

Kim DelNigro

From: Suzanne Flint [sflint@assabriver.org]
Sent: Wednesday, April 06, 2005 4:07 PM
To: Planning Board
Subject: FW: Quail Ridge Comments

Acton Conservation Commission,

Thanks for the opportunity to comment on the "Water Quality Monitoring Program and Baseline Data Collection Program" submitted for the Quail Ridge Country Club by Turfgrass Environmental Consultants. We, the Organization for the Assabet River, have a water quality monitoring program that runs from May to September testing water quality in the Assabet mainstem and in nine tributary streams of the watershed including Nashoba Brook. I have compared the results reported here with some of our own findings.

The report should include an explanation of the rationale for monitoring site selection and site identification that clarifies which surface water streams are being sampled. It appears, from the map supplied, that none of the surface water sampling sites are downstream of the golf course. Sampling sites should be located upstream and downstream of the area of impact to assess the effects of the golf course. Analytical method numbers (e.g. EPA 300.0 for nitrate) should be listed along with detection limits. Results of quality control measures such as field duplicates and lab duplicates should also be reported.

Nitrates reported (Table 2) at SWQ-1 (on Nashoba Brook?) are very high and should be rechecked. Healthy nitrate-N + nitrite-N concentrations in unimpaired streams in this area would be expected to be below about 0.34 mg/L. OAR's data shows median nitrate concentrations of 0.36 mg/L (min = 0.23 mg/L; max = 0.50 mg/L) nitrate-N in the nine tributary streams that we tested in July 2003; in comparison nitrates at SWQ-1 on 7/30/03 were reported at 2.90 mg/L. There appears to be a problem with the field blank on 10/9/03 (0.34mg/L), which should be below detection levels.

Ortho-phosphates at SWQ-1 also appear to be slightly elevated (Table 3). Healthy ortho-phosphorus concentrations should be below about 0.05 mg/L. OAR's data for July 2003 showed median ortho-P concentrations of 0.021 mg/L (min = <0.006 mg/L; max = 0.040 mg/L). The field blank on 9/16/04 showed a problem; again the blanks should be below detection levels. The method detection level listed 0.05 mg/L is not adequate to detect problems; check the method and the detection level listed. The EPA 365.2 method detection limit for ortho-phosphorus is 0.01 mg/L.

With some modifications to the selection of testing sites and better quality control this baseline sampling program could provide valuable data for management of the golf course. We hope that these comments are helpful.

Please feel free to call me with any questions,
Suzanne Flint

CC: Acton Planning Board

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