DENSITY BONUS AS A TOOL FOR GREEN SPACEE CONSERVATION

AN EVALUATION OF ITS USE IN BRITISH COLUMBIA'S RURAL-URBAN FRINGE

by

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ABSTRACT

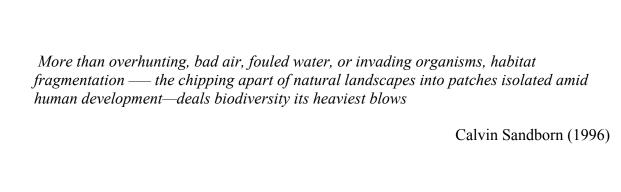
The key challenge in achieving urban sustainability is accommodating growth while maintaining livability and sustaining ecological systems. Density bonus, also called amenity zoning, is a market-based planning tool that brings greater flexibility into the zoning process by providing incentives to encourage private investment in public amenities and the creation of socially preferred patterns and types of development.

This study evaluated the use of density bonus as a tool for green space conservation in British Columbia's rural-urban fringe. A literature review on amenity zoning and other alternative development techniques provided context for the study, and informed the construction of an evaluative framework. An interview-questionnaire was developed and used to gauge the experiences and opinions of 19 individuals from the planning and development sectors.

Density bonus can improve the efficiency of local government expenditures by acquiring green space with little or no direct cash outlay. It brings stakeholders together to make value trade-offs between higher density and the preservation of natural areas that can be likened to a direct environmental valuation process. It facilitates site design that is ecologically sensitive and shifts some green space conservation costs onto the development industry. A portion of land development profits is returned to a community through the provision of amenities. For various reasons, this voluntary tool is infrequently used in the rural-urban fringe context; thus, it cannot be relied upon to save critical natural areas. When used, density bonus may result in development that is inappropriate in terms of density and location. Challenges that impede density bonus negotiations include unfavorable real estate markets; poor lines of communication between local government planners and developers; establishing an acceptable exchange value; protracted negotiations and uncertainty in the approval process; and political resistance to higher density.

This study identifies general issues in the development and implementation of a density bonus system to encourage green space conservation and cluster development in a rural-urban fringe context. It recommends the introduction of specific legislation to provide local governments direct authority to require or encourage cluster development. It stresses the importance of local governments using existing density bonus provisions within the context of comprehensive land use plans, having a solid knowledge of land economics and local real estate conditions, identifying and addressing obstacles before proceeding, and creating a streamlined development approval process that is transparent and predictable.

to frank and ryland, my boys



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LIST OF ACRONYMS

B.C. British Columbia

CDA Comprehensive development area

CDZ Comprehensive development zoning

COHO Commission on Housing Options

CRD Capital Regional District

DCC Development cost charge

DPA Development permit area

ESA Environmentally sensitive area

FAR Floor area ratio

MCAWS Ministry of Community, Aboriginal and Women's Services

MELP Ministry of Environment, Lands and Parks

MMA Ministry of Municipal Affairs

OCP Official community plan

RDC-S Regional District of Comox-Strathcona

RDN Regional District of Nanaimo

SPPD Streamside protection policy directives

UDI Urban Development Institute

Chapter 1

INTRODUCTION

Study Overview

The challenge of creating sustainable communities is immense. The key challenge in achieving urban sustainability in British Columbia (B.C.) is accommodating growth while maintaining livability and sustaining ecological systems (BCRTEE 1994). At this time, two important objectives are to first, ensure the conservation of natural areas within, or near, communities keeps pace with population growth, especially in the lower mainland, southeastern Vancouver Island, and the Okanagan where growth rates are highest (Sandborn 1996); and second, reverse the accelerating pace of conversion of the natural landscape—"greenfields"—into residential subdivisions by reducing per-person land consumption (Jarvis 1993). These objectives are of particular importance in the rural-urban fringe because this is where most future urban land developments are likely to take place (Marchand and Charland 1992). Local governments have unique opportunities available to them to ensure that natural areas are conserved when urban development takes place. This study examines one innovative tool that can be used to acquire green space: the "density bonus". Described by Ministry of Municipal Affairs (MMA) as "path-breaking" legislation (B.C. MMA 1994, 8), the provisions for density bonus, also called amenity or incentive zoning, introduce flexibility into the zoning process by providing incentives to encourage private investment in public amenities and the creation of preferred patterns and types of development. In this way, the intent of the tool is to enhance the effectiveness and efficiency of local land use planning (ibid. 12). The only other provinces besides B.C. with legislation specifically enabling amenity zoning are Ontario and Nova Scotia (Scherlowski 2000).

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¹ As part of the changes resulting from the election of a Liberal government, the names of certain ministries were changed in June 2001. Ministry of Municipal Affairs (MMA) is now part of Ministry of Community, Aboriginal and Women's Services, and Ministry of Environment (CAWS); Ministry of Environment, Lands and Parks (MELP) is now Ministry of Water, Land and Air Protection. To provide consistency, government documents published prior to June 2001are referenced in this report using the former ministry names; present and future references to these ministries use current names.

Purpose and objectives

The purpose of this study is to conduct a preliminary assessment of density bonusing as a tool for green space conservation in British Columbia's rural-urban fringe. The objectives are: (a) to develop a framework for evaluating density bonus as a tool for green space conservation; (b) to evaluate density bonus using this framework and identify its strengths and weaknesses; and (c) to make recommendations regarding green space applications of density bonus.

The research is based on semiformal interviews with representatives from the planning and development sectors (see chapter four for a discussion of research methodology). Thus, this study does not attempt to precisely determine the benefits and costs of the use of density bonus, but to summarize the experiences of the some of players in the field and provide some examples of the nature and range of impacts resulting from its use. The objectives of this research are operationalized by investigating three study questions:

- What are the theoretical merits and limitations of using density bonus as a tool for green space conservation?
- What are the practical challenges or obstacles to using density bonus in the rural-urban fringe?
- How are the costs and benefits of green space amenities distributed within density bonus arrangements?

In the following sections, the significance of this study is situated within the broader context of the challenge of creating more sustainable communities. The concept of density bonus is then introduced, followed by a comment on the literature concerning density bonus. Next, research methods are described, and then the report's organization is outlined. Context for the study is provided through a discussion of scope and usage of terms, and a few concluding thoughts on evaluation of land use planning tools.

Study significance

This evaluation of density bonus as a tool for green space conservation in a rural-urban fringe context is of interest for a number of reasons. First, through the use of density bonus, it may be possible to preserve substantial tracts of land as green space and, at the same time, promote more efficient land use. Second, although the acquisition of public

green space is an important priority at the local level, budgetary restraint severely constrains the ability of many local governments to purchase valued parkland. Third, as a market-based tool, it encourages private investment in public green space amenities. These points are discussed next.

As noted above, sustainable community growth and development calls for the conservation of nearby natural areas to keep pace with population growth and a slowing of the rate of rural-to-urban land use conversions. The cumulative impact of urban development across the province is one of the greatest threats to wildlife and fish populations (B.C. MELP 2000). While other abuses to the environment can be regenerated or rehabilitated, the destruction of habitat results in irreversible harm, and is extraordinarily expensive, and at times impossible, to restore. For example, in the lower mainland, more than six hundred hectares of rural land are converted to urban use annually (Sandborn 1996). Since the 1950s, more than one hundred streams that previously supported healthy salmon and trout populations have been "lost"—filled in, used as sewers, or culverted (Dovetail 1996). The garry oak meadows of southeastern Vancouver Island/Gulf Islands and the grasslands of the Okanagan are two of Canada's four most endangered ecosystems. A report by the British Columbia/Washington Marine Science Panel (1994) concluded that its highest priority for action was not concern over pollution or other issues, but the protection from development of near-shore estuarine and terrestrial wetland habitats.

Beyond municipal boundaries—in the rural-urban fringe—subdivision bylaws typically require larger lots in order to ensure low-density development and to maintain rural landscapes. On the contrary, low density rural residential development frequently detrimentally impacts natural systems far out of proportion to the numbers of people or investment involved (Lanarc 1995). Over time, rural agricultural and forested areas are bulldozed, filled, and paved to become more residential areas. Gradually, natural areas become so fragmented that ecosystems can no longer function properly; habitat for native plants and animals is lost; and the natural character of an area is diminished. Whether the

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² Urban development is a threat to 46% of red-listed (threatened and endangered) vertebrate species and 40% of blue-listed (vulnerable) vertebrate species

setting is urban, rural, or in the fringe in between, poorly planned land development patterns will have consequences for centuries in terms of the amount and efficiency of resources consumed (Blais 1995). Using density bonus, a local government can encourage changes in development patterns—from conventional low-density, land intensive to more compact or clustered developments—that allow for the preservation of parkland, sensitive habitats, and other types of open space; while maintaining the scale, and maintaining or even increasing the value of some types of developments (Holman and Adams 1998, 15).

The provision of parks, open space, and greenways has been a municipal priority for decades (QPC 1995, A-8). Communities value green space lands because they serve a variety of functions including: enriching the urban environment, connecting people to nature, and providing opportunities for outdoor recreation; conserve habitat that protects fish and contributes to biodiversity; support basic ecosystem functions, which moderate the climate and filter pollutants; and reduces the risk of damage to urban development from flood and geotechnical hazards. Comprehensive green space networks also provide a number of direct and indirect economic benefits to a community from related to economic development, tourism potential, increased property values, and growth management (Lanarc 1995, 18). However, diminished provincial transfer payments and overstretched budgets are seriously impeding local governments' purchasing power. Such pressures are motivating local governments to explore alternatives to the purchase of parkland and other public green space amenities. It is in this context that local governments have reached for that tool, relatively new in B.C., which is the density bonus.

The density bonus: what is it?

Underlying the entire density bonus scheme is negotiation—dealmaking in search of what Lawrence Susskind calls mutual gain solutions.

(B.C. MMA 1994, 3)

In other words, the idea is that density bonus facilitates bargaining through the development approval process to achieve "win-win" solutions for cash-strapped local governments and developers (B.C. MMA 1998, 12). It is a financial incentive, one of

few such instruments available to local governments. Density bonuses send a price signal to the market, motivating developers to account for environmental and social values that otherwise have little or no immediate market value. On a certain level, the concept of density bonus is simple and intuitively appealing: a developer is awarded greater density than is permitted in a zoning bylaw if specified public amenities are provided to help absorb or negate the undesirable consequences of that higher density (Yardley 1997).

Traditionally, density bonus was devised to encourage preferred kinds of growth in downtown commercial districts and to help finance the provision of various public amenities. In an urban context, higher density is usually achieved 'vertically' by increasing the number of floors, or *floor area ratio* (FAR), in a building (figure 1.1). Bonuses are awarded as a specified increase in FAR. The types of amenities that can be provided in exchange for higher density include, for example, affordable housing; public plazas, arcades, and art; transit shelters; underground parking; and even daycare facilities, depending on a community's priorities.

DOWNTOWN OFFICE CORE-1:
FLOOR/AREA RATIO

FLOOR/AREA RATIO

Amazimum 20 FAR
Housing Only

15

Housing or Amenities

Amenities

Base FAR

Figure 1.1: Density bonus in an urban context: additional density is awarded in exchange for the provision of housing and/or amenities

Source: Lassar (1989, 21)

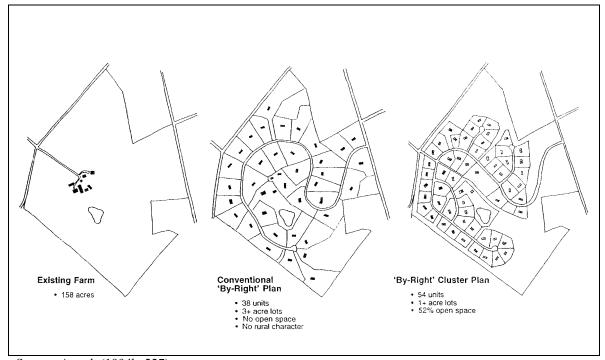
In B.C., local governments have direct authority to use amenity zoning under Section 904 of the *Local Government Act*, which was adopted as an amendment in 1993 (B.C. 1996a). Section 904 supplements local governments' basic zoning authority by allowing a zoning bylaw to set out the basic density for a given zone, and higher densities if a developer agrees to one or more of the following conditions: the provision of affordable housing; the provision of a specified community amenity or amenities; or, a developers enters into a housing agreement (appendix B). Prior to having direct legislative authority, it was not uncommon for local governments to informally accept or require, as a condition of rezoning, amenities that were reasonably related to the development facilitated by the rezoning (Cockrill 1996, 5). Thus, the introduction of Section 904 "essentially recognized the longstanding practice in which local governments agreed to exercise their discretion to increase the permitted density of land use in exchange for the applicant . . . complying with conditions requested by the local government," (Yardley 1997, 90).

