

M E M O

Date: June 8, 2004

To: John Regan, DEP Division of Solid Waste Management

From: Jesse Schwalbaum, Earth Tech

CC: Nancy Peters, Hopkinton Board of Health
Wayne Davies, Hopkinton Board of Appeals
Dick Jubinville, Earth Tech

Subject: Harvey's Proposed Long Term Monitoring Plan for the Hopkinton Landfill

On behalf of the Town of Hopkinton, Earth Tech has reviewed proposed revisions to the long term monitoring plan for the former Hopkinton Landfill presented in a letter from Brown & Caldwell dated June 3, 2004. We appreciate the fact that E.L. Harvey and Sons has agreed to implement the changes recommended by Earth Tech. Obviously, we support those changes. We did, however, wish to make a clarification.

I believe that Brown & Caldwell agrees that the way in which the bedrock wells were constructed, such that bentonite grout is directly in contact with the well screen, has caused alterations in the pH of water samples taken from those wells. We may disagree on how much of an impact this has caused on which sampling events and which wells, but the underlying fact is that this does cast doubt on the analytical results from these wells, particularly with respect to metals because the solubility of metals in water is affected by pH. The most certain way of assuring that this is not an issue of contention in the future is to install new, properly constructed wells. We understand that this would represent a significant cost.

As an alternative, we suggested that it would not be necessary to replace the wells if it could be demonstrated that the wells could be sampled in a way that would produce water samples with reasonable and consistent pH levels. Previous water quality analyses at these wells have demonstrated that this could not be done reliably using the EPA low flow sampling method. Therefore, we suggested pumping the wells longer and using a much more stringent stabilization criteria for pH. Brown & Caldwell has agreed to do this. However, they neglected to go further and state that if consistent, reasonable and reliable pH readings could not be obtained at a given well, then it would be replaced with a properly designed well. That is our recommendation.