



THE CANADIAN ASSOCIATION OF ENVIRONMENTAL MANAGEMENT

NEWS LETTER

**"2007 A Successful Year For The Canadian Association
of Environmental Management (CAEM) "**

Spring 2008

In the January/February 2007 issue of Sanitation Canada I wrote about the Power of Membership within an Association. The article addressed the values associated with membership and benefits of active participation.

In 2007, The Canadian Association of Environmental Management (CAEM) provided its members ample growth and development opportunities and has proven to be an association of true value.

A new web site, which includes access to our new "Job Link" provides member organizations with the opportunity to recruit professionals within our industry, and give members a leading edge of job opportunities across Canada. Visit www.caha1972.ca

CAEM participated in the Canadian Sanitation Supply Association Trade show in Toronto and hosted a reception for our members. The reception was sponsored by WoodWyant and was a great opportunity for members to network following the trade show.

Our website designer has developed an electronic newsletter to replace the current "Quarterly". The template has been developed and the content is in the works. Members are encouraged to send articles and or information of interest to the Director of Education.

Educational opportunities included the development of the Management Training Series. This project included various one-day training programs offered to all provinces on the topics of Attendance Management, Musculoskeletal Disorders Prevention, Stone Care Floor Care, and other topics of interest that were requested by our members.

Green Goes Blue was the theme for the CAEM annual conference held at Blue Mountain Resort in Collingwood, Ontario. Infection prevention was the topic of interest for members. In order to develop

a conference agenda to meet members' needs, a partnership was formed with the regional infection control networks of Ontario.

This was the first CAEM conference which, attracted infection prevention professionals (IPP) as delegates and as a result was an opportunity for CAEM members to network directly with IPP from across the country.

The Canadian Association of Environmental Management had a successful year in 2007. The CAEM Board of Directors is excited to represent you in 2008 and encourages all members to participate in future events.

Membership within an association enhances your professional edge. Belonging to CAEM has provided members a central "national" body and/or resource for communicating new trends, and other important changes within the service we provide.

CAEM is about unity – join us today.



Keith Sopha

This is the first issue of our new CAEM newsletter and hope everyone enjoys reading it. We are committed to having the newsletter available online to download from the CAEM website. Your Board has been busy over the last year trying to improve your association. Our last national conference at Blue Mountain in Ontario was a tremendous success and was held in conjunction with the Regional Infection Control Networks across Ontario. This partnership has bought two very important aspects of Environmental Cleaning in Healthcare closer together. It further helped foster a better understanding of the important role of each profession within the healthcare Environment. In Ontario, April marks the annual CanClean show and once again this year CAEM will have a booth and be promoting the association to the Environmental community. Please be sure to drop be and say hello. Many excellent education sessions are planned. CAEM has been active involved in sponsorship of a Town Hall session to provide industry input into the Ontario Provincial Infectious Diseases Advisory Committee development of a best practice document for Environmental Cleaning and encourage all CAEM members to attend. Our President Keith Sopha will be on the committee this will ensure our members are well represented.

Members who wish to contribute interesting news items from your organization to our CAEM newsletter please send them to me. It is great to hear from our members and the many great things being accomplished from across the country.

Hope to see many of our members at CanClean in Toronto.



Ron McQuade *RPA, FMA, HPA, CEM, PHH*
 Director of Public Relations
 Canadian Association of Environmental Management

The Board would like to congratulate Dianna in receiving her CEM certification.



Dianna Groulx, CEM

Going Green 

Established in 1981, Seven Oaks General Hospital is an accredited, 280 bed acute care community hospital, located in Winnipeg, Manitoba. The facility has a long tradition of promoting wellness and health. Over the last 27 years, the hospital has initiated many innovative approaches to health care such as Program Management, Patient Caremap system, Bed Management practices and a Wellness Institute, that offers a choice of programs and services geared towards specific illnesses and chronic conditions.

