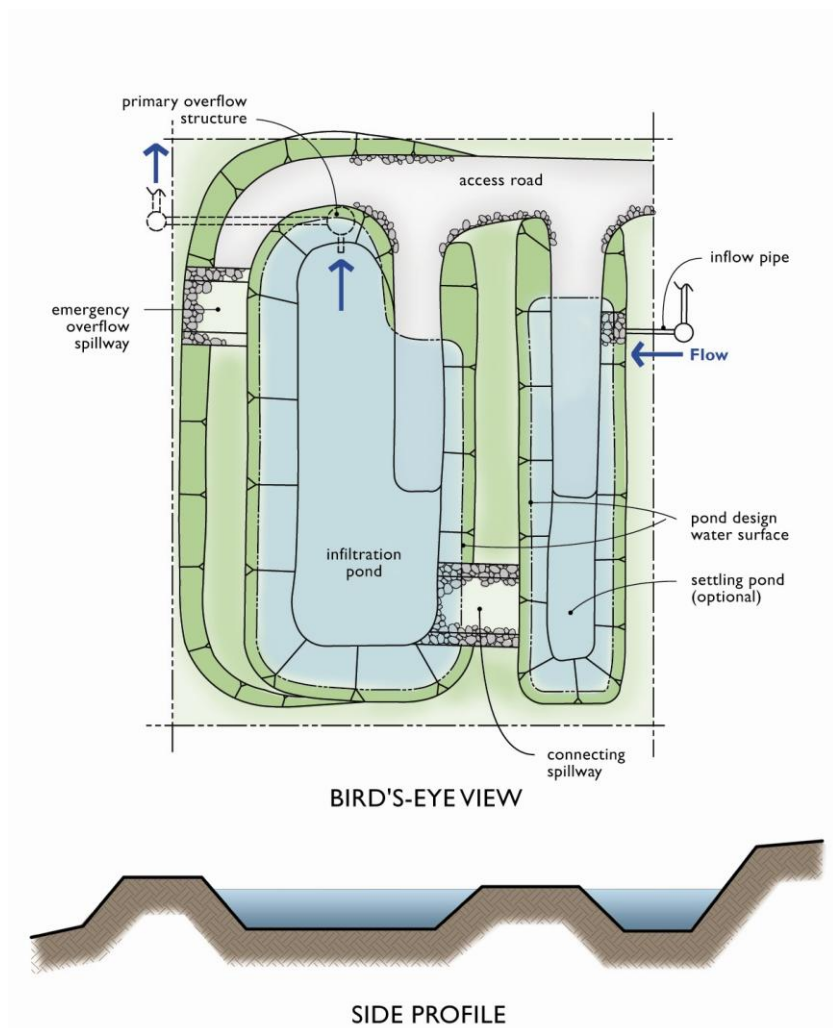


## 3.2 Infiltration/Retention Pond

Stormwater infiltration ponds are open basins built by excavating below existing ground or by constructing above-ground berms (embankments). Like the detention pond, the infiltration pond temporarily stores stormwater runoff during rain events, but unlike the detention pond, the infiltration pond does not discharge to a downstream conveyance system or nearby surface water. Instead, the infiltration pond relies on the ability of the site's soils to absorb the stormwater into the ground. Components that are typically associated with a retention pond include the following: energy dissipaters, access road, and fence.



