

City of Winnipeg Quality of Life Indicators

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROCESS	3
2.1. FRAMEWORK DEVELOPMENT	7
2.2. STAKEHOLDER PARTICIPATION	8
2.3. INDICATOR DEVELOPMENT	11
3. QUALITY OF LIFE FRAMEWORK	12
4. A SAMPLE LIST OF QUALITY OF LIFE INDICATORS FOR THE CITY OF WINNIPEG.....	15
5. DATA AVAILABILITY ASSESSMENT REPORT	23
5.1. METHODS OF ASSESSMENT	24
5.2. RESULTS/FINDINGS.....	26
5.3. DATA MANAGEMENT ISSUES.....	34
5.4. RECOMMENDATIONS.....	39
6. IMPLEMENTATION PLAN.....	40

APPENDICES

Appendix 1: Stakeholders

Appendix 2: Minutes from the First Focus Group Meeting

Appendix 3: City of Winnipeg: Draft Indicator Framework Survey

Appendix 4: Participants Comments and Suggestions/additional Issues for the Survey

Appendix 5: City of Winnipeg Project: Data Availability Assessment Workplan

Appendix 6: Example of an Indicator Project

Appendix 7: Data Availability Table

TABLE OF FIGURES

<i>Figure 1: Quality of Life.....</i>	<i>1</i>
<i>Figure 2: Example of General Template for Indicator Reporting</i>	<i>6</i>
<i>Figure 3: Quality of Life Framework</i>	<i>8</i>
<i>Figure 4: Multi-stakeholder Process.....</i>	<i>9</i>
<i>Figure 5: Indicator Reporting Process.....</i>	<i>42</i>
<i>Figure 6: Work Plan.....</i>	<i>46</i>

1. INTRODUCTION

People value the quality of life in Winnipeg. They appreciate the size and pace of the city and its amenities, they are strongly attached to their neighborhoods, and they feel that Winnipeg is a great place to raise a family. They would like to see this quality of life maintained for future generations, but they are concerned that it may be fading. At present we can only speculate on the future and that is not good enough. We need to be able to measure our efforts and to know if we are moving in the right direction. We also need measurement to assess the effectiveness of current policies and to design new ones as necessary.

People in other places have asked similar questions. A number of towns and cities have established sustainable development as a community goal and developed measurement and reporting systems to measure their progress towards this goal (e.g.'s Hamilton - Wentworth, Ontario; Seattle, Washington). Sustainable development, like quality of life, is a holistic concept that includes consideration of economic development, social vitality, and environmental health. The concept of quality of life as used in this project has five distinct parts (Figure 1).

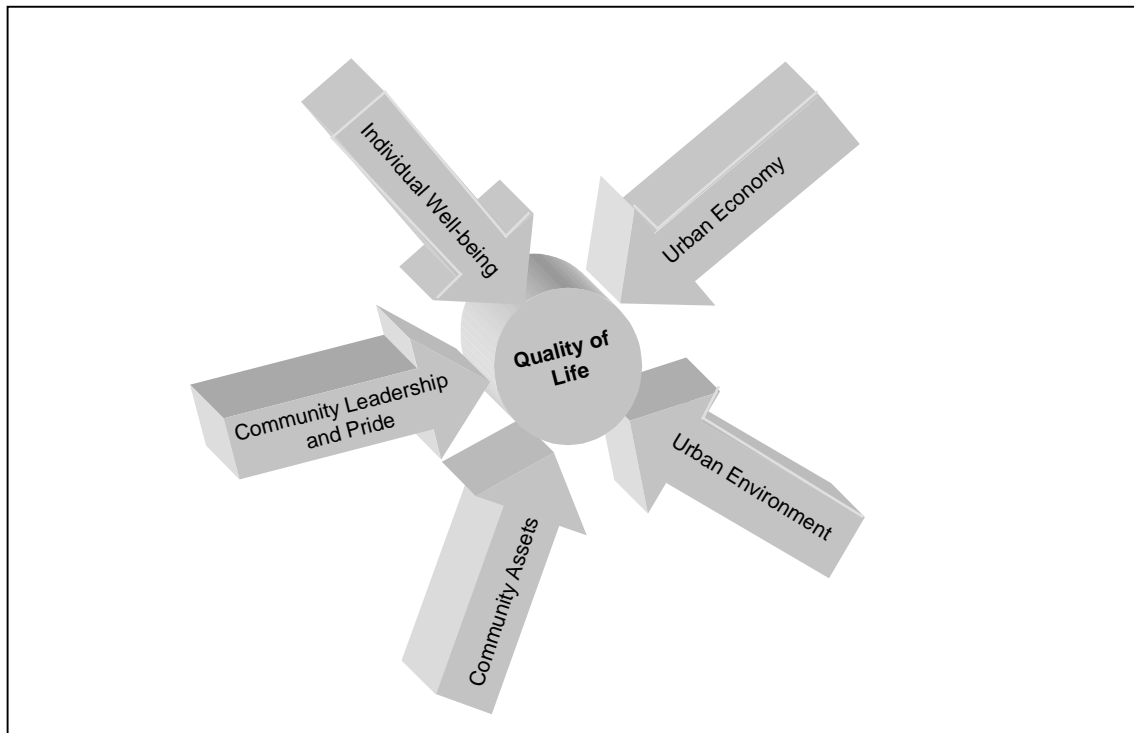


Figure 1: Quality of Life

Although quality of life is nested within the broader concept of sustainable development, there is only one major difference between the two concepts. Sustainable development implicitly refers to the importance of intergenerational equity while quality of life does

not or only does so implicitly. Both quality of life and sustainable development are integral parts of the vision and guiding principles of Plan Winnipeg.

Adopted in 1993, Plan Winnipeg is a long-term plan intended to guide Winnipeg into the 21st century. The Plan sets out a vision for Winnipeg developed in consultation with community stakeholders. The vision is for Winnipeg "to be a vibrant and healthy city which places its highest priority on quality of life for all its citizens". Progress towards this vision is governed by three guiding principles: quality customer service, sustainable development and a healthy community.

The City is conducting a review of Plan Winnipeg and the continuing validity of the "content" of the Plan commencing September 1997. Since the adoption of Plan Winnipeg, the City has learned that to assist in measuring progress towards its vision, a set of 'signposts' called indicators need to be identified. By observing the indicators over time, citizens, political leaders, businesses and community groups will be able to better understand the impacts of decisions and actions. To assist in the measurement process, the City has decided to develop community indicators as part of the Plan review. The development of community indicators is one of the primary goals of this project.

What is the project about?

This project is about measuring progress. Assisted by a wide variety of citizens, a quality of life indicator framework and indicators are to be developed. As part of this, an action plan outlines the steps necessary for the City of Winnipeg to adopt quality of life measures.

This project has four main objectives:

1. to identify and to actively involve key participants and stakeholders to develop community indicators;
2. to establish an indicator development process by which an indicator framework and specific indicators can be developed, periodically reviewed and refined for the City of Winnipeg;
3. to implement the above stated process and develop a set of indicators to be included in the Plan Winnipeg Review;
4. to develop an implementation plan to establish appropriate administrative systems to support measurement and reporting of progress toward Plan Winnipeg's vision.

Who are the participants?

This is a collaborative project that involves a partnership between the Strategic Planning Division of the City of Winnipeg and the Measurement and Indicators Program of the International Institute for Sustainable Development (IISD). The lead agency for this project is the Strategic Planning Division and it is responsible for overall project direction and product delivery. IISD provides support and expertise throughout the project with specific responsibilities linked to indicator development.

How was the project initiated?

This project was developed on the basis of the mutual interests of the City of Winnipeg and IISD at pursuing an indicator development project for Winnipeg.

What are the outputs?

The project has two main outputs:

1. an indicator framework for the City of Winnipeg that relates measurement of progress towards the community's vision of Winnipeg to the City of Winnipeg's overall performance measurement system;
2. a final report that includes: (1) a framework and set of community indicators (approximately 20-30); (2) a sub-report regarding the assessment of data availability; and, (3) a generic implementation plan to address data collection and institutionalization of the indicator framework describing possible approaches that the City may choose to carry out the measurement of the community indicators.

What does this report represent?

The body of the report begins in the second section with a discussion of the process used in arriving at a set of issues that stakeholders found important to the quality of life in Winnipeg. We then introduce the processes of indicator development and aggregation. The quality of life framework is presented in the third section. The fourth section examines the availability of data to create indicators for these issues. The last section presents an implementation plan for creating a set of indicators and aggregations, and comments on institutionalization.

2. PROCESS

What is a quality of life framework?

A framework is a structure or tool that is used to provide support or order to a group of ideas. When applied to issues a framework can assist in providing a comprehensive evaluation and in clarifying many issues. A good framework helps to provide unique insights into issues. A framework can be very simple or complex. For example, a set of issues can be grouped by the sector of the economy, environment or the geographic location that they mainly influence. The creation of a quality of life framework includes the development of a structure of issue categories to order quality of life issues. This is followed by the generation and selection of issues. The selection of quality of life indicators to measure selected issues is the last stage of framework development.

What is a quality of life indicator?

Indicators are signs or signals of complex events and systems. They are bits of information pointing to characteristics of systems or highlighting what is happening. Indicators are used to simplify information about complex phenomena, such as sustainable development or, in this case, quality of life, in order to make communication easier and quantification possible.

An indicator can be a variable (e.g., the total amount of organically farmed products) or a function of variables (e.g., a ratio, such as amount of recycled material vs. total amount of solid waste). An indicator can be a qualitative variable (e.g., safe-unsafe neighborhood, participatory-nonparticipatory decision making), a ranking variable (e.g., best or worst training program, lowest or highest mortality rate) or a quantitative variable (e.g., energy use in kilowatt hours/year). Though quantitative indicators are the most widespread, qualitative indicators are also important when the issue to be measured is non-quantifiable (e.g., cultural values), when the information is based on opinion surveys (e.g., yes or no answers to questions such as "Are you satisfied with your situation?"), when quantitative information is not available (data are missing) or when high costs prohibit the use of quantitative indicators or when a simple signal, such as a red light on an instrument panel or dashboard, is sufficient to initiate action.

In practice indicators can be distinguished as system indicators or performance indicators. System indicators summarize sets of individual measurements for different issues characteristic of the human/social system and the ecosystem, and communicate the most relevant information to decision-makers. System indicators are based on technical and scientific insights whenever possible. However, due to the uncertainties of the natural and social systems this is not always possible. Both science and the policy process determine the standards and benchmarks to which indicators are related. Indicators are a product of a compromise between scientific accuracy and the needs of decision making, and urgency of action. Performance indicators are tools for comparison, incorporating a descriptive indicator and a reference value or a policy target. They provide decision-makers with information on how they are doing with regard to policy goals.

What is a quality of life index?

Another type of indicator, presenting highly condensed information obtained by aggregating data, is called an index. Decision-makers often ask for a very limited number of indices that are easy to understand and use. A typical example of an index is the Gross Domestic Product (GDP). To develop an index, the different indicators contained in the index need to be weighted according to their relative importance. In the case of the GDP, the weighting factor is the monetary value of the goods produced. However, when considering environment, social and institutional aspects, this becomes a major problem since many of those goods cannot presently be given a monetary value. Indices are also limited in their analytical power since they simplify the link between the index and the real world.

How is an indicator developed?

Developing an indicator involves a process that moves from the general to the specific and then back. We begin with a broad issue category, for example Individual Well-being. This category is then divided into sub-categories of issues or smaller groups of issues, such as Safety or Health. In the division of categories, sub-categories, and issues there is a significant amount of choice. The categories and sub-categories for the issue framework are chosen by the project team to represent quality of life as comprehensively as possible. Stakeholder participants select the issues that they consider most important within each of these categories. For example, issues under the Safety sub-category might be Crime or Accidents. Following the decisions of stakeholders the project team performs a data availability assessment to determine whether sufficient data is available to create indicators to measure the issues that participants felt were most important.

Data related to the Crime or Accident issue might include the number of transport related deaths per thousand population, the number of murders per thousand population, the number of fires per thousand homes, etc. Indicator development proceeds with the selection of one or more of these available pieces of data based upon a number of criteria. The result is indicators that may be based on one or more pieces of information with relevance to the Crime and Accident issue. If fewer indicators are desired these indicators can be aggregated to form a single indicator on the Safety sub-category. This indicator may be further combined with other sub-categories to provide a single aggregate indicator or index for Individual Well-being. In this project the development of the quality of life framework followed a somewhat more complex, but a largely similar path.

How are indicators reported?

There is no golden standard for the preparation of quality of life or sustainable development reports, but there are some general rules of thumb that can provide help in the preparation and presentation of indicators and reports. Figure 2 provides an example of a general template for indicator reporting. Clarity of communication is a basic requirement for the presentation of indicators. They should be presented graphically, accompanied by brief explanations, using non-technical language. Simple symbols can be used, for example, to link the particular indicator to the overall life quality framework or to identify the direction of change. Text, symbols and charts are the basic building blocks, accompanied by appropriate references and if necessary background numbers, usually in an appendix.

