

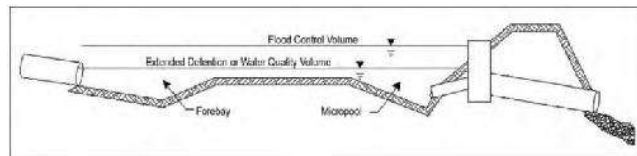
MAINTAINING STORMWATER CONTROL MEASURES

Guidance for Private Owners & Operators

STORMWATER CONTROL MEASURES

Dry Pond or Dry Extended Detention Basin

Dry ponds, also known as dry extended detention basins, are stormwater control ponds designed to capture stormwater runoff and detain the stormwater runoff for a designed period of time. Older dry ponds drain completely between storm events and are typically maintained in a mowed grass condition, these ponds have a primary role of detaining flows from large storm events. More recent dry ponds should also capture excess sediments, trash and debris and can remove contaminants from stormwater prior to being released downstream or into a local sewer system. More recently built dry ponds will have additional features called forebays (at inlets) or micropool (at the outlet) that help capture excess sediments, trash and debris and can remove contaminants from stormwater before it leaves the pond.



Typical Dry Pond cross-section view showing different levels of ponding control during storm events.

Credit: Ohio Rainwater & Land Development Manual



*Well maintained dry detention basin. **Forebay** in the background. Main pool area receives periodic mowing to maintain vegetation. Credit: Cuyahoga Soil & Water Conservation District*



*Outlet structure with multiple drains **free of obstruction** such as vegetation, trash or sediment. Credit: Summit Soil & Water Conservation District*

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MAINTENANCE REQUIRED WHEN:

- Standing water is visible 72 hours after a rain event.
- Outlet is blocked by trash, debris or vegetation.
- Erosion within the emergency spillway, or blocked by debris.
- Erosion of side slopes or dam portion of pond.
- Low flow orifice, forebay, and micro pool are blocked by trash, debris, or sediment.
- Excessive (wetland) vegetation growing within dry pond area.
- Animal burrows within dam portion or side slopes of pond.
- Trees growing on the dam.
- Foul odors present.

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ROUTINE AND NON-ROUTINE MAINTENANCE

be corrected. Contact your local community stormwater manager, state technical assistance staff and the designer for further consultation.

- Specialized Soil Replacement: Clogging of the specialized soil by fine sediments may require complete replacement of the specialized soil, mulch and plant materials.

Dry Pond or Dry Extended Detention Basin

Routine Maintenance:

- Outlet Structures: Keep outlets such as principle spillway pipe, water quality orifice pipe and emergency spillway free from blockage by sediment, debris, or trash.
- Dam/Embankment: Mow grassed dam and embankment of dry pond to prevent establishment of woody vegetation.
- Erosion and Scour: Repair soil erosion or scouring on the side slopes leading into the dry pond or within the bottom or forebay of the dry pond.
- Vegetation Management: Remove woody vegetation from ponding area of dry pond.
- Sediment and Debris: Remove accumulated sediment, debris and trash from the dry pond forebay, low flow channel and ponding area. Remove sediments when accumulation reaches 6 inches in depth.

Non-Routine Maintenance:

- Excessive Sediment: Remove sediment accumulation from the ponding area prior to 25 percent of the ponding storage volume being lost within the dry pond.
- Invasive Vegetation: Treat and remove invasive vegetation from ponding area, side slopes and emergency spillway.
- Outlet Structure: Repair or replace damaged outlet structure.
- Erosion Protection: Repair or replace riprap or stone protection at pipe inlets, pipe outlets or emergency spillway.
- Dam/Embankment: Seek professional consultation if seepage or leaks appear during ponding or erosion is discovered on the dam or embankment of the dry pond.

Dry Pond or Dry Extended Detention Basin Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	Time:	Weather Conditions:	Date of Last Inspection:
Inspector:		Title:	
Rain in Last 48 Hours <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, list amount and timing:			
Pretreatment: <input type="checkbox"/> vegetated filter strip <input type="checkbox"/> swale <input type="checkbox"/> forebay <input type="checkbox"/> other, specify:			
Site Plan or As-Built Plan Available: <input type="checkbox"/> Yes <input type="checkbox"/> No			

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Trash and debris have accumulated.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
2. DEWATERING			
The water quality orifice is visible.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
3. INLETS			
Inlets are in poor structural condition.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sediment has accumulated and/or is blocking the inlets.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Erosion is occurring around the inlets.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
3. EMBANKMENT			
Sinkholes or cracks are visible in the embankment.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Trees or woody vegetation present on the dam or embankment.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
4. BASIN OR BOWL AREA			
Trash and debris have accumulated.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Invasive plants are present.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Erosion is evident on the basin floor or low flow channel.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
The micro-pool has sediment accumulation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sinkholes or animal borrows are present.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
5. SIDE SLOPES AND EMBANKMENT			
Erosion is evident.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sinkholes, animal borrows or instability are present.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
6. OUTLETS AND OVERFLOW STRUCTURE			
Outlets or overflow structures in poor structural condition.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sediment, trash or debris is blocking the outlets or overflow structure.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Erosion is occurring around the outlets or overflow structure.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Joints are not water tight and/or leaks are visible.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes

Wet weather inspection needed ☐ Yes ☐ No

Site Sketch: