# Mount Allison Water Audit August 26th to , 2013

The Mount Allison University Environmental Policy (#2102) requires that an audit be completed every summer that follows the objectives of at least two of the Environmental Policy's sub policies. This audit followed those of the water sub policy.

#### **Objective**

This audit's objective is to help Mount Allison University best manage its water use by researching how, how much and where water is currently consumed and how to reduce this consumption. Data about water use will be collected from interviews, past audits, and information provided by the school such as last year's water budget. It will then be analyzed. Water efficient alternatives and water saving technologies will be researched online and also analyzed. Afterwards, recommendations will be provided to increase water use efficiency in each building and campus-wide.

#### **Process**

I was sent a series of spreadsheets listing the amount of water consumed in each university building in every year from 2007-2012. They also list the cost of water consumed and of every water-related appliance or piece of equipment purchased.

I interviewed Perry Eldridge in Facilities Management, about water-related appliances, equipment and technology and trends in water consumption on campus.

For 2008 to 2012, each building's total consumption from the previous year was subtracted from the building's consumption for that year. The difference between each year was then graphed for the academic and non-academic buildings separately.

I also interviewed Bart who is in charge of water procurement about the procurement process and Andrea Ward who manages grounds operations.

### **Results**

## Water Procurement

According to Bart, all the water that comes into university system is bought from the town, which bills the university automatically. If there are any problems with the pipes, there would be no way for the university get any money back.

#### Water Consumption for 2011-2012

Since 2007 and up until 2012 water consumption had been declining.

In 2011, 75,796 gallons of water were consumed. Per square foot, 0.3186 gallon and per person 29.1187. This cost \$167,543.62.

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Much of this audit's evidence is organized based on the water sub-policy's objectives.

Ensuring that increasing water efficiency is a considered factor when new buildings and renovations are carried out

According to Perry Eldridge, dual flush toilets low-flow urinals, low-flow showerheads, aerated pressure taps (which consume less water) are placed into every new building and during every new renovation. Also, he reviews the drawings for each new building and tries to see how feasible it would be to include water-saving and rain-water collecting technology. Refrigeration in new buildings will be air-cooled instead of water-cooled.

<u>Using longevity and water efficiency as primary considerations when purchasing water fixtures</u>

Perry says that

During the summer, the irrigation system is not activated until it gets dry enough. Until then and during the later, wetter parts of the summer the system is used manually.

When it comes to planting, Zeroscaping, a method that is intended to keep water consumption to a minimum, is used.

This past year sod was applied in several places and several large trees were moved. Consequently, more water was consumed than on average. This past year, a lot of planting was done around the president's house, the Chapel, Crabtree and Bennett house. This would partly explain why these buildings were consuming more water.

The year before, there was a leak in the valve's system and a newly installed controller would not turn of automatically. It had to be turned off manually. Now it can turn off automatically, which Andrea is much more efficient.

Ensuring that the risk of run-off contamination to waterways and the Waterfowl Park is minimized and that the Town of Sackville is aware of the University's water management decisions and practices.

Perry said that there have not been any significant contamination issues. Facilities Management has been putting backflow devices in all water

## Mount Allison Food Audit August 26<sup>th</sup> to , 2013

The Mount Allison University Environmental Policy (#2102) requires that an audit be completed every summer that follows the objectives of at least two of the Environmental Policy's sub policies. This audit followed those of the food sub policy.

## **Objective**

The goal of this audit is to help Mount Allison University lower its waste, carbon footprint and environmental impact in general (such as impacts on endangered species) as well. This audit will also try to find ways to raise awareness about local food, the environmental impacts of food and waste. Information will come from interviews, statistics about food consumption and waste on campus and online sources.

#### **Process**

I interviewed Jenning's supervisor, Brian , about the process, quantity and type of food used in the dining hall.

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# Continue to support the purchase of vegetables grown on campus

when feasible
The Mount Allison Farm is no longer running. It had previously supplied Jennings with 4% of its vegetables.

## Continue to support the use of reusable water bottles and mugs

Continue to purchase items in bulk to reduce packaging According to Brian, about 95-96% of items are purchased in bulk.

#### **Recommendations**

Look into ways to get the farm operating again. Also, look for parts of the school's grounds that can be used for growing vegetables, perhaps even using grey water. If students were given the opportunity to work on garden projects, that would raise more interest in local food.

See if it would be at all feasible to raise the amount of local food purchased from 38-40% to about 45 to 50%. For the reasons given in the results section, I recognize why it would be really hard to go beyond that. However, there may be a way to overcome these limitations and just go a little further. I recommend looking into ways that would make this possible. Similarly, although Jennings cannot serve entirely vegetarian meals, it would be possible to increase the amount of food served from around 22% to something a little higher.

If possible, get more clarity about the shrimp imported from China.

The food section of the 2011 audit recommended creating a course on sustainable agriculture. Much of the course would have taken place on the farm, which is no longer an option. However, there would be ways around that problem. Such a course or a course like it (one on food networks and value chains in the maritimes, for example) would raise a lot of awareness of and interest in local food and food consumption issues.

Mark the "food miles" of Jenning's and Gracie's non-local food (and perhaps local food as well) in dinning hall. For example, when burgers are served at the home zone, show their food miles right next to their name. Perhaps, also show the carbon footprint equivalent of those miles traveled.