

To: All Members
Board of Health

From: Dr. Rosana Pellizzari, Medical Officer of Health

Subject: **Staff Report: Public Health Engineers Advocacy**

Date: February 9, 2011

Recommendation:

That the Board of Health for the Peterborough County-City Health Unit endorse a resolution made by the Ontario Public Health Association to re-appoint public health engineers to the Ministry of Health and Long-Term Care.

Please refer to the attached.

Original signed by

Rosana Pellizzari, M.D.



Staff Report

Public Health Engineers Advocacy

Date:	February 9, 2011
To:	Board of Health
From:	Dr. Rosana Pellizzari, Medical Officer of Health
Original signed by <hr/> Rosana Pellizzari, M.D.	

Purpose

To endorse the recommendation from the Ontario Public Health Association (OPHA) to re-appoint public health engineers to the Ministry of Health and Long-Term Care (MOHLTC).

Decision History

The Board of Health of the Peterborough County-City Health Unit (PCCHU) has not previously made a decision with regards to the matter.

On December 13, 2010, the OPHA provided a copy of a resolution to the MOHLTC regarding the need to re-appoint public health engineers at the MOHLTC.

Financial Implications and Impact

There are no financial implications arising from this report.

Recommendations

That the Board of Health for the Peterborough County-City Health Unit endorse a resolution made by the OPHA to re-appoint public health engineers to the MOHLTC.

Background

Many historical and existing regulations, standards and guidance documents produced by the MOHLTC, such as public pools, bathing beach standards, spas and wading pools, were developed by public health engineers and other public health experts who were previously employed at MOHLTC's former Public Health Branch.

Public health engineers are currently employed in other public health jurisdictions across Canada to help develop regulations and conduct objective assessments.

Comments

The assistance and advice of a public health engineer would be a beneficial resource at the MOHLTC as it would enable smaller public health units like the PCCHU to gain access to the needed expertise to make informed decisions that are in the interests of public health.

The Health Hazards Management and Prevention program is often expected to comment on the public health impacts of a range of complex issues such as electro-magnetic radiations, renewable energy technologies, waste management facilities and environmental assessments. Access to public health engineering expertise at the MOHLTC would greatly assist the PCCHU to respond to these issues.

Conclusion

It is recommended that a public health engineer/consultant position be filled at the MOHLTC to review and comment on new and emerging environmental public health issues and also to develop additional needed regulations and guidance documents for the Ontario Public Health Standards.

Strategic Direction

The Board of Health action supports the first Strategic Direction, Continuing to Meet Our Mandate.

Contact:

Dr. Rosana Pellizzari,
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(705) 743-1000

Attachment:

OPHA Resolution: The Re-Appointment of Public Health Engineers at the MOHLTC.



**OPHA RESOLUTION: THE RE-APPOINTMENT OF PUBLIC
HEALTH ENGINEERS AT THE MINISTRY
OF HEALTH AND LONG TERM CARE**

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A Resolution adopted by the
Ontario Public Health Association
Code: 2010-01 (**RES**)
Status Active

**Resolution: The Re-Appointment of Public Health Engineers At
The Ministry of Health and Long Term Care**

WHEREAS public health professionals working in local public health units within Ontario recognize that their duties to protect the health of the public is governed and guided by the *Health Protection and Promotion Act*¹ and related regulations, the Ontario Public Health Standards² and related protocols, guidance documents and guidelines; **and**

WHEREAS many historical and existing regulations, standards and guidance documents produced by the Ministry of Health and Long Term Care (MOHLTC), such as public pools, bathing beach standards, spas and wading pools, were developed by public health engineers and other applicable public health experts who were employed at the MOHLTC's former Public Health Branch; **and**

WHEREAS the assistance and advice of a public health engineer would be a beneficial in-house resource, especially for the smaller health units, in order to make informed decisions that are in the interests of public health protection; **and**

WHEREAS public health engineers are currently employed in other public health jurisdictions across Canada and the USA to help develop regulations and conduct objective assessments; **and**

WHEREAS the costs of hiring or contracting public health engineers can be prohibitive to some local boards of health, especially smaller boards with limited allocated resources; **and**

THEREFORE, BE IT RESOLVED THAT OPHA advocate to the MOHLTC and the Ontario Agency for Health Protection and Promotion³ (OAHPP) to provide easily accessible technical assistance to local health units by hiring a senior public health engineer(s) with expertise in environmental public health and other applicable public health experts;

AND FURTHER BE IT RESOLVED THAT OPHA endorse the attached criteria to assist in the discussion with the MOHLTC and OAHPP for providing public health engineers and other applicable public health experts.

Implementation Plan:

The OPHA Environmental Health Working Group will forward this resolution to the Minister of Health and Long-Term Care, the Assistant Deputy Minister, Public Health Division, the Chief Medical Officer of Health, MOHLTC, and the Director of Environmental and Occupational Health, OAHPP for follow up and action.

Copies will also be sent to:

- Health Canada
- Association of Supervisors of Public Health Inspectors of Ontario
- Association of Local Public Health Agencies
- Canadian Institute of Public Health Inspectors (Ontario Branch)
- National Collaborating Centre for Environmental Health,
- Environmental Health Foundation of Canada
- Canadian Public Health Association - Environmental Health Division

Background:

In recent years there has been a tremendous increase in the number of technical reviews and local environmental public health issues where local public health units could benefit from the advice and assistance of a qualified public health engineer and other applicable public health experts.

