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***Valuing Environment: Opportunities for Introducing Environmental Criteria into the
Municipal Development Approval Process at the City of Edmonton***

by:

Grace Irene de Jong

A Practicum

Submitted to the Faculty of Graduate Studies

in Partial Fulfillment of the Requirements for the Degree of

Master of City Planning

Department of City Planning

University of Manitoba

Winnipeg, Manitoba

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**VALUING ENVIRONMENT: OPPORTUNITIES FOR INTRODUCING ENVIRONMENTAL
CRITERIA INTO THE MUNICIPAL DEVELOPMENT APPROVAL PROCESS AT THE CITY
OF EDMONTON**

BY

GRACE IRENE DE JONG

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of
Manitoba in partial fulfillment of the requirement of the degree
of
MASTER OF CITY PLANNING**

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Valuing Environment: Opportunities for Introducing Environmental Criteria into the Municipal Development Approval Process at the City of Edmonton

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ABSTRACT

One of the issues affecting the process of land use planning and development is environment, and more specifically, environmental assessment. It is acknowledged that development proposals, traditionally initiated by the development industry, have a variety of impacts on the way land is used. These proposals were formerly reviewed by approving bodies from a physical design or land use perspective and evaluated primarily on the economic merits of the proposal. These proposals may not only impact land, but also air quality, water quality and ecosystems. The last two decades have seen the emergence and increasing marketability of new styles of land development. Whether referred to as green, sustainable or environmentally sensitive, these new approaches have one common characteristic; they are designed and marketed to better balance environmental protection with economic return.

The issue of incorporating environmental criteria within a development approval process should be of importance to all municipalities. Firstly, environment is a current issue as the municipality acts as a regulatory agency for the public good. As such, it should demonstrate environmental leadership, not simply react to proposals from the development industry, which often promotes the preservation of nature as a marketing feature. Approving bodies tend not to consider environmental factors with the same regard as economic or social factors. Municipalities should also be incorporating issues of environment to comply with superior legislation, to be good corporate citizens, to reduce liability (or the potential for liability), to comply with the public interest and to reduce long-term development and operating costs.

Land has predominantly been viewed as a commodity, resulting in a utilitarian and market perspective to land use. Society also has, however, an ethical duty to the environment. How does a municipality demonstrate that it values environment through its approval processes, and how have other municipalities addressed this issue? The City of Edmonton has a system of well-developed approval processes in place to include environment as a decision making criterion. What opportunities exist for incorporating environmental criteria into an existing process and if so, where could these criteria be best incorporated?

The study concludes that there is a desire by administration and the development industry to be more innovative in development patterns, but that a supporting environmental philosophy from council and senior management is missing. A lack of consistent terminology regarding environment is another key impediment to change.

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This paper is dedicated to my grandparents Eize (d. 1991) and Geertje de Jong.

The positive consciousness of the fact that art is something which, although produced by human hands, is not created by these hands alone, but something which wells up from a deeper source in our souls.

- Vincent van Gogh

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1.0 INTRODUCTION

In order to contribute fully to the advancement of sustainable development, environmental assessment must become more than an institutionalized process of senior governments... It should be seen and used as a problem-solving tool by local municipalities, community and interest groups, and small business and industry.

- Sadler and Jacobs, 1990, CEARC

1.1 Introduction

Chapter One introduces the practicum context, the problem context (including research and data collection methods), as well as the analysis and approach used. It also provides an outline of the chapters in the report. For the purpose of this discussion, environment shall be defined as:

The components of the earth and includes:

- i) air, land and water;
- ii) all layers of the atmosphere;
- iii) all organic and inorganic matter and living organisms; and, the interacting natural systems that include components referred to in subclauses i to iii (*AB Environmental Protection and Enhancement Act*).

1.2 Practicum Context

This practicum has three main components. Firstly, the practicum reviews current literature and theory relating to environment, land development and land use planning for select Canadian municipalities to identify the primary issues, trends and opinions relating to environment. Secondly, the practicum reviews the current planning and development processes at the City of Edmonton and identifies opportunities to further incorporate environment within the existing process. Finally, recommendations for the City of Edmonton are presented and responses from the public and private sector are reviewed.

1.3 The Problem Context

1.3.1 The Research Context

The general research objectives of this practicum are to:

- Investigate related planning literature to discover applicable theory;
- Examine practical examples, related precedents and current initiatives from other jurisdictions;
- Review and detail existing processes, procedures, and policies specifically relating to the City of Edmonton's development and planning practice on environment; and,
- Achieve a synthesis that might better inform local planning practice at the City of Edmonton while providing timely and relevant material on an increasingly important development issue.

1.3.2 *The Practical Problem*

The practical problem focuses on the City of Edmonton's interests relating to the following:

- The need for research into current issues and trends relating to environmental assessment and how these could be incorporated into existing planning systems;
- The need to define the basic history and processes relating to land development at the City of Edmonton to examine the potential for change;
- To have a better understanding of the mandate and objectives of environmental management systems at other Canadian municipalities;
- Identify policy priorities in terms of the City of Edmonton's environmental programs; and,
- Remain current with environmental law and planning practice.

1.4 Study Approach, Methods and Limitations

An exploratory case study method was used to define environmental assessment realities in major Canadian urban centres along with a qualitative analysis. Principal limitations of the case study include:

- An emphasis on current statutes, rather than a broad historical analysis;
- Primary data collection was limited to telephone and in-person interviews and discussion with pertinent planning staff at select Canadian cities;
- The associated literature review was limited to post 1980 material given the rapidly changing legislative aspects of environmental assessment and the newness of the topic; and,
- Financial implications of the recommendations were not possible to quantify within the context of this discussion.

1.4.1 Data Collection Methods

Primary data were gathered from discussions with eight planning and development staff from select public and private sector sources. Secondary data were gathered from various Internet sources (using corporate websites) and government publications.

The following research methods were employed:

- Networking with planning officials in various Canadian municipalities to access relevant policy materials;
- Semi-structured interviews with select individuals involved in the land development and planning fields in the Edmonton region;

- **Review of applicable literature pertaining to environmental assessment and civic policy from various sources, including the internet; and,**
- **Direct participant observation, involvement and discussion as a professional planner for over six years, currently with the City of Edmonton Planning and Development Department, formerly as a Project Manager with a national land development company, as a Planning Consultant, and as a Community Development Worker with the City of Winnipeg Community Services Department.**

The literature review focused on the following:

1. **Land use, sustainable development and urban development theories;**
2. **Review of current legislation, both at the provincial and municipal levels, relating to environmental assessment and land use planning; and,**
3. **Current City of Edmonton policies, procedures, guidelines and initiatives relating to environment.**

1.4.2 *Analysis Approach and Procedures*

Land use development control processes, as overseen by municipal governments, are an ideal means through which to accommodate procedures associated with environmental assessment and could provide for the assessment of both public and private development initiatives. The development approval process at the City of Edmonton is well-established through defined protocol and precedent. As with many institutionalized procedures and practices, there is, theoretically, little room for political

interference and confusion. The current reality is that the environmental assessment process is 'ad hoc' and separate from the development approval process. Environmental assessment is not currently a requirement for all new, private sector developments within the City of Edmonton. As a result, environmental criteria are not consistently considered within the current development approval process.

Land use planning and environmental assessments are often "conducted in parallel processes (sic) with little consolidation or co-ordination" (Perks *et al.* 1996a: 1). As a result, a number of redundancies and looping of efforts, system frictions and inefficiencies, and unnecessary expenditures can occur. These give rise to municipal and provincial concerns regarding the management and the practices of environmental assessment. The professional planners charged with processing development proposals and land use applications are often caught between an over-burdened bureaucracy with little room for innovation and a development industry always pushing for speedy and predetermined / expected outcomes in which to maximize profits and continue to satisfy a continual consumer demand for more of the same.

The development industry has also complained that an overly regulated planning control and development implementation system stifles innovation, strengthening the trend toward deregulation and liberalization of markets. This places increasing pressure on the municipal planning system for changes in the

norms of practice and standards of development performance. The pressure to continue to develop traditional, low density residential communities was reinforced by the development industry when the City of Edmonton was told in a key message from KPMG, an international management consulting firm, in 1998 that it was critical for the City to continue the development of policies and strategies to stimulate real growth in the property tax base (UDI 1998: 4). The long-term development impacts (including cost implications) of continuing with a traditional neighbourhood pattern, however, were not discussed.

Sustainable development, combined with an increased awareness of, and concern for, the environment is another concept impacting municipal planning systems in Canada, though perhaps less directly at this time than other factors. Components of sustainable development are important to remember when discussing the incorporation of environmental criteria within the urban planning system, as the majority of land development in Edmonton occurs on greenfield sites.

Demands by insurance and financial institutions upon senior decision-makers, directors and municipal corporations to manage potential environmental risks are another reality. These risks can be mitigated at the planning stages of development, thus preventing and anticipating potential problems (social, environmental and economic).

One of the most compelling reasons for municipalities to further integrate environmental criteria into decision-making processes is

the restructuring of government and downloading of environmental responsibilities onto municipalities. These changes must be seen as environmental opportunities to enhance the decision-making processes. There seems to be no desire, according to Perks *et al.*'s research, to strengthen legislation or increase the regulations or requirements relating to development by either provincial governments or industry, so it is up to the municipality to initiate integration).

The study completed by Perks *et al.* in 1996 was initiated by the Intergovernmental Committee on Urban and Regional Research (ICURR) and arose from ICURR's concern that planning and environmental assessments were being conducted in isolation of each other in the Canadian context. Perks *et al.*'s work focused on the following tasks:

- Established current practices and concerns;
- Canvassed the views of those involved; and,
- Analyzed their findings in the broader context of contemporary social, economic and political trends.

Environmental criteria may not be well established, well publicized or consistently honoured and, therefore, may be open to management discretion or political interference, resulting in a dissonance of normative values in the system (Perks *et al.* 1996a: 7).

There are often vast discrepancies between the views of the private consultant and senior public official. Perks *et al.* attempt to rationalize these discrepancies by stating that these codes may be

merely management policy (and not an established code of practice), that the practices may not be well publicized or consistently honoured, or that the process may be informal or a low-priority policy, thus subject to management discretion in its application and use. This situation can result in uncertainty for the development industry.

Currently, impact and other types of assessments mainly provide checks and balances on the municipal planning system, and are not used effectively to screen and identify predictive statements for enhanced decision-making (Perks *et al.* 1996a: 92). Driving forces behind the implementation of an effective environmental management strategy include issues of both increased regulations and liability.).

The 1994 and 1996 KPMG *Canadian Environmental Management Surveys* revealed some interesting statistics. KPMG, an international management consulting firm, undertook two surveys to find out how environmental considerations (and the management of environmental risks and issues) had impacted Canadian organizations, including municipalities, hospitals, universities and school boards. The two goals of the studies were:

- To identify trends and changes in the approaches to environmental management; and,
- To provide benchmark information to organizations struggling to manage environmental issues (KPMG 1996: i).

The Surveys stated that for 95% of respondents, compliance with regulations on environmental issues was the highest-ranking motivating factor. A fear of prosecution for environmental infractions (non-compliance) was another major force for the incorporation of an environmental management system by senior officials (KPMG 1994: i).

Thompson further adds to the discussion with a systematic review of the tools required for the planner to create an effective environmental management system (EMS). Components include risk management, environmental audits, and environmental impact assessments. It is then up to the planner to customize and adjust these tools when adapting them from the policy level (with senior levels of government) to the operational level. He further states that the use of environmental management tools achieves four important objectives:

- allows institutions to anticipate and avoid problems;
- assists with analysis and reporting of performance and day-to-day management;
- facilitates the allocation of scarce resources; and,
- helps in dealing with the driving forces causing changes in environmental management and in coping with that change (Thompson 1995:16).

The Alberta Association of the Canadian Institute of Planning (AACIP) offers six principles to act as guideposts for developing a Municipal Environmental Assessment (MEA) process:

- Environmental information should be considered in a clear and consistent manner in decision making, just as social and economic information is considered;
- MEA should apply to projects that may have significant environmental effects. Streamlining should prevent minor or easily mitigated projects from undergoing the process;
- MEA should be conducted early in the planning stages of a proposal, before irrevocable decisions are made;
- The requirements for, and the conduct of, environmental assessment must be clear, consistent, fair and reasonable. The same requirements and approvals should apply to both public and private sector proposals;
- The onus should be on the applicant to provide the appropriate environmental information upon planning application. The municipality should provide some level of baseline environmental information; and,
- Environmental assessment requirements should not duplicate the requirements of other departments, agencies or levels of government (AACIP 1996: 13).

It readily becomes apparent that these are guideposts behind the incorporation of environmental factors and checks and balances within the development approval processes for municipalities.

1.5 Outline of the Report

Chapter One provides background information relevant to the research and outlines the research methods. Chapter Two discusses theoretical underpinnings related to environment and land development. Chapter

Three reviews the current planning and land development situation at the City of Edmonton, including a brief discussion of the development industry. Chapter Four is a review of environmental approaches adopted by other Canadian municipalities and provincial bodies. Chapter Five proposes recommendations for the City of Edmonton to further incorporate environmental criteria into development approval processes. It also provides a response from both private and public sector professionals to these recommendations. Chapter Six is a summary and review of the practicum process and evaluation of results.

1.6 Summary

The practicum context, the problem context (including research and data collection methods), as well as the analysis and approach uses were reviewed. Chapter One also provides an outline of the remaining chapters in this report.

2.0 VALUING ENVIRONMENT

2.1 Introduction

Planning means the planning of the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of urban and rural communities.

- *Canadian Institute of Planners (CIP) website 2001*

The issue of incorporating environmental criteria within the development approval process should be of importance to municipalities, particularly the City of Edmonton. Firstly, environment is important, as the City acts as a regulatory agency on behalf of its citizens. As such, a municipality should demonstrate environmental leadership. The environment, including the preservation of natural features (such as wetlands or tree stands), is often promoted by the development industry as a marketing feature of new residential developments but is taken less seriously than economic considerations by approving authorities. Generally, the development industry will engage in philanthropic acts of environmental preservation if it makes or (equally importantly) saves money. Environment may be incorporated under the guise of efficiency and effective use of investments and resources to maintain the quality of the urban environment. Given a need to have a 'green' image, environment is an important component of every marketing program by the development industry for residential developments.

How does a municipality demonstrate that it values environment through its approval process, and how have other municipalities addressed this issue? The City of Edmonton currently has a well-developed decision-making system in place to add environment as a decision making criteria; how can this question of value be augmented? What processes would facilitate getting criteria through this system or being considered by the

City of Edmonton? How, and where, does the City of Edmonton state and implement its commitment to the environment?

An improved connection between environment and the existing approval processes should be a higher priority for the following reasons:

- Public awareness of environmental issues and impacts;
- Compliance with superior (both federal and provincial) legislation;
- Reduce liability;
- To be a good corporate citizen; and,
- To reduce the long-term costs of development.

This issue is timely and challenging with often dwindling staff and financial resources of municipalities, coupled with the downloading of programs and services from provincial jurisdictions and an increasing sophisticated and environmentally aware citizenry.

In processing development applications, the planner must be aware of the public interests and just how diverse and fractured those interests can be. Traditional land use planning tended to identify a single public interest, with the planner mediating between a singular private interest and those of the state. Termed the 'modernist paradigm', planning was a function of scientific and technical reason, focussing on modern ideals of rationality, order, regulation, and homogeneity – notions deeply rooted in the scientific movement and faith in a scientific method (Sandercock 1998 and Healey 1997). A utilitarian view has persisted:

Scientific knowledge could provide an objective basis for identifying present problems and predicting future possibilities. Instrumental rationality focused on relating means (how to do things) to ends (what could be achieved, in logical and systematic ways. Impartial reason could be used as the measure of just actions (Healey 1997: 9).

A single public is no longer the case. As Sandercock argues, there is no going back to a simpler life. She continues by stating that postmodern planning can be sensitive to environment, community and culture through a strong vision. As the public has a financial and emotional attachment to place, a diversity of values must be considered within a capitalist economy.

The single undeniable hegemony is that economic rationality is paramount, and every city and region and nation has to realize its ideals as best it can within the constraints of a profit-maximizing world market (Sandercock 1998: 7).

During the boom times of the 1970s in Alberta, many people migrated to the province to pursue economic opportunity. Edmonton was far more provincial in those days, with many new residents not feeling a part of the City, as it was a new home. Many of these residents have been here for over twenty years, have become established and raised families. Many have an increased pride in being an Edmontonian. With this pride may evolve a deeper connection, sense of place and concern for the urban environment, possibly fostering a further concern for environment. The reality of the planning system in Edmonton, however, is that the planners react to Council and Council reacts to the public. What is not clear is which public(s) we are all responding and reacting to.

2.2 Historical Context of Land and Property

It is important to understand how land and property have been viewed over time to better understand they are valued. Property is a very old and changeable idea and is both an institution and a concept. It has metamorphosed through a number of different meanings and, as a result, has led to a misunderstanding of how people view land and how it is to be enjoyed, appropriated, disposed of and developed. Property means 'rights'

[although Beatley argues that property is a privilege (Beatley 1994: 271)] in both legal and logical senses and, as a concept, is not confined to private property. As an institution, the notion of 'property' changes from time to time and from culture to culture, and changes by interpretation or by meaning. As a right, it is a title to a 'thing'. Property provides the individual with the rights to its appropriation, to its enjoyment and to its disposal; these benefits are granted exclusively. These rights are exercised by excluding others from the benefit and opportunity to realize the privileges such as a right has granted to any individual.

The benefits and privileges granted by the idea of property have a historical foundation. Historical circumstances, such as the emergence of capitalist class relations and the abolition of diverse manorial and feudalistic arrangements, allowed the individualization of labour processes and proceeds. The changes preceding the Industrial Revolution fostered new dimensions on how property was regarded. It was now seen as a tangible item, as concepts of privacy and exclusivity entered the debate.

In Europe and North America, property can be viewed as an institution with two dominant classes. The first is common property and refers to property that is enjoyed by citizens on a common basis, i.e., streets, parks, airports and community centres. Citizens are guaranteed not to be excluded from their use. A sub-class of common property is state property [though McPherson (1962) argues that this is a class equal to common property]. Here, the state assumes the role of an artificial creation, similar to that of a corporation with the rights exercised by the state concerning its property being similar to those exercised by any private individual on their property. As a corporation, the state is entitled to exclude others of the

enjoyment of the benefits associated with its property, even if the excluded ones are its own citizens (MacPherson 1962).

The second class is private property and refers to the individual. Its prevailing meaning is associated with the concept of exclusive use or benefit of something; that the owner has the enforceable remedy to claim the exclusive use of the property.

The evolution of property as a concept, continues MacPherson, is associated with the realities common to the Welfare state: a limited amount of resources to be appropriated and disposed of, the limitations experienced by individuals in terms of the use of their labour and the appropriation of its fruit, a high concentration of opportunities in the hands of the ones with greater resources and the need to facilitate the realization of the individual. Available resources (land, natural resources, labour and employment opportunities) to facilitate the realization of the human being are limited.

The view of nature has changed and evolved over the centuries from that of provider and living organism to machine and commodity:

Not only was nature in a generalized sense seen as female, but also the earth, or geocosm, was universally viewed as a nurturing mother, sensitive, alive, and responsive to human action. The changes in imagery and attitudes relating to the earth were of enormous significance as the mechanization of nature proceeded. The nurturing earth would lose its function as a normative restraint as it changed to an inanimate dead physical system (Merchant 1980: 21).

Nature was now something that could be dominated, mastered, and controlled through technology. Prior to 1500, the organic concept of nature prevailed. Following the Industrial Revolution, however, the mechanistic concept prevailed, justifying humans to exploit and take advantage of nature's gifts. More goods were demanded, and an increase

in population led to the breakdown of the medieval agrarian economy and ecosystem (Merchant 1980: 47). As the Enlightenment emerged, the scientific movement prevailed. Land became a commodity with its fertility able to be depreciated over time, just as capital is. The view of modern economists was to treat land as matter and space, ready for manipulation.

2.3 Theories Applicable to Land Use and Development

Three theories relating to land use and development are reviewed in this section, providing a basis to further contextualize their applicability to environmental value: land use ethics, utilitarianism and impact assessment. Sustainable development and how it relates to environmental value is also reviewed.

2.3.1 Land Use Ethics

As change is the only constant in turbulent times, a conceptual approach based on the management of land use change comes closest to matching the reality of planning practice. Under this approach, the goals of all land use planning activities - intelligence collection, advance planning, development management, and problem solving - are to monitor and guide change to best benefit the community. To do so, land planners must balance three competing sets of land values: social, market, and environmental. This balancing takes place through community discussion on the content and procedures of land use change (Kaiser *et al.* 1995: 35). It is of interest to note that these three universal values also form the basis for the concept of sustainable development, reviewed in Section 2.3.4.