Section 904 allows for a broad interpretation—and application—of the tool. A density bonus can be granted in exchange for various community amenities such as green space, daycare facilities, underground parking, or preservation of an environmental conservation area or a heritage structure (B.C. MMA 1993). Offered as a voluntary economic incentive to developers, density bonuses are intended as a more flexible alternative to conventional, prescriptive land use controls available to local governments. As an environmental tool, amenity zoning encourages changes in development patterns: concentrating or clustering development on a portion of a property allowing the remainder to be set aside as parkland, sensitive habitat, and other types of green space (figure 1.2).

At this juncture, density bonus can still be largely considered as an "urban" planning tool in B.C. A survey of British Columbian municipalities conducted by MMA (1997b, 5) found that twenty-four municipal governments were using the tool, mostly for affordable housing, and another nineteen municipalities that were considering implementing density bonus provisions. Despite acknowledgements of the potential merit of the tool, relatively few local governments in rural-urban fringe communities in B.C. are using density bonusing to achieve their green space objectives. A preliminary survey conducted for

this study found only six out of twenty-nine rural governments formally or informally negotiate density bonus arrangements, while four were considering adopting density bonus provisions (Taves 1998).

Figure 1.2: Density bonus in a rural-urban fringe context: Awarding higher density by reducing minimum lot size and increasing number of lots permitted allows greater than 50% of a property to be conserved as green space, compared to a conventional development plan which contains little or no open space



Source: Arendt (1994b, 227)

A number of factors may be attributed to the low level of use of density in the rural-urban fringe. A report prepared by MMA (1994, 9) shortly after the introduction of Section 904, acknowledged that density bonus is at once a significant, but also complex and risky tool, requiring "a thorough knowledge base of markets and legal opportunities and pitfalls/risks . . . to be used effectively". Favorable market conditions and community acceptance of higher development densities are necessary for a density bonusing system to be successful. Interest in available bonuses may be limited if real estate conditions do not warrant it, or existing density limits satisfy the latent demand without the need for additional bonus offerings (Lassar 1989). On the other hand, lack of support and understanding by any of elected officials, planning staff, or the development industry

could discourage the use of new and innovative tools until some other jurisdiction pioneers it to good effect (Taves 1998). Gawronski (1999, 34) noted the availability of other tools that achieve similar objectives. These include park land dedication requirements, designation of development permit areas, development cost charges, public pathway and drainage easement requirements, and public access requirements when waterfront is subdivided.

Scholarly consideration of density bonus

A modest body of literature describing the use of density bonuses in B.C. has accumulated since the introduction of Section 904. MMA published a number of reports (B.C. MMA 1994; B.C. MMAH 1993), including a Guide and a Model Bylaw to the density bonus provisions (B.C. MMA 1997a). It also monitors and conducts surveys of local government usage of amenity zoning in order to provide other local governments with examples of successful application of the tools (B.C. MMA 1997b). Several authors have addressed issues of legal interpretation and application, and judicial consideration of density bonusing (Vaughan 2000; McDannold 1999; UDI 1998; Yardley 1997; Cockrill 1996; Buholzer 1993). Within the larger body of literature dealing with sustainable community planning, several authors have recommended the use of density bonusing as a tool for environmental protection (Curran 1999; McPhee et al. 1998; Wolfe et al. 1997; Lanarc 1997, 1995, 1994; Dovetail 1996; Sandborn 1996; Webb 1996; QPC 1995). Holman and Adams (1998) suggested that density bonusing could help mitigate the impacts of streamside setbacks on the development industry. With the introduction of new streamside protection measures under the Fish Protection Act (B.C. 1997), this application is of particular interest.

As yet, there is no published research analysing the use of density bonusing as a tool for environmental protection in B.C. This study begins to fill the gap by providing a preliminary assessment of the merits and problems associated with the application of density bonuses to promote green space conservation in the rural-urban fringe. In addressing the study questions outlined above, this research contributes to the body of literature on land use planning for creating more sustainable communities, and in particular, offers insights into the use of market-based tools to protect green space in the

rural-urban fringe. Most importantly, this study is intended to provide a reference for local governments, the development industry, and others interested in alternative approaches to conserving green space in and around their communities.

Research methods

The study comprises three research instruments: a literature review, a preliminary survey, and a more in-depth interview-questionnaire. The first survey canvassed rural local governments in B.C. to assess the level of use and interest in density bonusing as a tool to promote the conservation of green space (Taves 1998). This included the province's twenty-seven regional districts, Islands Trust, and District of Highlands.³ Results from this preliminary survey indicated a need to modify the focus of the survey interview in a particular regard: within ex-urban B.C., the communities using density bonus are more accurately described as "rural-urban fringe", rather than "rural" (appendix A). This was explained by soft real estate markets in rural communities, generally insufficient to warrant the use of a relatively sophisticated, market-based tool like density bonusing. Moreover, local land use planning can be virtually nonexistent in large portions of predominantly rural regional districts, and density bonus is a sophisticated tool requiring the time and expertise of a qualified planning staff. In light of those results, the geographical focus of the research was modified from rural to rural-urban fringe applications of density bonusing.

Based on the findings of the first questionnaire, a second survey instrument was prepared. The target population included representatives from local land use planning and development sectors, being the principal parties involved in the negotiation of a density bonus scheme. Communities, especially immediately affected neighborhoods, have a valid interest in the development approval process, perhaps even more so when density bonuses are involved. However, while density bonus decisions should take into account the values and opinions of community members, they normally do not have direct role in the negotiation process. For this reason, local planning officials were used to represent the interests of their community members.

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³ The latter two communities were included because both are in the rural-urban fringe are using or considering amenity zoning.

Interview respondents were identified in two ways. Based on the results of the preliminary survey, representatives from regional districts that use amenity zoning for green space conservation were asked to participate in the second study. Regional districts that had been considering the density bonus provisions at the time of the initial survey were also contacted to confirm whether such policies had since been adopted. Other respondents were identified through a "snowball sample" technique. Prospective respondents were provided with an introduction to the research, and after a brief discussion, were able to assess on their own, whether their knowledge and experience was pertinent to this research. In turn, respondents were asked to suggest the names of other developers or planners who similarly have experience using the density bonus provisions within the scope of the study. Like the building up of a snowball, potential respondents were subsequently identified until the desired sample size and distribution were attained. Snowball sampling is justified when the desired sample population consists of individuals possessing specific knowledge, rather than representing a random sample of a larger population (Patton 1990). Since the objective of the second survey was to solicit more detailed information than the preliminary survey, a smaller sample size of fifteen to twenty was targeted. A roughly equal representation of planners and developers was anticipated; however, developers are outnumbered by planners seven to twelve.

The interview-questionnaire consists of approximately twenty interview questions. A mixture of closed and open questions were formulated to balance the objective of eliciting respondents' personal thoughts and opinions with that of easily completing the interview. Closed questions, wherein respondents choose from a selection of provided answers, can be quickly answered but do not allow for unanticipated responses. Open questions allow respondents full freedom of expression—often with idiosyncratic focus—but are more difficult to answer because they require more thought and therefore presume the respondent has knowledge or interest in the subject. The same questions were addressed to both planners and developers, except where minor modification were required to reflect the different roles of planners and developers in land use planning and development. In a number of cases, local government planners explicitly stated that the opinions expressed in the interview were their own and not necessarily those of their

local government employer. The design of the survey was not intended to provide precise quantitative information for the most part. Rather it provided a qualitative sense of the nature and range of the impacts of this particular application of density bonusing, and the distribution of impacts among the planning and development sectors.

The interview questionnaire was administered either in person or by telephone. It was pilot tested with a planner working in an urban fringe jurisdiction where density bonus is used for green space conservation. Respondents were provided with a copy of the interview questions, usually prior to the interview, plus a description of research project, information on confidentiality, and a request for consent to participate in the study. Given the consent of each respondent, the interviews were recorded. Some respondents chose to complete the questions on their own. In those cases, the respondents were subsequently contacted to review their responses. Interviews were an average of sixty minutes in duration, depending on whether respondents had reviewed the questions prior to the interview and how much the respondent contributed to the discussion. The results from these interviews are summarized in chapter four.

As the sample population for the interview questionnaire does not include representatives from every British Columbian rural-urban fringe jurisdictions using density bonusing as a tool for green space conservation, the results of this study are directly applicable only to the areas represented in the selected sample population. However, general themes and conclusions that emerge can be applied to other jurisdictions in the rural-urban fringe.

Report organization

The remainder of this report is organized into four chapters. Chapter two reviews the literature on local government environmental planning in B.C., providing the context for density bonus applications evaluated herein. Then chapter three reviews the rationale for government intervention in land use planning and urban land markets, and then presents the criteria of efficiency, equity, and effectiveness for evaluating the density bonus. Chapter four then summarizes the evaluation results. For each criterion, findings are discussed followed by brief analyses. Finally, the report concludes with a fifth chapter summarizing the merits and problems associated with using density bonusing to promote

green space conservation, presents some general recommendations, and suggests directions for future research.

Study Context

Scope and use of terms

This report focuses on a specific application of density bonusing: the promotion of green space conservation. The term *green space* refers to natural areas within and around communities including parks, greenways that provide a continuous linear corridor of green space, riparian and treed areas in subdivisions, and other sensitive habitats. The term *open space* is frequently used in the literature and is used interchangeably with green space in this report.

Parameters are also set on the geographical focus of this study. Density bonus systems are examined only in the *rural-urban fringe* context. The rural-urban fringe has been described as "a zone of rural countryside extending beyond the continuous suburbs and under active competition from urban land uses and activities" (Beesley and Russworm 1981). The impacts of urban encroachment are greatest here: development in the rural-urban fringe often results in sprawl—low-density, discontinuous development that is haphazard and disorderly ((Marchand and Charland 1992).

The urban fringe is a dynamic area. It is a zone of transition in terms of land use as well as social and demographic characteristics. An important feature of the rural-urban fringe is the mixture of land uses, in contrast to the far more homogenous or compatible land uses found in either the city or the rural countryside (Marchand and Charland 1992). Agricultural land is as likely to neighbor low-density residential, commercial, and industrial development, or idle tracts of land held by speculators in anticipation of urban development, as it is another farm.

Various criteria have been used to delineate the extent of the rural-urban fringe zone. These include such metrics as population densities; percentage of nonfarm population, nonfarm ownership, nonfarm land, land held by speculators, and the average land value per acre (Marchand and Charland 1992). This study seeks to avoid such exact

definitions, accepting instead a more general, qualitative notion of the urban fringe as communities exhibiting the mixed features of both country and city: an area that is no longer rural yet not yet urban.

Evaluation of land use planning

Evaluation of land use planning, as with other fields of social science, is an imprecise discipline. This is because there is always conflict among various interest groups regarding what is socially desirable, and because of characteristics of the land use planning process itself.

Conflicts invariably arise among interest groups affected by planning policies. Van Kooten (1993, 247) identifies three groups and their interests: the development sector, including developers, speculators, builders and lenders who want to see profitable returns from their real estate investments; the coalition of environment groups concerned about broad issues of sustainability, including those close to home; and, smaller groups interested in preserving the size and quality of their neighborhoods or communities. A fourth group is local government. All governments assume a role in land use planning and control in order to direct land development in the general interest of the community. At the local level especially, planning and policy have direct and often immediate impacts on the electorate. Rarely are local governments seen as neutral arbitrator of land use planning and development. Indeed, most have to look for ways to "do more with less" to withstand budgetary constraints. These four interest groups rarely agree on what is socially desirable.

