April 16, 2009

Planning Board
Township of Hamilton
2090 Greenwood Avenue
Hamilton, NJ 08650-0150

Scientists, Engineers & Environmental Planners Designing Innovative Solutions for Water, Wetland and Soil Resource Management

Re: Hamilton Station
Block 1505, Lot 10.01
Hamilton Township, Mercer County, NJ
Princeton Hydro Project No. 527.010

Dear Members of the Board:

Princeton Hydro, LLC was hired by Save Hamilton Open Space, Inc. to review the above referenced application. Mr. Geoffrey M. Goll, P.E., my supervisor, was present at the Planning Board Hearings on March 5, 2009 and March 30, 2009 to listen to the testimony given by the applicant's engineer and other professionals. Princeton Hydro has reviewed the following materials provided to the company:

1. Amended Preliminary and Final Site Plan for Hamilton Station, by Edgewood Properties, dated June 10, 2008, last revised February 18, 2009; Supplemental Stormwater Management Report for Hamilton Station, by Edgewood Properties, dated March 9, 2009;
2. Stormwater Management Report for Hamilton Station, by Maser Consulting, P.A., dated September 15, 2004 and last revised March 18, 2005;
3. Amended Stormwater Management Report for Hamilton Station, by Edgewood Properties, dated July 11, 2008, revised February 17, 2009;
4. Amended Preliminary/Final Site Plan – Review 1 by Remington & Vernick Engineers, dated February 27, 2009;
5. Amended Preliminary/Final Site Plan – Supplemental Information [report] by Remington & Vernick Engineers, dated March 26, 2009;
6. Supplemental Stormwater Management Report for Hamilton Station, by Edgewood Properties, dated March 9, 2009;
7. Supporting Calculations for Supplemental Stormwater Management Report for Hamilton Station, by Edgewood Properties, dated March 9, 2009, revised March 31, 2009;
8. Stormwater Management Maintenance Plan for Hamilton Station, by Edgewood Properties, dated July 11, 2008.

New Jersey Administrative Code 7:8 – the "Stormwater Management Rule" lists the stormwater management requirements for new and redeveloped sites. These same regulations are contained in the Hamilton Township Ordinance, Chapter 158, titled

"Stormwater Control." The regulation will be cited as underlined with text in *italics* and Princeton Hydro's comment in **bold preceded by a Capital Letter**. The citation for the Hamilton Township Ordinance will be in brackets [Chapter.subchapter] following the N.J.A.C. 7:8 citation. Additional text that has been added to the April 8, 2009 review letter is colored in blue.

The Stormwater Rule and Chapter 158 of Hamilton Township's Ordinance specify that stormwater management is to be treated as a priority, not an afterthought in maximizing the development area. Stormwater Management systems can be an amenity to a community, providing usable and attractive open space. Unfortunately, the application being considered is not attuned with the regulations as follows.

7:8-5.2 Stormwater management measures for major development [158.3. (a) (1)]

(a) Stormwater management measures for major development shall be developed to meet the erosion control, groundwater recharge, stormwater runoff quantity, and stormwater runoff quality standards at N.J.A.C. 7:8-5.4 and 5.5. To the maximum extent practicable, these standards shall be met by incorporating nonstructural stormwater management strategies at N.J.A.C. 7:8-5.3 into the design. If these measures alone are not sufficient to meet these standards, structural stormwater management measures at N.J.A.C. 7:8-5.7 necessary to meet these standards shall be incorporated into the design. (b) The development shall incorporate a maintenance plan under N.J.A.C. 7:8-5.8 for the stormwater management measures.

A. Princeton Hydro's review of the submission for Hamilton Station with the stormwater management measures shows that the design is not in compliance as detailed below.

7:8-5.3 Nonstructural stormwater management strategies [158-4. (e)]

(a) To the maximum extent practicable, the standards in N.J.A.C. 7:8-5.4 and 5.5 shall be met by incorporating nonstructural stormwater management strategies at N.J.A.C. 7:8-5.3 into the design. The persons submitting an application for review shall identify the nonstructural strategies incorporated into the design of the project. If the applicant contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any nonstructural stormwater management strategies identified in (b) below into the design of a particular project, the applicant shall identify the strategy and provide a basis for the contention.