A quality of life report would of course include a number of indicators. Although these indicators and their accompanying analysis may appear on separate 'indicator sheets', it is particularly important to point out that most of them represent processes and phenomena that are strongly linked. Beyond pointing this out in general, it is even more important that every indicator is linked to other indicators, policies and the web of

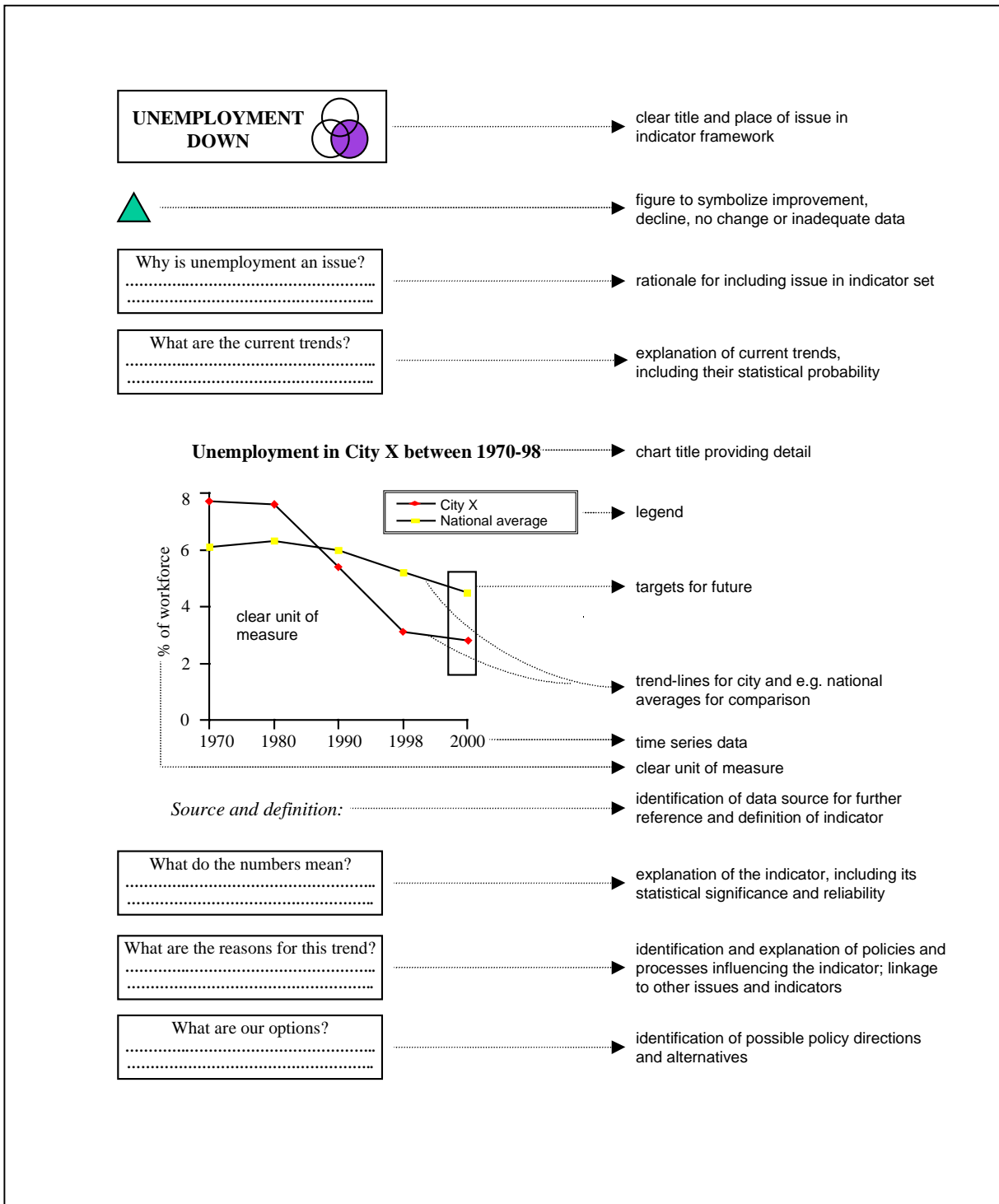


Figure 2: Example of General Template for Indicator Reporting

environmental and socio-economic matters that have a direct or indirect influence on it. Again, this can be done both graphically by showing the place of the indicator in the comprehensive quality of life framework and in the analysis.

One of the basic functions of indicators is to provide a comparison. This comparison can be based either on targets, benchmarks, or performance in the past. In fact, it can be based on all of this. The indicator chart should be based on time series data, thus providing an opportunity for comparing development and dynamics over time. If an accepted target value is known it should be added to the chart so that readers can make an assessment of progress, the direction of current change and distance from the target. In addition, comparable trends from either other jurisdictions or other scales or locations can be added to provide a third layer of comparability. This may be either figures from the national or global scale or examples from other cities that are well known by the public.

While there are no perfect examples to illustrate this sort of reporting, there are many indicator reports that integrate some of the key points. An interesting example is the report published by the Pierce County Department of Community Services in the State of Washington (see sample pages in Appendix 6).

2.1. Framework Development

At the outset of this project a number of sustainable development indicator frameworks were considered for organizing quality of life issues and the development of related indicators. The City of Winnipeg met several times to discuss possible indicator frameworks with IISD. IISD produced a paper for the City that surveyed indicator frameworks. Among the frameworks discussed was the multiple-asset framework of the World Bank, this framework is organized around the concept of measuring the wealth of society through the division of resources into four categories: human capital, human-made capital, social capital and natural capital. The Prairie Ecozone section of the provincial State of the Environment Report for 1997 provides an example of a similar framework and division of assets: natural resources, human-made capital, community assets, and individual well-being. Several requirements were chosen to guide framework development:

1. the framework should be holistic, that is describe the entire urban system;
2. the framework should maintain some level of compatibility with existing frameworks in City of Winnipeg documents (e.g. Plan Winnipeg), and the framework used in provincial Sustainable Development reporting; and
3. the framework should facilitate the selection of indicators that are relevant to the community and at the same time provide feedback to City Council and the City administration.

The resulting framework (Figure 3) combined elements of the multiple-asset framework and the provincial State of the Environment Report. These were adapted to the needs of the City of Winnipeg and the issues raised by citizens during public consultations.

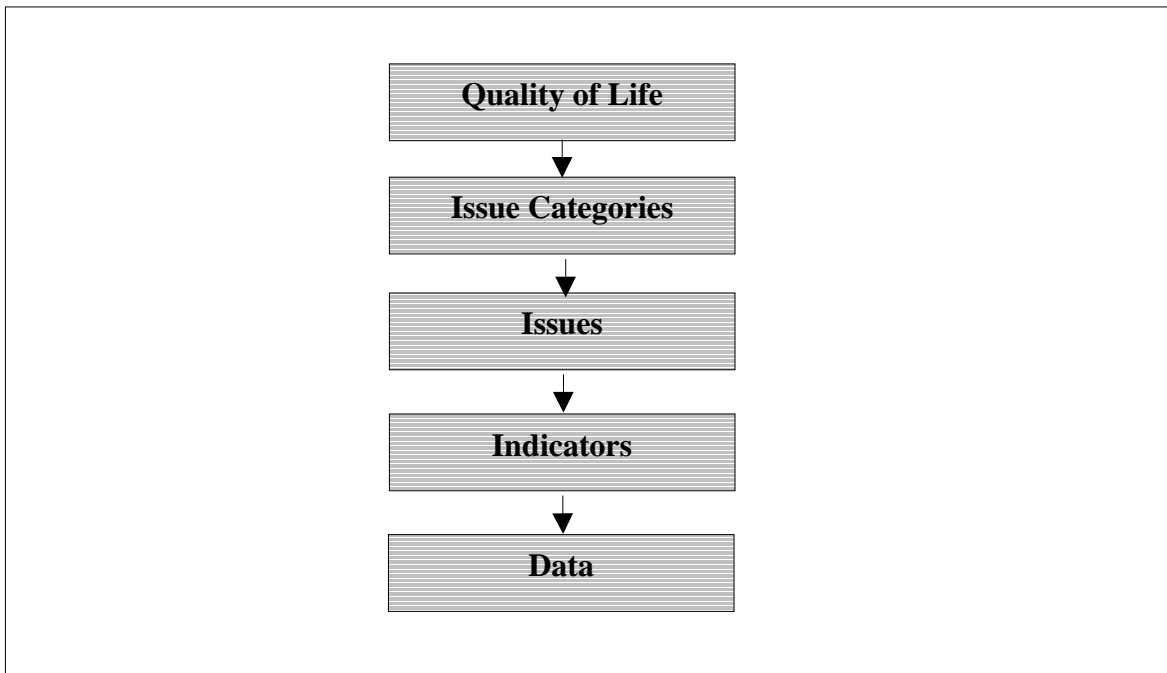


Figure 3: Quality of Life Framework

2.2. Stakeholder Participation

2.2.1. Selection of Stakeholders

The City of Winnipeg and IISD held a number of joint meetings that discussed the type and form of stakeholder participation that would be required for the development of the issue framework. Amongst the criteria that were eventually used in selecting participants was a need to maintain gender equality and to have participation from a relatively broad group of citizens that included representatives from labour, public, private, and civil society. In order to maximize the representation of different points of view people from "umbrella groups" were chosen where possible, including members of neighbourhood communities, the business community, professional associations, unions, educational organizations, indigenous groups, and non-governmental organizations (NGOs).

2.2.2. Issue Identification and Prioritization

A multi-stakeholder process conducted through a focus group meeting was used for issue selection (Figure 4). Selected participants were invited to attend a day-long meeting to suggest and rank issues falling under the different categories that had been assembled. Participants were provided with an information packet containing a number of documents that included an issue paper on frameworks and indicators in the context of sustainable

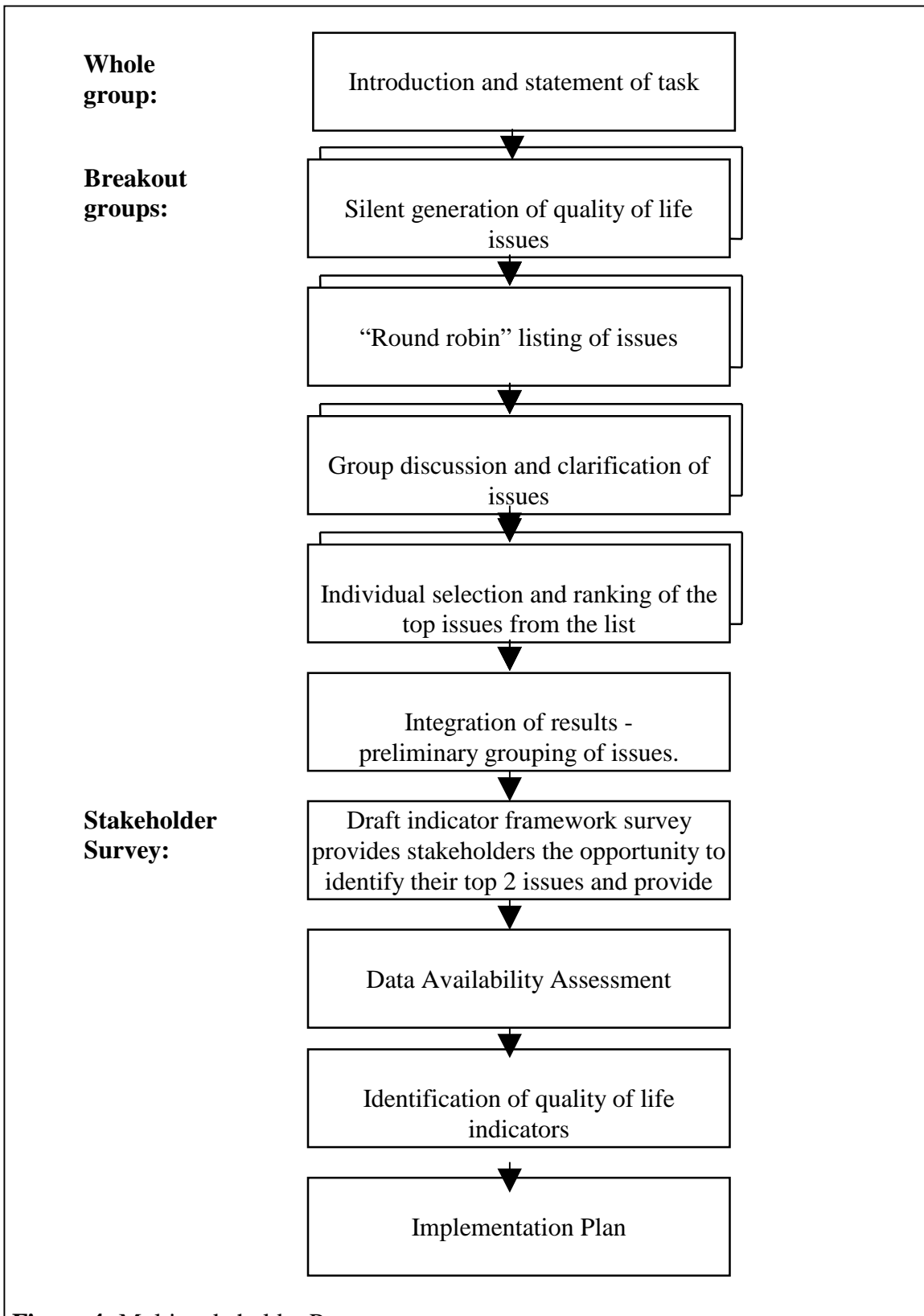


Figure 4: Multi-stakeholder Process

development reporting and a description of the process. The focus group meeting occurred on November 6, 1997 at IISD. There were a total of twenty-nine attendees

(Appendix 1) including personnel from IISD and the City of Winnipeg. Twenty participants represented different communities and interests within Winnipeg.

The framework for organizing indicators had four parts that collectively ensured that all aspects of sustainable development were addressed. Four main categories of issues and indicators were created. These were Urban Environment, Human Made Capital, Community Assets, and Human Well-being. The framework also reflected the equitable distribution of assets within and between generations as an overriding concern of sustainable development.

A question and answer session provided an opportunity for discussion by participants before the process began (Appendix 2). Generation and listing of the first set of issues, clarification of the suggestions as well as the individual ranking of issues was done by breakout groups.

The results of the brainstorming sessions were presented at a plenary session. Although re-ranking of the issues by the plenary was the planned next step, the participants felt that there was insufficient time left for regrouping the issues, eliminating overlaps and providing justification for selection. The group as a whole agreed to adjourn the meeting, to leave time to combine the two lists and identify the next step in the process.

Following the meeting, the City contacted all workshop attendees for their comments. Based on feedback from participants the City decided to modify the process and use a series of focus groups and surveys to ensure a broader representation of the community. In the interim, the Manitoba Round Table on Environment and Economy made a decision to focus its efforts on urban sustainability and initiated discussion with the City on collaboration related to the reporting of sustainable urban quality of life indicators.

A draft issue framework survey, prepared by IISD and the City, was sent to participants and others who indicated an interest in participating but were unable to attend on the day of the workshop. The survey contained 160 issues identified by workshop attendees, which had been sorted into both categories and sub-categories. These categories and subcategories were produced after a review done by the working group that considered a number of current municipal quality of life sustainable development reports in North America. This was done in order to ensure a comprehensive framework was developed. Based on the review and the discussions to date, the category Human Made Capital was renamed Urban Economy while the Human Well Being category was split into two new categories Individual Well Being and Community Leadership and Pride. The addition of sub-categories and example issues enhanced the descriptions for each category. A review of other City of Winnipeg documents, surveys, and focus group reports, provided further

public input on issues of concern for the survey and the framework. Participants were asked to provide comments and suggestions regarding the categories and sub-categories, and to choose their top two issues from those suggested, or to suggest a new issue as a choice. The categories, sub-categories and the top two issues selected by participants provided the quality of life issue framework for the City (Table 1).

2.3. Indicator development

Development of a preliminary set of indicators began with the assignment of indicators to the top two issues identified in the survey results where possible. Using a set of indicator selection criteria the list of indicators was narrowed. Although seven selection criteria are defined here this list is by no means exhaustive.

