Toronto and Region Conservation Authority

Corporate Sustainability Report (CSR)

TRCA’s People Power

2011

Ecomplishments at Claremont

1) Water & Energy use Data Display
2) Vermi Composting Station
3) Waste Diversion
4) Local Food Garden
Message from Brian Denney, Chief Administrative Officer, TRCA

At Toronto and Region Conservation our people are the key to our success and our sustainability. As such, I am pleased to present the 2011 Corporate Social Responsibility Report, which highlights the role of our people in pursuing operational sustainability at TRCA.

I am proud to be able to identify at least some of the many actions being taken by staff to help us along our corporate sustainability journey. We also share some stories from the new Canadians that we helped with their careers, many of whom found jobs in their field through our award winning social development programs. I am very pleased to say that our employee survey continues to show that our people are happy to be working with us and feel that they are a valued part of the organization. Of course we also report on how we measure up in advancing our operational sustainability with our key performance indicators. But sustainability is, at its very core, about people.
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Cover photo: TRCA's Education Field Centres have been leading the TRCA charge towards sustainability from the very beginning.
Quotes from Staff Survey

Q2. Why is it important for TRCA to act sustainable and practice Corporate Social Responsibility (i.e. act with financial, social, and environmental sustainability in mind)?

“Leading by example motivates other (public and external partners) and adds legitimacy to our collective cause. A demonstrated commitment to sustainability can also be good for employee morale and will attract potential employees who share the same ethic.”

“set positive example, act as leader for others to follow, test new ideas/technologies/boost staff morale and loyalty.”

“corporate social responsibility is a core component of all business practices and we need to demonstrate our effectiveness and promote our success stories to the public.”

“The TRCA has branded itself for the Living City, we are supposed to be a leader in sustainability, it is not enough to just tow the line. How could we think we are going to have healthy waterways unless we live sustainable on there banks, we are responsible for maintaining at least one piece of the Green Infrastructure, the water ways.”

“To be a role model- “to practice what we preach.”

“It’s everyone’s responsibility. The sum of all contributions is what will make the day.”

“For a lot of reasons, but I think a big one is that we are such a large organization that works with so many municipalities that we want to be the leader in this regard. If the organizations at the top aren’t acting responsibly, why will anyone else?”

“Walk the talk!!!.”

“it is the right thing to do for the future, yours mind and our childrens..”

“TRCA unofficially sets the standard for the private sector to aspire to. We should always look to set the bar higher..”

“1 - practice what we preach, 2 - right thing to do (which increases employee morale).”

“More and more organizations are conducting business with the triple bottom line in mind and it is to TRCA’s advantage to be a leader rather than a late adopter in this regard. Furthermore, TRCA should be walking the talk on the sustainability front and financial sustainability is important because public funds support a lot of our work and it would be prudent of us to spend it wisely and responsibly..”
TRCA Sustainability Scorecard

New for the 2011 CSR report, staff has prepared a Sustainability Scorecard. The purpose of the Scorecard is to provide a concise summary of TRCA progress towards its CSR targets as of the end of 2011, including whether the measure is improving (up arrow), getting worse (down arrow), or remains unchanged (horizontal arrows). These measures, our CSR key performance indicators, are presented under four categories: Our People; Our Environment; Our Business; Our Community. TRCA is proud to highlight that TRCA continues to be an employer of choice with staff retention well above the national average. TRCA continues to leverage its core municipal funding allocation through revenue from a wide range of other sources, and the sale of products and services. The corporate carbon footprint has continued to decline in 2011 and is expected to fall further as retrofits of facilities such as the Kortright Centre are completed in 2012. The award winning PAIE and M2P programs continue to be oversubscribed and provide new Canadians with valuable mentoring and training.

*Green shading indicates targets met or exceeded.

**Our People**

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity, Diversity, and Staff Retention</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My work gives me a sense of accomplishment</td>
<td>92.8%</td>
<td></td>
<td>Achieve 90% on staff survey.</td>
</tr>
<tr>
<td>I would recommend TRCA as a good place to work</td>
<td>91.8%</td>
<td></td>
<td>Achieve 90% on staff survey.</td>
</tr>
<tr>
<td>Overall I am satisfied with my job</td>
<td>88.0%</td>
<td></td>
<td>Achieve 90% on staff survey.</td>
</tr>
<tr>
<td>TRCA is socially responsible</td>
<td>83.6%</td>
<td></td>
<td>Achieve 90% on staff survey.</td>
</tr>
<tr>
<td>TRCA is environmentally responsible</td>
<td>87.5%</td>
<td></td>
<td>Achieve 90% on staff survey.</td>
</tr>
<tr>
<td>Morale at TRCA is high</td>
<td>73.9%</td>
<td></td>
<td>Achieve by 2025, 80% on staff survey.</td>
</tr>
<tr>
<td>TRCA is well managed</td>
<td>71.1%</td>
<td></td>
<td>Achieve by 2025, 80% on staff survey.</td>
</tr>
<tr>
<td>I am sufficiently informed about where TRCA is going in the future</td>
<td>61.2%</td>
<td></td>
<td>Achieve by 2025, 80% on staff survey.</td>
</tr>
<tr>
<td>TRCA is economically responsible</td>
<td>74.5%</td>
<td></td>
<td>Achieve by 2025, 80% on staff survey.</td>
</tr>
<tr>
<td>Staff Retention</td>
<td>87%</td>
<td></td>
<td>Not reported last year. Achieve, annually, at least 2% below national average in employee turnover.</td>
</tr>
</tbody>
</table>
### Our People

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee Engagement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff participation in Clean Air Commute</td>
<td>62</td>
<td>↓</td>
<td>Have 80 staff members participate in Pollution Probe’s Clean Air Commute by 2012.</td>
</tr>
<tr>
<td>Staff participation in 20 minute makeover</td>
<td>68</td>
<td>↓</td>
<td>Have at least 200 staff members participate in the 20-Minute Makeover by 2012.</td>
</tr>
<tr>
<td>Work location green programs</td>
<td>Green teams or Audubon in place at 10 TRCA work locations.</td>
<td>←→</td>
<td>Have EcoSchool/EcoOffice type “ecoteam” programs at all work locations (18 total) by 2012.</td>
</tr>
</tbody>
</table>

### Our Environment

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carbon Footprint</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon neutrality</td>
<td>2,760 tonnes</td>
<td>↑</td>
<td>TRCA will be carbon neutral by 2025.</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy reduction</td>
<td>6%</td>
<td>↑</td>
<td>Reduce total energy consumption by 30% from 2005 levels by 2015; and by 50% by 2025.</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>31.4%</td>
<td>↑</td>
<td>50% of TRCA facility space is heated and cooled from renewable sources by 2015.</td>
</tr>
<tr>
<td>Green electricity</td>
<td>24%</td>
<td>←→</td>
<td>Source 80% of electrical energy from green sources by 2015.</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water use</td>
<td>19%</td>
<td>←→</td>
<td>Reduce total potable water consumption from 2009 levels by 35% by 2025.</td>
</tr>
<tr>
<td><strong>Vehicles, Fuel, and Travel</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleet fuel efficiency</td>
<td>17.1 litres per 100 km (average, all vehicles)</td>
<td>←→</td>
<td>TRCA’s average fleet fuel efficiency is 12 litres per 100 kilometres by 2018.</td>
</tr>
<tr>
<td>Measure</td>
<td>2011 Performance/Status</td>
<td>Trend</td>
<td>Target</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fleet GHG emissions</td>
<td>3%</td>
<td></td>
<td>Reduce TRCA greenhouse gas emissions from fleet and travel by 50% from 2009 levels by 2018.</td>
</tr>
<tr>
<td>Alternative fuel vehicles</td>
<td>12%</td>
<td></td>
<td>TRCA’s fleet will be 50% alternative fuel vehicles by 2020.</td>
</tr>
</tbody>
</table>

### Our Environment

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Management Plans</td>
<td>8 of 14 land management plans completed.</td>
<td>↑</td>
<td>Complete baseline land management plans for 14 major TRCA properties.</td>
</tr>
<tr>
<td>Waste Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste diversion</td>
<td>21%</td>
<td>↓</td>
<td>Diverting 80% of total waste at all TRCA facilities by 2018.</td>
</tr>
</tbody>
</table>

### Our Business

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Business</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding diversity – leveraging partnerships</td>
<td>55%</td>
<td>↔</td>
<td>At least 50% of funding from non-municipal sources.</td>
</tr>
<tr>
<td>Green Purchasing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Food</td>
<td>29%</td>
<td>Not measured last year.</td>
<td>40% of food purchased by TRCA is sourced locally by 2012.</td>
</tr>
<tr>
<td>Measure</td>
<td>2011 Performance/Status</td>
<td>Trend</td>
<td>Target</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Employment programs for internationally trained professionals (PAIE and M2P)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number applicants</td>
<td>647</td>
<td>↑</td>
<td>435 applications received by end of 2014.</td>
</tr>
<tr>
<td>Number participants accessing programs</td>
<td>97</td>
<td>↑</td>
<td>170 participants accessing programs by end of 2014.</td>
</tr>
<tr>
<td>Number participants completing program</td>
<td>35</td>
<td>↑</td>
<td>150 participants complete program by end of 2014.</td>
</tr>
<tr>
<td>Number participants obtaining employment in professional field</td>
<td>64</td>
<td>↑</td>
<td>133 participants gain employment by end of 2014.</td>
</tr>
<tr>
<td>Number participants obtaining licensure/Certification/Credential for Employment</td>
<td>29</td>
<td>↑</td>
<td>55 participants receive credential for licensure by end of 2014.</td>
</tr>
<tr>
<td>Number M2P Participants (mentees) matched to a Mentor in their field</td>
<td>100%</td>
<td>↑</td>
<td>100 % M2P participants matched to mentor in field by end of 2014.</td>
</tr>
<tr>
<td>Percent M2P Mentors from TRCA</td>
<td>50%</td>
<td>↑</td>
<td>50% mentors recruited from community at large for M2P program by end of 2014.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measure</th>
<th>2011 Performance/Status</th>
<th>Trend</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Volunteer Network (EVN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number new volunteers registered with EVN</td>
<td>570</td>
<td>↑</td>
<td>900 new registrants by end of 2014.</td>
</tr>
<tr>
<td>Number volunteer passes issued to individuals who have volunteered 30 or more hours at TRCA</td>
<td>280</td>
<td>↑</td>
<td>625 volunteer passes issued by end of 2014.</td>
</tr>
<tr>
<td>Number external (non TRCA) volunteer opportunities posted on EVN</td>
<td>530</td>
<td>↑</td>
<td>900 external volunteer opportunities posted on EVN by end of 2014.</td>
</tr>
</tbody>
</table>
1.0 Introduction

Without the continual and concentrated efforts of TRCA staff, we could never become sustainable. This year’s CSR report is dedicated to the people behind TRCA’s sustainability ethic and performance. Throughout the report, staff stories are presented which give some perspective into what motivates our people to live sustainable lives, at home and at work. The story of sustainability is a story of our people.

