Delaware Regional Water Resources Committee Meeting

March 24, 2010 9:30 am – 12:00 pm

DEP Southeast Regional Office 2 East Main Street Norristown, PA 19401

DRAFT Meeting Summary

Committee Members in Attendance:

Ken Najjar (alt. for Carol Collier)

Tracey Maloney (phone)

Jeffrey FeatherstoneMichael MeloyHelen HaunBarbara SmithDesiree Henning-DudleyMichael Stokes

John Hoekstra (phone)

John Woodling (phone)

M. Irvil Kear (phone)
Preston Luitweiler

Committee Members Not in Attendance:

Richard Burke Curtis Kratz
Allen Fidler Howard Neukrug
Julie Lyn Gallisdorfer Pete Snyder

Hon. Kate Harper

Others in Attendance:

Dave Jostenski, DEP

Mike Hill, DEP

Bill Manner, WMJ Env.

Michelle Clark, DEP

Al Guiseppe, SSM

Jon Meade, PEC/POWR

David Sayers, DRBC

Kent Barr, DRBC

Joe Buczynski, DEP (phone)

Carl Deluca, DEP (phone)

Rebecca Kennedy

Michael Stokes, Chair opened meeting.

Officer Elections

Nomination by Michael Meloy and second by Jeffrey Featherstone for Mike Stokes as Chair and Preston Luitweiler as Vice-chair. Motion passed unanimously.

Water Conservation TAC Update

A thorough update on the Water Conservation Technical Assistance Center was provided by Jon Meade who represented both PEC (Pennsylvania Environmental Counsil) and POWR (Pennsylvania Organization for Watersheds and Rivers – a supporting organization of PEC) who have been contracted to set up the TAC.

They are currently about half way through the work that has included a business plan, incorporation, website and outreach program. The website is planned to go live in June or July. A good number of questions and suggestions on the TAC were presented to Mr. Meade.

CWPA Nominations

Dave Jostenski introduced the committee as to the purpose and primary goal of the meeting in deciding on watersheds that would be forwarded as recommendation for CWPA designation to the Statewide Committee. Mentioned was the purpose of the Statewide subcommittee meeting to be held on Friday, March 26th in Harrisburg.

Ken Najjar then provided an overview and handouts that included the attached Summary of the Delaware Region Candidate Watersheds, a table for each watershed of criteria for selection (Neshaminy Creek Tribs, Brodhead Creek and Little Lehigh Creek), and a summary of Public Comments.

As part of the discussions on the Little Lehigh Creek, Rebecca Kennedy talked about her recent discussions with everyone who had commented on the Little Lehigh Creek proposed CWPA designation, including the Lehigh County Authority, the Lehigh Valley Planning Commission and the City of Allentown. Points Rebecca covered:

- The Little Lehigh Creek is the drinking water source for the City of Allentown, which is Pennsylvania's third-largest city. Insuring an adequate water supply for the city into the future is a high priority.
- Wells drilled into the Little Lehigh Creek watershed are the drinking water source for a large rapidly urbanizing suburb of Allentown.
- There appears to be a clear agreement on all sides from the standpoint
 of environmental advocacy, utility/engineering, and regulatory agencies,
 that there simply is not sufficient information on the nature, flow paths,
 quantity, and aquifer/stream flow characteristics of the Little Lehigh, its
 watershed, and its underground aquifers, to make adequately informed
 decisions about issues like ground and surface water withdrawals, sewage
 outfalls and pumping, water use restrictions, and other critical public water
 supply issues.
- Having this information is imperative if the integrity and water quality of the Little Lehigh Creek and its aquifer are to be protected.
- The nature of the basin its carbonate geology make it a particularly difficult to understand, complex system.
- Decisions are being made all the time in fact, some are in limbo at this moment – based upon this completely inadequate information. At the same time, threats of lawsuits on both sides reveal the vulnerabilities of not having good hydrology information.

