

CHRONOLOGY - MARLEY RUN

- September 1, 1998 Maryland Department of the Environment (MDE) issues Ground Water Discharge Permit 97-DP-3232 allowing for the discharge of 40,400 gallons per day to groundwater via a drip-irrigation system. Wastewater is treated first with a FAST[®] (Fixed Activated Sludge Treatment) system.
- December 2001 to November 2005 Shortly after beginning operation the violations of discharge permit effluent limitations occur for Total Nitrogen, Biochemical Oxygen Demand, and Total Suspended Solids.
- Effluent limit violations continue through to at least November 2005 (*see Complaint and Consent Order*).
- Effluent violations are nearly continuous from April 2007 through March 2010 (*see CWA Effluent Charts; USEPA Enforcement and Compliance History Online database: <http://www.epa-echo.gov/echo>*).
- June 10, 2004 MDE reissues discharge permit (03-DP-3232) with the Calvert County Board of County Commissioners listed as the permittee.
- Permit Condition I.C.4, on page 4, states: Operation of the subsurface drip irrigation system shall not cause surface runoff, and/or ponding.
- Permit Condition I.C.6, on page 5, states: Weekly logs of the response of each disposal area to the application of treated effluent shall be kept by the plant operator. Subjects to be included in the log are: c. Effect of irrigation on vegetation. and d. Instances of ponding.
- Permit Condition II.A.3.a, on page 8, states: If, for any reason, the Permittee does not comply with or will be unable to comply with the special and general conditions of this permit, the Permittee shall, within 24 hours, notify the Department by telephone at...
- The following events show that drip-irrigation has resulted in instances of ponding and runoff, that the permittee continued discharging wastewater to the fields where ponding-runoff was occurring, they failed to keep the weekly logs showing ponding-runoff was not taking place, and the Department did not receive the required noncompliance notification.
- November 8, 2005 Stearns & Wheler memorandum to MDE summarizes activities by Marrick Properties and Calvert County to resolve permit violations. The

principle finding was that some type of contamination (metals and industrial compounds: toluene, phenol, other VOCs) was causing treatment processes to operate poorly and that this was the cause of the effluent limit violations. The only source of wastewater to the plant were 49 homes. The contaminant concentrations were well above those typical for residential wastewater. Sampling throughout the collection system and a house-to-house search by County DPW and Sheriff personnel failed to reveal a source of the contaminants. The memo recommending replacing the FAST[®] treatment system with a Sequencing Batch Reactor (SBR) which is the system utilized at Calvert Gateway and proposed for the Shoppes @ Apple Green.

- January 9, 2007 Board of County Commissioners and MDE sign Complaint and Consent Order requiring correction of factors causing effluent violations. The order was silent with regard to drip-irrigation fields.
- June 22, 2008 Richard Klein, of Community & Environmental Defense Services (CEDs), notifies MDE that wastewater has saturated the surface of the Marley Run drip-irrigation field and is flowing along the treatment plant access road and into a nearby stream.
- July 29, 2008 MDE investigates CEDs June 22nd complaint and confirms that wastewater had ponded at surface, thus violating the discharge permit. The MDE inspector noted that the failure had been occurring for over a year yet the Department had never been notified as required by the discharge permit. Also, there was no record that the permittee had inspected the drip-irrigation field as required.
- March 2010 The USEPA Enforcement and Compliance History Online (ECHO) database (<http://www.epa-echo.gov/echo/>) shows that the Marley Run plant violated discharge permit effluent limits for Biochemical Oxygen Demand and Nitrogen nearly continuously from February 2007 through to March 2010 (the most recent reporting period).
- May 4, 2010 County Commissioners approve funding to upgrade Marley Run treatment facility. According to County Bureau of Utilities staff funds will not go to upgrading existing drip-irrigation fields, just expanding the fields.
- June 1, 2010 CEDs notifies MDE that wastewater has again failed as evidenced by saturation of the soil surface within the Marley Run drip-irrigation field.
- June 8, 2010 MDE investigates the CEDs June 1st complaint and confirms that wastewater had ponded at surface, thus violating the discharge permit.

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