Policy relevance

Is the indicator linked to one or several issues around which key policies are formulated? Indicators of sustainable development are intended to improve the outcome of decision-making on levels ranging from individuals and communities to the province, country or world. Unless users can see the connection between the indicator and critical decisions and policies, it is unlikely to motivate action. It is for this reason that appropriate explanations of the implications for sustainable development and linkages to other issues are included in the discussion of indicators.

Simplicity

Can the information be presented in an easily understandable, appealing way to the target audience? Even complex issues and calculations should eventually yield clearly presentable information that the general public understands.

Validity

Is the indicator a true reflection of the facts? Were the data collected using scientifically defensible measurement techniques? Will one arrive at the same result if two or more measurements of the indicator are made? Methodological rigor is needed to make the data easily understood by all audiences.

Data availability

Are good quality time series data available at a reasonable cost or is it feasible to initiate a monitoring process that will make the information available in the future? Information tends to cost money, or at least time and effort from many volunteers.

Representativeness

Is the indicator about a very narrow or broad quality of life issue? The list of potential indicators is endless. For practical reasons, indicators that combine information on a range of issues should be preferred. For example, average life expectancy is a useful indicator of human health that aggregates information of many trends that influence this single outcome, such as incidence of diseases, lifestyle, the rate of fatal accidents or even the effectiveness of the health system.

Sensitivity

The scope of a single indicator is usually limited, even if it satisfies the criteria of representativeness, if we compare it with the issues decision-makers have to address. Staying with the example of human health, while life expectancy measures an overall outcome, there are measures in the quality of life indicator set that will describe factors that influence health, whether it is child/infant mortality, the availability of hospital beds, or toxic substances in the environment. In cases like this, finding a way to aggregate associated measures will help create an overall picture about a complex issue, such as health, and facilitates its communication to the public and policy-makers. Aggregation is an important tool, but it is not without risks, and requires careful consideration of what is to be included in an aggregate measure and with what weight.

3. QUALITY OF LIFE FRAMEWORK

The quality of life framework contains five main categories with numerous sub-categories. The framework and the definitions for these categories and sub-categories are provided in Table 1. This is the same framework that was given to survey recipients with the exception that examples were provided for issues within the different categories and sub-categories. Here the issues under each sub-category are the top two issues selected by the participants. The selection of these issues by stakeholders completes the development of the quality of life issue framework.

Table 1: Quality of Life Framework

CATEGORY	SUBCATEGORY	ISSUES
<p>URBAN ENVIRONMENT</p> <p>This category includes the natural and built environment. The natural environment refers to resources such as water, air, and green space. The built environment includes the infrastructure necessary to support urban life, for example buildings, streets, sewers, powerlines, communications equipment.</p>	<p>Natural environment</p> <p>The physical elements that are both living and non-living utilized by residents of Winnipeg.</p>	<ul style="list-style-type: none"> • Clean city • Water quality & Supply/ Quality access to drinking water
	<p>Land use management</p> <p>Activities and outcomes associated with planning, allocation, and regulation of land in Winnipeg.</p>	<ul style="list-style-type: none"> • Vibrant core/ Vibrant downtown/ Downtown area/ Vacancy • Urban sprawl
	<p>Infrastructure and services</p> <p>Includes the planning, construction, and maintenance of services or physical structures that assist in the everyday activities of people.</p>	<ul style="list-style-type: none"> • Deterioration of infrastructure • Well functioning infrastructure and its maintenance
	<p>Consumption and conservation</p>	<ul style="list-style-type: none"> • Water conservation/ Conservation Water/ Energy

	Includes the physical consumption of resources and material and the efforts or alternative activity to optimize efficiency.	<ul style="list-style-type: none"> • Waste minimization
URBAN ECONOMY This category includes not only the private and public funds expended in the City, but the "economic engine" that produces capital. This comprises the sum of all work created in Winnipeg, and the processes, assets, and knowledge that support job creation and economic development.	Employment Means jobs and people. The type, sector, nature and value of work required in the community; and, the characteristics of the labour pool, including age, skill set, availability and status of employment.	<ul style="list-style-type: none"> • Quality of jobs/ Meaningful employment • Brain drain and out-migration of professionals, technicians and artists
	Municipal finances The ways City revenue is earned and spent; ways decisions or choices are made in managing finances; criteria used to determine consumption, spending and investment; evaluation of tax and other revenue generating programs or activities.	<ul style="list-style-type: none"> • Financial management • Over reliance of the City of Winnipeg on property taxes
	Economic Vitality Public and private institutions and activities that promote economic movement in the community and create new industry, business growth and development.	<ul style="list-style-type: none"> • Attracting diverse businesses/ Diverse economy • Environment supportive of small businesses/ Fostering local community-based business
COMMUNITY ASSETS The basis for Winnipeg's community assets is its people and its demographic profile. Cultural identity and heritage are values that are part of how people rate their quality of life. Community assets also include our institutions, such as a well-functioning health and education system.	Housing Provision of overall basic housing needs in an equitable, accessible, and efficient manner, availability of adequate and affordable housing both for purchase and rent.	<ul style="list-style-type: none"> • Affordable housing/ Affordable integrated and accessible housing • Protection of quality of housing stock
	Culture, arts and entertainment Arts, beliefs, institutions, and other human activity or thought; opportunities for practicing them; promotion of artistic and cultural life within and outside the City; commitment of government and private sector to support diverse cultural activities.	(no specific issue has been identified)
	Recreation and leisure Conditions for actively spending free time for passive or active leisure; quality and availability of sport, recreation programs and hobby opportunities.	<ul style="list-style-type: none"> • Flourishing and well established community centres • Availability to sports facilities
	Government services Activities and initiatives to provide for basic needs of people and the community.	<ul style="list-style-type: none"> • Access to public transportation/ Transportation (equal and accessible options)

	Includes the number and quality of services available for residents in Winnipeg.	<ul style="list-style-type: none"> • Logical urban planning
	<p>Education</p> <p>Community investment in the resources required to promote mechanisms and institutions that provide for quality and accessible knowledge and learning opportunities.</p>	<ul style="list-style-type: none"> • Post secondary education and training • Public education (re: costs)
	<p>People</p> <p>Population characteristics and demographics; ethnic diversity and aboriginal affairs.</p>	<ul style="list-style-type: none"> • Opportunities for aboriginal people • Human cultural mosaic
	<p>Neighborhoods</p> <p>Community networks and opportunities for interaction and cooperation; grass roots institutions and community impact.</p>	<ul style="list-style-type: none"> • Informal and formal volunteerism • Sense of community and neighborhood
<p>INDIVIDUAL WELL-BEING</p> <p>This category includes both psychological and physical well-being of Winnipeg residents.</p>	<p>Safety</p> <p>Physical and perceived security of individuals both in private and public settings; conditions necessary to preserve and protect their integrity and property.</p>	<ul style="list-style-type: none"> • Personal and property security for people • Crime and safety
	<p>Equity</p> <p>Social justice and human rights extended to all. This includes fairness and equal access to services by all citizens in Winnipeg.</p>	<ul style="list-style-type: none"> • Measures of social justice/ Equity • Basic physical needs met for all
	<p>Education</p> <p>Acquiring and using quality skills and knowledge through formal and traditional channels; personal levels of skills and knowledge.</p>	<ul style="list-style-type: none"> • Education • Quality education • Inclusive education
	<p>Wealth</p> <p>Tangible assets of material and financial security.</p>	<ul style="list-style-type: none"> • Income • Material comfort at affordable price
	<p>Health</p> <p>Mental and physical well-being of individuals.</p>	<ul style="list-style-type: none"> • Health access to and within health care services • Water quality & supply
<p>COMMUNITY LEADERSHIP AND PRIDE</p> <p>Cities are changing all the time. A shared purpose and a solid understanding within</p>	<p>Leadership and governance</p> <p>The format, style, and effectiveness of leadership and management of the community's affairs; a strong vision of</p>	<ul style="list-style-type: none"> • Governance with strong and local accountability • Responsive, respected and trusted governance

the community of its past and its future direction exemplify community leadership and pride.	where the City should be going and how it should get there; institutional guarantees for participating in decision making; accountability of institutions; elected and appointed officials.	
	Image and identity Perception of the community and the role of individuals in it. How people in Winnipeg feel about their city and how people outside the City perceive it to be.	<ul style="list-style-type: none"> • Improved community image • Self-image • Distinctive character
	Citizenship Active participation in community affairs; sense of belonging and privileges.	<ul style="list-style-type: none"> • Sense of individual empowerment • Participation and belonging

4. A SAMPLE LIST OF QUALITY OF LIFE INDICATORS FOR THE CITY OF WINNIPEG

Based on the results of the issue identification exercise and the data assessment, a list of draft indicators was compiled. **The list is clearly preliminary, given the limited scope of stakeholder participation in the issue identification process and gaps in the quality and availability of data.** Nevertheless, both the issue identification and data assessment exercise led to some concrete information in some, though not all areas. Indicators selected satisfy both the criteria of data availability and reliability as well as relevance for stakeholders. In some cases the lack of data or the uncertainty in the definition of issues allows only educated guesses at best and calls for additional data collection (e.g. Neighborhoods, Citizenship).

Table 2 contains indicators that describe some key aspects of an issue identified **and** have at least some underlying data and data collection infrastructure. The indicator accompanying an issue is obviously not the only possibility to measure that issue. In most cases there are options, for example to express an indicator in per capita terms or in terms of economic output, and so on. Finding the best way of expressing an indicator depends mainly on the policy context it is used in and the associations the public makes with respect to the particular issue. If the concern is pollution, one can select simply the change in pollution levels or emissions over time. However, if there is specific interest in the volume of pollution we produce compared with the rate of economic activity, expressing it in terms of pollution per unit of economic output may be more appropriate.

Selecting the indicators will require further input from stakeholders and data managers, for which this table can be a starting point.

Table 2: Suggested Quality of Life Indicators

CATEGORY: URBAN ENVIRONMENT

SUBCATEGORIES AND ISSUES	SUGGESTED INDICATORS	DEFINITIONS
<p>NATURAL ENVIRONMENT</p> <ul style="list-style-type: none"> • Clean city • Water quality & Supply/ Quality access to drinking water 	Air Quality Index	As defined in Manitoba's <i>State of the Environment Report, 1997</i>
	Number of good air quality days	Defined as the number of good air quality days per year OR the number of days with air quality in the "good range"
	Water Quality Index	As defined in Manitoba's <i>State of the Environment Report, 1997</i>
	Percent of BOD	Defined as the average BOD reduced in wastewater.
	Aquatic invertebrate population in city streams	Defined as the relative abundance of aquatic invertebrate species in city streams.
	Pesticide use	Volume of pesticides used by privately registered applicators (liters).
	Frequency of environmental accidents	Defined as the number of environmental accidents in Winnipeg and St. Boniface.
	Number of contaminated sites	Defined as the number of contaminated sites in Winnipeg.
<p>LAND USE MANAGEMENT</p> <ul style="list-style-type: none"> • Vibrant core/ Vibrant downtown/ Downtown area/ Vacancy • Urban sprawl 	Urban sprawl	Defined as the ratio of number of new homes built in rural municipalities adjacent to Winnipeg to the number of new homes built within Winnipeg.
	Urban forests	Size, variety and condition of forests
<p>CONSUMPTION AND CONSERVATION</p> <ul style="list-style-type: none"> • Water conservation/ Conservation Water/ Energy • Waste minimization 	Automobile ownership/registration	Defined as the ratio of automobiles per 1000 population.

	Recycling rate	Percentages of paper, glass and aluminum disposed which are recycled.
	Average waste disposal	Volume/capita
	Natural gas consumption	Defined as natural gas consumption (cubic meters) per household.
	Electricity consumption	Defined as electricity consumption (kilowatt-hours) per household.
	Water consumption	Defined as the average water consumption for all uses (liters per day per person).
	Energy consumption	Defined as the total energy usage (mega-joules) per annum per person.
INFRASTRUCTURE AND SERVICES <ul style="list-style-type: none"> • Deterioration of infrastructure • Well functioning infrastructure and its maintenance 	Expenditure on road infrastructure	Defined as per-capita expenditure in dollars on roads. (Should include capital and maintenance expenditure on all roads within the city's vicinity.)
	Infrastructure expenditure	Defined as per capita expenditure in dollars on infrastructure.
CATEGORY: URBAN ECONOMY		
SUBCATEGORIES AND ISSUES	SUGGESTED INDICATORS	DEFINITIONS
EMPLOYMENT <ul style="list-style-type: none"> • Quality of jobs/ Meaningful employment • Brain drain and out-migration of professionals, technicians and artists 	Basic labour force	Measures the basic labour force/per population ratio.
	Unemployment rate	Defined as the average proportion of unemployed as a fraction of the workforce.

	Employment growth	Defined as the average annual growth rate of the number of employed persons, aged 15 and over.
MUNICIPAL FINANCES <ul style="list-style-type: none"> • Financial management • Over reliance of the City of Winnipeg on property taxes 	Government income	Defined as the total government income in dollars annually, both capital and current divided by population.
	Capital expenditure	Defined as the government capital expenditure in dollars per person.
	Change in income	Defined as the average annual change in real per capita income.
	Property tax rate	Defined as the percentage of the market value of the dwelling unit, which is collected as annual property tax.
ECONOMIC VITALITY <ul style="list-style-type: none"> • Attracting diverse businesses/ Diverse economy • Environment supportive of small businesses/ Fostering local community-based business 	GDP by industry	Defined as GDP by industry.
CATEGORY: COMMUNITY ASSETS		
SUBCATEGORIES AND ISSUES	SUGGESTED INDICATORS	DEFINITIONS
HOUSING <ul style="list-style-type: none"> • Affordable housing/ Affordable integrated and accessible housing • Protection of quality of housing stock 	Average household size	Defined as total population divided by total household. (Can be used to determine demand for housing.)

