8. INDICATORS FOR SUSTAINABLE CHRISTCHURCH

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Corporate Plan Output: City Monitoring	

INTRODUCTION

The purpose of this report is to provide the Committee with an overview of the use of indicators to monitor sustainable Christchurch. The structure of this report is as follows:

- A brief outline of what indicators are;
- An explanation of the differences between sustainability indicators and other indicators;
- How indicators fit into the monitoring process, including a generalised process which can be used to monitor sustainability; and
- A brief review of current monitoring programmes, including Council-based, community-based and government-based indicator programmes, which may provide useful overlaps in data and/or expertise.

WHAT ARE INDICATORS?

Generally, indicators help us understand complex systems by identifying key measures that provide useful information about the whole system without having to capture its full complexity.

We all use indicators to help us understand the world around us and to control the ways we respond to events. An example of an everyday indicator is the fuel gauge in your car. The fuel gauge shows you how much petrol is left in your car. If the gauge shows the tanks is empty, you know it's time to fill up.

A vast array of data can be used to describe conditions in society and the environment, but not all data are indicators. Indicators are distinguishable in at least two respects.:

- They are selected for monitoring because they relate to important values and goals.
- They permit comparison over time (trends) and normally between places. Trend information will give us an idea of whether things are improving, static, declining with respect to a desired outcome or goal.

Indicators provide the first step in the information gathering process. They flag issues or trends, but they do not provide an explanation or a detailed analysis of the issues involved, nor the causes, implications or complex interactions with other elements of the system. Analysis and interpretation are limited to general comments, highlighting areas that need further investigation and in-depth analysis.

"SUSTAINABILITY" VERSUS TRADITIONAL INDICATORS

Traditional social, economic and environmental indicators have focused on one part of a community or system as if it is entirely independent of other areas. A classic example of this is the Gross Domestic Product (GDP), which measures the amount of money being spent by a country. It is generally reported as a measure of the country's economic well-being. The more money being spent the higher the GDP and the better the overall economic well-being is assumed to be. However, because GDP reflects only the amount of economic activity, regardless of the effect of that activity on the community's social and environmental health, GDP can go up when overall community health goes down. For example, when there is a ten-car pile up on the highway, the GDP goes up because of the money spent on medical and repair costs. On the other hand, if ten people decide not to buy cars and instead walk to work, their health and wealth may increase but GDP goes down. Whereas more recent indicator developments which have come out of sustainability and quality of life indicator programmes (which for the rest of this report will be referred to as sustainability indicators) reflect the reality that the three different segments are tightly interconnected.

Some examples of the difference between the traditional indicators and more contemporary "sustainability" indicators are shown in Table 1 below. Initially, when starting a new indicator project you may be restricted to using traditional indicators due to the limitations of data availability or the requirement for information that currently does not exist. However, some of the sustainability indicators use the same data as traditional indicators, but this data is interpreted differently.

Table 1. Some examples of the difference between traditional and sustainability indicators		
Traditional indicator	**Sustainability Indicator**	**Emphasis of sustainability indicator**
Median Income	Number of hours of paid employment at the average wage required to support basic needs	What wage can buy
Unemployment Rate Number of companies Number of Jobs	Diversity and vitality of local job base Number and variability in the size of companies Number and variability of industry types. Variability of skill levels required for jobs	Resilience of the job market Ability of the job market to be flexible in times of economic change
Tons of solid waste generated	Percentage of products produced which are durable, repairable, or readily recyclable or compostable	Conservation and cyclical use of materials

Source: Sustainable Measures Website (http://www.sustainablemeasures.com)

DEVELOPING A SUSTAINABILITY MONITORING PROGRAMME

There are a lot of indicator reports about sustainable communities that can be used as a source of inspiration, but they cannot be copied. Each community is unique and developing indicators at the local level provides the opportunity to make this uniqueness visible in the choice of indicators, thus integrating them with the local identity. Which indicators are chosen in the end depends on several factors such as the priority setting of each goal and the availability of data.

Although indicator programmes are unique to individual cities or communities, the way these programmes have been developed can be generalised as follows[1]:

- The development of a community vision.
- Identify, define and prioritise a set of goals based on the community vision. (ie the goals are defined in a way which enables measurement).
- Develop indicators based on the most important goals - this requires more technical input; once a draft set of indicators is developed, these can then be reviewed by community working groups to confirm the selected indicators.
- Collect data and do analysis on these indicators.
- Report findings to the community.

