

### **4.5.3 Hydrologic Characteristics of the Unit and the Area in its Vicinity, Topography of the Land in the Vicinity of the Unit, and its Proximity to Surface Water**

This part of the permit application must discuss the general topography and hydrology of any surface water in the area of the unit and its location nearest the unit. It must provide detailed information about potential drainage areas within the unit that might discharge either to nearby surface water or to wetlands. The section also must discuss any ephemeral surface water or wetlands features in the area of the unit and provide the same information for those areas. Ephemeral features are especially important in the more arid parts of the country and often play an important part in ecosystem dynamics. If there are no nearby surface-water bodies or wetlands, the application must certify that to be the case.

Information deficiencies the permit writer may find in the application include:

- Inadequate description of surface topography
- Lack of a map of the locations of surface water and wetlands
- Lack of indication on the map of runoff pathways identified in the discussion