B. There are very limited non-structural/Low Impact Development (LID) strategies incorporated into the proposed design, even for a property in Planning Area 1. The Supplemental Stormwater Management Report contains a Low Impact Development Checklist, a qualitative listing of the applicant's attempts to meet the LID strategies. Princeton Hydro took the quantities from this Checklist and ran in the Nonstructural Strategies Point

System, a spreadsheet that quantifies the use of LID and discounts projects in Planning Area 1. The required point ratio from pre-development to post-development is 80% while the run of the spreadsheet showed a ratio of 60% - showing that the design does not pass. Testimony from the applicant's engineer must report why more nonstructural techniques were not used.

C. **Trash racks and the subsurface detention system were identified as nonstructural stormwater management strategies by the applicant's engineer. These are improperly labeled and are in fact structural.**

(b) Nonstructural stormwater management strategies incorporated into site design shall:

1. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;

D. The applicant applied for a wetland fill permit. Filling of wetlands is not aligned with protection of the area providing water quality benefits.

2. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;

E. More parking spaces (1,116 spaces) are provided than required by ordinance (956 spaces). Elimination of this impervious cover would follow the guidance in this strategy. As Princeton Hydro understands from Save Hamilton Open Space's planner's testimony, there are too many parking spaces to meet the definition of a Transit Oriented Development.

F. The applicant demonstrates that the design is under the allowable impervious coverage per zoning district. The strategy above is unrelated to a total impervious limit per zoning, but looks to the water quality benefits and soil infiltration from allowing runoff to flow across pervious surface. Thus, the strategy is not satisfied.

G. Resolution 2004-63 for the Approved Plan, under Grading and Utilities, ssss. states "Building roof drains shall be connected directly to the storm sewer system by way of a roof drain collection system." This condition is contrary to the approach to disconnect the impervious surfaces.

4. Minimize the decrease in the "time of concentration" from pre-construction to post-construction. "Time of Concentration" is defined as the time it takes for runoff to travel from the hydraulically most distant point of the drainage area to the point of interest within a watershed;

H. The change from a wooded site to one of impervious with storm sewer pipes will decrease the time of concentration, creating higher peak runoff and larger structural measures to reduce the peak discharge.

I. The stormwater basins are designed with low flow channels. This technique accelerates the flow of pollutants to the outlet structure and minimizes the treatment of the water before arriving at the Point of Analysis. The LID checklist takes credit for vegetated low flow channels where the channels are concrete on the detail sheet.

6. Minimize soil compaction;

J. There is a lack of emphasis provided on the plan to ensure that pervious areas will not be compacted. The LID checklist states that "Measures can be implemented to till or scarify the soil prior to final grading to minimize soil compaction in the open areas." The contractor will not see the LID checklist.

(c) Any land area used as a non structural stormwater management measure to meet the performance standards in N.J.A.C. 7:8-5.4 and 5.5 shall be dedicated to a government agency, subjected to a conservation restriction filed with the County Clerk's office, or subject to Department approved or equivalent restriction that ensures that measure or an equivalent stormwater management measure approved by the reviewing agency is maintained in perpetuity.

K. The swales in the Amended Plan are required to be restricted as above. This includes the areas behind each residential building.

7:8-5.4 Erosion control, groundwater recharge and runoff quantity standards [158-4. (f)]

(a) 3. The minimum design and performance standards for erosion control are those established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq. and implementing rules.

L. The Soil and Erosion Control Plans are deficient to protect the existing pond, basins, onsite buffers and offsite water courses. The design for practices during construction should not depend on the built conditions. For example, inlet filters for the storm sewer do not provide protection for overland flow, flow that does not enter the storm sewer system. Existing Topography is missing from plans in the area of roads and buildings and therefore is absent of drainage patterns realized during construction that need attention. Overall, the Soil and Erosion Control Plans are underdeveloped.