It is apparent from the generalised process above that it is important to have an accepted set of goals on which to develop indicators. To monitor the economic, social and environmental elements of Sustainable Christchurch a vision and set of goals needs to be agreed upon before indicators are developed.

If there is a desire to start an indicator project before the development of a community vision, there are a number of vision statements and sets of goals/objectives already developed in the Council that fit under the sustainability umbrella. However, this will result in reduced community ownership of the process. The Christchurch City Plan has a vision and set of objectives outlined in Volume Two, which resulted from extensive community consultation at the beginning of the 1990s and could be used in the interim period until a more recent vision is developed. However, the City Plan does tend to have a much stronger environmental focus than a social or economic one. Alternatively, there is the vision and strategic goals in the City Council's Financial Plan.

[1] Note: Indicator programmes take a considerable time to get up and running. The data collection and analysis can take as much time as the first three steps especially if it requires new datasets need to be created. Also it sometimes takes up to 10 years to get any trend information which may be useful, especially from sources such as the Census.

CURRENT INDICATOR PROGRAMMES IN THE COUNCIL

There are several monitoring programmes currently being carried out by staff within the Council, and outside the Council into which staff have input. Each programme has a different focus, and some are requirements of the Resource Management Act, for example City Plan Monitoring. Although each of these programmes have specific outputs, some of the information, indicators and data sources may be useful in monitoring sustainability.

City Plan Monitoring (EPPU)

Focuses on monitoring the effectiveness of the City Plan, through assessing whether the anticipated environmental results in the plan are being achieved. Indicators are generally more technical and focus on sub-city scales which reflect land use zoning. Currently this programme has130 indicators monitoring 30 priority one anticipated environmental results. Legislative requirement under Section 35 of the Resource Management Act.

Quality of Life in New Zealand's Six Largest Cities. (Policy Directorate)

The National Indicators Project was initiated in 1999 by the Chief Executives of the six largest cities in New Zealand. This was in response to the growing pressures on urban communities, concern about the impacts of urbanisation and the effects of this on the well-being of citizens. (For more information refer to item 14 in the October 2000 Strategy and Resources Committee Agenda).

State of the Environment Monitoring (EPPU)

Currently this is not an indicator project, however, much of the information in the Update 2000 report can be easily used as indicators. The Indicator sheet produced for the Environment Committee (attached) is based on information from this programme.

Progress indicators for the Canterbury Region (Canterbury Development Corporation)

Developed from the Joint Venture Silicon Valley Network Index. Provides economic and quality of life indicators for Canterbury. Their report also includes copies of the Canterbury Dialogues Indicate "sheet" published in The Press

NON-COUNCIL MONITORING PROGRAMMES

Canterbury Dialogues - Indicate

Eight Quality of Life indicators were developed for issues prioritised from a self-selected questionnaire published in The Press during 1999. They are in the process of repeating these for the 2000 year and publishing them in The Press again.

Ministry for the Environment's Environmental Performance Indicator Programme

The Government's objectives for the EPI Programme are:

- to systematically report on the state of New Zealand's environmental assets
- to systematically measure the performance of its environmental policies and legislation
- to better prioritise policy and improve environmental decision-making

The focus is predominantly at the national level, and at monitoring the effectiveness of national policy goals, which should be reflected at a local level. Some of these Indicators monitor issues that are not relevant to the Christchurch environment. Currently the Ministry is 80% of the way to confirming its core set of indicators.

Statistics New Zealand - Environmental indicators project - Proposed socio-economic indicators

These are a set of socio-economic indicators to complement the Ministry for the Environment's work on environmental indicators. Their focus is on showing the socio-economic pressures or driving forces behind changes to the state of the environmental. It appears that their focus is on environmental outcomes rather than social and economic ones. A document outlining the proposed indicators was released this month.

CONCLUSION

Indicators are part of a process that starts with the agreement of a community vision and then the development of a set of goals on which the indicators are based. It is essential that the indicators and goals be well aligned for the programme to be effective. Indicator programmes, by summarising trends in complex systems, should raise awareness, inform decision-makers and provide a measure of progress towards the desired goals. Indicator programmes take a considerable time to develop and implement (up to a few years), and many more to start to be effective. Successful indicator programmes continue to be evaluated, refined and subsequently evolve over time, therefore there needs to be a long-term commitment to an indicator programme.

Recommendation: That the information be received.

Chairman's Recommendation: That a Sustainable Christchurch Indicators Subcommittee of the Environment Committee, comprised of the Chair and two members of the Committee, be formed so as to have input to the triple bottom line sustainability indicators to the City.