Efforts in land use planning evaluation are also imprecise because the planning process itself is far from a precise blueprint of decisions and actions. It is perhaps best modeled on Charles Lindblom's (1980) concept of *muddling through*. Moreover, planning policies and tools are seldom used in isolation. To optimize effectiveness in achieving their objectives, environmental planning strategies combine tools from several categories of policy instruments, such as direct investment, regulations, and incentives. At the same time, a single tool may work towards achieving more than one objective. Consequently, land use planning evaluation often takes a broader approach, focusing on planning

objectives and encompassing the spectrum of tools and policies used to achieve them. In this study density bonus is examined in isolation because, as noted above, there is little existing research on the merits and challenges of using it as a green space tool.

Chapter 2

LOCAL LAND USE PLANNING, GREEN SPACE CONSERVATION TOOLS, AND DENSITY BONUS

This chapter reviews a number of topics that together provide a context for the use of density bonusing as a tool for green space conservation. The topics addressed are:

- key elements of the local land use planning process and planning tools
- expansion of local authority to protect and enhance environmental quality
- historical background to the introduction of density bonusing provisions in British Columbia
- four elements of a density bonus system
- rural sprawl and alternative development techniques of clustering, performance standards, and open space design

Control over land use and development in British Columbia

Regulation of private land use in Canada is primarily a responsibility of the provincial government, as proclaimed by the *Constitution Act* (Canada 1982). The *Act* divides public authority between the federal and provincial governments: federal law regulates some lands, such as Indian reserves, airports, railways, and harbors. Provincial governments control local governments. British Columbia (B.C.), like other provinces, has delegated, primarily through the *Local Government Act* (formerly the *Municipal Act*), much of its land use authority to local governments. This includes the power to control the use and subdivision of land, the density and form of buildings and other structures thereon, and to service land with utilities. Municipalities are also permitted to recover servicing costs from those who subsequently develop the land. Local governments do not, however, have absolute control over land use. The province retains land use regulatory authority for both Crown and private lands in the Agricultural Land Reserve, and for private land in the Forest Land Reserve under the *Land Reserve Commission Act* (B.C. 1999). Section 14 of the *Interpretation Act* provides a general exemption for the province's own activities (Lidstone and Anderson 1991). Land use and development by

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⁴ They receive additional powers from a number of other statutes, notably chapter 219 of the *Land Title Act* and chapter 61 of the *Condominium Act*.

local government are, in turn, regulated through a sequential application of policies and regulations. Local governments employ a variety of planning tools to optimize the effectiveness of planning strategies. Some of the most common tools used to achieve green space and environmental protection objective are official community plans, zoning, subdivision bylaws, development permits, and development cost charges. These are reviewed below.

Local land use planning policies and tools

The *official community plan* (OCP) is one of the main local policy tools (Gawronski 1999, 12). Developed in consultation with the community, it sets out general planning policies, and broad goals and objectives, which are implemented through zoning and other regulations. Recent amendments to the Local Government Act clearly authorize local governments to incorporate environmental policies and guidelines into OCPs. For example, community plans are required to contain policy objectives identifying a general goal: to preserve, create and link urban and rural open space, including parks and recreation areas. ⁵ Moreover, local governments must consider any provincial policy guidelines when developing an OCP, although there are currently no such guidelines (B.C. MMA 2000). However, policies set out in an OCP do not commit a local government to an action, nor do they impose any land use restrictions directly on landowners. On the other hand, all bylaws enacted, or works undertaken, by a council or board must be consistent with the local OCP. Thus, a comprehensive OCP that includes environmental policies and an inventory of environmentally sensitive areas (ESAs) becomes an important tool in influencing land use control decisions and environmental conservation in the future (Webb 1996, 8).

Zoning is the oldest and most frequently used form of land use control (Courtney 1983). In its traditional form, zoning laws are enacted to ensure a proper amount of land for all activities that are performed in a community, to fix the best location for each, and to avoid the encroachment of incompatible uses (Courtney 1983, 157). In B.C., the basic authority for zoning enables local governments to divide their communities into several

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⁵ This requirement applies to official community plans, regional growth strategies, and rural land use bylaws. See Sections 942.11, 945 and 952.

categories specifying permitted uses, such as residential, commercial, industrial, and institutional. Within a zone, several parameters can be regulated including the location of uses, density, vertical height, and the siting, size, and dimension of buildings. Minor adjustments to zoning bylaws can be achieved through variances, development permits, and the law of nonconformity.⁶

Despite its widespread use, zoning is frequently criticized for being too rigid to effectively deal with contemporary land use challenges. A planner made the following observation on the efficacy of traditional zoning:

Zoning as a tool for restricting development is powerful. As a tool for encouraging creative, sensitive organic growth—it is poorly utilized and ineffective. We are often working with hidebound zoning codes that are rooted in the 1920s and '30s mentality! (Gawronski 1999, 36).

The original purpose of zoning laws was to improve efficiency of land use allocations by restricting uses to particular areas, and to curb, and if necessary prohibit, land development decisions that produce externalities beyond a development site (Mandelker 1974, 203). The negative character of the zoning process derives from this historic premise that potentially harmful "spill-over effects" occur when incompatible land uses are adjacent. For example, some of the earliest zoning bylaws were passed in colonial Boston to keep polluting leather manufacturers out of residential areas (van Kooten 1993).

Subdivision control bylaws govern the division of land into smaller parcels. These bylaws set out the work and services that are required for a subdivision and also standards for development. All subdivision plans require the approval of a subdivision-approving officer, under the Land Title Act (B.C. 1996b). Subdivision bylaws, as well as the local OCP, inform an approving officer's decision whether a subdivision plan is contrary to a community's public interest or could adversely affect the natural environment. During subdivision, a local government can also require the dedication of up to five percent of a land parcel, or the equivalent market value for that amount of a property for parkland. Up to an additional five percent can be mandated for school land.

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⁶ When a new zoning bylaw is adopted with provisions contrary to existing lawful conditions on property, a status of "legal non-conformity" is created in respect of that property (Lidstone & Anderson 1991, 8).

Development permit areas (DPAs) are designated within a zone, or zones, as areas where the provisions of a zoning bylaw are "waived" and replaced with other terms and conditions that would have the same effect as a zoning bylaw (Buholzer 1999). DPAs are generally sensitive areas subject to higher environmental standards of development than other areas with respect to siting, vegetation protection, erosion control, preservation of natural watercourses, and so on (Dovetail 1996). Most land use activities are prohibited in a DPA unless a development permit has been obtained. Designation of a DPA must be justified by special conditions or objectives, which must also be described in an OCP, along with guidelines for how the special conditions or objectives will be addressed when development permits are issued. DPAs tend to be applied in urbanizing rural-urban fringe communities, where natural areas or "greenfields" are being rapidly developed (Dovetail 1996).

Development cost charges (DCCs) can be imposed on developers, either at the time of subdivision or building permit issuance, to finance the off-site costs of new development. Historically, these included the capital cost of providing services that directly or indirectly service a development, such as sewage, roads, water, and drainage facilities. More recently, DCCs have also been levied for "softer" services, including municipal halls, recreation centers, libraries, and parks (Slack 1990). According to MMA, DCCs might be applied to parkland that provides a municipality-wide benefit derived as a result of population growth, but they should not be used to compensate for past deficiencies in parkland (B.C. MMA 1998).

Conventional zoning and rural sprawl

Although conventional zoning was designed originally to standardize development in cities, its greatest impact has been on suburban development (Russell 1996). A number of distinct problems arise as a result of sprawling development in exurban areas, which has led to the distinction between urban or suburban sprawl, and rural sprawl. Whereas urban sprawl follows a continuous circumferential pattern, rural sprawl occurs in two distinct forms (Daniels 2000, 2). One is low-density residential development scattered nearby higher density areas. Alternatively, rural sprawl may occur as commercial strip development along arterial highways leading into and out of rural communities. In the

rural-urban fringe and beyond, the problem is not growth itself, but the pattern of growth—uniform and unbroken large-lot development—that has occurred under conventional zoning practices (Jarvis 1993). Because zoning treats all land as identical, unusual topography, vegetation, wetlands, or other natural features are normally "lost" when a parcel of land is subdivided into lots of uniform size and regular shape. Over time, the rural character of an area is diminished, eventually being transformed into the familiar landscape of extensive, uniform, residential subdivisions, and shopping strips. As a result, critics of conventional zoning techniques describe it as "planned" or "zoned" sprawl (Arendt 1994; Kendig et al. 1980).

Rural sprawl gives rise to a host of planning challenges. These include the provision of public services and facilities, the demand for large lots, conflicts with farming neighbors, and the potential for development without setting aside land for public open space. First, because rural residential development usually occurs away from public sewer and water systems, homeowners tend to rely on septic tanks and wells. Often, such systems are neither properly sited nor properly maintained (Daniels 2000). When septic systems fail in large numbers, adjacent municipalities must extend sewer and water lines beyond an urban boundary. The provision of services and infrastructure for low-density developments scattered in outlying areas is far more costly greater than for higher density urban centers. However, rural taxpayers are subsidized because they do not pay the full costs of low-density development. One component of the rural subsidy is the pricing structure of public sewerage. Public sewerage is usually charged according to average cost pricing, which creates a strong incentive to encourage additional hook-ups along the line to reduce individual costs. This places development pressure along the line, which in turn, perpetuates a "hub and spoke" pattern of sprawl from a village into the countryside.

The second and third problems are related to the demand for large residential lots, usually purchased by exurbanites as hobby farms or country estates. When rural land is sold for residential development, the land base becomes fragmented into differing, sometimes incompatible, uses. This puts pressure on adjacent agricultural or forestry lands and increases speculation. In B.C., the Agricultural and Forest Land Reserves provide a measure of protection against development pressure in working landscapes. Nonetheless,

the influx of nonfarming residents to the rural edges of towns and cities results in conflicts with their farming neighbors. Newcomers typically complain about farm odors, noise, dust, crop-sprays, and slow-moving farm machinery on local roads. Farmers, on the other hand, face problems of crop theft, vandalism, litter, and trespass by dogs and people (Daniels 2000).

When development occurs in the urban fringe in B.C., it can be more difficult to acquire open space than within municipal boundaries. Parkland requirements under the *Local Government Act* do not apply when property is subdivided into lots larger than five acres. This system would allow the creation of subdivisions without any public park space.

In an effort to decrease or minimize the impacts of suburbanization, local governments beyond the urban boundary typically adopt "large-lot zoning" strategies. For example, zoning bylaws may impose two- to ten-acre minimum lot sizes with only one residential dwelling per lot. The effectiveness of this approach is uncertain and controversial. The main concern is that unless minimum lot sizes are truly large, twenty acres or more, large-lot zoning will still result in uniform development of entire landscapes, possibly at an accelerated rate (Daniels 2000; Roth 2000; MOP 1995).

Clustering and other alternative development techniques

A number of innovative and flexible residential development techniques have been devised as alternatives to conventional, large-lot zoning in suburbs and rural fringes. During the 1960s and 1970s, a convergence of interests among a variety of stakeholders led to new planning strategies gave rise to the concept of cluster development. Planners and builders were seeking ways to deal with high costs of development and problems of environmental regulation; conservationists wanted to curb sprawl; and public officials needed to resolve fiscal problems. Since then, planners have experimented with variations on the basic cluster technique, each of which can be combined with density bonuses to encourage developers to explore less conventional development patterns and promote the conservation of rural and environmental resources. In the 1980s, performance standards gained popularity. By the 1990s, clustering was being

reintroduced as open-space development. The basic tenets of these alternative development techniques are outlined below.

Cluster development is a form of residential development that concentrates lots and buildings on a portion of a site—usually the most easily built upon portion with the least environmental constraints—allowing the remaining land to be set aside as permanent open space. The advent of clustering marked a philosophical departure from conventional zoning by "severing the traditional connection between density and minimum lot size" (MOP 1994, 5). In a cluster development the same number of lots are created but they are allowed to be smaller than the zoning would otherwise permit.

Allowing lots to be of nonuniform size also increases flexibility. Less land is used for streets, utility runs are more efficient, drainage is better, and less grading and site preparation are required. Several studies have reported that clustering is more cost effective compared to conventional development configurations (Lanarc 1995, 18; Arendt 1994a, 125-29; Brabec 1994, 280-88).

Proponents of cluster development espouse the benefits extend beyond efficiency improvements. Increasingly, developers are recognizing the value in incorporating green space into developments, especially water features, since they are perceived as an amenity in most markets (Holman & Adams 1998, 11).⁷ The final result is a better residential environment at lower cost and higher profit to a developer (Curran & Leung 2000; Courtney 1983). Higher market values, moreover, generate higher property taxes and increased revenues for local governments.

