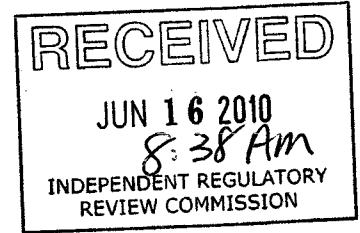


2783

EMBARGOED MATERIAL

From: John Miller [jmiller@princetonhydro.com]
Sent: Tuesday, June 15, 2010 5:47 PM
To: IRRC
Subject: Docket #2783 - An engineer's support of stream buffers
Attachments: Miller.pdf



Dear IRRC:

While my email comes to you later in the day due to my extensive travel early this week, please accept this comment on your Docket #2783. I am attaching my CV so you know my background. My CV does not tell you that I was born, raised and lived in Pennsylvania for 29 years and I deeply care for the Commonwealth and its natural resources.

Watercourse buffers have origins in the timber logging industry and have show marked protections to streams. New Jersey has instituted both Category One (equivalent to Special Protection Waters in Pennsylvania) buffers and Riparian Zone buffers for regulated floodplains and tributary streams.

Buffers are not only superior for stormwater management. They help with flood control, nutrient production due to stream bank stabilization, habitat and survivability of trout and other fish species and protect costly infrastructure to name a few benefits.

If considering the "taking" of lands for buffers, consider this - is it not a taking to increase stream erosion eating land on downstream properties; increase flooding on downstream lands; lowering water quality in downstream water bodies, parks, forests, and private lands; filling in flood control structures and water supply reservoirs?

Consider the No-Adverse Impact important contributions of buffers - you are protecting the property, livelihood and safety of your Pennsylvania visitors and the citizens (taxpayers) . This is a financial decision as much as an environmental decision. I ask you to consider in your deliberations.

Thank you kindly,

John A. Miller, P.E.*, CFM

Associate : Water Resources Engineer

PrincetonHydro.com : 908.237.5660 : c.609-203-8935

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*P.E. in DE, ME, NJ, NY, PA

2783

EMBARGOED MATERIAL

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JUN 16 2010
8:38PM
INDEPENDENT REGULATORY
COMMISSION

John A. Miller, P.E., CFM
Associate; Water Resources Engineer

Princeton Hydro



Education:

- B.C.E., Civil Engineering, Villanova University, with honors, Villanova, PA, 1993;
- Graduate courses at Villanova University.

Professional Certifications:

- Professional Engineer:
 - New Jersey
 - Pennsylvania
 - New York
 - Delaware
 - Maine
- Certified Floodplain Manager, Association of State Floodplain Managers (ASFPM).

Professional and Volunteer Affiliations:

- Member, Passaic River Basin Flood Commission; created by the Governor of New Jersey by Executive Order, appointments by the Commissioner of the New Jersey Department of Environmental Protection, 2010;
- Member, Advisory Committee on Water Information (ACWI) appointed by the US Secretary of the Interior, representing the Association of State Floodplain Managers, advising the Federal Government on Federal water-information programs and their effectiveness
- Past Chair and founder, New Jersey Association for Floodplain Management (chapter of ASFPM) 2005-2006. Legislative Committee Chair 2007-2010; recipient of the 2006 NJAFM Founders Award acknowledging leadership;
- Member, City of Lambertville, NJ Planning Board, Chairman of Stormwater Committee, 2004-2010 and member of Emergency Management Council (local OEM). The City of Lambertville Mayor and Council formally recognized Mr. Miller's contributions by Resolution in January 2010;
- Alternate Member, Hunterdon County Planning Board, 2007-2010;
- Member of the Board of ASFPM as a Regional Director (Region 2 - New York, New Jersey, Puerto Rico and Virgin Islands), 2006-2009. Continued involvement with Association staff and leadership on national policy;
- President, New Jersey Section, American Water Resources Association, 2007 (Immediate Past-President 2008-2010, Vice President 2006, Secretary 2004-2005); recipient of the 2008 NJ-AWRA President's Award for time and dedication to the organization;
- Member of the New Jersey Governor's Flood Mitigation Task Force and Technical Subcommittee, 2005-2007.

