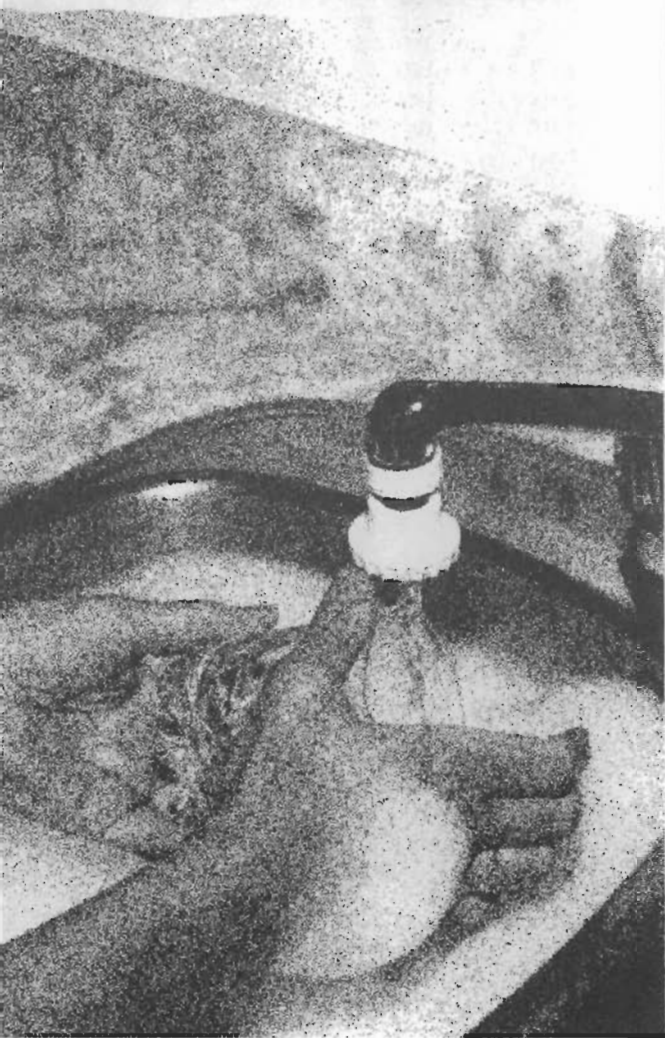


**things you
should
remember...**



**GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF ENVIRONMENT
Water Resources Division
October 1985**



**after
you drill
your
water
well...**



**GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF ENVIRONMENT**

Where does groundwater come from?

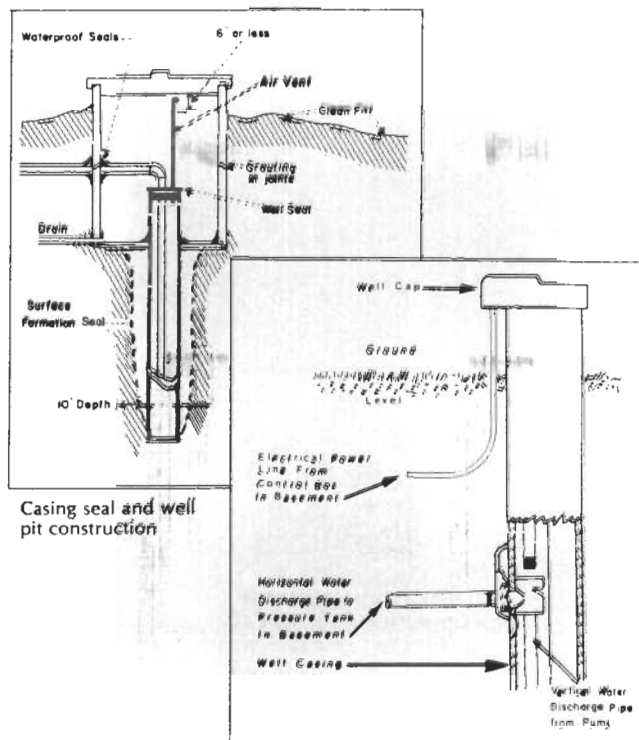
The groundwater that enters your well may have begun its journey many years ago. In most cases it is derived directly from precipitation; in others it first enters a pond or river. From either source groundwater must seep down vertically through the soil layers until it reaches the water table. Water beneath this level is always moving in a direction determined by the elevation of the water table at that point. Normally the movement is from high ground to low ground but this can be altered by the resistance to flow that is exerted by the soils and rock formations through which it seeps. Depending on the size of the openings in these materials, many years may elapse before the water that began as rain or snow reaches your well.

How does groundwater get contaminated?

As groundwater seeps through the soil and rock formations in which your well is constructed, its quality is altered. This is usually to your advantage. Most surface waters are turbid and contain undesirable organisms. The filtering effect of soils gives us the crystal clear, clean water that is characteristic of groundwater. It can be well appreciated that if the soil itself is contaminated with substances such as oil, gasoline, animal wastes, or any soluble material, then the waters percolating through such soil will become contaminated too. The other major cause of poor quality well water is the entrance of contaminated surface water directly into the well through defective casing seals or improper pump installations.

How do I protect my well from pollution?

Once a well has been drilled in a safe location, the most obvious way to protect it is to be sure that the ground around it slopes away from it. This will prevent surface water from ponding near the casing. The next step is to provide the proper hookup to the pressure system. Only the pitless adapter or the drained well pit are recommended for this purpose (these are depicted below). Burial of the well is not recommended. Remember! Your well should be accessible for inspection and investigation in case any problem should arise in the future. An undrained well pit is also to be avoided. Such a pit tends to fill up with water and promote leakage into the well casing.



Pitless adapter

The following common sense precautions need to be taken when finishing the well:

- Don't locate oil tanks near the well.
- Don't park old vehicles near the well.
- Don't store soluble materials near the well.
- And finally, check the well occasionally to make sure that all is in order.

What if I decide to abandon my well?

If you ever decide to abandon your well **remember**, groundwater belongs to everybody. In addition to providing you with access to the resource for your requirements, your well will be a ready conduit for surface waters when the casing corrodes away. Unwittingly, you may contaminate your neighbour's well. To prevent this from happening, it is a requirement of the Well Drilling Act that an abandoned well must be back filled with cement grout or bentonite clay.

What if I have any specific questions or problems?

If your questions have not been answered here, please contact us at the following address:

Department of Environment,
Water Resources Division,
Groundwater Branch,
P.O. Box 4750,
St. John's, Newfoundland.
A1C 5T7

or phone 729-3328 or 729-2563