



CITY OF
FOLSOM
DISTINCTIVE BY NATURE

Addressing Drainage Problems Around Your Home

City of Folsom Public Works Department

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www.folsom.ca.us

While we don't have control over rain, when it falls or how much falls, we can work to lessen the impact of the problems it causes. The City's Public Works Department maintains and repairs the storm drain system in public areas and along city roads. The system generally includes the underground storm drain system, channels/creeks and regional detention ponds. Public Works also performs construction of new storm drain systems and repair. This information has been prepared to help you manage drainage on your private property.

Common causes of drainage problems

- Over irrigation and leakage
- Run-on from adjacent properties
- Groundwater seepage
- Inadequate on-site drainage system
- Needed maintenance of on-site drainage system

Listed below are common questions and concerns related to drainage:

Will the City fix drainage problems that are on my property?

Unless there is a maintenance easement that is dedicated and deeded to the City, the City cannot legally perform maintenance or work on areas within private property. In most cases, the private property owner is responsible for solving localized drainage problems and maintaining the portion of the drainage system that is located on their property. City Staff, however, is available to assess your residential drainage problems and advise possible solutions.

What if there is a natural drainage course through my property?

Maintenance by the City of drainage facilities throughout the City is limited to those facilities that are located within public rights of way, or drainage easements that are deeded to the City. Residents must take it upon themselves to maintain and/or restore the natural drainage course on their property. If there is any portion of surface waters on your property, such as a creek or stream, contact the California Department of Fish and Wildlife before doing maintenance or improvements within that water body. Below is contact information for the California Department of Fish and Wildlife:

California Department of Fish and Wildlife

1701 Nimbus Road
Rancho Cordova, CA 95670

(916) 358-2900

<http://www.dfg.ca.gov/habcon/1600/>

What if I need to construct drainage improvements on my property?

Property owners should consult with an engineer or landscape contractor and apply for an encroachment permit, if necessary. An encroachment permit may be required for improvements that involve importing or exporting soil or other landscape materials, installing underground pipe or an under sidewalk drain. Contact the City's Community Development Department for assistance with permitting. See the general information below regarding an under sidewalk drain and tips for hiring a landscape contractor.

What if my neighbor's property drains onto my property and causes a nuisance or damage?

The City receives many calls from residents inquiring about stormwater and irrigation runoff across private property lines. Private drainage problems between adjacent private property owners are the responsibility of the property owners. See the general information below regarding drainage water liability principles.

Does the City have an ordinance addressing drainage?

Many homeowners call looking for help to deter their neighbors from draining stormwater into or on their property. There are no specific City ordinances addressing stormwater runoff, as the City defers to state law in this instance. See the general information below regarding drainage water liability principles.

What if there is algae on the sidewalk?

Continual drainage over the sidewalk can cause algae to grow on the sidewalk. Algae creates a slippery and subsequently unsafe condition for the use of the sidewalk. Owners or occupants of lots fronting on a public street shall maintain the sidewalk in such condition that the sidewalk will not endanger persons or property. This is a requirement of the California Streets and Highways Code.

The cause of algae growth on sidewalks is often due to over irrigating or leaks. If algae is a problem on the portion of the sidewalk fronting your lot, you are responsible for cleaning and/or fixing the problem. Consider installing an under sidewalk drain (see additional information below) or schedule a free water survey by the City (see information below on the Water Conservation and Management Program).

Chemicals or cleaning products may not be used to clean algae off the sidewalk unless the wash water is recovered and disposed of properly, such as in the sewer. Non-stormwater discharges to the storm drain system are prohibited.

General Information:

Drainage design

On-site drainage systems are designed to adequately and economically collect and remove stormwater runoff from private property, public facilities and roads and convey the runoff to outlets to natural receiving waters. Most piped drainage systems are designed to pass the 10-year runoff peak flow. Open channel collectors and overland relief for the underground system are generally designed to convey the 100-year peak runoff.

- **What is an overland flow path?** An overland flow path is an above-ground component of the drainage system. Overland flows occur when heavy rainfall exceeds the capacity of the underground piped drain. The excess run-off then travels overland, following low-lying, natural drainage paths.
- **Why has a 10-in-100 year drainage standard been adopted for piped drainage systems?** This standard has been adopted as it is considered an appropriate balance between the likelihood of occurrence and the consequence of flooding for most developments. In some cases higher standards may be applied. It is a commonly used international drainage standard that has been applied in the Sacramento region for many years. The standard, correctly referred to as the 10-year Average Recurrence Interval (ARI) is a statistical estimate of the average period (in years) between the occurrence of floods of this magnitude or larger. It is also sometimes expressed as a probability, i.e., "there is a 10% chance in any one year of such an event occurring."