Areas of Expertise:

- Stormwater management and stormwater management planning;
- Floodplain management and mitigation, policy and analysis;
- Forensic water resources analysis and expert testimony;
- Best Management Practice (BMP) water quantity and quality design and retrofits;
- National and state water resources policy;
- Wastewater planning, analysis, design and permitting;
- Hydrologic and hydraulic modeling.

Leadership:

Mr. Miller has shown a strong commitment to highlighting the importance of floodplain management by founding the New Jersey Association for Floodplain Management. Mr. Miller was the fourth Certified Floodplain Manager (CFM) in New Jersey (2004) and has greatly assisted the New Jersey Association for Floodplain Management reach 119 CFMs in the Spring of 2010. Recognizing Mr. Miller's strengths in stormwater and floodplain management, New Jersey Governor Codey appointed him to a 16 member Task Force in 2005 to address the substantial flood events impacting the region in 2004 and 2005. Again in 2010, New Jersey Department of Environmental Protection Commissioner Robert Martin selected Mr. Miller to serve on the Passaic River Basin Flood Commission; created by the Governor of New Jersey by Executive

Order, as one of two technical members on the seven-member Commission comprised of the Commissioner, a New Jersey assemblyman, two mayors from impacted municipalities, the Dean of Montclair University Science and Mathematics, and the Superintendent of New Jersey State Police.

In his leadership role as Chairman of the Stormwater Committee, the City of Lambertville was recognized by the Commissioner of the New Jersey Department of Environmental Protection for its early and comprehensive planning and implementation efforts. Mr. Miller and members of his committee have spoken to a variety of audiences offering advice, materials and a tailored ordinance. By Resolution in January 2010, the City of Lambertville Mayor and City Council formally recognized Mr. Miller's "dedication to the various projects and committees he serves" and "for his input and contributions to the flood water management programs, grants, and guidance offered to the City of Lambertville."

Summary of Qualifications and Background:

Mr. Miller manages projects and studies involving stormwater, floodplain and wastewater management. His interests include stormwater management planning and policy; floodplain management, analysis, mitigation and policy; land use, especially with regard to water resources and open space; forensic analysis; and expert testimony. With experience in urban stormwater management methods for more developed localities, he has designed and analyzed many proposed and existing structures including storm sewers, culverts, swales, water quality and detention facilities. He has frequently identified problems caused by inadequate stormwater drainage and applied various methods to correct them.

Mr. Miller has focused much of his energies on flood planning, analysis and mitigation. With regard to flood planning, he has extensive experience with Federal Emergency Management Agency (FEMA) all Hazard Mitigation Planning, specifically on examining mitigation of flood risk. He has worked on the production of two (2) New Jersey local all Hazard Mitigation Plans, seven (7) multi-jurisdictional all Hazard Mitigation Plans in New Jersey, Alabama and Louisiana and the update (near full replacement) of the New Jersey State all Hazard Mitigation Plan.

Mr. Miller utilizes his expertise in hydrologic and hydraulic modeling to offer clients sustainable floodplain management solutions that look beyond traditional engineering "hard" approaches. His work within Princeton Hydro has resulted in award-winning projects that include the creation and restoration of functioning wetlands and floodplains proven to attenuate flow and reduce flood damage and flood backflow prevention. Mr. Miller has overseen projects that include non-structural and structural techniques including infrastructure retrofit and upgrades and property acquisition to reduce community risk. As a Certified Floodplain Manager, he has the knowledge and background to assess if a FEMA grant program is a potential funding source for retrofitting a locale. He has a thorough understanding of FEMA policies, programs and with the suite of FEMA grant programs (FMA, PDM, HMGP, RFC and SRL).

Mr. Miller has completed and assisted in grant applications with Benefit Cost Analyses for property acquisitions, structure elevation and infrastructure retrofits for a culvert to prevent backflooding. He has worked with municipalities on identifying and prioritizing flood mitigation projects. He has assisted clients in determining if a project is eligible for the Federal Emergency Management Agency (FEMA) grant programs, prepared federal eGrant applications, developed concept and final designs, and managed projects from start to finish. Mr. Miller has completed two trainings on FEMA's Benefit-Cost modules – a vital component of any FEMA grant application.