At TRCA, staff recognizes the leadership role we play in helping move our region toward the Living City vision. And they recognize that our daily operations have an impact on the environment. The use of our vehicle and equipment fleet, our energy consumption, the products and services we buy, how we manage our lands and what we do with our waste, all contribute to humanity’s environmental impact.

Since the adoption of the Living City vision, and the formal institution of our Corporate Social Responsibility program, TRCA’s staff has become an increasingly vital force for innovation and change in an effort to reduce our impacts and conduct our business in a sustainable manner.

The Corporate Social Responsibility Program

TRCA is committed to a process of continual improvement toward operational sustainability. TRCA's Corporate Social Responsibility Program is the administrative process through which we assure operational sustainability is a top priority. Through the CSR program we:

• measure and track indicators of operational sustainability;
• track actions taken toward sustainable operations;
• engage staff in sustainability at work and at home; and
• report on and celebrate progress toward operational sustainability.

In 2011 we also introduce a new section to CSR, Our Community, where we begin to measure and report on the impact our programs have on the community.

TRCA tracks operational sustainability in 3 different areas:

1. Our People
2. Our Environment
3. Our Business
For the 2011 report we have created a new section, Our Community, to report on the impact of our programs on the surrounding community and beyond.

Each of these categories form a section of this report and for each, the following information is presented:

- Vision
- Goals
- Objectives
- Where We Are
- Where We Are Going

Scope of Sustainability Reporting on Operations at TRCA

For the purposes of this report, calculations of TRCA's environmental impact are based on the following:

- Only internal operations are considered.
- Operations by consultants and/or contractors are not considered at this time.
- TRCA environmental achievements resulting from TRCA business such as our extensive forest holdings; tree plantings, habitat restorations, etc., are not considered.
- Offsets are not included, at this time.
- Travel to and from work is outside the scope of this report; however, all business travel is included.
- All facilities owned, operated or leased to TRCA are included in calculations under the 8 categories of sustainability performance (see page 3).
- Rental properties, whether currently rented or not, are not included.
2.0 Our People

For an organization to function and be sustainable, the basic needs of its staff and stakeholders must be met. A socially sustainable organization is one that has the ability to maintain and build on its own resources, and the resiliency to prevent and/or address problems in the future. The story of social sustainability at TRCA is the story of the sustainability of its employees, partners, and all its stakeholders.

2.1 Equity, Diversity, and Staff Retention

Vision

• TRCA is an employer of choice, which adds social value to the community and all stakeholders it serves.

Specific Objectives

• Achieve annually at least 90% in employee survey agreeing on the following:
  ◦ My work gives me a sense of accomplishment.
  ◦ I would recommend TRCA as a good place to work.
  ◦ Overall I am satisfied with my job.
  ◦ TRCA is socially responsible.
  ◦ TRCA is environmentally responsible.

• Achieve by 2025 80% staff agreement when surveyed on:
  ◦ Morale at TRCA is high.
  ◦ TRCA is well managed.
  ◦ I am sufficiently informed about where TRCA is going in the future.
  ◦ TRCA is good at performance measurement of staff.

• Achieve, annually, at least 2% below national average in employee turnover.
2.1.1 Where We Are

The national average rate of employee turnover is approximately 22% across all industries in Canada. At TRCA, employee resignations were only 3.6% in 2008, 4.1% in 2009, 4.5% in 2010, and 2.85% in 2011. TRCA is exceeding its objectives on this metric.

As well, TRCA exceeds its objectives on the following employee survey indicators:

- 92.8% agreed or somewhat agreed that “My work gives me a sense of accomplishment.”
- 91.8% agreed or somewhat agreed that “I would recommend TRCA as a good place to work.”

Through the survey we were also able to identify areas where we needed to work harder:

- 83.6% agree or somewhat agree that “TRCA is socially responsible.”
- 87.5% agreed or somewhat agreed that “TRCA is environmentally responsible.”
- 88% agree or somewhat agree that “Overall I am satisfied with my job.”
- 73.9% agreed or somewhat agreed that “Morale at TRCA was high.”
- 71.1% agreed or somewhat agreed that “TRCA is well managed.”
- 61.2% agreed or somewhat agreed that “I am sufficiently informed about where TRCA is going in the future.”
- 74.5% agreed or somewhat agreed that “TRCA is economically responsible.”
- 64.7% agreed or somewhat agreed that “TRCA is good at performance management of staff.”

Ways to improve on these scores will be explored on an ongoing basis.

2.1.2 Where We Are Going

**Planned Actions:**

**2012**

- Continue staff surveys and develop programs and strategies to meet Equity, Diversity, and Staff Retention objectives.
- Engage staff in the development of the corporate strategic plan.
- Develop a cross divisional staff mentoring program.
2.2 Employee Engagement

An organization can only be as sustainable as its employees. In addition to a commitment to environmental sustainability, both at work and at home, a cultural commitment to a sustainable community ethic is fundamental to TRCA’s CSR program. TRCA’s Living City Vision is dependent on employees and volunteers who are engaged, driven and committed to environmental and social issues throughout the year.

Employee engagement at TRCA takes place on many levels. TRCA reaches out to all staff through its CarbonCats program, publicizing sustainability related events, holding employee challenges, and providing information on best practices. CarbonCats is designed to be an inclusive staff outreach effort which:

- Promotes sustainable behaviour at work and at home
- Educates staff with information and tips on becoming sustainable
- Furthers staff morale and team spirit
- Celebrates TRCA’s corporate sustainability achievements and efforts

CarbonCats uses blog postings, user emails, contests, events, and newsletters in order to achieve these objectives. In 2012, CarbonCats will continue to focus on engaging staff through the promotion of sustainable ideals and practices. At the same time, EcoTeams (green teams) at our offices and education centres engage employees at the site specific level.

Vision

- TRCA staff members are champions of sustainability where they work, learn, live and play.

Corporate Goals

- Develop and carry out an annual employee engagement program to facilitate and assist staff involvement in sustainability related activities in all aspects of their lives.

Specific Objectives

- Have 80 staff members participate in Pollution Probe’s Clean Air Commute by 2012.
- Have at least 200 staff members participate in the 20-Minute Makeover by 2012.
- Have EcoSchool/EcoOffice type programs at all work locations by 2012.
2.2.1 Where We Are

Summary

TRCA had another great year in 2011 by engaging employees around the core issues of sustainability and continuing efforts in community outreach. It was the first full year of CarbonCats, the employee outreach program designed to engage staff in sustainability issues in a fun and interactive way. TRCA had approximately 150 staff members participate in CarbonCats initiatives this year. Under CarbonCats participating staff calculated their carbon footprint and pledged actions to reduce vehicle travel at work and at home. The CarbonCat became the recognized symbol of employee engagement at TRCA.

2.2.1.1 Green Commuting

Pollution Probe’s Clean Air Commute is an annual week-long program that encourages employees of participating organizations to commute to work in sustainable ways. Organized in part by SmartCommute North Toronto and Vaughan (NTV), a membership-directed NGO of which TRCA is a founding member. The aim of this program is to reduce single occupancy vehicle travel. TRCA participates with initiatives such as providing free cab rides home in case of emergency, free internet-based ride matching, and seminars on safe biking and transit use. TRCA continues to reserve four prime parking spaces in its head office parking lot for registered carpools.

In 2011, 43 staff pledged to reduce travel in the fall as part of the CarbonCats program. Additionally, 62 staff participated in the Clean Air Commute, an effort which kept two tonnes of greenhouse gases out of the atmosphere. Participation in 2011 was down from the 91 that participated in 2010 and short of the 80 staff target for 2012. The slight decrease in participation from the previous year indicates that an approach equally aggressive to that of 2010 is needed to engage employees in green commuting.

Participants in Clean Air Commute

<table>
<thead>
<tr>
<th>Year</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>51</td>
</tr>
<tr>
<td>2008</td>
<td>43</td>
</tr>
<tr>
<td>2009</td>
<td>41</td>
</tr>
<tr>
<td>2010</td>
<td>91</td>
</tr>
<tr>
<td>2011</td>
<td>62</td>
</tr>
<tr>
<td>2012</td>
<td>80</td>
</tr>
</tbody>
</table>
2.2.1.2 City of Toronto 20-Minute Makeover

The 20-Minute Makeover is a city-led effort to take 20 minutes out of the workday to clean up litter from around the city’s businesses each spring. The program encourages participants to collect materials for both garbage and recycling. TRCA has since expanded its participation in this program to include many of its locations outside the City of Toronto. While TRCA has been participating in the Makeover since its inception in 2003, accurate participation numbers were only kept for the first time in 2010.

![Participants in 20-Minute Makeover](chart)

Participation levels dropped somewhat in 2011. The 20 Makeover takes place on a particularly busy time of the year when many of our staff are out organizing plantings and other community engagement projects. Staff members from our office EcoTeams have suggested we expand the window of the makeover over the course of the entire week, or at varied times in the day to allow for more participation. This approach would allow staff members working at project sites or in meetings to participate when the time permits. Otherwise, the target of 200 staff participants will need to be revisited.

2.2.1.3 EcoTeams

**EcoCentres**

2011 was the first year of the new EcoCentres provincial sustainability certification program for non-school education facilities, such as our outdoor education centres. The EcoCentres program is an initiative of TRCA, in conjunction with other partners.

One requirement of EcoCentres is to establish an EcoTeam to oversee facility progress toward certification. In 2011, our three education field centre’s, Black Creek Pioneer Village, and the Kortright Centre, were each certified among the first ever class of EcoCentres.

**EcoOffices**

In 2007, TRCA launched its EcoOffices program (modeled on the Ontario EcoSchools Program) for Boyd Office, Restoration Services Centre, Head Office and Downsview office. EcoTeams meet regularly to assess office performance and develop and implement office greening plans. In 2011, each of these four offices was once again certified as a TRCA EcoOffice. See box for the 2011 achievements of the EcoTeams representing these four offices.
2011 EcoOffices EcoTeam Achievements

Head Office

Head Office’s 11 green team members in 2011 accomplished the following:

• Held Lunch and Learn: Sustainable Commuting Options - Smart Commute NTV
• Coordinated staff participation in Car Free Day
• Threw a “Happy Meat” BBQ (Rowe Farms, sustainable meat)
• Held a staff tree planting event for National Tree Day
• Lobbied for and oversaw installation of efficient hand dryers in washrooms (replacing paper towels)
• Planned for new enhanced waste and recyclables centre to be installed in 2012
• Erected EcoTeam/CarbonCat Sustainability board in lunchroom in order to engage staff in sustainability efforts
• Held the first ever Energy Night Out – audit of work spaces after hours for computers, monitors, or other equipment left on

Restoration Services Centre (RSC)/Boyd Office (BFC)

RSC and Boyd Offices 8 green team members in 2011 accomplished the following:

• Had one carpool parking spot designated at BFC & RSC.
• Purchased new coffee machine and grinder and implemented use of free-trade coffee beans at RSC.
• Installed recycling in both RSC & BFC workshop facilities
• Established bulletin board space at BFC to engage staff in sustainability efforts
• Composed and conducted a sustainability survey of office staff
• Stewardship is now using compostable cups for refreshments at their events, and working towards zero waste at our events
• Held EcoTeam BBQ in order to introduce the team, its history, future direction and purpose
• Presented eco tips on car maintenance and energy consumption.
• Began meeting with other TRCA EcoTeams to exchange information and ideas.
• Established process to recycle Tim Hortons cups at RSC.