Beatley, among others, searches for a more environmentally sustainable way of organizing economic life and offers twelve ethical principles for consideration in the land use debate. These form key elements for an ethical land use policy or decision-making basis:

- **Maximum Public Benefit:** The greatest quantity of social benefits are promoted. Utilitarian objectives should be constrained by other moral consideration, such as obligations to future generations. The planner must look beyond narrow economic and utilitarian reasoning when weighing the benefits of a land use decision;
- **Distributive Justice:** Actions must be avoided which lessen the social and economic conditions of the least-advantaged in society. A just society should be promoted;
- **Preventing Harms:** Those who cause harm upon others should be held accountable for their actions. As all harms are not foreseeable, culpability comes into play (liability);
- **Land Use Rights:** These rights may be legal, constitutional or moral and are due each individual regardless of social position or income. Minimum entitlements may include affordable housing, health care or freedom from hazardous health risks;
- **Environmental Duties:** Acknowledges an obligation to protect and conserve the natural environment, both for humans and other forms of life. Humans are not the only species on the planet and as a result, humans have no

fundamental right to abuse the natural features and resources of the planet;

- **Obligations to Future Generations:** As current land use decisions and practices can have substantial impacts on future generations, cumulative and long-term effects need to be included;
- **Lifestyle Choices and Community Character:** A community's character can be established and promoted, but not at the expense of individual rights;
- **Paternalism and Risk Taking:** At the very least, a full disclosure of all relevant risks and hazards is required;
- **Expectations and Promise Keeping:** Public land use authorities must keep the promises they make. It must be clear when promises are and are not made, and when citizen expectations concerning land use are valid and legitimate;
- **The Privilege of Land Ownership and Use:** The use and development of land is viewed as a privilege, not an inviolable right;
- **Inter-Jurisdictional Land Use Obligations:** Land use decisions must be made in balance with neighbouring jurisdictions. These jurisdictions have an obligation to minimize the imposition of harms on other jurisdictions; and,
- **Fair and Equitable Political Process:** Land use policy making must provide an opportunity for all interested and affected parties to participate. The political reality of

modern land use issues cannot be ignored (Beatley 1994: 263 - 273).

These twelve broad ethical principles are of importance, as they overlap with the core set of land use values described by Kaiser *et al.*, with the philosophy of utilitarianism and the notion of sustainable development.

The integration of environmental considerations with the development approval process involves the synthesis of private property rights with the consideration of public values of land use. Kaiser *et al.* describe three core sets of land use values, which could form the basis for an improved decision-making context: social use, market and ecological values. Social use values evaluate land use as a means to facilitate desired activity patterns and social aspirations (or the weight given by a community to the arrangement of land uses as a setting in which to live their lives). Market values express land as a commodity or profit medium while ecological values express the value given to the natural systems on the land. Here, land is a potential environmental threat to be mitigated and all three values can either conflict or intermingle (Kaiser *et al.* 1995: 42-43).

The concept of social use values comes from three sources, which attempt to describe the ideal urban form for optimal social benefit. Urban form, activity systems, and neighbourhoods are the three sources identified by Kaiser *et al.* to provide the opportunities for a model of ideal form. Compact development, the varied ways land is used by different parties, and the fit between these competing

interests all contribute towards social use. Social use values incorporate theories of development from urban form, activity systems and the social neighbourhood. The connections between the physical environment and quality of life are considered by all three theories, though with a slightly different focus. The design of the physical environment is central to urban form theories, while understanding the behaviour patterns of urban residents is central to activities systems theories. Neighbourhood theories are concerned with both behaviour and design, though at the sub-city level (Kaiser *et al.* 1995: 43). Social values can be presented as argument to maintain the status quo, though they can also be enhanced through well-managed growth and change. Within the development approval process, social values are managed through Euclidian zoning and compatible land uses to reduce negative externalities and liability (as with Beatley's principle of preventing harms).

Honachefsky argues that current land use practices are doomed to fail because they rely on zoning that ignores the capacity and function of the community's natural resources. Economic (or market) values provide the incentive for both private and public interests to develop land.

Environmental or ecological values, according to Kaiser *et al.*, have evolved from three main sources and are important to this discussion as they set the tone for how a municipality views, and therefore, values environment. The first set of values stem from the belief of environment as economic asset. The productive use of

natural resources towards a utilitarian and economically efficient objective is the first traditional source of ecological or environmental values (the greatest good at the least expense). Here, environmental resources are viewed as an economic asset, evaluation of impacts is done through cost-benefit analysis and human protection from natural disasters is mitigated by the use of protective features of the environment.

Secondly, environmental integrity values are united by the planner by the use of "concepts that link characteristics of land areas with environmental processes and human uses" (Kaiser *et al.* 1995: 49). These values serve to maintain the functional integrity of natural systems through harmony between human action and natural processes and capacity. Kaiser *et al.* describe three concepts associated with environmental integrity: carrying capacity (limits or thresholds of use associated with land), land suitability (desire for a particular use) and sustainable development (a measure of feasibility for balancing environmental, social and economic functions).

The pure preservation of nature is the third environmental value associated by Kaiser *et al.* with land use. Here, species diversity is maintained through the legislative protection of endangered plants and animals. Where human activities threaten the ecological integrity of landscapes and intergenerational equity, future generations ought not to be deprived of the same level of ecological equity. Nature has an inherent value to be preserved for its own sake. It remains with the planner to balance the competing

interests of development, use and conservation. As pure preservation of large tracts of land is an almost unattainable and unrealistic goal within urban environments, this value is of little relevance in this discussion.

A model of land use change management would feature the successful integration of social, market and environmental values as the desired outcome for the planner. Given the new push towards sustainability, environmental values must now become more prominent, to the degree of being equal to social and market values within the decision-making context, including development application review.

2.3.2 *Utilitarianism*

From the discussion on land use values and ethics emerges the concept of best benefit for the community and the balance of social, market and environmental values through a discussion of content and procedure. Utilitarianism continues this concept of greatest good. Jeremy Bentham first introduced the notion of utilitarianism with his doctrine of every course of action being subjected to the test of whether it produces pleasure over pain, although elements of utilitarianism were seen earlier in the writings of David Hume. Bentham is credited with distributing the elements of utilitarianism to his peers, including James Mill. It is Mill's son, John Stuart Mill, whose essays on utilitarianism are the most widely read on the subject. The most basic theory of the consequence-oriented variety is that we should always perform an act, of all the available options, which will bring the most happiness, or least unhappiness, to the greatest number or people

(Mill 1979: vii). Known as utilitarianism, an action is essentially right if it satisfies the greatest good for the greatest number and this theory can be beautifully applied to land development. In order to act (*do*) in a manner which will maximize overall (societal) happiness, we must first *know* what will maximize happiness. In order for this to occur, we must know the following: (1) which people (past, present and future) will be affected by the actions we might perform; (2) what the effects of each possible actions are likely to be on each those individuals; and (3) how happy or unhappy each individual will be made by each of these effects (Mill 1979: ix). This places the reality of the utilitarian principle at a most difficult point of practical implementation.

Scherer and Attig propose two main versions of utilitarianism: as a test of actions and as a test of rules. The doctrine of utilitarianism might, seem straightforward and elegant, but they argue that four major questions arise out of this debate of what is right and good. The first question concerns "the range of possible courses of action which are subjected to the utilitarian test" (Scherer and Attig 1983: 141). As a nearly infinite range of possibilities is available for consideration at any given moment, the agent must, at some point, find a principle of restriction, otherwise the decision-making will become paralyzed.

Secondly, "whose assessment of harms and benefits is to be considered by the agent making his assessment: as different types of people will argue and push for different methods to be employed" (Scherer and Attig 1983: 142). There exist alternative

methods of order-ranking. Bentham argued that everyone had one vote only, but should the relief of suffering always take precedence over the promotion of pleasure, as Karl Popper would argue (Scherer and Attig 1983: 143).

Thirdly, there is the question of "what is to count as a consequence of a given action?" (Scherer and Attig 1983: 143). What is to be expected as a reasonable consequence of an action and what are the reasonable standards for prediction? Our legal traditions relating to cause-and-effect of decisions and due diligence free us from responsibility once they pass through the appropriate agent and are no longer the consequences of our actions. What is the range of the consequences of our actions?

Finally, a "decision must be made about the time-scale which is to be used in assessing consequences" (Scherer and Attig 1983: 143). A longer time-scale will have a less predictable future than a short time-scale, but how do we balance these long and short term consequences? Who should society be responsible to, ourselves, our children or future generations?

Mill argues that is not necessary to gather new information for every situation, especially as opponents often argue that there is insufficient time to gather the information needed for the utilitarian calculation. Past experience, Mill writes, is a highly reliable guide to new situations and that "there has been ample time [for information gathering], namely the whole past duration of the human species. During that time, we have been learning by experience the tendencies of actions; on which experience all the

prudence as well as all the morality of life are dependent” (Mill 1979: ix).

2.3.3 *Impact Assessment*

How can the theory of utilitarianism be used in a practical setting to make informed land-use decisions? Impact analysis is the analytical assessment of an action which works at all ends of the policy spectrum. There are three basic approaches to impact assessment: financial impact assessment (also referred to as cost-benefit analysis), social impact assessment, and environmental impact assessment. How does society justify its actions relating to land development? Alasdair MacIntyre writes that all such decisions can only be answered within the bureaucracy by supposing that all disagreements take place on questions of means. The merits of competing interests can only be compared by weighing the costs and benefits of each option. This rationale for decision making, MacIntyre argues, is the essential normative form of argument (Scherer and Attig 1983: 140). What are the risks associated with evaluating land and the potential uses for land from such a technical, rational (modernist paradigm) perspective?

2.3.3.1 *Financial / Market Assessment*

Financial analysis is employed by those with an interest in implementing policies (developers, investors, lenders, among others). For this to be practical, economic growth must be occurring. Burchell defines fiscal impact analysis as “a projection of the direct, current, public costs and revenues associated with residential or non-residential growth to the local jurisdiction(s) in which this

growth is taking place” (Burchell 1985: 3). Financial analysis assesses a potential investment to answer two basic questions: what is the nature and scale of the market and what are the potential new revenues and benefits associated with the decision? By first determining the market opportunities, a project can then be developed or a policy formulated; a response is sought. Both hard and soft costs are to be included in the establishment of a bottom-line, with this approach best suited for shorter-term project forecasts as there can be calculation inadequacies and errors for larger projects. One of the benefits of the market analysis is that it is a simple and practical tool, with quantitative considerations.

Considerations are within the control of the analyst with the rate of return being the bottom line or price of risk.

Liroff describes the strengths and limitations of cost-benefit analysis (CBA). Strengths include:

- Provides a framework for structuring information and considering trade-offs;
- Helps make choices about program priorities;
- Helps weed out the least desirable alternatives;
- Can identify areas in which uncertainty is greatest and further research is desirable;
- Can increase explicitness in decisions (although some people prefer obscurity), and thereby elevate the level of public debate and the usefulness of public participation;

- Can enhance consistency among decisions;
- Can help assess the cumulative effects of regulations on groups, industries, future generations, geographic areas and so forth; and,
- Can improve the credibility of government by showing how decisions are made and that they are rational.

Limitations include:

- Traditional CBA focuses only on efficiency, but other factors, e.g., administrability, distribution of impacts, promotion of technological innovation, may be of equal or greater importance in decisions;
- Does not adequately account for impacts on future generations due to difficulties in deriving a present dollar value for future costs and benefits;
- May place too much emphasis on translation gains and losses into dollar terms;
- Usually accepts technology as given and cannot anticipate technological breakthroughs that reduce costs;
- May lead to inequitable decisions because the distribution of costs and benefits is not considered;
- May lead to short-sighted and undesirable decisions because larger consideration – the political viability of agencies, preservation of the democratic system, ‘irrational’ but strongly held views of the public, etc. – are ignored;

- Highly technical analysis may make administrative decisions appear even more inaccessible to the public;
- Simple displays of numerical ratios of benefits to costs (e.g., 3.1:1) presented without a guide to assumptions and uncertainties may lend a false air of decision to estimates; and,
- May be considered unethical by some (Liroff 1982: 9 – 10).

Another shortcoming of cost-benefit analysis includes equity and distribution of resources, and can be seen as a good link with social impact assessment. Cost benefit analysis could be most closely paralleled with utilitarianism of the three methods of analysis outlined in this section. It is a straight forward and simple analytical approach to solving problems of choice (especially public projects) and can be a tool to decide whether or not to employ resources and the quantity of those resources to employ by comparing the benefits to the costs for the production of a good or service (McConnell 1990: G-6). Within the context of bureaucratic decision-making, cost-benefit analysis is an instrument of practical reason, operating under time constraints. Problems must be solved, or at least analyzed, without waiting for options to be realized, thus viewing the world as calculable and predictable (again, the modernist paradigm) in order for

decisions to be made. This pressure can operate in two opposing fashions, the first limiting our operations to what is truly calculable and predictable. The other is to easily present all that we can encounter as calculable and predictable (all that we know versus everything we can potentially face).

2.3.3.2 *Social Impact Assessment*

In Canada, Social Impact Assessment (SIA) reports began in the 1970s to determine potential social and cultural effects of large-scale developments. SIAs traditional link is with both environmental impact assessment and resource development. According to the Canadian Environmental Assessment Research Council (CEARC), SIA is considered to be a systematic inquiry to:

investigate and understand the social consequences of planned change and the processes involved in that change. It involves the application of various methods of analysis and the documentation and communication of findings. The SIA statement may be used as a basis for decision making and as a source of public information. Such characteristics may be helpful in differentiating SIA from related processes for achieving the same purposes, notably various forms of public consultation (CEARC 1985: 2).

CEARC also identified four main categories of social change that are usually included in a standard SIA report:

- Demographically-related change: effects of increases or decreases in population growth on local facilities and services, neighbourhood cohesion and community stability;

- **Economically-related change: effects of new patterns of employment and income on the financial stability of residents, municipal tax base and the viability of local business and social service organizations (an overlap with cost-benefit analysis);**
- **Resource-related change: effects of changes on natural resources upon which people depend for subsistence, employment or recreation; and,**
- **Culturally-related change: effects of demographic, economic and resource-related changes on the community institutions, traditions and values and on the way of life of individuals in communities (CEARC 1985: 2).**

Adapting SIA for inclusion as part of the generic planning process is where the understanding of the fundamental aims of SIA is useful. Tester and Mykes further contend that SIA is simply reduced to an administrative component of a project – the proposal is already decided upon, then the impacts are listed. As a result, the SIA process is perceived to be excluded from the decision-making process. It is, rather, an attempt to list potential problems and identify appropriate mitigative measures in a scientific manner. As with other forms of assessment, the level and detail of analysis can vary greatly and depends upon the information requirements

identified in the Terms of Reference developed for each specific SIA report.

2.3.3.3 *Environmental Impact Assessment*

Environmental Impact Assessment (EIA) is used to improve decision-making for project development and justification. It is a form of applied policy analysis intended to be a comprehensive (social, environmental, political, and economic) evaluation of a project. As there are few standards in terms of methodology for impact assessment, the decision of which impacts to assess is often left in the hands of a third party to decide. This method of analysis can be fairly flexible and is generally less technical in nature. EIA refers to a systematic planning support process for:

- Anticipating and predicting the nature and significance of impacts on the biophysical and social environments which may result from a proposed activity, program or policy; and,
- Proposing and implementing appropriate remedial measures for eliminating or minimizing those impacts which are likely to cause undesirable consequences (Sadar 1996: vii).

Sadar goes on to describe the benefits of applying EIA to developments:

- More efficient and productive (sustainable) use of natural resources;

- Lower project costs in the long term (fewer costly changes at advanced stages of the project; lower probability of environmental disasters, court cases and/or costly clean-ups);
- Avoidance or remedial measures planned and implemented in time to minimize adverse impacts on the biophysical and social environment;
- Improved future planning of economic development projects;
- Better protection for the environment and minimized adverse social impacts via the consultative process; preserved or enhanced quality of life;
- Opportunity for the public to learn about environmental effects, express concerns, and provide input into the assessment process, thus leading to better decisions;
- Opportunity for the public to influence the decision making process - a cornerstone of a democratic and caring society;
- Enhanced public confidence in public and private institutions; and,
- Good public relations fostered – decision makers more likely to be viewed as good corporate citizens.

Sadar also lists the risks of not doing an EIA properly:

- Costly litigation, expensive cleanups and sudden burden of providing monetary compensation (executives can, and have been, prosecuted, fined and jailed for being environmentally irresponsible);
- Very expensive ‘surprises’ later down the line which can (and have) resulted in unbearable losses to developers and project proponents;
- Loss of public trust in public and private institutions or with individuals in positions of power (corporate presidents, politicians, etc.);
- Worsening environmental conditions leading to a deterioration of the natural resource base of the economy; and,
- Consumer backlash against industry and businesses responsible for environmental disasters (Sadar 1996: 3 – 5).

The concept and practice of EIA began in North America with the 1969 *National Environmental Policy Act* of the United States of America. Canada followed this lead a few years later with the *Environmental Assessment and Review Process* (EARP) in 1973. This initiative was followed by provincial EIA initiatives from 1973 to 1990, the *EARP Guidelines Order* in 1984, *Canada’s Green Plan* in 1990 and the *Canadian Environmental Assessment Act* in 1995.

These benefits and risks for completing an EIA are important to remember, as they relate directly to the general discussion of environment and serves as a reminder as to why it is important to incorporate environment into the development approval process.

2.3.4 Sustainable Development

Sustainable development is the level of development which can be sustained without critical environmental damage, by integrating environmental, economic and social use values, described in a previous section as the three key land use values to be balanced by the planner. Environmental preservation, however, is also identified to have a cost, just as with development.

The definition of sustainable development set forth by the United Nations World Commission on Environment and Development (WCED) is easily the most widely referenced. In 1987, the Commission defined sustainable development as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs”, with intergenerational equity, or fairness to coming generations, as the central guiding principle (WCED 1987: 1). According to Berke and Manta, the Commission attempted to weave multiple societal values and balance bipolar economic realities of developed and developing nations, including obtuse consumerism and extreme poverty. In 1993, the National Commission on the Environment defined sustainable development as:

A strategy for improving the quality of life while preserving the environment potential for the future, of living off interest rather than consuming natural capital. Sustainable development mandates that the present generation must not narrow the choices of future generations but must strive to expand them by passing on an environment and an accumulation of resources that will allow its children to live at least as well as, and preferable better than, people today. Sustainable development is premised on living within the Earth's means (Beatley and Manning 1997: 2).

Sustainable development can be viewed in one of three ways. The first is as the law of entropy – the steady degradation of a system. Secondly, sustainable development can be seen as a threat; seeming to add another dimension of review to an already overloaded regulatory planning and development system. Finally, it can be seen as a timely movement in which to create proactive and productive innovations within the planning and environmental management fields (Perks *et al.* 1996a). It is intended to weave ecological values into economic, social, human and community development decision-making. Perks *et al.* continue with five key principles for a more sustainable planning practice:

- integration of economic development goals with bio-physical environmental and social-equity expectations in community and human development;
- a thorough, on-going commitment of public and private agencies to more meaningful and effective participation of citizens in decision-making on issues to do with the community in all of its facets, including environmental qualities;
- decentralization or devolution of waste, energy and water servicing and re-use to local community entities, and

technological innovations for waste management, water and energy conservation, recycling, ecological design and management;

- less luxurious, more economically-affordable infrastructure; and,
- certain expectations about community self-reliance and community roles in the stewardship of environments (Perks *et al.* 1996a: 56).

Conveniently, Kaiser and Beatley's discussions on land use ethics relate directly to the core ideas behind sustainable development: environment, economy and society.

2.4 Summary and Conclusions

Sadar's lists of benefits for performing EIAs can be applied to all three types of impact assessment described in this chapter, as well as to Sustainable Development. The traditional view of land as a commodity continues to prevail within western society, but an increasingly diverse and informed public has begun to force a re-evaluation of the priority and responsibility of local governments relating to environment. Reducing the long-term costs of development, decreased liability, compliance with superior legislation, increased public awareness and a municipality's desire (along with industry) to be a good corporate citizen are the main reasons for this priority. The three overlapping values of environment, society and economy need to be further connected within the development approval processes to realize these objectives.

3.0 PLANNING AND DEVELOPMENT AT THE CITY OF EDMONTON

Buy it by the acre, sell it by the foot.

Sam Allman (1993)

3.1 Introduction

This chapter reviews and documents the history of planning and development at the City of Edmonton since the incorporation of the municipality in 1892. It also reviews the variety of plans and development measures currently in place to provide appropriate planning regulations and processes. The context for decision making, as well as expectations of the local development industry, are discussed.

3.2 Historical Context

City Council, or its designated representative, has the power to approve, prepare, alter or reject plans and proposals at each stage of the planning process, though Council's powers are tempered by the aspirations of the community and development industry. It could be argued that developers ultimately control urban growth because they decide, through the market, how much land will be developed or redeveloped, how it will look, and when develop will occur. Council must, therefore, set strong statements as to the goals and aspirations of the community on behalf of its citizens for the industry to respect.

Since the incorporation of Edmonton, a system of land use and development has existed in one form or another. Examples of early municipal bylaws regulating the development and use of land within the City include a 1906 bylaw requiring the approval of subdivisions by the City Engineer and a 1912 municipal building code providing relatively comprehensive standards for residential development. Bylaw 415, approved August 1, 1912 was *A Bylaw to Regulate the Construction,*

Alteration, Repair, Removal and Inspection of Buildings and to Prevent Accidents by Fire within the City of Edmonton (Edmonton: 1998a). The Department of Inspection of Buildings was the department responsible for enforcing this Bylaw. In 1907, a master plan for the development of the City was prepared by F. G. Todd, a planning and landscape architectural consultant. The scheme was adopted in 1915, and included proposals for preserving the North Saskatchewan River Valley.

