

Green Plan 2007







As an analogy, consider a top-heavy bookshelf. If you push it lightly, nothing happens. If you push it somewhat harder, nothing happens. But if you push it beyond a certain point, it will suddenly fall over. Once the bookshelf has fallen over, it's extremely difficult to put it upright again (and there are books all over the floor).

- David Suzuki



Climate change is for real. We have just a small window of opportunity and it is closing rather rapidly. There is not a moment to lose.

- Dr. Rajendra Pachauri
Chairman of the Intergovernmental Panel on
Climate Change



*The good news is we know what to do.
The good news is we have everything we need now to respond to the challenge of global warming.*

- Al Gore



Foreword

Environmentalism was established and led by courageous visionaries. The last forty years has seen this minority grow together and connect globally. We are entering into a time of full acceptance, embracing environmentalism as standard practice, driven by necessity and held to accountability.

The Toronto Zoo has a long history of environmental protection and awareness, and of innovative action toward sustainable operations. Our collective dedication stems from a deep appreciation for biodiversity preservation and animal welfare.

"Regional differences in environmental politics can dictate the pace of change... Some zoos - notably those in Toronto and Portland, Oregon have absolutely tremendous environmental programs."

Christine Sheppard (2003)
Curator & Green Team Leader, Bronx Zoo;
Chair, AZA's Green Practices
Scientific Advisory Group

As Canada's premier zoo, we must continue to demonstrate leadership in all aspects of our operations, including sustainable growth and maintenance. The process is familiar: conserve energy, use renewable and clean power, decrease water consumption and conserve grey water, reduce, reuse and recycle materials, cut the use of harmful chemicals, buy materials and food produced locally using environmentally sound practices, practice sustainable landscaping, and educate staff and the public about sustainability issues. Toronto Zoo is familiar with these processes, but a renewed commitment is necessary.

Implementation of institution-wide sustainable practices requires acceptance from all staff. The Green Eco-Zoo team (GEZT) is a dedicated committee of Toronto Zoo employees from all Branches and Divisions. GEZT Committee members drafted the "*Greenprint - A Background Paper for a Green Plan*" in early 2007.

The broad sweep of inspirational ideas contained in the *Greenprint* thoroughly demonstrates our successful history and our optimism for the future. The *Greenprint* is an excellent resource for staff, but if we are to "live our mission" then green thinking must be woven throughout all future planning and day-to-day operations. An action-based, goal-oriented GREEN PLAN is needed.

During two intense facilitated meetings, in the spring of 2007, the GEZT Committee provided the framework for the *Toronto Zoo Green Plan*. By implementing our *Green Plan*, we will continue to be leaders in the local and global community, providing a credible voice to our staff and volunteers, visitors, and local, provincial, and national governments.

The timing of the *Toronto Zoo Green Plan* is aligned with budget cycles, progressive initiatives and goals stemming from other organizations and jurisdictions, and a willingness from all levels of the organization to take action. The *Green Plan* is intended to guide sustainable operation management over the long-term but includes short-term action steps that will catalyze the process.

The Green Plan is authored by the Toronto Zoo Green Eco-Zoo Team: Animal Care, Conservation, Education and Research, Facilities and Services, Financial Services, Food Services, Marketing and Public Relations, Operation and Administration, Planning and Analysis, and the Toronto Zoo Foundation.

Vision Statement

The Toronto Zoo is Canada's premier zoo known for its interactive education and conservation activities. As a unique wildlife experience, we inspire people to live in ways that promote the well being of the natural world.

Green Vision

The Toronto Zoo has a strong record of environmental protection and of energy efficient operation management. The Zoo has stimulated staff, volunteers and the public to live sustainably in balance with Nature. We understand and accept that climate change is a real threat to earth's biodiversity, perhaps most acutely to our own species. We accept that humans are largely responsible for global warming as a result of our use of non-renewable energy resources and the emission of greenhouse gases. We encourage people to lessen their ecological footprint on the earth.

Our vision toward a green and sustainable future will include:

- Eco-ethical partnerships
- Green funding plans
- Green staff culture
- Promotion of green programs and achievements
- Sustainable energy use and production

"Zoos are in a position to teach their visitors what they want to teach them."

