

## *Drainage 101*

### **A GUIDE TO HELP UNDERSTAND BASIC CONCEPTS OF RURAL DRAINAGE IN LORAIN COUNTY**

Drainage is a major land use concern throughout Lorain County. Most landowners can testify to this as is evident by wet yards, flooded basements and soggy farm fields. The primary cause of wetness is poorly drained soils, flat topography, high clay content and 36 inches of annual precipitation. These factors combine to create standing water and saturated soils for a large part of the year in our area.

The ***Soil Survey of Lorain County*** describes soil and drainage conditions on an acre-by-acre basis countywide. This is a useful document for determining land and soil limitations for building, farming, construction and a number of other land uses. The Soil Survey is an excellent document to review prior to purchasing property especially when it comes to drainage, flooding and wetlands.

Drainage problems are traditionally addressed in two ways in our area.



*Squires Ditch in New Russia Twp. –  
needs cleaning*

This includes the use of subsurface and surface drainage systems. ***Subsurface drainage methods*** involve the use of tile drainage products such as clay, plastic, concrete, catch basins, etc, to intercept and remove internal water in the soil, thereby lowering the water table. Secondly, ***surface drainage methods*** involve the use of grass waterways, swales and ditches to remove standing water and convey stormwater runoff to a suitable outlet. The use of both surface and subsurface drainage methods together is the best way to correct poor drainage conditions.

A ***suitable outlet*** is critical to the functioning of any drainage system. The drainage outlet is the point where excess water is disposed. Drainage outlets include storm sewers, tile, catch basins, ditches, streams or rivers. The key to the drainage outlet is that it needs to be located at a lower elevation than the area to be drained, since most drainage systems operate under gravity. This allows a drainage system to move water from a higher elevation to the outlet. Consequently, areas of saturated soils and/or standing water, where an adequate drainage outlet doesn't exist, have limited options for improvement.



*Dellefield Ditch Project – Elyria Twp.*

Drainage problems are not usually limited to one property, and often cross property lines following natural drainage patterns, depressions and soil types. In the same way that drainage problems traverse property lines, correcting these problems often requires that neighbors work together to correct areas of flooding and wetness. The location and depth of the drainage outlet is generally the key and dictates how far the drainage project can be extended.

There are many questions and misconceptions about drainage such as: who is responsible for improving drainage, who regulates what landowners can do on their own property, as well as the rights and wrongs about installing and maintaining artificial drainage systems. The legality of drainage work often arises, especially in the case of feuding neighbors.

Simply stated, all water should enter and leave your property at the same point, and at the same rate, as it did prior to any construction or land disturbance, and it should do so in a manner that does not cause damage to neighboring properties.

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#### DO'S AND DON'TS OF DRAINAGE:

The next eight points summarize many of the common drainage questions that arise between neighbors.

1. Legal drainage issues are complex since they are, in many instances, determined on case law, which is constantly changing. Serious drainage disputes are often settled on a case-by-case basis.
2. Landowners are entitled to a reasonable use of the water that flows across their land, as long as the water is returned to its natural watercourse. This would include ponding water behind a dam, for personal use, or making drainage improvements to protect house or other structures.
3. A landowner is generally required to accept the water that flows onto their property in a natural watercourse, so long as no additional water from another watershed has been added to the flow.
4. A landowner is generally obligated to outlet a natural watercourse onto their downstream neighbor, at the same point the water left the property, prior to any development of the site.
5. Maintenance of drainage systems are the responsibility of the landowner, with the exception of those with a legal drainage easement
6. A landowner may utilize subsurface tile on his property at his discretion, so long as they do not block, reduce, or increase the flow of water in the tile, in a manner that causes damage to upstream or downstream landowners.

7. Changing the flow of water, either surface or subsurface, across your property, in a manner that causes damage to an upstream or downstream landowner, may result in legal liabilities for those damages.
8. There is no government agency which is designated to issue orders, or otherwise resolve conflicts over water rights and drainage problems between landowners. Such conflicts may need to be resolved through the court system. Exceptions include municipalities that have applicable stormwater ordinances and authority of County Commissioners to order removal of blockage on public watercourses.

The information contained in this publication is intended as a general overview of drainage concerns. This information has been reviewed by the Lorain County Prosecutor. Persons with specific problems or disputes should seek the services of private legal counsel to discuss the applicability of these general principles to their particular situation.

The Lorain Soil & Water Conservation District can provide technical information on correcting drainage problems on a voluntary basis only. The Lorain SWCD cannot get involved with drainage disputes or conflicts between neighbors, as it is not a regulatory agency, nor can it provide legal advice.

*Other Recourses:*

Lorain Soil & Water Conservation District  
42110 Russia Road  
Elyria OH 44035  
440.326.5800

Your local Township Zoning Inspector

Lorain County Engineer's Office  
247 Hadaway Street  
Elyria OH 44035  
440.329.5585