Lake Wise Info Sheet

Shoreland Best Management Practices for Lake-friendly Living.

Benefits

- Water Quality
- Prevents Erosion
- Slow, Spread, Sink Stormwater
- Low Cost
- Low Maintenance
- Small spaces
- Protection & Resiliency

Acceptable BMP under the Vermont Shoreland Protection Act

Related Info Sheets:

Infiltration Trenches

Downspout Disconnection & Rain Barrels

Vegetated Swales

DRY WELLS

Upland stormwater management

Description.

Dry wells are subsurface storage areas that allow for infiltration of concentrated stormwater. They are typically cylindrical holes in the ground filled with stone.

Acton Wakefield Watersheds Alliance

A dry well receives driveway runoff.

Applicability.

Concentrated stormwater flows from areas like gutter downspouts and swale outlets can be directed to dry wells for collection and infiltration. Space requirements are minimal. Soils should be well drained.

How to.

1. Determine the area where a dry well will be installed. Avoid areas within 10 feet of structures or septic systems. If there are no other options, ensure nearby foundations are properly sealed and the bottom is sloped away from structures to prevent flooding.

Soils should be well drained; do not select areas where water regularly ponds. A dry well should optimally infiltrate water at a rate of ½-inch per hour or soak in within 24-48 hours.

A swale or a downspout extension can be used to transport roof runoff to the dry well.

2. Calculate drainage area. Use the dry well sizing guide on the next page to determine the appropriate depth and diameter. Mark the area with string or spray paint.

Vermont DEC

Dry well in lawn.

PERCOLATION TEST

Dig a hole 2-3' deep, fill with water and let it drain fully, twice. On the third time, monitor the infiltration rate for 1/2" per hour - if a 2' hole drains within 48 hours, you are good to go!

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

Graphics by Greenleaf Design, LLC

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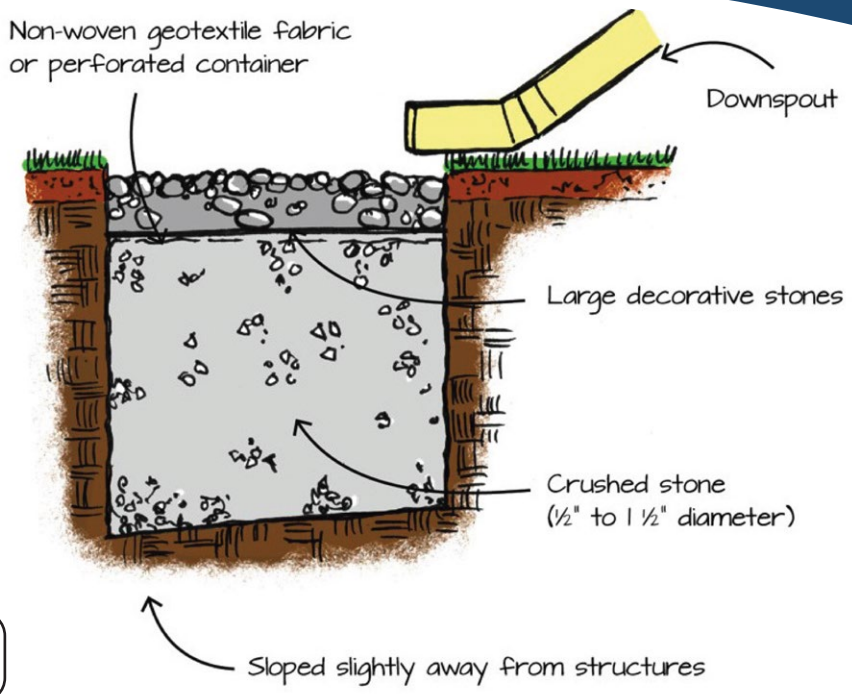

Dry well section diagram. VT Guide to Stormwater Management.

Dry Well Sizing Guide.

Drainage Area (square feet)	Depth (feet)	Diameter (feet)
100	3.5	3
200	3.5	4
400	3.5	6
500	4	6
1,000	4	9

Adapted from The Vermont Guide to Stormwater Management for Homeowners and Small Businesses.

How to.

3. Dig the appropriately sized hole based on your determined size. Slope the bottom of the hole slightly away from any structures. Ensure that excavated soil will not be washed to any surface waters.

4. Line the hole with nonwoven geotextile fabric to extend the life of the dry well. Leave enough fabric to cover the entire hole once it is filled with stone.

5. Fill the hole with washed crushed stone (½ to 1 ½ inch diameter stone) to three inches from the ground surface.

6. Fold the fabric over the top of the stone.

7. Add a layer of washed crushed stone and optional large stones on top of the fabric.

Materials.

- Measuring tape & spray paint or string to mark area
- Shovel
- ½ to 1 ½ inch washed crushed stone - local gravel pit!
- Nonwoven geotextile fabric (not woven)
- Large stones (optionals)

Maintenance.

Periodically remove accumulated debris and weeds from the surface of the dry well. Inspect the dry well after large rain events and in the spring. If clogged, as indicated by slowly draining or pooling water, the top layer of stone may need to be removed, washed, and replaced.

For more information...

- The Vermont Guide to Stormwater Management for Homeowners and Small Businesses (2018)
- New Hampshire Homeowner's Guide to Stormwater Management (2019)

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