Cluster provisions can be mandatory or voluntary. Voluntary provisions are more likely to be supported by the building and development sectors, but they should be accompanied by allowances or incentives to encourage their use. Density bonus is often offered to attract developers to voluntarily adopt clustering. Alternatively, clustering can be facilitated through *density averaging*, whereby minimum and maximum lot sizes are waived.

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⁷ Savvy developers are starting to capitalize on the economic benefits of green space without being pushed or prompted by government sticks or carrots. They are voluntarily preserving 20% or more of a site for parks, green space, and historic preservation within planned communities, knowing that people will pay about a 10-12% premium over another community for that kind of quality (Evans 2000).

Cluster development has its theoretical underpinning in Ian McHarg's 1969 treatise, Design with Nature (Kury & Geniesse 1994). Design with Nature exhorted designers to conform to, rather than compete with, nature. It proposed the concept of environmental constraint analysis, which uses overlays to visually analyze suitability factors as an important basis for land use decisions. It recommended that urban residential development be subject to environmental constraint analysis, in conjunction with mandatory cluster regulations to prevent development in environmentally sensitive areas ⁸

In his book *Performance Zoning*, Lane Kendig (1980) described how development based on performance standards could allow environmentally sensitive areas to be protected on a site-by-site basis, while accommodating housing growth. This technique is a more radical departure from conventional zoning than cluster development. Kendig rejected the historic premise of traditional zoning, which separates land uses based on "the likely or predicted effect of any particular land use, rather than on actual performance" (ibid. 3). Instead of organizing land uses within a hierarchy, standards are established to impose minimum levels of "performance". And rather than setting limits on lot size, setback, and housing type, bylaws govern "all permitted uses and structures as a function of the particular, and frequently measurable, "by-products" that each use is likely to have". The by-products of development, known as externalities by economists, include noise, congestion, odors, and various other forms of pollution. The incremental loss or degradation of green space and environmentally sensitive areas resulting from encroachment of urban development is also an externality. Intensity of use, or density, is determined according to performance standards. For instance, the geophysical features of a site, and various aspects of a proposed development, such as percentage of impervious surface coverage, percentage of open space, proximity to transportation, energy efficiency, and building materials, are all examples. In this way, performance standards are used in an attempt to lessen the negative effects of new development rather than to restrict the type of development (Pease and Morgan 1980, 22).

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⁸ Constraint analysis is indeed the basis of environmental impact assessment methodologies, although EIA is usually required only for large-scale development projects. Land use planning, much less residential development, is rarely put under such scrutiny in B.C.

In Canada, there is no comprehensive, performance-based planning system currently in place. This is due, in part, to the difficulty of creating standards that are both objective and ascertainable (Buholzer 2000). Van Kooten (1993, 251) acknowledged that performance standards are more flexible than conventional zoning, providing an incentive to reduce externalities, but cautioned that enforcement may be difficult, if not impossible. However, some of the key principles of such a system are evident in a number of municipalities' flexible zoning practices associated with comprehensive development zoning and some *New Urbanist* developments (Scherlowski 2000; see also the discussion of open space development below).

More recently, Randall Arendt's (1994a, 1994b) open space development techniques, also called *conservation subdivision design*, revitalized the notion of cluster development. Arendt's books recount the devastating impact of conventional and largelot zoning on the character and vitality of rural communities in the United States. He argues that "wall-to-wall" subdivisions are not inevitable; instead local planners should encourage a rural character in the design of residential subdivisions. Open space development calls for smaller lots, clustered to provide a neighborhood context. The balance—up to fifty percent of a site—is set aside as permanently protected open space. The influence of performance standards is also apparent, although proponents maintain "additional design standards regarding the quality, and configuration of the resultant open space go beyond the basic approach to performance zoning," (Arendt 1994b, 22). The focus is on both the open space and the "built" community. Design standards are influenced by the principles of new urbanism and traditional town planning, popularized by the ideas of architects Andre Duany and Elizabeth Plater-Zyberk (1991). In Canada, voluntary open space development, encouraged by density bonus arrangements, is endorsed by provincial and federal agencies as a way for local governments to maintain rural character in the urban fringe (Sandborn 1996, 111; Lanarc 1995, 52).

Rural sprawl and the search for ways to curb its proliferation are ongoing topics of debate. Critics of cluster development contend that rural clustering creates fragmented pockets of development in areas where growth is inappropriate, eventually nibbling away the countryside. Mantell et al. (1990, 124) noted that development that "leapfrogs"

narrow open space protection areas is questionably an improvement over conventional development. Typically, rural cluster developments are auto-dependent. Tom Daniels, an advocate of public policy that discourages nonfarming people from moving to the urban fringe, is skeptical of whether higher density developments are capable of being supported by proximity to alternative transportation options, and other services and facilities. He observed:

Many cluster developments in the countryside can simply create "clustered sprawl." Cluster developments may leave some land open, but the clusters are often based on fairly high densities In short, cluster development is a suburban lifestyle that will hasten the conversion of rural areas to suburbs (Daniel 2000, 4).

Similarly, the efficacy of density bonus as a tool to encourage cluster development in the rural-urban fringe is uncertain. Market conditions must be favorable for economic incentives to be effective (B.C. MMA 1997a, 4). Rural-urban fringe land markets do not always experience sustained development pressure. Moreover, communities may be skeptical that the higher density from density bonuses will negatively impact the natural resources or rural character that the clustering was intended to preserve. These concerns underscore the importance of using density bonus and other alternative design techniques within the context of comprehensive land use planning. Recent additions to local governments' environmental planning powers are outlined below.

Recent changes to the local regulatory landscape in British Columbia

Legislative changes have provided local governments with a number of significant new tools and substantially improved existing ones. In 1995, the *Growth Strategies*Amendment Act was introduced to allow regional districts to prepare a regional growth strategy. They can also be required by Cabinet order if rapidly growing regions do not voluntarily adopt strategic development policies. Strategies are required to work towards specified objectives, including protecting environmentally sensitive areas, maintaining the integrity of a secure and productive resource base, reducing and preventing air, land, and water pollution, and protecting the quality and quantity of ground and surface water. In the same way that OCPs provide context for municipal bylaws, growth strategies provide a regional policy context for OCPs (Dovetail 1996).

In light of increasing financial pressures and rapidly changing roles and responsibilities of local government, the province initiated a comprehensive review of the *Municipal Act* in 1997. The extent of change that emerged from this revision warranted renaming the legislation the *Local Government Act*. The goal of the review was to improve local governments' abilities to address the challenges of sustainable community planning, by moving away from narrowly delegated powers towards authorization of broad powers with specific restrictions on those powers (Osborne 1998).

Strengthened powers for environmental protection: Bills 25 and 26

Environmental protection was one of the first issues addressed by the review process. The province introduced two pieces of companion legislation in 1997: Bill 25, The Fish Protection Act; and Bill 26, the Local Government Statutes Amendment Act. Bill 26 has been dubbed the "greening" of the Local Government Act. It strengthened local governments' abilities to deal with habitat protection and conservation issues through a number of new tools (B.C. MMAH 1997c). Included among these improvements, OCPs may contain policies relating to the preservation, protection, restoration, and enhancement of the natural environment. Such changes pertain to its ecosystems, biological diversity, and prohibition of water pollution. Also, riparian property may be exempted from property taxes. DPAs may be established for environmentally sensitive and hazardous areas. Development approval information can be required at a developer's cost. Security deposits are mandatory so that development-induced damage to the natural environment can be remediated. It should be noted that the use of these tools is not mandatory, and that local governments cannot be held liable for not exercising their regulatory powers under Bill 26 to protect the environment (Buholzer 1997). As such, Bill 26 is considered enabling legislation.

The *Fish Protection Act*, in contrast to Bill 26, represents a directive approach to environmental and habitat protection (Buholzer 1997). Notably, Section 12 provides for a direct provincial response to habitat conservation issues: the Cabinet may establish policy directives regarding "threshold" standards, these being aimed at protecting and enhancing riparian areas which may be subject to residential, commercial, or industrial

development (B.C. 1997). To this end, *Streamside Protection Policy Directives* (SPPDs) were formulated in 2000. Local governments will be required to meet the standards set out in SPPDs, but they will be allowed a certain amount of flexibility to account for differences in capacity issues, local values, settlement patterns, and stream conditions (B.C. MELP 2001). They can either implement the standards through their local land use regulations, or meet or exceed the standards through their land use and development planning, regulation, and approval tools.

Since the introduction of Bills 25 and 26, local governments' environmental powers have continued to improve through legislative amendments. Some jurisdictions have championed efforts to create more sustainable communities for decades, often pushing legislative boundaries to achieve their objectives. Others view the move to shift environmental responsibilities to the local level as provincial "downloading", without the necessary financial and technical support (Dovetail 1996, 122; QPC 1995, A-19). The risk of legal challenge alone is enough to discourage a local government from stepping up actions to achieve environmental goals. If the ultimate effect of land use controls is to prohibit reasonable use of land, or "sterilizes" a property, a landowner or developer could legally challenge a bylaw as expropriation and demand compensation. There are other reasons why regulating environmental protection is not always the preferred policy. At the local level especially, where governments interact directly and frequently with their electorates, the introduction of new regulations to protect the environment can be controversial. In general, the rigidity of regulations tends to foment adversarial relationships between the regulator and those persons who, once regulated, subsequently have little incentive to modify their activities beyond the minimum standards set by the regulations. In particular, new environmental protection regulations will almost certainly be met with political resistance if they fetter private property rights. There is a tradition, if not expectation, in the rural-urban fringe of minimal public control over private land use. And from a practical perspective, monitoring and enforcing regulatory compliance

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⁹ The directives do not apply to forestry, agricultural, mining, or institutional land uses, which are subject to other regulatory measures.

¹⁰ Initially, SPPDs will apply only in those parts of the province that are experiencing the most rapid urban growth: the east side of Vancouver Island, the Lower Mainland, and the Southern Interior, and affected local governments will be given five years to bring their planning tools and development approval processes in conformity with SPPDs.

can be difficult or impossible in geographically large jurisdictions with limited human resources.

Options for acquiring green space by local governments

One of the best approaches for protecting aquatic and riparian habitat is to reacquire it from private owners and manage it directly (QPC 1995, A-9). Local governments, with their control of land use planning, are in a unique position to ensure that natural open spaces are protected during the development process. Local governments can acquire sensitive habitats and other types of green space in a number of ways including purchase, gift, trade, expropriation, or donation from the provincial government. In addition, when development takes place, there are unique opportunities to acquire green space without spending tax dollars. Sandborn (1996, 72) identified a number of tools that local governments can use when land is subdivided and developed. These include:

- require that up to five percent of the land being subdivided be dedicated for parks
- levy development cost charges to buy new open spaces and parks
- require dedication of public pathways and drainage easements
- designate development permit areas requiring public dedication of a watercourse
- require dedication of public access when waterfront is subdivided¹¹
- refuse to approve subdivision applications "in the public interest" for insufficient provision of green space
- grant density bonuses to developers if they provide additional public lands to a community

A comparative evaluation of the above options is beyond the scope of this report, however, some general observations can be made. For the most part, the above tools provide environmental protection in specific situations and for small areas. Density bonus can potentially be used to acquire and protect larger tracts of land with sensitive habitats or other environmentally significant features. In the absence of specific tools to achieve their environmental objectives, local governments have adapted some of the tools noted above, including density bonus, for environmental protection. In some cases, this approach works, but often problems arise. For example, some communities hesitate to

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¹¹ Under the *Land Title Act*, Section 35 enables local governments to require public access every 400 meters in rural large-lot subdivisions, and 200 meters elsewhere.

levy DCCs for parks because of concerns that such charges will make them less competitive than their neighbors in attracting development (Sandborn 1996, 74). Also, while refusal to approve a subdivision application "in the public interest" can lead to the negotiation of additional dedicated lands, such negotiations could be open to legal challenge (ibid. 83).

