yield approximately 3 billion gallons of water recharge to the Nittany Valley watershed)
- Touches 14 local municipalities
- Some streams are designated as high quality cold water fisheries
- Twenty-five miles of streams and tributaries are degraded and impaired including Slab Cabin Run and the Main Stem of Spring Creek
- A DEP 2016 report (data from 2004?) outlines types and causes of stream impairments including: sedimentation and siltation; low dissolved oxygen levels; thermal modifications from agriculture, golf course, and stormwater runoff; heavy metals; organics; point source discharges; nitrogen; and total dissolved solids.
- Restoration efforts have been implemented such as riparian recovery,
- Watershed population has shown rapid increase since 2000. (Data does not appear to include PSU University Park population.) Year 2000 - 106,006 people. Year 2017 - 130,748.

Phase I Watershed Plan 2003

- The Phase I Plan identified issues and concerns about the health of the watershed - many of those same issues still remain.
- Better tracking of progress is needed
- Data base includes many sited studies.
- Spring Creek is a highly studied water basin.
- There is a large amount of data available.
- Is all data still relevant?
- Need for current data needs explored.
- Current status of the health of the watershed is needed.
- Actions must include Environmental Control Ordinances. A list of existing local water quality control ordinances is available on the SCWC web site.
- Additional environmental control ordinance needs must be evaluated.
- Recent Public Forum identified (at least) ten substantive issues.

Phase II Plan

- Following the Large Group meetings and subsequent breakout and meetings of the four established, inclusive work groups, the SCWC recognized the need for better public education concerning the Plan and the need for a Technical Data Review.
- The SCWC assembled a Technical Work Group list that included organizations and agencies with technical expertise and knowledge of the Spring Creek Watershed Basin.
- The Phase II Plan main goal is implementation of an integrated, one-water plan.
- A Phase III Plan will be tracking new data and evaluating success of Phase II Plan Implementation.
- The timeframe for completion of Phase II is one of months, not years.
- SCWC is requesting input concerning available data and the need for additional data on the health of Spring Creek Watershed.
- Implementation Strategies are needed.
- Goal Tracking strategies are needed.
- Data needs for Water Quantity and Water Quality must be determined.
- The Fish and Boat Commission representatives commented that some Macro-invertebrate data is old.
- The USGS recognizes there are data gaps in the status of the watershed's Water Budget, or the water in - water out balance.
- NVEC raised concerns about data gaps in stream base flow impact from water withdraw.
- NVEC requested current data on the amount of impervious surfaces in the watershed. Available estimates are a few years old and place impervious surfaces at approximately 15%. (Other watershed studies have show that over 10% impervious surfaces are deadly to native trout populations. The Spring Creek trout population persists due to the karst geological formations that provide cold water spring habitats.)
- PSU may have arial survey data of impervious surface area in the watershed.
- LIDAR (Light Detection and Ranging) satellite data may help identify thermal degradation and stormwater inflow.
- The overall consensus was that there is a large amount of data available, but the data must be brought together and synthesized into a coherent whole to properly evaluate the health of the watershed.
- Request to bring in data sets to the SCWC website
- A Google Docs site will be available to submit data to the SCWC website or links to data sets may be sent to info@springcreekwatershedcommission.org

Next Steps

The Technical Work Groups will meet again in breakout groups to evaluate data on Water Quantity and Water Quality as follows (2018 dates):

- State of health of the watershed, review of current data, and set parameters for analysis:
  August 30 - Water Quantity; September 6 - Water Quality
- Data gap identification - are we missing information and do we need new data to make decisions:
  September 13 - Water Quantity; September 20 - Water Quality
- Technical recommendations development:
  September 27 - Water Quantity; October 4 - Water Quality
- Meeting to share findings and to plan for 1st Community Meeting:
  October 11 - Full Technical Workgroup
- 1st Community Meeting:
  October 18