







## **Emergency Overflow Spillway**

- 1. In addition to the primary overflow (described above), ponds must have an emergency overflow spillway. For impoundments of 10 acre-feet or greater, the emergency overflow spillway must meet the state's dam safety requirements (see <u>Dam Safety for Detention BMPs</u> above). For impoundments under 10 acre-feet, ponds must have an emergency overflow spillway that is sized to pass the 100 year developed peak flow in the event of total control structure failure (e.g., blockage of the control structure outlet pipe) or extreme inflows. Emergency overflow spillways are intended to control the location of pond overtopping and direct overflows back into the downstream conveyance system or other acceptable discharge point.
- 2. Provide emergency overflow spillways for ponds with constructed berms over 2 feet in height, or for ponds located on grades in excess of 5 percent. As an option for ponds with berms less than 2 feet in height and located at grades less than 5 percent, emergency overflow may be provided by an emergency overflow structure, such as a Type II manhole fitted with a birdcage as shown in Figure V-12.11: Overflow Structure. The emergency overflow structure must be designed to pass the 100 year developed peak flow, with a minimum 6 inches of freeboard, directly to the downstream conveyance system or another acceptable discharge point. Where an emergency overflow spillway would discharge to a slope steeper than 15%, consideration should be given to providing an emergency overflow structure in addition to the spillway.
- Armour the emergency overflow spillway with riprap in conformance with <u>BMP</u> <u>C209: Outlet Protection</u>. The spillway must be armored full width, beginning at a point midway across the berm embankment and extending downstream to where emergency overflows re enter the conveyance system (see <u>Figure V-12.10</u>: <u>Typical Detention Pond Sections</u>).
- Emergency overflow spillway designs must be analyzed as broad crested trapezoidal weirs as described in <u>Methods of Analysis</u> (below). Either one of the weir sections shown in <u>Figure V-12.10: Typical Detention Pond Sections</u> may be used.

5. Design the emergency overflow spillway to allow a minimum of 1 foot of freeboard above what elevation.