

### **3.2 SURFACE WATER RESOURCES COMMENTS AND RESPONSES**

**Comment 3.2-1 (Letter #1 Ralph P. Peragine, P.E., Stephan A. Maffia, P.E., Jay Snyder, and Anthony Agresti, TRC Engineers, Inc., March 4, 2009):** It has been indicated that there will be two “Ponds” to control the post development peak outflow. However, Figure 3.2-3 “Post Development Drainage area” only shows one stormwater management pond. The Applicant should explain the discrepancy.

*Response 3.2-1: The design of the stormwater management facility is shown on the concept plan. A proposed access road bisects the pond so it appears that there are two ponds. The ponds are connected by a culvert and are interconnected. The culvert is shown on the concept site plan.*

**Comment 3.2-2 (Letter #1 Ralph P. Peragine, P.E., Stephan A. Maffia, P.E., Jay Snyder, and Anthony Agresti, TRC Engineers, Inc., March 4, 2009):** It should be noted that the SWPPP shall be submitted to the Town in conjunction with the site plan approval process.

*Response 3.2-2: A SWPPP will be submitted to the Town of Haverstraw in conjunction with the submission of a formal site plan application.*

**Comment 3.2-3 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):** The applicant should verify they do not need a permit from the Rockland County Drainage Agency.

*Response 3.2-3: A permit is needed and the application ID number is 08-31.*

**Comment 3.2-4 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):** The drainage report should include routing.

*Response 3.2-4: The details of the routing will be addressed during the site plan approval process.*

**Comment 3.2-5 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):** The drainage report should include which pond type is being utilized.

*Response 3.2-5: The pond designation being utilized is P-3 for a drainage area of over 25 acres.*

**Comment 3.2-6 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):** Percolation test results are needed with depths to the water table as well.

*Response 3.2-6: Percolation tests will be conducted as part of a detailed drainage report submitted during the formal site plan review process. For SEQRA purposes, preliminary drainage information is submitted to document that stormwater management facilities can be accommodated on the project site and that any impacts associated with increased stormwater runoff can be mitigated.*

**Comment 3.2-7 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):** The NYSDEC Manual requires an outlet. Routing should be provided. Any change would require a 60 day review by the NYSDEC.

**Response 3.2-7:** See response to Comment 3.2-3 above. Sheet 3 of 4 of the concept plan set illustrates the outfall which would be routed along a westerly property line and through the NYSDEC 100-foot adjacent area in order to discharge to Minisceongo Creek. As stated in the Drainage Report provided as Appendix C in the SEIS: “The controlled flow from the pond will be discharged into Minisceongo Creek via a proposed swale.”

**Comment 3.2-8 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

For the 1 year storm Vs/Vr should be 0.41.

**Response 3.2-8:** The Vs/Vr of 0.40 was utilized and a variable of 0.01 is usually acceptable. With 0.41 Vs/Vr, the increase is 1,265 cubic feet.

**Comment 3.2-9 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

The required volume for the 100 year storm is 6.36 acre-feet and not 6.27.

**Response 3.2-9:** Ray Ahmadi, P.E., reviewed the calculations on page 19 of the Drainage Report (Appendix C in the SEIS) and confirms that the correct calculation is 6.27 acre-feet.

**Comment 3.2-10 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

The calculations for the post developed run-off must be provided.

**Response 3.2-10:** The post development run-off calculations are included in Appendix C of the SEIS, Page 7. The summary table is included below:

Table 3.2-1 Post Development Run-Off Calculations			
Storm Frequency	Precipitation, P (in.)	Runoff, Q (in.)	Peak Flow, Q <sub>p</sub> (CFS)
1 yr	2.7	1.35	56.95
10 yr	5	3.37	142.37
100 yr	7.5	5.73	237.56

**Comment 3.2-11 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

Once full size drawings are provided we can further review the drainage calculations.

**Response 3.2-11:** Comment noted.

**Comment 3.2-12 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

The forebay has to be where the inlet is.

**Response 3.2-12:** The detailed site plan that is advanced once a specific tenant is known will comply.

**Comment 3.2-13 (Letter #5 Town of Ramapo Department of Public Works, March 2, 2009):**

Design calculations for the rip-rap must be provided.

**Response 3.2-13:** Calculations for the rip-rap will be provided during the site plan review process.