	Household formation rate	Defined as rate of growth of numbers of households or the sum of population growth rate and the estimated percentage decline in household size. (Used as a prime indicator for housing demand.)
	House price-to-income ratio.	Defined as the ratio of the median market price of a dwelling unit and the median annual household/family income.
	House rent to income ratio	Defined as the ratio of the median annual rent of a dwelling unit and the median household/family income of renters. (This indicator may be key measure of housing affordability)
	Mortgage affordability	Defined as proportion of households who are eligible for and can afford the maximum loan on a median priced formal sector house.
	Excessive housing expenditure	Defined as proportion of households in the bottom 40% of incomes who are spending more than 30% of their incomes on housing.
	Inadequate housing	Defined as the proportion of dwellings that are deemed to be inadequate or in need of major repairs.
CULTURE, ARTS AND ENTERTAINMENT (no specific issue has been identified)	Monument list	Defined as number of buildings in city on the heritage or monument lists

<p>RECREATION AND LEISURE</p> <ul style="list-style-type: none"> • Flourishing and well established community centres • Availability to sports facilities 	<p>Recreation facility use</p>	<p>Indoor and outdoor facility use by groups of population</p>
<p>GOVERNMENT SERVICES</p> <ul style="list-style-type: none"> • Access to public transportation/ Transportation (equal and accessible options) • Logical urban planning 	<p>Government employees</p>	<p>Defined as the total government employees per 1000 population.</p>
	<p>Infrastructure expenditure</p>	<p>Defined as the ratio of total expenditure in dollars by the government on infrastructure services. (Includes operations, maintenance, capital expenditures, on physical infrastructure such as roads, railways, water supply, electricity and garbage collection and social infrastructure such as health and education expenditure.)</p>
	<p>Expenditure on social services</p>	<p>Defined as the total expenditure, both capital and current, public and private, on social services in dollars per person.</p>
<p>EDUCATION</p> <ul style="list-style-type: none"> • Post secondary education and training • Public education (re: costs) 	<p>Public expenditure on education</p>	<p>Defined as expenditures by educational level, source of funds and level of government</p>
	<p>University degrees</p>	<p>Number of university degrees conferred per person.</p>
<p>NEIGHBORHOODS</p> <ul style="list-style-type: none"> • Informal and formal volunteerism • Sense of community and neighborhood 	<p><i>No suitable indicator has been identified</i></p>	

PEOPLE <ul style="list-style-type: none"> • Opportunities for aboriginal people • Human cultural mosaic 	Migration rate	Net migration to and from the city.
	Household type	Percentages of households with more than one adult with no children, single parent household, more than one adult and children, one person only.
	Aboriginal people	Basic socio-economic profile
CATEGORY: INDIVIDUAL WELL BEING		
SUBCATEGORIES AND ISSUES	SUGGESTED INDICATORS	DEFINITIONS
SAFETY <ul style="list-style-type: none"> • Personal and property security for people • Crime and safety 	Crime rate	Number of reported crimes (number of victims, male and female) annually per 1000 population (sexual crimes, family violence, murder and theft).
	Transport fatalities	Defined as the proportion of deaths per thousand population from transport related causes.
	Pedestrians fatally injured	Defined as proportion of road fatalities who are pedestrians
HEALTH <ul style="list-style-type: none"> • Health access to and within health care services • Water quality & supply 	Medical services	Defined as the number of medical services per 1000 population and per capita cost by gender.
	Infant/child mortality rate	Defined as the proportion (in percentages) of children by gender who die before reaching their fifth birthday.

<p>EDUCATION</p> <ul style="list-style-type: none"> • Education • Quality education • Inclusive education 	<p>School enrollment rates</p>	<p>The number of students at a specific level of education, as a percentage of population at that level (using age to determine the level) OR the percentage of children of eligible age by gender, who are enrolled in primary and secondary education.</p>
<p>EQUITY</p> <ul style="list-style-type: none"> • Measures of social justice/ Equity • Basic physical needs met for all 	<p>Life expectancy at birth</p>	<p>Defined as the number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to stay the same throughout the child's life. (This indicator is used for computing the Human Development Index at the city level).</p>
	<p>Social safety</p>	<p>Financial and other support provided for disadvantaged groups.</p>
<p>WEALTH</p> <ul style="list-style-type: none"> • Income • Material comfort at affordable price 	<p>Family income</p>	<p>Total families income by annual income groups, average, low and median annual income.</p>
	<p>Personal disposable income</p>	<p>Employment disposable income by gender and work activity</p>
	<p>Personal saving rate</p>	<p>% of real income</p>
<p>CATEGORY: COMMUNITY LEADERSHIP & PRIDE</p>		
<p>SUBCATEGORIES AND ISSUES</p>	<p>SUGGESTED INDICATORS</p>	<p>DEFINITIONS</p>
<p>LEADERSHIP AND GOVERNANCE</p> <ul style="list-style-type: none"> • Governance with strong and local accountability • Responsive, respected and trusted governance 	<p>Diversity of elected officials</p>	<p>Measure the extent to which different groups (racial, gender) are actively represented per 1000 population</p>

	Voter participation rate	Measure number of registered voters as active participants OR defined as the percentage of adult population (having reached voting age) who voted in the last municipal election.
<p>IMAGE AND IDENTITY</p> <ul style="list-style-type: none"> • Improved community image • Self-image • Distinctive character 	Home language	Population % by home languages spoken
<p>CITIZENSHIP</p> <ul style="list-style-type: none"> • Sense of individual empowerment • Participation and belonging 	<i>No suitable indicator has been identified</i>	

5. DATA AVAILABILITY ASSESSMENT REPORT

The purpose of the data assessment section is to help identify and describe data to be used for the empirical analysis of quality of life issues. Assessing quality of life requires vast amounts of statistical data to construct indicators related to key issues. Typically, the necessary data required for measuring the various components of quality of life may not be compiled. There is the need to assess the availability of data across the broad categories and sub-categories that constitute a quality of life framework. These data will strengthen the quantitative basis for the assessment of the “State of Winnipeg”, including economic, demographic, environmental and other factors. Such data are usually collected by major governmental statistical agencies and institutions, some private and public organizations and institutions, non-governmental organizations (NGOs) and others. Data are needed for longer historical periods, including details on the data collection methods. Having historical data will help construct indicators and assess the effectiveness of past and present policies that collectively and individually determine the quality of life. It allows for trends to be identified and priorities addressed.

The long term objective of the data assessment is to assist in designing programs to improve the quality and availability of harmonized data sets consistent with important issues in measuring quality of life for Winnipeggers. Based on the assessment, recommendations will be provided to fill data gaps and increase the efficiency of existing information, measurement and reporting systems.

The City’s information system has many elements necessary for the analysis of holistic

concepts like quality of life. Although there are many existing data sets that are validated and up to date, their relevance for the measurement of quality of life has not been determined. Data are often collected around narrow issues that may or may not have direct linkages to the quality of life. Lack of necessary data on one hand and availability of data irrelevant from the perspective of quality of life creates several potential data constraints. These constraints will have significant influence on the indicators selected.

In response to the data constraints in measuring quality of life, this project also compiled a directory of data sources and contacts within the City of Winnipeg and other levels of governments and organizations. This database will contribute to the identification of data gaps and promote solutions that address other data constraints. The long-term mandate of the data assessment is making data more accessible to the wider public on sustainable development or quality of life issues.

This section of the report is divided into four parts. Part 1 discusses the methods used to assess data availability. Part 2 presents the results of the data availability assessment. Part 3 discusses the results and data management issues identified. Part 4 provides recommendations with respect to the establishment of a quality of life indicator framework based on data availability.

5.1. Methods of Assessment

Based on the quality of life framework that was generated by the project team and using the broadly defined categories and sub-categories as guides, data sources for the City of Winnipeg, other governmental organizations, community organizations and business groups were identified and interviewed using a standard survey format. The assessment focused on determining information for the following components, which are found in the data availability study work plan (Appendix 5):

- 1) Category and Sub - Category
- 2) Data Sources
- 3) Time Period of data/record
- 4) Unit of Measurement
- 5) Frequency
- 6) Data Collection Method
- 7) Data Storage Format
- 8) Geographic Coverage
- 9) Restrictions
- 10) Cost

Based on these components a form and an electronic database was designed that would allow entering the necessary information regarding the data availability assessment. Potential data sources were grouped into two main areas: (a) City of Winnipeg sources

and (b) Others, including federal and provincial governments, non-governmental organizations, educational institutions and special interest organizations.

- a) City staff were identified and contacted by phone and asked to comment on data availability based on the above components. In addition staff were asked to comment on collateral activities or initiatives related to data management. Major data sources were identified in the following departments:

- Assessment Department
- Business and Liaison and Intergovernmental Affairs
- Civic Buildings
- Community Services Department
- Corporate Finance
- Corporate Services Department
- Land and Development Services Department
- Parks and Recreation Department
- Social Services Department
- Streets and Transportation
- Water and Waste Department
- Winnipeg Hydro
- Winnipeg Police Service
- Winnipeg Transit

- b) With respect to other organizations the identification of data sources took place in two phases. The first phase was to consult Statistics Canada, specifically scanning the CANSIM database. Wherever data sets fit into any of the broad categories/sub-categories this was noted and then later entered into the database.

This gave us an insight as to the type of information/data that is housed by Statistics Canada, which could be used to measure quality of life.

The second phase was to list other key data sources that were identified in the workplan. Some of the major key sources that assisted with data assessment are as follows:

- Canadian Business Centre
- Centra Gas
- Coalition to Save the Elms
- Dafoe Library, Government Document Section, University of Manitoba.
- Environment Canada
- Friends of Bruce Park
- Institute of Urban Studies
- Manitoba Agriculture, Technical Services and Training
- Manitoba Bureau of Statistics
- Manitoba Education and Training
- Manitoba Environment

Manitoba Hydro
Manitoba Natural Resources
Manitoba Naturalists Society
Manitoba Product Stewardship Program
Manitoba Public Insurance (MPIC)
Manitoba transport, Driver and Vehicle licensing
Manitoba Urban Affairs
Probe Research Inc.
Social Planning Council of Winnipeg
University of Manitoba, Zoology Department
Winnipeg Police Services

The preliminary list of key data sources contained about 50 institutions. Nearly half of them have not provided information and/or do not have any relevant data.

Annual reports produced by the City of Winnipeg and other publications including government documents from the Dafoe Library assisted in the identification of other data sources as well as providing actual data. Face to face meetings proved to be the most effective means of obtaining information regarding data availability. The Dafoe Library was also used to get other Statistics Canada information, which is not part of CANSIM. The Canada Year Book was used to obtain extra information on some of the issues and to identify other potential information sources.

5.2. Results/Findings

The results discussed below are based on information contained in the data availability table in Appendix 7.

Category/Sub-category:

The data availability assessment identified a large number of data that relate to the quality of life framework. At an aggregated level of broad quality of life categories data match to a large extent the issues identified through the focus group meeting. However, at the issue or sub-category level a number of data gaps were observed. This can be illustrated by examining the difference between the sets of issues produced by the stakeholders (Section 3) and the data identified in the assessment report (Appendix 7). Major data gaps exist for Leadership and Governance, Image and Identity, Culture, Arts and Entertainment, Neighborhoods, Citizenship, and Equity. This will have an impact on determining a final set of indicators used to measure quality of life.

Table 3 is a summary of data identified by data sources at the broad category level of the framework.

Table 3: Data Identified by Existing Data Sources

Broad Categories	Subject Areas
Urban Environment	<ul style="list-style-type: none"> • Agriculture/Farmland • Air quality • Automobile • Building permits • Chemicals • Electrical • Energy • Forest • Land • Minerals • Natural areas and parks • Pesticide • Recycling • River water quality • Road conditions • Sewer • Traffic • Transportation • Waste • Water • New housing • Natural Gas • Weather • Wildlife
Urban Economy	<ul style="list-style-type: none"> • Business bankruptcies • Businesses • Consumer bankruptcies • Consumer Price Index • Debt • Direct and indirect taxes • Employment • Expenditure • Financial performance • GDP • Industries • Investment • Manufacturing • Part time and full time workers • Professional services • Property taxes • Revenue, basic labour force • Store sales • Subsidies

Broad Categories	Subject Areas
	<ul style="list-style-type: none"> • Transfer payments • Unemployment, wages and salaries • Vocational training
Community Assets	<ul style="list-style-type: none"> • Aboriginal persons • Demographic characteristics • Dwelling characteristics • Enrollments in educational institutions • Ethnic origins • Family characteristics • Grants to educational institutions • Households • Housing • Housing- rent, starts, stocks, selling price • Immigrants and refugees • Indoor and outdoor facilities • Investment in housing • Languages, education (post secondary, primary, elementary, universities) • Leisure activities • Marital status • Medical services • Migration • Mortgage- interest rate, loans • Population characteristics • Public and private schools • Public transportation • Recreation • Religion • Revenue and expenditure of schools • Seniors
Individual Well-being	<ul style="list-style-type: none"> • Automobile- injuries, theft, vandalism, collisions • Crimes • Disabled • Divorces • Family income • Health care • Homicide • Hospitals – number of beds, grants, expenditure • Household characteristics • Infant mortality rates • Life expectancy • Mental health • Personal - savings, income,

Broad Categories	Subject Areas
	<ul style="list-style-type: none"> • Revenue • Robbery • Sexual assaults • Single parents • Suicides • Universities/colleges enrollments and diplomas granted • Visible minorities • Vital statistics • Youth
Community Leadership and Citizenship	<ul style="list-style-type: none"> • Citizenship • Distribution of House of Commons seats • Elections • Immigrants

To gain comprehensive knowledge of all the details of all data available based on the survey, please refer to Appendix 7.

Data Sources

The data availability assessment revealed that a wide range of public and private organizations, including those highlighted above, are important sources of data for the City of Winnipeg. In many cases these organizations stated that Statistics Canada was their primary data source. Data for Winnipeg were mainly from the Census Track Profile (A & B) put together by Statistics Canada. Our findings reveal that it is important to scan through Statistics Canada’s database when assessing data or gathering the necessary information about quality of life. For example, the recent demographic profile produced for the City of Winnipeg used Statistics Canada census data. Another statistical data organization is the Manitoba Bureau of Statistics; they collect data on food prices for Winnipeg, Brandon and 17 northern communities.

They also gather data for other institutions and agencies, beyond what Statistics Canada collects, but most of these data are confidential and may not be available to the public. Examples include data for the Canada Mortgage and Housing Corporation (CMHC) in general and for some specific industries and businesses. The Manitoba Bureau of Statistics also collects some business information about Winnipeg, but otherwise collaborate with Statistics Canada for most of their data.

Since many departments within the City of Winnipeg, and almost all other agencies or institutions use fully or partly Statistics Canada data, scanning through Statistics Canada’s database should be the first step in acquiring data that can be used to assist in developing measures for quality of life. It is important to also note that the City of Winnipeg does collect and utilize data on its own. Major data sources for the City of Winnipeg, aside from Statistics Canada include: Forestry Branch Database; Solid Waste Departments database; Streets and Transportation Department’s Paver System that maintains information on quality of streets in Winnipeg; The Assessment Department’s

Database; Water and Waste Department Water Quality Database; Winnipeg Police Services Crime Statistics Analysis Database.

It was also observed that Statistics Canada does not always collect itself all the data that it maintains in its database. Other than the Census related data, most of its data are obtained from other government departments and some private institutions. For example, it collaborates with Health Canada, Agriculture Canada, Manitoba Environment, Winnipeg Police Services, just to name a few, in gathering data for its database. In spite of these other sources of data Statistics Canada remains the primary data warehouse for data about Winnipeg.

