RECOMMENDATIONS MADE BY THE alPHa LARGE WATER SYSTEMS WORK GROUP ON ONTARIO REGULATION 459/00, DRINKING WATER PROTECTION, MADE UNDER THE ONTARIO WATER RESOURCES ACT.

The following represents the response of the members of the Association of Local Public Health Agencies (alPHa) to the new Drinking Water Protection Regulation (O. Reg. 459/00) published in the Ontario Gazette on August 26, 2000, under the Ontario Water Resources Act (R.S.O. 1990, c. O.40.).

As the centrepiece of Operation Clean Water, the Ministry of the Environment's plan to ensure the safety of the province's drinking water, this new regulation prescribes strict standards for water treatment, monitoring, reporting, and corrective actions, and identifies persons having responsibility for each. The detailed nature of these standards is an indication of the Ministry of the Environment's commitment to safe drinking water. The regulations require increased vigilance by water works operators and owners, and that reporting of and response to water quality problems are timely and effective.

This regulation specifically prescribes responsibilities for the medical officer of health, the health units on-call staff and public health inspectors. These positions are primarily defined and governed by statutes, guidelines and directives that originate from the Ministry of Health and have specific responsibilities and authorities/powers. It is essential that the new regulation clearly define the public health roles as they relate to drinking water protection and that these roles are consistent with relevant public health legislation/guidelines/directives.

The impact of O. Reg. 459/00 on Health Units:
Overall, the Health Unit role as defined in the regulation appears to be advisory in nature and consists of a reactive response that commences only upon notification of a potential health hazard. It is important to note that public health has a mandated interest in ensuring the provision of safe water and should be considered an essential and active partner in helping the Ministry of the Environment achieve its goals under Operation Clean Water. The specific recommendations that follow reflect this principle.

What is the statutory obligation of the Health Unit?
The Health Protection and Promotion Act (R.S.O. 1990, c.H.7.) states in section 2 that "The purpose of this Act is to provide for the organization and delivery of public health programs and services, the prevention of the spread of disease and the promotion and protection of the health of the people of Ontario".

Section 5 of the H.P.P.A. states that "Every board of health shall superintend, provide or ensure the provision of health programs and services in the following areas: 1. Community sanitation, to ensure the maintenance of sanitary conditions and the prevention or elimination of health hazards".

Section 9 of the H.P.P.A. states that "The board of health may provide any other health program or service in any area in the health unit served by the board of health if, (a) the board of health is of the opinion that the health program or service is necessary or desirable, having regard to the needs of persons in the area; and (b) the councils of the municipalities in the area approve of the provision of the health program or service".

Section 10.(1) of the H.P.P.A. states that "Every medical officer of health shall inspect or cause the inspection of the health unit served by him or her for the purpose of preventing, eliminating and decreasing the effects of health hazards in the health unit".

The Mandatory Programs and Services Guidelines, published by the Ministry of Health, includes a Safe Water Program that requires boards of health "to ensure that community drinking water systems meet the
health-related chemical, physical, microbiological and radionuclide objectives as published in the Ontario Drinking Water Objectives (replaced by Ontario Drinking Water Standards Aug. 26, 2000) and the Guidelines for Canadian Drinking Water Quality (sixth edition). This would suggest an active role by health unit staff in monitoring water quality and offering expertise on solving water quality problems.

In light of the Walkerton tragedy, there is growing public and political perception and expectation for Health Departments to have shared responsibility with the water works owner and MOE in ensuring the delivery of a safe water supply. We accept this responsibility and make the following recommendations:

1. **Section 5 Clarification.**
   Clause (1) requires disinfection for ground water source, yet section 6 (1) allows for variance from this under set criteria. Clause (2) of section 5 for surface water sources allows for "other treatment capable, in the Director's opinion, of producing water of equal or better quality". First of all, there were strong objections to allowing any treatment that does not include disinfection and filtration. Pathogenic organisms such as cryptosporidium and giardia may resist chlorine, but they are large enough to be removed by simple filter media. Concerns were also raised about who the Director is and that approval of the Medical Officer of Health is not required for variances under this section (as it is in section 6, where water is drawn from a subterranean source).