In Process:

• Began looking into new coffee machine and grinder and possibly free trade coffee beans for BFC.
• BFC waiting on decision on Dyson hand dryers.
• Waiting on tender to go out to contract a green cleaning company at BFC.
• Discussing and trying to organize a communal garden.
• Trying to organize recycling of Tim Horton cups and lids at BFC.
Downsview Office

- Threw a “Happy Meat” BBQ (Rowe Farms, sustainable meat)
- Erected EcoTeam/CarbonCat Sustainability board in lunchroom in order to engage staff in sustainability efforts
- Held the first ever Energy Night Out – audit of work spaces after hours for computers, monitors, or other equipment left on
- Enhanced CarbonCats signage for promoting sustainable office practices (e.g. copying double-sided, teleconferencing)
- Lobbied for recently enacted 50% reduction in courier trips to head office
- Presented to staff at all staff office event
- Initiated an office greening suggestion program

Staff Profile: Gary’s Garden

Gary Wilkins is passionate about agriculture. “Food is one of the elements we all need for survival, but too often, in urban areas, agriculture takes the back seat,” he says. Gary is so passionate about the issue that he voluntarily took on TRCA’s urban and near-urban agricultural agenda, in addition to his regular job as the Humber River Specialist. He says he knew it was time for him to move into this area when TRCA adopted Sustainable Communities, as one of its core Living City tenants.

“Sustainability is more than just natural heritage,” he says. “You simply can’t have a sustainable community without local agriculture. The ecological footprint of local agriculture is smaller, it helps address emissions and climate change problems, and it is a terrific economic opportunity. It is a sector that will provide many green jobs in the future.”

In the spirit of walking the talk, Gary spearheaded, designed, and implemented a staff community garden at TRCA’s Downsview Office. “I thought our employees should be given the opportunity to try it out, develop the skills” he says. “City kids grow up with little connection to food, how it is grown, and where it comes from. By getting our employees involved we’re helping create a new generation of advocates for urban agriculture.”

Downsview’s garden has been a major success. Now entering its fourth year, the initiative had to overcome some early growing pains. “You know, it was funny,” Gary says, “that first year, some of our staff had no idea what to do. After I tilled the land and got things ready, some of them asked, ‘OK, what now?’ ‘Get some seeds and plant them,’ I said.”

Now there is talk of more community gardens at other TRCA locations. Stay tuned.
2011 Actions/Achievements

- 5 certified Ontario EcoCentres – first year of program.
- 4 certified EcoOffices.
- Liaised with Ministry of Environment staff on potential for cooperation and joint learning on green office strategies.
- Continued membership and participation on the POSI, a green office consortium program administered through Partners in Project Green.
- Participated in Clean Air Commute.
- Participated in the City of Toronto 20 Minute Makeover.
- Held office clean up days at Head Office and Downsview office – sharing and reuse of unwanted equipment, furniture and materials.
- Continued CarbonCats sustainability employee engagement program.
- Conservation Area staff led installation of bird boxes, planting of aquatic plants and wildflowers, other naturalization efforts.

Staff Profile: Brooke Erickson

Brooke Erickson chairs the Downsview office EcoTeam. Brooke says she got involved because “TRCA has some gaps when it comes to sustainability, and I wanted to be part of the solution.”

Brooke practices sustainability at home as well. She and her husband have a new child, meaning their focus is securely on the domestic front. Brooke makes her own green skin care and cleaning products, she and her husband drive efficient cars; they use cloth diapers and buy local food and used products when they can.
2.2.2 Where We Are Going

Over the next few years, the primary focus will be to build on the CarbonCats outreach program and to strengthen the EcoOffice program to provide greater support, at the facility level, for our overall, corporate, CSR goals and objectives. TRCA’s EcoTeams will be increasingly engaged to focus their attention on the goals and objectives of the TRCA CSR program.

Planned Actions:

2012

- 5 certified Ontario EcoSchools
- 4 certified EcoOffices
- Enhance EcoOffice support and coordination
- Participate in Clean Air Commute
- Participate in the City of Toronto 20 Minute Makeover
- Hold office clean up days at Head Office and Downsview office
- Continue and improve CarbonCats sustainability employee engagement program
- Hold staff led rehabilitation projects at Conservation Areas
- Achieve Audubon certification for CA’s and Kortright.
- Investigate TRCA-wide standards for holding green events – including best practices, information sharing, and promotion.

TRCA’s Green Teams

Members of The Downsview office EcoTeam

Our green teams, called “EcoTeams” are teams of staff at TRCA’s work locations who supply the grass roots momentum behind our movement to sustainable operations.

We have 8 employee-driven Green Teams in place at TRCA. Five of these teams drive their work location’s achievement of annual certification under the EcoCentres, program, a program of sustainability certification for outdoor education centres developed by TRCA in partnership with a number of organizations.

The remaining three EcoTeams pursue annual certification under EcoOffices, a TRCA internal program which focuses on green objectives at its 4 office locations. Restoration Services Centre and Boyd Office, located within one kilometer of each other, share one EcoTeam.
3.0 Our Environment

3.1 Carbon Footprint

Carbon footprint is a measure of an organization’s emissions of greenhouse gases, and, consequently, provides an indication of its contribution to climate change. It is one very significant measure of an organization’s sustainability. TRCA’s carbon footprint is calculated from quantitative results reported in the other sections of this report.

Vision

• TRCA operations will have a positive effect on greenhouse gas emissions and thus help mitigate climate change (offset the emissions of others).

Corporate Goals

• TRCA will be carbon neutral by 2025.
• Reduce greenhouse gas emissions by 50% from 2005 levels by 2018.

Specific Objectives

• 70% reduction in carbon footprint at Field Centres, by 2018.

3.1.1 Where We Are

Summary

TRCA’s carbon footprint has decreased by 468 tonnes from 2009, a percentage decrease of 14%. From 2010 to 2011, the carbon footprint decreased 124 tonnes. This decrease in carbon footprint has been primarily driven by three factors. The first and most impactful was a dramatic reduction in the amount of waste sent to landfill between 2009 and 2010, and sustained at the lower level in 2011. The second most important factor was a reduction in facility energy consumption in 2011 over 2010. This may be partially weather related, but is more likely related to a meter failure at one of our facilities. Staff is investigating and more detailed analysis will be conducted to assess trends. Finally, purchasing green natural gas at Head Office also reduced the carbon footprint.

Scope of Carbon Accounting in This Report

The globally accepted standardized methodology for reporting on carbon requires an organization to define the “scope” of its reporting and to reliably collect representative data from across the organization. With the assistance of CarbonCounted, TRCA has calculated a carbon footprint for 2011 based on the mandatory elements Scopes One and Two, as well as the waste component of Scope 3 of the International Standards (see box “Carbon Emissions Accounting – How it is Done”). Coolant loss from cooling systems, as well as the impact from TRCA’s small livestock holdings, while mandatory items for Scopes One and Two, are not included in our reporting, as coolant-loss from our many facilities are not available, and the impacts of our modest livestock holdings are expected to be small. As well, it is not yet possible to accurately assign each miscellaneous fuel purchase (i.e. for small equipment etc.) to either a specific type of fuel or a specific piece of equipment. Therefore, miscellaneous fuel purchases were assigned to “off-road gasoline vehicles”, which may, in fact, result in a higher carbon output than would have been the case if specifics were identified.
In addition to the mandatory elements in Scope One and Scope Two of the standards, TRCA also calculated the carbon emissions for one important Scope Three item: waste sent to landfill. Because the amount of waste generated is under our influence if not under our control, this Scope Three element is included in the overall carbon emissions reported.

Staff Profile: Enrique Guzman

Enrique commutes to work by bicycle almost every day, at least 9 months a year. He rides over 40 kilometres a day, keeping fit, and saving approximately one tonne of greenhouse gas emissions annually.

TRCA Total Corporate Carbon Footprint – Mandatory Factors Plus Scope Three

The 18% reduction in our footprint from 2009 to 2011 is explained primarily by a decrease in waste sent to landfill, energy consumption reductions at TRCA facilities, and new carbon accounting procedures recognizing the consumption of green electricity and green natural gas.
Breakdown of Operational Contributions to 2011 TRCA Total Carbon Footprint

Facilities - 1577 tonnes GHG
Vehicles and Equipment - 698 tonnes GHG
Waste - 606 tonnes GHG

Carbon Emissions Accounting – How it is done!

**Scope 1** - Direct GHG emissions: Carbon emissions occurring from sources that are owned or controlled by the company (e.g. emissions from combustion in owned or controlled boilers, furnaces and vehicles).

**Scope 2** - Electricity indirect GHG emissions: Carbon emissions from the generation of purchased electricity consumed by the company.

**Scope 3** - Other indirect GHG emissions: Carbon emissions which are a consequence of a company’s activities, but occur from sources not owned or controlled by the company (e.g. emissions from waste, the extraction and production of purchased materials; and employee travel to and from work).

The GHG protocol describes scopes 1 and 2 as mandatory reporting categories, and scope 3 as a voluntary reporting category.

3.1.2 Where We Are Going

Based on the data, more than half of TRCA's operational carbon footprint is comprised of facility energy use. In the years to come, the movement to more energy efficient facilities powered by renewable energy will allow TRCA to approach or meet its carbon neutral goal.
Planned Actions:

2012

Engage TRCA CSR Sustainable facilities working group to improve data collection necessary for more accurate carbon footprinting at both the corporate and facility levels.

Develop a corporate energy management plan.

3.2 Energy Use

Energy consumption at TRCA's many facilities accounts for the bulk of our greenhouse gas emissions, and consequently, our carbon footprint. Reducing energy consumption and/or switching to green energy sources is the most important direction we can take to meet our long term corporate goals of mitigating our impact on climate change. TRCA staff members are heavily involved in efforts to reduce the energy we consume and the reliance on carbon intensive energy sources. From facilities managers, to new facility design teams, to EcoTeam members and general staff working at one of our 17 major facilities, managing energy use and transitioning to more sustainable fuels is a driving focus.