In 1928, the *Town Planning and Preservation of Natural Beauty Act* enabled municipalities to carry design and execute town planning schemes, including the preparation of regulations controlling land uses along highways (i.e., buildings and advertising signs). This legislation was replaced by the 1929 *Town Planning Act*, authorizing municipalities to adopt official town plans and zoning regulations and to prescribe building heights and floor areas, densities, permissible land uses and many of the other aspects of zoning. In addition, municipalities were empowered to appoint town planning commissions to prepare and administer plans and zoning bylaws.

On October 10, 1933, Edmonton adopted its first comprehensive zoning scheme, the *Zoning Bylaw, Bylaw No. 26*. Twelve zoning districts were identified, each representing a specific use and building type, prescribing uses and development standards for height, front, rear and side yard setbacks and site area, as well as the administration of the Bylaw and its enforcement.

In 1949, the *Spence-Sales and Bland Report* recommended the repeal of the 1933 Bylaw, as it was judged to be too rigid and no longer representative of the social, economic and physical development realities

of the post-war era. The Report also recommended that a new bylaw be adopted which implemented the policies of an official plan. *Bylaw No. 26* was, therefore, suspended in July 1950 and interim development control was recommended until the adoption of a new official plan and revised zoning bylaw. *Interim Development Bylaw No. 1* was adopted in 1950 and required that development decisions be made by Council on the merits of individual applications. In 1959, *Interim Development Bylaw No. 2* was adopted, providing a mechanism for the adoption of a new zoning bylaw.

In 1961, a new, comprehensive *Zoning Bylaw, Bylaw No. 2135* and Edmonton's first *General Plan* were adopted by Edmonton City Council, as Edmonton's land use control system had become increasingly complex, and were principally shaped by changing provincial legislation.

Edmonton's second *General Plan* was adopted by Council in 1970, replacing the 1961 plan.

In 1977, the *Planning Act* authorized the replacement of dual land use control systems with a single system, providing improved land use planning and control tools and creating a distinction between development control and zoning. The *Land Use Bylaw, Bylaw No. 5996*, was adopted by Council in 1980. The *Planning Act* of 1977 also resulted in a regional plan for Edmonton and surrounding area and established a framework within which Edmonton's planning and development processes could occur. The Act specified that all measures approved by the City of Edmonton must conform to the Regional Plan, thus municipal plans and bylaws were to implement regional planning policies.

In May 1995, the *Planning Act* of 1977 was repealed and replaced by the *Municipal Government Act*. The regional plan was deemed to be no

longer required and was repealed, and the *General Municipal Plan* had to be replaced with a *Municipal Development Plan* prior to September 1, 1998. Edmonton City Council approved the adoption of the *Plan Edmonton*, the new *Municipal Development Plan* on August 31, 1998. Most recently, the new *Zoning Bylaw, Bylaw 12800*, was approved by City Council in February 2001, and came into effect on June 14, 2001. It replaces the *Land Use Bylaw, Bylaw 5996*, and is essentially an administrative update.

In March 1991, City Council adopted the following environmental mission statement:

The City of Edmonton is committed to conscientious and responsible environmental management, practices and stewardship in all aspects of its corporate objectives. We affirm:

- the responsibility we share with the public, industry and other levels of government for environmental well-being;
- the responsibility we have to demonstrate leadership as a municipal corporation in fostering responsible behaviour for the well-being of the environment;
- the responsibility we have to include environmental matters as important criteria in our decision making process;
- the responsibility we have towards development that does not impair the well-being of present and future generations;
- the responsibility we have to ensure compliance with all applicable environmental legislation and regulatory requirements; and,
- the responsibility we have to ensure that environmental solutions are delivered in a practical and fiscally responsible manner (City of Edmonton 1999: 1-1).

These statements in the *Environmental Strategic Plan* confirmed and acknowledged the City's responsibility to consider these issues, but did not specify or commit the Corporation to implementation. The Plan is currently administered through the Asset Management and Public Works Department with a primary mandate to monitor river water quality and waste management.

In the early 1990s, the Planning and Development Department formed a group within the department to deal with issues of soil contamination policy and research into environmental issues. Policies were to be developed to incorporate environmental site assessments into the development approval process, based upon five principles: compliance, onus on the applicant, due diligence, fairness and avoidance and/or reduction of duplicate permit processing with other levels of government. The Department was, and is, of the opinion that it may be liable if due diligence was not exercised in the approval of a change of land use on contaminated sites (see DS-Lea 1996 and Brown 1998).

One further study completed in 1993 was the *Inventory of Environmentally Sensitive and Significant Natural Areas*, which identified 63 sites of significance within the city boundary. One of the key recommendations to come out of this study was to create and fund the position of *Natural Sites Coordinator* within the Planning and Development Department to liaise with the various civic departments, as well as industry and affected agencies, to preserve and protect these identified sites. The Development Industry is of the opinion that if these sites are of significance and importance to the City as a whole, then the landowners should be compensated in some fashion for their lost development opportunity (L. Kelly, personal communication, 4 July 2001). There is also differing opinion between Departments as to the significance and usability of certain sites, which has led to inconsistent retention of sites (a review by the industry further identified 13 sites as being the most important sites for potential preservation). Differences between the Civic Departments also creates uncertainty and delay for the development industry, should they be pursuing development adjacent to a

site identified on the inventory. It is, therefore, recommended that a united commitment by all Departments be secured to ensure the preservation of these sites.

In 1996, *Edmonton's Suburban Neighbourhood Design Principles* was completed by city staff to assist developers and designers in creating development concepts which reduced capital and operating costs associated with traditional urban development while maintaining a good living environment. The report identified 16 design principles, including life cycle, intensification, linked open space and the provision of transit, although adoption of the recommendations contained in the report is voluntary by the industry.

From this summary, it is evident that a long history of change and enhancement to planning policy and legislation has occurred in Edmonton, due in part to increasingly complex requirements and urban realities. The City has also stated its commitment to the environment through its environmental mission statement, adopted in 1991. What is not clear is exactly how these statements are to be implemented and incorporated within the daily operating realities of a large and complex corporation and bureaucracy.

3.3 Plans and Development Measures

The relationship between plans and development measures at the City of Edmonton is outlined in Appendices 2 and 3.

3.3.1 Plans

A number of plans are prepared for different levels of the City and are either prepared by city staff or private consultants. The *Municipal Development Plan*, as the highest-order plan, has the

broadest policy statements for the long-term planning and orderly development of the City of Edmonton. All other statement, plans, policies and guidelines must conform to the MDP. As such, the MDP should contain strong statements regarding the City's position on specified topics, for subordinate plans to follow, including environment.

Berke and Manta (1999) set forth a set of six principles that defined and operationalized the concept of sustainable development. Using these six principles, a sample of comprehensive plans were evaluated to determine how well the policies of plans supported sustainable development. The authors found no significant differences on how extensively sustainability principles are supported between plans that stated an intention to integrate sustainable development and those that did not (Berke and Manta 1999: i).

3.3.1.1 Municipal Development Plan

The *Municipal Development Plan* (MDP), an evolution of the *General Municipal Plan* (GMP), is a comprehensive, ten year plan providing policy direction for the development and implementation of more specific, detailed plans by private land owners/developers and the City. It outlines the long term policies and aspirations of the community. Section 632 of the *Municipal Government Act* requires that the following information be addressed in a municipal development plan:

- The future land use within the municipality;

- The manner of, and proposals for, future development in the municipality;
- Co-ordination and interface with future growth and infrastructure with adjacent municipalities;
- Provision of transportation systems;
- Provision of municipal facilities and services;
- Identification of sour gas facilities and policies related to them; and,
- Policies respecting the provision of municipal school reserves. (Edmonton 2000a: 16).

Municipalities may, if they so desire, expand the priorities and direction beyond municipal land use planning and development. *Plan Edmonton* is based upon five key areas of municipal responsibility, identified through the planning process as essential to supporting and maintaining a high quality of life for Edmontonians. All land development policies must conform to the policies and strategies of the MDP. The five key areas are:

- **Planned Growth** addresses the municipal mandate to manage land use and development. A physical growth strategy and land development philosophy will meet long-term development needs. Investment in mature neighbourhoods and business areas will be promoted. New growth in suburban areas will be accommodated in a fiscally responsible manner. Priorities include making effective use of investments in infrastructure and

providing for access to natural areas and open spaces. The City will work with its private and public sector partners to maintain the quality of the urban environment.

The purpose of this section of the MDP is to address strategic, city-wide planning issues through key priorities and implementation strategies, and includes the land development philosophy, managing suburban growth and the preservation and enhancement of the natural environment and open spaces;

- **Economic Development** focuses on the City's leadership role in creating a positive and dynamic business climate within Edmonton and the Edmonton Capital Region. The goal of expanding the economic base will be achieved through effective economic development programs and by providing a *best value* business environment. Edmonton will build on its economic advantages through active partnerships with businesses, institutions and other governments to develop a strong city economy with a global orientation;
- **Services to People** deals with the delivery of City services that contribute to the safety, security, well-being and enjoyment of Edmonton's citizens. Services will be provided in an effective, efficient

and citizen-oriented manner. The City will work in partnership with other organizations where service mandates are complementary. In planning and providing services, the City will take into account the different and changing characteristics and needs of communities. The City will support community development initiatives and volunteer activities;

- **Infrastructure Development and Maintenance** focuses on the City's responsibility for infrastructure ranging from roads, waste management systems and water systems to public buildings and park facilities. The City's fiscal objective is to meet the demand for new infrastructure while ensuring that existing infrastructure remains safe and reliable. The City's environmental strategy will maintain the quality of the natural environment for present and future generations. City priorities also address the development and use of advanced communications and information technology; and,
- **Leadership and Regional Co-operation** focuses on municipal decision-making and the City's mandate to represent the interests of its citizens. Particular emphasis will be placed on pursuing solutions to regional issues in Cupertino with neighbouring municipalities. Edmonton will promote more effective and co-ordinated

intermunicipal planning within the Edmonton Capital Region. The City will examine opportunities to reduce costs and improve service through regional services delivery mechanisms. More effective relationships with regional authorities and the Provincial and Federal Governments will be developed (Edmonton 1998b: 9 – 64).

The connection between environment and planning needs to be explicit, emphasized and further critiqued; an environmental strategy is only briefly mentioned in the Infrastructure Development and Maintenance area. *Plan Edmonton* is the official policy document guiding long-term development in the City of Edmonton. Four priorities in this document specifically reflect a vision of environmental stewardship combined, of course, with economic expansion and, to a lesser extent, social equity:

- **Preservation and Enhancement of the Natural Environment and Open Spaces:** Preserve and enhance the river valley, natural areas and open space within the urban landscape; recognize these areas as critical aspects of successful planned growth of the City; and, link them to the extent possible (Edmonton 1998b: 21);
- **Protection of the Natural Environment:** Develop an integrated environmental protection strategy in partnership with the Province and neighbouring

municipalities designed to improve air and river water quality, promote conservation, and ensure effective preservation and management of the City's green spaces (Edmonton 1998b: 52);

- **Objectives, Approaches and Products:** Facilitate an effective, rational and co-ordinated approach to intermunicipal land use, transportation and infrastructure planning and development (Edmonton 1998b: 71); and,
- **Regional Assets:** Participate effectively in decision-making that affects key regional assets which are essential to the well-being of Edmonton and our intermunicipal planning partners. This includes an integrated environmental protection strategy based on a cumulative effects approach (Edmonton 1998b: 73).

As the Municipal Development Plan is the highest order plan providing the guiding policy statements for the City of Edmonton, it is imperative that strong statements are included to reflect a priority for environmental preservation and management and to link the planning process with these goals and objectives.

3.3.1.2 Area Structure Plans

It is through Area Structure Plans (ASPs) that the broad policies of the MDP for suburban growth management are applied. The ASP identifies, generally, where residential, commercial, institutional and recreational

uses will be located and how services will be provided, as well as the approximate expected population and staging of the development. ASPs are prepared for newly developing suburban areas by the owner of the majority of the land, and usually incorporate areas of at least 200 hectares, except in unusual cases as determined by the City. Neighbourhood Areas Structure Plans (NASPs) can also be prepared for one or two neighbourhoods (a smaller scale than ASPs), however, they must meet all the requirements for preparing ASPs. NASPs generally comply with non-statutory large-scale plans such as Servicing Concept Design Briefs (SCDBs) or Outline Plans in new suburban areas. The enabling legislation for the preparation of ASPs is Sections 633, 634 and 636 of the *Municipal Government Act*, as amended. Typically, the owner (or their consultant) of the largest portion of the plan area will ask Council's permission to prepare an ASP. The process is shown in Appendix 4.

The Terms of Reference are an important component in the preparation of Area Structure Plans, as it sets the level of detail, breadth of scope and analysis expected by Council of the private sector. As the ASP provides general guidelines to ensure the orderly and efficient development of a plan area by providing essential services and facilities, land uses, transportation systems, population density and sequence of development. Not updated since 1982, the ASP Terms of Reference are

included in Appendix 5. No terms of reference exist for amendments to ASPs, though the Department is contemplating this as an in-house project. Amendments to approved ASPs are far more common than new ASPs, and a consistent, yet flexible, terms of reference is important.

3.3.1.3 *Servicing Concept Design Brief*

Similar in content to an Area Structure Plan, a Servicing Concept Design Brief (SCDB) is prepared by City Staff to provide pro-active planning statements for the placement and development of major land uses. An SCDB is applied to undeveloped suburban areas, establishing the framework for municipal infrastructure, servicing, planning and development and environmental requirements and must conform to the *Municipal Development Plan*. To date, only two SCDBs have been approved for implementation by the City of Edmonton. The Terwillegar Heights SCDB was approved by Council in 1992. A SCDB for the Kinokimo Plains area was prepared in 1992, but was never adopted by Council due to landowner opposition. Although considered a non-statutory plan and approved through non-statutory public hearings before Council, advantages of the SCDB are:

- Non-statutory approval allows substantial flexibility with respect to unanticipated and innovative types of development, land use patterns and servicing concepts/techniques;

- Due to their adoption by resolution of Council and their inherent flexibility, SCDBs may not need to be amended in the light of new technical information, market uncertainty, differing landowner aspirations and other circumstances which may affect timing and phasing of development;
- As declared policy of Council, SCDBs will be recognized by all civic departments and agencies;
- Processing timelines are likely to be less than those associated with the conventional statutory ASP process, particularly if there are disagreements among landowners and development and uncertainties in defining City servicing requirements;
- Ongoing input by owners, developers and the public is facilitated; and,
- 'Fixed' statutory land use planning only needs to be undertaken for smaller neighbourhood cells using the normal NASP, redistricting and subdivision processes (Edmonton 2000a: 22).

A second SCDB for the Heritage Valley area in southwest Edmonton was approved by Council in April 2001. With an estimated population of between 42,000 and 58,000 over 2200 hectares to be developed over the next 25 years, this was a major initiative of the Planning and Development Department. Public open houses were held in August 2000 in response to the first draft of the

document, with over 200 people attending. One of the key items of debate during the preparation of the document was the environment and the preservation of Class 1 Agricultural Lands. The Sierra Club was highly vocal in its attempt to raise awareness of the importance of the preservation of this agricultural land and the preservation of natural areas. The City responded with policy statements to address these issues, but the reality is that all 2200 hectares are designated for urban development under *Plan Edmonton*, not pure preservation.

The process for the preparation and approval of a SCDB is shown in Appendix 6. The Terms of Reference for the preparation of a SCDB are found in Appendix 7 and were last updated in 1992.

3.3.1.4 Area Redevelopment Plans

Area Redevelopment Plans (ARPs) are applied to neighbourhoods, either one or a group, primarily within the inner city. ARPs can take 18 to 24 months to implement and are prepared by city staff. The process for the preparation and review of an Area Redevelopment Plan is shown in Appendix 8. As this level of plan covers the redevelopment of mature areas, environmental issues can be more dominant. Often, the redevelopment plans include former industrial sites. Few, if any, ARPs are anticipated to be prepared in the next few years, due to the current corporate focus on suburban planning (and

lack of budget) and ASPs, although the emphasis in the late 1980s was to prepare updated ARPs to replace older, obsolete ARPs from the 1970s. ARPs may be prepared for the purpose of:

- Preservation or improvement of land and buildings;
- Rehabilitation of buildings;
- Removal of buildings and/or their construction and replacement; and,
- The relocation and rehabilitation of utilities and services (Edmonton 1993: 21).

3.3.1.5 Neighbourhood Structure Plans

The enabling legislation for the preparation of Neighbourhood Structure Plans (NSPs) is Sections 633, 634 and 636 of the Municipal Government Act. NSPs are considered a sub-component to an Area Structure Plan and are generally prepared for areas anticipated to support approximately 4000 to 7000 people (see Appendix 9). Greater detail is shown on NSPs, which are adopted by Council as amendments to Area Structure Plans, and are sufficiently detailed to provide the basis for subsequent detailed subdivision and zoning of the land. These plans are generally prepared by the land owner/consultant with the entire process taking four to six months to complete. Terms of Reference for the preparation of a Neighbourhood Structure Plan, approved by Council in 1979, are included in Appendix 10.

3.3.2 Development Measures

Development measures are the tools available to implement the policies of the plans detailed above. Other procedures are currently in place (Servicing Agreements, Development Permits, etc.) but it is most logical to incorporate statements regarding environment and sustainable development at the planning stage. It must be remembered, however, that it is the regulations that have the legal backing of the provincial judicial system, not the plans and policy statements adopted by City Council.

3.3.2.1 General Planning Tools

A number of planning tools are available to municipalities to manage land development. Hodge describes the two main tools of land-use regulation, zoning and subdivision, and states that these tools are founded on the principle of "consistent and universal application" (Hodge 1991: 243).

Subdivision control is a planning process in which a parcel of land is split into smaller, pieces in accordance with local standards. A high degree of control over the manner in which the land is subdivided and the time frame involved is maintained by local authorities, and these parcels are registered and certified by the Province. The City of Edmonton is vested with control of this process under the *Municipal Government Act* with two main components of subdivision control: procedural and substantive. The procedural side of subdivision control operates as a formal, monitoring process. This formal

side is necessary, as many interests in the subdivision and subsequent development on those parcels exist. The substantive side of subdivision control is a tool that attempts to obtain high-quality urban environments through an appraisal of the proposed plan, according to planning and engineering standards (Hodge 1991: 235). The basic process of a proponent applying for a permit to subdivide a parcel of land is prescribed by the province and delegated to the municipality.

Across Canada, the final authority to approve any subdivision proposals may be with a provincial minister, a regional authority or a municipality, and five steps are generally followed. The first is a specified process, in which the form, review process and time frames for approval are specified. Secondly, the plan is circulated broadly to the many interested agencies affected by the proposal for comment and recommendation. Thirdly, the conditions for approval are established, indicating the standards to which roads, utilities and parks will be constructed and how these will be paid. Fourth, a subdivision agreement is signed between the proponent and the municipality and is registered against the deed to the property. Fifth, the final plan is approved and is registered to bind all future landowners to the agreed-upon terms and conditions (Hodge 1991: 237 – 240).

The second major tool for managing the development of land is zoning which deals with two main elements: the use allowed for the parcel of land and the size, type and placement of the buildings on that parcel (and associated uses, such as provisions for off-street parking) (Hodge 1991: 223). There are three basic zoning districts identified in zoning by-laws: commercial, industrial and residential, though within each exist sub-classifications. Zoning, the primary tool to guide decisions around development, is the only tool with legal force to back these decisions up, though zoning can always be changed.

3.3.2.2 Subdivision

Subdivision is the process whereby a parcel of land is divided into two or more parcels in order to obtain separate legal titles for each parcel. Subdivision of land within the City of Edmonton is governed by the *Municipal Government Act* and *The Subdivision and Development Regulation*, whereby City Council is authorized as the approving authority. Council, in turn, has delegated its subdivision authority through a bylaw to the Subdivision Authority, a non-political body comprised of three senior staff members from the Planning and Development Department. The Authority reviews technical matters involved in subdivision proposals, including conformity with statutory and non-statutory plans and any implementation requirements that the administration needs to include in associated

servicing agreements. The process for approving and registering a plan of subdivision is shown in Appendix 11.

Minor subdivision decisions, such as lot splits, bare land condominiums and small subdivisions not involving municipal reserves requirements, servicing agreements or rezoning have been delegated to the Planning and Development Department's Subdivision Officer. The Authority is required to render a decision on the subdivision application within 60 days, per the Subdivision and Development Regulation, though the deemed refusal date can be extended through agreement with the applicant. Appropriate discussions and negotiations with the applicant are undertaken prior to a decision being recommended to the Subdivision Authority or Subdivision Officer. Decisions may only be appealed to the Subdivision and Development Appeal Board by the applicant, the municipality, the schools boards or the provincial government. Adjacent property owners are notified of applications and are invited to comment, but have no right to appeal decisions. On matters of provincial concern or intermunicipal dispute, subdivisions may be appealed to the Municipal Government Board, a provincially appointed body.

