

FACT SHEET – Floods and Water Quality

WELL WATER ISSUES

- Individual water wells may have become contaminated due to impact by floodwaters.
- If the floodwaters did not come in contact with the well casing, they may still cause an impact to the groundwater which the well taps. Excess amounts of groundwater may lead to increases in turbidity (cloudiness) and possibly a rise in bacteria.
- In addition to the above, if the floodwaters rose around the well casing, they may cause problems with the electrical system that powers the pump. They may also have damaged the grouting around the casing, potentially allowing floodwaters to directly impact the groundwater.
- If floodwaters overtopped the casing, they may have compromised the sanitary seal on the wellhead and flowed down the casing itself. Sand and debris may damage the well pump and other internal components of the well.
- EPA guidance on flood-impacted wells, including disinfection and testing: <http://water.epa.gov/drink/info/well/whatdo.cfm>
- Water Testing information (State Health Lab): <http://www.colorado.gov/cs/Satellite/CDPHE-Lab/CBON/1251594535218>

Here is a list of Colorado Safe Drinking Water Labs provided by Colorado Department of Public Health and Environment: <http://1.usa.gov/16d6CvD>

- There is a potential for long term groundwater impacts which may require ongoing well disinfection or the use of bottled water. This will not be known until the wells have been repaired, disinfected, and tested.
- The Health Department does not regulate water wells or the quality of water they produce; well construction and permitting is handled by the Colorado Division of Water Resources (State Engineer's Office). The Department recommends that water quality meet the Colorado Primary Drinking Water standards, but this is a recommendation only.

-more-

SEPTIC SYSTEM ISSUES

- Onsite wastewater treatment (septic) systems can be damaged by floodwater or rendered temporarily inoperable due to saturated groundwater conditions.
- Scouring floodwaters have the potential to physically damage septic systems by exposing underground components such as the septic tank or leaching field. Tanks may float and be carried away; leaching beds may be eroded away by floodwaters. In either case, large numbers of bacteria may be released. Damage such as this should be immediately apparent after the floodwaters recede. If the property cannot be connected to a public sewer, these systems must be repaired or replaced.
- The Health Department regulates the permitting and installation of septic systems.
- Even if the system has not been damaged by floodwaters it may still be impacted by high levels of groundwater that limit its ability to function properly. Sewage may not drain properly, causing it to back up into the house, which may then require interior cleaning and disinfection. At a minimum, owners should reduce water use as much as possible to avoid overloading their septic systems. This situation should improve once groundwater levels return to normal, but that may take some time. In the interim, alternate means of wastewater disposal, such as portable chemical toilets - may be needed.
- There appeared to be quite a few properties in the Leyden townsite and Arvada areas that may have been flooded. Once we waters receded and access is improved, site inspections if impacted properties should be performed
- EPA guidance for septic system impacts:
<http://water.epa.gov/drink/emergency/flood/septicsystems.cfm>