- A high-precision ground and surface water model has just been created by SSM for the wellhead protection program, based upon a great deal of surface and ground water pumping and drawdown information. This model has the potential to be the jumping-off point for a detailed, accurate picture of the water budget for the Little Lehigh Creek watershed.
- Although the parties appear, based upon the comments provided to PADEP, to be very polarized about the CWPA designation, there is general agreement that further work needs to be done, and all parties are positive about participating in this work.

Following the discussions, a motion was raised by Preston Luitweiler that all three watersheds be tabled (returned back to DEP) and a prioritization level be given as Brodhead 1; Little Lehigh 2; and Neshaminy 3.

Further discussions on this led to a final motion from Ken Najjar that was seconded that all three watersheds be recommended for designation to the Statewide Committee with a prioritization or ranking of: Brodhead 1; Little Lehigh 2; and Neshaminy 3. The motion carried by a majority of 8 votes in favor.

Follow-up/Next Steps

No meetings have been scheduled. Future meetings will be on an as-needed basis.

Technical Sub Committee of the Statewide Committee meeting on March 26 in room 105 of the RCSOB Harrisburg at 9am and the Statewide Committee meeting on April 28th at 9:30 am at the PA Fish and Boat Commission, Harrisburg.

Summary of Delaware Region CWPA Candidate Watersheds March 24, 2010

Watershed	Summary Information
Neshaminy Creek (Park Ck, Little Neshaminy Creek, Mill Ck, Pine Run)	 Tributaries meet criteria for selection (see Table 1). No public comment, support or opposition. Watersheds appear to be good size for study and implementation purposes.
Brodhead Creek	 Meets criteria for selection (see Table 2). Public comment provided in support primarily from county planning and environmental groups. Opposition from water purveyors- East Stroudsburg and Brodhead Creek Regional Authority. Verification work and public comment regarding net withdrawals has not shown overwhelming evidence that the screening indicators are being exceeded under existing (2003) conditions. However, population growth and associated future demands and potential threats of impairment indicate the watershed, which contains 376 miles of HQ/EV streams, would benefit from designation and development of a CARP for preventative and protective reasons.
Little Lehigh (excluding Jordan Creek)	 Meets criteria for selection (see Table 3). Public comment in support came primarily from environmental groups. Opposition from water purveyors – Lehigh County Authority (LCA) and the City of Allentown as well as Lehigh County Planning Commission. While verification work shows the watershed exceeds screening indicators, the watershed possesses complex hydrologic and geologic characteristics for which the verification work was not able to precisely model. However, designation and development of a CARP may be of benefit for the watershed in helping to better understand those complexities, help facilitate infrastructure needs, address water quality concerns and growth within the watershed to protect and improve the water resources.

Table 1. Neshaminy Creek Tribs (Park Ck, Little Neshaminy Creek, Mill Ck, Pine Run) Criteria for Selection

Category of Factor Factor		Applied to this watershed
supply issues		78% of withdrawals by all sectors attributed to public water supply. Doylestown B. drought restrictions 2007, Restrictions Doylestown Twp, 2001-2002
Negative Screening Indicators (SI) and/or percentage	Negative SI, SIP numbers at pour points	Negative SI's at 11 points within the watershed.
(SIP) at pour points	Relatively high magnitudes of negative SI, SIP	Wide ranges of SIP's due to withdrawals and sewage discharges as returns. See verification report for details.
	Groupings of negative pour points	No negative pour points in lower portion of basin. Three clustered areas of negative pour points along Pine Run, Park Creek, Little Neshaminy Creek, Mill Creek.
Population	Population densities	Watersheds characterized by dense boroughs with some low density townships. Highest densities in Upper/Middle watershed located in Lansdale and Hatfield and Newtown Boroughs. See Rivers Conservation plans for details.
	High projected population growth	Delaware Regional Planning Commission projects 22% growth from 2000 to 2020 in Little Neshaminy watershed and a 33% increase between 2000 and 2025 for the Upper/Middle Neshaminy Creek Watershed area.
Development	Projected water demand from industry and other sectors	Industry projected to diminish with substantial projected increases (63%-DEP) in Commercial employees between 2002 and 2030.
Watershed Size	Small watersheds < 50 mi	Large > 50 mi ²
Stream Designations	Extent of HQ/EV streams	None
Existing problems	Existing water resource issues such as flooding, stormwater, drought, water quality	Effects of development, including point-source discharge and runoff account for about 43% of stream impairment. During extremely low flow periods, streamflow is largely discharge dominant. Stormwater from developed areas has caused streambank erosion and flooding. Rivers Conservation plans provide details.
Existing Planning Investment	Presence of Storm Water 167 plans, rivers conservation plans, source water protection plans etc.	Rivers Conservation Plans – Upper/Middle Neshaminy (2003), Little Neshaminy Creek (2007), Neshaminy Creek (1998). Act 167 Planning completed, updating.
Solutions to problems	Potential for viable solutions	

