



Carbon Project Annual Report

Year 2012



May 23, 2013



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Introduction

Corporate social responsibility is an effective policy tool that not only distinguishes an organization from their competitors, but it can help improve their policies and practices. For example, the Dow Jones Sustainability Index identifies large, publically traded companies that are leaders in sustainable business practices, as they have been found to be more successful in other aspects of their business (i.e. financially) as well. Organizations incorporating sustainability strive for the triple bottom line, weighing financial, social and environmental issues equally when making business decisions in an effort to leave the earth in favourable conditions for future generations.

In partnership with Niagara Sustainability Initiative (NSI), Water Superstore has undertaken the process of investigating its corporate carbon footprint to be disclosed publically. A carbon footprint provides a company with information on their environmental impact through the conversion of multiple impacts to a single measure called carbon dioxide equivalents. The purpose of this report is to update and inform Water Superstore of their activities to date under the Carbon Project.

Voluntary Reporting: The Carbon Project

Currently, carbon reporting is unregulated in Ontario for the commercial sector. However, as previously mentioned, there are many benefits to voluntarily reporting carbon emissions. The Carbon Project is a voluntary program whereby partners commit to managing and reducing their organizational carbon emissions. The Carbon Project was designed by experts to maximize environmental responsibility and business returns for NSI partners.

The **Carbon Project** provides NSI partner organizations with services, tools and networks to facilitate a reduction in carbon (or GHG) emissions. In turn, participating organizations report their corporate carbon footprint, at a minimum, on an annual basis. These accomplishments are published in NSI's Annual Sustainability Report, which highlights and celebrates changes each of their Carbon Project partners have made resulting in annual emissions reductions.

Scope of Inventory

This report describes the corporate carbon footprint of Water Superstore covering the time period from January 1st, 2012 to December 31st, 2012 International GHG accounting standards were followed to determine Water Superstore's carbon footprint. According to these standards, emissions generating activities were classified under the following scopes:

Scope 1: All GHG emissions resulting from direct combustion.

Scope 2: Indirect GHG emissions from consumption of purchased electricity.

Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, water usage and others.



As a participating organization in the Carbon Project, Water Superstore has committed to measuring and reporting emissions from the following activities:

Scope 1: Vehicle Fleet and Stationary Combustion

Scope 2: Electricity consumption

Scope 3: Business Travel

Inventory

The corporate carbon inventory totalled 26.97 tonnes of CO₂e (tCO₂e) and was predominantly comprised of scope 1 emissions, with vehicle fleet (11.57 tCO₂e) and stationary combustion (7.37 tCO₂e) representing the first and second largest emissions sources. Electricity consumption represented the third largest contributor to corporate carbon emissions at 4.33 tCO₂e. Lastly, under scope 3 emissions, business travel accounted for 4.01 tCO₂e.

Table 1. Corporate carbon footprint by scope.

Scope 1		Scope 2		Scope 3	
Fleet Vehicles (tCO ₂ e)	11.57	Electricity Consumption (tCO ₂ e)	4.33	Other 2 (tCO ₂ e)	4.01
Stationary Combustion (tCO ₂ e)	7.37				
Total (tCO₂e)	18.93	Total (tCO₂e)	4.33	Total (tCO₂e)	4.01