Other than the traditional major sources of statistical data such as public and governmental agencies/departments/institutions, the public and private sectors rely on the use of public opinion polls as another major source of data on a variety of issues. The success of this technique has produced a significant amount of data. However, sophisticated software may be required in handling the vast amount of information produced by polls. Some of the data are available in organized form, such as annual reports, articles and other similar documents. Tables in these reports also provide additional data/information. For example, the Canada Year Book has a significant amount of data related to quality of life issues. Other sources of information are local non-profit groups.

Several of these groups collect data, but these efforts have largely focused on local issues, such as specific sections of rivers or streams below the scale of the city as a whole. These efforts also vary in their focus, frequency and their level of scientific rigor.

Time Period of Data/Record

Most of the time series data assessed start from the 1960's, 1970's and the 1980's. Some of the census data from Statistics Canada go back to the 18th century. However, most of the survey and public opinion poll data are for a specific period. For example, the Winnipeg Area Study (WAS) provided survey data covering the period 1981 - 1993. However, most of the issues that were surveyed differ or changed from year to year, and it may not be possible to determine any trend for most of the specific issues over the years. Our assessment also found that long-term monitoring was not considered a priority for most data collected. This is an important consideration with respect to measuring quality of life because time series data are required to determine historical trends and their changes.

The lack of long-term data was most noticeable in regard to the natural environment. Finding data sets that go back further than 5 or 10 years is difficult, beyond that is almost impossible. Obviously without monitoring that extends to these time periods it will be difficult to detect anything but major changes to the environment. Some of the exceptions to this include water and air quality monitoring for a selected set of variables and monitoring sites. The stocks/flows of hazardous and solid waste streams is another area where much monitoring has occurred. Government departments, agencies and crown corporations (e.g., Manitoba Hydro) that have been charged with the responsibility

to manage these wastes have kept good records of how much waste they have received and what has happened to the waste. In addition, some localized monitoring has been performed by students and university researchers, government agencies and departments, and a few local non-profit organizations.

In a few cases data existed in more than one organization but for different time periods, and for different decision making purposes. Integrating such data may be possible if they meet minimum criteria of compatibility. For example census data and other survey data addressing the same issue may be combined and individually synthesized to provide new insights into historical trends. Yet it will be difficult to specify a time period for analyzing all quality of life issues adequately.

The lack of historic data in some cases is due to incomplete archives of the institutions responsible for the data collection. This is typical of some of the education, police, and highways/transportation related data.

Frequency

Most of the data assessed are collected on an annual basis except census data that are collected every five years. Some of the data that are collected on a daily, monthly, weekly, quarterly basis can be aggregated to produce an annual data set. For example, City of Winnipeg wastewater quality data and Dutch Elm disease data, although they are collected on a daily basis, could be aggregated to produce an annual data set. In such cases we can base measurements on an annual basis without difficulty.

Data Collection Method

The collection method is important for knowing how well the data represents reality. With most of Statistics Canada and City of Winnipeg departmental data we were not able to determine the data collection method, since we only scanned their database for broad data categories and sub-categories.¹ However, for most of the other sources, we were able to determine their method of collection. For example, Manitoba Public Insurance Corporation (MPIC) collects their data based on claims reported, and some of the environmental data based on various monitoring systems.

Data Storage Format

Most databases are now stored in computer files to allow for direct input and data manipulation and are also available in hard copy. This in the long run will help facilitate easy analysis and interpretation of the data. For example, Manitoba Education and Training, MPIC and the Social Planning Council of Winnipeg are setting up database of this kind.

¹ Information collected in relation to this field was not included in the data availability report (Appendix 5) due to the limited amount of information available for some variables and limitations of space.

All the data from Statistics Canada are in both hard and soft copy², but some of the other sources only have data in hard copy. Some of the annual reports do have their data tables both on hard and soft copy, for example the Canada Year Book. Most of these data are surveys conducted by private institutions and the news media in relation to the analysis and interpretation of a particular situation.

The City of Winnipeg stores data in both electronic and hard copy, however some data may only exist within various hard copy annual reports or reports provided by outside sources and may not be contained in any formal electronic database.

Some government departments do not have their data in a user friendly format, and this makes it difficult and time consuming to interpret and analyze their data. For example, understanding the air quality data from Manitoba Environment requires in-depth understanding of a coding system.

Several government departments and institutions do not have any mechanism in place for storing their data and have no future plans for doing so. They continue to store their data on punched cards, magnetic tape/discs, microfilm, etc. When a study is over, the departments responsible for the data do not see the use in transferring/transforming the data to be easily accessible by modern computer technology. This makes it difficult to get access to these data, which could help with determining historical trends on some of the issues in measuring quality of life.

Some data files are very large and complex, and require familiarity with the program being used. For example the Winnipeg Area Survey data is stored on the University of Manitoba Dafoe Library UNIX directory. In this case some knowledge of statistical software is required to manipulate the files. Without in-depth familiarity with this software and if only a few data sets are required, one would find it easier to work from a printed version. In at least one government department staff changes combined with inadequate database documentation have limited the ability of staff to extract information from the database and reduced the usefulness of the collected information.

Geographic Coverage

About 90% of data from Statistics Canada are on national, provincial/territorial levels, and not broken down by individual communities. Most of the data from Statistics Canada that covered Winnipeg are census related. Although other sources do have data on Winnipeg, most of these are surveys for specific periods. Geographic coverage of data collected by City departments varied.

The scale at which City departments collect data is currently **not coordinated**. Some data may be collected at the neighbourhood level and others may not. Scale will also have influence on how the City of Winnipeg reports on quality of life. Many important observations, trends, or issues may be lost by reporting on a city wide basis and may not

² Hard copy refers to data found in a document or report that is available on paper. Soft copy refers to data stored in some form of computer database system or format.

be effective in illustrating sub-city trends. At the same time there may be instances where trends may not be suitable for reporting at a larger scale such as local water quality data.

The use of Statistics Canada data about Winnipeg has been complicated by the fact that their interest is in Census Metropolitan Areas (CMA) and not in specific cities or communities. For example, since 1993, census division 11 is Winnipeg and Headingly combined not just Winnipeg. The only way to get around this problem is by subtracting the population of Headingly from Winnipeg and doing the other calculations accordingly. In cases where data is not available on a census district basis, the only other approach possible is to break down provincial scale and apply these to Winnipeg. Since these statistics represent provincial averages, the accuracy for Winnipeg varies with the data used, and making the adjustment may be difficult because of technical and resource constraints.

Restrictions

Access to some databases other than Statistics Canada may be restricted.³ Also there are restrictions in acquiring data from the universities since these are meant for students, staff and faculty members only. In order to access the Data Library Services at the University of Manitoba a University of Manitoba UNIX account is required. This makes it difficult for the public without any link to the University to access the database.

Discussions with several institutions and agencies indicated a reluctance to provide information for political reasons.

Cost

Most organizations do not collect and store their data because of cost⁴, and they prefer Statistics Canada to do so. The main reason for this is that they do not have adequate funding for this purpose. Most of the data collected are paid for by private organizations and are either confidential or restrictions are placed on their release.

There is a cost involved in acquiring data from Statistics Canada unless the data is obtained from CANSIM through the universities. There may be costs involved in acquiring data from some of the other major sources as well, especially those in soft copy. The cost is usually dependent on the time spent in retrieving the data. Statistics Canada is collaborating with universities and other institutions to make its data more accessible and cheaper to the public and researchers through a program that they called "Data Liberation in Canada".

³ Information collected in relation to this field was not included in the data availability report (Appendix 5) due to the limited amount of information available for some variables and limitations of space.

⁴ *ibid.*

Discussion

The data availability assessment revealed that there is a significant amount of data collected and stored by the City of Winnipeg's individual departments. This data as well as data from other sources can contribute to the development of a quality of life report for the City of Winnipeg. Although the specific type and quality of data was not identified in detail, the assessment indicated that many departments collect, store, manipulate and utilize data for management, decision making and service delivery activities. As a result many departments operate and maintain standalone databases and data management initiatives that are specific to their needs. The assessment also revealed that aside from departments developing and maintaining data collection activities, the City of Winnipeg also relies on many outside sources for meeting specific data needs, such as Statistics Canada, provincial organizations and professional consulting firms.

Linking different data sources and creating a database to archive all existing sources of quality of life data will provide a new opportunity for systematic review of existing work from a historical perspective. A common challenge faced by experts involved in quality of life or sustainable development measurement and reporting has been that time and resources rarely permit them to gather sufficient quantity and quality data to perform analysis. This was one of the major problems in the Manitoba State of the Environment Report 1997. The creation of a database or linking the sources of already collected data will help maximize the use of existing databases. In addition, almost all the organizations with which we had meetings were interested in the project, and would like a follow up meeting or a copy of the final report of the project. Some wanted to know how our stakeholder group was selected and why they were not part of the stakeholders group (e.g. MPIC). Some showed an interest in being a part of the Technical Advisory Committee if one is formed to help interpret and analyze their data (e.g. Manitoba Education and Training).

The definition of geographic scale and time period for any particular issue or indicator should depend on the context and accessibility of data. It is important to be flexible so that issues will be analyzed based on availability or potential availability of data. Statistical interpolation can also be used to complement some of the data sets that lack historic data provided we have adequate information to estimate values from the known ones in the same range. In the same way, extrapolation can also be used on some data sets that are not as recent or complete as expected. It is important to note that almost all of Statistics Canada data are time series data.

5.3. Data Management Issues

Methodological Issues

Data management is a generic problem that applies to all research and not just long-term monitoring. However, it is an especially serious problem when one is considering data sets that extend beyond a decade or more. Given the circumstances, forming a data management task group within the City of Winnipeg would represent major progress in

improving current and long term data collection and analysis on quality of life and sustainable development (SD).

Following are some specific issues regarding **methodology**, including how organizations define and collect specific data. These issues will all have some degree of impact on the outcome of developing a quality of life framework and respective indicators and measures.

Definition and classification of data varied among the different organizations and institutions (for example, there is a difference between the definition of a passenger on an airline and one on a bus). It is likely that there will be problems in reconciling units between different aspects being measured. This may hinder the ability to perform comparative analyses.

There are discrepancies in the **methods used to collect similar types of data** from different sources. For example, Statistics Canada gather their automobile accident record data directly from the police. The police collect their data based on reported accidents that cause more than one thousand dollars in damage or those that involve major bodily injury or death. However, similar data are collected by MPIC based on the number of reported claims. Therefore, the number of accidents recorded by MPIC is far greater than the number recorded by the police. If this kind of data is to be used, it is important to note both the source of the data and the method of data collection to avoid any ambiguities.

In most cases, **surveys** are used by data collection agencies. In many cases the definition of issues being surveyed are not harmonized, and while the data collection process is still in progress, the issues tend to change. This makes it difficult to determine long term trends. For example, the focus of some of the issues to be surveyed kept changing as the data collection effort progressed in the Probe Research Inc. and the Winnipeg Area Study (WAS) studies. Despite of problems like this, most of the surveys can serve as a baseline for future comparison especially the issues identified by stakeholders as important but which lack adequate data.

Many institutions collect the same data for **different objectives**. For example accident records from MPIC are mainly used for price setting to determine which types of cars are accident-prone and their impact on insurance rates. The same type of data from the Winnipeg Police Service, or Statistics Canada as a secondary source, can be used to determine the number of accidents occurring in a particular month or city. These two different sources of data can be used for comparative analysis. This type of comparison may help identify some **biases** in the data collection and interpretation.

Legislative changes are another source of difficulty. This is most noticeable in regards to licenses where regulations and requirements change periodically creating the need to convert data collected before and after any changes. Another area where this problem occurred was in regards to provincial protected lands, since government definitions and classification systems have been changed more than once. This has led to a difficult problem in the interpretation of any long-term assessment of protected land.

It was also observed in the data availability exercise that data often existed in an **uncollated form**. This requires searching through files manually and the creation of a periodic summary. This is a problem when one attempts to find out the number of applicants for some licenses. In addition, at least one government department has a database that was maintained over the years by a former employee. They have continued to add information to this database on a regular basis but the correct procedures to do the detailed queries required to fully access the information left with the employee. This points to the need to institutionalize data collection as a distinct responsibility.

Institutional and Organizational Issues

The assessment revealed that it is not clear to which degree City of Winnipeg departments currently interact with each other regarding information and data requirements, data communications and reporting, and planning and data management activities. In fact, such activities are largely independent and ad hoc at the present time with no overall corporate direction or corporate procedures evident. This is not to say that information does not get used for corporate reporting but that at present there are gaps in the utilization of data at the corporate level. Benefits of addressing corporate coordination of data management and reporting for the City of Winnipeg include: accessibility and awareness, reduction in data overlap, compatibility of data and databases, the fostering of decision making, and more efficient reporting and decision making mechanisms.

Although it often makes sense for City of Winnipeg departments to collect and maintain independent databases it is equally important that such data be available at a corporate level for many reasons. Possibilities for the integration of databases throughout City departments should be investigated as part of establishing proper data management and reporting mechanisms for a quality of life initiative.

Perhaps the most obvious **administrative problem** occurs in relation to the creation of new databases by the different organizations/departments/institutions. Who is to provide the impetus for the creation of a new database? Even where a well developed substantive need already exists, there are still problems in establishing new data archives in a way that will provide complete geographical coverage when combined with other existing databases. Criteria for establishing databases must clearly extend far beyond simple political boundaries. For example, a local watershed is a useful boundary for describing water quality and pressures that influence it.

Recent reorganization activities within the City of Winnipeg present an excellent opportunity to investigate corporate data management and communications structure. In addition, projects such as the Intra-net project currently being developed can contribute to potential products for such a structure. The Information Technology Services Division of the Corporate Services Department would also be a necessary leader of any such project.

Related Data Collection and Management Activities/Initiatives

In the City of Winnipeg, a mechanism currently exists whereby departments report on

annual accomplishments. Such a system presents opportunities with respect to data management and reporting for quality of life. Departments could be required to report on agreed upon trends in addition to their annual accomplishments. Such information could then be utilized to produce a quality of life report. A number of other related data collection and management activities and initiatives were identified.

- City of Winnipeg restructuring activities

Driven by the need to reduce fiscal constraints and improve efficiency of services, restructuring is the time for seeking opportunities, innovation and alignment. From this perspective, it will be important to review and possibly redefine relationships among and between units within the City of Winnipeg and reassign missions, roles and tasks. The key aspect will be for the City to increase its responsiveness to changing demands for services in the community that contribute to continued sustainable development and high quality of life. As such, it is important that the community's expression of quality of life be understood, and that efforts be explored to define relationships that contribute to integrating sustainable development principles into the new organizational structure.

