MUSKEGON COUNTY
MICHIGAN
OFFICE OF THE DRAIN COMMISSIONER

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I Have Water in My Basement!

2020 Update

Our office often receives calls from people with water in their basements (see graphic next page). Many of these homes are not part of a county drainage district, so this office has no jurisdiction over the situation. Even if you are in a county drainage district; because groundwater can span over many square miles, there is only so much that can be done on a regional basis to address groundwater issues. Currently, groundwater throughout the county is on a high cycle that has not yet peaked, which adds to many people's level of worry.

Although we may not be able to help you directly, we offer the following information for consideration:

- Look at site grading and where downspouts discharge on your property, it may be bringing water back towards your house and basement. See also: https://www.chicagotribune.com/real-estate/ct-xpm-2010-05-25-sc-home-0524-diy-drainage-20100525-story.html
- Use sump pumps, with a back-up pump, pump alarm, and generator (in case of pump or power failure) to pump water out of the basement (generally, water is pumped from sub-surface tiles). An appropriate place to discharge the water can be a challenge. Legally you are not supposed to discharge your water on another person's property without their permission. Caution: There is a danger if water is pumped too fast that soil can flush from under the footing and floor causing structural failure.
- Where walk-out basements allow surface water intrusion; remove the slider or door; add a couple of blocks at floor level, then replace the exit with a window. This slows the intrusion of surface water, but a sump pump is still generally needed.
- Waterproofing the footing or area below the groundwater level if water intrusion is in smaller amounts (e.g., the basement is only a few inches below ground water level). Dampness, mold, and mildew may still be a factor. See also: http://www.epa.gov/mold/moldguide.html or https://www.hgtv.com/remodel/interior-remodel/mold-in-the-basement

If excessive ground water is your problem, it would be good to know what the "*ordinary high (ground) water mark*" (OHWM) is near your home. The septic permit for your house should have soil data and the elevation at which the septic field was set (per Health Code it must be above the OHWM). Septic system records are kept at County Public Health; 231.724.6208.

If you do not have a septic system soil borings are an option. Once you know the high ground water elevation you can compare that to your basement floor elevation. For example, if your basement is sitting well below the ordinary high water mark you may make a different decision than if it is just above it.

If you seek help; be sure to ask for the elevation of the mottling line around your home (OHWM), in addition to the elevation of your basement floor.

For assistance with soil borings contact, Soils & Structures, Inc. at 6480 Grand Haven Rd. at 800.933.3959. They have the only soil boring rig in the area. There are also some engineering firms who have hand boring equipment.

As you explore options, it may help to speak with reputable engineers, contractors, house movers, and/or your local building inspector to choose the option best for your situation. It may be best to speak with a few people so you can feel comfortable that you are getting consistent information.

Caution: If water is an issue at high volumes, hydrostatic pressure of the groundwater pushing on a foundation that has been waterproofed can pop the floor, causing new leaks or structural damage to the home-- like sidewall cave-ins.

- Where there is room: some owners have filled basements and crawl spaces with sand, above the groundwater level, then capped the area with concrete. Generally, a slurry of material is placed in the crawlspace or basement with a pump truck. It may help to speak with local cement plants about that process. In this case, furnaces and water heaters are often moved to upper levels of the house. Pipes and duct work may also need to be moved. This can solve the water problem but you lose living space.
- If a full basement is desired it is possible to physically raise the home and add several blocks to the basement. This is the most expensive option, but it can give you a usable basement. As with the previous option the areas between the high groundwater mark and the bottom of the new basement is filled with sand and capped with cement.

See also sidebar on page 1.