Primrose, Annette

From: Fiehweg, Robert
Sent: Tuesday, June 08, 1999 8:06 AM
To: Primrose, Annette; Lewis, Sally
Cc: Hawley, Christine
Subject: Horstmann Calcs

Good Morning!!!

I've reviewed the "spreadsheet" we received late yesterday from Rich Horstmann. Perhaps it was for convenience that he used the spreadsheet for just text, but if you look closely, the document doesn't do any calculations. He evidently calculated by hand and entered the results.

Be that as it may, he uses a stream standard of 10 mg/L, which represents the ultimate goal of the treatment system. I believe we should make the case that the system need only meet the 100 mg/L level until 2009. Everyone agreed that that level was acceptable, at least in the interim. Since we know how much nitrate is in the area being remediated, we can certainly estimate how much will actually be removed during the period that the system meets 100 mg/L. If we are forced into meeting 10 now, we wasted a helluva lot of effort getting the standard changed.

How about decision rules that reflect a phased approach (a la the original Squibb-Fiehweg report of 1996)? If we exceed 500 mg/L in the treatment system effluent for the first 3 years, we take action; if we exceed 100 mg/L in the next 3 years we take action; if we exceed 50 mg/L in the last 3 years (the final level we have to achieve), we take action. Obviously, we already meet the first goal, but we should try to establish that for the near future, all we have to meet is the 100 mg/L standard, not 10. For each phase, we can estimate how much nitrate remains, plus add supporting text to establish operating parameters (groundwater levels, flows, wetland size, effects of other biological factors, etc.).

I've asked Chrisie Hawley to confirm the flows that Rich used, and check that calculations. Using the 100 mg/L standard should change the effluent concentration to 500+, but she'll confirm (sorry it's such a simple calc). I will be in and out most of the day, so send your thoughts via e-mail. I expect to see Rich at the Water Working Group this afternoon - should I confirm that we can use the 100 mg/L standard as an interim performance level?

Bob Fiehweg