

October 2, 2008

Mr. Timothy M. Mulvaney
Deputy Attorney General
Department of Environmental Protection
R.J. Hughes Justice Complex
P.O. Box 093
Trenton, New Jersey 08625

Re: Levin Management Corporation v. NJDEP
OAL Docket No.: ESA 10099-2005S
Block: 1589; Lot 165
Hamilton Township, Mercer County, NJ
Princeton Hydro Project No. 527.007
NJDEP File No. 1103-02-0022.1 FWW 030001, FWW 030002

Dear Mr. Mulvaney:

Princeton Hydro was hired by Save Hamilton Open Space to perform a technical review of the Exhibits to the Stipulation of Settlement (Stipulation) for the above referenced application. As described in the Stipulation, the reauthorization of the permit contained three (3) Special Conditions concerning stormwater management. These conditions concerned operation and maintenance, deed restriction of stormwater management systems and impacts from recharge facilities. Since an Operation and Maintenance Manual and deed restriction language was not included in the Stipulation, Princeton Hydro focused on the recharge design and has identified in its review other inconsistencies with the Stormwater Rules, NJAC 7:8.

Technical documents included within Exhibit C of the Stipulation that were reviewed included:

1. Letter dated April 27, 2007, RE: Proposed Shopping Center, by Kevin Haney, P.E. of Bohler Engineering, P.C., Warren, NJ (Bohler Letter dated April 27, 2007);
2. Groundwater Mounding Analysis at Revised Stormwater Basins, dated April 26, 2007, by Whitestone Associates, Inc., Warren, NJ (Whitestone Report). This report contains a letter dated February 6, 2007 from the Deputy Attorney General concerning mounding (Attorney General's letter, dated February 6, 2007);
3. Drainage Report for Levin Management Corporation, dated November 2003, last revised May 2007, by Kevin Haney, P.E. of Bohler Engineering, P.C., Warren, NJ (Drainage Report);

Princeton Hydro, LLC

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4. Plan Sheets 7-10, titled Grading & Drainage Plan, by Bohler Engineering, P.C., dated November 25, 2003, last revised May 30, 2007;

The following are Princeton Hydro's comments with regard to compliance with NJAC 7:8, regarding water quality and recharge. In our professional opinion, deficiencies and contradictions exist in the materials attached to the Stipulation with regard to stormwater management. Our specific comments are as follows.

Groundwater Recharge

1. The Drainage Report, page 4 under IV. Groundwater Recharge, states that "In this design, the proposed infiltration systems are to recharge the total site runoff generated by the 2-year storm." System A Infiltration (modeled as Pond 5P in HydroCAD by the design engineer) represents the infiltration of Basins #2 and 3 to meet NJAC 7:8-5.4(a)2.i.(2), however Plan Sheet 7 of 38 notes that Basin #2 and 3 are to be "clay lined." This is contradictory to the Bohler Letter, referenced as 1. above, where it is stated that "The Stormwater Management System has been designed in accordance with accepted engineering practice and complies with NJDEP, County and Township stormwater design requirements." A clay liner will prohibit the basins from functioning as infiltration systems. If the basins are clay lined the conclusion of the Whitestone Associates report on mounding is inconsistent with the plans.
2. The bottom of Basins #2 and 3 on the plan are noted at elevation 53.0. The calculations for System A Infiltration (modeled as Pond 5P in HydroCAD) take credit for a bottom of basin at elevation 52.5, where modeled water storage volume begins. The basin routing calculations are inconsistent with the plans. Also, the pipe discharges into Basins #2 and 3 are at elevation 52.5, signifying that the water will back up into the pipe and not enter the facility. This is a significant inconsistency between the plans and calculations.
3. Similar to the above, Basin #1 and the "Additional Volume Provided for Detention Basin #1" has a bottom noted on the plan at elevation 53.0. The calculations for System A Detention (modeled as Pond 8P in HydroCAD) take credit for a bottom of basin at elevation 52.5 where water storage volume begins. The basin routing calculations are inconsistent with the plans. Also, the pipe discharges into Basin #1 are at elevation 52.5, signifying that the water will back up into the pipe and not enter the facility. This is a significant inconsistency between the plans and calculations.
4. There is no documentation in the Drainage Report on how the exfiltration rate of 5.130 in/hr was determined. With plans showing clay lining, this rate is

