

**Poquessing Watershed Partnership Meeting**  
**Wednesday, March 30, 2011, 9:00 AM to 11:00 AM**  
**Delaware Valley Veteran's Home**

**See list of attendees at end of minutes.**

**Meeting Minutes**

Please note that these minutes and the PowerPoint presentations shown at the meeting are being posted at [http://www.phillywatersheds.org/poq\\_working](http://www.phillywatersheds.org/poq_working)

**Welcome and Introductions**

Paul Racette welcomed the Partners and provided an overview of meeting to follow, which addressed the status of:

- Benjamin Rush State Park development activities
- Data collection across the watershed
- The Act 167 stormwater management plan

Paul also asked attendees about public education and outreach opportunities. He was offered the following suggestions which will be followed up on:

- Bensalem Casino Park development (Paul will follow-up with Ron Gans).
- Lower Southampton detention basins (Paul will follow-up with Wayne Kiefer).

**Benjamin Rush State Park**

Eric Ihlein, the Park Manager for the Fort Washington/Benjamin Rush State Park Complex, provided the following update on Benjamin Rush development activities:

- Park development plans initially developed in 1985.
- Plans bid in 1995; 4.5 million dollar bid but only had 2.5 million dollar budget.
- Plans revised to be a more passive park (e.g. trails, bikes, gardens, model airplane field, kiosk for education materials, and small rest room) along with a new entrance through the Delaware Valley Veteran's Home entrance.
- Construction phase again now being advanced, with goal of fall 2011 construction start. This would result in construction timeline that would preclude use of park (e.g. gardens and airplane field) for 2012 season.
- Park trails would be passive, and could be connected to Fairmount Park parcels up and down stream of state park.
- PWD stormwater permits have been approved; they include installation of catch basins.
- Major park issue is illegal all terrain vehicle use of park (from dirt bikes to trucks).
- Another issue is erosion resulting from discharge from National Archive stormwater basin onto park road. This has caused road washout and a road access issue. Paul noted that in his check-in with PWD he was informed basin was installed according to plan and that this is now a maintenance issue. Eric noted that he will request a meeting with facility and Councilman O'Neill. The Archive may be planning to create stormwater management credits under the new PWD stormwater rate structure, which could open up an opportunity to address this erosion.

## **Poquessing Watershed Comprehensive Characterization Report**

Jason Cruz, an Aquatic Biologist with the Philadelphia Water Department (PWD) provided an overview of biological, physical, and chemical data collected in the watershed. His presentation is available for review at [http://www.phillywatersheds.org/poq\\_working](http://www.phillywatersheds.org/poq_working), and the full collection of data has been compiled into a Comprehensive Characterization Report, which is available at [http://www.phillywatersheds.org/doc/Poquessing\\_CCR.pdf](http://www.phillywatersheds.org/doc/Poquessing_CCR.pdf) (for report) and [http://www.phillywatersheds.org/doc/Poquessing\\_CCR\\_Appendix.pdf](http://www.phillywatersheds.org/doc/Poquessing_CCR_Appendix.pdf) for appendices. The report documents base line information about the stream and identifies problem areas.

A short summary of report is as follows:

- Land use in the watershed is primarily residential and industrial/commercial.
- There is much infrastructure (e.g. bridges and culverts) in the flood plain.
- There are 485 outfalls documented in the watershed.
- Flow data from USGS stream gauges was reviewed, most notably the 45 years of year round flow data from Grant Avenue station.
- Stream flow has been documented to be 63% contributed by runoff and 37% contributed by baseflow. This is a reverse of what is typically found in natural, non-impacted streams.
- The watershed can be characterized as impacted by urbanization, with excessive amounts of algae and sediment. This has resulted in sections of the watershed being listed in 2002 by PADEP as not meeting the designated aquatic life use of a warmwater fishery. Required pollution reductions will be set in a Total Maximum Daily Load (TMDL) assessment, scheduled to be completed by 2015.
- Likewise, polychlorinated biphenyls (PCBs) have been documented in the mouth of the Poquessing, with required PCB reductions to be set in a TMDL assessment to be completed by 2019.
- Stream monitoring stations that continuously collect data have documented the following water quality conditions:
  - High turbidity during wet weather.
  - Elevated stream temperatures. During the 2007/2008 assessment water quality standards tended to be violated in spring rather than critical summer period, but this is mostly related to ambient air temperature and variable from year to year.
  - High conductivity (up to 5-times saltier than the tidal Delaware River) during dry weather.
  - Dissolved oxygen concentrations are typical for a warm urban stream; only 2.5% of the time was dissolved oxygen below water quality standards during dry weather and this mostly occurred at one sampling location.
- Stream monitoring stations that collected grab samples (e.g. wet weather samples collected within 20 minutes of a storm) have documented the following water quality conditions:
  - Fecal coliform standards exceeded in swimming season, during both dry and wet weather conditions.
  - Nutrient levels do not appear to be causing dissolved oxygen impacts. High nutrients may trigger algal blooms, which then can result in adverse reductions in dissolved oxygen during the night. But this has not been documented as an issue in the Poquessing. However, nutrients carried into the stream during wet weather may cause excessive algae growth and imbalanced biological communities.
  - Aquatic life is severely impaired. No macroinvertebrates (bugs) such as stoneflies and mayflies which indicate clean stream conditions were found in Poquessing. Likewise, fish populations are reduced; fair or good populations compared to reference stream at French Creek. Fish found with deformities and tumors.

