

*** DRAFT – NOT FOR FILING ***

3745-511-820

Sediment and storm water management basin system.

(A) Sediment and storm water management basin systems shall be designed to meet the following criteria:

(1) Incorporate at least three ponds or cells, as described in paragraphs (A)(2) to (A)(4) of this rule, placed in series. Each pond or cell shall be designed to meet the following:

(a) Minimize short circuiting and dead storage areas.

(b) Be capable of being dewatered to a level below the desired operational level.

(c) Have primary outlets or water passageways that shall safely convey the surface water flow from a ten-year, twenty-four-hour storm event using non-mechanical means.

(d) Have an emergency spillway that shall, in combination with the primary outlet, safely discharge the surface water flow from a one hundred-year, twenty-four-hour storm event using non-mechanical means.

(2) Have a primary settling pond or cell, also known as a forebay, that shall be designed to meet the following criteria:

(a) Be capable of removing medium sand sized particles.

(b) If the length to width ratio is less than four to one, use baffles or other means to increase the flow path between the inlet and the outlet.

(c) Be capable of being easily cleaned out at any time of the year.

(3) Have a secondary settling pond or cell that shall be designed to meet the following criteria:

(a) Be capable of settling a particle with a settling velocity of 0.0009 feet per second.

(b) If the length to width ratio is less than four to one, use baffles or other means to increase the flow path between the inlet and the outlet.

(c) Be capable of storing the volume of run off from a ten-year, twenty-four-hour storm event.

***** DRAFT – NOT FOR FILING *****

- (d) Contain an inlet of the emergency spillway that shall be at an elevation that will not allow surface water flow into the emergency spillway until the twenty-five-year, twenty-four-hour storm event.
- (e) Be equipped to prevent floatables from being discharged through the outlet.
- (f) Be equipped with a dewatering device that draws from the surface of the pooled water.
- (4) Have a third pond or cell, also known as a discharge control pond, that shall be designed to discharge the volume of runoff from a 0.75-inch rainfall in not less than twenty-four hours.
- (B) The containment structures of the sediment and storm water management basin shall be designed to meet the following criteria:

 - (1) Provide not less than one foot of freeboard above the designed maximum operating pool level after accounting for settlement.
 - (2) Have a slope that does not exceed compaction and maintenance equipment limitations.
 - (3) Use a seepage control device for any penetrations through the liner system.
 - (4) If structural fill is used, use structural fill that conforms to the design standards in rule 3745-511-220 of the Administrative Code.
 - (5) If the embankment is above ground, the embankment shall conform to the design standards in rule 3745-511-220 of the Administrative Code.
- (C) The surface of discharge points of the sediment and storm water management basin system shall have rip rap. Rip rap shall extend as far as necessary to provide erosion protection and re-aeration of discharge water.