- Management Reference Model

In November 1997 the City of Winnipeg initiated a project to develop a **business model** for the entire City of Winnipeg using a framework called the **Management Reference Model for Government Services (MRM/GS)**. This initiative will provide a framework for defining business functions of the City of Winnipeg in terms of services provided to the public. It also includes software that allows for the storage and analysis of such information. The information gathered from the project will support many of the City's business objectives, including business planning, organizational restructuring, performance measurement, information technology planning, program-based budgeting, and activity based costing. There are numerous possibilities to link the information obtained through MRM/GS to information required for a quality of life reporting framework. The input and output measures included in the MRM apply to the City of Winnipeg as an organizational entity. On the other hand, performance indicators in the quality of life framework measure overall outcomes for the community of Winnipeg as a whole, not only local government itself. Potential opportunities should be explored fully with respect to making the structure and function of the MRM/GS compatible with quality of life indicators and measures.

- Corporate Planning Framework

Activities such as the MRM/GS and quality of life reporting also lend themselves well to ongoing activities to **realign** the current **corporate planning framework**. This framework describes processes that are currently used to identify priorities, set budgets, and establish long term planning goals. It is unclear at this point in time how such a framework will evolve as a result of current reorganization activities. Nevertheless any future linkages and potential compatible activities should be

identified and explored in relation to a quality of life reporting framework. This is especially true with respect to what such a framework will require for data and information reporting.

- Data Management Systems

There are currently several data management systems operating or available within the City of Winnipeg and its community partners. Some of the more interesting systems that currently exist within the City of Winnipeg that have significant potential with respect to not only a quality of life reporting program, but also to many other initiatives such as MRM/GS, are the **Land Based Information System** and the **Map Info** software team. These systems currently provide input, storage and manipulation of data at a geographic level over time and allow for queries to be made on a wide array of data that traditionally would not have been addressed in concert with other information. Map Info can take data from the LBIS and display data graphically. Such a tool has a great deal of potential with respect to performance measurement activities including quality of life reporting. As such these systems should be investigated thoroughly as major data management components of any quality of life reporting program.

- City of Winnipeg Corporate Intra-net Initiative:

As discussed, many departments currently operate databases that store information specific to their requirements. These databases presently are not easily accessible to other departments or individuals that may need information contained in the database. The city has recognized the potential constraints that such a structure can produce and has initiated the development of a common, and easily accessible intra-net server to provide access to departments for information files and databases. The objective is to produce a forum whereby a coordinated corporate effort can be arranged around information and data. Departments would be able to contribute both data and information to the server and allow for obvious connections to be made. The quality of life framework could benefit from this project since coordinated access would be provided to data from many sources. Any future development of the intra-net should consider its linkages to the quality of life measurement system.

A number of organizations besides the City of Winnipeg are also involved in data management initiatives.

- Census Data Consortium

Due to a lack of available census data at the neighborhood level, several partners, headed by the Social Planning Council formed a **consortium to purchase special tabulations of census data** from Statistics Canada. The Consortium project led to the creation of a comprehensive demographic and socio-economic database for Winnipeg and its vicinity.

- Data Library Services at the University of Manitoba

This service was established in 1995 with support from the Academic Computing Department at the University of Manitoba. Its mission is to assist students, staff and faculty at the University of Manitoba in identifying, acquiring and manipulating data. These data are for non-commercial purposes only. It is expected that non profit organizations and institutions will be allowed to participate in the future. The Data Liberation Initiative which began in 1996 and provides Statistics Canada data to subscribing institutions and the Inter-University Consortium for Political and Social Research (ICPSR) provides access to thousands of data files, emanating from countries around the world.

5.4. Recommendations

The following recommendations address the current difficulties encountered in finding or accessing appropriate data for measuring quality of life in Winnipeg.

- **The City of Winnipeg should form a Data Management Task Group.** This working group should itemize and describe core data sets, to enhance harmonization for use in this project and other related projects and to find ways to improve data availability for the specific issues identified for measuring quality of life for the City of Winnipeg. Such a group would also enable the City of Winnipeg to address many of the issues identified above regarding related data collection and management activities and initiatives in a coordinated corporate wide fashion. Also this group should identify the departments that may be collecting data within the City of Winnipeg.

The Task Force will encourage Statistics Canada and other governmental agencies to include key quality of life issues/ questions on future censuses, and other surveys related to quality of life and sustainable development.

- **We recommend that the representatives of the City of Winnipeg meet with their counterparts on the provincial level to discuss the potential for establishing joint surveys on specific quality of life and sustainable development issues.** If feasible, it will be important to link the City of Winnipeg data sources to those of the Province of Manitoba. This will help determine the type of data available within the city and on the provincial level. In circumstances where City of Winnipeg data is not available for a particular issue, then province wide data could be used. This database can also be used for comparative analysis purposes.
- There is a need for local, provincial and national level **government** to become **financially involved** in the support of data collection agencies and groups. Acquiring data in Canada generally is very expensive and time consuming.

This is unlike the situation in the United States where accessing data can be both easy to obtain and inexpensive, since much of it is sponsored directly by the

federal government.

- The City of Winnipeg and the Province of Manitoba should assess their current data collection efforts for the elimination of duplications and deficiencies. The proposed data management task group could undertake this effort.
- The Task Group should organize **public opinion surveys** to collect data in areas where it is not available. Also survey and public opinion poll procedures should be conducted in areas where province wide data is used for city data to verify the result of the data analysis and help explain any discrepancies.
- The City of Winnipeg should form a Technical Advisory Committee to give comprehensive advice to the Data Management Task Group. Because of the complex aspects of measuring some quality of life issues, there is a need to seek advice regarding the acquisition of data, and to establish the reliability of what can be measured and aggregated. This will provide credibility to the process. Some of the members of this group should be experts from departments from which we are gathering data, since they may give input as to how to interpret and analyze their data.
- If there is more than one data source available with the same type of information for the indicator, one should make use of at least two or more of these sources. In that case one can check for discrepancies and also compare them.
- Those responsible for data storage should **use the most readable format** available. The Data Management Task Group should prepare recommendations for the City to update out-of-date storage systems. **More than one copy of data** should be kept.

To sum up, the data assessment initiative has revealed some difficulties and challenges facing the current data collection and management practices and in acquiring adequate data for measuring the quality of life in Winnipeg. It identified some of the major areas for which data are currently needed and in some cases the general approaches by which data can be obtained. There is a need for more work in terms of both the collection and management of data. This will invariably improve the measurement process.

We cannot predict the future without appropriate and adequate data to measure the present situation. Addressing the recommendations related to data availability will alleviate many of the difficulties that have been discussed. The implementation plan provides guidance for the next stage in moving towards quality of life reporting.

6. IMPLEMENTATION PLAN

The implementation plan is a series of activities intended to create a quality of life indicators measurement and reporting system in the City of Winnipeg. It builds on earlier stages of the Plan Winnipeg Review process and integrates the tasks completed in the

framework of the current agreement between IISD and the City of Winnipeg. In order to guarantee the success of quality of life reporting in the long term, necessary institutional capacities and responsibilities need to be identified. Core responsibilities rest with City of Winnipeg offices and officials, but there are specific roles for other levels of government, NGOs, residential groups and the private sector. Public participation and adequate communication of results to the public is very important to ensure the transparency and openness of the process. The implementation plan also takes into consideration the collaboration between the City administration and the Provincial government.

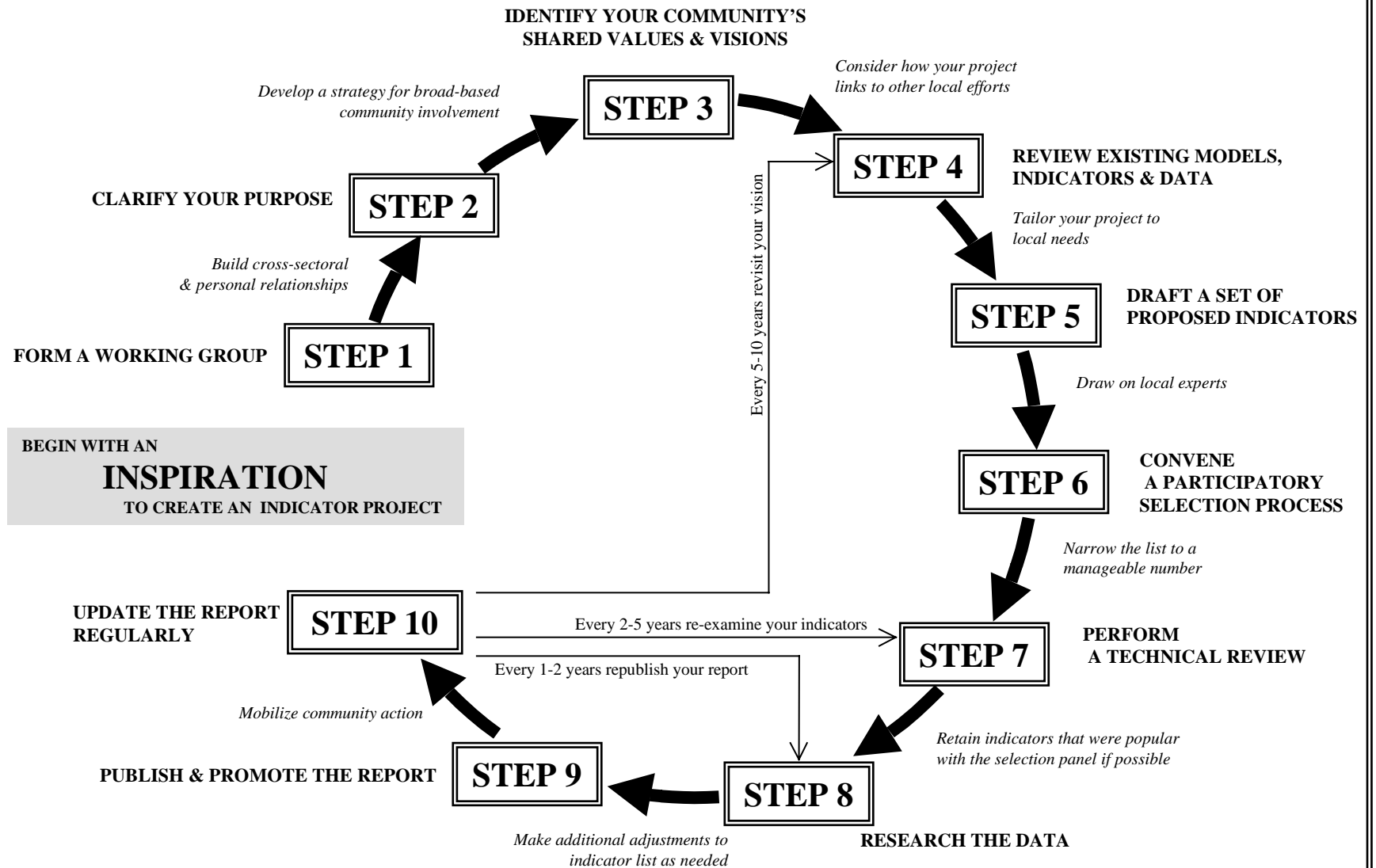
Given that the socio-economic and ecological foundations for quality of life but also the needs and priorities of Winnipeggers change over time, reporting on quality of life is an ongoing, cyclical process. Figure 5 provides an example of a general community indicator process based on the approach of Sustainable Seattle in the United States. The basic purpose of this cycle is to ensure policy makers as well as citizens receive adequate feedback to evaluate and, as necessary adjust their decisions related to quality of life issues. Identifying issues, creating and monitoring indicators, and developing institutional responses are essential components of this cycle.

Visualizing it as one cycle is useful, but it must be recognized that several sub-cycles underpin an effective measurement and reporting system. For example, preliminary indicator sets may need to be revisited as new data becomes available or new issues become important to the public or policy-makers. The objectives and periods of each cycle depend on a number of factors, such as the frequency of data collection, the availability of funding, the community's need to measure changes in quality of life, and the information needs of decision-makers. **Institutional and political support for achieving these objectives is essential.**

The lessons drawn from our own experiences with measurement projects on the local level, and from the sustainable development planning process of many local governments, summarized in The Local Agenda 21 Planning Guide of the International Council for Local Environmental Initiatives, support our emphasis on two primary activities that are critical factors for success:

- There is a need to dedicate resources for an organization to steward the implementation of the quality of life measurement and reporting process. The current organizational structures used for the planning process within the City of Winnipeg were created to respond to a different task. An organizational structure that directly reflects the tasks that are required to successfully implement the plans, with well defined responsibilities, authorities, capabilities and resources (both human and financial) should be put in place;

THE COMMUNITY INDICATORS PROCESS



Source: Redefining Progress, The Community Indicators Handbook, 1997.

FIGURE 5: Indicator Reporting Process

- The City government must integrate public input and stakeholder responses into the implementation plan and should keep communication open throughout implementation.

In the Data Availability Report we emphasized the technical and professional needs to make the quality of life reports comprehensive, compatible with stakeholders' needs, scientifically sound, statistically reliable, and easily communicable. A review of accessible databases, information resources and analytical capabilities is useful to understand current limitations and potential investment requirements. As the detailed recommendations have been described in Section 5, here we simply summarize the necessary steps to put these recommendations into practice.

The Implementation Plan identifies three major stages of the reporting process. Keeping in mind that the first stage of the implementation plan need not be repeated in full every time a quality of life indicator set and indicator report is compiled, the production of a quality of life indicators report should be repeated every 2-4 years. There is a need to revisit the framework and vision on a longer term periodic basis.

The *First Stage* focuses on the data collection and processing tasks, including the necessary institutional arrangements, feed-back loops to high level decision-makers, the creation of a database, as well as adequate data management, statistical and econometric analytical apparatus. This stage includes an iterative process for developing the quality of life indicator set, leading to the compilation of an indicator report.

The *Second Stage* consists of the writing of the full quality of life report that is based on the indicator report as its core, but complements it with an analysis of cross-cutting issues and trends. The quality of life report includes case studies to illustrate major trends identified and aggregate indices as appropriate.

The *Third Stage* focuses on the production, dissemination and use of the quality of life report. This stage includes a technical review, graphic design, and final editing. Details of the report release, dissemination and promotion are worked out in a marketing plan, including planning to ensure the report reaches key policy-makers.