3.3.2.3 Zoning

A general process overview of the procedure for application for zoning is shown on Appendix 12. The

City of Edmonton *Zoning Bylaw*, adopted in February 2001 regulates the use of land within city limits and sets basic standards for development such as site coverage, density, height of buildings, yards, landscaping and parking. It is a primary tool for implementing the City's land use and development policies, as expressed through the MDP, ASPs, NSPs, ARPs and non-statutory local planning studies such as corridor plans and Servicing Concept Design Briefs (SCDBs).

A number of standard land use zones relating to residential, commercial, industrial, recreational, public service and agricultural uses are listed in Edmonton's *Zoning Bylaw 12800*. Each zone includes specific requirements and regulations to be applied throughout the City on lands bearing a designation.

In order to change the zoning designation applied to a property, the landowner or their designate submits a Zoning Bylaw Amendment application, a recent copy of the Certificate of Title and fees to the Planning and Policy Services Branch of the Planning and Development Department. The Planning and Development Department circulates the application to other civic department and agencies for their comment. Concurrent with the circulation of the application, the Planning and Development Department prepares and mails a notice advising all property owners within a minimum of 60

metres of the lands being rezoned that an application has been received. In addition, the local community league and the area Councillors are notified of the proposal.

Once the Planning and Development Department receives comments back from the circulation of the application (usually within three weeks), the planner reviews the comments, and prepares a report with a recommendation for City Council. Once this report has been approved by the General Manager of the Planning and Development Department, the applicant is advised of the Department's recommendation and is asked if they wish to proceed to Council. Council is the final deciding authority for rezoning bylaws. In addition, a public notice of the Council Hearing is again mailed to property owners.

During the public hearing, Council may hear from the applicant and any other members of the public interested in the redistricting. A Rezoning Bylaw requires three readings of Council, with the entire process normally taking about 120 days.

3.4 Context for Decision Making at the City of Edmonton

As with every large organization, the decision making process at the Planning and Development Department involves many layers of approval. Three committees are in place to review applications and proposals, but it is ultimately up to the planner in charge of an application to conduct a thorough evaluation of all relevant factors, including the environment.

3.4.1 Initial Review Committee

The purpose of the Initial Review Committee (IRC) is to review applications for development as soon as they are received and to provide initial advice and direction relating to Corporate policy, procedure and site/development history to the planner handling the file. The committee reviews the following types of development applications: major servicing agreements, major development permits, land use policies, inquiries, and all new applications for subdivision, lane closures and rezoning.

IRC meets every Thursday morning with the Manager of the Planning and Policy Services Branch acting as Chair. The balance of the membership consists of the Department's Directors, Senior Planners, as well as the Subdivision Officer. The planner responsible for the file/application makes a presentation to the committee, complete with a recommendation and how the application conforms to statutory and non-statutory plans, policies and procedures. Recommendations of IRC are consensus based.

3.4.2 Technical Review Committee

The Technical Review Committee (TRC) meets on an as-needed basis (usually monthly) to "ensure the most efficient use of (City) resources and to establish a co-ordinated corporate perspective on subdivisions, road closures, rezonings and plan/plan amendment applications" (Edmonton 1997: 1). The goal of TRC is to provide input to recommendations to the Subdivision Authority and City Council that represent the interests of all departments/agencies within a corporate context. Representatives from the various departments and agencies (Community Services, Transportation

and Streets, Emergency Response, Asset Management and Public Works, and EPCOR) are the primary members of the TRC. Major initiatives, such as the Heritage Valley Servicing Concept Design Brief, draft Terms of Reference for the Preparation of Plans for Industrial Areas, and proposed revisions to the Top-of-Bank Policy, are examples of projects discussed by the Technical Review Committee.

3.4.3 *Final Review Committee*

The Final Review Committee (FRC) meets every Thursday morning to review the proposed conditions of approval for all subdivision applications being considered by the Subdivision Authority the following week. Membership of this committee consists of the Senior Planners and the Subdivision Officer. This group reviews for consistency and accuracy of conditions of subdivision only; they do not approve or make recommendations on subdivision applications.

3.4.4 *Subdivision Authority*

As discussed in Section 2.5.2.2, subdivision of land within the City of Edmonton is governed by the *Municipal Government Act* and *The Subdivision and Development Regulation*, whereby City Council is authorized as the approving authority. Council has delegated its subdivision authority through a bylaw to the Subdivision Authority which reviews technical matters involved in subdivision proposals, including conformity with statutory and non-statutory plans and any implementation requirements that the administration needs to include in associated servicing agreements. The Subdivision Authority is required under the provincial

legislation to render a decision within 60 days of application – the deemed refusal date. The Subdivision Authority meets weekly to approve subdivision applications.

3.5 The Development Industry

As one of the traditional vehicles of economic growth in the City of Edmonton, the development industry continues to be a key player in the planning and development process. The private development industry shares many of the same responsibilities and interests in the development of land in the City of Edmonton, including:

- a need to foster the orderly, efficient and economic development and redevelopment of land;
- a need to minimize the time for development approval;
- a need to encourage effective public participation in the planning process;
- a need for environmental protection;
- a promotion of high standards of urban design;
- a need for flexibility and reasonableness to adjust policies and processes required to meet society's changing demands and market expectations (Edmonton 2000a: 9); and,
- a need for predictability of process and outcome.

Over the past decade, Edmonton has been 'open for business' and market-oriented to support business development. This attitude can conflict with a traditional, preservationist attitude regarding the environment, and it is this mentality which will be the most limiting to new approaches to mutually beneficial processes regarding environment and land development.

The development industry in Edmonton enjoys a long history. In 1998, the local chapter of the Urban Development Institute (UDI) celebrated its 40th anniversary. UDI is a national, non-profit association representing the development industry, which focuses its activities and objectives on promoting wise, efficient and productive urban growth (UDI website 2001). Membership includes development companies and other professionals involved in the industry. In 1997, new home development contributed an estimated \$1 billion to the local economy and generated 12,500 person-years of employment in the City (UDI 1998: 8). The objectives of UDI, Greater Edmonton Chapter, are:

- To promote well planned communities by encouraging the reasonable and unselfish use of land, resources and buildings for residential, public, commercial, industrial and recreational purposes;
- To promote high standards of competence and conduct in the practice of land and property development;
- To promote cooperation and efficient relationships between all persons, firms, corporations, regulatory and governmental bodies and other agencies involved in and associated with land assembly and development;
- To promote standards of land and property development consistent with full regard for the environment for people and with regard to economies for the development of available private and public resources; and,
- To familiarize the public and governmental agencies with problems and objectives of the development industry and to this end to establish properly supervised educational programs and to

counteract, where required, pressures which would unduly harm the public interests relating to land use and development (UDI website 2001).

Since 1981, 42 suburban areas have been approved for residential development and are under construction (at various stages of completion), with two major new areas in the southwest and southeast sectors of the City approved in 1999. There is currently a 15 year supply of unserviced land available for future neighbourhood development within the City of Edmonton. The industry enjoys a participative approach to land use approvals, with Council being the final deciding authority on land use applications. The bottom line for the development industry, however, is to ensure a minimum 25% profit on residential development, often with the incorporation of natural features being touted as 'amenity' with a premium attached to the price of a residential lot (R. Denboer, personal communication, November 2000). Lots backing onto pipeline corridors are marketed and priced with a premium for their proximity to a pedestrian linkage, stormwater management facilities are marketed as recreational lakes (or private beaches, as is the case in the new Summerside neighbourhood in south Edmonton) or naturalized wetlands (the bottom line is that these naturalized wetlands are part of the storm sewer system).

The industry prides itself on having full regard for the environment, generally, as one of its stated objectives (UDI website 2001). Some developers seek to preserve and enhance existing environmental amenities, such as wetlands and natural areas, out of true concern for the environment and philanthropic corporate objectives, while others do not. The reality is that a wetland can be reengineered and used as a stormwater management facility while a stand of trees can only ever be used as a stand of trees. It

is often easier, due to scale of land parcels and public awareness of the company, for larger development companies (such as Carma, Genstar or Melcor) to go above and beyond the minimum criteria of preservation required to create communities that are more sensitive to their environment. This has not always been easy to do, as buy-in from the various City of Edmonton approving Departments has been difficult to broker. The Industry requires certainty of process and expectations, time sensitivity and a willingness of approving agencies to try innovative measures in order to be willing to be increasingly sensitive and protective of environmental sites. In addition, a cooperative and efficient planning process is essential for the timely development of serviced land. Innovations including land swaps (Environmental Reserve credit to reduce the ten percent Municipal Reserve requirements under the *Municipal Government Act*, for example) or trade credits are desired (L. Kelly and L. Gibson, personal communication, 4 July 2001).

3.6 *Summary and Conclusions*

A well established procedure for review and approval of development applications exists within in the City of Edmonton. The climate of the purpose of a plan is cyclical. Currently the Planning and Development Department is focussed on suburban development and the accommodation / development of new residential neighbourhoods. From the 1980s to the early 1990s, the focus was on community planning and inner-city neighbourhoods. 15 planners were assigned to inner-city neighbourhoods for community based planning initiatives, including development of Area Redevelopment Plans, while only three planners handled all suburban development applications. This alignment of staff resources was changed in 1997 when the department re-organized itself from

community/suburban planning scheme to a north/south geographical approach, with the North Saskatchewan River as the dividing line. Now, each planning unit includes both suburban and mature neighbourhoods and are equally staffed.

Planning philosophies are cyclical, as are the importance and role of the various types of plans. The Terms of Reference for the preparation of Area Structure Plans and Neighbourhood Structure Plans have not been updated in over twenty years and still reference the *Alberta Planning Act* of 1977, replaced by the *Municipal Government Act* in 1995. As the requirements in the Terms of Reference for the preparation of statutory plans (ASP, NASP and NSP) were last updated in the early 1980s, it is recommended that a checklist be prepared to be included in the Terms of Reference. The specific content of these statutory and non-statutory plans and the extent of inclusion and consideration of environmental criteria is also dependant on the personal preferences of the planner handling the file. It is understood that some planners may have more concern for environment, while others may have a greater interest in transportation or social implications of plans. By updating the requirements of the Terms of Reference for plan preparation, it is hoped that greater consistency within the Department can be achieved.

4.0 SUMMARY OF PRACTICES FROM OTHER JURISDICTIONS

Nature is a language - can't you read?

- The Smiths (1986)

4.1 Introduction

This chapter presents a summary of practices from other select jurisdictions in Canada, focussing on examples from the past 10 years. An analysis of elements of the development approval processes regarding environmental issues for potential consideration by the City of Edmonton are also presented.

4.2 Background and History

What have other municipalities done to incorporate environmental criteria into their development approval processes? As governments downsize and download responsibilities onto municipalities from regional, provincial and federal administrations, municipalities must become more creative in incorporating environmental factors within their existing processes. Some municipalities are concerned that increased responsibility will be expected without appropriate enabling resources; financial, jurisdictional, or human. As stated in Chapter One, it remains up to the municipality to initiate integration.

Several studies on municipal environmental assessment have been completed (see Perks *et al.* 1996a, AACIP 1996, DS-Lea 1993 and Powers 1992). One of the first studies was completed in 1975 and surveyed 168 mayors to review the process of municipal environmental planning adopted by jurisdictions across Canada. The findings concluded that specific environmental assessment methods were not explicit even though 75% of respondents claimed that the requirements for review of environmental criteria were already in place within an existing approval

structure (Lang and Armour 1975). The common conclusion from the previous studies is that one single planning process will not be appropriate for all municipalities. Perks *et al.* surveyed 91 consultants and public officials across 14 municipalities and six provinces in 1996. One of their major conclusions was that “the practice of municipal planning must itself become more effectively ‘environmental’ and ‘ecological’, both procedurally and in its normative content” (Perks *et al.* 1996a: 97).

4.3 Jurisdictions

As these other studies have already been completed, salient highlights only will be discussed in the following sections. Inconsistent adoption and implementation of practices were noted, as no current standard of environmental assessment exists throughout the jurisdictions reviewed. The first Canadian city to adopt a formal process of environmental assessment was the City of Winnipeg in 1972 (under the *City of Winnipeg Act*). From 1974 to 1977, the process underwent a number of legal challenges and was discontinued in 1978 due a complicated public participation process and the perception that the process threatened the authority of the responsible city department (see Diesch 1993 and Ateah 1980). In the following section, recent initiatives of both select municipalities and provinces are highlighted.

4.3.1 Provincial Initiatives

Province of British Columbia: The *Environmental Assessment Act* (tabled in 1994) streamlines a number of existing pieces of legislation and prescribes time frames, public involvement and simultaneous processing of related licences and permits, and the types and scale of projects requiring environmental impact assessment. The Act appears to do little to integrate impact

assessment procedurally within the municipal planning process or to address subdivision and development projects.

Province of Alberta: There is no standardization of terms, definitions or procedures relating to environmental assessments or activities, as the Province issues few standards or guidelines. The *Municipal Government Act*, as amended, offers no performance criteria standards to procedural terms (Perks *et al.* 1996a).

Municipalities have the authority to engage in environmental impact assessment, under the *Municipal Government Act*, as amended, but it is up to Alberta Environmental Protection to carry out an assessment. This leads to inconsistencies in implementation of environmental assessment practices, as smaller municipalities may not have the resources to plan as rigorously as larger ones. The potential for legal implications is real, as businesses may choose to locate in areas where environmental controls and requirements are 'softer'. In general, municipal planning is done on a site-by-site basis, severely limiting the ability of a municipality to consider cumulative effects of development activities. These limitations are insufficient and unacceptable.

Alberta Environmental Protection and Enhancement Act (September 1993) sets out procedures for the three levels of environmental site assessments and establishes a legislated environmental assessment and approval process with the opportunity for full public participation. The purpose of the Environmental Assessment Process is to:

- support the goals of environmental protection and sustainable development;
- integrate environmental protection and economic decisions at the earliest stages of planning a project;
- predict the environmental, social, economic and cultural consequences of a proposed project and to assess plans to mitigate any resulting adverse impacts; and,
- provide for involvement by the public, proponents and government departments and agencies in the review of proposed projects (Alberta 1993: 16).

The report entitled *Ensuring Prosperity: Implementing Sustainable Development* (1995) sets out five priorities for implementing sustainable development but provides no reference to environmental assessment-specific needs, to assessment practice improvements, to procedures relative to the municipal planning system or to urban development approvals. No new codes or statutes are suggested, so it is doubtful that improvements to the environmental assessment – municipal planning relationship will be achieved.

Province of Manitoba: Development proposals throughout the Province (with the exception of the City of Winnipeg, as it is governed by the *City of Winnipeg Act* and is autonomous under the Act) can be subjected to both formal and informal processes for environmental impact assessment. The *Sustainable Development Act* proposes to blend review procedures and formalizing the current informal process, creating 'one stop shopping'. It is

'umbrella legislation' affecting about 100 existing pieces of legislation including City of Winnipeg's development review procedures, effectively creating a sustainability assessment of developments. Often, the requirements of the *Environment Act*, *Planning Act*, *Municipal Act* and the *City of Winnipeg Act* overlap in terms of objectives and functions, resulting in procedural or substantive conflict and redundancies (Perks *et al.* 1996a: 81).

The provincial *Sustainable Development Strategy* includes policy proposals for the capital region (Winnipeg), including a Sustainability Assessment, defined as "a process to ensure that the decisions of all relevant licensing, approval and screening processes are based on established criteria for assessing the sustainability of the various categories of proposals and projects consistent with and based upon the principles and guidelines of sustainable development" (Perks *et al.* 1996a: 82). The assessments would only apply to 'significant' developments and the Strategy does not include guidelines for the sustainability assessment.).

The *Report of the Consultation on Sustainable Development Implementation* released by the Province of Manitoba in 1999 offered recommendations to best "implement the Sustainable Development Principles and Guidelines into decision-making, including environmental management, licensing, land use planning and regulatory processes" (Manitoba 1999: 5). Opportunities identified include area wide planning, area wide assessments and practical examples.

Province of Ontario: Under the *Planning Act*, municipalities are responsible for planning, regulating, implementing and monitoring plans, while the province is responsible for sectoral planning. Municipalities have the option to combine Environmental Impact Studies with their existing planning processes, which provides for expectations, but not dictate exact requirements or outcomes for municipalities. Additional resources for environmental research, guideline development and awareness of environmental issues relating to development for municipalities is needed, as each municipality must be allowed the flexibility to adapt provincial guidelines to its local context and situation (DS Lea 1993).

Provincial initiatives can be summarized as in Table 4.1.

Table 4.1 Summary of Provincial Initiatives		
Province	Strength	Weakness
British Columbia	<i>Environmental Assessment Act</i> streamlines existing legislation and allows for simultaneous processing of permits and licences	<ul style="list-style-type: none"> - Act does little to integrate impact assessment within the municipal planning process - Does not address subdivision and development projects
Alberta	Municipalities have the authority to engage in EIAs under the <i>Municipal Government Act</i>	<ul style="list-style-type: none"> - No standardization of terms, definitions or protocols - Up to Alberta Environment to complete an assessment, leading to inconsistent application between small and large municipalities and site specific planning, rather than regional and contextual planning and evaluation
Manitoba	<ul style="list-style-type: none"> - <i>Sustainable Development Act</i> streamlines many existing pieces of legislation (umbrella) - <i>COSDI</i> report offers practical examples to 	<ul style="list-style-type: none"> - <i>Strategy</i> only applies to 'significant' projects (not adequately defined) - No guidelines for sustainability assessments

	implement sustainable development principles and guidelines	
Ontario	<i>Planning Act</i> : gives municipalities the option to combine EIA within existing planning processes	Act does not dictate requirements or outcomes (can lead to expectation)

4.3.2 *Municipal Initiatives*

The City of Vancouver Planning Department and the Industrial Waste Control Department review all development and building permit, rezoning and subdivision applications for potential soil contamination. The *Task Force on Atmospheric Change* recommends that “sustainability performance criteria be applied in the municipal planning process, and that statements be developed that describe how plans and rezoning proposals will contribute to, or detract from, the City’s objectives on pollution” (Perks *et al.* 1996a: 78).

City of Calgary: Sustainable Suburbs Study: Creating More Fiscally, Socially and Environmentally Sustainable Communities (1995), establishes new development standards and planning rules based upon sustainable development principles. Although there are no requirements for environmental checklists or impact studies to be completed by developers, planning may be improved by:

- a new developer-City team negotiating process in planning and design of greenfield development projects;
- less costly, less 'luxurious' infrastructure and subdivision/site development standards;

- intensification (doubling the current land use density standard);
- ecological land planning;
- provisions for effective public transportation service and user access with attendant pollution reductions; and,
- 'Community Plans' to replace the Area Structure Plan process, with better input on environment considerations, social structure, housing diversity, etc. (Perks *et al.*: 80).

A second report entitled *Environmental Principles and Goals for the City of Calgary*, recommends integrating environmental planning concepts into suburban-community planning, though it fails to prescribe management-specific procedures or programs.

The City of Calgary is also implementing an ISO 14001 program for continuous improvement.

City of Winnipeg: *Plan Winnipeg... Toward 2010* includes a chapter on Environmental Stewardship, sets forth principles for environmentally responsible decision-making and states that the City shall periodically review its own environmental impact review and monitoring processes. No recommendation on how this will be carried out is offered.

City of Toronto: One of the first urban centres in Canada to develop policies and procedures to address potential problems relating to soil contamination and brownfield redevelopment. Soil contamination was deemed a public health concern and an

Environmental Protection Office (EPO) was created in the mid-1980s. One of the main objectives of the EPO is to "achieve a reduction in exposure of people to potentially hazardous substances in soils and to ensure that all development in the City leads to the maintenance or improvement of the natural environment" (DS-Lea 1993: 28).

The *City of Toronto Official Plan* sets out policy statements for both soil contamination and groundwater, as well as water quality and conservation, air quality, and waste reduction. Three other acts protect the City of Toronto's authority to regulate in these two areas: *The Planning Act*, *The Municipal Act* and *The Health Protection and Promotion Act*. The EPO comments on development applications for rezoning from industrial to residential use, after being screened, reviewed and forwarded by the City's Planning and Development Department. Other types of applications may also be forwarded for comment to the EMO by Planning.

Toronto Declaration on the Environment (1993) commits the City to incorporate preventative environmental action within planning and to provide the community with information to make informed choices, both within an ecosystem approach to resolving environmental problems.

State of the Environment Report (1993) documents work needed to improve availability of environmental indicators and proposes an interdepartmental information network based on a Geographic Information System (GIS).

In April 2000, the Toronto Environmental Plan entitled *Clean, Green and Healthy: A Plan for an Environmentally Sustainable Toronto* was approved by Council. 'Quick Start' environmental initiatives (to improve the city's air, land, water and green space) generalized successful environmental practices from the old municipalities into the new mega-city and introduced new, non-contentious and streamlined environmental protection policies (Fowler and Hartmann 2001: 158).

City of Waterloo: A 1991 policy statement commits Waterloo to "assessing potential environmental impacts in all City services and programs...[and] take actions that are within our legal abilities in order to optimize environmental benefit" (Perks *et al.* 1996a: 86). All development initiatives must meet a certain number of environmental-site planning requirements and a long range environmental master plan is recommended for the City. This is a good example of environmental impact assessment and municipal planning applied strategically and on a watershed basis.