- Wildlife Conservation Society



Toronto Zoo Green Commitment

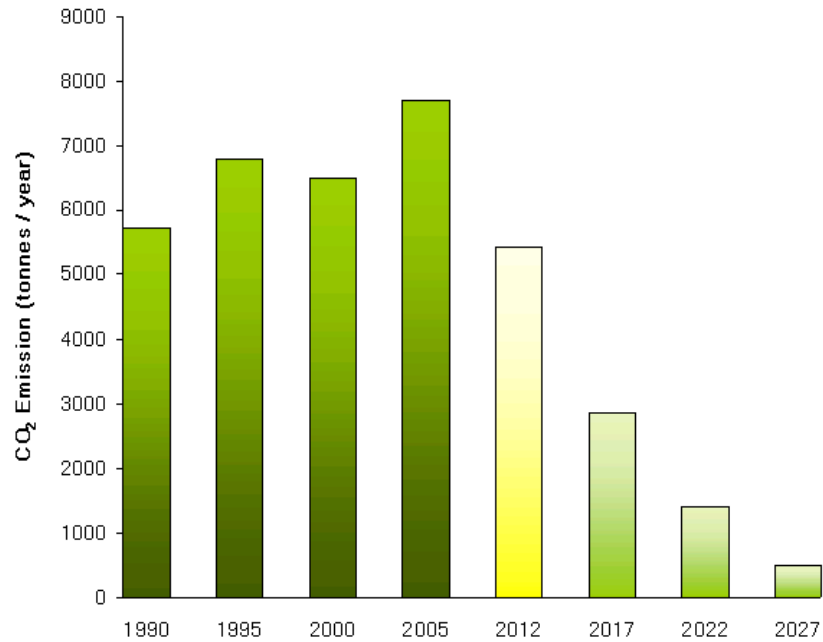
The benchmark of any successful Green Plan is a significant and meaningful reduction in water consumption and greenhouse gas emissions.

The following targets can be met if we accept and follow the strategies and action steps of our *Green Plan*. Described on the following pages, our long-term 20-year vision will guide us as we implement successive short-term 3-year action steps.

Toronto Zoo will reduce...

CO₂ emissions by...

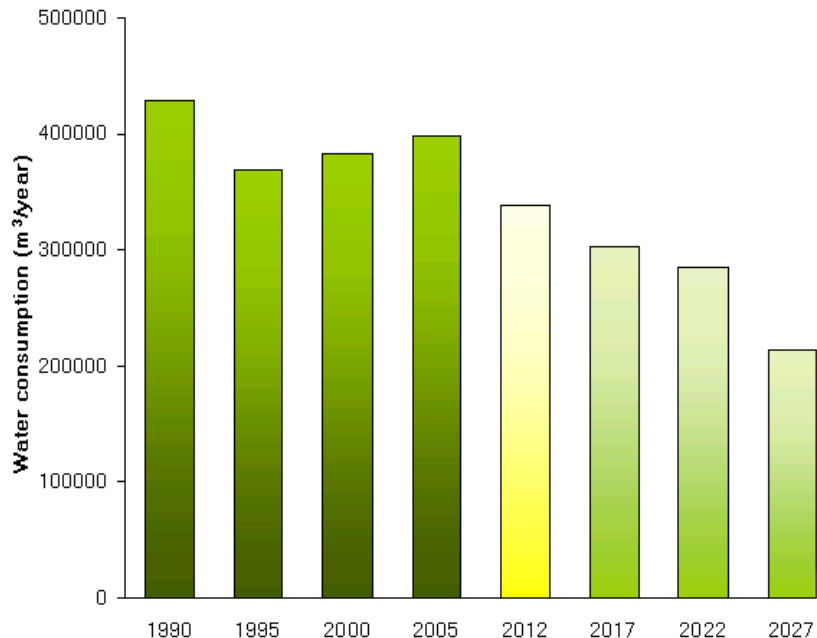
- 6% below 1990 levels by 2012 (Kyoto targets)
- 50% below 1990 levels by 2017
- 75% below 1990 levels by 2022
- 95% below 1990 levels by 2027



Note: Toronto Zoo methane emissions account for a percentage of total GHG emissions, and are not included above. However, *Action Step 8* will assist tracking and reducing methane emissions.

