

Officer responsible Waste Manager	Author Eric Park – Solid Waste Engineer
Corporate Plan Output: Solid Waste	

The purpose of this report is to present **the Natural Step** as a holistic framework which can be used to align initiatives to achieve long term financial, environmental and social sustainability of Christchurch as a city.

BACKGROUND

A report in May 1999 to the City Services and Environmental Committees is attached together with its attachments (a) and (b). Following this report a seminar for Councillors on **the Natural Step** was held on 15 June 1999. The report and seminar outlined findings from a conference on **the Natural Step** framework, key elements of which are outlined below.

THE NATURAL STEP

The Natural Step has developed four fundamental but relatively simple conditions which must be satisfied to ensure that life on earth remains sustainable in the long term, as outlined in Table 1 and attachment (c).

TABLE 1: CONDITIONS FOR SUSTAINABILITY

In order for a society to be sustainable, nature's functions and diversity must	Paraphrased, see attachment (c)
1. ... not be subject to increasing concentrations of substances extracted from the earth's crust;	Leave it in the earth's crust;
2. ...not be subject to increasing concentrations of substances produced by society;	If you make something new (eg toxic) you break it down too;
3. ...not be impoverished by over-harvesting or other forms of ecosystem manipulation; and	Preserve biodiversity, we need it;
4. Resources must be used fairly and efficiently in order to meet basic human needs world wide.	Treat people well, be fair efficient and share.

The four conditions, firmly rooted in science, are elegant in their simplicity and therefore understandable by all people. They apply equally to people at all levels of society, including individual households, companies, whole cities and nations. As such the four **Natural Step** conditions can be used as a ‘compass’ by people at every level in society working towards a common goal.

The Natural Step has described society’s predicament, with a decreasing availability of natural resources yet increasing demand for natural resources as a funnel, shown in attachment (d). **The Natural Step** framework for improving sustainability follows the following four steps:

- A Share the Natural Step framework** – we need everyone working together with the same goal;
- B How are we doing?** – Analyse current activities in relation to the four system conditions. Map out critical flows of raw materials and energy;
- C What does our “ideal” sustainable community look like?** – develop a common long term goal;
- D Take small steps** - from where we are today towards our long term goal. Take easy wins first and building platforms on which give flexibility to improve further in the future.

A two sided sheet with the May 1999 report, attachment (b), outlines some examples of the successful implementation of **the Natural Step** overseas.

APPLICATION IN CHRISTCHURCH

At the joint City Services and Environmental seminar held on 15 June 1999 Councillors saw benefits in using **the Natural Step** as an overall framework to help gather together and build on the many initiatives already underway to improve the sustainability of Christchurch. These include the Canterbury Dialogues programme, adoption of a zero waste by 2020 goal and establishment of the Kerbside Recycling programme and the Recovered Materials Foundation to name but a few.

Councillors also recognised that:

1. Long term sustainability of Christchurch City and the Canterbury region needs to be a long term co-ordinated initiative rather than simply another passing phase.
2. While action can begin immediately in many small ways there must be both “grass roots support” and top management and political commitment to ensure long term success. These elements are likely to need some time to develop.

Given widely varying needs and existing programmes in the city, a diverse range of initiatives and methods will be needed to introduce **the Natural Step** into Council operations, and the business and community sectors in Christchurch.

PROPOSED PROGRAMME

Gradual development and improvement of a “culture of sustainability” in Christchurch is more likely to be successful than a big launch. Therefore, while gradual dissemination of **the Natural Step** framework by “word of mouth” will be encouraged, active implementation of the framework will be piloted first in the Waste Management Unit of the Christchurch City Council. After around six months **the Natural Step** framework will be actively rolled out to the rest of the Council operations and then the business and community sectors. A proposed programme is presented in Table 2 below

TABLE 2: PROGRAMME FOR CHRISTCHURCH

#	ACTION	1999/00	2000/01	2001/02	2002/03
1	Council resolution to use the Natural Step framework for Christchurch	X			
2	COUNCIL OPERATIONS				
2.1	• Pilot in Waste Management Unit (Solid Waste) using the Natural Step system conditions to evaluate projects and reporting this to Council committees	X	X	X	X
2.2	• Roll out to other Council Units		X	X	X
3	RESEARCH – 3yr Sustainable Management Fund project				
	Research experience in improving the sustainability of organisations and communities in Christchurch and elsewhere in NZ and overseas. This research could be part funded by the Ministry for the Environment if a joint application with Landcare Research, the Open Polytechnic of NZ and possibly Tait Electronics is successful.	X	X	X	X
4	BUSINESS AND COMMUNITY sectors				
4.1	• Begin low level discussions with business and community sector groups, start developing plan/goals		X		
4.2	• Facilitate implementation in business and community sectors			X	X

FUNDING

In keeping with a low key gradual implementation of **the Natural Step** framework, funding will be from existing budgets and staff resources in the 1999/00 financial year. Experience gained during the joint research project outlined above, which might be part funded by the Ministry for the Environment Sustainable Management Fund, will be instrumental in designing an effective implementation strategy for the Council, business and community sectors. Any requirement for funding beyond existing budgets will be assessed based on early experience in the Waste Management Unit and built into the Annual Plan for 2000/01 in due course.

A prudent philosophy would be to re-invest any savings resulting from improvements in sustainability into further initiatives. This philosophy has resulted in the reinvestment of \$174 million dollars in savings over the last three years into further improvements at Interface Carpets in the United States.

SUMMARY

The Natural Step framework, firmly rooted in science, is sufficiently simple to be used as a 'compass' by people at every level in society working towards a common goal.

Christchurch has already made significant advances to improve sustainability and the City is poised to make even more progress. Adoption of **the Natural Step** framework as an overall framework to help gather together and build on some of the many initiatives already underway could improve the long term sustainability of Christchurch as a city.

Implementation of **the Natural Step** framework in Christchurch should be staged, commencing with a pilot in the Waste Management Unit (Solid Waste section) of the Council operations, and will be funded from within existing budgets and staff resources in the 1999/00 financial year.

- Recommendation:**
1. That the information be received.
 2. That the Council recognise the need to progressively implement appropriate changes to progress towards long-term economic, environmental and social sustainability;
 3. That the Council adopt **the Natural Step** as a method to assess the sustainability of activities in the City and a framework to help align efforts, in Council operations and in the business and community sectors, to improve the sustainability of Christchurch.
 4. That the Council support a joint application together with the Open Polytechnic of New Zealand, Landcare Research Ltd and others to the Sustainable Management Fund to pilot introduction of **the Natural Step** framework in New Zealand.

Chairman's

- Recommendation:** That the above recommendation be adopted, subject to the work being carried out within existing budgets.