Incentives versus regulations

The key difference between density bonusing and the rest of the options listed above is that density bonus is an incentive. Incentives are a type of generic policy instrument that encourages preferred behaviors or activities. Regulations, in comparison, set minimum standards with respect to policy objectives; they are aimed at "catching the laggards". Incentives allow greater flexibility in achieving policy objectives, and so foster leadership and innovation. Communities that are not entirely comfortable with their role as environmental steward could be attracted to incentive "carrots", in addition to regulatory "sticks" to fulfill their responsibilities. Incentives may be effective in geographically large jurisdictions, where monitoring and enforcement of compliance with regulatory-based environmental protection tools are impractical. Many local government jurisdictions in the rural-urban fringe cover a large land base; but, on the other hand, they typically do not have much experience with market-based tools. Time and experimentation may be required before a density bonus system meets its goals and objectives. As part of an environmental protection strategy, this could be risky.

While the benefits of including financial incentives in environmental protection strategies deserve more attention, incentives have limitations. The obvious disadvantage with the use of density bonus as a tool for green space conservation is that it cannot be relied upon to save natural areas from being developed (Webb 1996, 5). A density bonus is only triggered at the request of a developer. If it does not provide sufficient economic incentive, a developer may elect to develop a property at the base zoning permitted in a bylaw, dedicating only the required 5% for parkland.

Historical background to the introduction of density bonus

Over time, the role of planning evolves to respond to the changing needs of communities. The emphasis on planning tools also shifts, corresponding with such changes. Slack (1993, 15) described three stages or eras of planning in Canada: physical, social, and fiscal. These eras correspond to the evolution of planning in B.C.. They also provide an historical context for the advent of density bonusing.

The first era of planning, leading up to the 1960s, was concerned with the provision of physical infrastructure. The second era, during the 1970s and 1980s, saw planning efforts focus on the social element. At the forefront were problems affecting quality of life in downtown districts, including traffic congestion, parking, pedestrian access, and the creation—and funding—of other amenities. Conventional zoning was criticized for imposing regulatory hurdles on interested developers; it did nothing to encourage, or direct, desired types of development. Progressive city planners sought innovative tools to help shape downtown development and stimulate specific activities. One way this was achieved was to combine the incentive "carrot" with the regulatory "stick". Density bonusing emerged as a popular tool, especially in central cities across the United States to leverage the provision of public amenities. As an incentive to build or finance specified amenities, such as day care facilities, affordable housing, and pedestrian plazas or arcades, developers were awarded additional floor area beyond the base density permitted in a zoning bylaw (Lassar 1989; Getzels et al. 1988). In this way, density bonus systems successfully encouraged particular kinds of growth in commercial districts and helped finance public amenities. Canadian cities also took advantage of early incentive zoning systems. The City of Toronto, in particular, offered developers density bonuses to help finance the construction of its rapid transit systems. Toronto achieved both fiscal and growth management objectives by encouraging efficient land use patterns wherein highdensity development was promoted in proximity to transit stations, which could best accommodate it (Kenworthy 1991, 152).

The Local Government Act and the Vancouver Charter

In B.C., local planning during the 1970s and 1980s was governed by two quite different planning systems. The *Vancouver Charter*, which applies only to the City of Vancouver,

provided one system, and the other, codified in the *Municipal Act* (now the *Local Government Act*), covered the rest of the province (B.C. MMA 1994, 1). The *Vancouver Charter* authorized a unique set of flexible planning tools, in addition to the standard planning, zoning, and subdivision controls similar to those that comprised the *Municipal Act*. For example, conditional zoning, comprehensive development zoning, and detailed site plans, which give council a high degree of discretion in planning approvals, increase Vancouver's effectiveness to deal with the planning challenges of rapid urban growth, increasingly complex development projects, and changing community values and objectives. Such discretionary tools were instrumental in the innovative redevelopment of places such as the False Creek community and Granville Island (B.C. MMA 1994). The overhaul of the *Municipal Act* during the latter half of the 1990s (and name change to *Local Government Act*) made the two pieces of legislation comparable in the tools they provide local governments.

Land use contracts

In early 1970s, the province introduced a discretionary development control called the *Land Use Contract* (B.C. MMA 1994). It was an attempt to bridge the gap between the *Vancouver Charter* and the *Municipal Act*. According to MMA, this tool "represented a radical departure for planning in B.C. because it provided almost unlimited scope for local governments and developers to negotiate custom agreements to govern the development of sites" (ibid. 2). Land use contracts were registered on title as a charge against the land and had the force of a restrictive covenant running with the land (Lidstone and Anderson 1991). Without any constraints on their use, the entire development approval process was opened to negotiation, enabling local governments to exchange development approval for a wide range of amenities, including cash exactions (B.C. MMA 1994). On the other hand, developers, freed from the restrictions of zoning, were in a position to negotiate for innovative, high density, and potentially lucrative developments. Land use contracts become very popular in parts of the province where population growth and development pressure were sustained because they provided a means to shape particular developments in a detailed manner not possible within the

confines of zoning laws, which necessarily impose the same regulations on all properties in a zone.

By the late 1970s, however, it became apparent that as a single tool, the land use contract was too broad and was open to abuse (B.C. MMA 1994). Some municipalities were "under zoning" land, effectively coercing developers to negotiate reasonable uses and densities. Overzealous municipalities were demanding and receiving substantial cash fees and administrative charges. Land use contracts were becoming primarily a tool for generating revenue rather than for rational planning, and consequently were repealed in the late 1970s.¹²

The third era in Canadian planning took place during the late 1980s and early 1990s. This was marked by an emphasis on fiscal concerns. Local governments came under increasing pressure to generate revenues to meet growing expenditure demands. Much of this financial pressure was related to infrastructure and public services costs of new development, and the concurrent decline in provincial transfer payments. The philosophy that "growth should pay for itself" led to increased use of DCCs and other exactions on developers (Slack 1993, 16).

In B.C. during the late 1970s and mid-1980s, a number of cost-recovery provisions, including development permits, DCCs and subdivision servicing bylaws, were introduced. These were intended to replace land use contracts, which was too broad comprehensive for a single policy instrument (Paget 2000). By the late 1980s, however, the regulation of complex developments was still problematic. A "new urbanization" was emerging wherein the emphasis was shifting from traditional suburban development to new forms of "high quality" urban design: mixed uses and higher densities coupled with amenities that make high density living an attractive alternative. Progressive planners, developers, and local governments maintained that existing planning tools limited efforts to respond effectively to the challenges of the new urbanization (B.C. MMA 1994, 3). Local governments were requesting certain tools, such as density bonusing, to address such challenges. Many municipalities used density bonusing in

¹² The repeal did not affect existing LUCs, which remain in force today.

spite of explicit legislative authority. Notably, the Cities of Burnaby and Vancouver have employed the tool with success since the 1970s (Paget 2000).

Bill 57: legislative authority for density bonus

In the early 1990s, a focus on housing affordability issues prompted the province to revisit the longstanding debate on the divergence between the powers contained in the *Vancouver Charter* and those in the *Local Government Act*. In 1993, the Provincial Commission on Housing Options (COHO), which had been established to advise the government, released its report. Two of its recommendations addressed the debate on planning controls from a housing perspective. It recommended that municipalities be provided, first, with the authority to use density bonuses and the transfer of development rights to address the challenge of housing affordability; and second, the authority to provide inclusionary zoning bylaws to require the provision of affordable housing.

In responding to the commission's report, MMA consulted with developers and local governments and researched other jurisdictions. Through this process it reached a number of conclusions. Among these, it was recognized that mandatory inclusionary housing policies, by themselves, would not be effective in increasing housing supply. Rather, incentives would be required to offset the provision of affordable housing. Also, MMA concluded that new legislation was more likely to be supported by local governments if a broader agenda of emerging needs were addressed. Specifically, provisions for density bonus should apply to community amenities as well as affordable housing. Lastly, they recognized that the flexibility of the development control system needed to be addressed. Developers and local government planners wanted greater flexibility and discretion to deal with new objectives, changing markets, the peculiarities of individual sites, and other unforeseen factors. Local governments were requesting express authority for amenity zoning, in particular. These conclusions led the province to introduce new legislation with a dual focus on housing affordability and growth management (Paget 2000).

Provisions for density bonus: Section 904

In 1993, the provincial government adopted Bill 57, the *Municipal Affairs, Recreation* and *Housing Statute Amendment Act, 1993*. It added a section, 904, to the *Local Government Act*, which provided local governments with three new flexible zoning and development control tools, including the ability to: implement density bonusing; design more flexible comprehensive zoning arrangements for large projects; and enter into housing agreements in order to secure affordable housing. A reprint of Section 904 is provided in Appendix B. Under Section 904, the density bonus provisions authorize local governments to:

- 1. Establish a density regulation for a particular zone that is generally applicable, as well as one or more other density regulations that apply if particular conditions set out in the bylaw are met.
- 2. Establish in the bylaw, conditions entitling an owner to a higher density:
 - Relating to the provision of affordable and special needs housing, as such housing is defined in the bylaw, including the number, kind, and extent of housing, and a condition that an owner enter into a housing agreement with the local government; and
 - Relating to the provision of amenities, including the number, kind, and extent of amenities.

The overall goal of Section 904 was to provide local governments with flexible and innovative tools that would help meet the challenges of the new urbanization by encouraging high quality development (Paget 2000). In particular, the province had three central objectives in introducing the legislation. These objectives were:

- to provide opportunities for local government to contribute to housing affordability
- to provide local governments with more flexible zoning/development control tools, in particular to achieve urban intensification

• to provide opportunities for negotiation between the municipality, the developer and non-profit groups (B.C. MMA 1994, 3)

The introduction of Section 904 signalled a change in local planning legislation in B.C. (B.C. MMA 1994). In fact, the provisions for density bonusing and housing agreements gave local governments powers that go beyond those in the *Vancouver Charter* (ibid.). The basic principle of density bonus is that "bargaining through the development approval process can achieve win-win solutions for governments and developers" (B.C. MMA 1998, 12). In theory, the desired amenity would not be economically feasible for either a local government or a developer without the incentive of the density bonus (Getzels et al. 1988, 1).

The provisions highlighted "the inherent tension in any planning system between the contending objectives of certainty and predictability, on the one hand, and flexibility and discretion on the other" (B.C. MMA 1994, 1). While prescriptive plans and rules provide local governments, developers, and the public with certainty and predictability, the rigidity can also be frustrating. On the other hand, flexible controls and the ability to negotiate can facilitate better development, but it also makes developers and local governments nervous because it increases the uncertainty of outcomes (ibid. 4).

The language of the provisions for density bonus accounts for much of this uncertainty. The term "amenity" was deliberately not defined, allowing for immense local flexibility. It allows a broad interpretation of what can be offered in exchange for a density bonus, on the part of local governments and developers. Such openended language concerns some planners and developers that there will be a return to the kind of cash exactions that led to the demise of the land use contract during the 1970s (Taves 1998; B.C. MMA 1994). A document prepared by MMA entitled, *Density Bonus Provisions of the Municipal Act: A Guide and a Model Bylaw* (hereafter referred to as the *Density Bonus Guide*), explained that an amenity is "generally understood to be something that enhances the desirability of a property, such as a view, access to the water, underground parking, child care space, open space, or an environmentally sensitive area" (B.C. MMA 1997a, 7). Elsewhere they state, "An amenity could be an "open space, day care, an environmental conservation area, heritage structure, or underground parking," (B.C.

MMA 1994, 5). The province did not intend that the legislation authorize or condone cash exactions, problems with which lead to the demise of the land use contract. However, the legislation is sufficiently flexible to allow a local government to accept cash-in-lieu of the provision of an amenity where the amenity could not be provided by a single development or developer. In such cases, there must be a clear relationship between the development, the density bonus granted, and the cash-in-lieu requirement (ibid.).

Two tools in one

Density bonus has elements of both a financial tool and a planning tool. Green space applications of density bonus encourage developers to set aside tracts of undeveloped land, and in so doing, bear additional costs in order to confer benefits on the community as a whole. In return, local governments are able to confer benefits such as reduced servicing costs for clustered development and enhanced market value on developers or landowners, which could partially or completely offset the cost of the dedicated land. In this way, local governments can shift some of the costs of providing "green infrastructure" onto the development industry. But while recovery of the cost of physical infrastructure associated with new development is not new, development and industry interests have not historically been held accountable for the environmental and social costs of their activities (Holman & Adams 1998, 31; Caldwell 1993). Since density bonus is voluntary, a financial incentive, it is a means of getting growth to pay for itself that is more likely to be politically acceptable than levying of additional development charges or taxes.

