

Lake Wise Info Sheet



Shoreland Best Management Practices for Lake-friendly Living.

Benefits

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

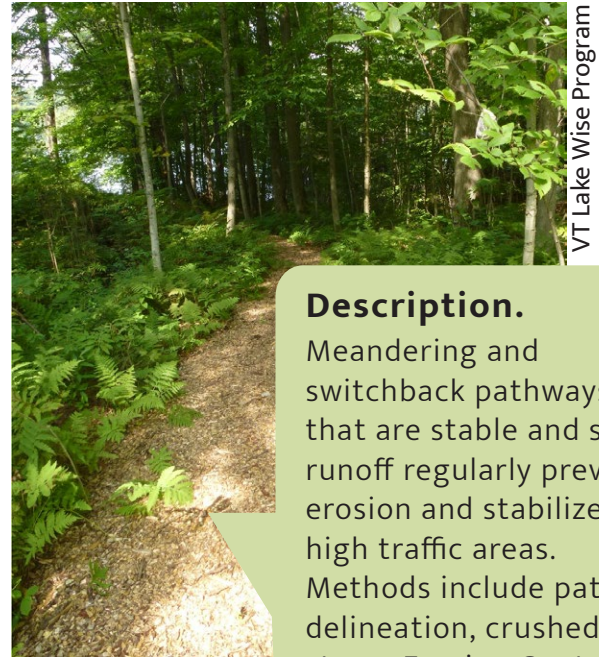
VT DEC suggested BMP for shorelands

Related Info Sheets:

Water Bars & Open-top Culverts
Turnouts & Rock Aprons
Infiltration Steps

PLANNING PATHWAYS

Low impact lake access



VT Lake Wise Program

Description.

Meandering and switchback pathways that are stable and shed runoff regularly prevent erosion and stabilize high traffic areas. Methods include path delineation, crushed stone, Erosion Control mix, and water bars.

Meandering peastone and wood chip access pathways.

Applicability.

Properly designed pathways for foot traffic minimize compaction to surrounding areas, absorb water, reduce the rate of stormwater runoff flow, protect soil from erosion, and prevent pollutants such as sediments from entering the lake.

How to.

1. Review your property and determine where the high foot traffic areas are. It can be helpful to print or draw a map and draw in your pathways. Notice where there are steep slopes, signs of erosion, soil compaction, and where water runoff flows along pathways during rain events.

Design pathways to meander gradually for gentle slopes, to have switchbacks running across contour and waterbars for steeper slopes, and install infiltration steps for pathways that must traverse a steep slope directly. Avoid steep slopes if possible.

By avoiding straight and steep pathways, you reduce the volume and velocity of water runoff entering the lake; the turns, switchbacks, waterbars, and infiltration steps divert water off the pathway and into nearby vegetated areas to soak into the ground.

2. Design pathways that are only as wide as necessary, typically 3 to 4 feet wide for residential landscapes and a maximum of 6 feet wide to comply with the Shoreland Protection Act guidance. Mark the paths using stakes, spray paint, fencing, or rocks.

VERMONT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION



Graphics by Greenleaf Design, LLC



Acton Wakefield Watershed Alliance

Simple timber water bar and rock apron to divert and dissipate water runoff and prevent erosion.

How to.

3. The walking surface should be composed of 3 to 4 inches of Erosion Control Mix, crushed stone, peastone, pine needles, wood chips, or other material that will maintain a permeable surface for water to soak in and protect the soil from compaction and erosion. If the area is lawn, consider mowing the pathway and letting the surrounding area grow into a meadow or natural succession of native plants.

4. If pathways are not clearly defined, the new paths can be clearly marked with strategic plantings, stones, solar lights, or other delineations along the edges to direct traffic and reduce compaction and destruction of surrounding plants and soils.

Water Bars.

Water bars are diagonal channels or berms on a pathway that intercept stormwater runoff and direct it off the pathway into a nearby stable area, such as a relatively flat and/or densely vegetated area or a stone-armored rock apron. This prevents pathways from eroding and sediments from entering the lake. See Water Bars and Open-top Culverts.

There are also some simpler types of water bars that can be installed readily with minimal effort. It is possible to use only materials found on-site to construct water bars and effectively manage stormwater on pathways. Logs, timbers, rocks, or earthen berms can be installed to rise above the surface of the path and direct stormwater off the pathway at about a 30 degree angle to the downslope side of the pathway.

Materials.

- Stakes, rocks, spray paint to mark area
- Measuring tape, level, string
- Shovel, rake, wheelbarrow, tarps, etc. to transport and lay path materials
- Wood chips, peastone, crushed stone, or Erosion Control Mix: wood fibers, soil, and gravel blended together
- Optional: stepping stones can be set in gravel to create a smooth surface

Water Bar Spacing Guide.

Slope (%)	Spacing (feet)
<5	125
5-10	100
10-20	75
20-35	50
>35	25

Adapted from
The VT
Standards &
Specifications
for Erosion
Prevention &
Sediment
Control

Maintenance.

Inspect the pathways after large rain events and in the spring. If any damage occurs, repair as soon as possible. If applicable, remove any accumulated sediment from water bars.

For more information...

- A Guide to Healthy Lakes Using Lakeshore Landscaping: Design templates and easy-to-use planting plans (2015)
- Contact your regional lake and shoreland permit analyst before removing any shoreland vegetation and for questions about permit requirements