United States Department of the Interior

IN REPLY REFER TO:

October 28, 2008

MEMORANDUM

To: Whom it may concern

From: U.S. Geological Survey, Massachusetts/Rhode Island Water Science Center

Date: October 28, 2008

Re: ERRATA in SIR 2006-5031, A Revised Logistic-Regression Equation and an Automated Procedure for Mapping the Probability of a Stream Flowing Perennially in Massachusetts, by Gardner C. Bent and Peter A. Steeves

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After the publication of U.S. Geological Survey Scientific Investigations Report 2006-5031, "A Revised Logistic-Regression Equation and an Automated Procedure for Mapping the Probability of a Stream Flowing Perennially in Massachusetts," by Gardner C. Bent and Peter A. Steeves, the following errors were found:

On page 23, equation #3 needs to be changed to:

$$\text{variance} = 0.372729 + 0.034308\left(\ln(x_1)\right)^2 + 0.000032(x_2)^2 + 0.000057(x_3)^2$$
$$+0.102893(x_4)^2 + 2\left(\ln(x_1)\right)(0.048903) + 2(x_2)(-0.001272) + 2(x_3)(-0.004189)$$
$$+2(x_4)(0.018564) + 2\left(\ln(x_1)\right)(x_2)(0.000131) + 2\left(\ln(x_1)\right)(x_3)(-0.000306)$$
$$+2\left(\ln(x_1)\right)(x_4)(0.003397) + 2(x_2)(x_3)(0.000011) + 2(x_2)(x_4)(0.000163)$$
$$+2(x_3)(x_4)(-0.000800)$$

On page 26, the example calculation of the variance needs to be changed to:

$$\text{variance} = 0.372729 + 0.034308\left(\ln(0.53)\right)^2 + 0.000032(0.00)^2 + 0.000057(78.76)^2$$
$$+0.102893(1)^2 + 2\left(\ln(0.53)\right)(0.048903) + 2(0.00)(-0.001272) + 2(78.76)(-0.004189)$$
$$+2(1)(0.018564) + 2\left(\ln(0.53)\right)(0.00)(0.000131) + 2\left(\ln(0.53)\right)(78.76)(-0.000306)$$
$$+2\left(\ln(0.53)\right)(1)(0.003397) + 2(0.00)(78.76)(0.000011) + 2(0.00)(1)(0.000163)$$
$$+2(78.76)(1)(-0.000800)$$
$$= 0.06$$