The detailed implementation plan is as follows:

WORKPLAN

STAGE I

Preliminaries (done by the City of Winnipeg before September 1997)

Planning and preparations

- Consultation process
- Framework selection

Develop indicator set

- Analyze results of consultations
- Conduct data availability study
- Clarify methodology
- Draft first indicator set

Produce IISD's Report and Implementation Plan (done in partnership with IISD by March 1998)

Identify institutional responsibilities

- Approve institutional host of the Project, define responsibilities
- Confirm Technical Advisory Committee (TAC), clarify its role; select members; nominate contact persons for each participating department and agency
- Select editorial board and define Terms of Reference
- Establish Data Management Task Group, define its role, and set conditions for institutional memory
- Define report structure and Table of Contents
- Present work plan with time-line and budget to Executive Policy Committee, to relevant sub-committee of the Provincial Round Table (RT); get approval

Finalize plans

- TAC review of IISD's data report and implementation plan
- Finalize data collection and indicator plan; assign responsibilities
- Harmonize with SDCU of Province

Collect and process data

- Assemble data
- Evaluate data assembled; establish need for further data
- Econometric analysis of data
- TAC discussion of the results of data processing

Produce first draft of indicator report

- Compile indicator set
- Analyze trends
- Preparation for public discussions

Discuss draft report with focus groups

- Hold focus group meetings
- Use other channels for public input
- Present findings to RT

Produce second draft of indicator report

- Re-write first draft
- TAC discussion
- Identify topics for illustrative case studies (Box Stories)
- Contact groups/organizations to provide facts for case studies

STAGE 2

Develop quality of life report

- Apply Bellagio Principles to evaluate results of indicator report
- Analyze linkages and apply aggregation methods
- Prepare Box Stories for illustration
- Final methodology test

Write and edit the draft report

- First edit
- TAC review and second edit
- Selection of illustrations, graphical and photo materials
- Preliminary graphic design and cover
- Present results at RT and Executive Policy Committee meetings

Write and Edit Final Report

- External reviews and public input
- Final edit and design changes

STAGE 3

Publish Report

- Preparation for release report
- Media campaign
- Print and release report, both in soft and hard copy

Disseminate report

- Reach all relevant target audiences
- Set up interactive Internet site for better communication

Feedback Process

- Analyze feedback
- Channel feedback to relevant decision-making bodies
- Make suggestions for changes in future reports
- Make suggestions for necessary organizational changes

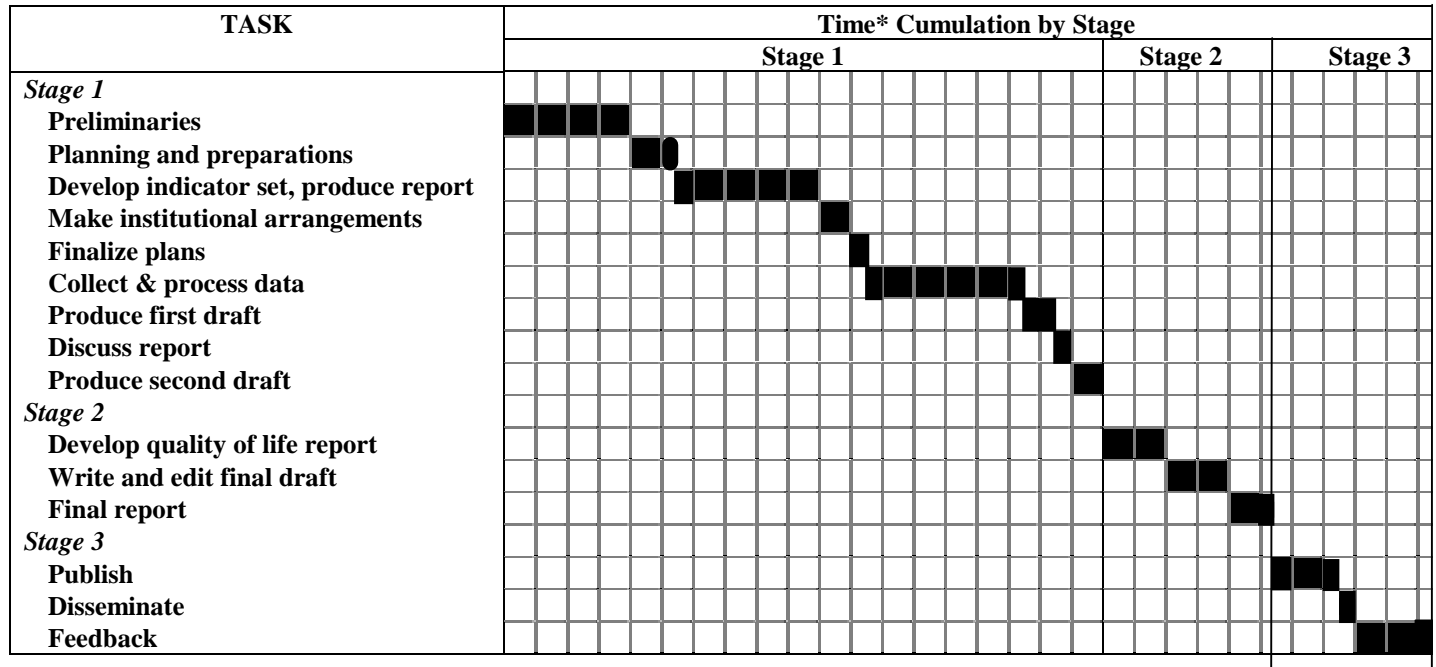


Figure 6: Work Plan

Approximately 29 months is needed, out of which 10 months work is already accomplished (from June 1997 till March 1998). The remaining task is doable in a little bit more than a year and a half after start with institutional arrangements.

* A cell represents 4 weeks.

Stakeholders

Project Team

Name	Organization	Address	City/Postal	Telephone	Fax
Gerry Couture	City of Winnipeg	510 Main Street	Winnipeg, Manitoba R3B 1B9	986-5107	986-5966
Andrew Cowan	City of Winnipeg	510 Main Street	Winnipeg, Manitoba R3B 1B9	986-2547	986-5966
Peter Hardi	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7731	958-7710
Juanita Huletey	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7738	958-7710
Valentina Kaltchev	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7726	958-7710
Charles Mrena	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7705	958-7710
Laszlo Pinter	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7715	958-7710
Jeff Turner	IISD	161 Portage Ave. E	Winnipeg, Manitoba R3B 0Y4	958-7738	958-7710
Joan Wiens	City of Winnipeg	510 Main Street	Winnipeg, Manitoba R3B 1B9	986-2574	986-5966

Focus Group Attendees

Name	Position	Organization	Address	City, Postal code
Mr. Bern Bileski	Director: Planning & Allocation	United Way of Winnipeg	3rd Flr. - 5 Donald Street	Winnipeg, Manitoba R3L 2T4
Ms. Marylin Brennen	District Manager Winnipeg	CIBC	P.O. Box 8 147th fl. - 1 Lombard Ave.	Winnipeg, Manitoba R3C 2P3
Mr. Ralph Bullock	Chair, Board of Governors	Red River Community College	c/o P.O. Box 246	Woodlands, Manitoba R0C 3H0
Ms. Christine Cowley		Canadian Parapalegic Association	825 Sherbrook Street	Winnipeg, Manitoba R3A 1M5
Mr. Roy Darke	Chair	City Centre Resident Advisory Group	608 Queenston Street	Winnipeg, Manitoba R3N 0X5
Mr. George Fuller		Winnipeg Art Gallery c/o U of M Faculty of Architecture	316 ARCH 2 Bldg	Winnipeg, Manitoba R3T 2N2
Ms. Carolyn Garlich		Council Of Women for Manitoba	133 Riley Crescent	Winnipeg, Manitoba R3T 0J5
Mr. Martin Hak	Chair	Downtown Biz c/o Levene, Levene & Tadman	7th fl. - 330 St. Mary Avenue	Winnipeg, Manitoba R3C 3Z5
Mr. Dave Hicks		DS-Lea Consulting Engineers	111-93 Lombard Avenue	Winnipeg, Manitoba R3B 3B1
Ms. Zana Joyce	President	Wolseley Residents	75 Ruby Street	Winnipeg, Manitoba

Name	Position	Organization	Address	City, Postal code
		Association		R3G 2E1
Mr. John Kubi	Chair	EK/Transcona Resident Advisory Group	55 Menno Bay	Winnipeg, Manitoba R2K 3P2
Mr. Stephen Leahey	Executive Director	Manscett	435 Ellice Avenue	Winnipeg, Manitoba R3B 1Y6
Ms. Anne Lindsay		Manitoba Econetwork	#2-70 Albert Street	Winnipeg, Manitoba R3B 1E7
Mr. John Loewen		Winnipeg 2000 c/o C.T.I.-COMTEL	2nd Flr - 125 Garry Street	Winnipeg, Manitoba R3C 3P2
Mr. Remi Pajot	Board Member	Manitoba Safety Council	700-213 Notre Dame Avenue	Winnipeg, Manitoba R2H 0C4
Mr. Renald Remillard	Manager of Political & Legal Affairs	Société franco-manitobaine	212-383 Provencher Blvd.	Winnipeg, Manitoba R2H 0G9
Mr. Peter Squire	Director of Public Affairs	Winnipeg Real Estate Board	c/o 1240 Portage Avenue	Winnipeg, Manitoba R3G 0T6
Mr. John Sinclair		Natural Resources Institute	430 Dysart Road	Winnipeg, Manitoba R3T 2N2
Ms. Christine Common Singh		MRTEE	134 Westgate Avenue	Winnipeg, Manitoba R3C 2E1
Ms. Debra Jonnason-Young	General Manager	Eaton's Winnipeg Downtown	320 Portage Avenue	Winnipeg, Manitoba R3C 0C2

Stakeholder who can not attend November 6th meeting

Name	Position	Organization	Address	City, Postal code
Ms. Carol-Anne Borody	Chair of the Board	Winnipeg Chamber of Commerce	500-167 Lombard Avenue	Winnipeg, Manitoba R3B 3E5
Ms. Elizabeth Carlyle		University of Winnipeg Students Association	Rm OR30-515 Portage Avenue	Winnipeg, Manitoba R3B 2E9
Ms. Jane Chalmers	Regional Director	CBC Television	P.O. Box 160	Winnipeg, Manitoba R3C 2H1
Ms. Gloria Dixon		Age and Opportunity	200-283 Portage Avenue	Winnipeg, Manitoba R3B 2B5
Dr. Ertrice Eddy	Director	The International Centre	406 Edmonton Street	Winnipeg, Manitoba R3B 2M2
Ms. Helen Hayles	Executive Director	Volunteer Centre	3rd Flr. - 5 Donald Street	Winnipeg, Manitoba R3L 2T4
Mr. Wayne Helgason	Executive Director	Social Planning Council	412 McDermot Avenue	Winnipeg, Manitoba R3A 0A9
Mr. Glen Hewett	Chair	Riel Resident Advisory Group c/o East Area Section	552 Plinquet Street	Winnipeg, Manitoba R2J 0G1
Mr. Nicolas Hirst	Editor	Winnipeg Free Press	1355 Mountain	Winnipeg, Manitoba

Name	Position	Organization	Address	City, Postal code
			Avenue	R2X 3B6
Mr. Jeff Hnatniuk		Sport Manitoba	290 Main Street	Winnipeg, Manitoba R3C 4M2
Mr. Ernest Keller	Chairman	Forks Renewall Corporation	201-1 Forks Market Road	Winnipeg, Manitoba R3C 4L9
Mr. Koslowsky	Chair	Alliance of Manufacturers & Exports	50-1155 Gateway Road	Winnipeg, Manitoba R2G 1B9
Mr. Chris Lorenc	Executive Director	Manitoba Heavy Construction	1236 Ellice Avenue	Winnipeg, Manitoba R3G 0E7
Mr. Paul Moist	President	CUPE	702-275 Broadway Avenue	Winnipeg, Manitoba R3C 4M6
Mr. Derek Murray		Manitoba Association of Landscape Architects	131 Callum	Winnipeg, Manitoba R2G 2C7
Ms. Mary Richard	President	Aboriginal Council of Winnipeg	Rm. 112 - 181 Higgins Avenue	Winnipeg, Manitoba R3B 3G1
Mr. Riley		Investors Group	One Canada Centre 447 Portage Avenue	Winnipeg, Manitoba R3B 3H5
Mr. Casimiro Rodrigues	President of the Board	Folklorama	300-180 King Street	Winnipeg, Manitoba R3B 3G8
Mr. Bob Stevens	Executive Director	Manitoba Restaurant & Food Services Association	201-698 Corydon Avenue	Winnipeg, Manitoba R3M 0X9

Survey Participants

Name	Position	Organization	Address	City/Postal	Telephone	Fax
Dr. Ertrice Eddy	Director	The International Centre	406 Edmonton Street	Winnipeg, Manitoba R3B 2M2	943-9158	
Mr. Daniel Boucher	Executive Director	Société franco-manitobaine	212 - 383 Provencher Blvd	Winnipeg, Manitoba R2H 0G9	233-4915	
Mr. Ralph Bullock	Chair, Board of Governors	Red River Community College	c/o P.O. Box 246	Woodlands, Manitoba R0C 3H0	204-383-5226	204-383-5268
Mr. Roy Darke	Chair	City Centre Resident Advisory Group	608 Queenston Street	Winnipeg, Manitoba R3N 0X5	489-2062	

Mr. George Fuller		Winnipeg Art Gallery c/o U of M Faculty of Architecture	316 ARCH 2 Bldg	Winnipeg, Manitoba R3T 2N2	474-9386	474- 7533
Mr. Martin Hak	Chair -	Downtown Biz c/o Levene, Levene & Tadman	7th flr-330 St. Mary Avenue	Winnipeg, Manitoba R3C 3Z5	943-5706	
Mr. Glen Hewett	Chair	Riel Resident Advisory Group c/o East Area Section	552 Plinquet Street	Winnipeg, Manitoba R2J 0G1	257-2062	
Mr. Dave Hicks		DS-Lea Consulting Engineers	111-93 Lombard Avenue	Winnipeg, Manitoba R3B 3B1	943-3178	
Mr. Jeff Hnatiuk		Sport Manitoba	290 Main Street	Winnipeg, Manitoba R3C 4M2	925-5601	
Mr. Ernest Keller	Chairman	Forks Renewal Corporation	201-1 Forks Market Road	Winnipeg, Manitoba R3C 4L9	943-7752	
Mr. John Kubi	Chair	EK/Transcona Resident Advisory Group	55 Menno Bay	Winnipeg, Manitoba R2K 3P2	661-2762	
Mr. Stephen Leahey	Executive Director	Manscett	435 Ellice Avenue	Winnipeg, Manitoba R3B 1Y6	942-7519	
Mr. John Loewen		Winnipeg 2000 c/o Comcheque	125 Garry Street	Winnipeg, Manitoba R3C 3P2	944-2000	
Mr. Chris Lorenc	Executive Director	Manitoba Heavy Construction	1236 Ellice Avenue	Winnipeg, Manitoba R3G 0E7	947-1379	
Mr. Paul Moist	President	CUPE	702-275 Broadway Avenue	Winnipeg, Manitoba R3C 4M6	942-1001	
Mr. Derek Murray		Manitoba Association of Landscape Architects	113 Callum	Winnipeg, Manitoba R2G 2C7	663-4863	
Mr. Casimiro Rodrigues	President of the Board	Folklorama	300-180 King Street	Winnipeg, Manitoba R3B 3G8	982-6210	943- 1956
Mr. Peter Squire	Director of Public Affairs	Winnipeg Real Estate Board	c/o 1240 Portage Avenue	Winnipeg, Manitoba R3G 0T6	786-8854	
Mr. John Sinclair		Natural Resources Institute	430 Dysart Road	Winnipeg, Manitoba R3T 2N2	474-8374	261- 0038
Mr. Bob Stevens	Executive Director	Manitoba Restaurant & Food Services Association	201-698 Corydon Avenue	Winnipeg, Manitoba R3M 0X9	475-6660	
Ms. Carol-Anne Borody	Chair of the Board	Winnipeg Chamber of Commerce	500-167 Lombard Avenue	Winnipeg, Manitoba R3B 3E5	944-8484	