Yardley (1997, 91) noted the possibility of overlap or duplication between exactions for DCCs and the amenities obtained through density bonusing, and advised as follows:

When developing density bonus bylaws, local governments should consider whether the amenities being sought would be of a similar nature to works assisted by development cost charges. While some duplication may be desirable in cases where infrastructure is deficient, or development cost charges may be insufficient to adequately cover the increased capital burden of a development, density bonusing should be thought of more as a means of obtaining less traditional benefits.

The development industry may see any overlaps between exactions as "double charging" for public amenities. One of the authors of the density bonus legislation, allowing that

the introduction of incentives is a slippery slope, warned that it should only be used where a local government would otherwise be compensating a developer (Paget 2000).

The "slippery" nature of density has gained the tool a dubious reputation. Is it an incentive or an additional development charge? Slack's (1993, 16) study on municipal financial tools included density bonus schemes among various types of charges municipalities are permitted to levy on developers. Vaughan (2000) described it as "the need to beg" for sources of financing. He questioned whether suggesting that amenities are "community benefits" is "simply a reference to a cash grab at developers' funds that end up benefiting the community." Other less savory labels have been associated with density bonus including: "horse-trading", "extortion", "blackmail", and even "steroid zoning"—referring to the injection of bonus incentives into highly urbanized development systems (Yardley 1997; Buholzer 1993; Lassar 1989).

Opposition to density bonus

Significant opposition to the density bonus provisions has been expressed by the Pacific Region chapter of the Urban Development Institute (UDI), a national nonprofit association of the development industry. UDI's (1998) position paper on density bonus contends that the language in Section 904 leaves the tools open to misuse. It states that Section 904 "reached far beyond" the COHO report by enabling density bonus for the purposes of providing "amenities" in addition to housing. UDI also objects to the administration of density bonuses through a prezoning approach: "[it] simply negates the idea of a "bonus" at all: there is simply a higher density zone on the land. Bonus density, if it is to work successfully, must be a "surprise", not expected by the land owner, the developer who buys the land, or the city," (ibid. 3). It is true that Section 904 has removed some element of the surprise of a density bonus; however, in doing so it removes some of the uncertainty that makes the same parties nervous. Prior to Section 904, a local government could not include amenity conditions in a bylaw. In other words, a local government could not bind itself to alter densities if amenities were provided; it could not create an entitlement to increased density (Cockrill 1996, 5). 13

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¹³ To do so was considered by the courts to be inconsistent with the public hearing requirement of a rezoning and thus an unlawful fetter on the local government's zoning power (Cockrill 1996, 5).

Judicial consideration of density bonus

There has been relatively little judicial consideration of density bonus bylaws in B.C. and indeed, in Canada (Yardley 1997). The issues considered in First National Properties Ltd. v. District of Highlands (1996), 32 M.P.L.R. 26 (B.C.S.C.) are relevant to this study (as well, representatives from District of Highlands participated in the interviews). The case concerned the local government's improper dealing with a developer's rezoning application, and the establishment of amenity zoning conditions was considered in the court's decision. Following a density bonus arrangement wherein a crown property located in Highlands was rezoned in exchange for the provision of green space amenities, First National Properties applied for, and was refused, similar rezoning of an adjacent parcel. The refusal was based on the council being advised by its staff that no amenity had been suggested or offered in exchange for the density (Yardley 1997, 93). The court held that local governments ought not bargain for, or otherwise solicit, amenities in relation to a rezoning application, such matters being more properly dealt with by way of a Section 904—amenity zoning—bylaw. The implication is that although there is a longstanding tradition of bargaining between municipalities and development interests prior to the introduction of Section 904, it ought not to occur on the part of local governments regarding rezoning applications except through amenity zoning (Cockrill 1998). Since First National was making an application for rezoning, and no amenity zoning bylaw was in place, Highlands Council acted improperly in its efforts to "bargain" with developers for the provision of amenities as a condition of approving the application.

In 1998, still unsuccessful in obtaining approval for its rezoning application, First National again pursued legal action, this time against Highlands Council, its mayor and administrator, and the Province. The Court dismissed claims against the Province, but upheld the developer's unusual claim of abuse of public office against the District, the mayor at that time, and administrator (McDannold 1999). In its decision, the Court found that Highlands Council had a "settled intention" not to allow First National to obtain increased density for the property in question and had accordingly acted in abuse of public office with respect to that rezoning application (ibid. 17). The District, mayor, and

administrator were ordered to pay \$500,000 in damages to the developer. Further, the Court found that while there was nothing improper with the mayor seeking to preserve as much as possible of First National's property as parkland, he was found to have acted improperly, to the detriment of First National in the land negotiation process and was ordered to personally pay \$10,000 in punitive damages. Although all parties are appealing the case, the mayor resigned after the decision was let down. Highlands continues to use amenity zoning as a tool for acquiring green space and other amenities (see chapter four for a description of Highlands' amenity zoning system).

The case suggests a significant curtailment of a local government's legislative discretion in deciding whether to approve a rezoning application. This raises concern because normally the Courts hold that there are many circumstances where elected officials or salaried municipal employees may lobby on behalf of a local government to achieve a desired goal (McDannold 1999, 17). Normally the Courts hold that there is no right to a rezoning or subdivision application; both are discretionary decisions that require an elected Council or Approving Officer to s consider the broader public interest (ibid.). The case appears to be limited to the very peculiar and facts and circumstances found by the Court to exist, but there was no direct evidence to support many of its conclusions. For example, a legal review of the case states:

It is not clear from the judgement what evidence actually supported the Court's conclusion that there was a "settled intent" not to rezone the land. The case contains no discussion of the Supreme Court of Canada's rulings on political bias and the legitimate ability of local officials to have strongly held views on matter of public interest (McDannold 1999, 17).

What is clear is the "importance of dealing fairly with all applicants, and dealing with all applications on their merits without attempting to delay, obstruct, or interfere with the ordinary approval process simply because [a local government] may be motivated by some other goal" (ibid.).

The case also raises an interesting, if hypothetical, situation. If, over a period of time, density bonus arrangements were successively used in an area, the overall density of development would be higher than that allowed by the base zoning. Under such circumstances, local developers would perhaps become less inclined to request rezoning through a Section 904 bylaw, instead applying for a conventional rezoning, arguing that

previous density bonus arrangements had set a precedent for the higher density in the area.

Looking ahead: The emerging role of local governments in environmental protection

If a fourth era in planning were described, it would probably be environmental planning. The growing responsibility of local governments to protect, maintain, and enhance environmental quality within their communities calls for a retooling of "business as usual" policies and procedures related to the development approval process. In fact, many communities are embracing these changes as they realize that the pattern of developments over the past fifty years has produced less liveable and more expensive neighborhoods. Existing taxpayers often subsidize low-density, auto-dependent development of suburbs and beyond, because those who benefit directly do not pay a fair share of the real cost. The resulting suburban and rural sprawl is inefficient in terms of land and other resource consumption and represents unsustainable growth—economically, environmentally, and socially. In response, local governments are beginning to embrace "smart growth": land and development practices that enhance the quality of life in communities, preserve the natural environment, and save money over time (Curran and Leung 2000).

Smart growth promotes more efficient land use and cost savings by limiting urban sprawl, using tax dollars wisely, and saving taxpayers money through developments that conserve resources —land, infrastructure, and materials, cost less, and increase property values (Curran and Leung 2000, 2). One of the principle strategies of smart growth is the integration of development and ecosystems. Central to this approach is the preservation of open spaces, natural resources, and habitats. By focusing on the true costs and benefits of growth to communities, smart growth has triggered renewed interest in market-based instruments, such as density bonus to conserve environmentally sensitive areas (ibid. 7).

Developing a density bonus system

There are four main elements to consider in the development of a density bonus system (Lassar 1989; Getzels et al. 1988). These include: (1) clearly establish the purpose of the

system; (2) define the amenities that a local government wants to achieve; (3) determine the size of bonus that will be granted; and (4) outline a method of administering the bonus system (table 1). Early in the process, a local government should undertake to consult with community members, the development sector, and collaborate with other local government departments. Once density bonus policies have been agreed upon, they should be articulated in an OCP and other policy documents, such as parks and greenways plans.

Table 2.1: Elements of a density bonus system.

1. Establish the purpose of the system

- public consultation process
- conserve green space and rural landscapes
- encourage cluster development in the rural-urban fringe

2. Select amenities to achieve these purposes

 green space: parks, greenways, riparian and treed areas in subdivisions, and other sensitive habitats

3. Determine the size of bonus that will be granted

- bonus calibration models
- trial and error

4. Choose a method of administering the system

- case-by-case negotiation of density bonuses
- prezone for density bonuses with explicit provisions in zoning bylaw or OCP

Source: adapted from Lassar 1989; Getzels et al. 1988

The first and second elements are closely related. The purpose of a density bonus system can range from revitalization of a sagging downtown core to the provision of affordable and special needs housing; this study is concerned with density bonus as a green space tool. The second element is to define desired amenities. In the case of urban density bonus systems, it is important to clearly specify design and location requirements. Many cities learned this lesson after the proliferation of density bonus exchanges that resulted

in inappropriately located or designed plazas and arcades (Getzels et al. 1989, 3). Within the scope of this study, the task of the second element involves identifying and prioritizing privately owned natural areas a community would like to obtain as public green space.

Determining the value of a density bonus exchange

The third element in the development of a density bonus system is the process of determining the size or value of a bonus. This can be a difficult task. Getzels et al. (1988) provided a comprehensive review of the theoretical and practical aspects of this exercise. In urban applications, the main theoretical quandary is that "although the economic value of additional floor space to the developer and the cost of building the amenity can be calculated, the value of an amenity to the public cannot be measured in dollars" (ibid. 2). The practical solution is for a community to offer a developer a bonus equal in value to the cost of an amenity to be provided plus some increment. This requires a local government to be knowledgeable of local real estate conditions. A bonus should be large enough to create an incentive for a developer to provide the requested amenity, but not so large that a municipality provides much more in value than it receives: "How great the increase in the bonus needs to be beyond the break-even point may require some experimentation" (ibid. 8).

In urban settings, complex economic calculations are required to determine an appropriate bonus exchange. Determining the appropriate value to assign to each amenity option requires a cost/benefit analysis. Several economic models have been specifically developed to calculate the value of a bonus and its relationship to the cost of the amenity in dollar terms (Lassar 1989; Getzels et al. 1988, 16-21). *Bonus calibration models* also reduce noncommensurate values to numbers that are amenable to quantitative analysis: "By expressing both the amenities and incentives in dollars, the community avoids the fairness problem of evaluating public policy "apples" against developer profitability "oranges"," (Getzels et al. 1988, 16). A study of incentive zoning systems in the United States found that while few cities relied on calibration models, many "were moving in the direction of quantifying this relationship, because of the

perception of unfair trade-offs in their existing system," (Chicago 1987). A summary of different types of bonus calibration models is summarized in appendix C.

The utility of bonus calibration model in exurban applications is not certain. One consideration is that smaller communities are less likely to have the technical or financial resources to conduct economic cost/benefit analysis. Moreover, development in the rural-urban fringe tends to proceed on a 'horizontal' basis; density bonus, as well, is granted as additional lots, rather than increased FAR. An assessment of the added value of extra lots must take into account prevailing market preferences for low residential density suitable for hobby farms and country estates. Arendt (1994b, 230) explained why this is not an easy task:

Density bonuses often fail to achieve their objectives because when they are small, say 10 to 15%, they are not used by many developers, and when they are large they typically defeat their purpose by leaving little opportunity for significant open space preservation.

Too generous a bonus results in a windfall for the developer and may lead to public distrust. In the rural fringe, *any* increase in density may be seen as undermining the zoning bylaw and disproportionately rewarding developers. A possible exception is when the base density is exceedingly low. Under these circumstances, large density incentives are more likely to be politically acceptable because greater density increases can be permitted without severely compromising the rural resource (ibid.).