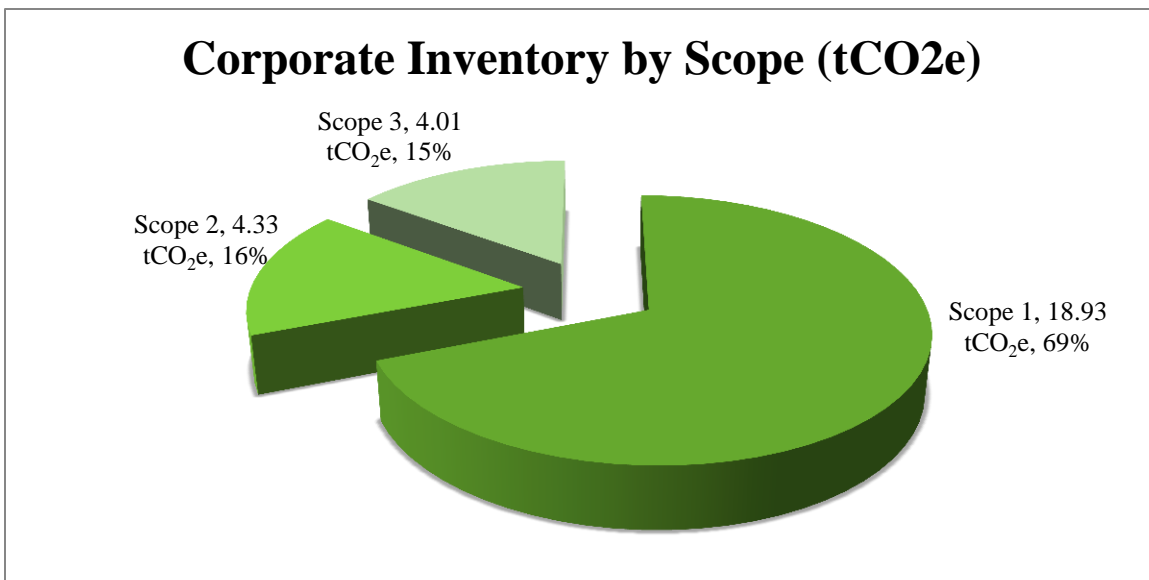


Figure 1. Illustrating corporate carbon footprint by scope in tCO₂e, including percentage by scope.



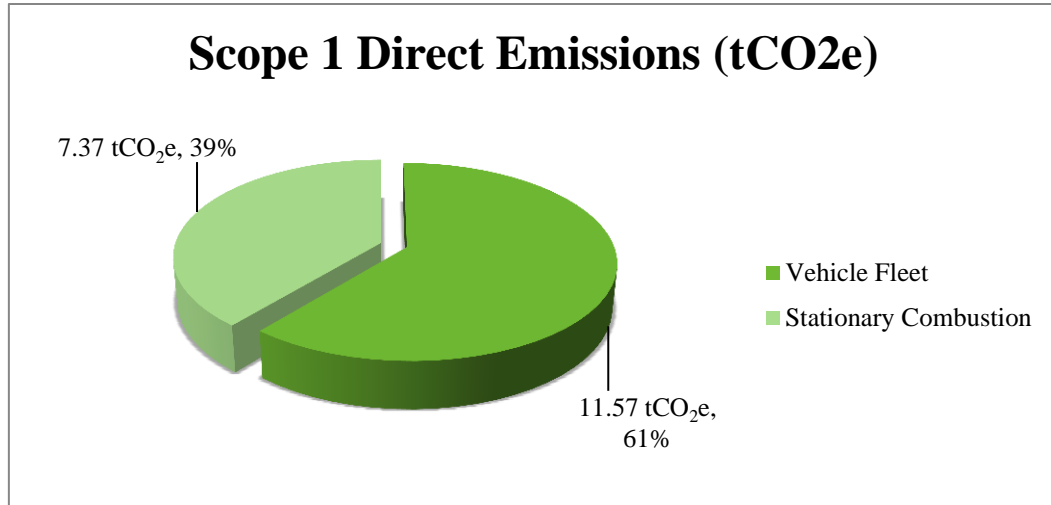


Figure 2. Illustrating the breakdown of Scope 1 emissions.

Moving Forward

Measure, manage and mitigate make up the central tenets of carbon management. Following these guidelines, the NSI Carbon Team has highlighted potential paths forward for Water Superstore with respect to their carbon footprint.