Ms. Marylin Brennen	District Manager Winnipeg	CIBC	P.O. Box 814, 7th flr-1 Lombard Ave.	Winnipeg, Manitoba R3C 2P3	944-5200	
Ms. Elizabeth Carlyle		University of Winnipeg Students Association	Rm OR30 - 515 Portage Avenue	Winnipeg, Manitoba R3B 2E9	786-9781	783- 7080
Ms. A. Mcilraith		Canadian Parapalegic Association	825 Sherbrook Street	Winnipeg, Manitoba R3A 1M5	786-4753	
Ms. Zana Joyce	President	Wolseley Residents Association	75 Ruby Street	Winnipeg, Manitoba R3G 2E1	774-5458	
Mr. Bern Bileski	Director (Planning & Allocation)	United Way of Winnipeg	3rd flr-5 Donald Street	Winnipeg, Manitoba R3L 2T4	477-5360	453- 6198
Ms. Anne Lindsay		Manitoba Eco- network	#2 - 70 Albert Street	Winnipeg, Manitoba R3B 1E7	947-6511	
Mr. Remi Pajot	Board Member	Manitoba Safety Council	700-213 Notre Dame Avenue	Winnipeg, Manitoba R2H 0C4	943-0721	
Ms. Mary Richard	President	Aboriginal Council of Winnipeg	Rm 112 - 181 Higgins Avenue	Winnipeg, Manitoba R3B 3G1	989-6380	
Ms. Carolyn Garlich		Council of Women for Manitoba		Winnipeg, Manitoba	452-9017	
Ms. Christine Common Singh		MRTEE	134 Westgate Avenue	Winnipeg, Manitoba R3C 2E1	775-1144	772- 6688
Ms. Debra Jonnason-Young	General Manager	Eaton's Winnipeg, Downtown	320 Portage Avenue	Winnipeg, Manitoba R3C 0C2	957-6011	
Mr. Wayne Helgason	Executive Director	Social Planning Council	412 McDermot Avenue	Winnipeg, Manitoba R3A 0A9	943-2561	
Mr. Nicolas Hirst	Editor	Winnipeg Free Press	1355 Mountain Avenue	Winnipeg, Manitoba R2X 3B6	697-7355	
Ms. Jane Chalmers	Regional Director	CBC Television	P.O. Box 160	Winnipeg, Manitoba R3C 2H1		
Ms. Gloria Dixon		Age and Opportunity	200-283 Portage Avenue	Winnipeg, Manitoba R3B 2B5	956-6440	
Ms. Helen Hayles	Executive Director	Volunteer Centre	3rd flr. - 5 Donald Street	Winnipeg, Manitoba R3L 2T4	477-5180	284- 5200

**Minutes with general questions and answers - First Focus Group Meeting at IISD
(November 6, 1997)**

**PLAN WINNIPEG REVIEW
1997/1998**

MEASURING PROGRESS TOWARD THE VISION

First Focus Group Meeting

MINUTES

November 6, 1997

**International Institute for Sustainable Development (IISD)
Canada Board Room
7th Floor, 161 Portage Avenue East
Winnipeg, Manitoba
Tel: 958-7700**

Participants: There were a total of 29 attendees including IISD and the City of Winnipeg staff. 20 participants represented different communities and interests of the city. Appendix 1 is the listing of the focus group participants.

Introduction: Peter Hardi (IISD) outlined the day's agenda and the objectives of the meeting. A brief overview of IISD and the Measurement and Indicators Program was given and a short review of the Manitoba State of Environment Report was outlined.

Vision for the City of Winnipeg's Future: Gerry Couture briefly outlined the vision of the city, what they expect from this project and the possible transition to Sustainable Development Reporting. He also talked briefly on Plan Winnipeg and its importance in building a better city for its residents by measuring progress towards the vision.

Objectives and Mechanics of the Process: Peter Hardi used a flow chart (see Appendix 2) to describe the process to be adopted at the meeting, explaining each stage of the flowchart as it relates to the project. He also introduced the conceptual framework adopted in the Manitoba SOE report to explain and describe the framework of quality of life for the City of Winnipeg. The categories were Urban Environment, Human Made Capital, Community Assets and Human Well-being.

Laszlo Pinter briefly outlined the mechanics of the process (individual brainstorming, joint discussion and scoring) to be used during the meeting.

General Questions/Answers: There was an open discussion, mainly questions from the stakeholders. The following are some of the several questions from the stakeholders. Peter Hardi and Gerry Couture responded to the questions.

- Has any city in Canada done this type of work?

Answer: No city or province in Canada has undertaken any measurement initiative of this kind. There was a brief discussion about Sustainable Seattle as one of the first cities to start something like this although not the same, but still they have not aggregated their indicators. *(Peter Hardi)*

- Are there any mechanism in place to link the cities and countries that have started these initiatives?

Answer: Yes, but not really on Sustainable development rather on Agenda 21.

- Is the stakeholder group at this meeting a good representation of Winnipeg? What criteria were adopted in selecting the stakeholders?

Answer: No, since we can not accommodate everybody, however we tried to invite about 40 people. Some of them could not make it because of time limitation on most part. Also we will put the findings and result on the Web Site for Public input. *(Peter Hardi)*

- Does the 300 indicators in Plan Winnipeg describe the vision of the City of Winnipeg?

Answer: These are issues of importance to the communities in Winnipeg, and we may need to measure them some time to determine their direction if data are available. *(Gerry Couture)*

- What Boundaries is the vision based on?

Answer: The City government specified the boundaries as those of the City of Winnipeg proper. IISD has no say in this; much depends on what has been defined by the City to measure. *(Gerry Couture, Peter Hardi)*

- Has any measurement been done on the 300 indicators identified in Plan Winnipeg

Answers: No, these are not really indicators, just statement of important issues that we have to consider when making decision. *(Gerry Couture)*

After the general question and answer session, the plenary group was broken up into two smaller groups of ten participants each. Generation and listing of first set of issues, clarification of the suggestions as well as the individual ranking of issues was done by each of these groups. Laszlo Pinter and Peter Hardi facilitated the small group meetings; Juanita Huteley and Chuck Mrena were the rapporteurs.

After lunch the results of the brainstorming sessions were presented, firstly by Laszlo Pinter,

then by Peter Hardi. However, before re-ranking of the issues by the plenary a major discussion evolved. Many participants felt that there was no sufficient time left for regrouping the issues, eliminating overlaps and providing justification for selection. At this point several of the participants suggested that the session should be adjourned until the two lists were combined and the next step in the process is identified. The group as a whole agreed to this suggestion and the session was ended. Peter stated that the combined list with proposed sub-categories for clearer view of the issues would be sent to the participants for review. To aid the process, the City of Winnipeg's "Plan Winnipeg" document was made available to participants. Representatives of the City accepted a suggestion to review all recommendations of previous community involvement in the Plan Winnipeg process. IISD will compare those issues with the present selection and present to the participants.

The participants were requested to provide feedback after they got the documents from IISD. It was agreed that the next meeting would take place in the new year.

**PARTICIPANT COMMENTS
AND SUGGESTIONS/ADDITIONAL ISSUES
FOR THE SURVEY**

Participant survey #1

1. Add another issue to Land use management regarding statutory provision for citizen input into land use planning
2. Add another issue to infrastructure and services regarding maintenance and renewal of infrastructure and services.
3. All of issues under employment were indicated as important.

Participant survey #2

1. Social services which are neither government or do not fall in categories of recreation (e.g. youth drop in programs, seniors services, all types of social services provided by non-profits, voluntary organizations, which include a staff and volunteer delivery model)
2. Add another issue to Municipal finances regarding financial management with a focus on spending.
3. Under Community assets comments regarding community based social services should be sub-category of recreation, culture, education etc are being used. Winnipeg has a significant and very critical system of resources provided by this sector and exclusion, while inclusion of other sectors, would be viewed as a statement of lack of importance.
4. Add another issue to wealth sub category regarding the ability to purchase basic needs through employment, e.g. % of income for basic needs.

Participant survey #4

1. Add another issue under government services regarding responsive and effective political leadership.

Participant survey #5

1. Add another issue under land use management regarding building on neighbourhood uniqueness and strength
2. Add another issue under municipal finances regarding spending on arts groups vs. social spending.

3. Add another issue under culture arts & entertainment regarding affordability of events.
4. Add another issue under education for community assets regarding special education needs - integration, student support.
5. Add another issue under education for individual well-being regarding opportunities for on going education.

Participant survey #6

1. Add another issue under municipal finances regarding spending priorities.

Participant survey #7

1. In general, notes that the problem which affected the workshop has not been cured - Too many issues are subsets of one central issue, but carry same weight. If this problem is not resolved it will be difficult to get a meaningful result.
2. In the Urban Environment Category drinking water will become a future issue.
3. In the Urban Economy category - too many issues are only slight variations of the same major issue.
4. In the Community Assets category add zoning. Many issues listed are almost identical to many issues; some are covered elsewhere. Integration of City and Provincial gov't programs and vision needed.
5. In the Individual well being category issues listed are duplicates, issue 5 does not belong.
6. Add zoning to Community assets under the housing sub - category as an issue.
7. Add another issue under recreation and leisure, issue #5 from land use management.
8. Add another issue under education in the community assets category regarding primary/secondary education quality.
9. Add another issue under neighbourhoods regarding community clubs.

Participant survey #8

1. Add another issue under community assets, education regarding the efficiency and accountability of the system.
2. Add another issue under individual well being, health regarding efficiency of health care delivery.

Participant survey #9

1. As we move forward into the future, I believe that our success as a City is dependent upon our ability to tap into global economics. In order to accomplish this, we require
 - Strong focused leadership.
 - A big picture framework for our City that all future decisions are made against.
2. I believe that if we as a collective community can not think big and opt instead for maintenance of the status quo, we will continue to deteriorate as a City.
3. Add another issue under Urban economy, municipal finances regarding the over reliance of revenue generation by the public v. private.

Participant survey #10

1. Add and responsibilities to the definition on citizenship under the community pride and leadership category.
2. Stop urban sprawl.
3. Under consumption and conservation issue # 7 encompasses #s 1,2,3,5,and 6.

Participant survey #11

1. Add another issue to land use management under urban environment category regarding the regulation of building height to ensure access to sunlight.
2. Under government services issue # 18 universal access includes to all citizenry, young, old or ethnic etc.
3. Under people in the community assets sub-category comment that ideally it would be possible to live rurally and possible to live in city depending on choice.
4. Add another issue under safety, individual well-being regarding children protected from emotional, physical traumas of hunger, cold, violence, parental preoccupation with survival.
5. Add another issue to education under individual well-being regarding life long learning.
6. Add another issue to citizenship under community leadership and pride regarding trust in positive outcomes.

Participant survey #12

1. Under individual well-being the term wealth should not be used must find another term to describe this issue.
2. Under government services in the community assets category all issues are critically important and very difficult to rank.

Participant survey #13

1. Add another issue under land use management regarding equitable system of taxes/user fees (i.e. for more effective management of sprawl/accessibility).
2. Add another issue under infrastructure and services regarding green space/ quality of urban landscape.
3. Add another issue under vitality regarding investment, local.
4. Under people migration requires more people in less people out.
5. Add another issue to wealth regarding discretionary income (personal disposable income)

Participant survey #18

1. Ecological footprint contains many of the categories listed.
2. Under housing add the issue of safety.
3. Under recreation and leisure add the issue of open spaces.
4. Under wealth add the issue getting by.
5. After reading the survey there is room to boil down the framework a bit by focusing on the language used to establish a sound framework that can then go out to more groups and be added. There is considerable overlap.

CITY OF WINNIPEG PROJECT:

DATA AVAILABILITY ASSESSEMENT WORKPLAN

OBJECTIVES/GOALS:

The objective is to assess data availability based on the “Indicator Framework Survey” and to produce a final report regarding findings, problems and difficulties. The mandate is to develop appropriate indicators based on the availability of data; this will help resolve some of the major data problems experienced in SD research project. We are also interested in knowing the type and format of data available, and whenever applicable we may collect and stored the data for future reference.

PROJECT SCOPE

Tools/Activities:

- Create a folder under the shared drive mainly for the data availability assessment report (this will only be available for IISD staff).
- If feasible create a database to store available data sets.
- A table/database with all the necessary information about each data set.
- Any data retrieved should be stored both in hard and soft copy.
- Document all problems and difficulties in obtaining the necessary data.

Focus Of Data Assessment

- Category/Sub category (relevance of database on the “Indicator Framework Survey”)
- Data source
- Summary description of data
- Name/Phone of department or contact person
- Time period of data/record
- Unit of measurement
- Frequency(e.g. monthly, quarterly, annually)
- Data collection method
- Data storage format (e.g. Hard copy, soft copy - tape, floppy disk, IBM format, Mac format, Mainframe, spreadsheet, Database, text etc.)
- Geographic coverage
- Restrictions/conditions
- Cost/Price of Information

Key Data Sources

- Major government statistical departments and agencies
- Publications (e.g. SOE Report, Statistical Record of the Environment, Economic and Social Journals, Annual Reports, Year Books etc.)
- Other private and public organizations and institutions (e.g. NGOs, Social Planning Council of Winnipeg, Urban Studies Institute, Prairie Research Associates, Research Institutions, Surveys etc.)
- News Media (e.g. Free Press)
- Libraries (e.g. Dafoe - Periodicals Section)
- Business (Financial Institutions, Insurance Companies, Real
- Estates Agencies
- Individuals (e.g. Professors, Graduate Students, etc.)