Table 2. Brodhead Creek Criteria for Selection

Category of Factor	Factor	Applied to this watershed				
Water Supplies	Documented water supply issues	Possible drought related. See Existing Problems category below.				
Negative Screening Indicators (SI) and/or percentage (SIP) at pour	Negative SI, SIP numbers at pour points	Negative SI's at eleven points within the watershed.				
points	Relatively high magnitudes of negative SI, SIP	Between -3.5% up through -414.5% with majority below -55%.				
	Groupings of negative pour points	Clustering of negative points in headwaters of Brodhead with predominately public water use. Clustering on Swiftwater Creek, an area that has since 2003 received public water. Clustering on Sambo Creek perhaps due to sensitivity of modeling from evaporative loss.				
Population	Population densities	Urbanization and higher densities primarily around Stroudsburg and Rt. 611 corridor.				
	High projected population growth	From DRBC information, watershed has highest projected growth rates for population and non-manufacturing employment in the PA Delaware Basin. Current population density is second lowest. 2003 base year computations may not capture current impacts. USGS references population of Monroe County to increase by 70% between 2000 and 2020.				
Development	Projected water demand from industry and other sectors	Commercial development "Wall Street West" at east side of watershed near Rt. 209. Potential Marcellus shale gas development.				
Watershed Size	Small watersheds < 50mi ²	> 50 mi ²				
Stream Designations	Extent of HQ/EV streams	376 mi HQ				
Existing problems	Existing water resource issues such as flooding, stormwater, drought, water quality	Flooding lower end 2005 and 2006. Storm water plans may specify local flooding issues. East Stroudsburg voluntary restriction July 2007 due to low reservoir levels. All of Monroe County PWS emergency status 2/2002 through 5/2002.				
Existing Planning Investment	Presence of Storm Water 167 plans, rivers conservation plans, source water protection plans, etc.	Rivers Conservation Plan 2002, Act 167 plans: Brodhead and McMichaels Creek 2006.				
Solutions to problems	Potential for viable solutions	Regional planning to prevent future problems due to projected demands.				

Table 3. Little Lehigh (excluding Jordan Creek) Criteria for Selection

Category of Factor	Factor	Applied to this watershed				
Water Supplies	Documented water supply issues	Non essential water bans in watershed. Demands currently exceeding supply for one supplier. Planning shortcomings and issues on intra-basin transfers.				
Negative Screening Indicators (SI) and/or percentage (SIP) at pour points	Negative SI, SIP numbers at pour points	Negative SI's at locations within Little Lehigh and Jordan Creek in which withdrawals and public sewage returns outside watershed are significant factors. As previously described, affect of unique characteristics of karst geology may not be reflected through modeling.				
	Relatively high magnitudes of negative SI, SIP	Up to -300% in two locations				
	Groupings of negative pour points	Groupings exist in the Jordan on a tributary, at the lower end of the Little Lehigh and spread along the southern reach of the Little Lehigh upstream of Emmaus Borough.				
Population	Population densities	High densities in the Little Lehigh to a lesser extent in the Jordan.				
	High projected population growth	DEP projects over 13% increase in population within watershed between 2000 and 2030. LVPC projects about 28% population growth in Lehigh County for same time period.				
Development	Projected water demand from industry and other sectors	Rapid change in land use in watershed from agriculture to office/industrial park that may translate to increased water demand.				
Watershed Size	Small watersheds <50 mi	>50 mi ²				
Stream Designations	Extent of HQ/EV streams	See map in verification report. Predominance of HQ streams.				
Existing problems	Existing water resource issues such as flooding, stormwater, drought, water quality	Stormwater and flooding issues have existed in watershed. Documentation of dry stream beds in Jordan Creek.				
Existing Planning Investment	Presence of 167 plans, rivers conservation plans, source water protection plans, etc.	167 plans, DCNR Rivers Conservation plans and Source Water Protection work completed or underway.				
Solutions to problems	Potential for viable solutions	Potential solutions to near or short term issues through interconnection of water systems.				