In designing stormwater management facilities, he has experience with the NRCS (formerly SCS) TR-20 and TR-55 models. He has used the Army Corps of Engineers HEC-1 and HEC-HMS with HEC-GeoHMS GIS modeling extension for runoff and detention facility design and analysis and for normal dam operation and dam breach analysis. He has carried out many routing designs for detention and infiltration facilities. Mr. Miller has formulated a variety of outlet works to control flood stages and to meet requirements for permitted

discharge. Detention systems have been designed above and below ground. Mr. Miller uses his experience in hydrology in addressing drainage and flood problems and formulating retrofits to improve existing conditions.

Mr. Miller has modeled stream hydrology in the Army Corps of Engineers, HEC-2 and subsequent HEC-RAS with HEC-GeoRAS, River Analysis System, and has developed floodplain limits, including floodway and floodway fringe delineations for numerous streams. He has analyzed the effect of proposed structures or removal of structures, and fill in and along streams. Dam breach inundation limits have been determined through modeling in HEC-RAS.

Since beginning employment with Princeton Hydro in 2000, Mr. Miller has performed municipal reviews for subdivisions and land developments in New Jersey, Pennsylvania and New York, modeled stream hydrology in HEC-RAS to determine the floodplain delineation for numerous locations, developed construction and contract specifications for improvements or removal of deteriorated dams, performed erosion and sedimentation control calculations for stormwater management retrofits, prepared an operation and maintenance manuals for dams in New Jersey and Pennsylvania and developed an Emergency Action Plan for High Hazard dams in Pennsylvania. Working with a structural engineering firm, Mr. Miller and other engineers worked to bring Carnegie Lake Dam into compliance for Princeton University.

He has designed a variety of Best Management Practices (BMPs) including a wetland basin retrofit of an existing stormwater management basin, a water quality swale with inlet hood inserts in the Great Swamp Watershed in New Jersey, bio-filtration channels and water quality outlet for the Bronx Zoo in New York, sediment laden capture and conveyance system with a sediment chamber and polishing units in Pennsylvania, Master Plan and first phase retrofit of the Delaware River Basin Commission headquarters, modification of a stormwater management system for a residential development in the application review process to meet new regulations.

In his career, Mr. Miller has implemented many products to limit soil erosion and to capture and treat sediment laden stormwater runoff especially with respect to disturbed lands and unstable water bodies. Erosion prevention devices that have been implemented by Mr. Miller including soil reinforcement, rip-rap placement, and check dams. He had the first approved non-armored earthen spillway design with Pyramat, a turf reinforcement mat, as approved by the NJDEP Dam Safety Section for a dam reclassification project in Skillman, New Jersey.

Prior to joining Princeton Hydro, Mr. Miller worked as a design engineer at Chester Valley Engineers, Inc. from 1993 to 1999 where he designed subdivisions and land developments. His duties included plan preparation, storm water management design, storm and sanitary sewer design, site grading design, erosion and sedimentation control design, floodplain modeling, construction specifications, construction quantity and cost estimates, and preparation and organization of federal, state, and local permit applications. His site development background has given Mr. Miller a solid foundation for his expertise on the design of stormwater management systems, the land use process, forensic analysis, retrofit complications and expert testimony.

Expert Testimony:

Mr. Miller has been qualified as an engineering expert in stormwater and floodplain management by courts in Pennsylvania and New Jersey. He has been accepted as an expert witness by the Court of Common Pleas of Bucks County, Pennsylvania¹ and the Superior Court in Monmouth County, New Jersey in the areas of stormwater and floodplain management. Mr. Miller has provided expert testimony on behalf of applicants and interested parties in front of Planning Boards/Commissions, Zoning Boards of Adjustment and Governing Bodies. Locations include: Delaware Township, Hunterdon County, NJ; Middletown Township, Monmouth