- One positive trend is the presence of American Eels throughout the Poquessing system.
- An assessment of the physical condition of stream demonstrates that the quality of habitat is marginal. Habitat may be deteriorating, but PWD is concerned that there may have been some stream habitat assessment method bias between 2002 and 2008 studies.

**Updates and Status of Poquessing Act 167 Stormwater Management Plan (Watershed Plan Advisory Committee Meeting No. 3)**

Paul DeBarry, Water Resources Project Manager for NTM Engineering Inc. provided the Act 167 update. His presentation is available for review at [http://www.phillywatersheds.org/poq\\_working](http://www.phillywatersheds.org/poq_working).

A summary of the update is as follows:

- Review of Goals of the Plan
  - Develop Act 167 watershed wide stormwater ordinance that addresses redevelopment and new development.
  - Identify problem areas in the watershed and recommend problem resolution approaches (e.g. stormwater best management practice projects).
- Status of Municipal Data Collection Forms
  - Paul D. presented a summary table to data submitted by municipalities. Lower Southampton (Wayne Kiefer, engineer with Township) will check into submitting data forms. Paul D. has received forms from other townships (with exception of Upper Southampton which just has a very small sliver of the Poquessing within its boundaries).
- Problem Areas
  - Paul D. described some of the problem areas already identified, related to flooding, erosion, sedimentation, invasive plants, ATV trails, and other issues. He encouraged municipalities to report on problem areas. He noted that part of Act 167 effort is to identify solutions to problems including cost estimates.
- Updated Mapping
  - Paul D. summarized some of the mapping being done, including structures on flood plain, stormwater management facilities, and problem areas.
- Collection of Comments on Sample Act 167 SW Ordinance (Tacony)
  - Paul D. reminded partners that the final Act 167 ordinance for the Tookany/Tacony-Frankford Watershed was distributed at last meeting. Partners can review to understand content and scope of Poquessing ordinance. Please provide him with any comments.
- Next Steps (finalize stormwater problem areas, finalize detention basin analysis, conduct stormwater modeling, establish management criteria, and develop draft report and ordinance.
- Schedule, Timeline: Paul D. presented a schedule that extends through to April 2012.

**Partner Updates** – Updates from partnership members

Michael Thompson reported that the Philadelphia City Planning Commission (PCPC) is accepting comments to the DRAFT Citywide Plan of *Philadelphia2035: The Comprehensive Plan* through to April 30, 2011. See details at [www.phila2035.org](http://www.phila2035.org).

**Meeting Attendees**

<b>Last Name</b>	<b>First Name</b>	<b>Affiliation</b>	<b>Tel.</b>	<b>E-mail/website</b>
Belfield	Tony	Bensalem Township Environmental Advisory Board/Bucks County Open Space Review Board	267-229-3462 (c) 215-244-6890 (o) 215-244-6895 (f)	<a href="mailto:belfield@brilliantlewis.com">belfield@brilliantlewis.com</a>
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Thompson	Michael	Philadelphia City Planning Commission	215-683-4632 215.683.4630 (FAX)	<a href="mailto:michael.thompson@phila.gov">michael.thompson@phila.gov</a>
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