

Well Water Safety and Supply Central Saanich

Well Water Safety

1. The same tests for safe drinking water are available to individual well owners as used in municipal supplies, i.e., primarily for potentially dangerous bacteria. They are available from MB Laboratories near Sidney and others for \$25 for the basic test, i.e., fecal coliform bacteria usually from sewage or manure (potentially dangerous), and non-coliform usually from woody material (much less dangerous).
2. The first step to solve a contamination problems is to stop source, i.e., usually surface water getting into the well. If that is not successful, the same treatments for bacteria to make water safe for drinking are available to individual well owners as used in municipal supplies, (a) chlorination, (b) ultraviolet sterilization, (c) ozone treatment. All are very effective and are readily available from a number of contractors.
3. The Walkerton water problem was with municipal supply not individual wells. Our municipal supply is mainly from surface water (lakes) and is more susceptible to contamination than most wells.
4. The cancer potential of chlorination appears to be very minor, but it applies equally to the almost universal municipal water chlorination. Thousands of municipal supplies use chlorination. If there is concern, ultraviolet (or ozone) can be used.

Well Water Quality

1. Dissolved minerals can make for "hard" water that leaves soap scum etc. Such mineral are rarely a health hazard. Most minerals can be removed by standard water softeners.
2. Most of Central Saanich wells penetrate the same igneous granitic rock of the "Island Intrusions", so should have similar dissolved minerals. They are unlikely to be a health hazard. Most metals (including chromium) are low in these rocks (Yorath, Sutherland Brown, Massey, Geological Survey of Canada Bulletin 498).

Well Water Supply

1. Well supply can be increased by, (a) deepening, (b) hydrofracturing (opening cracks in rock), or an additional well. Fractures in Central Saanich rock are very irregularly spaced.
2. Most wells produce enough water for common household use (1/2 to 1 gallon per minute) if the well is pumped slowly and continuously through the day, and there is a storage tank or cistern to provide short-term volume needs.

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