(a) 3 iii. Design stormwater management measures so that the post-construction peak runoff rates for the two, 10 and 100-year storm events are 50, 75 and 80 percent, respectively, of the pre-construction peak runoff rates. The percentages apply only to the

post construction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed;

M. Stormwater discharge peak flows increased from the Approved design to the Amended design. With decreases in percentage of impervious, it would be reasonable to expect the peak flows to decrease. The increase occurs at the point of Analysis B and C for the 2-, 10-, and 100-year storm and calls into question the contention that the Amended design will have less impact than the Approved design.

N. The post development peak flow for Point of Analysis A for the Amended design exceeds the 100-year predevelopment peak flow by 0.25 cfs (112 gallons/minute). The violation of the rule and ordinance means that the Amended design will have more impact than the Approved design.

O. Resolution 2004-63 for the Approved Plan, under Grading and Utilities, tttt. and Hydraulic/Hydrologic, mmmmm. note that further information is required to support the design of the wet basin. The document labeled 5. above, titled "Supporting Calculations for Supplemental Stormwater Management Report" include the comparison of the Approved wet pond and the Amended wet pond tributary flows. Based on our review of the reports prepared by Maser, there was no back up for actual calculated runoff conditions for this tributary area, although there were summary tables providing the comparisons of maximum allowable peak flows versus proposed as prepared by Schoor DePalma (applicant for development of American Standard Building that shares the pond). The Schoor Depalma report states that the allowable flow from the pond is 7.33 cfs for the 2-year storm event, while the calculations in the Supporting Calculations for Supplemental Stormwater Management Report indicated a generation of 11.65 cfs. This flow does not meet the Stormwater Rules and Township Ordinance.

	Allowable	Proposed	Approved	Amended
	Schoor Depalma	Maser	Edgewood	Edgewood
2-year	7.33	4.62	13.76	11.65
10-year	26.67	20.82	24.83	20.13
100-year	51.93	51.76	49.46	38.45
Reference	Maser Appendix 3/18/2005	Maser page 8 3/18/2005	Edgewood Appendix 3/31/2009	Edgewood Appendix 3/31/2009

P. No post-development hydrographs were contained in the Supporting Calculations for Supplemental Stormwater Management Report, referenced as document 5. above. Since there were changes made between the Amended

design (also missing hydrographs) and Supplemental design, the hydrographs are essential for backup of the Summary of Drainage Conditions.

Q. The pre- and post-development flows for each Point of Analysis were determined by adding the peak flows for onsite and offsite areas with no regard to hydrograph timing. While this method generates higher post-development flows, it inflates the pre-development flow that forms the threshold to meeting the regulation.

R. The Subsurface Detention/Retention System receives runoff that has not been treated. According to the New Jersey Stormwater Best Management Practices Manual, Chapter 9.5, under Design Criteria F., Design Criteria, "…due to the greater difficulty in removing silt, sediment, and debris, all runoff to a subsurface infiltration basin must be pretreated." The pre-treatment TSS removal is to be 80-percent. The detail for this same system does not indicate perforated pipes and therefore does not correspond to the LID checklist taking credit for groundwater recharge.

7:8-5.5 Stormwater runoff quality standards [158-4. (g)]

Stormwater management measures shall be designed to reduce the post-construction load of total suspended solids (TSS) in stormwater runoff generated from the water quality design storm by 80 percent of the anticipated load from the developed site, expressed as an annual average. Stormwater management measures shall only be required for water quality control if an additional one-quarter acre of impervious surface is being proposed on a development site. The requirement to reduce TSS does not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the New Jersey Pollutant Discharge Elimination System (NJPDES) rules, N.J.A.C. 7:14A, or in a discharge specifically exempt under a NJPDES permit from this requirement. The water quality design storm is 1.25 inches of rainfall in two hours. Water quality calculations shall take into account the distribution of rain from the water quality design storm, as reflected in Table 1 below. The calculation of the volume of runoff may take into account the implementation of non-structural and structural stormwater management measures.

S. The basins were assigned a 60-percent TSS removal, but no calculations have been provided that verifies the time to drain. Therefore, water quality cannot be assessed.

