

EXHIBIT 26

Weighting Algorithm

The procedure for determining the algorithm of the weighing involved constructing a mathematical model reflecting the primary and secondary factors collected through a combination of spatial analysis and parcel-by-parcel data collection. A number of permutations of the model were run to provide outputs. These model outputs were then compared with the qualitative judgment of field data collectors.

More specifically, the output of the different model runs gave indicated parcels that ranked numerically high, or considered in *good* condition, as well as indicating parcels that ranked numerically low, those parcels considered *impacted*. These were judge against what the field data collectors considered, in their professional best judgment, most closely reflected what they surmised during the field visits.

Thus, the final model algorithm chosen most closely reflected what was observed in the field for the high and low scoring parcels. Then it was assumed there would be a similarly dynamic that resulted in the ranking for those parcels that fell between the best and worse condition, or parcels deemed *at risk*. The resulting algorithm applied to all the parcel data is below.

$$W_s = \Sigma(X_s) * \text{Avg}(Y_p)$$

$X_s = (P_e, D_r, H, F, Y_w, P_w, B_s, S_a, P_r, U_r, D_i, C, R, S_b, P_o)$

$Y_p = (S_{li}, B, S_{he})$

$S_{li} = \text{Avg}(S_l, S_i)$

$B = \text{Avg}(B_w, B_c, B_i)$

$S_{he} = \text{Avg}(S_h, S_e)$

W_s **weighted average**

Σ **sum**

Avg **mean**

X_s **secondary factors**

P_e **pesticides/herbicides**

D_r **driveways/pathways**

H **hazardous materials**

F **fertilizer**

Y_w **yard waste**

P_w **pet/animal waste**

B_s **bare soil**

S_a **stream aeration**

P_r **paved roads**

U_r **unpaved roads**

D_i **ditches/drains**

C **culverts**

R **road crossing**

S_b **streambank condition**

P_o **pipe outfall**

Y_p **primary factors**

S_l **slope**

S_i **imperviousness**

B_w **buffer width**

B_c **buffer continuity**
B_i **buffer integrity**
S_h **soil hydrologic group**
S_e **soil erosivity index**

EXHIBIT 27

Outfall and Storm Drain Map

Non-Point Source Pollution Assessment - Beaver Brook, Keene, NH Contributing Catchments Based on 1962 City Drainage Plan