Water consumption by...

- 5% by 2012
- 10% by 2017
- 20% by 2022
- 40% by 2027



Note: Reduction targets are based on the average water consumption between 1990 and 2006.



Greenhouse gas emission reduction targets are a necessary mechanism toward sustainability, and targets vary according to jurisdiction and government. The table below illustrates CO₂ emission reduction targets for various jurisdictions and governments. The Toronto Zoo is a relatively small jurisdiction with relatively strong control of emissions

Jurisdiction	Kyoto Targets	<i>Quarter-century targets</i>			Mid-century targets
Toronto Zoo	6% by 2012*	50% by 2017	75% by 2022	95% by 2027	
City of Toronto	6% by 2012	30% by 2020			80% by 2050
Ontario	6% by 2014***	15% by 2020			80% by 2050
Canada					60-70% by 2050
Green Party of Canada	6% by 2012	30% by 2020		50% by 2030	80% by 2040
Germany	20% by 2012			80% by 2030	

* Unless otherwise stated, all targets in the table are set against 1990 (Kyoto) levels.

** The province of Ontario has recently extended their initial emission reduction target from 2012 (Kyoto) to 2014.





To achieve our goal, Toronto Zoo staff must overcome *obstacles* and produce *breakthroughs* .

Everyday, Toronto Zoo staff and volunteers must...

- Ensure the environment becomes a top priority for the whole organization.
 - Make green choices the sensible and easy ones for staff, volunteers, and visitors.
 - Balance environmental values with other priorities, like animal welfare and workplace safety.
-

"Making the right decisions for the longer term requires innovation in thought and implementing these decisions requires innovation in practice and techniques."

- Environment Canada





Long-term *strategies* facilitate and guide future decisions and provide a balance with other operational needs and services. *Implementation* of a strategy requires *action*. Toronto Zoo supports three broad strategies with three action statements.

Over the next 20 years, Toronto Zoo will work towards...

A Green Corporate Culture by...

1. Rewarding green personal initiatives.
2. Elevating and enforcing green policies.
3. Incorporating green responsibilities into job descriptions and human resource practices.

Green National Leadership by...

4. Providing appropriate funding for green projects.
5. Communicating the Zoo's green efforts and programs.
6. Establishing a green education program.

Green management of operations by...

7. Preserving the Rouge Valley Park ecosystem.
8. Developing green project management standards.
9. Investing in renewable energy generation.



Broad actions require direction in the short-term. The Toronto Zoo Green Eco-Zoo Team, with assistance from all Toronto Zoo staff, will realize our short term action steps and catalyze our *Green Plan NOW*.

Over the next 1-3 years, Toronto Zoo will...

1. Reward green personal initiatives by ...

- 1.1. recruiting staff stewards from all divisional areas that will monitor green practices and techniques and relate results to the GEZT committee
- 1.2. recognizing positive efforts by Toronto Zoo staff toward green personal initiatives
- 1.3. implementing the 'Get a G.R.I.P.!' - Green Reward Incentive Program - award initiative

2. Elevate and enforce green policies by ...

- 2.1 revising the Toronto Zoo environmental policy to reflect *Green Plan* strategies
- 2.2 assisting relevant departments on environmentally sound purchasing practices
- 2.3 implementing consequences for not following policies

3. Incorporate green responsibilities into job descriptions and human resource practices by...

- 3.1. revising job descriptions and interview questions, and amending union and exempt review processes to include green initiatives
- 3.2. updating staff information and orientation policies
- 3.3. applying relevant *Green Plan* strategies to contractors and their staff