The facility initiated in September 2004 an environmental stewardship project to develop an implementation plan that defined resources, processes, and timelines for conservation of natural resources to reduce harm to the environment through waste, pollution, water, and energy management within Seven Oaks General Hospital (SOGH). The project team was particularly tasked to research opportunities to:

- Reduce operating costs
- Reduce harm to the environment
- Demonstrate responsibility to be good corporate, community citizens
- Increase awareness of environmental issues at SOGH
- Reduce wasted resources
- Introduce “Cost vs. Sustainability” as a consideration in decision making, and
- Champion a priority of the Board, Executive/Management and the region

Expected results included the development of a comprehensive Environmental Stewardship Plan that included:

- External audits and consultant reports on solid waste, water and energy management
- Identification of capital projects in support of the project goals
- Definition of resources
- An education plan to promote environmental awareness
- A cost/benefit process regarding sustainability
- Processes, policies and practices to support the plan

Over the next twelve months, the Project Team developed implementation plans to address the following areas:

- Solid waste reduction
- Energy and water conservation
- Alternatives to single vehicle transportation
- Liquid effluents and toxic waste reduction
- Green purchasing

The team focused on an approach to management of all resources, while attempting to balance cost effectiveness with preservation of the natural environment. Even though the project team accepted responsibility for the management of resources, fiscal management was seen as connected and not separated from our daily practices to provide patient care. In September 2005, the project team presented a comprehensive 3-year implementation plan to reduce solid waste, to increase energy and water conservation, to improve our purchasing practices, to develop effective and acceptable alternatives to current single vehicle transportation practices and to reduce our hazardous and toxic waste. The plan included extensive recommendations, business plans and cost/benefit analysis.

Solid Waste Reduction

The recommendations for solid waste reduction include a plan to reduce solid waste at the source with a number of strategies that included the development of an extensive education and reward process for staff. A detailed plan to implement an expanded recycling program addressed the capture of up to 80% of recyclables over the next three years. Recyclables included, but were not limited to, newspaper, office paper, cardboard, aluminum, plastics and metals. The initial implementation cost for this program was budgeted with \$18,602.58.

The annual operating costs were estimated at \$16,158.72. Considering revenues and cost avoidance of approximately \$13,843.00, the

expected cost to operate the proposed program was not more than \$2,315.72 annually.

Energy and Water Conservation

The energy and water conservation implementation plan was based on the recommendation to apply for the Building Owners and Managers Association of Canada (BOMA) Go-Green certification. The Go-Green Program is a recognized standard for energy and water conservation in buildings and includes specific criteria for the establishment of "best practices" for environmentally responsible operations. The designation requires demonstration of good environmental practices in five key areas

- Resource Consumption
- Waste Reduction
- Recycling
- Building Materials/Interior Environment
- Occupant Awareness

Healthy Transportation

Seven Oaks General Hospital staff's primary mode of transportation is single occupancy vehicle use, which contributes to emissions, green house gases and the environmental footprint of the facility. The healthy transportation implementation plan recommended the education of staff on the costs and benefits of alternative transportation methods, a reward program for healthier practices, secure bicycle storage and an overhaul of the current parking system, which discourages alternative transportation choices. The implementation plan recommended a more coordinated approach, which may be beyond what can be done by staff working outside their core job description, and included additional human resources dedicated to this plan.

Liquid Effluents and Toxic Waste Reduction

The implementation plan for the reduction of hazardous waste from SOGH recommended a detailed analysis of the effluents leaving the facility and a plan to reduce the hazards in effluent waste to the lowest possible levels. Changes to the City of Winnipeg sewage disposal standards require a reduction in the very near future. A staff education and reward system to encourage participation in activities to achieve these goals was recommended. Indoor air quality and reduction of greenhouse emissions were also targets included in the implementation plan.

Green Purchasing

The green purchasing implementation plan recommended the development of policies, procedures and facility-wide standards, to ensure the facility makes environmentally responsible purchases. The process for the purchase of non-stock items was to be reviewed. Processes were to include an environmental impact assessment and recommendations on best options to meet our stewardship goals. SOGH pledged to assume a leadership role in encouraging the regional purchasing program to also include environmental considerations in the award of contracts and the selection of supplies and equipment. Staff was to be educated on the rationale for policies and procedures to encourage compliance and participation.