Direct environmental valuation and comparison through density bonus

There is also a philosophical component to the question of how to establish the value of a green space-for-bonus density exchange. Reducing the value of green space to economic terms for the purposes of environmental evaluation, as would occur with a bonus calibration model, does not necessarily improve land use decisions. Green space is a public good; it provides society with primarily nonmarket values and, consequently will be undersupplied by the private market (see chapter three for a discussion of market failures and public goods, p. 47). Knetsch (1997) explored the controversial aspects of environmental valuation methods and their results, which attempt to determine the economic value of amenities and productivity of natural environments. Environmental evaluations assess losses or gains in terms of changes in the economic welfare of individuals affected by an action or activity. Such a calculation can be used to determine,

for example, if the welfare gain to those benefiting from a change outweigh the loss in welfare of those adversely affected. Methodologies commonly determine the economic value of gains and losses in well being by measuring individuals' *willingness to pay* to acquire something, or to keep it. Knetsch's research provided evidence, contrary to conventional assumptions, that people commonly value losses much more than they do commensurate gains (ibid. 197). He concluded the disparity between individuals' values of gains versus losses implies that conventional environmental evaluation methodologies result in systematic understatements of values (ibid. 204). Such difficulties with environmental valuation are unlikely to be resolved in the short term.

A potential advantage of using density bonus as a tool for green space conservation is that it can provide a forum for local governments, development interests, and community members to discuss the trade-offs that land use planning and development necessarily entail. At issue is the question of a trade-off or compromise between the wholesale ruralto-urban conversion of a development property and higher density development clustered or concentrated on a portion of a site with the remainder secured as permanent green space. Making decisions about value trade-offs is not easy; there will always some people who are unwilling to consider any degree of compromise. The process is difficult because it entails *direct* environmental valuation. Unlike conventional valuation methodologies, density bonus negotiations do not require nonmarket values to be converted into numbers or dollar figures, which are later summed, allowing for a "precise" comparison of costs and benefits. The evaluation process within a density bonus arrangement entails a direct, and perhaps fairer comparison of public policy "apples" and developer profitability "oranges". If a density bonus arrangement is agreed to by a developer, acceptable to a community, and receives approval from a local government, the exchange value can be seen to represent both willingness to pay for green space conservation—through increased density—and willingness to accept compensation for granting additional density in the provision of amenities. The result of such collaborative decisions making processes is a greater likelihood of public acceptance of planning and development decisions.

Choosing a method of administration

The fourth element in the development of a density bonus system is deciding how it will be administered or implemented. Opinions about the preferred way to administer a bonus system fall between two extremes: case-by-case negotiation versus prezoning. Some planners and developers believe that negotiation on a site-specific basis is the best approach. Others maintain that required or desirable amenities, together with the increase in density that will be granted "as-of-right" upon provision of said amenities should be specified in a zoning bylaw and not be subject to change (Lassar 1989; Getzels et. al. 1988). In B.C., legal commentary on the density bonus provisions under Section 904 indicated that the legislation anticipates the latter prezoning or "as-of-right" approach (Buholzer 2000, Buholzer 1993; Yardley 1997). In fact, either approach is allowable; more important is for local governments to ensure they follow due process, and act in good faith and without discrimination in all dealings with the public (Paget 2000; B.C. MMA 1997a).

Case-by-case negotiation

Negotiating bonuses on a site-specific basis affords maximum flexibility and discretion. This is an important factor in density bonus systems that are intended to encourage cluster development, allowing much of the property to be dedicated as green space. Each development site has unique characteristics, and what works well in one location may fail in another. When density bonuses are negotiated, the development and density can be tailored to suit a site with the context or limits of the OCP. This approach is closely related to comprehensive development zoning, a technique employed in urban centers that takes into account current market conditions, other demands on the site, and the specific benefit that is needed for the site or neighborhood in order to determine the appropriate density for a site (B.C. MMA 1997a, 6). This degree of flexibility comes at a price: site-specific negotiations are typically labor intensive, expensive, and time consuming, and since each situation presents different circumstance, and they may raise undue doubts around a local government's intentions and ultimately erode the integrity of the underlying zoning.

For example, it is possible for the decision-making process to become fettered by ulterior motives. Getzels et al. (1988, 12) cautioned that the amenities available from a given project may become so attractive to decision makers that the prospect of receiving the amenities can divert attention from the merits of the project itself. This potential for abuse of the tool has led some British Columbian planners to compare it with the land use contract legislation of the 1970s (Taves 1998). Density bonus systems based on *ad hoc* negotiation may therefore be more vulnerable to legal challenge (Lassar 1989). It is imperative, therefore, that local governments using case-by-case negotiation support it with strong policies to help ensure that all parties are treated fairly and consistently.

Prezoning

Alternatively, the conditions and requirements of a density bonus system can be established in advance and articulated in a zoning bylaw or OCP. A prezoning approach would also specify where, locationally, density bonusing is permitted. Because it is formula-driven, prezoning provides developers with the greatest consistency and certainty and so is less risky than case-by-case negotiations. Like conventional zoning, all similarly zoned sites are treated the same in terms of potential density bonus. In reality, however, what works best on each site depends on several factors including individual development economics, location, site size, and the current state of the market (B.C. MMA 1997a). The drawback with this approach, then, is that can be inflexible and may become irrelevant as market conditions change.

In B.C., strong opposition to this approach has been expressed by UDI. Its policy paper on density bonus argued that prezoning for density bonuses cannot work because of B.C.'s land appraisal system, which always reflects the "highest and best use". The report states: "Bonus density, if it is to work successfully, must be a "surprise", not expected by the land owner, the developer who buys the land, or the city" (UDI 1998, 3). Prezoning negates the idea of a "bonus" by effectively raising the density of that zone (ibid.). This argument against prezoning is not encountered elsewhere in the literature consulted for this report. According to Lassar (1989, 12), prezoning does not mean that the additional density is entirely automatic; it is only granted if the bonus amenity *in fact* benefits the public. Getzels et al. (1988, 12) observed some cities that use prezoning to

implement density bonus systems have attempted to strike a balance in their administrative procedures by categorizing the various bonuses offered, and requiring "a more stringent level of review—and presumably negotiation—only for those amenities that are likely to have major environmental impacts."

As with case-by-case negotiations of density bonus, abuses can result with prezoning. UDI described two problematic prezoning techniques that have been used by local governments when implementing density bonus systems: the "two-step" method and the "charge-back" method (UDI 1998, 3). Communities employing the "charge-back" method gauge the density bonus exchange on the increase in land value associated with the increase in density enabled by a bonus, and then charge back the developers for a portion of the land value, usually 30% to 50%. With the two-step method, all land affected by the density bonus system is downzoned; a density bonus arrangement is then structured to offer an alternate density that is the same as the original density. Lassar's (1989, 9) observation that "many developers view incentive zoning as a glorified name for a downzoning followed by an "upzoning with strings" confirms the prevalence of this practice. MMA's *Density Bonus Guidebook* (B.C. MMA1997a) states that downzoning would be contrary to the intent of the legislation.

This chapter outlined the historical context for the introduction of density bonus provisions in B.C., and presented a case for using the tool to acquire green space, whether in the form of parkland, environmentally sensitive areas, or rural landscapes. The challenge for local governments is to devise a density bonus system that works towards a community's green space and growth management objectives; fairly treats all parties; and can be administered with relative ease. In the next chapter, the criteria for evaluating density bonusing as a tool for green space conservation are presented.

Chapter 3

EVALUATIVE FRAMEWORK

All governments assume a role in land use planning and control in order to direct land development in the general interest of the community. But what enables the state to exercise control over land that is considered to be private property? In other words, what is the rationale for government intervention in private decisions regarding land use? The existence of market failures suggests that there is a role for government in the use and allocation of urban land. Because of market failures, urban land markets, on their own, are unlikely to produce an efficient and equitable allocation of land uses that are considered socially desirable (Whitehead 1983). Thus, when economists consider public land policies and planning tools, they are mainly concerned about efficiency and equity, or fairness (van Kooten 1993; Slack 1990; Courtney 1983; Whitehead 1983). Finally, a tool or policy should be assessed in terms of its effectiveness in achieving stated planning objectives.

The following sections discuss the criteria of efficiency, equity, and effectiveness. These criteria are defined in the context of land use planning in general, and the acquisition of green space using density bonus in particular. An evaluative framework is then presented. It provides the basis for the design of the interview-questionnaire (appendix D). First, the discussion opens with a brief review of market failures and public goods.

Market failures and public goods

In uncontrolled markets, price signals often do not reflect the full benefits and costs to a community. Individual landowners and users, in turn, have little incentive to take account of the costs, or benefits, their decisions and activities impose on others. As a result, private property rights come into conflict with the values of the larger community. The existence of market failures provides a rationale for government intervention, usually in the form of planning and regulation.

Of the various types of market failures than can occur, *public goods* are most relevant to the planning issue of green space conservation. Public goods result in market failure

because the community derives benefit from them, but the private market does not supply them, or undersupplies them. A public good is defined by the characteristics of nonexclusivity and nonrivalry. Nonexclusivity means that it is difficult—or very costly—to exclude anyone from enjoying the benefits of the good, and so individual consumers have no incentive to pay or reveal their preferences (Whitehead 1983, 110). Nonrivalry means that the benefits enjoyed by one person do not reduce the benefits that can be enjoyed by anyone else. Since the marginal cost of an additional person consuming a public good is zero, the efficient price to charge is zero (Slack 1990, 15). There are few "pure" public goods, with the exception of national security, but many urban services such as street lighting, parks, and roads contain elements of "publicness". The problem is that while the cost of an additional consumer's use of a public good is negligible, the cost of providing them is not. Because public goods are nonmarketable they have to be supplied by the public sector (Slack 1990, 15).

Parks and green space have characteristics of a public good. The use and enjoyment of a park by one person does not detract from the use and enjoyment of others. Green space is not a pure public good, however. Those living in proximity to a park or natural area have a more pronounced interest in the green space, as is reflected in their property values, than do passersby. In many cases, overuse can and does cause degradation, congestion, and rivalry. And, while it is possible to exclude people by imposing fees and permits, such measures are often too costly to be worthwhile. Despite the private elements, green space is unlikely to be privately provided. One of the main reasons governments intervene in the use of urban land is to provide land for roads, utilities, and other public services, usually through zoning; and to provide public goods such as parks and green space (Courtney 1983). The extent of government intervention depends on what is considered socially desirable, as illustrated by the following examples of green space dedication requirements. In Israel, planning authorities may take as much as 40 to 50 percent of a private developer's lands for open spaces and other public uses. In Mexico City, 15 percent of subdivided property must be given for parks (Courtney 1983, 161). In comparison, this amount is five percent in B.C.

The current interest in density bonus, in part, stems from the limited ability of local governments to acquire significant green spaces. If a density bonus is properly gauged, it sends a price to the market, motivating private development interests to account for, and thus *internalize*, environmental and social values that otherwise have little or no immediate market value, the discounting of which causes negative externalities.

Evaluative criteria

The criteria of efficiency, equity, and effectiveness are reviewed in the following sections. Each criterion is defined in terms of its requirements in the context of density bonus (table 3.1). The discussion is informed by the literature on density bonus, in particular, the *Density Bonus Guide*, which contains a section on "principles behind the legislation" (B.C. MMA 1997a, 3).

Table 3.1: Evaluative criteria and requirements for public land use planning policies and tools

CRITERION	Requirements	
Efficiency	Allocate land for uses desired by society at least cost	
	Link the costs and benefits of land uses	
Equity	Those who receive benefits should pay a fair share of the cost	
	Equal treatment of parties in equivalent circumstances	
Effectiveness	Ease of administration	
	Political acceptability	

Efficiency

The economic efficiency criterion has two requirements: first, resources should be used to produce the goods and services desired by consumers at least cost—in other words, resources should not be wasted (Slack 1990, 17); and second, the costs and benefits of a land use or activity should be linked (Slack 1993, 4).

Allocate land for uses desired by society at least cost

In terms of land use planning, efficiency suggests that land should be allocated for uses desired by society at least cost (Whitehead 1983, 108). Uncontrolled markets will

undersupply green space because it is a public good. Consequently, parkland and other types of green space are usually publicly provided. However, when urban development occurs, a portion of the cost of preserving green space can be transferred to those private actors that benefit from the development of land. Density bonusing encourages developers to assume some costs of "green infrastructure", and compensates them for their efforts. Sandborn (1996, 73) promoted the use of such efficiency-enhancing mechanisms in his recommendation that, in order to be eligible for provincial grants to help purchase green space, a community should be required to "[make] optimal use of its powers to obtain the dedication of public parkland without payment when development takes place".

