

# Wet Backyards

Residents frequently contact Fairfield Soil and Water or their local municipality when rainfall results in ponding water, drainage problems, or inaccessible portions of property. Many times, corrective action can help address safety concerns, structural damage, or inappropriately maintained drainage infrastructure resulting from one or more of the following:



## Gutters and Downspouts

Just a half inch of rain falling on a 1,000-square-foot roof will yield 300 gallons of water. Properly installed gutters should keep water away from your foundation, as wetness or erosion near walls and driplines can be damaging and cause shifting, settling, cracks, and leaks. Possible causes include clogged or undersized gutters, downspouts discharging too close to your foundation or failing tile if piped underground.

**SOLUTION:** Clean downspouts at least once a year, monitor for overflow or ponding water, and ensure the discharge point (including sump pump) is as far away as possible (at least 5'-6', but check your local code and comply) away from your foundation. Your runoff should not be a nuisance to your neighbors, or empty onto a sidewalk where ice forms in winter. If your home relies on a sump pump to keep water out of your basement, it may be advantageous to have a backup on standby or at least a secondary power source in case of a power outage.

## Climate Change

Many long-time residents become concerned when observing standing water in areas where it had not ponded in the past. The last decade has been our wettest on record, and Ohio's springs continue to be warmer and wetter than average, with winters warming twice as fast as summers. With less ice and snowpack to retain water longer, runoff is immediate. However, Ohio still suffers drought. In 2019, 80% of Ohio was severely dry with the hottest September on record. Local rainfall data information can be found at <https://maps.cocorahs.org/>.

**SOLUTION:** Residents may conserve water for later summers with a rain barrel or cistern and should have underground drainage systems in place prior to wet seasons. Studies show that female mosquitoes prefer to lay eggs in water that collects or is stored in manmade containers. Breeding occurs within 10-14 days in stagnant water, including clogged gutters, open rain barrels, bird baths, buckets, etc. Practice regular cleaning and if necessary, use mosquito dunks. Local plumbing, zoning code, and HOA regulations should be checked.

## Soil and Landscape Characteristics

Some areas in Fairfield County have clay-heavy, poorly drained soils, and about 85% of the land in Ohio is affected by a seasonally high-water table. Newer subdivision lots generally do not have quality topsoil left after grading and construction. Instead, homeowners find themselves with heavy, hard subsoil as a poor foundation for grass establishment and other plantings that help slow and filter runoff. Your landscape modifications and those of your neighbors that include additions, mature shrubs, or soil movement tend to change drainage patterns, too, often directing water to foundation walls. Finally, those living near streams or ravines may clear plants and trees for an unobstructed view or easy access, but this threatens property and water quality with erosion, and intensifies runoff. Less trees result in less water removed from soil through the process of evaporation.

**SOLUTION:** Aeration, soil amendment, and mulching grass and fall leaves on lawns help build up oxygen-rich organic matter over time that retains more water and supports deep plant roots. Encouraging water-tolerant plants can sometimes be a resolution for periodic wet spots that do not support turfgrass. Grading or additional subsurface drainage

may be necessary if elevations allow. Always ensure a positive grade away from your house's foundation, and practice stream stewardship where appropriate.

## Subsurface Drainage

Much of our drainage can be subsurface tiles. If the plumbing in your house is broken, you get it fixed or deal with a leak. Subsurface drain tiles are the plumbing that keeps your house foundation and yard dry, so even though you don't see it, repairs or replacement should still be made. Surface inlets, such as catch basins or hickenbottom risers should be kept clear of debris. For more information, see:

- **What is Tile** document on our website at <https://fairfieldswcd.org/wp-content/uploads/2020/08/What-is-tile.pdf>. It also explains how you can look through aerial imagery on Google Earth, if you are interested.
- Also, on our website [www.fairfieldswcd.org](http://www.fairfieldswcd.org) homepage there is a video of our interview with OSU-Extension to discuss field tile. Below is what the link looks like. Tile discussion is around 4:30-10:00 and after 17:00.



- a blog at <https://fairfieldswcd.org/not-all-plumbing-is-inside/>
- a contractor list at <https://fairfieldswcd.org/wp-content/uploads/2020/12/General-contractors-list.pdf>, if you are in need of a contractor. Certainly, you don't have to use one of them. It lists their contact info, what type of work they do and equipment. We offer no warranty expressed or implied for the contractors on the list.

## Ohio Drainage Law

Water should enter and leave your property where it did prior to any construction activities. Changing the flow of water in a manner that causes damage to an upstream or downstream neighbor may result in legal liabilities of a civil matter. If neighbors can't amicably come to resolution of an issue, you can take the matter to court for a judge to make a ruling. More information is on our website at <https://fairfieldswcd.org/residential-resources/urban/>, scroll down to Ohio Drainage Laws and look through bullets: Ohio's Drainage Laws, Tile and Easements, and Water Rights & Reasonable Use.

## Other Information

We have a Rural Land Ownership Guide at <https://fairfieldswcd.org/rural-land-ownership-guide/> that gives more details specific to Fairfield County, especially site selection. Keep in mind, Fairfield County has many areas of natural springs and artesian wells. Often, we hear someone wants to build a pond to alleviate flooding in their yard. We discourage this as a pond may compound the problem, you should fix the issue instead. Be sure to keep septic systems in good working order and the drainage area around it sufficient (Fairfield Dept. of Health regulates, for information go to <https://www.myfdh.org/Environmental-Division/FDH-Household-Sewage-Treatment-Systems.html>). Franklin Health Dept. may be your contact, if you are to the northwest.

## What Can Fairfield Soil and Water Do?

There are no "drainage police", we don't have any authority to make someone correct a drainage issue.

In addition to the above information, we can provide:

- topographic/soils map which shows the way the land falls and soil descriptions, you can also access soil maps and information from Web Soil Survey online <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- review of historic engineering plans and 20+ aeriels we have dating back to 1930s, can also look at Google Earth (instructions on how you can use in the What is Tile document - link above).
- petition can be made to the county commissioners to create a tile or ditch project as a last resort, but unless the majority of neighbors affected agree to it, a project may not proceed.