Vision

• TRCA is a net producer of green energy for the community.

Corporate Goals

• TRCA produces renewable energy equivalent to 80% of its total energy consumption by 2025.
• Total energy consumption is reduced by 50% from 2005 levels by 2025.

Specific Objectives

• 50% of TRCA facility space is heated and cooled from renewable sources by 2015.
• Reduce total energy consumption by 30% from 2005 levels by 2015.
• Source 80% of electrical energy from green sources by 2015.
3.2.1 Where We Are

Summary

Total TRCA energy use in 2011 was down 6% from our 2005 base year. Over the same period, TRCA staff levels have increased, attesting to the conservation measures TRCA has taken. In 2011 total facility energy consumption decreased 11% from 2010. Most of the decrease was in electricity consumption, particularly at one of our facilities. Staff is investigating, but early indications are that an electricity meter may have partially failed. However, more analysis of individual facilities will be done in 2012 in order to assess the reasons for these trends.

Total Energy Use

In 2011, electricity accounted for the bulk of TRCA facility energy use (65%), followed by natural gas (24%), heating oil (9%), and propane (1%)
The graph below illustrates the progression of TRCA total energy use (natural gas, oil, electricity) from 2003 to present.

Despite increases of staff and the number of facilities in TRCA’s portfolio, consumption, efficiencies have been attained through conservation efforts in recent years. However, equipment related factors may have contributed to the reduction in 2011. The trend line looks promising, particularly in the period from 2008 to present, TRCA will continue its progress towards the objectives of energy conservation and adoption of renewable energy sources in order to meet its medium and long term goals.

Another way of illustrating the energy efficiency performance at TRCA is to graph total gigajoules (GJ) of facility energy used per employee (average number per year). As the graph below shows, this measure has trended downward since 2003.
Renewable Energy

TRCA’s progress toward renewable energy at its facilities is a major achievement. Currently, approximately 31.4% of TRCA facility floor space (square footage) is serviced by renewable energy sources for heating and cooling. This is an increase from 18.7% in 2008, with the addition of ground source heat pump heating and cooling at the Downsview office (2009), the two dormitory buildings at Lake St. George Field Centre (2009), Kortright’s Centre Visitors Centre (2011), and wood heating the new workshop at Boyd office (2010). In 2011, TRCA’s head office converted to green natural gas from Bullfrog for its heating. These buildings join the Living Machine building at Kortright and the LEED Platinum Restoration Services Centre, and the two archetype houses at Kortright Centre, and 40% of BCPV Visitors Centre, all heated and cooled via renewable technologies.

In addition to the above, “green” electricity supplies 100% of hydro needs for the Kortright Centre, the LEED Platinum Restoration Services Centre; and Head Office (5 Shoreham Drive).

Ground Source Heating and Cooling at Kortright Visitors Centre

Kortright has just replaced its old all electric forced air system with new ground source heat pumps. The new system consists of 22 vertical wells (543 ft. each), and 6 ground source heat pumps which will cool and heat the building. The new system is estimated to save Kortright about 278,000 kWh or $30,000 a year in electricity. If this performance improvement is achieved it would mean a 60% reduction in total energy consumed at Kortright. The 2012 and 2013 consumption data will tell the story.

Facility Floor Area (sq. ft.) Serviced Heated or Cooled by Recognized Renewable Energy Technologies (e.g. ground source, wood boiler).
Electricity Sourcing

TRCA’s objective is to source 80% of its electricity from green sources by 2025. The chart below illustrates the current breakdown of Bullfrog sourced green electricity and conventional grid electricity in 2011 (column one) and shows what 80% would look like in 2025 at the targeted level of electricity consumption (50% of 2005 baseline).

![Proportion of TRCA Electricity Consumption from Green Sources](chart.png)

The Target 2025 column shows TRCA’s total electricity consumption reduced at the same time as the proportion of green sourced electricity is raised to 80%.
2011 Actions/Achievements

• Launched TRCA’ Facility Sustainability Working Group.
• Initiated LEED Existing Buildings survey at Black Creek Pioneer Village.
• Conducted energy audit for Lake St. George Field Centre, Indian Line Camp Ground and Albion Hills Field Centre.
• Conducted lighting audit at Black Creek Pioneer Village and prepared plans for retrofit in 2011.
• Student-led study on Restoration Services Centre energy efficiency and performance determines RSC is one of a few LEED buildings operating as designed.
• Installed new biomass boiler in new Boyd Office workshop.
• Kortright energy retrofit design prepared.
• Energy Star printers at Boyd Office.
• 2 Navien Tankless hot water heaters at Chalet building at Albion Hills Conservation Area.
• Install 2, 92% high-efficiency propane furnaces in buildings at Albion Hills Conservation Area.
• 2 Navien Tankless hot water heaters at washroom facility at Indian Line.
• Install a 92% high-efficiency propane furnace at Indian Line.
• Install solar thermal panel at Indian Line for preheating hot water tanks.
• Installed energy star rated window at Albion Hills CA.
• High efficiency hand dryers installed at Albion Hills CA and Head Office.
• Energy Audit conducted for Albion Hills CA and Indian Line.
• Solar tubes lighting installed at Claremont FC.
• Smart meter with a pulse to a data logger installed at Claremont for great water consumption monitoring and control.
• Replaced 15 T-12 light fixtures with T-8’s at Heart Lake CA.
• Replaced 4 standard light switches with motion detector switches at Heart Lake CA.
• Replaced 6 outdoor standard lighting units with photocell and time controlled units at Heart Lake CA.
• Switched to Bullfrog natural gas at Head Office.
• Joined CivicAction`s Race to Reduce for Commercial Buildings.
3.2.2 Where We Are Going

TRCA's sustainable energy goals will be met with a combination of conservation and a move to renewables. In order to plan for this, TRCA will develop corporate Energy Management Plan to guide further retrofits, identify expectations for new facilities and conversions to renewable energy. Purchase of green electricity is an interim step along our path to the production of our own electricity from renewable sources.

Planned Actions:

2012

• Develop the corporate energy management plan.
• Lighting retrofit at Black Creek Pioneer Village.
• Lighting retrofit at Lake St. George Field Centre.
• Energy Audits for all major TRCA facilities.
• Re-insulating walls and replacement of windows in Albion Hills workshop.
• Solar panels to be installed at the Cabin Extension at Glen Haffy CA.
• 2 new energy star rated AC units to replace old units at Albion Hills CA.
• Enact recommendations from 2011 Energy Audits at Albion Hills CA and Indian Line.
• High efficiency heating at Poplar/Humber washroom facilities, Indian Line.
• Investigate solar power installation at three Field Centres.
• Enact third phase of retrofit - insulation of entire building, windows upgrade.
• LED installations at Claremont FC.
• Install real time display of energy and water consumption for student education and facility management purposes at Claremont FC.
• Kortright Visitor’s Centre retrofits – re-skinning of main building, upgraded insulation, window installation, new roof with rain water collection.
• Conduct weather normalized energy trend analyses for large, applicable facilities.
• Investigate geothermal heating and cooling for Davies building at Lake St. George FC.
3.3 Water Use

In Canada we host 6% of the world’s fresh water but 60% of that water drains north away from most of the population and agriculture. Per capita Canadian use is 335L per day, second only to the United States. With climate change and population growth sending society toward a global water crisis, conservation and rethinking how we use water are central to TRCA’s sustainability.

Vision

• TRCA operations and facilities are models for managing potable water and stormwater runoff.

Corporate Goals

• Minimum 15mm of storm water controlled at source at all TRCA facilities.
• Reduce total potable water consumption from 2009 levels by 35% by 2025.

Specific Objectives

• Reduce water consumption at corporate offices (Downsview, Head Office, and Boyd) Kortright and Black Creek Pioneer Village 25% from 2011 levels by 2017.

3.3.1 Where We Are

Since 2007, when a number of TRCA facilities switched from well to municipal water, TRCA’s water use has varied between 43,000 m$^3$ and 61,000 m$^3$ annually. This range would have been narrower were it not for a large water leak at Albion Hills in 2009. Petticoat Creek pool, traditionally, a consumer of 30 to 40% of TRCA’s municipal water use, was not operational in 2010 or 2011, but at the same time the pool at Albion Hills became active, effectively offsetting any potential reduction in water use at Petticoat Creek. With both pools expected to be operational in 2012 we are likely to see an overall increase in water use.
* See Appendix for explanation of changes to water sourcing at TRCA.

In addition, two more facilities are included in the municipal water usage for 2011, Boyd Conservation Area, and Earth Rangers.

Due to significant changes in water usage and metering, the actual impact of TRCA's water conservation efforts are difficult to assess. In the next few years the trend should come into better focus.

TRCA's many water conservation efforts over the years have been directed at its offices (low flow toilets, sensor taps, etc.) and thus are overshadowed by large water consumption from pools and splash pads and the addition of facilities.

### 2011 Actions/Achievements

- Completed design of new sustainable pool at Petticoat Creek to replace the old pool.
- Replaced 5 standard top load washing machines with low flow at Albion Hills CA.
- Water meter with data-logger installed at Claremont.
- Touchless sensor water taps installed in Head Office bathrooms.
- Replaced 6 standard sink faucets with low flow metered faucets (motion activated) at Heart Lake CA.
- Replaced 10 toilets and urinals with low units equipped with flush-o-meters at Heart Lake CA.
3.4.2 Where We Are Going

Planned Actions:

2012

- Completion of new Petticoat Creek Aquatic Facility – a sustainable pool (see box, next page)
- Determine metrics for measuring and reporting on TRCA stormwater practices at its facilities
- Water use will be addressed as part of the energy management plan

Petticoat Creek Conservation Area Aquatic Facility

In 2012, a new sustainable pool will open at TRCA’s Petticoat Creek Conservation Area. Some of the features of the pool are as follows:

- Fully accessible;
- 6 feet deep, over 1600m² (510m² deep area and 1,090 m² shallow area) concrete pool with beach entry;
- State of the art vacuum DE filtration system with skimmers and recycled backwash waters;
- Main pool and 3 splash pads with closed loop water conservation system;
- Large splash pad with water conservation recycling system;
- Energy star equipment where ever possible;
- Large seating, picnicking, and viewing areas;
- Barrier-free, 1,500 sq. ft. adjacent pool complex facility featuring low flow toilets, faucets, motion occupancy and T8 lighting.
Staff Profile: Carey Gurden

Carey Gurden takes a cool, relaxed, but “greenly-serious” approach to Claremont’s sustainability. Here, he kicks back under a few of Claremont’s new green walls.

3.4 Vehicles, Fuel and Travel

Fleet use is the second biggest contributor to our carbon footprint behind facility energy use.

