

# Ghosts of Land Use Practices

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The ghosts of land use practices are once again rearing their ugly heads across Minnesota. No, I am not talking about a creature in a Stephen King novel or a green electroplastic blob commonly chased by the Ghostbusters. I am instead talking about old municipal (muni) wells which are common in many communities throughout the state and if not properly addressed can be a serious threat to drinking water supplies.

**What exactly constitutes an old muni well?** An old muni well is typically a public supply well which is no longer in operation and no longer identified in Minnesota Department of Health (MDH) inventories of current water supply sources. Many of these wells have been long forgotten and haven't been in operation for years.

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Old muni wells are a concern for communities due to the direct conduit they create which enables contaminants to enter into drinking water supplies. Even though communities should be concerned about these wells simply due to the high likeliness they will pollute their aquifer, they should also be concerned because they are required under MN Statute 103I to track (inventory) or seal any unused wells. In addition, MDH has made it a priority for communities who are developing wellhead protection plans to inventory and address old muni wells as part of their potential contaminant source inventory.

**How do you go about finding these old muni wells?** Some of the most common sources include: historical water supply reports, city records, former city employees, and fire insurance maps. I have also found that some of the best sources include 'old timers' which may still be around the community. Many times these 'old timers' are a wealth of knowledge and can usually pinpoint old muni well locations. MDH also supplies communities involved in the wellhead protection program a compiling of reports, which were included in sanitary inspections dating back to the early 1900's. Many of these inspections included well construction information and locations which are a great asset to communities trying to inventory old muni wells. MDH will also many times provides copies of Sanborn Maps (historic fire insurance maps) which show the location of old wells.

Once you have identified a possible location of an old muni well the next step is to contact MDH's Well Management Unit and ask them to help you verify the location of the well. You can also contact your MRWA or MDH Wellhead Protection Planner and they will help coordinate with MDH Well Management. MDH's Well Management Unit have magnetometers which they can use to verify the location of unused wells. A magnetometer is a tool which measures magnetic fields and identifies the strong, distinct magnetic signals given off by a vertical well casing.

**So you have verified the location of an old muni well, what now?** What are the options of the well owner? Well owners have three basic options for managing unused wells. The first option is to repair the well and bring it back into use. The second option is to obtain a Well Maintenance Permit from MDH which keeps the well in an abandoned condition but enables the community to track the condition or status of the well. The final and preferred option is to hire a licensed well contractor to permanently seal the well. All of these options are legitimate and legal options for unused wells.

MDH has various grant programs available to help provide cost share (usually 50-100%) to seal these wells. Many times local units of government also have funds available to seal wells. Finding funds is usually not a problem.

Identifying and verifying the location of old muni wells within a community can often times be a tricky matter. It is very much like trying to solve a murder mystery. As often the case in solving a murder mystery, you will need to ask lots of questions and follow-up on any potential leads, all of which require patience and persistence. Although it can take a large amount of time and effort and can be frustrating at times it is all worth it in the end.



Above: Dead mouse televised in an old municipal well.