Many reviews are based on very technical and sophisticated engineering, modeling, risk assessments and/or based on other new and innovative engineering designs. Medical Officers of Health, and Public Health staff representing health units, are often asked to review and provide comments on many environmental health issues that would benefit from public health engineering expertise. For example:

- Multi media assessments associated with environmental contamination e.g. public health impacts related to air, water, soil, land use and radiological effects.
- Engineering assessments concerning industrial processes
- **Assessing landfill engineering designs**
- Assessing local air quality monitoring and health impacts
- Capabilities of water treatment plants design to remove toxic chemicals and Pharmaceuticals
- Nanotechnology
- Providing comments to the Ministry of the Environment, other ministries and other levels of government on development impacts, ground water and surface water contamination and source water protection.
- Health impacts with urban form and related community designs

The provision of potable drinking water supplies is another key area for public health engineering assistance. Many health units are involved in discussions on the capabilities of the drinking water plants to remove and/or treat chemicals and biologicals, as well as

other contaminants. The *Health Protection and Promotion Act* now includes new regulations for Small Drinking Water Systems (SDWS) (Regulations 318 and 319). Under these regulations, health units are faced with many technical questions associated with the approval processes for these systems, such as design flows and treatment capabilities (micro filtration, ozone, ultra-violet, etc.). Currently the MOHLTC has an external engineering consultant on retainer to assist with SDWS technical questions and issues which is a valuable resource to local health units.

Recreational water is another area where there is a specific need to have a public health engineer to assist with questions and issues - public pools⁴, spas, hot tubs, wading pools, water slides, receiving basins and splash pads (recirculation-style water features splash and spray pads). These types of wet amusement features have been identified as high risk for parasites and have become a major threat to public health as chlorine does not kill off the parasites (e.g. *cryptosporidium* oocysts,) and there are also bacteria and virus transmission risks. Therefore, expensive and very complicated engineering designs are required to protect public health, as outlined in a previous OPHA position paper and resolution on Splash Pads⁵. The development of water theme parks also require very technically complicated designs using advanced treatment options (i.e. electromechanically controlled, large design flows, micro filtration, ozone, ultra-violet and other forms of treatment) with a goal to recycle and or recirculate the water.

Epidemiological evidence is clear that recreational water facilities present a significant public health risk to bathers, particularly children, if they are not properly designed, operated and maintained. Specifically many municipalities and operators are opting to recycle the water in an effort to conserve water and be more energy efficient but at the same time perhaps putting bathers at risk of a potential health hazard. As a result, these types of facilities are generating public health concerns.

The Public Health community has requested that the MOHLTC amend existing Regulation 565 (Public Pools) to include splash pads, receiving basins and other forms of wet recreation. As this regulation was originally written by public health engineers and other public health experts and due to its technical content, this task should again be supervised by a Senior Public Health Engineer.

References:

1. *Health Protection and Promotion Act* and related Regulations used by 36 Ontario Health Units - MOHLTC
http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm
2. Ontario Public Health Standards
http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/index.html
3. Ontario Agency for Health Protection and Promotion
<http://www.oahpp.ca/>
<http://www.oahpp.ca/publichealthlaboratories.php#1>
4. Health Protection and Promotion Act R.R.O 1990, Regulation 565, Public Pools
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900565_e.htm
5. Ontario Public Health Association Resolution – Splash Pads
http://www.opha.on.ca/our_voice/ppres/papers/2008-03_res.pdf

ATTACHMENT

Criteria for the Provision of Public Health Engineers at the MOHLTC and OAHPP

The following information and criteria should be included in the provision of professional public health engineers that may be available for public health units in Ontario:

- Consult with Ontario Health Units regarding the hiring of a senior public health engineer with expertise in public health and environmental health and perhaps having Masters in Public Health along with the P.Eng. designation.
- Consult with Ontario health units on any new or proposed restructuring of consulting services in all public health areas both at the MOHLTC and the OAHPP. It is suggested that a public health engineer/consultant position be created at the MOHLTC to review and comment on new and emerging environmental public health issues and also to develop additional needed regulations/related policy at the MOHLTC. For example:
 - review and update existing regulations (e.g. HPPA Regulation 565 – Public Pools (See reference 4), spas, wave action pools, etc.)
 - develop protocols or guidelines for new, emerging and non-regulated recreational water facilities (e.g. splash pads, wading pools) for the protection of public health. (For example recent drownings in 2010 in unsupervised Ontario Public Pool (Public Pool Regulation 565))
 - other more specialized scientific consultants/engineers should also be available to health units through the new OAHPP.
- MOHLTC needs to ensure other funding is available for health units should a specific engineering consultant not be available to fill any existing expertise gaps.
- Continue to have a drinking water engineering specialist available for public health units to consult with on the design of drinking water treatment systems and to work closely with health units on the new Small Drinking Water Systems programs under the HPPA and Regulations 318 and 319. Consultants are needed to provide support to health units, and to review and develop associated regulations and needed environmental standards and guidelines in support of these programs.
- There are professional engineers that have been working with public health units in various capacities. Therefore, they may be good candidates to consider. Alternatively, some engineers may be interested in obtaining their CPHI(C) which would provide a solid background in environmental public health. This situation exists in Alberta where the public health units benefit from the skills of professional environmental public health engineers.
- Ontario health units also need easy access to other government engineers to provide objective assessments to protect public health (e.g. Ministry of Labour, Ministry of Transportation, Ministry of the Environment, etc.)

Regarding Resolutions, Position Papers, and Motions:

Status: Policy statements (resolutions, position papers, and motions) are categorized as:

Active, if:

1. The activities outlined in the policy statement's implementation plan have not yet been completed,
2. The policy statement addresses an issue that is currently relevant to public health in Ontario.

Archived, if:

1. The activities outlined in the policy statement's implementation plan have been completed, or
2. The policy statement addresses an issue that is not currently relevant to public health in Ontario or is not based upon the most current evidence. The statement remains the position of the OPHA until a new statement is adopted that effectively reverses or essentially negates all or major elements of an earlier statement. In this instance, the former supercedes the latter.

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