***T.* Additionally, the NJDEP requires manufactured treatment devices to be offline in order to meet the published TSS removal rates. From the NJDEP website (http://www.njstormwater.org/treatment.html): *all MTDs approved by the Department shall be used offline for all storms that exceed the NJDEP water quality design storm effective April 11, 2008.* There are no**

manufactured treatment device (CDS) sizing calculations in the Amended application reports.

Chapter 9.11 of the New Jersey Stormwater Best Management Practices Manual (specifically referenced in N.J.A. C. 7:8) shows a range of 50-90 percent for a Wet Pond for TSS removal:

The adopted TSS removal rate for wet ponds is 50 to 90 percent depending on the permanent pool storage volume in the pond and, where extended detention is also provided, the duration of detention time provided in the pond.

U. Calculations to affirm the TSS removal rate are absent from this application's documents. Chapter 9.11 of the New Jersey Stormwater Best Management Practices Manual under Considerations E. speaks to pretreatment of the inflow runoff to the pond. Pre-treatment will enhance the ponds water quality and require less maintenance.

7:8-5.6 Calculation of stormwater runoff and groundwater recharge [158-5.]

(a) 2. For the purpose of calculating runoff coefficients and groundwater recharge, there is a presumption that the pre-construction condition of a site or portion thereof is a wooded land use with good hydrologic condition. The term "runoff coefficient" applies to both the NRCS methodology at N.J.A.C. 7:8-5.6(a)1i and the Rational and Modified Rational Methods at N.J.A.C. 7:8-5.6(a)1i. A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or portion of the site for at least five years without interruption prior to the time of application. If more than one land cover have existed on the site during the five years immediately prior to the time of application, the land cover with the lowest runoff potential shall be used for the computations. In addition, there is the presumption that the site is in good hydrologic condition (if the land use type is pasture, lawn, or park), with good cover (if the land use type is woods), or with good hydrologic condition and conservation treatment (if the land use type is cultivation.)

V. The CN table for Existing Area 1 in the Supporting Calculations for Supplemental Stormwater Management Report is corrected to show a CN of 55 assuming all of the area is wooded. However, the submitted hydrograph output still indicates a CN of 58. There is no explanation of the discrepancy. This is more pronounced as the post-construction 100-year storm is already surpassing the "allowable" flow at (Point of Analysis) POA-A (see 7:8-5.4 above) with contributions from Existing Area 1 contributes.

7:8-6.2 Requirements for trash racks, overflow grates and escape provisions [158-8.]

(c) 2. Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half feet. Safety ledges

shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately two and one-half feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface.

W. It is unclear if the exiting pond meets the safety requirements as above.

(c) 3. In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.

X. Retaining walls form the development side of the stormwater management basins. A retaining wall has a greater slope than 3:1. From a safety standpoint, the wall presents an obstacle in providing assistance to a person in need within the basin.

N.J.A.C. 7:20-1.3 Permit-by-rule

(a) 1. i. Design must be based upon a spillway design storm that results in rainfall of 50 percent greater than a 24- hour, 100-year, Type III storm (Later technology adopted by the United States Department of Agriculture, Natural Resources Conservation Service may be substituted for the use of the Type III storm.);

Y. The emergency spillways for the basins have been designed incorrectly by increasing the inflow by 50-percent rather than the precipitation by 50-percent as required by N.J.A.C. 7:20, Dam Safety Standards. Since a Class IV dam is permitted by rule, therefore the Township must insure that the design meets the State requirements.

N.J.A.C. 7:20-1.4 General requirements and prohibitions

(n) Unless otherwise approved by the Department, no trees shall be permitted to grow on the dam embankment.

Z. Trees are proposed on the basin embankments in violation of the Dam Safety Standards.

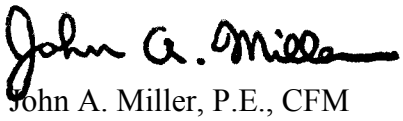
N.J.A.C. 7:20-1.11 Dam operating requirements and inspections: new and existing dams

(g) 2. Formal and regular dam inspections shall be performed by a licensed New Jersey professional engineer. Except for Class IV dams, the required report shall be submitted to the Department by the engineer within 30 days of completion of the inspection. The report shall indicate the results of the inspection, documenting the conclusions and recommendations. Reports for Class IV dams shall be submitted to the county and/or municipal engineer having jurisdiction over the dam structure.