City of Ottawa: Municipal Environmental Evaluation Process (MEEP), adopted in 1993, assess the impacts of public and private activities on the environment and determine mitigation measures to prevent, reduce or compensate for these impacts during the planning phase of a proposal. Implemented within the existing processes to reduce overlap with provincial or federal acts, four features are of note:

- a screening process where by certain activities or projects are designated for a detailed MEE study and others exempted;
- MEE to be applied to all applications, including Official Plan Amendments, Zoning By-law Amendments, Subdivisions and Site Plan Control;
- a 'self-assessment' system whereby managers, planners, engineers, private developers and consultants will state the extent to which the project may have negative effects on the environment, and the measures to mitigate any such effects; and,
- applicants are to provide the environmental information (Perks *et al.* 1996a: 84).

Municipal initiatives can be summarized as in Table 4.2.

Table 4.2 Summary of Municipal Initiatives		
Municipality	Strengths	Weaknesses
Vancouver	<ul style="list-style-type: none"> - All rezoning, subdivision and permit application are reviewed for potential soil contamination if industry is identified as a former use - <i>Task Force</i> recommended that sustainability criteria be applied 	Not clear how the task force recommendation were operationalized
Calgary	<ul style="list-style-type: none"> - <i>Sustainable Suburbs Study</i> established rules based on sustainable development principles - <i>Environmental Principals...</i> recommends integrating environmental planning concepts with suburban planning - <i>ISO 14001</i> Protocol being implemented 	<ul style="list-style-type: none"> - No requirement for environmental checklists or impact studies (voluntary) - No procedures or programs are prescribed
Winnipeg	<i>Plan Winnipeg</i> states that the City shall review its own environmental impact review and monitoring processes	No recommendation on how this is to be operationalized
Toronto	<ul style="list-style-type: none"> - One of the first municipalities to develop an Environmental Protection Office to address soil contamination and an improvement of the natural environment - <i>Declaration</i> commits the City to incorporate preventative environmental action within planning - <i>Environmental Plan</i> streamlines processes and offers non-contentious, practical environmental protection policies 	
Waterloo	<ul style="list-style-type: none"> - Development proposals must meet environmental site planning requirements - Good example of EIA and planning applied on a watershed basis - Long range environmental plan is recommended 	
Ottawa	<ul style="list-style-type: none"> - MEEP adopted to assess impacts of activities on the environment during the planning phase - Implemented within the existing process to reduce overlap with other superior processes 	<ul style="list-style-type: none"> - Applicant provides environmental data - Not clear if staff resources allow for complete evaluation of submitted information

From the literature, it is evident that the provincial and municipal initiatives fall into two main categories: those dealing with soil contamination (using the Phase 1, 2 & 3 Environmental Site Assessment set forth by CMHC) and those attempting to reduce redundancies with superior legislation. Most municipal plans commit the municipality to protection and enhancement of the natural environment through existing processes and procedures, though few concrete performance measures are offered. Many municipalities (Calgary, Toronto and Vancouver) have already completed *State of the Environment Reports*, something that the City of Edmonton has proposed as Phase 2 of its *Environmental Strategic Plan*, but not yet completed.

The other major finding from the review is that there is a lack of consistent terminology for environmental initiatives, with the exception of the Environmental Site Assessments. Consistent terminology between jurisdictions, following through to the municipalities and various professionals involved in the development and preservation of environmental resources, is critical.

Only the City of Waterloo appears to be completing EIAs and municipal planning on a watershed basis. Regional planning was discontinued in 1995 in the Province of Alberta with the adoption of the *Municipal Government Act*. As a result, efforts are being pursued under the guise of intergovernmental planning to continue an ecosystem approach to planning in the Edmonton Capital

Region. As no superior legislation exists in Alberta to force municipal cooperation, it is up to the municipalities to co-operate.

4.4 *Appropriateness of Other Systems for the Edmonton Context*

It is apparent that most municipalities are attempting to incorporate environment and a review of potentially environmentally significant factors within the existing development approval process. It can be concluded that municipal environmental assessment (MEA) is a valuable tool for planning and management of the municipal environment. MEA is a planning process to ensure that potentially adverse effects on the environment through the review process.

Two key studies were prepared for the Alberta context by Perks *et al.* in 1996 and by Powers in 1992. Perks *et al.* concluded the following:

- provincial governments should empower municipalities to be able to require EIAs as part of the planning process;
- Standard terminology, format and protocol for environmental management are needed; and,
- Continued development of environmental management tools will help municipal planning systems deliver a higher standard of sustainable urban developments (AACIP 1996: 4).

Although no statutory requirements have been in place, MEA has been an informal part of the planning process in Alberta since the 1980s with many municipalities adopting policies to undertake assessments of development proposals and the environmental effects of these decisions (see Powers 1992).

Other issues relate to communication between departments involved in development approval, both at the provincial and municipal levels. For environmental criteria to become more than a secondary and often incidental consideration, organizational restructuring, integration of traditionally compartmentalized departments (engineering, long-range planning, design, construction, etc.) and a separation of political and administrative processes must occur. As political agendas are short-term, while sustainable development planning is for the long-term, these two agendas are often in conflict. Integration of impact assessment and municipal planning rests with the municipality deciding what business it is in, and reorganizing itself to meet those goals and objectives (Perks *et al.* 1996a: 46).

A major concern of note is the ability (through training, experience or interest) of planning staff to properly evaluate environmental information provided by the consultant/applicant. Often, municipalities do not have the resources in-house to critically evaluate this type of information. Professional development and the expertise of outside agencies may need to be expanded.

As a lack of consistent terminology was noted throughout the studies reviewed, greater standardization of terminology, format and protocol are required.

It can be concluded that municipal environmental assessment is a valuable tool for planning and management of the municipal environment. The opportunity to require environmental assessments as part of the planning

process should be legislated to Alberta municipalities through the *Municipal Government Act*,

With the decommissioning of the Alberta Regional Planning Commissions in 1995, a growing risk for inconsistent standards and procedures between large and small municipalities emerged. Perks *et al.* are critical of these attempts:

None of these Alberta initiatives appears to have measurably improved the environmental-planning situation, or to have effectively addressed the related regulatory-procedural issues. Compared to a number of the other provinces studied, Alberta trails in sustainability policy development, and in advancing concrete measures for environmental assessments within urban development practices (Perks *et al.* 1996a: 79).

This has resulted in an inconsistent application of standards between municipalities and has reduced the potential to plan on an ecosystem basis, as municipal boundaries become the limits of control and jurisdiction.

4.5 Summary and Conclusions

Most municipalities, including their planning staff, have recognized that environment and sustainable development should play a central role in the decision making process for urban development. What is not clear, however, is how to turn these beliefs into action. Perks *et al.* (1996) and Powers (1992) propose a modified municipal environmental assessment process to be formalized within the *Municipal Government Act*. It is only through the political commitment by both Council and Senior Management that an effective approach to environment can be achieved. Clear, concise, and consistent approvals, in a timely and cooperative manner, are needed. Most planners, as well as those in the development industry, are interested in greater environmental incorporation within the

decision making process. This can only be made a reality if a commitment by Council, the decision making authority, is in place.

5.0 RECOMMENDATIONS FOR THE CITY OF EDMONTON

But these are all golden dreams...

Fyodor Dostoyevsky (1864)

5.1 Introduction

This chapter presents recommendations for the City of Edmonton based on the literature review and analysis of best practices. These recommendations can only be implemented as useful decision-making tools if they contribute to informing and adding value to the existing system. An examination of each is presented.

It is assumed that the City of Edmonton is receptive to incorporating environmental criteria within its development approval process, inasmuch as a commitment has been made in documents such as *Plan Edmonton*.

The recommendations for the City of Edmonton are based on a number of factors: findings from other jurisdictions (municipal and provincial), review of the planning process through direct participant observation and investigation, and discussion with seven professionals from both the public and private sector. As discussed in Chapter 4, the practices of other select municipalities were reviewed by Perks *et al.*, Powers and DS Lea and should be consulted for further information. What can be summarized is that there has been optimism and desire by both provincial and municipal jurisdictions to further incorporate environment into the planning process. What is also clear is the lack of certainty in which this is to be operationalized.

5.2 Recommendations for the City of Edmonton

1. *A strong and united vision for the City of Edmonton by Council and Senior Management.* Although strong statements already exist in *Plan Edmonton*, and in the environmental mission statement of

Council adopted in 1991, a strong and united vision from Council and Senior Management is critical. Edmonton has a great many environmental assets and the leadership of Council and administration is essential in forging a long-term commitment and action for environmental preservation. Once again, planning reacts to Council and Council reacts to the public.

2. *Increased authority for the City of Edmonton to insist on complete disclosure of known environmental factors from applicants and developers under the Municipal Government Act. Currently, the Municipal Government Act does not clearly delineate the roles and responsibilities between the province and the municipality. This can result in the overlapping of processes, or more realistically and commonly, a deficiency in process and coverage of key protocols. If the City has the authority, then they must also have the commitment to implement and monitor these areas of information.*
3. *Creation and adoption of standard terminology, to be added to the Municipal Government Act, as amended, for consistent adoption between Departments, organizations, professionals and throughout the Province of Alberta and up through the national level. The lack of consistent terminology was found to be common throughout the literature and in practice and is most clearly described by Perks *et al.* (1996). Even between the various Departments within the City of Edmonton there was a lack, and subsequently, a misunderstanding, of exactly what certain professionals were advocating in regards to the environment. Nationally, one of the only consistently used standards involved the Phase 1, 2 and 3 Environmental Site Assessments. From this*

standard terminology, it was clear what was expected of the applicant in applying the various Phases.

4. *That an environmental checklist be created and used for all rezoning, subdivision, road closure, and ASP, NSP, SCDB and ARP applications to cover off whether a natural area, waterbody, provincial highway, creek, etc., is a known entity within the subject site and within 500m of the site and whether the site may be contaminated.* This checklist will be a cursory overview (internal housekeeping), to be completed by the planner in charge of the file and will not be a formal requirement of the application process. The intent of the checklist is to ensure that the planner has confirmed whether or not a natural site is present or that environmental site assessments have been completed and recorded with the Corporate Planning and Policy Section of the Department. This will ensure timely notification to the applicant of potential areas or issues relating to their application, consistent investigation between all professionals within the Department, and will serve as an extra opportunity to realize potential issues at the beginning of the planning process.
5. *That the Environmental Planner (or designated alternate) attend the Internal Review Committee (IRC) each week to comment on new applications and inquiries prior to circulation.* The comments will still be required through the standard circulation process, but the Environmental Planner will be able to provide specialized background and history on applications as they are received, as well as provide advice and direction to the planner in charge of processing the application. As the mandate of the IRC is

to review all new applications and to provide history and policy context to the planner, it is only logical that the expertise of the Environmental Planner is included within the discussion. This will also ensure greater consistency between applications and planners of environmental criteria and policy.

6. *That the Planning and Development Department revise the existing Terms of Reference for Area Structure Plans, Neighbourhood Area Structure Plans and Servicing Concept Design Briefs to reflect current policy statements in the Municipal Development Plan, provincial legislation and statutory and non-statutory planning documents. These Terms of Reference, based on post-war planning and design principles, do not reflect the future of planning in the 21st Century. The information requested through these 1979 Terms of Reference do not encourage or acknowledge environment as a component of planning values espoused by many within and outside the profession, as the discussion focussed primarily on economic and technical information.*
7. *That the Planning and Development Department create new Terms of Reference for amendments to Area Structure Plans (ASPs), Neighbourhood Area Structure Plans (NASPs) and Servicing Concept Design Briefs (SCDBs) to include statements relating to environmental criteria and sustainability. As discussed within Chapter 3, the majority of applications relating to ASPs involve amendments, not the creation of new neighbourhood plan areas. No terms of reference currently exist for amendments to these documents, and no consistent review of all implications of the proposed changes is completed. Bearing in mind that not all*

amendments are major, there must remain flexibility within this process.

8. *That the Department update and expand Edmonton's Suburban Neighbourhood Design Principles Final Report (January 1996) to include stronger statements on environment and the planning process, as the primary goal of the original document was to reduce capital costs and long-term operating costs for the City, not enhance the urban environment. This recommendation ties into the City of Calgary's Sustainable Suburbs Study, which although no recommendations for environmental checklists or impact studies are given, the report does recommend new development standards and planning rules based on sustainable development principles.*
9. *Encourage the City of Edmonton to continue working with the Development Industry, primarily through the Urban Development Institute and the Greater Edmonton Home Builders' Association, to improve and streamline process efficiencies and to educate members on the value of environmental preservation and sustainable development through innovative land development projects. The industry enjoys a collaborative approach to planning and development of lands within the Edmonton area and the desire is for this relationship to continue to grow and expand. Continued innovation, flexibility and certainty is critical to both the city and the industry in order for environment to increasingly be included as a valued component of land development. The education of all professionals working in the land development industry is important to continue and emphasize.*

10. *That the City of Edmonton promote and encourage professional development to address environmental criteria on an annual basis for all employees dealing with the processing and implementation of land use applications.* As most staff at the City of Edmonton Planning and Development Department, and other civic departments, have been with the City for a number of years, a new awareness of emerging issues, trends and available options is important. New staff to the Department are more likely to have received exposure to environmental issues through current planning school curriculum. It is further recommended that annual informational updates (these could be as informal as a brown bag luncheon series within the Department) by each of the Department's business areas be delivered to all staff and could include updates to legislation, new initiatives or policies, developments within the province of interest, etc..
11. *That all civic departments work towards a more integrated approach to environmental assessment and to maintain high standards of planning and land development.* One of the noted frustrations for innovative planning and development within the City of Edmonton is the lack of coordination between City Departments. As noted in Recommendation 2, Council and Senior Management must provide a clear, strong and united vision of environment within which to operate and foster innovation. The Community Services Department is encouraged to remain flexible in responding to proposals from the development industry for parks and open space, as they are the Department which assumes liability

and maintenance of projects once the two year warranty period has expired.

12. *That the Alberta Association, Canadian Institute of Planners (AACIP) sponsor an update to the 1996 publication Municipal Environmental Assessment: A Land Use Planning Tool, to reflect recent initiatives by provincial jurisdictions. It is recommended that this document be updated and expanded on a regular basis, say every five years. General discussion of planning issues is currently relegated to a luncheon series, a useful tool nonetheless, but written position statements are important for lasting commitment to issues.*
13. *That the City of Edmonton create and fund the position of Natural Sites Coordinator. With the adoption of the Natural Sites Assessment, Council publicly stated its commitment to pursue the importance of the identified sites, but did not follow through with funding of the position required to implement the policies. This ties into the need for a strong vision by Council and Senior Management in support of environment within the Corporation.*
14. *That the City of Edmonton increase the mandate and funding for the Environmental Strategic Plan, currently run through the Asset Management and Public Works Department. Completion of Phases 2 and 3 of the Plan sends a strong message about the importance of this issue and includes the State of the Environment Reporting.*
15. *That the City of Edmonton continue to educate its citizens and staff on the value of the urban environment. As many Edmontonians care about preserving our environment, identification of*

opportunities for involvement and the importance for all citizens to participate is important.

16. *That the City of Edmonton begin the annual production of a State of the Environment Report.* Following the lead of Calgary and other municipalities, the City of Edmonton has committed itself to preparing this report as part of Stage II of the *Environmental Strategic Plan*, although the timeframes for the completion of this task is unclear.

5.3 Implications of the Recommendations

Economic Implications: Costs can be reduced through a streamlined process, greater certainty and by reducing construction and long term maintenance and operating costs for both the development industry and the City of Edmonton.

Policy Implications: A unified and clear philosophy relating to the environment is required in order for the stated commitments to be operationalized.

Procedural Implications: No additional steps or time delays are expected from the recommendations, as they are intended to blend within the existing approval process, not add to it. It is also expected that the approval process can be further streamlined with a consistent and cooperative approach to supporting innovative development projects.

Environmental Implications: With a streamlined and unified commitment to the environment, more innovative projects can be realized throughout the City of Edmonton, through greater partnering with industry, civic Departments and the public.

5.4 Comments from the Public and Private Sector on the Recommendations

It is essential to receive comments from those involved in the development approval process (both private and public sector) in order to gauge the effectiveness and potential for successful implementation of proposed recommendations. This section reviews and summarizes the responses to the recommendations for the City of Edmonton to incorporate environmental criteria into the development approval process.

The seven participants were selected based on their knowledge of a variety of critical factors, including, but not limited to, the current development approval process utilized by the City of Edmonton, knowledge of the development industry and its general objectives, and understanding of environmental criteria. An initial sample of four interviews (two from the public sector and two from the development industry) was conducted between June 29 and July 5, 2001 to discuss the recommendations and to gauge the assumptions made in the paper. The responses served to confirm and, generally, support the recommendations for the City of Edmonton.

The development industry representatives were asked the following questions:

- Q1:** Does the industry consider itself to be environmentally sensitive?
- Q2:** How does the industry incorporate issues of environment into its business?
- Q3:** What are the incentives and disincentives to working within the City of Edmonton's development approval process regarding the environment?

Q4: Generally, how does the industry operate in relation to the planning and development of land containing natural features (tree stands, wetlands, etc.)?

Q5: What incentives would the development industry need to be more environmentally responsible?

In addition, the industry participants were asked to comment the recommendations relating to land development and procedure.

The questioning for the public sector participants generally included the following:

Q1: Does the City consider itself to be environmentally sensitive?

Q2: How does the City incorporate issues of environment into its business?

Q3: What are the existing incentives and disincentives to working within the City of Edmonton's development approval process?

Q4: What incentives could the City introduce to encourage the development industry to be more environmentally responsible?

As many of the recommendations were specifically for the City of Edmonton, public sector participants were asked to comment on the proposed recommendations, in the order presented. In general, the public sector respondents were very positive about the recommendations. In regard to the recommendation of an environmental checklist, it was further suggested by one interviewee that an entire guidebook be developed to outline major issues, relevant legislation, buffer requirements, regulations, contacts, as suitable (G. Pearsell, personal communication, 5 July 2001). This would provide a broader understanding of the issue and the array of decision making components required to properly assess the information.

All interviewees applauded *Plan Edmonton* and the policies and statements contained within regarding environment and growth. Stronger statements were not seen as being necessary.

All interviewees supported the need for consistent terminology regarding the environment and requirements associated with the approval process. The Phase 1, 2 & 3 Environmental Site Assessments were noted to be particularly effective, as they nationally standardize and quantify requirements, resulting in consistent application and review of findings across jurisdictions.

Both private and public sector participants noted that one of the most frustrating aspects of dealing with the City of Edmonton's development approval process is the lack of leadership, vision and priority regarding the environment. Often, differing opinions between City departments, not necessarily a lack of will by the development industry, was cited as a barrier to innovation. This reality also ties into the need for consistency, cooperation and certainty by the industry to be creative and innovative. It also ties into the reality that with so many layers of approval within the administration, prior to Council, innovations and proposals often are substantially 'watered down'.

5.5 Summary and Conclusions

The recommendations are intended to provide pragmatic and practical augmentation of the existing planning process at the City of Edmonton. They are not intended to be onerous or financially unreasonable, rather to allow for more innovation in planning for the future. As with the other jurisdictions reviewed, the City of Edmonton has stated a commitment to

the environment, but has not been as effective as many would like in the implementation of this commitment.

Generally, both public and private interests are keen to do more for the environment within existing development parameters. Barriers to innovation include the lack of coordinated environment philosophy and vision by senior management and City Council, resulting in substantially weaker environmental policy. A lack of certainty and consistency in the evaluation of innovative development proposals and a lack of consistent terminology were also noted. Positive measures include a stated willingness by the development industry to improve the urban environment and continue to work with the City to create more sustainable neighbourhoods

6.0 SUMMARY AND REVIEW

6.1 Introduction

This final chapter provides an overall summary and review of the practicum process, explores the planning implications of the subject matter presented, and provides recommendations for further research.

This practicum was presented in three main components. The first was a review of current literature and theory relating to land development, environment and land use planning for select Canadian municipalities to identify primary issues, trends and opinions relating to environment. Secondly, a review of current planning and development processes at the City of Edmonton was completed with opportunities identified to add environment into existing processes. Finally, recommendations were presented along with responses from both private and public sector officials.

6.2 Planning Implications

6.2.1 *Planning Practice*

From the beginning, it was assumed that the City of Edmonton would be interested in further identification of opportunities to integrate environmental criteria into its development approval processes for several reasons, including, but not limited to:

- Increased public awareness of environmental issues and impacts;
- Compliance with superior (provincial and federal) legislation;
- Reduced liability;
- Being a good corporate citizen; and,
- Reducing the long-term costs of development and maintenance.

It was also assumed that the City of Edmonton was interested in implementing their stated objectives relating to environment. After all, if Council and Senior Management made a public commitment to the environment, this should translate into corporate policy and priorities.

