| **Well Maintenance Checklist Items** | ✓ |
| --- | --- |
| Confirmation of where each well is located and its accessibility. This can be done by comparing the Universal Transverse Mercator (UTM) co-ordinates and well tag (or other unique identifier) to the well record. |  |
| Annual or more frequent visual inspection in and around the well. Appropriate time to inspect a well is shortly after the snow melt or a heavy rain storm. If a well record is available, compare the construction details, water levels and water quality information (e.g., odour, and colour) on the record when inspecting the well. |  |
| Verification that the well is not allowing the entry of contaminants or surface water by: |  |
| Ensuring the well cap or cover is securely in place. The well cap should be removed and the person inspecting the well should look for signs of moisture, spiders, spider webs, insects and other foreign materials attached to the inside of the well cap. If the well cap or cover is damaged or cracked, or allows foreign materials including insects to enter the well, it must be replaced with a vermin-proof cap or watertight well cover immediately. |  |
| Ensuring the well cap or cover can withstand the weight of persons, animals and vehicles. |  |
| Looking at the air vent for cracks or holes. The person inspecting the well should ensure that the screen is shielded to prevent the entry of insects and other foreign materials into the well. |  |
| Looking for signs of corrosion or deterioration, cracks, holes or gaps on the casing. This could include moisture or water seepage, rust (iron) stains or black (manganese) stains at or below joints, waterline inlets, holes or cracks on the inside of the well casing. All holes, cracks and joints must be sealed or the deteriorated casing must be replaced. |  |
| Looking and listening for signs of surface water seeping or cascading down into the well along the well casing or just below the well casing. |  |
| Looking for pooling of water around the well. The ground surface needs to be appropriately sloped to prevent surface water from pooling around the wellhead. |  |
| Measuring water levels before and after a significant rainfall event with the pump shut off, if present. Rapid or large changes in the well water level could suggest surface water  runoff is entering directly through the well’s structure. |  |
| Looking for any ground settling around the outside of the well casing. This could mean the  annular seal is compromised allowing surface water to seep into the well. |  |
| Ensuring any spaces outside the casing and around waterlines and other equipment are properly sealed with a suitable sealant, such as a bentonite slurry or other material as needed. All damage to the sealant from settlement or erosion must be repaired if surface water or foreign materials can enter the well. |  |
| Looking for and removing any debris floating in the well. Debris floating on the surface of the well water (e.g., plant matter, insects, rodents) indicates that foreign material is entering the well through the casing, or the well cap or cover. This may mean that replacing the well cap or cover is required. In certain circumstances it may also be advisable to disinfect the well. |  |
| Identification and correction of any of the following situations that might result in contamination: |  |
| Newly constructed ditches, swales or other construction activities that may direct surface water toward the well. |  |
| Downspout and underground storm water pipe discharge directed toward, near or into the well. |  |
| Refuse, manure, pesticides, fertilizers, petroleum products, salt, paint, animal waste or any other potential contaminants stored, used or disposed of near the well after the well has been constructed. |  |
| Equipment located near the well. |  |
| Vehicles such as cars, trucks, trailers, boats, snowplows, snowmobiles parked or stored near the well or in some cases driving near or over the well. |  |
| Trees around the wellhead as the roots can compromise the annular seal protecting the well. |  |
| Verification that the top of the well is accessible for future repair. |  |
| Identification of changes in the appearance (aesthetic) or physical quality of the water, such as colour, odour, turbidity, amount of sand/silt content or particle counts, or chemical indicators, especially after a rainstorm or snow melt. |  |
| Identification of signs of wear on equipment installed in the well, including any pumps, lines, electrical cables and associated equipment. |  |
| Verification of the pump and the well efficiency. If the pump is continually running or losing pressure, it may be a sign of a crack or hole in the waterlines. In other cases, iron bacteria and mineral encrustation can clog pump intakes, well screens and water intake zones and reduce water yields. Changes in water quality combined with a decrease in efficiency may indicate that maintenance is required. |  |