AA. **The Stormwater Management Maintenance Plan is absent the requirements to forward inspection reports to Hamilton Township's engineer.**

I would like to reserve the right to make additional comments when I appear before your Board.

Sincerely,



John A. Miller, P.E., CFM
Water Resources Engineer
Certified Floodplain Manager

c: Save Hamilton Open Space
Mr. William Potter, Esq.
Mr. Geoffrey M. Goll, P.E.
Ms. Ashley Dunn, E.I.T.
File

John Miller, P.E., CFM
Water Resources Engineer

Education:
- B.C.E., Civil Engineering, Villanova University, with honors, 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 Affiliations:
- Past Chair and founder, New Jersey Association for Floodplain Management (chapter of ASFPM) 2005-2006. Legislative Committee Chair 2007-2008;
- Member of the New Jersey Governor's Flood Mitigation Task Force and Technical Subcommittee, 2005-2007;
- Member, City of Lambertville, NJ Planning Board, Chairman of Stormwater Committee, 2004-2009 and member of Emergency Management Council;
- Member, Hunterdon County Planning Board, 2007;
- President, New Jersey Section, American Water Resources Association, 2007 (Past-President 2008-2009, 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 Board of ASFPM as a Regional Director (Region 2 - New York, New Jersey, Puerto Rico and Virgin Islands), 2006-2009.

Areas of Expertise:
- Stormwater management and municipal stormwater management planning;
- Hydrologic and hydraulic modeling;
- Floodplain management and mitigation, policy and analysis
- Forensic analysis and expert testimony;
- Best Management Practice (BMP) water quantity and quality design and retrofits;
- Dam inspection, analysis, rehabilitation and removal;
- Erosion and sedimentation pollution control design;
- Construction management.

Summary of Qualifications:

Mr. Miller has extensive experience in stormwater and floodplain management. He has analyzed and designed within the context of existing and proposing commercial, institutional, residential zones and agriculture.

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 storm drainage and applied various methods to correct them. As a Certified Floodplain Manager, one of only 56 in the State of New Jersey, Mr. Miller has shown a strong commitment to highlighting the importance of floodplain management by helping found the Floodplain Management Association of New Jersey. Recognizing Mr.

Miller's strengths in stormwater and floodplain management, Acting Governor Codey appointed him to a 16 member Task Force in 2005 to address the substantial flood events in 2004 and 2005.

In his leadership role as Chairman of the Stormwater Committee, the City of Lambertville has been 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 this committee have spoken to County audiences offering advice and materials.

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 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, along numerous streams. He has analyzed the effect of proposed structures or removal of structures, and fill in and along the stream. Dam breach inundation limits have been determined through modeling in HEC-RAS.

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 construction sites. Also, permanent erosion prevention devices 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.

He has designed a variety of Best Management Practices (BMPs) including a wetland basin retrofit of an existing stormwater management basin and 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, and sediment laden capture and conveyance system with a sediment chamber and polishing unit at Harveys Lake, Pennsylvania. Mr. Miller has reviewed the book Basic Environmental Technology as invited by the author, offering critiques on the chapters dealing with hydrology, stormwater management and water pollution.

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

compliance for Princeton University. Mr. Miller gave a talk at the Association of State Dam Safety Officials (ASDSO) 2003 Northeast Regional conference for his oversight on the replacement of a low-level outlet pipe for Arrowhead Lake Dam, a High Hazard dam in the Poconos, Pennsylvania.

Prior to joining Princeton Hydro, Mr. Miller was a senior project engineer for F. X. Browne, Inc. a southeastern Pennsylvania environmental consulting firm. While there in 1999 he worked on a variety of projects including BMP retrofits, land developments, and water supply design. Prior to joining F. X. Browne, Inc., he 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.

Expert Testimony

Mr. Miller has been accepted as an expert witness by the Court of Common Pleas of Bucks County, Pennsylvania[1] 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 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; and South Plainfield Borough, Middlesex 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.

Papers, Publications and Presentations

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.

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

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 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.