6.2.2 *Anticipated Use of Research Findings*

It is expected that several of the research findings and recommendations can be readily implemented by the City of Edmonton. For example, a checklist can be readily prepared and implemented as part of a standard application for rezoning, plan amendment, etc.. The attendance of the environmental planner at the regular meetings of the Internal Review Committee (IRC) would require one hour each week. With two planners in the environmental planning group, this responsibility could be shared between these two individuals. In addition, as the agenda for IRC is published the day prior to the meeting, the environmental planner can easily review for potential items of concern. Updated Terms of Reference for the preparation of ASPs and other documents must be brought up to date to reflect current legislative and corporate objectives. The Department expects professional documents to be submitted from applicants, yet can only offer terms of reference more than 20 years old. This should be a priority for the Department.

6.3 *Review of the Practicum Process*

This practicum defined the issue of further opportunities to incorporate environmental criteria into the development approval process at the City of Edmonton, investigated it and made recommendations to improve the

current situation at the City of Edmonton. From the research, it is clear that a desire to further incorporate environmental criteria within the development approval process exists. It is also clear that most municipalities across Canada have recommended that environmental planning and development approval be further integrated. What are not readily available are concrete examples for how this can be operationalized by jurisdictions in Canada. It is evident from the research that a strong vision for the integration of environment and development approval is critical. Without this vision and commitment to act by Council and Senior Management, the modernist paradigm will continue to persist, resulting in an utilitarian evaluation of development proposals (the status quo). Authors such as Beatley, and to an extent Kaiser *et al.*, remain optimistic that an environmentally sustainable way of organizing an economic reality through land use ethics can occur. Recognizing that the economic and modernist paradigms will not be easily changed in the affluence of the City of Edmonton, and recognizing that it is up to the municipality to initiate the integration of environment within existing processes to reduce, among other things, long-term development and operating costs, liability and to comply with superior legislation, this practicum is a timely contribution.

6.3.1 Methods

As outlined in Chapter 1, this practicum used an exploratory case study approach to define environmental assessment realities in major Canadian urban centres along with a qualitative analysis. Four limitations were stated: an emphasis on current statutes, telephone and in-person interviews and discussion, post-1980

literature, and financial implications of the recommendations could not be quantified within this discussion.

6.3.2 Data Collection

Primary data were gathered from the anticipated sources, as stated in Chapter 1, including discussions with planning professionals from select private and public sector sources. Secondary data were gathered from internet and government publications. Semi-structured interviews were conducted, but were limited to seven individuals with a knowledge of land development, planning process at the City of Edmonton and environmental criteria.

Data collection was difficult for the following reasons:

- Terminology varied between jurisdictions;
- A will to implement more sustainable and environmentally based decision making was evident, however, concrete initiatives for how these objectives are to be operationalized were limited in their availability;
- Inconsistent knowledge and studies available on the subject; and,
- Inconsistent information available on corporate websites.

A good knowledge source were four studies on the subject of environmental assessment and its integration with municipal planning processes (Perks *et al.*, Powers, DS-Lea and AACIP).

6.3.3 Case Study

Generally, information on the City of Edmonton's processes was readily available. An interesting discovery through this process was that many of the policies and practices were not formalized

procedures. Rather, they were undocumented procedures which has become 'known' to those within the Department. Two examples were the Terms of Reference for the Initial Review Committee and for the Technical Review Committee. Even the Terms of Reference for the preparation of ASPs were not readily available and in a compatible format for electronic distribution.

The following research objectives were accomplished:

- Investigation of related planning literature to identify applicable theory;
- Examination of practical examples, related precedents and current initiatives from other jurisdictions; and,
- Review and detail existing processes, procedures and policies relating specifically to the City of Edmonton's development and planning practice on environmental commitment.

The remaining objective was partially fulfilled:

- A synthesis that might better inform local planning practice at the City of Edmonton while providing timely and relevant material on the subject. This synthesis was only partially achieved, as the literature was only able to confirm a desire by other jurisdictions to improve the urban environment through the development approval processes, but could offer few concrete examples on how to operationalize these desires. Although only partially fulfilled through this discussion, the objective warrants continued investigation.

6.3.4 Recommendations for Further Research

The following recommendations are made for further research following the completion of this practicum process. Due in part to the limited studies specifically relating to the Edmonton context (and the potential availability of city staff), it is recommended that further resources be extended to the following areas of research:

1. That more detailed investigation of a Municipal Environmental Assessment (MEA) process for the City of Edmonton be explored. The work already completed by Powers, AACIP and Perks *et al.* should be reviewed and updated to ascertain what additional information and implementation efforts have been initiated by other municipalities for adaption to the existing City of Edmonton processes.
2. That the Alberta Association, Canadian Institute of Planners sponsor an update to the 1996 publication *Municipal Environmental Assessment: A Land Use Planning Tool*, to reflect recent initiatives by provincial jurisdictions. It is recommended that this document be updated and expanded on a regular basis (every five years);
3. That every provincial affiliate of the Canadian Institute of Planners sponsor the preparation of a similar document as described above in Recommendation 2. This would further enable the standardization of terminology.
4. That the City of Edmonton continue to investigate and monitor performance measures relating to the implementation of environmental values. Items such as political agendas of municipal candidates, including

sources of campaign funding, campaign platforms, and associated activities of candidates can be followed. The field of performance measures is of critical importance, as it shows implementation and improvement of policies and procedures. This recommendation arises from the interviews conducted and the need for a political vision and commitment to environment.

5. That the financial (and municipality budget) implications be investigated to further pursue the 16 recommendations outlined in Chapter 5. Although the scope of this study could not include financial implications of the recommendations due to time constraints, it is important to further identify budget priorities for these proposals.
6. That examples from the United States and Europe be examined for further integration of the municipal planning process and environmental criteria, as this discussion was limited to the Canadian context.
7. That the work being conducted by ICLEI, the International Committee for Local Environmental Initiatives, be further examined for potential solutions for the Canadian context.

6.4 Summary and Conclusions

This final chapter provided an overall summary and review of the practicum process, explored the planning implications of the subject matter presented, and provided recommendations and rationale for further research commitments.

GLOSSARY OF TERMS

Brownfield: Abandoned, idle or under-utilized industrial and commercial lands where redevelopment is complicated by real or perceived contamination.

Cumulative Effects: Individual impacts that are incremental and additive such that they must be considered collectively over time, in order for a true measure of the impact and associated environmental costs of an activity to be assessed (APEGGA 1994: 2).

Due Diligence: The legal principle that guilt is determined based on a balance of probabilities and demonstration of care. Events are evaluated based on the actions of a reasonable person. The expected degree of reasonable behaviour escalates as the individual's knowledge of the issue increases and as the person's position to affect the outcome of the issue, or to receive benefit from the issue, increases.

Economic Impact Analysis: An analytical approach used to assess the measurable public costs and benefits resulting from a project or policy over a specific time period (Bleakly 1993: 2).

Ecosystem: A community of interdependent plants, animals and other living organisms (including humans) together with the environment which supports them and with which they interact.

Ecosystem Approach: Recognizes and includes the whole system, not just part of it; is based on natural units such as watersheds, or ecoregions, rather than political and/or administrative boundaries; and focuses on the interrelationships among the various elements of the system:

- understands that humans are an integral part of the system, and not separate from it;
- recognizes the importance of all species, including humans, for maintaining the integrity of an ecosystem; and,
- incorporates the concepts of carrying capacity and resilience, suggesting that human activities should be checked in order to avoid irreversible damage to the natural environment (Sadar 1996: 7).

Entropy: The steady degradation or disorganization of a system or society (Webster's Dictionary).

Environment: The components of the earth and includes:

1. air, land and water;
2. all layers of the atmosphere;
3. all organic and inorganic matter and living organisms; and,
4. the interacting natural systems that include components referred to in subclauses 1 to 3 (*Alberta Environmental Protection and Enhancement Act*).

Environmental Audit: A systematic process of objectively obtaining and evaluating evidence regarding a verifiable assertion about an environmental matter, to ascertain the degree of correspondence between the assertion and the established criteria, and then the communication of the results to the Client. A verifiable assertion is a declaration or

statement about a specific subject matter that is supported by documented factual data (Canadian Standards Association 1994).

Environmental Impact: Any change, positive or negative, in the biophysical and/or social environment caused by or directly related to a former, on-going or proposed activity. The biophysical component addresses all living organisms and the natural physical environment that sustains them (terrestrial, aquatic and atmospheric). The social component deals with human health, safety and well-being.

Environmental Impact Assessment (EIA): A proactive process to determine the effect of a development on the environment (what might happen). It is often defined as:

- A process to use in integrated planning of development proposals, policies and programs; or,
- An activity which identifies, predicts, interprets and communicates information, and proposes ameliorative measures, about impacts of a proposed action or development proposal on human health and the well-being of the ecosystem upon which human survival depends (Sadar 1996: 1).

Environmental Management System (EMS): The consistent and systematic control of procedures and operations, products or services that can have a significant impact on the environment (ISO 14000). A private sector concept, evolved over the past 25 years, which specifies a set of tools and how, and in what circumstances, they might be appropriately used (Perks *et al.* 1996: 70 - 71).

Environmental Risk Assessment (ERA): Defines human and ecological hazards, using probabilistic methods.

Environmental Site Assessment (ESA): A reactive process to determine the impact of the environment on a proposed development, usually with respect to soil or groundwater contamination (what has happened). There are three levels of ESA:

- Phase I is the systematic process by which an Assessor seeks to determine whether a particular property is or may be the subject of actual or potential contamination. It is an information collection process that should include desk research, site inspection, interviews, and a written report. A Phase I does not involve boreholes, soil tests or other intrusive types of sampling or testing.
- Phase II confirms or denies the presence of contamination on the site through quantitative sampling and analytical techniques. It should identify and describe pollutants and quantify their concentrations.
- Phase III investigates feasible follow-ups to be carried out if the Phase II suggests unacceptable levels of contamination. Remedial investigations are site specific and involve a limited field component. This phase includes: estimating human exposure or environment exposure to the contaminants, assessing how to manage the contaminated materials, development of a remedial criteria and a clean up plan. Clean-up itself is not considered to be part of an assessment and some refer to this as Phase IV (*Canadian Standards Association #Z768-94 and CMHC Environmental Site Assessments*).

Environmental Planning: Action directed towards specific environments or environmental resources for the overall purpose of optimal enhancement of

environmental capacity and quality. It is concerned with the prevention, minimization and mitigation of the adverse effects of activities affecting the environment.

Fiscal Impact Analysis: A projection of the direct, current, public costs and revenues associated with residential or non-residential growth to the local jurisdiction(s) in which this growth is taking place (Berchell 1985: 3).

Greenfield: Undeveloped land, often void of general improvements such as infrastructure or surface development. Greenfields exist in every class of land including industrial or residential land assembled for future development. Most commonly, however, greenfields are agricultural land, assembled for future residential development.

Mitigation: Measures taken to reduce, eliminate or compensate for the environmental effects of a proposal. This usually means the application of design, construction and operating principles and engineering, architectural, landscape architecture and urban design techniques to minimize or eliminate potential adverse environmental effects.

Municipal Environmental Assessment (MEA): The municipal planning process that identifies, predicts and evaluates the environmental impact of proposed activities, at a stage where serious environmental damage can be avoided or minimized, in consultation with affected interests. The purpose of MEA is to ensure that development has the least possible severe and long term impacts on human and environmental health. MEA can incorporate components of both EIA and ESA, though it is more commonly associated with an EIA approach.

Risk Management: The decision making process to select a risk controlling strategy. It often includes a combination of reduction, transfer, acceptance, management and/or prevention of risk.

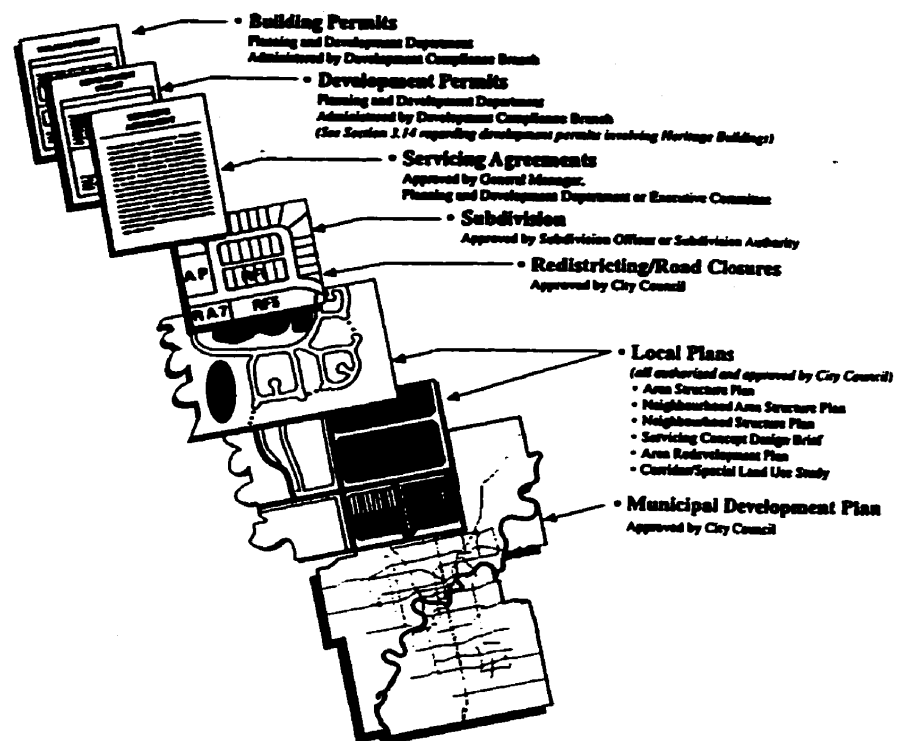
Sustainable Development: A policy statement or set of principles that combine environmental care-taking with economic and social development. The most commonly accepted definition is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs through the application of integrated planning and the combination of environmental and economic decision making processes" (Brundland Report 1987 and APEGGA 1994).

Utilitarianism: A theoretical construct, most often applied to economics and social democracy, that supports a value statement of the greatest good for the greatest number.

APPENDIX 2: APPROVAL RESPONSIBILITIES AT VARIOUS LEVELS OF THE PLANNING AND DEVELOPMENT PROCESS

Source: Planning and Development Handbook for the City of Edmonton 2000: 8

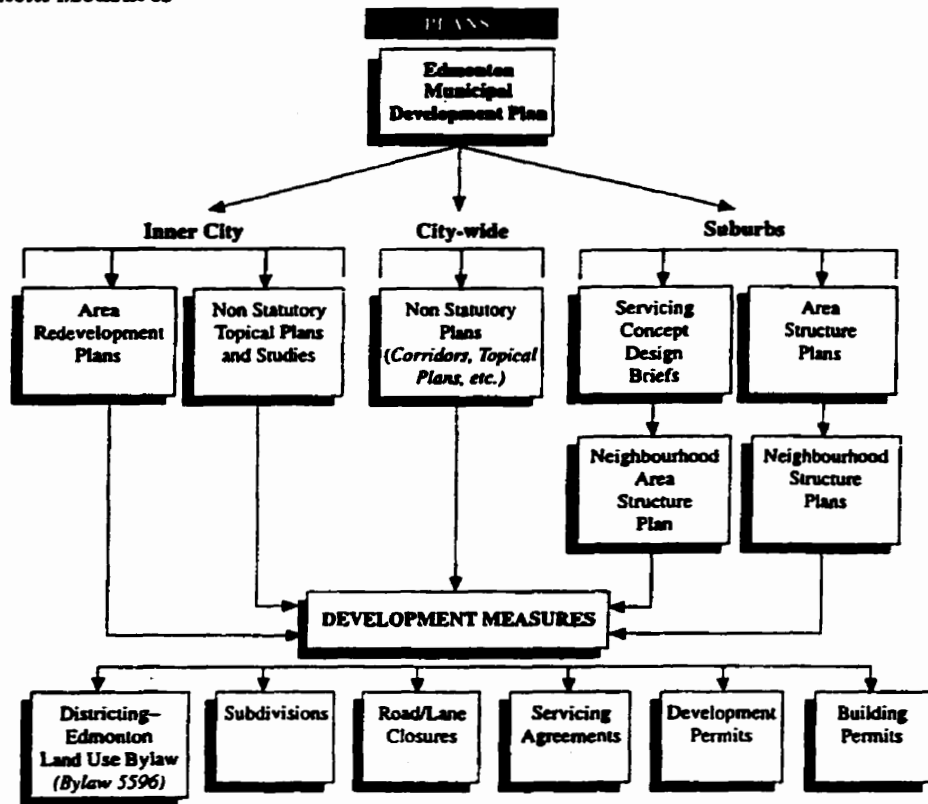
Approval Responsibilities at Various Levels of the Planning and Development Process



APPENDIX 3: RELATIONSHIP BETWEEN PLANS AND DEVELOPMENT MEASURES

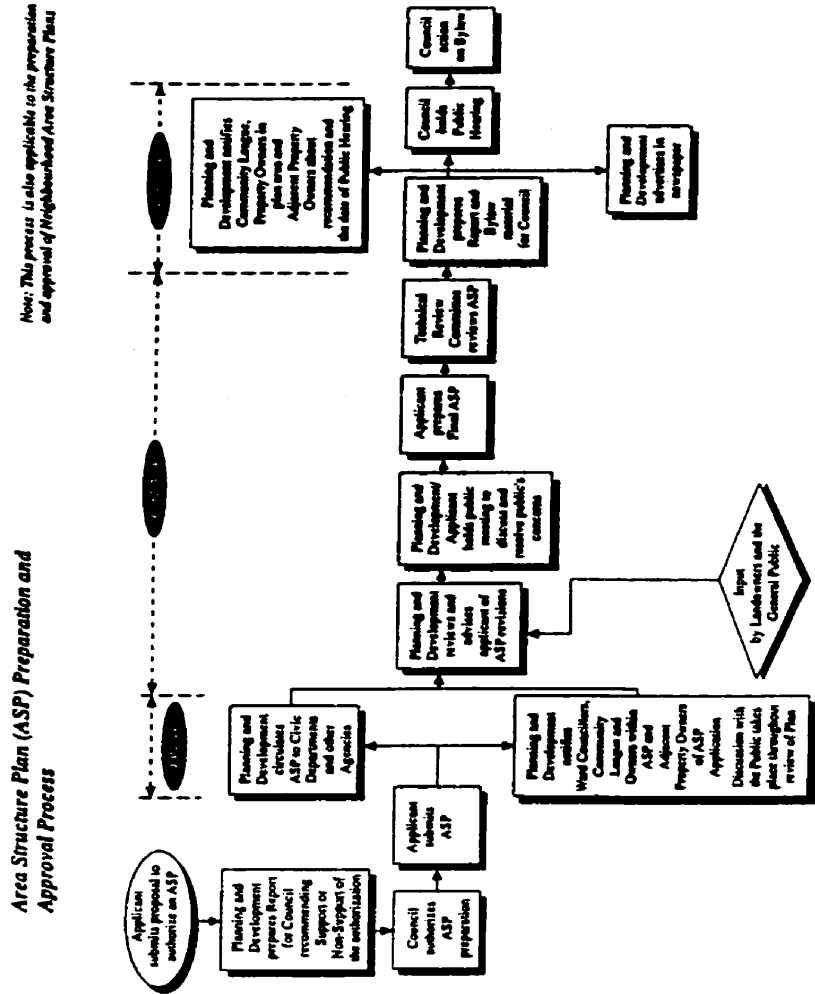
Source: Planning and Development Handbook for the City of Edmonton 2000: 13

Relationship Between Plans and Development Measures



APPENDIX 4: AREA STRUCTURE PLAN (ASP) PREPARATION AND APPROVAL PROCESS

Source: Planning and Development Handbook for the City of Edmonton 2000: 19



AREA STRUCTURE PLAN (ASP) TERMS OF REFERENCE

Revised Area Structure Plan Terms Of Reference As Adopted by City Council on January 12, 1982

I Introduction

A Mandate for Area Structure Plans

The *Planning Act, 1977*, provides for the formulation of Area Structure Plans (ASP) and their adoption by a municipality as a Bylaw (refer to Section 62 of the *Planning Act*).

B Concept and Purpose of Area Structure Plans

The ASP provides the intermediate link between the *Edmonton General Municipal Plan** and the Neighbourhood Structure Plan. It constitutes a framework for the future development of an area considered as an integrated planning unit implementing objectives as defined in the *General Municipal Plan*. The ASP provides general guidelines directed towards ensuring the orderly and efficient development of a plan area in terms of providing essential services and facilities, land uses, transportation system, population density and sequence of development.

I Authority to Prepare Area Structure Plans

A residential ASP may be prepared for an area of land which can accommodate a group of neighbourhoods (as defined in Bylaw No. 6000, the *Edmonton General Municipal Plan*, Policy 5.C.2), considered as an integrated planning unit. An industrial ASP may be considered in an area large enough to provide a mixture of industrial uses and be recognized as a unit.

The minimum size of an ASP is approximately 200 hectares (500 acres) except in unusual cases as determined by the city.

When an ASP is contemplated, the applicant (private owner or owners of the majority of land within the plan area or the City of Edmonton) should seek Council's authority to prepare the ASP. At that time, the applicant will express, in writing, his intention to prepare the ASP and advise Council on the relationship of the proposed development to the *General Municipal Plan* and indicate the general land use types and potential problem areas.

Council will then make the decision whether to authorize the preparation of the ASP.