4. Provide appropriate funding for green projects by...

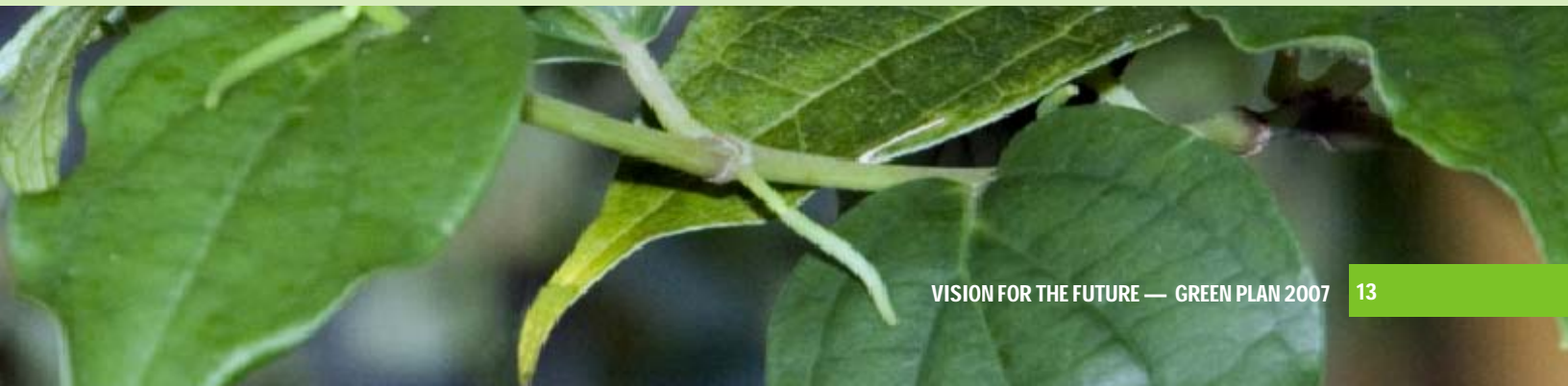
- 4.1. creating an operating budget for initiatives and projects related to the *Green Plan*
- 4.2. reinvesting all revenues generated by green initiatives and projects back into other *Green Plan* related projects
- 4.3. applying to external grants and government programs

5. Communicate the Zoo's green efforts and programs by...

- 5.1. exhibiting new environmental ideas, conservation practices, facilities and technologies to Toronto Zoo visitors
- 5.2. participating with government and non-government groups in local, regional and international conservation programs and projects
- 5.3. organizing lunch and learn sessions for staff and volunteers, and publishing articles on Zoo green initiatives for internal and external media

6. Establish a green education program by...

- 6.1. hiring a full-time sustainability coordinator to create and deliver *Green Plan* presentations and curriculum to staff, volunteers, visitors and the broader GTA community
- 6.2. renovating and using the Conservation Connection centre as an interim location for Green Learning and Living programs on-site
- 6.3. establishing a contemporary Centre of Excellence for Sustainable Life and Learning on-site to serve regional and national communities



7. Provide support and expertise to preserve the Rouge Valley Park, the Great Lake basin and other Ontario ecosystem by...

- 7.1. empowering staff, volunteers and visitors to be environmental stewards of the Park, including the Zoo site
- 7.2. focusing local and regional habitat conservation messages on the health and status of the Rouge Valley Park, Great Lake basin and other Ontario ecosystems
- 7.3. continuing to study and implement the Zoo's goose control research program, and elevating the Zoo's invasive species research and control program

8. Develop green project management standards by...

- 8.1. quantifying all material and energy inputs and outputs, and illustrating to staff, volunteers and visitors the amount we consume and waste
- 8.2. conducting an external Environmental Management System assessment, for example an ISO 14001 Gap Analysis
- 8.3. adopting the City of Toronto Green Development Standard (January 2007) for applicable development features at Toronto Zoo

9. Invest in renewable energy generation by ...

- 9.1. building renewable energy generation facilities or modular components on-site
- 9.2. developing research programs for emerging renewable energy generation technologies
- 9.3. purchasing locally sold renewable energy



Public concern for the environment is the driving mechanism for change. Public concern for the environment has never been as high as it is today, and the momentum is still growing.

The Toronto Zoo is a leader in the local and international conservation movement. The Zoo has a credible voice that resonates with visitors, staff and volunteers. The strategic directions of the *Toronto Zoo Green Plan*, including the wise execution of the 27 short-term 1-3 year action steps, will translate into serious reductions in our greenhouse gas emissions and water consumption. The result will demonstrate that sustainability is possible, even at zoos. We must remain a leader in what has become the most important issue for humankind: earth's biodiversity and the environment.

The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard.

Gaylord Nelson, co-founder of Earth Day



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