

## 2.13 FLOCCULENTS

### Overview

**Description:** Flocculents are natural materials or chemicals that cause colloidal particles (clay) to coagulate and remove themselves from the water flow in surface runoff.

**Problem identification:** It is difficult to remove large amounts of fine particles from water runoff in a reasonable amount of time.

**Design purpose:** Helps reduce the time of detention in detention ponds and increases the ponds' capacity to handle larger storm runoff quantities in the specified design time.

**Installation:** The flocculent must be added at the time the detention basin is experiencing an inflow of runoff, at a manufacturer-specified rate, and must be mixed constantly with the stormwater. After mixing with the stormwater, the detention pond water must be allowed calm and let the flocculent work. Lastly, the outflow from the basin must be monitored to ensure that the flocculent is removed by settling.

**Maintenance/inspection:** Sediment should be removed on a routine basis to ensure enough volume to receive the sediment. Timing will be based on the amount of ample storage volume to accommodate anticipated runoff. Retention time and sediment storage volume are critical.

**Design life:** Only effective for the volume of water in the detention pond at one time.

**Estimated cost:** Varies with the product selected.