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	Watershed	Organization / Agency / Individual	Signer	Testimony Dated / Letter Dated	Letter Received	Position	Comments
Т	Brodhead	Meiser & Earl, Inc.	Jay F. Lynch	11/5/2009		Against	 August 2009 document does not provide strong evidence of meeting the designation criteria of Guidelines High-yield public water-supply wells possible in headwaters without affecting stream flow on a 1 to 1 ratio Buck Hill Water Company - issue with the discharge not being included (DRBC staff note: did include a discharge at the location of the NPDES permit for a Buck Hills Inn) Questions how methodology treats on-site septic systems supplied by public water as 100% consumptive Aventis site now receiving water from Brodhead Creek Regional Authority Impoundment evaporative loss on water supply reservoirs questioned and its relationship to Q710 Very strongly criticizes the regression equation used to calculate Q710 Feels its premature to label Brodhead Creek as CWPA, suggests further testing through a partnership over the next 3-5 years
	Brodhead	R.K.R. Hess Associates	Russell D. Scott	11/25/2009	11/25/2009	Against	 Premature to label Brodhead Creek as CWPA Water supplied by Buck Hill Falls Water Co. is discharged back into Brodhead as treated effluent via stream outfall (DRBC staff note: did include a discharge at the location of the NPDES permit for a Buck Hills Inn) Swiftwater Creek - should no longer be considered problem area due to Sanofi Aventis being supplied with public water Sambo Creek - water supplier is actually "Borough of East Stroudsburg," not ES Municipal Authority Evaporative loss on water supply reservoirs questioned and its relationship to Q710, questioned Q710 estimations given gage info provided in report at Minisink Hills Brodhead Creek is not critically impaired Being considered based on projected future population growth & demands Data from existing stream gages should be used for assessment as CWPA, if withdrawals are being estimated there should be estimates for the wastewater also Both the Brodhead Creek Regional Authority and the Borough of East Stroudsburg's opinion - premature to make a CWPA
	i Brodnead i	Brodhead Forest and Stream Association	Arnold S. Hoffman	11/10/2009	11/23/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
Т	I Brodnesd I	Brodhead Watershed Association	Patricia M. Kennedy	11/9/2009			Community member, has watched fluctuations in McMichael's Creek for 3 years Notes BCRA installation of sewer lines in her neighborhood and generally questions what this means for development.
		Brodhead Forest and Stream Association - Culbro, LLC. Letterhead	Edgar M. Cullman, Jr.	11/8/2009	11/16/2009		Pleased at consideration for CWPA, notes trout habitat and development in the region.
	Broonbao	Brodhead Forest and Stream Association	Daniel E. Gold	11/8/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
	I Broomban	Brodhead Forest and Stream Association	Donna Wazo	11/8/2009	12/1/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
	Rrodhaad	Brodhead Forest and Stream Association	Doug Swift	11/8/2009	12/1/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
Т	Brodhead	Brodhead Watershed Assoc.	Edie Stevens	11/9/2009		Support	Comments most strongly pertain to growth in the region and need for sound planning to manage it. Forests critically important to drinking water List of top scoring watersheds for drinking water-East Branch Del., Middle Del-Mongaup-Brodhead, Upper Del. quoted from USFS publication (abstract and table attached) Buck Hill Creek headwaters decreased with deep wells drilled in a neighboring watershed. Possible 30% loss in stream base flow in future
	Brodhead	Eugene Patrick Hughes, Jr.	Eugne P. Hughes, Jr.		11/23/2009	Support	Short note of support.