   **Recommendations:**
   - There should be no allowance for variance from disinfection (i.e. chlorination) for water systems as defined under this regulation.
   - define "Director" in the regulation;
   - If allowances for variance do remain in the regulation, require Medical Officer of Health input on all approvals, regardless of the nature of the system.

2. **Section 8 Clarification.**
   While this section allows for notification of the medical officer of health via other personnel under subsection (6)(a), concern was expressed that this clause is not obvious enough. Concerns were also raised surrounding the notification of the Ministry via the Spills Action Centre. Because of the Centre's location, concerns were raised about the timeliness of response, especially to reports originating from distant areas. Furthermore, there is no requirement for the Spills Action Centre to contact the local office of the MOE upon receipt of a notification.

   **Recommendations:**
   - ensure that those responsible for issuing notice of water quality problems under section 8 are aware that alerting persons identified in clause (6)(a) constitutes proper notification for the purposes of this section;
   - ensure that the local office of the Ministry of the Environment is included as a recipient of the statutory immediate notification.

3. **Section 10 Clarification.**
   Details about the form and content of the warning notice are absent. Details are also lacking on how compliance with the requirement to post the notice is monitored. Concerns were also raised over the practicality of section 10(2), which requires that the notice be posted in a location where it is likely to come to the attention of users of the water from that system. Finally, in clause (3) 'provincial' officer is not defined.
Recommendations:

- More detail should be given on the specific procedures regarding where a warning notice is to be posted and what information it should contain that 'provincial officer' be defined in the regulation

4. Section 11, Public Information, Addition,
Given that the first point of inquiry about health hazards in a given community is often its local health unit, the intent of this section would be better served if the information itemized within were directly accessible through the health unit.

Recommendation:

- That the local Health Unit be added to the locations under subsection (2) at which the owner of the treatment or distribution system is required to make information available for the purposes of this section.

5. Section 12, Quarterly Reports:
For the same reasons set out above regarding section 11, copies of the reports prescribed by this section should be furnished to the Health Unit independently of a formal request.

Recommendation:

- That the owner of the water treatment or distribution system be required to submit reports required under this section to the local Medical Officer of Health, Water Quality or Program Manager of the Health Unit.

Schedule 6,
Items 4 and 5, regarding HPC and total coliforms respectively, leave out specific corrective actions and impose the decision on these on the medical officer of health. Regarding item 6 (aeromonas, pseudomonas, staphylococcus spp. etc.), no parameters are set out in Schedule 2 for testing or in schedule 6 for corrective action.

Recommendations:

- Clarify the procedures, frequency and rationale for testing these parameters.

General Recommendations

1. Clearer references should be made to the requirements set out in the Ontario Drinking Water Standards. The document is referenced in the present regulation, but clarity regarding its application is lacking. The concern is that required standards for water quality parameters that are not specifically mentioned in the attached schedules, such as viruses and protozoa, may be overlooked.

2. An allowance for the prioritization of reporting of and response to adverse water quality notices should be made. A potential lack of understanding of what the numbers mean at the Spills Action Centre may lead to unnecessary urgency being attached to certain incidents. An elevated plate count in the absence of E.coli and coliforms for example does not warrant the same response. Recommendation is to categorize urgency of adverse water reports into at least two levels with corresponding response times.

3. A clearer role in water quality under this regulation for the Health Departments should include routine reviews of reports, studies and surveys by water works owners as well as routine microbiological sampling and Free Available Chlorine (FAC) measurements to ensure that water quality parameters are met in every part of the system.
4. Clear procedures on good sampling practices are recommended to ensure that proper disinfectant residuals and acceptable water quality parameters are maintained throughout the entire system. Requirements for the availability of detailed and up-to-date distribution system plans are also strongly recommended.