III Preparation of the Area Structure Plan

A General Framework for Area Structure Plans

The ASP shall adhere to the intent and spirit of Bylaw No. 6000, the *Edmonton General Municipal Plan*, Bylaw No. 5996, the *Land Use Bylaw*, the Urban Growth Strategy and various municipal policies related to planning and development as a whole. Any major departures from the

* NOTE: all references to the General Municipal Plan refer to rescinded Bylaw 6000, the 1980 GMP which was replaced by Bylaw 9076, the 1990 GMP. References to the Planning Act refer to the 1977 Act which was replaced by the 1980 Act.

General Municipal Plan would require a formal amendment to Bylaw No. 6000. According to the *Planning Act*, 1977 (Section 53(2)), an ASP shall also conform with the Edmonton Regional Plan. If it does not conform, an appropriate amendment will be required.

B Content of Area Structure Plans

All ASPs shall contain the following:

- a) an indication of the extent to which the plan conforms to the *Edmonton Metropolitan Regional Plan*, the *Edmonton General Municipal Plan* and the *Urban Growth Strategy*, if applicable;
- b) a survey of existing land uses, land use districting, transportation network and utility infrastructure;
- c) information on the natural environment of the area, soils, agricultural capability, topography, special features, natural drainage courses, ravine or river valley systems, extractive industries, land conservation areas and the like;
- d) a list of registered and assessed owners within the plan boundaries and a map of these ownerships. Information should also be available identifying the owners for whom the plan is being prepared;
- e) a statement of development objectives for the area, not only including the general statements found in the *General Municipal Plan* but also objectives specific for the area;
- f) the general location of the major transportation network for vehicular circulation, public transit routes and facilities (including LRT, where applicable) and pedestrian circulation;
- g) an assessment of the environmental impact of the proposed development on the natural environment and the manner in which the natural site characteristics will influence the development proposal;
- h) development and design guidelines relating to the overall area or portions of it (*General Municipal Plan Policies 15.A.2 and 15.A.3*) in regard to:
 - i) commercial development, its function and locations, including highway commercial, if any;
 - ii) relationship and/or transition between land uses within plan boundaries, between land uses and transportation corridors and between the plan area and surrounding areas;
 - iii) special treatment for environmentally sensitive areas, for land conservation areas for historic or archaeological preservation areas, for development adjacent to the ravine and river valley system or for special development areas; and,
 - iv) the manner in which development in the area will be encouraged to be energy efficient, through the pattern and density of land uses, the transportation network, block and building orientation, landscaping, utility servicing and building design (*General Municipal Plan*, Section 19);
- i) the sequence of development of the plan area, related to the provision of utilities, transportation facilities and community services and to the general direction and timing of development. Any problems anticipated in the orderly staging of development should be identified and solutions presented at this time;

- j) the identification and general location of the proposed major utility infrastructure components, including underground mains and trunks, substations, stormwater management facilities, service yards, pipelines, gas lines, power lines and the like;
- k) identification of the need for major institutional uses within the plan boundaries in accordance with Section 20 of the *General Municipal Plan* (once approved);
- l) whether, and the manner in which, existing land uses, including agricultural uses, will be incorporated into the plan or phased out, as development progresses. This discussion would also address the pattern of land ownership or existing subdivision, if this is perceived as a potential problem;
- m) maps at appropriate scales showing the following:
 - i) plan boundaries
 - ii) vicinity maps showing relationship of plan area to surrounding area, approved/proposed plans and influencing factors;
 - iii) existing subdivisions, development, utility lines, transportation routes and vegetation in the area;
 - iv) contours within the plan area;
 - v) major transportation network (arterial roadways and higher order facilities) proposed;
 - vi) general location of any major utility installation required to serve the area, including stormwater management lakes and power substations;
 - vii) boundaries or locations of any restricted area or indications of areas which may be affected by any government regulation (i.e. the Restricted Development Areas, airport and crash hazard zones, area covered by the river valley area, Redevelopment Plan Bylaw, Indian Reserve, etc.); and,
 - viii) scale, legend, title, known street names and north arrow;
- n) a statistical summary for the plan areas to include the following:
 - i) calculations of gross area and gross developable area;
 - ii) breakdown by sub-area of municipal reserve required and available and the resulting balance by sub-area and for the plan area;
 - iii) estimates of square footage commercial and institutional space in the plan area and the rate at which they would be developed;
 - iv) estimates of the number of employees accommodated by the commercial and institutional uses;
 - v) estimates of threshold population (or degree of development) required prior to provision of major community/area facilities; and,
 - vi) disposition of any redundant Government Road Allowance or any other city-owned land in the area;
- o) Transportation Impact Study of the internal and external network, to the satisfaction of Transportation Systems Design.

The following analyses are to be conducted to support the general location and layout of major arterial and collector roadways for vehicular circulation (including environmental protection), public

transportation (including LRT, where applicable) and pedestrian circulation.

Trip Generation: an analysis of potential vehicular trips, transit passenger trips and service trips attracted and generated by the area during an average weekday and during the critical peak periods.

Capacity Requirements: an analysis of the internal circulation system within the ASP is required to ensure that arterial and collector roads, transit routes and terminals, major parking facilities, etc. are planned with adequate capacity and appropriate alignments and standards to service the transportation demands within the plan area.

Access and Egress: an analysis of access and egress connections to the ASP to ensure that those connections have the capacities and orientations needed to accommodate the peak trip volumes to and from the surrounding transportation network.

External Impact: an analysis of the changes and improvements required to existing and committed transportation facilities (within approximately 5 km of the boundaries of the area plan) to accommodate the added imposed loads.

An analysis of staging of all transportation facilities related to the development of the area.

- p) Stormwater Management Study (or Studies) for the plan area, as required by, and to the satisfaction of, Water and Sanitation;
- q) an assessment of the potential economic impact of any regional shopping centres proposed in the plan upon any other existing, approved or proposed regional shopping centres in the city (*General Municipal Plan Policy 6.E.4*); and,
- r) any other information Council considers necessary.

Residential ASPs shall contain, in addition to the above, the following:

- a) residential land uses should be provided so that a variety of housing types result, to accommodate different lifestyles and income levels and flexibility in the housing market over the period of development of the plan area. The plan should encourage innovative approaches to the provision of housing. It is not necessary that the exact locations of multiple housing sites be identified at this stage, however, the principles to be applied at the Neighborhood stage for distribution of higher density uses should be identified. The exception to this is high density nodes surrounding town centres or other activity centres which should be identified and their parameters described in general terms;
- b) school and park requirements should be stated by type and number of school/park sites and the neighbourhoods in which they are to be located. Small parks adjacent to storm retention facilities should be identified schematically at this stage. District or city level recreational facilities should be identified by size, location, breakdown of facilities to be provided and method of acquisition. Additional open space features may be designated on the basis of

- environmental conditions, density or excess reserve land available, following the guidelines of the *Planning Act*, *River Valley Area Redevelopment Plan Bylaw*, the *General Municipal Plan*, the *Parks and Recreation Master Plan* and other city policies and Bylaws;
- c) commercial land uses should be provided to ensure the availability of retail services to the area and provision of some employment opportunities. The type, scale and distribution of commercial facilities will be determined and justified on the basis of population to be served, size of the area and policies of the *General Municipal Plan*. These types of community facilities can consist of:
 - Town Centre: general location, size, character and general land use types to be identified at this stage;
 - Neighbourhood Centres: general location, size and number should be included at this stage (as well, see I(b)(i) above);
 - d) special land uses required by city policy should include, but not be limited to, the following:
 - i) housing compatible with the objectives of provincial and municipal policies and programs to encourage all types of affordable housing including community, senior citizens and manufactured housing; and,
 - ii) the number and general location, by neighbourhood, of church sites for the area;
 - e) residential density in units per gross hectare should be designated for the overall plan area and each neighbourhood by stating a range of allowed density. Anticipated population densities in persons per gross hectare should also be estimated. These ranges would be established taking into account economical provision of hard and soft services and transportation networks, the carrying capacity of the land, the need to provide a high standard living environment and the policies of the *General Municipal Plan*;
 - f) map(s) at appropriate scale, showing the following:
 - i) distribution of land uses by type, in a schematic manner (i.e., residential and commercial uses, churches, schools, parks, etc.);
 - ii) neighbourhood boundaries; and,
 - iii) the gross developable area, population and density of each neighbourhood;
 - g) a statistical summary of the plan area, to include the following:
 - i) population for the area and each neighbourhood, calculated using the proposed density ranges and the resultant population per gross developable hectare (acre);
 - ii) breakdown by percentage of residential land area devoted to each residential land use type (single family, small lot single family, row housing and so on) and resultant units per acre and population of type, for each neighbourhood;
 - iii) student generation for each school system by school type for each neighbourhood and the total area; and,
 - iv) number, by type, of residential units estimated to be constructed for each of the ten years following initiation of development in the plan area;
 - h) an assessment of the social implications of the proposed development including a discussion of student generation.

- demographic data and analysis of provision of community services and Human Services Delivery System; and,
- i) general design guidelines for the residential portions of the plan, which should include, but not be restricted to, those set out in the *General Municipal Plan* and other Council approved documents.

Industrial ASPs shall include, as well as the information cited in No. 1 above, the following:

- a) a mixture of industrial designation must be provided to accommodate a wide range of industrial uses and to take advantage of proximity to major roadways, truck routes, rail lines and similar or complementary operations;
- b) the principle of preservation of land in industrial areas for industrial uses must be strongly emphasized (*General Municipal Plan Objective 7.C.*);
- c) designation of an industrial service centre(s) designed to provide uses not strictly industrial in nature whose primary purpose would be to provide services to the employees of that industrial area. The number, general location and size of the service centre(s) shall be described, keeping in mind the policies of the *General Municipal Plan (General Municipal Plan Policy 7.C.4.)*;
- d) guidelines for the location of "office parks" and light industrial uses shall be included. If any special treatment in terms of *Land Use Bylaw* regulations which should be encouraged or considered by the Development Officer, these should be specified (*General Municipal Plan policies 7.C.1. and 7.C.3.*);
- e) public utility or urban service uses should be identified and their impact on the industrial area and any special treatments required should be discussed, for the information of the Development Officer;
- f) special attention should be paid to the potential for rail servicing;
- g) development and design objectives for the industrial areas and service centres as set out in the *General Municipal Plan* and other Council approved documents (*General Municipal Plan Policies 15.A.2. and 15.A.3.*);
- h) maps of the area at appropriate scales showing the following:
 - i) distribution of land uses by type in a schematic manner;
 - ii) boundaries of any "units" within the plan area, for example, office parks or service centres; and,
 - iii) rail lines (existing and proposed) and truck routes (existing and proposed);
- i) a statistical summary for the plan area, to include the approximate area (hectares/acres) devoted to each land use type (business, medium, heavy, service centre) and estimated employment; and
- j) an implementation strategy for the area including staging, procedures for implementing specific recommendations, servicing strategy and so on. If development is to be permitted in a non-contiguous fashion, this must be identified with a demonstration that such development shall occur without additional costs to the city (*General Municipal Plan Policy 7.D.4.*); and,
- k) For ASPs which include a mixture of residential and industrial or commercial uses, the plan shall also include development guidelines for the treatment of the interface between these uses, for the minimization of conflict

between transportation networks and traffic flows serving each use and special requirements for the transition between the uses.

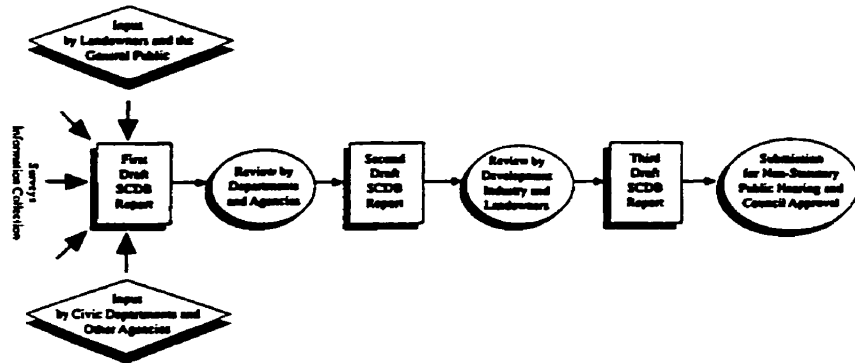
IV Submission Requirements

- A ASP reports shall be 21.5 cm x 28 cm (8½" x 11") and bound.
- B Maps for the plan can be provided at a scale which can be included in the body of the report (i.e., page size or fold out page size) except for the land use concept maps which will be provided at that scale as well as at 1:5000 scale.
- C One copy of this 1:5000 scale map shall be coloured, mounted and in durable form.
- D Original Submission: The submission of the first official draft of the proposed ASP shall include 76 bound copies of the text with maps and statistical summaries, a list of registered and assessed owners and their addresses and a map of these ownerships. One copy of the document or one copy of a summary of the document, shall be provided for each registered/ assessed owner.

APPENDIX 6: THE SERVICING CONCEPT DESIGN BRIEF (SCDB) PREPARATION AND APPROVAL PROCESS

Source: Planning and Development Handbook for the City of Edmonton 2000: 23

The Servicing Concept Design Brief (SCDB) Preparation and Approval Process



SERVICING CONCEPT DESIGN BRIEF (SCDB) TERMS OF REFERENCE

DRAFT TERMS OF REFERENCE FOR THE PREPARATION
OF A SERVICING CONCEPT DESIGN BRIEF (SCDB)
October 1992

Introduction

Authorization and Mandate for SCDBs:

City Council or the Municipal Planning Commission may authorize the preparation of SCDBs for any area of the City considered to be an integrated planning unit and where municipal servicing requirements and conceptual land uses are to be defined well in advance of anticipated development. City Council may adopt an SCDB by simple resolution under the provisions of the *Municipal Government Act*.

Purpose of SCDBs:

The purpose of an SCDB is to establish a generalized framework for municipal infrastructure, servicing planning and development guidelines and basic environmental requirements for an area considered to be an integrated planning unit, and to facilitate the staged submission of specific statutory Neighbourhood Area Structure Plans (NASP) by private developers. SCDB documents are not statutory plans under the provisions of the *Planning Act*.

SCDBs provide proactive, forward-planning statements of the civic position on the general placement and development of major land uses, including municipal and school facilities for a designated study area to which subsequent Neighbourhood Area Structure Plans (NASPs) should comply.

The SCDB approach will also assist the City in the ongoing development of its Capital Priorities Plan (CPP), as the cost of capital servicing and improvements for such areas can be identified in advance and assigned with an appropriate priority within the CPP. In this way, an SCDB provides a context for municipal investment in infrastructure improvements and growth management.

Parties Responsible for Preparing SCDBs

SCDBs shall be prepared by the civic administration with the Planning and Development Department acting in a "lead hand" role. Alternatively, SCDBs can be prepared under the direction of the civic administration by qualified urban planning, municipal engineering and environmental consultants.

Implementation Process and Administrative Context

As mentioned in Subsection 1.1, an SCDB will be adopted by resolution of Council. Such approval will provide the context for the subsequent authorization and preparation of component NASPs for the area and the implementation of proposals for servicing and land uses through the normal statutory planning and development process. SCDBs represent an alternative and novel approach to the municipal servicing and physical planning of Edmonton's future suburban areas.

Although SCDBs are not statutory plans, there are certain administrative and technical advantages inherent in their adoption through resolution of Council, as follows:

- (i) non-statutory approval allows substantial flexibility with respect to unanticipated and innovative types of development, land use patterns and servicing concepts/techniques;

- (ii) due to their inherent flexibility, SCDBs do not need to be amended in the light of new technical information, market uncertainty, differing landowner aspirations and other circumstances which may affect timing and phasing of development;
- (iii) as declared policy of Council, SCDBs will be recognized as a growth management tool by all contributing civic departments and agencies;
- (iv) development processing timelines are likely to be less than those associated with the conventional statutory ASP process, particularly if there are disagreements among landowners and developers and uncertainties in defining City servicing requirements; and,
- (v) "fixed" statutory land use planning will only need to be undertaken for smaller neighbourhood cells or industrial areas using the normal NASP, redistricting and subdivision processes.

SCDB Preparation Process:

Required Inputs

Technically, the preparation of a SCDB will require the dedicated input of professional planning and engineering staff from the following civic departments and agencies:

- Planning and Development
- Transportation (Transportation Planning Branch, Drainage Branch)
- Parks and Recreation (Development Branch)
- Public Works (Water Branch, Building Engineering Branch, Roadways Engineering Branch, Civic Buildings and Accommodation Branch, and Office of the Environment)
- Edmonton Public School Board
- Edmonton Separate School Board
- Edmonton Power
- Northwestern Utilities Limited
- Edmonton Telephones (Ed Tel)
- Appropriate provincial government agencies such as Alberta Environment, Alberta Public Works, Alberta Culture et al.

Consultations on a regular basis throughout the plan-making process with private owners and their agents/consultants/legal advisors will also be required by the Planning and Development Department or other parties coordinating the preparation of the SCDB.

The "administrative mechanics" of the SCDB preparation process will involve establishing an ad hoc working committee comprised of representatives of Planning and Development, Transportation, Public Works, Parks and Recreation, Fire, Edmonton Power, Northwestern Utilities Limited and the Edmonton Public and Separate School Boards to assemble and review civic departmental and agency requirements. This will be achieved through a series of "round table" discussions and a design working session (design charette) to provide each department or agency the opportunity to advocate its requirements in an open forum, rather than presenting *fait accompli* positions. Representatives of key civic departments will also act as a steering committee to assess the relative priorities for addressing identified land use and servicing issues. This approach will ensure mutual recognition of each department's/agency's requirements and a more flexible approach to accommodating mutual aims and reducing land use and servicing conflicts.

Input by land owners and the general public will be elicited in the process described in Subsection 2.2, below. Production of the SCDB report will then be subsequently coordinated by the Planning and Development Department or appointed consultant(s),

reviewed by the participating civic departments/agencies, followed by distribution to landowners and development industry interests in the study area.

Work Program Components of the SCDB Preparation Process

The following is a description of the major work program components to be undertaken during SCDB preparation process. These "tasks" are listed in sequential order.

- (i) Information gathering. This involves the compilation of adequate study area base mapping (1:5000 scale), field surveys, analysis of background information and conduction a meeting of all registered owners in both informal and formal forums (i.e., public meeting/open house). The information to be compiled is listed in Subsection 3.1;
- (ii) Prepare first draft SCDB report with input from Civic Departments, outside agencies and owners (includes commissioning supporting studies e.g. drainage, water supply, et al). As per Task (i) above, this will involve setting up public and private meetings with landowners, their consultants and legal representatives, and the general public to determine issues, concerns and aspirations with respect to future servicing and land use patterns;
- (iii) Detailed technical review of first draft of the SCDB report by civic departments and agencies. The first draft will be amended as required following critique by contributing parties;
- (iv) Prepare a second draft SCDB report for review by the Municipal Planning Commission (MPC). The MPC is the most appropriate civic technical review agency to review the second draft SCDB, prior to its review by landowners and the general public;
- (v) Release revised second draft report to landowners, their agents and general public for review. Elicit comments, concerns and critique in the form of written submissions;
- (vi) Hold a Public Meeting;
- (vii) Prepare third draft report in response to public concerns;
- (viii) Submit final draft report to City Council, via the Utilities and Public Works Committee, Executive Committee, and the holding of a non-statutory public hearing by City Council; and,
- (ix) Prepare final report for sale and distribution to the general public.

Timelines

The assembly, review and preparation of technical input, public participation, administrative liaison, assembly of staff resources, budgets for technical studies (such as Phase I Drainage Area Master Plans and Water Network Analyses, etc.) and the approval process will approximate a twelve (12) to eighteen (18) month time period.

Content Requirements for SCDB Reports

All SCDB reports shall contain the following written content¹, accompanied by the appropriate maps and illustrations specified in subsection 3.5 of these Terms of Reference.

Study Area Context

- (i) A statement on the location, purpose and general background of the SCDB study area;

¹ Appendix II (a) contains a table of contents summary for a "typical" SCDB.

- (ii) A brief history of previous development activity and planning and development submissions in the study area, and a summary of landowners' issues and concerns;
- (iii) A description of land ownership characteristics in the study area with a generalized map and table of landowners' holdings;
- (iv) An examination of study area existing features and environmental aspects and constraints, including a description of:
 - topography and soils
 - hazard lands (i.e., disturbed lands, flood risk lands and unstable areas)
 - natural areas²
 - existing land use and development patterns
 - transportation patterns
- (v) Study area Policy context and considerations to provide an indication of how the study area is impacted by the following statutory plans and regulations:
 - the *Edmonton Regional Metropolitan Plan*
 - *The General Municipal Plan*
 - Other applicable statutory plans (e.g. *North Saskatchewan River Valley ARP*)
 - Adjacent Area and Neighbourhood Structure Plans
 - Provincial Restricted Development Areas and Transportation and Utility Corridors

Municipal Servicing Infrastructure Requirements

This subsection specifies the information requirements for hard municipal service requirements for transportation facilities, drainage, water supply, natural gas supply and telecommunications.

Roadway and Transportation Facilities

A statement of design criteria for roadway and transportation facilities shall be supplied by the Transportation Planning Branch of the Transportation Department, or their consultant(s).