Vision

- TRCA’s transportation needs will be met by sustainable electric and biofuel based-vehicles.

Corporate Goals

- TRCA’s fleet will achieve an average of 12 litres per 100 kilometres fuel efficiency by 2018.
- TRCA’s fleet sustainability will continue to lead other agencies based on external independent audit.
- Reduce TRCA greenhouse gas emissions from fleet and travel by 50% from 2009 levels by 2018

Specific Objectives

- TRCA’s fleet will be 50% alternative fuel vehicles by 2020.
3.4.1 Where We Are

Summary

TRCA employees continue to consume more fuel and drive more kilometres on business each year, most of which is explained by organizational growth. TRCA staff drove approximately 40,000 more kilometres in 2011 over 2010. Fleet fuel efficiency was essentially unchanged.

TRCA promotes transit use when on TRCA business and makes transit tokens available at each main office.

Since 2003, TRCA’s staffing level has increased from 495 to 736. The following graph shows the kilometers driven per employee, and the slight decrease since 2009.
TRCA’s continues its commitment to right-sizing vehicles for their intended usage as part of its Green Fleet Strategy, and increasing the number of hybrids and alternative-fuel vehicles it owns. In 2011, 12% of TRCA’s fleet vehicles were alternative-fuel powered (all hybrids).

To date, the addition of efficient and/or alternative-fuel vehicles has not significantly impacted the overall fuel efficiency of the fleet. Since 2003, fleet fuel efficiency has fluctuated between 16.1 litres/100km and 17.7 litres/100km (17.1 in 2011). However, over time it is expected that alternative fuel vehicles, such as electric vehicles, will be acquired more aggressively where they can be shown to perform as required. Over time, this will improve our average vehicle efficiency and thus reduce carbon emissions.

* See Appendix for explanation of changes to water sourcing at TRCA.
It will take time for cost effective green fuels and low carbon vehicles to become readily available in the marketplace. TRCA’s GreenFleet Strategy, to be modified to more aggressively pursue alternative fuel vehicles, will be the primary mechanism for making this transition, improving efficiencies, and ultimately, reducing absolute amounts of fossil fuels consumed.

### 2011 Actions/Achievements

- Establishment of designated car pool slots at Boyd Office, Restoration Services office, and Head Office.
- Completed study of 5 TRCA vehicles to determine feasibility of replacing them with electric cars (see box this page).
- Initiated use of non-corn-based biodiesel at Claremont Field Centre.

### 3.4.2 Where We Are Going

#### Planned Actions:

**2012**

- Research options for replacing or retrofitting equipment powered by two-stroke engines (e.g. weed whackers, chains saws).
- Implement video conferencing room at Downsview office.
- Purchase web meeting and training software.
- Develop method of calculating baseline work-related transit use at TRCA.
- Prepare report on best practices on Green Fleet and Green Commuting in Canada.
- Continue feasibility study for acquiring electric vehicles.
3.5 Land Management

As one of the largest land holders in Ontario (and the largest in the GTA), TRCA’s stewardship of its land holdings is a crucial component of its sustainable operations.

Vision

- TRCA will protect, conserve and manage its properties within an ecosystem framework, and in consultation with the local community. This will ensure that our watersheds are healthy, enjoyed by the public, and are managed in environmentally sustainable ways.

Corporate Goals

- Complete baseline land management plans for 14 major TRCA properties.

3.5.1 Where We Are

Summary

TRCA remains on schedule to complete its Conservation Land Planning process, and continues to ensure that all land acquired is free of contamination through environmental site assessments.

Land Planning

TRCA has committed to inventory and evaluate existing public uses, environmental conditions and property management issues, in order to determine appropriate management actions that will ensure long term environmental protection and enhanced nature-based recreation and public use of our lands. Land Management Plans are developed to ensure public safety and appropriate use. Finally, property management issues are addressed and appropriate actions identified through this planning process.

Land Management Plans define specific management zones for each property within which a certain type of activity may be undertaken. Detailed site management, trail and environmental restoration plans are included along with design guidelines, user impact analysis and implementation strategies. The plans are developed in consultation with the community, ensuring appropriate public participation in the development and implementation of the plans. It is recommended that Management Plans be updated every eight to ten years. At the end of 2011, management plans had been completed for eight properties, with plans in development for five more. There is also key plan implementation work that is ongoing for the properties which have completed plans. Below is a site-by-site summary of our progress in 2011.
## Status of Land Management Plans and Master Plans for TRCA Lands

### Conservation Areas

<table>
<thead>
<tr>
<th>Location</th>
<th>Plan Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albion Hills</td>
<td>Albion Hills Master Plan, starts September, 2012</td>
</tr>
<tr>
<td>Boyd</td>
<td>Boyd Master Plan, incomplete</td>
</tr>
<tr>
<td>Bruce’s Mill</td>
<td>Bruce’s Mill Master Plan, completed, 2011</td>
</tr>
<tr>
<td>Glen Haffy</td>
<td>Humber Headwaters Management Plan, incomplete</td>
</tr>
<tr>
<td>Heart Lake</td>
<td>Heart Lake Master Plan, completed</td>
</tr>
<tr>
<td>Indian Line</td>
<td>Claireville Management Plan Update, completed, June 2011</td>
</tr>
<tr>
<td>Petticoat Creek</td>
<td>Petticoat Creek Master Plan, incomplete</td>
</tr>
</tbody>
</table>

### Offices

<table>
<thead>
<tr>
<th>Location</th>
<th>Plan Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyd</td>
<td>Boyd North and Glassco Park Management Plan, completed</td>
</tr>
<tr>
<td>Earth Rangers</td>
<td>Boyd North and Glassco Park Management Plan, completed</td>
</tr>
<tr>
<td>Restoration Services Centre</td>
<td>Boyd North and Glassco Park Management Plan, completed</td>
</tr>
</tbody>
</table>

### Education

<table>
<thead>
<tr>
<th>Location</th>
<th>Plan Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albion Hills</td>
<td>Albion Hills Master Plan, starts September 2012</td>
</tr>
<tr>
<td>Claremont</td>
<td>East Duffins Creek Headwaters Management Plan, starts September 2012</td>
</tr>
<tr>
<td>Kortright</td>
<td>Boyd North and Glassco Park Management Plan, completed</td>
</tr>
</tbody>
</table>

### Other

<table>
<thead>
<tr>
<th>Location</th>
<th>Plan Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathurst Glen Golf Course</td>
<td>Oak Ridges Corridor Management Plan, completed</td>
</tr>
</tbody>
</table>

### 2011 Actions/Achievements

- Continued pursuit of Audubon certification at Conservation Areas.
- Continued land acquisition environmental assessments, ensuring acquired lands are free of contamination.
- Completed Land Management Plans for Bruce’s Mill.
- Completed Claireville Master Plan Update.
- Bathurst Glen Golf Course reduced inputs of Class 9 Pest Control Active Ingredients by 40% as compared to 2010.
Land Management at Conservation Areas and Bathurst Glenn Golf Course

In 2011, TRCA continued the process for its Conservation Areas to become certified Audubon Cooperative Sanctuary (ACSP). The ACSP is an education and certification program that helps organizations and businesses protect the environment while enhancing their bottom line. The program offers information and guidance to help participants implement an environmental management plan that improves efficiency, conserves resources, and promotes conservation efforts. Audubon International awards certification to publicly recognize and reward the environmental achievements and leadership of ACSP members.

Bathurst Glen Golf Course achieved the status of certified ACSP in 2010. Our Conservation Areas are on track for certification in 2012.

3.5.2 Where We Are Going

Planned Actions:

2012
- Commence Albion Hills Master Plan
- Commence East Duffins Creek Headwaters Management Plan
- Achieve Audubon certification for Conservation Areas
- Indian Line shoreline Culvert mitigation

Duffins - Carruthers watershed lands
3.6 Waste Management

The sustainable management of waste is a central area of concern for TRCA's Corporate Social Responsibility program, and an area of active participation for our staff. Waste to landfill accounts for between 20 and 30% of our total carbon footprint annually.

Vision

- TRCA minimizes the amount of waste from operations and treats what waste it does generate as a resource.

Corporate Goals

- Diverting 80% of total waste at all TRCA facilities by 2018.

Specific Objectives

- 80% reduction in waste at educational field centres by 2018.
- Reduce landfill waste stream originating from Parks and Culture Facilities by 80% by 2018.
- Increase staff and visitor awareness and participation in Recycling Program.

3.6.1 Where We Are

Summary

TRCA diverted 40% in 2007, 41% in 2008, 22% in 2009, and 21% in 2010, and 21% in 2011. TRCA continues to struggle with unreliable data from haulers, and, consequently will include an internal auditing process in 2012 in order to check the hauler data.

Analysis of Waste and Data Issues

According to reports provided by TRCA's contracted waste hauler companies, TRCA generated 579 tonnes of waste in 2009 from its 17 sites/facilities. In 2010, the mass of total waste reported by haulers was 442 tonnes. In 2011, the total mass of waste reported by haulers was 470 tonnes.

The actual 2011 diversion rate is likely more than the reported 19%, as not all diverted waste data is available. For example, recyclables going to municipally run systems, or organics dealt with at TRCA sites (e.g. composted materials) are not contained in the 19%. Moving to an internal auditing process will also allow TRCA to estimate the mass of all waste streams, and arrive at more accurate diversion numbers.
Breakdown of Waste and Recyclables - tonnes, 2011

- Recycled materials: 91 tonnes
- Waste to Landfill: 379 tonnes

Waste Diversion Performance at TRCA (all 17 sites)

- Diversion Rate (%):
  - 2007: 40%
  - 2008: 45%
  - 2009: 30%
  - 2010: 25%
  - 2011: 20%
  - Target 2012: 80%
Enhanced Recycling Program – Conservation Areas, Kortright Centre and Black Creek Pioneer Village

In 2011, the recycling infrastructure (signs, bins, etc.) at TRCA's parks was once again substantially enhanced to provide easier-to-use and more effective source separation capabilities for the general public. Anecdotal information from Parks staff indicates that the new approach has worked exceedingly well. Parks has tabled a draft Divisional Recycling Plan that sets goals and provides a work plan for progressing, arranged for pick-up of organics from our parks facilities.

