CHIPPEWA COUNTY HEALTH DEPARTMENT
508 Ashmun, Suite 120
Sault Ste. Marie, Michigan 49783

So You Want To Drill Your Own Well

In order to drill your own well, ALL of the following must be true:

- You own or lease the property on which the well will be installed.
- The property is your permanent residence.
- The well will serve only a single family house.
- The water from the well will not be used by the public.
- The water from the well will not serve any other residence.
- All of the rules of the Groundwater Quality Control Act, Part 127, Act 368 of the Public Acts of 1978, as amended, and rules, must be followed.
- You must submit a plan in writing to Chippewa County Health Department, indicating exactly how you will construct the well. This plan will be reviewed prior to a well construction permit being issued.
- A well construction permit must first be issued by the Chippewa County Health Department.

Isolation

Isolation distances are important for wells, so consider all the things you may wish to do with this property in the future.

The well must be a minimum of:

- 50 feet from any part of any septic system.
- 50 feet from fuel oil or gasoline tanks under 1,100 gallons.
- 100 feet from any pit privy/outhouse.
- 3 feet from any buildings or roof overhangs.
- 10 feet from any surface water.
- The top of the well casing must be over the 100-year flood plain.

Specific Rules

- The well casing must be at least 25 feet below the ground surface.
- The well head (top of casing) must be at least 12 inches above the ground surface.
- The top 25 feet of the well casing cannot be used as a suction line (unless the well casing is protected by an approved outer casing).
- A copy of the well construction permit must be in possession of the driller on site.
- Water used for drilling purposes musts be potable water (use of surface water is not allowed) with a chlorine residual of 10 parts per million.

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- The well must be constructed to maintain existing natural protection against the contamination of aquifers, and must exclude all known sources of contamination from the well.
- The well must be constructed, equipped, and operated to prevent unnecessary discharge from flowing wells. Flowing well discharge control must be provided.
- Wells constructed where flows are encountered or are expected to occur must be grouted to protect the artesian aquifer, prevent erosion of overlying geologic materials, and confine the flow to within the casing.
- When bedrock is encountered within 25 feet of the ground surface, an oversized borehole must be drilled and the permanent casing grouted with neat cement for a minimum depth of 25 feet.
- A pressure relief valve must be installed as close to the pressure tank as possible.
- An approved sample tap must be installed as close to the well as possible.
- A yard hydrant that has a buried stop-and-waste valve must not be installed on a water service line or branch of it. A stop-and-waste valve must not drain into a well.
- A completed Water Well and Pump Record must be submitted to the Chippewa County Health Department within 60 days of the well's completion.

PVC Well Casing

- Minimum 5 inch inside diameter.
- Must be installed in an oversized borehole, without driving.
- SDR 21 or heavier.
- Must meet ASTM specification F 480-90.
- Casing joints must be formed using a 2-step solvent cementing process.
- Must be deep socket bell ends or couplings.

Steel Well Casing

- Must be watertight throughout its length.
- Threaded or welded joints required.
- Standard weight or Schedule 40.
- Minimum inner diameter must be not less than 2 inches (unless for a driven point well, see below)

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- Well must be grouted with neat cement or bentonite grout, by placing it through the permanent casing (borehole must be at least 2 inches larger than the nominal size of the permanent casing) or a grout pipe (the borehole must be least 2 7/8 inch larger than the nominal casing size) from the bottom of the annular space upward to the ground surface in a continuous operation without interruption.
- The density of the grout flowing from the annular space at the ground surface must be the density of the grout being pumped in.

Driven Wells

- Cannot be used as a water supply well without the written approval of the health officer.
- Driven point well minimum casing diameter is 1 ¼ inch inner diameter.
- Driven steel permanent casing must be protected by a drive shoe.
- Driven casing well grouting requires maintaining dry granular bentonite around permanent casing as it is being driven.

Pumps

- Priming of pumps cannot be required for ordinary use.
- There cannot be unprotected openings into the interior of the pump or well.
- If using a jet pump, the water suction line must be of approved materials, and protected according to the Groundwater Quality Control Act.

Hand Pumps

- A hand pump or similar devise must have a screened vent; a closed, downward-directed spout; and a sealed pump rod packing assembly. Open-spout pitcher pumps are not allowed.
- A hand pump must be connected to the steel well casing or standpipe by a sealed flange, not less than 6 inches above a concrete slab or the ground surface.
- Where a well casing functions as a hand pump cylinder wall, the plunger must not be less than 25 feet below the ground surface.
- Casing wall weep holes are not permitted.