



## FAQs Sewage Back-Ups

Q1. Is it the City's responsibility if I have a sewer back up into my home?

A: Sewage back-ups into a private dwelling are not usually the City's responsibility. There are a range of options to protect your home including the backwater protection required by City Code and possibly sewer back up insurance. However, in the event of a back-up please do contact DPW Customer Service so that we are aware of the issue, can provide emergency assistance and can check our system. You can also submit a claim to the City (865-7000). The City's insurance agent will evaluate the claim and determine whether your claim will be covered. In most cases, sewer back-ups due to extreme precipitation events are not covered by the City's insurance, but you should take this step to determine if you are eligible for coverage.

Q2. I have heard that backwater valves are not a good idea—that if it fails it will cause a back-up of my entire home. Is that true?

A: City code of ordinances requires that backwater protection only be installed on fixtures that are subject to back flow and not on the lateral that serves the entire home. Therefore, the concern of a failed/stuck backwater valve affecting other areas of the home is not valid if the backwater valve has been installed in accordance with City Code

Q3. I have heard that it is not worth installing a backwater valve, that it can fail and I will not be protected. Is this true?

A: As with anything that we buy to protect our homes, backwater valves *can* be subject to mechanical failure, particularly if it is not installed by a licensed professional and maintained regularly. There are different levels of backwater *protection* (See "Are there different types of backwater protection"). Unfortunately, during extreme storm events, without backwater protection, it is likely that your home may experience a back-up in the future. Installing some type of backwater protection will reduce that risk and is required by City Code. It is important that you hire a plumber who is familiar with the range of options that may be appropriate for your particular property.

Q4. Are there different types of backwater protection, or are they all the same?

A. Selection of the type of valve or system depends on the level of protection and your willingness to perform the required maintenance to ensure the system is function correctly. Protection ranges from check valves, to a dual valve which has a check/flap valve and a manually operated gate valve, to perhaps the most protective (but most expensive) knife valve which can also include a notification alarm. Residential sewage ejector pumps are also an option. (See "Types of Backwater Protection")

Q5. I have a backwater valve; Why am I still getting back-ups into my home?

A. It is possible that your backwater system needs servicing or replacement. As with any mechanical equipment there are parts and pieces of the valve that may become worn and thus not function as well. Additionally, it is possible that your particular location may warrant a more protective type of backwater protection (See "Types of Backwater Protection"). It is important that you hire a plumber who is familiar with the range of options that may be appropriate for your particular property.



## FAQs Sewage Back-Ups

Q6. What is a combined sewer?

- A. Combined sewers are common in many older cities. It means that instead of two separate waste collection pipes (one for sanitary waste and one for stormwater), there is only one pipe. Both private homes' sewer laterals as well as the storm drains in the street are connected to the same pipe. During dry weather and during typical storm events, the pipe has capacity to carry both the sanitary sewage from homes as well as the stormwater from the street. Unfortunately, when we get really intense rain events (large amounts of rain in a short duration) and especially when this happens after our ground is saturated, the volume of stormwater may exceed the capacity of the pipes (every pipe has a certain amount of water it can carry based on its size, slope and type). When this happens, the water can back up and the pressure can allow it to pop man-hole covers and also back up into homes with fixtures that are below the elevation of the sewer and which are not protected with some type of backwater protection.

Q7. I heard the City separated the stormwater and sanitary pipes in the 1980s. Why is this still happening? Why are storm events affecting my private sanitary connection?

- A. In the late 1980s the City did undertake a substantial \$52 million dollar sewer separation project. During this project, the City separated as much of the City as was financially possible and feasible. This was primarily done to eliminate the majority of the City's worst combined sewer overflow points (CSOs), where a mixture of sewer and stormwater was being discharged during large storm events directly to our nearby water-bodies. Additionally, the City pursued significant upgrades to the Main Wastewater Sewage Treatment Plant to ensure that the combined sewage (stormwater and sanitary sewage) that reached the plant was being treated to the maximum extent practicable and in compliance with our WWTP permits. However, approximately 60% of the City is still served by the combined sewer. While City Code requires anyone with fixtures that are subject to backflow to have appropriate backwater protection, homes that are in the combined sewer area are more susceptible to sewer backup as the result of the extreme precipitation events that we are now seeing.

Q8. How can I find out if my home is on the combined sewer?

- A. The City is working on making the collection system maps available on-line as soon as possible and will let people know of its availability via our website, FaceBook, Front Porch Forum and Twitter. However, at this moment a draft copy of our mapping with a guide on using it is available at DPW which you may review. Again, please note, that ANY homes which have fixtures which are susceptible to backwater must, by City Code, protect those fixtures with backwater protection. Additionally, if you or any of your neighbors have experienced a sewer backup during an intense precipitation event, it is likely that your neighborhood is served by the combined sewer system. Do not delay, please make sure any basement or other low-lying fixtures are protected immediately.

Q9. Why can't we fix the collection system right now?

- A. "Fixing" the collection system is a very complex and costly issue. It is not as simple as just changing the collection system on any one street. Rather we would have lay new pipes all the way to a surface water body to



## FAQs Sewage Back-Ups

truly separate the system. Additionally, we've come to realize that urban stormwater needs to be treated before discharge into our water bodies, so in addition to those miles and miles of new storm pipe, we would also need to find locations to place treatment systems. The volume of stormwater discharged into our street network would be greatly reduced if everyone could prevent runoff from leaving their properties, but in many cases this is not feasible. The cost to separate our entire collection system Citywide would be in the order of hundreds of millions of dollars. We are, however, taking steps to begin this process of determining where and when separation could occur or at a minimum, where detention/retention of stormwater in the combined system could be installed to mitigate the impact. (See "What is the City doing to evaluate...?")

- Q8. Okay—I understand there are steps that I can take to protect my home. What is the City doing to evaluate if there are changes that can/should be made to the collection system to reduce the risk of combined sewer related back-ups.
- A. We're in the final stage of a mapping/inventory update of our collection system infrastructure. From here we need to construct a computer model of the entire pipe network to see where and how to make cost effective modifications and to ensure that a "fix" in one location does not cause problems elsewhere. We will be initiating the model development and calibration before the end of 2013. Whether basement flooding is occurring or not, the City's goal is to reduce/mitigate stormwater inputs to our combined sewer system (and to our surface water bodies) since the stormwater does present challenges with the operation of the wastewater treatment plants.
- Q9. My insurance policy doesn't currently cover sewage back-ups. Is there any type of insurance specifically for this type of event?
- A. Based on our discussions with our own insurance broker, it does appear that some insurance companies offer "sewage back-up" endorsements for an added cost. The City's insurance company is working on an overview of what those options are and we will make this information available as soon as we have it on our website. For now, you should speak with your insurance carrier. In some cases, you may need to install a backwater valve prior to the company underwriting this endorsement if you have had previous backups.