Measure

The baseline year for Water Superstore is 2011; 2012 data shows a shift in activities that produced the most carbon. In order to ensure quality assurance, continual improvements to the data collected will help improve the calculated carbon emissions from Water Superstore's activities as well as improve overall transparency, some improvements to the data set are suggested:

1. **Scope Enhancement:** With the inclusion of business travel included in the 2012 reporting year, it is clear that Water Superstore is committed to calculating an accurate carbon footprint of their activities and operations. It is further recommended that Water Superstore's further expand its scope to include activities like water consumption, waste generation, refrigerants and employee commuting.
2. **Improved Vehicle Fleet Tracking:** A more accurate footprint will be calculated if fleet vehicles are tracked using GPS technologies. Not only will this greatly improve the data collection of fleet vehicles but also identify inefficiencies in delivery routes or unapproved/unrelated travel while on route.
3. **Improved Business Travel Tracking:** Like fleet vehicle tracking, GPS technologies should be utilized to help improve the accuracy of Water Superstore's carbon footprint as a result of business travel. If technologies cannot be accessed remotely, it is recommended that an online source like Google Maps be used to determine the distance travelled as well, however this will not be as accurate as mobile technology.

Manage

Effective data management requires a streamlined collection approach. It is recommended that Water Superstore designate an individual to be responsible for data collection and entry to ensure continual improvement to its data set. Additionally, to ensure that data collection and entry is easier for the individual responsible for this task, it is recommended that these activities be performed on a more regular basis; this will help minimize the time required to search for the data required at the year-end.

Alongside regularly inputting data into the carbon accounting software, there is also a need for regular behavioural reminders! With a front of house and back of house staff set-up, it is important to remind employees of ways that they can contribute to carbon reductions. Providing staff with training, allowing them to attend NSI events, and including them on green initiatives will help engage employees to participate in Water Superstores reduction initiatives.

Mitigate

Through operational improvements and simple changes, there are many opportunities that Water Superstore can take advantage of to reduce their carbon emissions. These include:

1. **Utilization of GPS Technology:** The implementation of these technologies for both fleet vehicles and business travel will significantly improve Water Superstore's data collection for both scope 1 and scope 3 related emissions to transportation. As mentioned above, this will also allow Water Superstore to identify inefficiencies in delivery routes and potentially yield savings in fuel consumption.
2. **Employee Engagement:** Water Superstore has done a lot to increase employee engagement over the past year. It is recommended that this engagement continue as employee behaviour can have a tremendous impact on an organization's carbon footprint. Providing employees with information about any organizational accomplishments, company initiatives or introducing competitions can all help to further reduce Water Superstore's carbon footprint.

Additional Opportunities

Green Procurement

As Water Superstore continues to grow and expand its operations across the Region, continued efforts should be made to ensure that, where possible, products needed are environmentally friendly. This initiative not only improves Water Superstore's environmental performance but also promotes green procurement among its consumers and employees; it provides an additional leadership quality to the organization.

Greywater Capture and Recirculation

Because of the reverse osmosis process needed to produce Water Superstore's product, there is a significant amount of wastewater that is produced. As was mentioned in previous years reports, there is an opportunity to recycle, reuse, or transport the greywater. There is also the opportunity if economically feasible, Water Superstore could invest in greywater capture technology that can recirculate this water



into the washrooms. If taking on an initiative like this is too costly for Water Superstore to undertake alone, there is a potential to collaborate with the neighbouring businesses in the Fourth Ave plaza.

Environmental Management System

Niagara College students previously developed an Environmental Management System (EMS) for Water Superstore. It is recommended that this be revisited to evaluate the progress that Water Superstore has made in their environmental performance. Water Superstore should continue to communicate that the EMS process has been completed and revisited; this will demonstrate to their consumers, employees and business partners that continually improving their environmental impacts is a very important aspect of operations.

Summary

Overall, Water Superstore has taken many steps to more accurately calculate and reduce its carbon footprint. For the 2012 year, NSI has identified that the majority of calculated emissions stems from Scope 1 activities from fleet and stationary combustion. There are several opportunities for Water Superstore to further improve environmental performance and reduce their footprint that NSI has identified in this annual report. The NSI Carbon Team looks forward to continue our work and see Water Superstore's continued progress and emission reductions.