¹ TSAG Associates, Inc. v. Bensalem Township Council, 78 Bucks Co. L. Rep, 692

John A. Miller, P.E., CFM
Associate; Water Resources Engineer

County, NJ; Bensalem Township, Bucks County, PA; Town of Kent, Putnam County, NY; Ewing Township, Mercer County, NJ; Hamilton Township, Mercer County, NJ; Franklin Township, Somerset County, NJ; Edison Township, Middlesex County, NJ; Hazlet Township, Monmouth County, NJ; City of Hoboken, Hudson County, NJ; South Plainfield Borough, Middlesex County, NJ and Franklin Lake Borough, Bergen County, NJ. Mr. Miller has also testified on behalf of the New Jersey Association for Floodplain Management before the New Jersey State Legislature - Assembly Statewide Flooding Legislative Panel. He is a stormwater expert for the State of New Jersey for the New Jersey State Police campus in West Trenton, New Jersey.

Selected Papers, Publications and Presentations:

John A. Miller, P.E., CFM. Local Flood Risk Awareness and Commonsense Actions. Lower Delaware River Wild and Scenic Management Committee Meeting. Frenchtown, NJ. June 7, 2010

John A. Miller, P.E., CFM, Robert Miller, CFM, Paul Miller, and David Robinson PhD. Talk on Flooding. Hunterdon County Planning Board Breakfast Talk. Flemington, NJ. May 26, 2010.

John A. Miller, P.E., CFM. Flooding and Waterways. Expert presentation to Focus Group for Nurture Nature Foundation made possible by grant from the National Science Foundation. Allentown, PA. April 20, 2010.

John A. Miller, P.E., CFM. National Public Radio, Lehigh Valley Discourse – Focus on Floods, Local Communities focus (hour long program). WDIY Allentown. April 1, 2010.

Adam Slutsky, P.E., CFM, John A. Miller, P.E., CFM, George N. Holzapfel, P.E., CFM & Salvatore DeSimone, CFM. The Community Rating System A Great Way to Save on Flood Insurance. New Jersey Municipalities (Magazine); New Jersey State League of Municipalities. November 2009.

John A. Miller, P.E., CFM. History of Flooding and Flood Control in NJ. Livable Communities and Living Rivers in New Jersey: Natural Flood Management through River Restoration - American Rivers - sponsored by the Geraldine R. Dodge Foundation. Morristown, NJ. September 22, 2008.

John A. Miller, P.E., CFM. Ely Creek Backflow Protection Project. The New Jersey Association for Floodplain Management (NJAFM) Third Annual Conference. Somerset NJ. November 19, 2007.

John A. Miller, P.E., CFM and Jeffrey S. Ward, CFM. Local Flood Mitigation in Delaware River Towns. Delaware River Greenway Partnership – Fall Forum. Lambertville, NJ. October 29, 2007.

John A. Miller, P.E., CFM. Planning for Floods and Local Mitigation. Lawrence Brook Watershed Partnership - Membership Meeting. Milltown, NJ. August 21, 2007.

John A. Miller, P.E., CFM. Flood Mitigation Projects. Stemming the Tide - Helping New Jersey Cope with Past and Future Floods. Hosted by U.S. Senator Robert Menendez. New Brunswick, NJ. August 8, 2007.

Laura M. Tessieri, P.E., CFM and John A. Miller, P.E., CFM. The Delaware River *Forces* Task Forces. Association of State Flood Plain Managers 2007 Annual Conference. Norfolk, VA. June 5, 2007.

John A. Miller, P.E., CFM and Timothy J. Korzun, Esq. Lambertville Stormwater Mitigation Ordinance. A Practical Approach to Navigating the Stormwater Rules - Raritan Basin Watershed Alliance. Somerset, NJ. May 31, 2007.

John A. Miller, P.E., CFM. Proposed NJDEP Flood Hazard Area Control Act Rules - A Very Quick Municipal Perspective. New Jersey Society of Municipal Engineers, Spring Meeting. Edison, NJ. April 2, 2007.

John A. Miller, P.E., CFM and Timothy J. Korzun, Esq. Lambertville Stormwater Mitigation Ordinance. 2007 Burlington County Stormwater Forum. New Jersey EcoComplex, Bordentown, NJ. March 8, 2007.