Results Achieved:

The following are the cumulative environmental, social and economic achievements of all committees to date:

1.0 Environmental Benefits

1.1 Solid Waste Audit

Seven Oaks General Hospital contracted an independent external consultant to conduct a comprehensive solid waste audit at the facility site. Audit results showed that an average of 432 tons of solid waste is generated at SOGH and the Wellness Institute every year. Data showed that the largest single component of the total waste stream is "other waste" at 37%, comprised largely of disposable medical equipment and hygiene materials. Other fibre represents 19%, and plastic 16% of the waste stream. Organics represents 10%, office paper 9%, old corrugated cardboard (OCC) 7%, metals 1%, and glass 1%. The report indicated that the facility had the potential to divert waste in excess of 18% (78 tons) by implementing a recycling program.

1.2 Recycling Program

Based on the audit findings, the Solid Waste Committee researched options and processes, including equipment and supplies needed, for a comprehensive recycling program that would divert large volumes of recyclables from the general waste stream. It focused also on the documentation of those processes to provide, at a later date, direction and guidance for other health care facilities. The committee members developed a business plan and obtained financial approval. The recycling program itself was initiated on July 24, 2006 and includes recycling options for

- Old Corrugated Cardboard
- Confidential Paper

- Non-Confidential Paper
- Newsprint
- Magazines
- Aluminum
- Plastic
- Electronic Equipment
- Hazardous Chemicals

A few weeks later, Seven Oaks General Hospital entered into a partnership with Winnipeg's "Big Brothers/Big Sisters" and now offers an additional recycling option for

- Used Clothing

1.3 Environmentally Preferable Purchasing (EPP)

The committee reviewed all existing purchasing policies and procedures and referred to green purchasing in all applicable documents. It also drafted and implemented a policy to reduce and/or eliminate the purchase of products containing mercury. The Purchasing Department developed an environmental assessment tool to assess environmental impacts of purchases and incorporated the tool into standard purchasing procedures. Committee members developed and implemented guidelines to buy products that have a higher energy efficiency level (e.g. EPA Energy Star Products). Members also evaluated recyclable toner cartridges and have since implemented their sole use.

1.4 Healthy Transportation

An internal analysis of commuting patterns to Seven Oaks General Hospital, including mapping origins, distances and clusters of employee groups, was used to promote the viability of walking, cycling and carpooling by more employees.

The facility subsidizes monthly bus passes for employees as part of Winnipeg Transit's Eco-Pass program. Employees purchase their passes at a 30% discount (about \$20 per month). The subsidy is cost shared (60/40) with Winnipeg Transit. Since implementation of the program, SOGH has more than doubled the number of employees using the bus as their primary means of commuting. The equivalent of 60 cars per day has been taken off the roads because of the program, saving ground, airborne and greenhouse gas emissions.

In addition, SOGH installed recently a bicycle storage cage to encourage staff to consider a bicycle-use as an alternate mode of transportation.

1.5 BOMA Go-Green

Seven Oaks General Hospital and the Wellness Institute received the BOMA Go-Green designation in 2007. A number of requirements were necessary to obtain this certification, including the completion of an “investment grade” energy audit and water audit that required a budget of \$29,082.00 for SOGH and \$5,907.00 for the Wellness Institute. Both audits have been partially subsidized through the Natural Resources Canada – Energy Retrofit Assistance Planning Program (ERA-P).

1.6 Energy Conservation

Seven Oaks General Hospital removed all T12 fluorescent light tubes from its premises and replaced them with more energy efficient, low mercury, T8 lamps. The facility also introduced a new chiller upgrade program, resulting in improved electrical and improved steam plant efficiencies.

1.7 Water Conservation

The facility installed a water reuse system in 2005 to reuse water, originating in our Dialysis Unit. Large amounts of nearly potable reject water resulted from a reverse osmosis process and were originally discharged into the City of Winnipeg sewer system. Our Facility Services Department found a way to divert the water for use in steam sterilizer units and built a cottage water system with a series of pumps, tanks and meters to save 1.5 million imperial gallons per year of water. The system is currently re-assessed for expansion and modified to optimize its performance.

