

**SUBJECT:**                    **Guidance for Delineation of Ephemeral/Intermittent Streams**

**DATE:**                        **October 26, 1999**

### **Introduction**

This guidance is being developed to conform with the Memorandum Opinion and Order of October 20, 1999 pertaining to buffer zones and water quality standards for intermittent/perennial streams.

### **Definitions**

The Federal SMCRA definition of **ephemeral stream** which means “a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice, and which has a channel bottom that is always above the local water table” and **wet weather streams** defined in 46CSR1-2.22 “as streams that flow only in direct response to precipitation or whose channels are at all times above the water table” are synonymous.

**Intermittent streams** are defined in part, in 38CSR2-2.69, as “a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface runoff and groundwater discharge”.

**Intermittent streams** are defined in 46CSR1-2.9 as those streams which have no flow during sustained periods of no precipitation and which do not support life whose life history requires residence in flowing waters for a continuous period of at least six (6) months.

**Ordinary high water mark** as defined in 33 CFR 329.11 is the line on the stream bank established by the fluctuation of water levels and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in soil characteristics, destruction or limits of terrestrial vegetation, and the presence of litter and debris.

### **Rationale**

If a buffer zone waiver was requested in the application, the presumption is that the proposed fills, refuse facilities, sediment control facilities and ponds (“structures”) are in intermittent or perennial streams, unless clearly documented in the application.

The procedure below applies to structures for both pending applications and issued permits. It will be utilized to determine the local water table in order to delineate the point between ephemeral and intermittent stream segments. The applicant must demonstrate, to the satisfaction of the Secretary, that each structure is not located in an intermittent / perennial streams.

## Procedure

**Step 1.** The applicant may utilize information contained in the application to demonstrate that the structure is not in the intermittent stream. If the data in the application shows stream flow (**not direct response to precipitation**) within the footprint of the structure, then it is in intermittent reaches of the stream. However, if the data in the application contains no documentation that the stream channel within the footprint of the structure is ephemeral, the applicant must proceed to Step 2.

**Step 2.** Field Evaluation (conducted jointly by applicant and agency).

- Delineate the upper most extent of the ordinary high water for each stream channel within the footprint. Locate this point on a map and provide sufficient supporting documentation.
- Begin walking downstream, until pooled or flowing water is observed in channel within the footprint. Locate this point on a map and provide sufficient supporting documentation.
- Dig a hole, preferably 12 inches or deeper, in the streambed outside the area of the pool to see if water is entering the hole, this should be apparent within a few minutes. If not, repeat process down stream until local water table is established or outside the buffer zone area. If no consensus can be reached between applicant and agency proceed to Step 3.

**Step 3.** A biological survey using the “single habitat EPA Rapid Bioassessment Protocol ” must be conducted for the footprint of the structure. If the footprint of the structure is void of indications of aquatic life then the area is deemed to be an ephemeral reach of the stream. However, if there is evidence of aquatic life present in the stream that requires less than six months of water flow to complete its life cycle, then the section of stream is deemed to be intermittent.