entirely exaggerated, as clay exfiltration rates are in the range of 0.04 to 0.20 in/hr, effectively eliminating the infiltration function of Basins #2 and 3. The Drainage Report would have to be supplemented with the testing of the bottom soil criteria.

5. While the Drainage Report signifies that the Groundwater Recharge requirement would be met by the 2-year storm infiltration (under separate calculations), the design engineer includes the Annual Groundwater Recharge Analysis in the Drainage Report. The BMP area variable ABMP was entered as 89,580.0 square feet which matches the combined surface areas of Basins #2 and 3 at elevation 56.5 (56,285 square feet + 33,295 square feet = 89,580 square feet). The area should be reduced to the area of the bottom of the basin or at the BMP Effective Depth. Also, the location of the Basin #3 is not in the Klej soil and the spreadsheet would have to be run twice for Basins #2 and 3 individually. Again, with the plans showing that Basins #2 and 3 are clay lined, the Annual Groundwater Recharge Analysis is not valid. As described in the comment above, clay has a much lower exfiltration rate than the native soils that are used in the Annual Groundwater Recharge Analysis. The conclusion reached in the spreadsheet does not consider the clay lining.
6. There are scattered areas around the site that are not clay lined and look to be areas proposed for infiltration. These areas include: the island to the south of Basin #1; the area to the west of proposed Retail Area "A"; the area to the west of Retail Area "H"; the island west of proposed Restaurant; the island east of proposed Retail Area "G"; area northeast of proposed Shoprite. These areas were not analyzed in the Drainage Report and are not equal in infiltration/recharge area to Basins #2 and 3. In addition, no borings or wells were located over these locations, required in Chapter 9.5 of the BMP Manual, under Considerations, A. Soil Characteristics, where "...soil tests are required at the exact location of a proposed basin in order to confirm its ability to function properly without failure."
7. The Attorney General's letter, dated February 6, 2007 requested to "...identify, with supporting information whether the elevation of the calculated mounds are lower than adjacent development, i.e. basements or roadways." The Whitestone Report analyzes Basins #2 and 3 and not the areas listed in the above comment. Page 2 of the Whitestone Report, under Scope of Work states that "An evaluation of any specific potential impact of groundwater mounding specifically was excluded from Whitestone's scope of work. The Bohler Letter dated April 27, 2007 makes a conclusion that the Whitestone Report supports a statement of no adverse impacts but fails to elaborate on how this conclusion was reached.

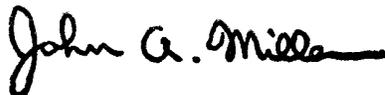
Water Quality

8. With all basins clay lined, it is difficult to ascertain if the design meets the water quality requirements of NJAC 7:8. It is unclear if the scattered areas specified in comment 6. above take all post-development site runoff and would be able to sequester the sediment and other pollutants to prevent resuspension and meet the 80% TSS minimum removal rate. The Drainage Report focuses on Basins #2 and 3 to perform as Infiltration Basins to meet the 80% TSS removal rate and does not speak to the scattered areas and how they function. The Drainage Report should be modified to match the design on the plans.

In general, it appears that the Stipulation documents in Exhibit C are lacking consistency, specifically with the reports and plans. The plans present a scattering of Best Management Practices, while the Whitestone and Drainage Reports analyze recharge/infiltration at the single locations of Basins #2 and 3.

The above conclude the comments on the application at this time but Princeton Hydro reserves its right to make future additional comments. Thank you for considering these concerns.

Sincerely,



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

c: Mara Epstein, Esq., Lieberman & Blecher, P.C.
Save Hamilton Open Space