### 3.2 Infiltration/ Retention Pond Checklist

Frequency	Drainage System Feature	✓	✓	✓	✓	Problem	Conditions to Check For	Conditions That Should Exist
MONTHLY, STORM	General					Trash & Debris	Any trash and debris which exceed 5 cubic feet per 1,000 square feet (this is about equal to the amount of trash it would take to fill up one standard size garbage can). In general, there should be no visual evidence of dumping. If less than threshold all trash and debris will be removed as part of next scheduled maintenance.	Trash and debris cleared from site.
ANNUAL	General					Poisonous Vegetation and noxious weeds	Any poisonous or nuisance vegetation which may constitute a hazard to maintenance personnel or the public. Any evidence of noxious weeds as defined by State or local regulations. (Apply requirements of adopted IPM policies for the use of herbicides).	No danger of poisonous vegetation where maintenance personnel or the public might normally be. (Coordinate with local health department) Complete eradication of noxious weeds may not be possible. Compliance with State or local eradication policies required
MONTHLY, STORM	General					Contaminants and Pollution	Any evidence of oil, gasoline, contaminants or other pollutants	No contaminants or pollutants present. (Coordinate removal/cleanup with local water quality response agency).
MONTHLY	General					Rodent Holes	Any evidence of rodent holes if facility is acting as a dam or berm, or any evidence of water piping through dam or berm via rodent holes.	Rodents destroyed and dam or berm repaired. (Coordinate with local health department; coordinate with Ecology Dam Safety Office if pond exceeds 10 acre-feet.)
MONTHLY	General					Beaver Dams	Dam results in change or function of the facility.	Facility is returned to design function. (Coordinate trapping of beavers and removal of dams with appropriate permitting agencies)
ANNUAL	General					Insects	When insects such as wasps and hornets interfere with maintenance activities.	Insects destroyed or removed from site. Apply insecticides in compliance with adopted IPM policies.
MONTHLY	Storage Area					Sediment	Water ponding in infiltration pond after rainfall ceases and appropriate time allowed for infiltration. (A percolation test pit or test of facility indicates facility is only working at 90% of its designed capabilities. If two inches or more sediment is present, remove).	Sediment is removed and/or facility is cleaned so that infiltration system works according to design.
MONTHLY	Filter Bags (if applicable)					Filled with Sediment and Debris	Sediment and debris fill bag more than ½ full.	Filter bag is replaced or system is redesigned.

## Infiltration/ Retention Pond Checklist (Continued)

Frequency	Drainage System Feature	✓	✓	✓	✓	Problem	Conditions to Check For	Conditions That Should Exist
MONTHLY, STORM	Rock Filters					Sediment and Debris	By visual inspection, little or no water flows through filter during heavy rain storms.	Gravel in rock filter is replaced.
MONTHLY	Side Slopes of Pond					Erosion	Eroded damage over 2 inches deep where cause of damage is still present or where there is potential for continued erosion.	Slopes should be stabilized using appropriate erosion control measure(s); e.g., rock reinforcement, planting of grass, compaction.
ANNUAL	Pond Berms (Dikes)					Settlements	Any part of berm which has settled 4 inches lower than the design elevation. If settlement is apparent, measure berm to determine amount of settlement. Settling can be an indication of more severe problems with the berm or outlet works. A licensed civil engineer should be consulted to determine the source of the settlement.	Dike is built back to the design elevation.
ANNUAL	Pond Berms (Dikes)					Piping	Discernable water flow through pond berm. Ongoing erosion with potential for erosion to continue. (Recommend a Geotechnical engineer be called in to inspect and evaluate condition and recommend repair of condition.	Piping eliminated. Erosion potential resolved.
ANNUAL	Emergency Overflow/ Spillway					Tree Growth	Tree growth on emergency spillways creates blockage problems and may cause failure of the berm due to uncontrolled overtopping.	Trees should be removed. If root system is small (base less than 4 inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A licensed civil engineer should be consulted for proper berm/spillway restoration.
ANNUAL	Emergency Overflow/ Spillway					Emergency Overflow/ Spillway	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil at the top of out flow path of spillway. (Rip-rap on inside slopes need not be replaced.)	Rocks and pad depth are restored to design standards.
MONTHLY	Pre-settling Ponds and Vaults					Facility or sump filled with Sediment and/or debris	6" or designed sediment traps depth of sediment.	Sediment is removed.

If you are unsure whether a problem exists, please contact a Professional Engineer.

Comments:

Key:

(MONTHLY) Monthly from November through April.

(ANNUAL) Once in late summer (preferable September)

## Infiltration/ Retention Pond Checklist (Continued)

(STORM) After any major storm (use 1-inch in 24 hours as a guideline).