2011 Actions/Achievements

- Continued revamping Conservation Area recycling centres, providing new bins, better signage, and more public education.
- Installed new head office lunchroom waste and recycling centre for greater diversion potential.
- Held annual Office Clean-up Days, facilitating reuse of materials, furniture and equipment, and diverting same from landfill.
- Enforcement department moved to electronic records to save paper and realize efficiencies.
- Finance department moved to Electronic Purchase and employee expenses reporting systems.
- Black Creek Pioneer Village reduced waste by 80% from parking lot by removing waste bins.
- Albion Hills Field Centre changed to monthly waste and recyclables pickup in order to reduce footprint.
3.6.2 Where We Are Going

<table>
<thead>
<tr>
<th>Planned Actions:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2012</strong></td>
</tr>
<tr>
<td>• Enact internal waste auditing for waste volumes and diversion rates for all TRCA sites.</td>
</tr>
<tr>
<td>• Establish new waste baseline performance, and set new Goals and Objectives.</td>
</tr>
<tr>
<td>• Prepare a corporate waste management plan.</td>
</tr>
<tr>
<td>• Continue revamping Conservation Area recycling centres, providing new bins, better signage, and more public education. 1 outdoor 4 stream recycling receptacle set in place to further enhance recycling efforts at Albion Hills Conservation Area.</td>
</tr>
<tr>
<td>• Investigate paper towel recycling at Head Office.</td>
</tr>
</tbody>
</table>
4.0 Our Business

In 2011 TRCA has included a section on business in the CSR report. Although only funding and procurement are addressed, this section will be expanded in future years.

4.1 Sustainable Business Practice

TRCA is committed to pursuing continuous improvement in the development and delivery of all programs through creative partnerships, diverse funding sources, and careful auditing of outcomes.

Vision

- TRCA is a leader in the transparency, efficiency and effectiveness of its business practices among government agencies.

Specific Objectives

- Efficient and effective use of government funding – At least 50% of funding from non core-municipal sources.
- Resiliency in program delivery through diverse funding sources.
- Equitable and supportive employee relations.

4.1.1 Where We Are

TRCA strives to leverage the funding it receives from its 4 main sources; Toronto, Peel, York and Durham, with revenue from products and services it supplies to the market. For the past 4 years core government funding made up less than half at TRCA’s revenue.

Through a diverse client base TRCA is able to bring a level of resilience to the funding for the programming it provides.
Employee relations is another indicator of TRCA business practice and the annual staff survey, presented in Our People, Section 2.0 of this report, contains a number of measures reflecting the view of TRCA by its staff. Contented, hardworking, dedicated staff are an indicator of an efficiently run agency. As discussed in Section 2.0, in 2011 TRCA achieved its goals with respect to low turnover rates, and employee opinions of the value of their work and whether or not they would recommend TRCA to others as a good place to work. The staff survey also indicates that, while most measures are performing well, a number of objectives are not yet met.

4.1.2 Where We Are Going

**Planned Actions:**

**2012**

- Develop and refine goals, objectives, and metrics for measuring TRCA Business Practice
- Complete first draft of TRCA Strategic Plan – including greater levels of input from all staff
- Develop a TRCA Partnership map, identifying all TRCA partnership relationships across all TRCA offerings

4.2 Green Purchasing

The goods and services an organization purchases directly impact the local and global environment in two ways. Firstly, goods and services have different ecological footprints associated with their life cycles and consequently, buying the more sustainable offerings reduces our own corporate footprint. Secondly, the simple act of directing our dollars from unsustainable companies/suppliers to sustainable ones helps to support and broaden the sustainability ethic in the greater economy.
Vision

- TRCA procures all the products it consumes and services it hires from environmentally and socially responsible sources.

Corporate Goals

- 40% of food purchased by TRCA is sourced locally by 2012.

Specific Objectives

- Establish facility/area/operation specific objectives by 2013.
- Determine methodology for assessing performance (and, consequently, setting additional, quantifiable corporate goals) by 2012.

4.2.1 Where We Are

Summary

TRCA continues to pursue responsible, “green” procurement of products and services through both its Corporate Procurement Policy and its Mandatory Green Procurement List (see next page).

Procurement Practices

From the early years of the CSR Program, TRCA senior management has recognized the importance of procuring sustainable products and services as a method of both supporting ethical businesses and helping change the fundamentals of our unsustainable economy. The result of this commitment was the TRCA list of Mandatory Green Product and Service List, which has been in use since 2003, with various additions and modifications.
## TRCA - Mandatory Green Product and Service Procurement List

<table>
<thead>
<tr>
<th>Product</th>
<th>Mandatory Green Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Bulbs</td>
<td>Only Energy Star rated Compact Fluorescent Lamps (CFLs). No incandescent bulbs to be purchased (not including exempted applications).</td>
</tr>
<tr>
<td>Fluorescent Light Fixtures</td>
<td>Only High Efficiency Electronic Ballast type, operating at least 20,000 Hertz, utilizing T8 lamps with CRI rating approximately 75.</td>
</tr>
<tr>
<td>Cleaners</td>
<td>100% of cleaning products, and hand soaps used on Authority property will be “green products” (EcoLogo, GreenSeal).</td>
</tr>
<tr>
<td>Paper</td>
<td>All paper must include at least 50% post-consumer recycling content and be FSC certified (exemptions for plotter paper and other one off specially products).</td>
</tr>
<tr>
<td>Automobiles</td>
<td>Greenfleet Policy/See Fleet Manager.</td>
</tr>
<tr>
<td>Appliances</td>
<td>Only Energy Star rated - refrigerators, washers, dishwashers, de-humidifiers.</td>
</tr>
<tr>
<td>Monitors</td>
<td>Purchase only LED computer monitors.</td>
</tr>
<tr>
<td>Electronics</td>
<td>Only Energy Star rated.</td>
</tr>
<tr>
<td>Air Conditioning</td>
<td>Only Energy Star rated.</td>
</tr>
<tr>
<td>Thermostats</td>
<td>Only Energy Star rated.</td>
</tr>
<tr>
<td>Gas or propane furnaces</td>
<td>Must have an Annual Fuel Utilization Efficiency equal to or greater than 88% - the highest category of ratings in the Canadian Energy Guide.</td>
</tr>
<tr>
<td>Green Hotels</td>
<td>Must use Audubon or other hotels on TRCA business (if available and practical).</td>
</tr>
<tr>
<td>Green Printers</td>
<td>Must source bid from at least one EcoLogo/FSC certified green printer on all bid searches for external printing requirements. Must use FSC certified paper where possible.</td>
</tr>
<tr>
<td>Corporate Courier Contract</td>
<td>Courier must be a leader in sustainable operations in sector (e.g. listed on Dow Jones Sustainability Index)</td>
</tr>
<tr>
<td>Boilers</td>
<td>Only Energy Star rated.</td>
</tr>
</tbody>
</table>

## Local Food Sourcing

In 2011, TRCA sourced 29% of food locally (from within 100 kilometres). We will have to work diligently in 2012 to meet the 40% target for that year.
2011 Actions/Achievements

- Completed new green cleaning standard operating procedures for TRCA facilities.
- Kortright converted to green office supplies.
- Education Centres adopted standard operating procedures for purchase and lifecycle use of carpeting.

Staff Profile: Jennifer Taves

Jennifer chooses fresh, local, organic food, delivered directly to the TRCA office by a local farmer.

4.2.2 Where We Are Going

Planned Actions:

2012

- Carry out green procurement training for staff.
- Transition cleaning practices to meet new green cleaning SOP’s.
- Develop a green procurement policy.
- Investigate additional goals, objectives, and performance metrics for Green Procurement.
5.0 Our Community

5.1 Our Community – Social

TRCA’s external business delivery strives to impact the broader community’s progress toward sustainability and the realization of the Living City vision. Traditionally, TRCA’s work has concentrated on environmental conservation. In the past decade, in recognition of what Bob Willard calls the “three legged stool” model of sustainability, TRCA's outreach activities have broadened to include social and economic outreach into our communities. In short, a sustainable environment cannot exist without sustainable social and economic systems. The Living City is one where all three elements of sustainability are healthy.

Vision

• TRCA adds social value to the community.

Specific Objectives

Employment programs for internationally trained professionals (PAIE and M2P)

• 435 applications received by end of 2014
• 170 participants accessing programs by end of 2014
• 150 participants complete program by end of 2014
• 133 participants gain employment by end of 2014
• 55 participants receive credential for licensure by end of 2014
• Have 100% of mentees matched to mentor by the end of 2014
• 50% of mentors to be from TRCA staff by the end of 2014

EVN Program

• 900 new registrants by end of 2014
• 625 volunteer passes issued by end of 2014
• 900 external volunteer opportunities posted on EVN by end of 2014
5.1.1 Where We Are

TRCA’s Social Development Programs

TRCA operates a number of innovative and some award winning programs designed to assist the social development of the community in which it operates. This work is not traditionally done by Conservation Authorities. Catherine MacEwen, TRCA’s Director of Human Resources and Marketing, explains why TRCA got involved in this area:

“Sustainability is the core driver of our Living City vision. About nine years ago we recognized that while our focus on environmental sustainability was our traditional area, we needed to reinvigorate our approach to social sustainability. We quickly recognized that the opportunity to help new Canadians gather work experience and, eventually, find work in their fields, was an under-served area, and an area in which we were uniquely capable of acting. The GTA is the most diverse region in Canada, yet this diversity was not reflected in the environmental field.”

TRCA’s three Social Development Programs are the result of this early understanding. These programs achieve many positive outcomes simultaneously. They help new Canadians gain access to meaningful experience and networking opportunities, increase the pool of planning, geotech and engineering professionals in the GTA, and allow TRCA staff and program participants to collaborate and share ideas and best practices pertaining to sustainability.

PAIE and M2P

Professional Access and Integration Enhancement (PAIE)

PAIE is a unique program developed and led by TRCA in collaboration with Professional Engineers Ontario, the Association of Professional Geoscientists of Ontario and funded by the Government of Canada and Ontario. PAIE launches the careers of highly qualified professional candidates with international training and experience by linking them with employers to fulfill hiring needs in the environmental sector, while helping them to obtain valuable Canadian experience and obtain a professional license as a P.Eng. or P.Geo.

Mentoring to Placement for Environmental Professionals (M2P)

Led by TRCA, the M2P Program is designed to connect employers and highly skilled environmental professionals with international training and experience in:

- Green building / energy
- Planning: environmental, urban, community
- Ecology

M2P is an Ontario bridge training program designed to empower participants with increased understanding of and exposure to the environmental industry and experts in the field with the goal of finding employment in a highly specialized and competitive sector. Clients in the program access individual employment counseling, soft and technical skills workshops, a mentor in their field and a work experience opportunity. M2P provides employers with suitable, effective and streamlined hiring solutions while accessing highly qualified candidates to fill their employment needs.
Environmental Volunteer Network (EVN)

EVN is a TRCA program which facilitates volunteer opportunities for individuals interested in the environment, connecting the diverse residents of TRCA's jurisdiction with hands-on volunteer opportunities and education in the field of conservation. At no cost, EVN offers all employers an opportunity to post volunteer positions and select from an extensive network of qualified and interested volunteers who are eager and ready to make a contribution in your organization. For more information about EVN go to www.trca.on.ca and click on Volunteer.

