



Lake County Soil and Water Conservation District

Technical Bulletin # 98-001

Subject: Living with Ravines

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Living with Ravines

Ten thousand years ago when the glaciers retreated from this area they left behind large quantities of till consisting of boulders, clays, and sands. Water has since cut ravines in these glacial remains to form many of the ravines in Lake County.

These ravines are unique in Ohio and often support many unique plants and animals. Because of this unique beauty, ravines are considered by many to be desirable locations for homes. All too often homeowners discover the forces that formed these ravines are still at work and find their homes and property are being damaged due to water, soil slippage or eroding hillsides.

The clay in the glacial till is very tough and can support heavy structures such as buildings, roads, and driveways. Underneath the clay, there are layers of sand and gravel scattered at various depths. Water tends to travel along the seams of these different layers making the layers more prone to slippage. As a result, the points where these seams intersect a ravine wall are the most subject to periodic movement. When slippage occurs, the entire top layer can start to slide away, carrying with it any structures or trees that are on it.

Plants are your number one resource for protecting ravine slopes, especially deep-rooted trees. Try to use native species as non-natives are frequently more aggressive than native species and can take over entire sections of ravines.

Tips:

- Do not build structures close to the edge of the slope, or cantilever them over the slope.
- Keep built structures a minimum of 20 feet from the edge of ravine slopes.
- Do not operate heavy machinery (including riding mowers) within 10 feet of the slope edge.
- Have good, solid vegetation at the top edge of the ravine or bluff. Densely planted flowerbeds are fine but don't turn over the soil when planting.
- If you have leaning trees ready to pull away from slope, cut them in the dormant season so the stump will remain alive and continue to hold soil in place while slope is re-vegetated (leaning trees can be dangerous to cut, consult a professional).
- Never dump lawn clippings, leaves debris or waste in the ravine. This will inhibit vegetation growth and cause more erosion.
- Never drain water onto the surface of the ravine. Direct any yard drains, gutters, or driveway drainage to bottom of ravine in plastic pipes.

Contact the Lake SWCD for free assistance with ravine management.

Native plants that can be used to re-establish vegetative cover on ravine slopes:

Trees		Shrubs		Grasses / Wildflowers
Sugar Maple	sun	Grey Dogwood	shade	Pennsylvania Sedge
Cotton Wood	sun	Red Dogwood	sun	Bottlebrush grass
White Ash	p/shade	Wild Plum	shade	Canada Wild Rye
Basswood	shade	Blackhaw	shade	Panic Grass
SB Hickory	sun	Sandbar Willow	sun	Columbine
Red Oak	sun	Witchhazel	shade	Blue Phlox
White Pine	sun	Nanny Berry	shade	Trout Lilly
Black Walnut	sun			Trilliums
Service Berry	shade			May Apples
Paper Birch	sun			
Black Cherry	sun			

Contact the Lake SWCD for a complete plant list.