

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

DATE: AUG 07 1995

SUBJECT: Tutu Wells Site

FROM: Shari Stevens, Coordinator *SS*
Biological Technical Assistance Group (ESD-SMB)TO: Caroline Kwan, Remedial Project Manager
New York/Caribbean Superfund Branch 2 (ERRD-NYCSB2-E)

As per your request we have reviewed the "Superfund Proposed Plan," dated August 1995 for the Tutu Wells site in St. Thomas, U.S. Virgin Islands. We offer the following comments.

As per previous BTAG memos (November 1994 and April 1995), we are concerned with the potential for groundwater plumes to discharge into the forested wetland systems in the southeastern portion of the site. Although the Phase II Remedial Investigation Report (April 1995) indicates that the majority of the water reaching the wetland systems will be from surface water runoff, there is still a potential for groundwater to enter and transport contaminants to the wetlands through Turpentine Run and groundwater discharge points. Therefore we are still recommending that samples be taken in this area. A characterization of the wetland, including a description of the type of wetland present, species use, and sediment and surface water sampling should be completed. Sediment and surface water analysis should include TCL organics and TAL inorganics. Previous concerns regarding Mangrove Lagoon, sediment sampling, and the endangerment assessment (October 1994 BTAG memo) have not been addressed.

The preferred alternative for groundwater remediation (GRA 4) includes the installation of groundwater recovery wells and discharge of treated groundwater to surface water. Due to the lack of sufficient data regarding the relationship of the groundwater with the wetland areas, there is concern that pumping water will lead to a drawdown in the aquifer and subsequently a reduction in the wetland areas. In addition, if treated water is discharged to surface water, as opposed to beneficial use, the affect of this volume of water on Turpentine Run and in-turn the wetland areas should be reviewed. In order to comply with federal wetland ARARs, the three parameter method should be used to delineate wetlands. Also note that a wetlands assessment and restoration plan will be needed for any wetlands impacted or disturbed by contamination or remedial activities. Should you require additional information regarding wetland issues, the BTAG and/or John Cantilli (212-637-3810) of the Marine and Wetlands Protection Branch are available for assistance.

The use of a scaling system for hazard indices (HIs) is inappropriate (page 6). While the document does cite a USEPA reference for this system, it is from an Office of Pesticides Program assessment used for predictive risk modeling in the process of registering a pesticide. For consideration of ecological risk at hazardous waste sites, a risk index greater than one indicates that an effect threshold has been exceeded (i.e., receptor exposure to contamination exceeds known benchmarks) and there is potential risk to the ecological receptor (USEPA. 1992. "Framework for Ecological Risk Assessment." EPA/630/R-92-001, February). A risk index less than one means there is a low probability of adverse ecological effects from site contamination. In addition, although risks to individual receptors were calculated (page 6), it should be clearly indicated whether management decisions were based on risk to individual organisms or risk to a community or population. Lastly, the remedial action objectives for soil should include minimizing ecological affects associated with soil contaminants.

I hope these comments are useful to you. If you have any questions or require further information, please contact Mindy Pensak at (908) 321-6705.

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