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v	Vatershed	Organization / Agency / Individual	Signer	Testimony Dated / Letter Dated	Letter Received	Position	Comments
E	Brodhead	Henryville Flyfishers	Richard J. Shackleton	11/11/2009	11/16/2009	Support	Firmly supports protection of the Creek. Notes its renowned trout fishing. Comments on threats of "overpopulation, overdevelopment, and excessive withdrawal of groundwater" Urges nomination.
E	Brodhead	Monroe County Conservation Dist.	Craig Todd	11/19/2009	11/23/2009	Support	Notes HQ and EV streams and the wastewater that development will bring. Comments that stream is at assimilative capacity already on the Brodhead located at the mouth of the Delaware. Notes that the watershed has numerous interested parties and a variety of resources available to contribute to a CWPA, which is mentioned as "the next logical step".
i i	Brodhead	Monroe County Planning Comm.	Edward Cramer	11/5/2009	11/9/2009	Support	"Sufficient evidence to support the nomination of the Brodhead Watershed for the CWPA designation"
E	Brodhead	Monroe County Watershed Alliance	Trish Attardo	11/6/2009	11/9/2009	Support	Notes HQ EV streams and valued watershed for CWF and PWS. Notes development pressures and recent development of commercial corridors. Urges CWPA and associated planning to help effectively manage future public water and wastewater systems. Notes the resources of the regions 4 watershed groups as valuable to helping the CARP process.
	Brodhead	Brodhead Forest and Stream Association - Peter J Soloman Company Letterhead	Unreadable	11/10/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
E	Brodhead	Pike County Office of Planning	Scot Boyce, Jr.	11/17/2009	11/23/2009	Support	Extends full support, interested in protecting the watershed from commercial and residential development. Urges planning for aquatic and PWS needs. Both the Pike County Office of Community Planning and the Pike County Planning Commission support. Feel nomination is consistent with the Pike County Comprehensive Plan and Pike County Open Space Plan.
E	Broaneaa	Brodhead Forest and Stream Association	Richard Pomuartz	11/8/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
E	Broaneaa	Brodhead Forest and Stream Association	Roger Hess	11/8/2009	11/23/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
i i	Brodhead	Brodhead Forest and Stream Association	Tracey Warmus	11/8/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
1	Brodhead	Brodhead Forest and Stream Association	Unreadable	11/8/2009	11/24/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
1	Rroandaa	Brodhead Forest and Stream Association	William Geddes	11/8/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
	Broonead	Brodhead Forest and Stream Association	Susan Brozena	11/9/2009	11/16/2009	Support	Pleased at consideration for CWPA, notes trout habitat and development in the region.
T	Brodhead	Monroe County Commissioners	Theresa Merli	11/9/2009		Support	Highest projected growth rate (residential and commercial) Number 1 listed concern in The Monroe County 20/20 Comprehensive plan is to preserve and enhance natural resources including water quality and quantity, also item in Brodhead River Conservation Plan and other local publications. Point is that there is a community of concerned groups willing to participate in the CWPA/CARP process. The development of a CARP in the Brodhead as the logical next step.
T Li	ittle Lehigh	Lehigh County Authority	Liesel Adam	11/9/2009		Against	 DEP's suggestion that water use restrictions serve as evidence of existing water supply shortages in the basin is a misrepresentation. Believes the restrictions were driven by issues of pipes and pumps, rather than actual water availability Current data not adequate to draw conclusion Screening model may not be appropriate method to evaluate complex carbonate geology Support gathering data

