



October 6, 2005
Revision #1: November 30, 2009

COUNTY OF OXFORD

PROTOCOL FOR DETERMINING THE PROBABILITY OF POTABLE WATER FOR DEVELOPMENT PROPOSALS ON PRIVATE SERVICES

Every year the Public Works Department receives numerous proposals to develop new lots on private services in or adjacent to villages, settlements, or rural clusters. Public Works has also undertaken many studies to determine whether municipal services are required in villages, settlements or, rural clusters. Accordingly, as development proposals are received in such areas, Public Works has developed a protocol for the developer to determine the probability of supplying potable water to the proposed lot(s).

Two methods being used to determine the probability of a potable water supply where municipal water is not accessible. The methods are described as follows:

1) Desk Top Study by a Hydrogeologist

In this option, a qualified hydrogeologist will study the current water well records available from the Ministry of the Environment. Based on those records and other geology information available, the hydrogeologist will make a determination of the possibility of constructing a suitable water well for the proposed property. Once this determination is made, an existing well on a nearby property (within the aquifer proposed for supply) shall be sampled for the water quality parameters in Attachment No. 1.

The hydrogeologist's findings and recommendation for a potable water supply shall be written in a report that shall be submitted to Public Works. All relevant information such as the water well records, maps and water testing information shall be appended to the report.

2) Construct a Water Well

In this option the developer will hire a licenced well driller to construct a water well on at least one of the proposed properties. The location of the well must be in a location to meet all setback parameters in the Ontario Building Code and Ontario Regulation 903. One constructed well can be used per application (i.e. one well does not have to be drilled on each lot) for the purposes of determining the probability of supplying potable water.

Once the well is constructed and properly developed, the water is to be sampled for the water quality parameters in Attachment No. 1.

County of Oxford
Protocol – Probability of Potable Water on Private Services

The developer shall submit a copy of the proposed lot's site plan, water well record and water quality testing results to Public Works.

Public Works acknowledges that this protocol does not guarantee that potable water is available for the proposed developments or that the water produced meets the Ontario Drinking Water Standards (ODWS). First of all, the testing does not include all parameters in the ODWS and secondly, comprehensive well development on all lots, pump testing, etc. is not proposed. The idea of the protocol is to determine if there is a good probability that potable water is available.

Public Works does not promote new development on communal private water supplies because of the possible implications under Regulation 170/03, the future liability implications and the possibility of increasing the need for future municipal water systems.

Water Quality Testing Parameters

<u>Bacteriologic</u> ecoli Total Coliforms	
<u>Metals</u> Arsenic Calcium Copper Iron Magnesium Mangnese Potassium Sodium Zinc	<u>Calculations</u> Total Dissolved Solids Hardness
<u>Inorganic</u> Chloride Nitrate as Nitrogen Nitrite as Nitrogen Phosphate as PO4 Sulphate as SO4 Ammonia as N Carbon (DOC) Alkalinity (CaCO3) Conductivity PH	<u>Others</u> Fluoride Colour Turbidity
	Note: Public Works may request additional parameters in areas of other concerns. For example, Btex may be added if the lot is adjacent to an existing or former gas station.