John A. Miller, P.E., CFM
Associate; Water Resources Engineer

John A. Miller, P.E., CFM and Mary Paist-Goldman, P.E. A Look at the New NJDEP Flood Hazard Area Control Act Rules. New Jersey Municipalities (Magazine); New Jersey State League of Municipalities. January 2007.

John A. Miller, P.E., CFM. Municipal Flood Mitigation. New Jersey State League of Municipalities 91st Annual Conference Session: Flood Protection and Mitigation. Atlantic City. November 15, 2006.

Mark Gallagher and John A. Miller, P.E., CFM. The Somerset County Wetland Mitigation Bank: Creating an Amenity to the Park System and Meeting Land Use Requirements. American Water Resources Association 2006 Annual Water Resources Conference. Baltimore, Maryland. November 9, 2006.

David M. DelVecchio and John A. Miller, P.E., CFM. Singing in the Rain - How Proper Flood Mitigation Can Keep Your Town High and Dry. New Jersey Municipalities (Magazine); New Jersey State League of Municipalities. October 2006.

John A. Miller, P.E., CFM, James K. Mitchell, Ph.D., Cleighton D. Smith, P.E., CFM. New Jersey Governor's Flood Mitigation Task Force. Association of State Flood Plain Managers 2006 Annual Conference. Albuquerque, NM. June 14, 2006.

John A. Miller, P.E., CFM and Timothy J. Korzun, Esq. Lambertville Stormwater Mitigation Planning. Stormwater Mitigation Workshop. Toms River, NJ. February 17, 2006.

John A. Miller, P.E., CFM. Delaware River Floods of 2004 and 2005. Annual Meeting of the Firman E. Bear Chapter of the Soil and Water Conservation Society. Freehold, NJ. December 9, 2005.

John A. Miller, P.E., CFM and Gregory Westfall. Local Floodplain Manager Survey. The New Jersey Association for Floodplain Management (NJAFM) First Annual Conference. Somerset NJ. November 2, 2005.

John A. Miller, P.E., CFM and Timothy J. Korzun, Esq. Lambertville Stormwater Mitigation Planning. Whippany River Watershed Action Committee. Morris County, NJ. October 27, 2005.

John A. Miller, P.E., CFM. The Yardley Floods of 2004 and 2005. Lower Makefield Township (PA) Environmental Advisory Council - Lecture Series. Bucks County, PA. October 16, 2005.

Fred S. Lubnow, PhD and John A. Miller, P.E., CFM. The Design and Installation of an Innovative Best Management Practice Structure to Reduce the Annual Phosphorus Load to a 633 acre Lake in Northeastern Pennsylvania. Harveys Lake, Luzerne County, PA. Villanova University Stormwater Symposium. October 13 2005.

J.P. Bell, John A. Miller, P.E., CFM and Mark Gallagher. Mapping Category 1 Streams or "So which streams get a buffer?" Delaware Township Hunterdon County. Aqua-duct newsletter of the New Jersey Section - American Water Resources Association (NJ-AWRA). September 15, 2005.

Mark Gallagher and John A. Miller, P.E., CFM. Somerset County Wetland Creation. 14th Annual Ecological Restoration Symposium at the Rutgers EcoComplex. Burlington County, NJ. March 2, 2005.

John A. Miller, P.E., CFM and George Hambaugh. Lambertville Stormwater Committee. Getting In Step: Helping Your Community Comply with the NJ Stormwater Management Rules, Municipal Land Use Center - College of New Jersey. Jamesburg, NJ. February 17, 2005.

Fred S. Lubnow, PhD and John A. Miller, P.E. The design, installation and effectiveness of a structural BMP for Harveys Lake, a TMDL watershed in Pennsylvania. Pennsylvania Lake Management Society. Penn State University, State College, PA. October 16-17, 2003.

John A. Miller, P.E. Arrowhead Lake Dam Outlet Pipe Replacement, Tobyhanna, PA. Association of State Dam Safety Officials (ASDSO) 2003 Northeast Region Biennial Conference. Lake Harmony, PA. June 4-6, 2003.