2011 Social Development Program Scorecard

<table>
<thead>
<tr>
<th>Program</th>
<th>Goal or Objective</th>
<th>2011 Performance/Status</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment programs for internationally trained professionals (PAIE and M2P)</td>
<td># Applicants</td>
<td>647</td>
<td>435 applications received by end of 2014</td>
</tr>
<tr>
<td></td>
<td># Participants accessing programs</td>
<td>97</td>
<td>170 participants accessing programs by end of 2014</td>
</tr>
<tr>
<td></td>
<td># Participants completing program</td>
<td>35</td>
<td>150 participants complete program by end of 2014</td>
</tr>
<tr>
<td></td>
<td># Participants obtaining employment in professional field</td>
<td>64</td>
<td>133 participants gain employment by end of 2014</td>
</tr>
<tr>
<td></td>
<td># Participants obtaining licensure/Certification/Credential for Employment</td>
<td>29</td>
<td>55 participants receive credential for licensure by end of 2014</td>
</tr>
<tr>
<td></td>
<td># M2P Participants (mentees) matched to a Mentor in their field</td>
<td>100%</td>
<td>100 % M2P participants matched to mentor in field by end of 2014</td>
</tr>
<tr>
<td></td>
<td>% M2P Mentors from community at large</td>
<td>50%</td>
<td>50% mentors recruited from community at large for M2P program by end of 2014</td>
</tr>
<tr>
<td>Program</td>
<td>Goal or Objective</td>
<td>2011 Performance/Status</td>
<td>Target</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Environmental Volunteer Network (EVN)</td>
<td># New Volunteers registered with EVN</td>
<td>570</td>
<td>900 new registrants by end of 2014</td>
</tr>
<tr>
<td></td>
<td># Volunteer passes issued to individuals who have volunteered 30 or more hours at TRCA</td>
<td>280</td>
<td>625 volunteer passes issued by end of 2014</td>
</tr>
<tr>
<td></td>
<td># External (non TRCA) volunteer opportunities posted on EVN</td>
<td>530</td>
<td>900 external volunteer opportunities posted on EVN by end of 2014</td>
</tr>
</tbody>
</table>
Highlights from TRCA’s Social Development Programs

PAIE Highlights, 2011

- 21 PAIE participants obtained salaried positions in their professional field
- 1 PAIE participant obtained salaried employment in a related field
- 10 PAIE participants obtained a paid work placement in their professional field (3 of whom advanced in their careers and moved on to salaried employment)
- 1 PAIE participant secured a volunteer opportunity (and has since progressed into salaried employment)
- In total, 34 opportunities were secured by 29 participants

Frida Takang, M2P Participant from 2009 – 2011

I first arrived in Canada in November 2008. The biggest challenges I faced since coming to Canada were integrating into the Canadian society, getting a job in my field and learning where I can get help—now it is no longer a problem: M2P program staff helps me a lot. I have a Masters degree in Natural Resources Management, and I wanted to find something in my field.

Through the M2P Program I have been able to find a volunteer opportunity and utilize my skills. I was also matched with a wonderful mentor, Darryl Gray of TRCA. M2P also hosted many workshops which I attended. These experiences were very positive and have changed my life overall. I have been exposed to a lot of advice and follow up.

The most important lessons I have learned are to always tailor my resume, to be consistent during my job search journey, and develop good interview skills through the M2P program. I think I can face interviews better now after all the practice!
Carlos Mario Duero – Account Manager, Turtle Island Recycling

I came to Canada in 2007 from Colombia with a Bachelor’s degree in Environmental Engineering. Having a lot of expectations and a strong willingness to succeed, I spent the first three years here improving my English skills and working to obtain a graduate certificate in Environmental Management and Assessment from Niagara College. I was young and I thought I had done everything possible to be successful in this country, but I was not aware of all the challenges that I would have to face. I was a recent graduate and I guess at that age, everyone thinks good things will happen right away, but I was wrong. Time went by and I started to get frustrated because there was no indication of me getting a job in my professional field.

One day, while surfing the internet I came across information about the PAIE Program. As I read the description through, I got really excited because this was the perfect opportunity for me and one that I could not miss. After submitting my application and attending an interview, I was offered a place in the program which ended up being one of the biggest accomplishments of my life so far.

During orientation, we were told that the success of the program would primarily depend on our desire, effort, and commitment. We were not guaranteed jobs, but we were guaranteed to gain the tools necessary to understand Canada in all aspects, and to be successful in our job search. I am happy to tell you that after attending many hours of training through PAIE, I was successful in gaining a job in my field of expertise; and am now working for the kind company I always dreamed of. I am currently working for Turtle Island Recycling which is one of the biggest waste management companies in the GTA. My responsibilities are associated with providing top-notch customer service to support the achievement of waste reduction targets by advising and implementing waste diversion approaches and waste reduction strategies. I work with different levels of the organization and my job requires a high level of communication skills, which PAIE training focused on extensively.

In fact, I really started to see the results of the program when I started to interact with my colleagues in the workplace. It was easy for me to link and apply every workshop and piece of advice from PAIE Staff and Instructors. I realized that everything we were taught was practical and happening in the workplace; and I’m sure that if I had not had the kind of support I found through PAIE, I would not have been able to fit as easily into my position.

The accomplishments of PAIE Participants are real, measurable and tangible. The degree of professionalism demonstrated by this program and its staff is unique. They have charisma and a willingness to help great people succeed in this country.
M2P Highlights, 2011

The pilot phase of the M2P program which ended in 2011 resulted in the following accomplishments:

<table>
<thead>
<tr>
<th>Target</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td># Applicants</td>
<td>60</td>
</tr>
<tr>
<td># Participants accessing program</td>
<td>40</td>
</tr>
<tr>
<td># Participants completing program</td>
<td>35</td>
</tr>
<tr>
<td># Technical and Soft skills Workshops</td>
<td>20</td>
</tr>
<tr>
<td># Mentors recruited*</td>
<td>40</td>
</tr>
<tr>
<td># Participants who gained employment</td>
<td>30</td>
</tr>
</tbody>
</table>

*all participants were matched to a mentor

EVN Highlights, 2011

- 3280 volunteers are registered in the TRCA database (up by 570 from 2010)
- 39 TRCA volunteer opportunities posted seeking over 1000 volunteers
- 11 external organizations posted seeking 530 volunteers
- 11,860 volunteers have participated in TRCA volunteer activities
- 280 volunteers reported having completed 30 or more volunteer hours at TRCA and therefore became eligible for a TRCA pass
- All TRCA divisions are working with volunteers and have been active in reporting or posting volunteer opportunities

Planned Actions:

### 2012

- Continue to operate and strengthen PAIE, EVN, M2P.
- Initiate tracking of number of people participating in TRCA events.
- Launch the PAIE and M2P programs with additional new clients.
- Investigate new ways and develop new partnerships to assist new Canadians to secure employment in their field.
I arrived in Canada on August 7 2007. The main challenge when I first arrived is how to make ends meet while searching for a job in my field. I have a Masters of Science in Environmental Management and Forestry, and a Bachelors of Science in Biology.

Through M2P I was able to have a mentor, attend workshops and training and get help on my resume, interview and job search. I also had a volunteer opportunity that led to a Planner 1 position at TRCA.

My journey was slow going at first, and my motivation was in and out. After one year I couldn’t find anything but I was sticking to it. Sometimes you feel forced to give up. When you’re not sure whether or not to pursue your dreams, it can be a very hard time. The main thing that helped was volunteering in the planning field and this opened the door. The experience of the volunteering program at TRCA has been very productive as they accept you as you are and treat you like a regular on-the-job employee. It is very good training and I learned every aspect of the planning process. My experience in the M2P program was very good and it was a great opportunity.
I am from Ethiopia and I have over 9 years of experience in watershed hydrology and soil and water conservation engineering. My family and I immigrated to Canada in January, 2007 because we wanted to live in a country where multiculturalism is embraced, people of different backgrounds live peacefully together, society is free and fair; and one can realize their full potential.

I expected I would find a job in my profession within a short time, since Canada invites skilled workers. However, this did not happen. I looked actively for employment opportunities and worked on improving my English skills by listening to the radio and interacting with English speaking people as much as possible. After submitting an average of 10 resumes each day and receiving no response I became frustrated and decided to attend job search training at various community centers.

As a result of my efforts, I was invited for six interviews with different provincial ministries. I was told that I did very well but lacked local experience. My frustration began to build up, and it was at this time that I learned about TRCA’s PAIE Program.

PAIE is an excellent opportunity to get to know other Internationally Trained Professionals who are in related professions and have had similar experiences. In PAIE we are able to share information and encourage each other.

PAIE helped me analyze my employable skills, prepare targeted resumes, establish and expand my professional network, and work effectively with people from different cultural backgrounds smoothly and harmoniously. The technical workshops gave me insight into Ontario practices and legislation which has been very important for my success. I found the courses provided to be well thought-out and consistent staff presence made it easy for us to get counsel whenever we needed it. PAIE staff were always available and they valued our feedback. It was good to know that they cared.

Because of the support I received through PAIE, I received a Water Resources Engineering work placement opportunity with TRCA’s Ecology Division and was later hired into the salaried position of Water Resources Technician where I am now gaining the professional experience I need to obtain my license as a Professional Engineer in Ontario. I am very happy to have achieved my professional aspiration to work in the water resources sector where I can solve problems associated with flood, erosion and water quality. I am proud to be contributing to the efforts being made to protect and manage the health of the Ontario environment.
Appendices

Appendix A: Staff Levels by Year and Facility Floor Area.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Employees Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>495</td>
</tr>
<tr>
<td>2004</td>
<td>492</td>
</tr>
<tr>
<td>2005</td>
<td>556</td>
</tr>
<tr>
<td>2006</td>
<td>598</td>
</tr>
<tr>
<td>2007</td>
<td>620</td>
</tr>
<tr>
<td>2008</td>
<td>666</td>
</tr>
<tr>
<td>2009</td>
<td>701</td>
</tr>
<tr>
<td>2010</td>
<td>703</td>
</tr>
<tr>
<td>2011</td>
<td>736</td>
</tr>
</tbody>
</table>

Appendix B: Total TRCA Facility Floor Area

<table>
<thead>
<tr>
<th>Year</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>336,466</td>
</tr>
<tr>
<td>2004</td>
<td>336,466</td>
</tr>
<tr>
<td>2005</td>
<td>343,109 (BCPV Event pavilion added)</td>
</tr>
<tr>
<td>2006</td>
<td>343,109</td>
</tr>
<tr>
<td>2007</td>
<td>343,109</td>
</tr>
<tr>
<td>2008</td>
<td>349,466 (Restoration Services Centre added)</td>
</tr>
<tr>
<td>2009</td>
<td>349,466</td>
</tr>
<tr>
<td>2010</td>
<td>352,266 (added new workshop at Boyd Office)</td>
</tr>
<tr>
<td>2011</td>
<td>354,466 (added new office space at Earth Rangers)</td>
</tr>
</tbody>
</table>
## Appendix C