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	Watershed	Organization / Agency / Individual	Signer	Testimony Dated / Letter Dated	Letter Received	Position	Comments
	Little Lehigh	Lehigh County Authority	Aurel Arndt	11/24/2009	12/2/2009	Against	 Comment on delays in projects to expand wells to meet demands resulted in water-use restrictions, not inadequate supplies. Nomination made without proper justification Complex carbonate geology Wastewater system, which is tied to negative pour points, provides important economic growth and environmental quality and is part of planned approach and not reflective of safe yield impacted. LCA has agreed to meet additional water demands by purchasing increasing amounts from City of Allentown Offers 3 graphs in contrast to Supporting Documentation Lack of local representation on the regional cmmt. has resulted in analysis of data that may not reflect actual conditions LCA claims to have never received an opportunity to comment or participate in verification process. No funding mechanism to conduct CWPA. CWPA would place burden on LCA and City without funding. Data required for further analysis. LCA willing to participate collaboratively through other avenues.
Т	Little Lehigh	Jane Benning					South Mountain significant part of watershed Recognized as exceptional & threatened
Т	Little Lehigh	Sierra Club	David K. McGuire, Ph.D.				Supports an upgrade to EV CW stream. States: Exponentially increasing withdrawal by LCA, sewage leaks form LCA pipes, and general abuse by LCA Lack of storm water management plans
	Little Lehigh	Wildlands Conservancy	Christopher Kocher	11/24/2009	12/1/2009	Support	Notes the streams HQ CWF status and naturally reproducing brown trout population. Also its water supply function. Mentions its policy of supporting any policy of protection of natural resource.
Т	Little Lehigh	Janet Keim		11/9/2009			Notes that the stream has gone dry numerous times during her lifetime. Also mentions that since the interceptors construction sewage lines have leaked into the Little Lehigh during periods of heavy rains.
	Little Lehigh	City of Allentown	Mayor Ed Pawlowski	11/25/2009	12/4/2009		Nomination made without proper justification: deficits shown in the water budget result from placement of pour points, groundwater in the area is fine as evidenced by consistent yields from Schantz and Crystal springs, LCA restrictions related to project delays and not shortage of water resources. Believes L.Lehigh becoming a CWPA will needlessly hinder economic viability of the City and surrounding area.
Т	Little Lehigh	Rob Hamill	Rob Hamill	11/9/2009		Support	Provided documentation in addition to his testimony in the form of emails and a letter to an unnamed addressee. Discusses the streams headwaters going dry in the 60's, 70's and '81 due to transfers of water out of the basin and expresses concern over LCA selling water to bottling company.
	Little Lehigh	Trout Unlimited?	Stacey Reed (possibly supplied by Rob Hamill as well)	Unknown	Unknown		Appears to be a mass email from Stacey Reed of Trout Unlimited to interested parties urging them to read an article in the June 29, 2009 Morning Call newspaper. The article details the restrictions enforced on the LCA's customers at the time due to concerns that demand would exceed supply.
	Little Lehigh	Little Lehigh Watershed Coalition	Jay Goldstein	Unknown	Unknown	Support?	Appears to be testimony from some other forum, which consists of numerous quotes form various documents regarding stream quality, PADEP and EPA. As a stand alone document this is a bit vague and difficult to understand the stance of the subcomittee.
		Miscellaneous	Miscellaneous	Unknown	Unknown	Support	Collection of newspaper clipping reporting on instances of the Little Lehigh going dry. Letter to DRBC Ex. Director Goddard drawing attention to report "Water Resources of Lehigh County. Pennsylvania Geological Survey, Water Resources Report 32." Also included 2000 letter to City of Allentown drawing attention to high turbidity levels in the Little Lehigh
		Lehigh Valley Planning Commission	Geoffrey Reese	12/17/2009	12/22/2009		 Acknowledges and supports the written testimony prepared by the City of Allentown and Lehigh County Authority. (PADEP not meeting CWPA guidelines, questioning suse of screening tool in complex geology, lack of consideration of reduced PWS useage over past 30 years, and lack of consideration of partnership between the city of Allentown and LCA) LVPC claims to have not recieved an opportunity to comment or participate in verification process Feels DEP has provided insignificant justification for nomination, insufficient stakeholder input Requests more scientific proof, and stakeholder involvement before moving forward with nomination process