Drainage water liability principles

The California Rule An upper landowner is entitled to discharge surface water from his/her land as the water naturally flows. If however, he/she modifies the natural flow, he/she is liable for any damage done to a lower landowner unless the lower land had acted "unreasonably" in altering the natural drainage over his/her land. The determination of whether either landowner's conduct is reasonable or unreasonable is a question of fact to be determined in each case.

California has adopted a combination of the natural flow rule and the reasonable use rule, as will be more fully discussed below.

California Rule – Surface Water The current California rule was articulated in the landmark case *Keys v. Romley* (1966) 64 Cal. 2d 396. The California Supreme Court has stated the rule as follows:

- "We find the law in California, both as to urban and rural areas, to be the traditional civil law rule which has been accepted as the basis of harmonious relations between neighboring landowners for the past century. But no rule can be applied by a court of justice with utter disregard for the peculiar facts and circumstance of the parties and properties involved. No party, whether an upper or a lower landowner, may act arbitrarily and unreasonably and still be immunized from all liability. It is therefore incumbent upon every person to take reasonable care in using his/her property to avoid injury to adjacent property through the flow of surface waters. Failure to exercise reasonable care may

result in liability by an upper landowner to a lower landowner. It is equally the duty of any person threatened with injury to his/her property by the flow of surface waters to take reasonable precautions to avoid or reduce any actual or potential injury. If the actions of both the upper and lower landowners are reasonable, necessary, and generally in accord with the foregoing, then the injury must necessarily be borne by the upper landowner who changes a natural system of drainage, in accordance with our traditional civil rule.” (Id., at p. 408-409.)

Tips for hiring a landscape contractor

There are many ways you can improve drainage on your property. Some approaches are simple and inexpensive while others are more complex and costly. If you plan to contract out the work, be sure to get more than one estimate and carefully evaluate different alternatives.

To obtain information on how to hire a landscape professional visit the California Landscape Contractors Association web site at: www.CLCA.org

Under Sidewalk Drain

The City has a standard design detail for an under sidewalk drain (standard drawing RD-21). If you decide that this is something that would improve the drainage on your property you can obtain a no fee encroachment permit from the City for construction. If you are interested, please contact the Community Development Department at (916) 355-7226.

Related Services:

Water Conservation and Management Program

The City of Folsom has launched a water conservation program for City residents and commercial businesses. As part of this program, the City is offering a free water survey. Did you know that up to 50% of residential water usage is outside your home? *Check your irrigation.* Outdoor water use is the single biggest user of water for residential properties. Be sure the irrigation system is in good repair and working properly. Is the scheduling reasonable for the season? What was the last time a thorough survey of your system was performed? A good survey will identify small problems before they become expensive problems. Install a rain sensor for your timer. This can be fairly inexpensive and will prevent unnecessary watering during a rain. A water survey will give you important information on the effective use of water at your home. For more information, or to schedule your survey please contact Folsom Water Management at (916) 355-7252.

Concerned about West Nile Virus?

If you suspect that there is mosquito larvae around your property please contact Public Works at 355-7272 or the Sacramento-Yolo Mosquito & Vector Control District at (916) 685-1022.

- The Public Works or Parks & Recreation departments will inspect and address potential or actual mosquito breeding sources that are within the public right of way or on public property.
- If the problem is on private property it is up to the property owner to eliminate any potential or actual breeding sources for mosquito larvae. To learn more about areas on your property that may be potential breeding grounds for mosquitoes, visit one of the websites below. As a resident of Sacramento/Yolo County you are entitled to mosquito and vector control provided by the Sacramento-Yolo Mosquito & Vector Control District at no charge. For more information on the inspection and treatment services they offer call (916) 685-1022 or visit their website at www.fightthebite.net
- Resources:
 - Sacramento-Yolo Mosquito & Vector Control District
8631 Bond Road · Elk Grove, CA 95624
(916) 685-1022 · www.fightthebite.com
 - Sacramento County Public Health
7001-A East Parkway, Suite 600 · Sacramento, CA 95823
(916) 875-5881 · www.scph.com
 - California's West Nile Virus homepage: www.westnile.ca.gov