### Vehicle and Fuel Sustainability Indicator Statistics

<table>
<thead>
<tr>
<th>Fuel and Transportation</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilometres driven in personal cars (kms)</td>
<td>333,504</td>
<td>330,540</td>
<td>388,617</td>
<td>391,116</td>
<td>427,813</td>
<td>465,365</td>
<td>482,591</td>
<td>490,592</td>
<td>486,866</td>
</tr>
<tr>
<td>TRCA Fleet vehicle kilometres</td>
<td>628,508</td>
<td>692,417</td>
<td>773,288</td>
<td>782,591</td>
<td>899,034</td>
<td>1,010,151</td>
<td>1,140,330</td>
<td>1,155,181</td>
<td>1,200,487</td>
</tr>
<tr>
<td>Total kilometers driven per employee (kms, excluding rentals)</td>
<td>1943</td>
<td>2079</td>
<td>2089</td>
<td>1963</td>
<td>2,140</td>
<td>2,215</td>
<td>2,315</td>
<td>2,341</td>
<td>2,292</td>
</tr>
<tr>
<td>Total fuel (litres) (Fleet Only)</td>
<td>109,360</td>
<td>111,479</td>
<td>130,460</td>
<td>138,630</td>
<td>156,925</td>
<td>170,450</td>
<td>186,833</td>
<td>199,186</td>
<td>205,632</td>
</tr>
<tr>
<td>Total Fuel (litres, all vehicles)</td>
<td>179,234</td>
<td>186,377</td>
<td>205,132</td>
<td>211,207</td>
<td>253,064</td>
<td>235,417</td>
<td>242,406</td>
<td>248,481</td>
<td>239,979</td>
</tr>
<tr>
<td>Fleet Fuel Mileage (litres/100 km)</td>
<td>17.4 litres/ 100 km</td>
<td>16.1 litres/ 100 km</td>
<td>16.9 litres/ 100 km</td>
<td>17.7 litres/ 100 km</td>
<td>16.87</td>
<td>16.4</td>
<td>17.2</td>
<td>17.1</td>
<td></td>
</tr>
<tr>
<td>Equipment gas and possibly diesel (litres)</td>
<td>29000</td>
<td>Included on energy table</td>
<td>Included on energy table</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propane equipment</td>
<td>24728</td>
<td>Included on facility table</td>
<td>Included on energy table</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*CO2 e from Vehicles, equipment, and propane</td>
<td>721 tonnes</td>
<td>698</td>
<td>677</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Approximate calculation using the following methodology:

1. Scan of account entries to pick up all non tranperaction fuel purchases – propane, diesel (assigned to facilities) and misc gas.
2. Use propane and misc gas numbers from 1 (above) as propane equipment and gas equipment on carbon counted calculator for “trca fleet”
3. Took total litres of fleet fuel used (provided by fleet manager) and, because this number is not broken down by either fuel type or vehicle type (ie. the 6 carboncounted categories) assigned 1/6 of the total to each of the 6 categories on carbon counted.

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>2003 Results</th>
<th>2004 Results</th>
<th>2005 Results</th>
<th>2006 Results</th>
<th>2007 Results</th>
<th>2008 Results</th>
<th>2009 Results</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro consumption</td>
<td>18,668 GJ (5,185,578 kwh)</td>
<td>17,928 GJ (4,980,211 kwh)</td>
<td>19,618 GJ (5,449,904 kwh)</td>
<td>20,476 GJ (5,688,079 kwh)</td>
<td>20,686 GJ (5,745,050 kWh)</td>
<td>21,511 GJ (5,975,738 kWh)</td>
<td>20,865 GJ (5,796,346 kwh)</td>
<td>20650 GJ (5,736,642 kwh)</td>
<td>18,479 GJ (5,133,033 kWh)</td>
</tr>
<tr>
<td>Green Hydro</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>416,671 kWh (7.4% of TRCA hydro)</td>
<td>933,081 kWh (16.2% of TRCA hydro)</td>
<td>1026996, kWh (17.1% of TRCA hydro)</td>
<td>1050160 kWh (18% of TRCA hydro)</td>
<td>1007741 kWh (19.6% of TRCA hydro)</td>
<td></td>
</tr>
<tr>
<td>Natural Gas Consumption</td>
<td>5,190 GJ (139,100 cu. m)</td>
<td>6,305 GJ (168,991 cu. m)</td>
<td>6,682 GJ (179,089 cu. m)</td>
<td>6115 GJ (163,833 cu. m)</td>
<td>8,569 GJ (229,558 cu. m)</td>
<td>8,244 GJ (220,867 cu. m)</td>
<td>7751 GJ (207, 671 cu. m)</td>
<td>7516 GJ (202,027 cu. m)</td>
<td>6776 GJ (182,144 cu. m)</td>
</tr>
<tr>
<td>Heating Oil (and propane)</td>
<td>3,286 GJ (87,476 litres)</td>
<td>3,372 GJ (89,768 litres)</td>
<td>2,816 GJ (74,958 litres)</td>
<td>3001 GJ (79,894 litres)</td>
<td>2744 GJ (73,052 litres)</td>
<td>3,334 GJ (88,752 litres)</td>
<td>3076 GJ (72,391 litres)</td>
<td>2526 GJ (59439 litres)</td>
<td>2634 GJ (61,982 litres)</td>
</tr>
<tr>
<td>Facility Propane</td>
<td>73.35GJ (2934 litres)</td>
<td>366 GJ (9344 litres)</td>
<td>32,427 GJ</td>
<td>31,999 GJ</td>
<td>33,089 GJ</td>
<td>31692 GJ</td>
<td>30765 GJ</td>
<td>28255 GJ</td>
<td></td>
</tr>
<tr>
<td>Total Corporate Energy Use in Gigajoules</td>
<td>27144 GJ</td>
<td>27605 GJ</td>
<td>29,117 GJ</td>
<td>29,427 GJ</td>
<td>31,999 GJ</td>
<td>33,089 GJ</td>
<td>31692 GJ</td>
<td>30765 GJ</td>
<td>28255 GJ</td>
</tr>
<tr>
<td>Total GJ per square foot</td>
<td>0.081 GJ/sq. ft.</td>
<td>0.082 GJ/sq. ft.</td>
<td>0.085 GJ/sq. ft.</td>
<td>0.086 GJ/sq. ft.</td>
<td>0.093 GJ/sq. ft.</td>
<td>0.095 GJ/sq. ft.</td>
<td>0.091 GJ/sq. ft.</td>
<td>0.087GJ/sq. ft.</td>
<td>0.080 GJ/sq. ft.</td>
</tr>
<tr>
<td>Corporate Gigajoules consumed per employee</td>
<td>54.8 GJ/employee</td>
<td>56.1 GJ/employee</td>
<td>52.4 GJ/employee</td>
<td>49.2 GJ/employee</td>
<td>51.6 GJ/employee</td>
<td>49.7 GJ/employee</td>
<td>45.2 GJ/employee</td>
<td>43.8 GJ/employee</td>
<td>38.41 GJ/employee</td>
</tr>
<tr>
<td>Water Cu. m</td>
<td><strong>46,699 cu. m</strong></td>
<td><strong>61,272 cu. m</strong></td>
<td><strong>43,707 cu. m</strong></td>
<td><strong>49,650 cu. m</strong></td>
<td><strong>51,688 cu. m</strong></td>
<td><strong>51,745 cu. m</strong></td>
<td><strong>51,815 cu. m</strong></td>
<td><strong>51,870 cu. m</strong></td>
<td><strong>51,925 cu. m</strong></td>
</tr>
</tbody>
</table>

* Scope one and two only without animals at BCPV. All TRCA propane assigned to vehicle and equipment, not to facilities.
** Municipal water totals only. No well water consumption was included. Bathurst Glenn municipal water consumption was not included.
## Appendix E – Renewable Energy for Heating and Cooling

Floor space heated and cooled by renewable energy

<table>
<thead>
<tr>
<th>Year</th>
<th>Sq. foot serviced by renewable energy (heating and cooling only)</th>
<th>Locations and Details</th>
<th>% of total TRCA facility floor space heated and cooled by renewable energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>65,200 sq. ft.</td>
<td>Living machine – 1,000 sq. ft.; Archetype Houses - 3,000 sq. ft.; RSC – 12,000 sq. ft.; BCPV - 19,200 sq. ft.; Kortright 30,000 sq. ft.</td>
<td>18.7%</td>
</tr>
<tr>
<td>2009</td>
<td>85,200 sq. ft.</td>
<td>Living machine – 1000 sq. ft.; Archetype Houses -3000 sq. ft.; RSC – 12,000 sq. ft.; BCPV - 19,200 sq. ft.; Downsview office – 13,000 sq. ft.; 2 Dorms at LSG FC – 7,000 sq. ft.; Kortright 30,000 sq. ft.</td>
<td>24.4%</td>
</tr>
<tr>
<td>2010</td>
<td>88,000 sq. ft.</td>
<td>Living machine – 1000 sq. ft.; Archetype Houses -3000 sq. ft.; RSC – 12,000 sq. ft.; Downsview office – 13,000 sq. ft.; BCPV - 19,200 sq. ft.; Boyd Office Workshop – 2,800 sq. ft.; Kortright 30,000 sq. ft.</td>
<td>25.0%</td>
</tr>
<tr>
<td>2011</td>
<td>111,300 sq. ft.</td>
<td>Living machine – 1000 sq. ft.; Archetype Houses -3000 sq. ft.; RSC – 12,000 sq. ft.; Downsview office – 13,000 sq. ft.; BCPV - 19,200 sq. ft.; Boyd Office Workshop – 2,800 sq. ft.; Kortright 30,000 sq. ft.; Head office converted to green Natural gas from Bullfrog Energy.</td>
<td>31.4%</td>
</tr>
</tbody>
</table>

## Appendix F - Water Sourcing at TRCA Facilities

2004 – Head Office, Black Creek Pioneer Village, Petticoat Pool on municipal water system.

By 2008 – Added Boyd Office, Restoration Services Centre, Albion Hill FC and Area, Heart Lake Area and Downsview office added to municipal water system.

2009 – No change.

2010 – No change

2011 – Added Earth Rangers Centre.
## Appendix G – Corporate Carbon Footprint

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
</table>
| **Total Corporate Carbon Footprint**  
   (GHG emissions – CO2 e) | 3,228 tonnes                | 2,884 tonnes                | 2,760 tonnes                |
|                          | • Waste – 871 tonnes        | • Waste – 606 tonnes        | • Waste – 661 tonnes        |
|                          | • Facility Energy – 1,850 tonnes | • Facility Energy – 1,815 tonnes | • Facility Energy – 1,501 tonnes |