- (i) Arterial Roadway requirements - description arterial Roadway Network
- (ii) Arterial Roadway network constraints
- (iii) Arterial Roadway right-of-way and lane requirements
- (iv) Access criteria
- (v) Truck and Dangerous Good Routes
- (vi) Noise attenuation requirements
- (vii) Construction staging criteria related to municipal priorities
- (viii) Requirements for Collector Roadways including brief description of:
 - number of collectors
 - location of collectors
 - access to collectors
 - emergency access
 - interim access
 - top-of-bank roadway requirements
 - pedestrian circulation
 - walkway bikeway system
 - school drop-off bays

² Appendix II (b) specifies the requirements for an environmental Inventory base to be incorporated in the terms of reference for subsequent Neighbourhood Area Structure Plans (NASPs) in the SCDB study area. These requirements shall be reproduced in the SCDB report to ensure that the environmental inventory base is prepared at the NASP stage.

Drainage Network

A Drainage Area Master Plan Phase I Study shall be prepared by the Drainage Branch of the Transportation Department and/or their consultants following Terms of Reference established for this purpose by the Drainage Branch. The Drainage Area Master Plan shall also incorporate a preliminary hydrogeotechnical report to support the servicing proposals.

The Drainage Area Master Plan and hydrogeotechnical report shall contain an executive summary of its proposals not exceeding ten (10) 8½" x 11" (21.5 x 28 cm) pages in length. The Drainage Area Master Plan Phase I study shall contain in the following components:

- (a) A full description of the sanitary drainage system including:
 - (i) drainage basins (natural and assigned)
 - (ii) existing service provision and down-stream capacities
 - (iii) drainage area master plan proposals
- (b) Drainage Area Master Plan proposals shall provide a full description of the storm water drainage system including:
 - (i) design assumptions
 - (ii) description of existing services and down-stream capacities
 - (iii) description of drainage area master plan proposals
 - (iv) geotechnical considerations
 - (v) recommendations for future drainage studies

Water Supply

Water supply information and requirements with respect to a water supply system for the study area shall be supplied by the Water Branch of the Public Works Department. This information may, as circumstances warrant, be supplied in the form of a Water Network Analysis prepared by the Water Branch or their consultant(s), and shall include:

- (i) Descriptions of existing water supply facilities.
- (ii) Description of proposed water supply system, including down-stream upgrades required.

Electric Power Supply

The following information regarding electric power supply requirements for the study area shall be provided by Edmonton Power:

- (i) Description and location of major power supply substations.
- (ii) Additional transmission/substation requirements.
- (iii) Power distribution system layout and requirements.
- (iv) Description of existing facilities.

Telecommunications

The following information shall be provided by Ed Tel and, where appropriate, CATV services:

- (i) description of existing service area(s); and
- (ii) timing of proposed facilities, including switching centres and provisioning points.

Natural Gas Services

The following information and service requirements shall be supplied by Northwestern Utilities Limited:

- (i) description of existing natural gas supply facilities; and
- (ii) timing of proposed facilities, including gate regulating station(s), major gas main layouts and servicing requirements.

Community Service Requirements

The following information and community service requirements shall be provided by the Parks and Recreation Department, the Edmonton Public School Board and the Edmonton Separate School Board.

Schools and Parks/Open Space Natural Environment

- (i) A statement of development intents and objectives with respect to the development of school/park sites and protection of the natural environment, including:
 - size and location of all school sites and park sites
 - passive and active open spaces (size and location)
 - flora and fauna
 - natural hazard lands (i.e., flood risk or unstable lands)
 - areas of historical, archaeological or visual significance
 - pedestrian access to green spaces
 - utility and pipeline rights-of-way
 - storm water management facilities/dry ponds and wet ponds
- (ii) Geotechnical considerations with respect to:
 - erosion and slumping
 - flooding hazards
 - use of fill materials in site preparation
- (iii) Top-of-Bank Requirements for Environmental Impact Assessment at the NASP Stage
- (iv) School site requirements with respect to:
 - neighbourhood sizes and configurations
 - access and circulation
 - parcel configuration and frontage
 - soil conditions
 - relative location of servicing and pipeline a utility corridor rights-of-way
 - site drainage and storm water management
 - assembly and staging of development
 - relative location of commercial, industrial and non-residential development
- (v) Open space and park site requirements
 - description of existing and proposed parks/open space system
 - neighbourhood parks
 - viewpoint parks
 - environmental and municipal reserve
 - use of storm water management facilities
- (vi) statement of school, environmental and municipal reserve allocations and entitlements

Other Community and Institutional Requirements

- (i) Fire station sites - requirements to be provided by the Fire Department.
- (ii) Municipal service yards, cemeteries and allied facilities - requirements to be supplied by the Public Works Department.

Planning and Development Principles, Development and Phasing

A statement shall be prepared by the Planning and Development Department and/or their consultants describing the basic principles and guidelines for development in the study area. This statement shall include development principles incorporating:

- (i) guidelines with respect to housing types and densities to achieve a balanced and integrated socio-economic structure in accordance with the principles of the General Municipal Plan.
- (ii) employment opportunities with respect to commercial and industrial development
- (iii) activity focal points within the study area
- (iv) transportation system and utility corridors
- (v) protection of the natural physical environment
- (vi) urban design considerations for new development

Development Concept

A development concept shall be provided showing the overall pattern of development and general distribution of land uses in the study area and shall incorporate the following components:

- (i) bank roadway setbacks
- (ii) contextual relationship of the study area to surrounding land use and development patterns
- (iii) a description of the future pattern of development within the study area
- (iv) guidelines for the treatment of hazard lands - e.g. reclamation of disturbed lands and the protection of environmental y sensitive areas, such as flood risk areas and unstable land
- (v) generalized design of neighbourhood cells and non-residential (e.g. industrial) areas
- (vi) access, circulation and movement patterns
- (vii) community facilities including location of:
 - school/park sites
 - commercial service centres
 - employment areas
 - industrial areas (if applicable)
 - other civic uses

Land Use and Population Statistics

Preparation of a Land Use and Population Statistical summary to include:

- (i) a summary of proposed land uses in terms of gross developable area and non-residential (industrial/commercial) land use requirements, roadways and other utility, access and circulation requirements; and
- (ii) a population projection and description of various growth scenarios to achieve the requisite design population(s) in accordance with City Council's policies regarding the distribution of density within residential neighbourhoods.

Development Phasing

Prepare a description of the recommended sequence of development phasing, taking into account the following factors:

- (i) the policies of the General Municipal Plan and any abutting statutory plans
- (ii) allocation of municipal funding for servicing infrastructure
- (iii) drainage basin development sequence
- (iv) land ownership characteristics and development timing preferences
- (v) school and parks requirements
- (vi) geotechnical and other environmental constraints.

Document Submission Requirements and Format of Maps and Other Illustrative Materials

All SCDB reports shall be prepared on 21.5 cm x 28 cm (8½" X 11") paper and shall be bound.

The following maps shall be prepared and where appropriate, be incorporated in the text of SCDB reports:

- (i) Location and Boundary of Study Area (vicinity map optional)
- (ii) Land Ownership
- (iii) Natural Features and Hazard Lands
- (iv) Major Roadway Network
- (v) Natural Drainage Basins
- (vi) Sanitary Servicing - Recommended Alternative (Simplified)
- (vii) Storm Servicing Recommended Alternative (Simplified)
- (viii) Water Servicing Network (Preliminary)
- (ix) Electric Power Facilities and Telephone Service Areas
- (x) Natural Gas Distribution System
- (xi) School/Parks Requirements
- (xii) Other Municipal Service Requirements
- (xiii) Development Concept (Future Land Use)
- (xiv) Recommended Development Phasing

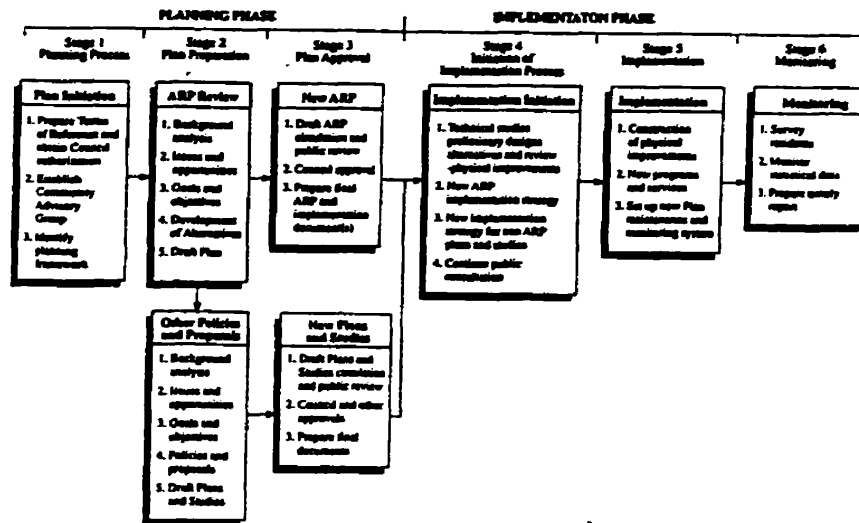
All maps for SCDB reports shall be provided at an appropriate scale so that such maps can be incorporated in the body of the report text (page size or fold-out-format), except that the Land Ownership Map (ii), Natural Features and Hazard Lands Map (iii) and Future Land Use Development Concept Map (xiii) shall also be produced at 1:5000 scale coloured and mounted for presentation and archival purposes.

The Planning and Development Department will hold an original copy of the complete SCDB documentation and list of registered owners on file and shall make copies of the final report available to members of the public for a nominal charge in accordance with City policies and procedures regarding such costs.

APPENDIX 8: TYPICAL PREPARATION AND REVIEW PROCESS FOR AN AREA REDEVELOPMENT PLAN (ARP)

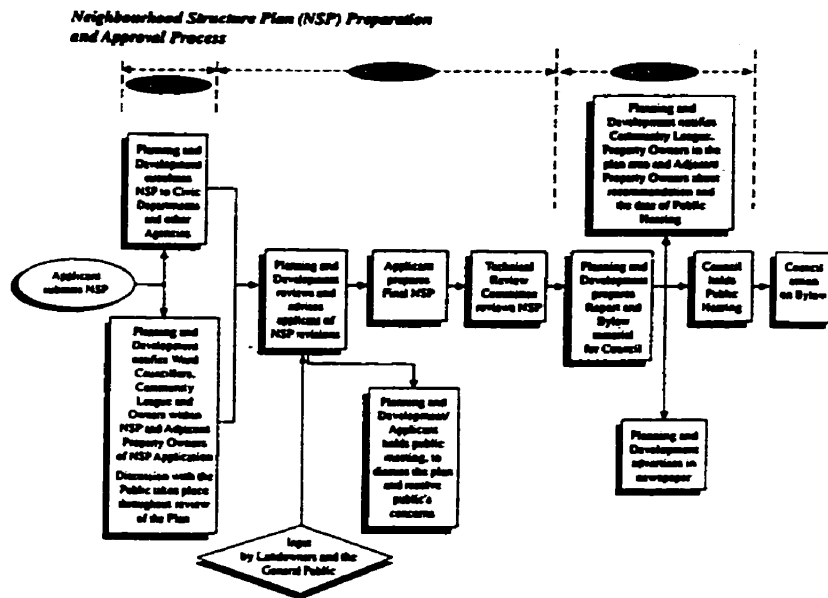
Source: Planning and Development Handbook for the City of Edmonton 2000: 21

Typical Preparation and Review Process for an Area Redevelopment Plan (ARP)



APPENDIX 9: NEIGHBOURHOOD STRUCTURE PLAN (NSP) PREPARATION AND APPROVAL PROCESS

Source: Planning and Development Handbook for the City of Edmonton 2000: 25



NEIGHBOURHOOD STRUCTURE PLAN (NSP) TERMS OF REFERENCE

As Approved by City Council on November 27, 1979

I Introduction

A Mandate for Neighbourhood Planning

In April 1972, the Municipal Planning Commission approved a set of guidelines entitled "Terms of Reference for Neighbourhood Outline Plans" authorizing the preparation of neighbourhood outline plans to be approved by the Municipal Planning Commission*.

B Mandate for Neighbourhood Structure Plans

The 1977 *Alberta Planning Act* provides for the formulation of Area Structure Plans to be approved by the City Council in the form of a Bylaw. In accordance with the Terms of Reference for Area Structure Plans as adopted by the City of Edmonton (January 12, 1982), neighbourhoods shall be planned under the concept of Neighbourhood Structure Plans to be approved by Council in the form of Area Structure Plan Bylaw Amendments. Where a District Outline Plan has been approved, a neighbourhood within the district shall be planned as a Neighbourhood Structure Plan to be approved by Council as N.S.P. Bylaw.

C Concept and Purpose of Neighbourhood Structure Plans

The Neighbourhood Structure Plan is essentially the implementation of an Area Structure Plan for a sub-unit known as a neighbourhood (as defined in the subsequent section). The Neighbourhood Structure Plan should conform to the Area Structure Plan, or District Outline Plan (where such is in existence). The Neighbourhood Structure Plan shows the general pattern for subdivision by designating land uses by type, size and location, transportation network, location and size of neighbourhood facilities and scheduling of services.

II Authority to Prepare Neighbourhood Structure Plans

The subject of Neighbourhood Structure Plans shall be an area of land which is a sub-unit of an Area Structure Plan, or District Outline Plan containing a population sufficient to support an elementary school (approximately 4000 to 6000 people) and considered an integrated planning unit by reasons of manmade or natural boundaries.

Any neighbourhood for which an approved Area Structure Plan exists (or prior to 1979, an approved District Outline Plan) may be initiated for planning under a NSP. The NSP may be undertaken by the individual land owner or owners of the majority of land within the plan area or the City of Edmonton; no formal authority is required except that the applicant informs the Planning Department of his intentions to prepare a NSP.

III Preparation of NSP

* NOTE: all references to the *General Municipal Plan* refer to rescinded Bylaw 6000, the 1980 GMP which was replaced by Bylaw 9076, the 1990 GMP. References to the *Planning Act* refer to the 1977 Act which was replaced by the 1980 Act.

A General Framework for NSP

The NSP shall conform to the intent, spirit and guidelines as set forth in the Area Structure Plan or District Outline Plan as they relate to the neighbourhood; it therefore should be concerned with the designation of specific land uses by type, size and location, neighbourhood density, location/size and phasing of services and provision of transportation all in accordance with the ASP guideline. In addition, it shall conform to all other planning policies of the municipality, as they relate to neighbourhood planning.

B Content of NSP

The NSP should contain the following:

1. All such information that indicates the extent to which NSP conforms to the ASP or District Outline Plan.
2. Statement on the development objectives for the neighbourhood; statement on the overall development concept and design approach used.
3. The identification of sub-units of the neighbourhood which can be demonstrated to be serviceable at certain stages, indicating implementation by subdivision, re-plots or other mechanisms.
4. Actual location of the major transportation network, location of the internal circulation network, subject to detailed design at the subdivision stage, identification of bus routine (and LRT system components where applicable) and identification of pedestrian system components.
5. The identification and location of proposed major utility infrastructure components such as underground mains, utility stations, drainage lakes, services yards, pipelines, gas lines, power lines and the like, where applicable and the schedule of servicing.
6. Designation of Land Uses
 - 6.1 Residential
 - 6.1.1 identify zoning categories and/or land use clarification for each sub-unit considered for subdivision at the same time as NSP. Indicate proposed housing quantity and composition as to family and non-family oriented units.
 - 6.1.2 identify proposed intensity of development (density range) for each sub-unit not considered for detailed subdivision and zoning at the time of NSP submission.
 - 6.2 Schools/Parks Sites - location of specific school/park sites and their corresponding size should be identified.
 - 6.3 Other open space features - such as pocket parks, tot lots, viewpoint parks and ornamental parks should be identified in general location.
 - 6.4 Commercial land uses - should be identified by location and size giving consideration to the market study as to the type and number of establishments.
 - 6.5 Special Land Uses
 - 6.5.1 Environmental protection areas, historical preservation areas, innovative housing and other special planning areas should be identified in terms of size, location and development restrictions.

6.5.2 Housing compatible with the objectives of Provincial and Municipal policies and programs to encourage all types of affordable housing (including Public Housing and Manufactured Housing).

6.5.3 Church site, size and location to be identified.

7. Proposed Neighbourhood Land Use Map and Preliminary Statistics.
8. Development guidelines relating to the manner in which specific land use development will occur such as noise attenuation mechanisms, architectural and use restrictions for environmental zones and historic preservation areas and the like.
9. Designation of neighbourhood density by stating a density range for the neighbourhood which is represented as the total of the specific density ranges of the various sub-units.
10. Sequence of Development. The phasing of subdivision in the neighbourhood and corresponding schedule of utilities and provision of other services.

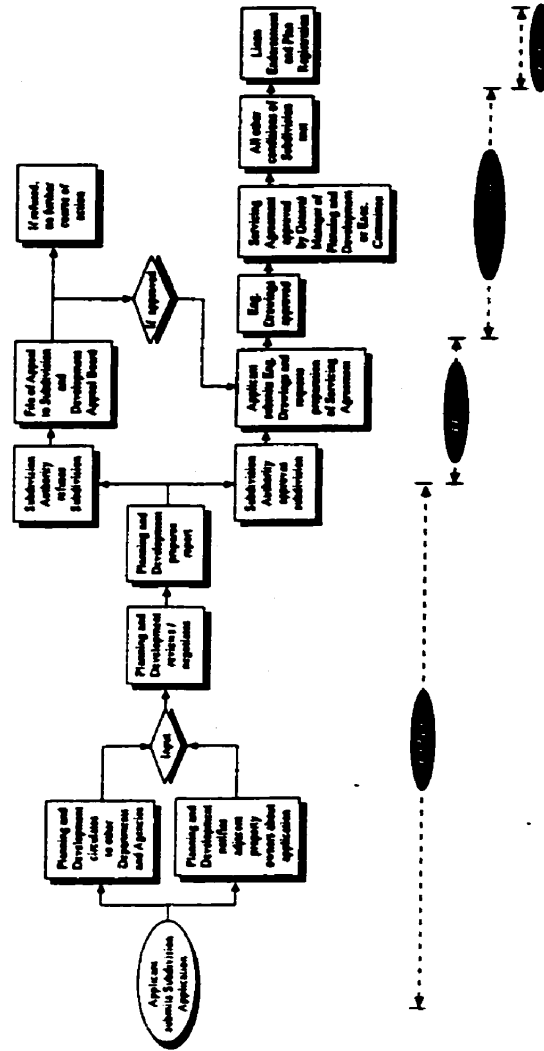
C. Support Materials on the NSP

1. Information on the existing land use, zoning, land ownership, existing utilities infrastructure and transportation network.
2. Environmental Impact Statement for the specific area covered by the neighbourhood;
3. Social Impact Statement including student generation statistics for the specific neighbourhood.

APPENDIX 11: PROCESS FOR APPROVING AND REGISTERING A PLAN OF SUBDIVISION

Source: Planning and Development Handbook for the City of Edmonton 2000: 29

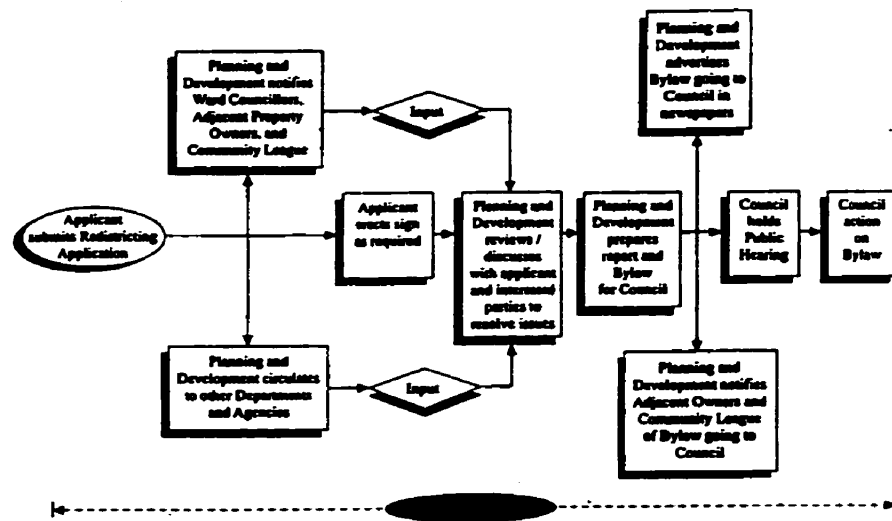
Process for Approving and Registering a Plan of Subdivision



APPENDIX 12: LAND REZONING PROCESS

Source: Planning and Development Handbook for the City of Edmonton 2000: 27

*Land Redistricting – Process
for Application and Approval*



INTERVIEW PROTOCOLS AND PARTICIPANTS

The following professionals were interviewed as part of the practicum process and their participation, insight and candour is gratefully acknowledged:

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Urban Development Institute, Alberta Chapter, Edmonton**

**Olga Lovatt, Principal
Lovatt Planning Consultants, Edmonton**

**Heather McRae, Director
Corporate Planning and Policy Section
Planning and Development Department, City of Edmonton**

**John Ohki, Project Manager
Conson Developers Inc., Edmonton**

**Grant Pearsell, Planner
Corporate Planning and Policy Section
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