2.0 Social Benefits

Seven Oaks General Hospital and the Wellness Institute celebrate, since 2006, “Earth Day” on an annual basis. Events and displays include a landfill mock display, a video of the baling process, showing of the documentary (An Inconvenient Truth” and displays of the facilities recycling history and accomplishments. The committee also conducts contests, ending with a prize draw for staff that participated.

During “Waste Reduction Week of Canada” (third week of October) the committee usually launches a series of events to raise staff awareness about waste and its environmental and social ramifications. Staff is encouraged to rethink their definition of consumption and waste disposal. Information is sent out on a daily basis and includes information on new approaches to “think green” at home, at work, at school, at play, and in the community.

Staff response is very positive and assisted the facility in the successful implementation of the recycling program. Overall, the events seem to have fostered a positive attitude toward environmental awareness and environmental conservation.

3.0 Economic Benefits

Due to financial restraints, one of the over-riding goals is keep conservation efforts as cost neutral as possible, for example:

- The subsidy of our healthy transportation program is cost shared between Seven Oaks General Hospital, the Wellness Institute and Winnipeg Transit
- The basis for the installation of the water re-use system was an extensive cost/benefit analysis that indicated a full return of investment within less than 60 months
- For cost benefit reasons, the institution chose six different recyclers to minimize cost and maximize returns. Cost is tracked on a monthly base and considers all financial aspects, including pick-up cost, disposal cost, revenues and potential cost avoidance. It should be noted that the implementation of the recycling program proved to be quite difficult, due to a deterioration of the recycling commodity market.

Commitment to Pollution Prevention

“We value and respect the environment and we manage our resources responsibly”.

Seven Oaks General Hospital has identified environmental stewardship as one of its eight core organizational values. We focus on an approach to management of all our resources, while attempting to balance cost effectiveness with preservation of the natural environment. We accept responsibility for managing our resources in a way that reflects our other values. Fiscal management is seen as connected and not separate from our daily practice of managing patient care. To adopt this value, the Environmental Stewardship committee has developed a three-year implementation plan to reduce solid waste, increase energy and water conservation, improve our purchasing practices, develop effective and accepted alternatives to current single vehicle transportation practices and reduce our hazardous and toxic wastes. Implementation is well on the way and the facility is able to demonstrate first results.

Transferability

Hospitals alone make up approximately 1/30th of the entire Canadian economy. Like any other major economic sector, health care is a key consumer of a wide variety of renewable and non-renewable resources, a major producer of solid waste, ranging from non-hazardous to highly toxic, and a contributor to global warming. It has been estimated that the Canadian health sector contributes approximately 2% of Canada's total greenhouse gas emissions, 1% of solid waste and is the second largest source of dioxin contamination (due to incineration of medical waste) accounting for 16% of total emissions. Additionally, the health care sector is responsible for 2% of total atmospheric emissions and 20% of all mercury emissions.

Seven Oaks General Hospital is no exception to the environmental footprint created in the process of delivering health care services. We generate 432 tones of solid waste annually for an average of 1.3 tones per day.

Other facilities are in very similar positions. Our research results, processes and procedures are made available to other institutions and are easily transferable.

Innovation

Seven Oaks General Hospital came to the conclusion that it needs to do its part to conserve natural resources to reduce harm to the environment through the implementation of various plans to reduce solid waste, improve water and energy management, encourage healthier transportation practices, reduce hazardous and toxic waste and implement green purchasing practices over the next years. The achievement of the BOMA Go-Green certification acknowledges our efforts to live our values, as well as our attempts to be recognized as a leader in environmental stewardship practices in health care.

The water reuse system created at Seven Oaks General Hospital is unique, but can be replicated at any hospital with both dialysis and sterile processing departments. The project will pay for itself in reduced water and sewer charges in about five years, and was built to be expandable to accommodate future increases in dialysis, and for other potential water uses.

SOGH is one of the few hospitals that, in time of fiscal restraints, voices environmental concerns and attempts an almost cost neutral approach to environmental conservation. We track initial costs and outcomes to ensure a reasonable return of our investments. We are willing to share our experience and are showing leadership by providing encouragement to, and answering queries from, other hospitals in the regions.

Submitted by Jonny Hinz, Director of Material Services
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