Link the costs and benefits of land uses

The efficiency criterion also requires the costs and benefits of a land use or activity to be linked. The problem with public goods is that it is difficult for private interests to link the costs and benefits of providing a public good. For example, a natural area may be more highly valued by society than a developer because it is difficult for private interests to internalize and thus capitalize on the benefits of the green space. If a developer does not consider such societal benefits, the land may be developed too quickly from the public's perspective, which would be inefficient (Slack 1993, viii). Zoning is the most common means of publicly allocating green space, but it is not efficient because individuals who gain do not always bear the costs: "Zoning protects open spaces, but it is not clear that optimal levels of these goods are being provided. The problem is that zoning does not get individuals to reveal their true willingness to pay or their true preference for open space," (van Kooten 1993, 253). And, there are limitations with using 'willingness to pay' to gauge public opinion in environmental evaluation, as discussed in chapter 2 (p. 43). By providing a mechanism for making trade-offs between urban development and green space conservation, density bonus may help link the costs and benefits of both alternatives. Since a density bonus allows development to occur at a higher density than what is "appropriate" for an area, according to the zoning bylaw, the provision of amenity should ameliorate the adverse affects of the increased density. The Density Bonus Guide states: "Amenities obtained should benefit the area where the development is located.

The amenity is provided to maintain or improve existing community livability and quality of life in the area that takes the higher density" (B.C. MMA 1997a, 3).

Equity

The concept of equity, or fairness, is central to a successful density bonus system. In the urban context, where density bonus is most frequently used in B.C., experience suggests that property owners and developers are likely to be supportive of density bonus systems as long as they can be introduced fairly (North Vancouver 1996, 3). There are many dimensions to the principle of equity. Two of these are particularly relevant to an assessment of density bonus: first, those who receive benefits should pay a fair share; second, individuals in equal circumstances should be treated equally or fairly.

Those who receive benefits should pay a fair share

The benefit principle states that individuals should pay for the benefits received (Slack 1993, 20). Since density bonus arrangements involve an exchange or trade of commodities—there is no direct cash payment—how does one assess density bonus on the benefits principle? Two questions arise: what constitutes an appropriate amenity? And, what is a fair amenity-for-density exchange? The *Density Bonus Guide* contains a principle addressing appropriate amenities: "Density bonusing is used to achieve public benefits The amenity or housing obtained should meet an identified community need, and should not be used to obtain housing or amenities that otherwise would be provided by the private market" (B.C. MMA 1997a, 3). Regarding fairness, another principle in the *Density Bonus Guide* states, "Density bonusing should in no way be used as a substitute for local government general taxation or become an additional development charge" (ibid.). Both fairness issues are closely related to how a density bonus system is developed and implemented.

Equal treatment of individuals in equivalent circumstances

The second principle of equity is called horizontal equity, or the equal treatment of individuals in equivalent circumstances (Slack 1990, 16). In providing opportunities for negotiation between local governments and developers, MMA acknowledged the "need to ensure that effective bargaining takes place by providing a balanced legislative

framework that places all parties in a reasonable equal position," (B.C. MMA 1994, 4). The issue is addressed in the *Density Bonus Guide*, which states: "The bonus system must be applied in a fair and equitable manner, with all parties acting in good faith and in the spirit of the legislation" (B.C. MMA 1997a, 3). Development interests have expressed concern about the need to establish a level playing field throughout a region in terms of the valuation of bonus density so that the development community does not strike a "better deal" in some communities than others (Burnaby 1997, 5).

The way a density bonus system is implemented can have a significant influence on the fair and equitable treatment of all parties. Prezoning provides developers and property owners with the greatest consistency and certainty in the development process: as long as the conditions are met, the bonus must be granted (B.C. MMA 1997a, 5). This clarity helps to level the playing for all developers. The shortcoming of this approach is that, like conventional zoning, it is inflexible. Despite the unique characteristics of each property, prezoned density bonuses affect properties uniformly, which could create inequities (North Vancouver 1996, 3).

Alternatively, density bonuses can be negotiated on a case-by-case basis. Individual negotiation of density bonus arrangements allows the greatest flexibility and discretion as each rezoning application can take into account various factors particular to each site (B.C. MMA 1997a, 6). This approach is riskier than prezoning because it is difficult to ensure that each developer or landowner is treated fairly (Paget 2000).

Effectiveness

The third evaluative criterion concerns how well a tool or policy works toward the objectives it was intended to achieve. In this study, the question is whether density bonus lends itself to green space conservation in rural-urban fringe applications. Does it provides developers with a real incentive to change or alter their development plans in ways that work towards local land use objectives. The effectiveness or success of a density bonus system partly depends on certain factors that are beyond the influence of a local government, such as sustained pressure for economic growth. Other factors are

within the control of local governments. One is the ease with which a density bonus system can be administered; another is political acceptability. These are discussed next.

Ease of administration

Local governments should take account of the ease of administration in their choice of planning tools (Slack 1990, 18). The application of density bonuses should not be administratively costly for a local government in terms of calculating the density bonus exchange and in terms of administering the system. The *Density Bonus Guide* states, "Consistency and predictability in the bonus scheme are key elements, just as they are in the zoning bylaw itself" (B.C. MMA 1997a, 3). This consideration is particularly important in urban fringe communities where, as a rule, planning departments have fewer resources and technical capacity than cities. A local government's decision regarding implementation approach will influence its administrative costs. Prezoning provides a developer with the greatest consistency and certainty; on the other hand, a negotiated approach allows for more flexibility and discretion as each rezoning is dealt with on a case-by-case basis (B.C. MMA 1997a). From the development sector's perspective, incorporating density bonus and the attendant clustering of buildings into a development proposal should not require more time and effort to obtain approval than is required for a conventional development (Sandborn 1996, 114).

Political acceptability

Political acceptability is an important, but often overlooked, component of effective land use planning (van Kooten 1993, 251). Market failures are the main reason for public control and regulation of private land use; the social costs and benefits of land use are not the same as the private costs or benefits. Land use control and planning must still respect private property rights. In general, when government intervention restricts land use so that property rights are lost or expropriated, the provision of at least partial compensation is required to make land-use control politically acceptable (van Kooten 1993, 265). The more a policy instrument infringes on property rights, the less likely it will be politically acceptable.

The introduction of environmental protection regulations should be acceptable from the perspective of private property owners, especially in the rural-urban fringe. If not, they are likely to be disregarded and largely ineffective, given the modest resources for local officials to monitor and enforce compliance. Thus, political acceptability and ease of administration are interrelated. The appeal of density bonus as a tool for environmental protection is that it does not impose yet one more requirement on landowners and developers. Moreover, with the awarding of a density bonus, local governments are able to partially or completely compensate developers or landowners for the costs of leaving a portion of their property undeveloped.

In additional to the provision of compensation where due, a planning tool or policy is more likely to be politically acceptable when the intent is clearly understood. The *Density Bonus Guide* states that the development of a density bonus system should be based on a "policy based, consultative process" and that "the goals and objectives of a density bonus system should be clearly articulated" (B.C. MMA 1997, 3). Thorough consultation with community stakeholders, particularly the development sector, is necessary to justify the value judgments—or trade-offs—between higher density development and green space conservation that density bonus schemes entail. Ensuring transparency throughout the process is critical to avoid any appearance of "horse trading". This is particularly so if a case-by-case approach is taken since density bonus negotiations can go beyond what is permitted in a zoning bylaw.

Evaluative framework

Given the criteria of efficiency, equity, and effectiveness, a framework can be constructed by which to evaluate a specific application of density bonus: as a tool for conserving green space. It is structured in a way that allows for the design of an interview questionnaire format that is familiar for planners and developers with hands-on experience with density bonus systems. The evaluative framework consists of four components, the first of which surveys the level of use of density bonus in the rural-urban fringe, and attitudes regarding the importance of the tool and the legislative provisions for density bonus (table 3.2). The second and third components are based on elements three and four in the development of a density bonus system, as outlined in chapter two: (3)

determine the size of bonus that will be granted; and (4) outline a method of administering a bonus system (table 2.1, p. 40).

The second component of the evaluative framework explores the process of establishing the value of a density bonus exchange. It does this by taking into account the challenge of reaching agreement on an exchange value, whether such deals are seen to be fair, and whether density bonus is perceived as an incentive, or an additional development charge.

The third component is concerned with how a density bonus system is implemented. It assesses the advantages and disadvantages of prezoning and case-by-case negotiation of density bonus arrangements, and surveys the range and nature of administrative challenges to using density bonus as a green space tool.

The final component of the evaluative framework addresses the impacts on land use and development patterns associated with the use of density bonus in the rural-urban fringe. A series of indicators are organized under two broad headings: green space objectives and development objectives. As this study is designed to be a qualitative assessment, these indicators are not intended to elicit quantitative data, but rather to provide a sampling of the opinions and attitudes of those who use density bonus.

Table 3.2: Framework of evaluative criteria and their indicators for the use of density bonus as a green space conservation tool in the rural-urban fringe

Experience with density bonus in the rural-urban fringe

- level of use in case study jurisdictions
- characteristics of density bonus systems
- importance as a green space conservation tool
- adequacy of legislative provisions for density bonus

The density bonus exchange

- difficulty establishing an exchange value for green space amenities
- comparison of values in a typical exchange
- incentive or additional development cost charge

Implementation approach

- prezoning or case-by-case negotiation
- administrative challenges

Impacts on land use and development patterns

Green space criteria

- amount of green space acquired through amenity zoning
- ecological significance of bonused green space
- contribution of bonused green space to local parks plan
- neighborhood satisfaction with bonused green space

Development criteria

- density of development consistent with local plan
- location of development consistent with local plan
- proximity of development to public services and facilities
- sensitivity of development design to site ecology

Chapter 4

EVALUATION RESULTS

This chapter presents the results of a series of semiformal interviews that were the primary research instrument of this study. The interview questionnaire was designed to elicit and summarize the experiences of a chosen sample of British Columbian planners and developers who use density bonusing. The results of the interviews are reported in a qualitative format, supplemented by a quantitative summary of closed-ended questions. These numbers are presented strictly for summary value. The reader is advised against any quantitative analysis of the numbers presented; they are meant to complement the qualitative results and to help focus the larger trends of thought in this area by those with experience in the use and application of density bonusing in B.C.'s rural-urban fringe. As well, the reader's attention is directed to an imbalance within the sample population. Respondents with a planning background are overrepresented in the sample, compared to developers. In general, planners regard density bonus more favourably than do developers.

In addition to data from the interviews, the results are complemented by information from official community plans and other planning documents from local governments in the study, and the literature review of density bonusing. An analysis follows each question set. The survey questionnaire, with responses to closed-ended questions, is provided in Appendix D. The presentation of the results begins with a profile of respondents, and a description of the density bonus systems of the local governments represented in the study.

Experience with density bonus in the rural-urban fringe

About the Respondents

Nineteen respondents agreed to participate in the interview: twelve planners and seven developers (table 4.1). Not all respondents answered all of the interview questions. In addition, three individuals did not formally participate in the study, instead choosing to answer some questions informally and provide some personal observations on the use of

density bonusing. For example, a planner with a local government did not formally participate in the interview because that jurisdiction does not use density bonusing. While many of the questions did not apply, his theoretical and philosophical observations provide valuable insights to the study. Quantitative information represents the opinions of the respondents who formally answered the interview questions. Qualitative information is based on all respondents' comments.

Table 4.1: Profile of the nineteen interview respondents

Planning Sector (12)*				
Local government (10)	Planning consultants (2)			
Regional District of Comox-Strathcona (4)	Lanare Consultants Ltd.			
District of Highlands (2)	Urban Systems Ltd.			
Islands Trust (2)				
District of Maple Ridge (1)				
Regional District of Nanaimo (1)				

Development Sector (7)

Development companies (5)	Nonprofit association (1)	Private landowner (1)
Christopher Investments	Urban Development	Swansong
Flitton Management Ltd.	Institute	Holdings Ltd.
Genstar Development		
Company		
Intracorp Developments Ltd.		
Raven Group		

^{* ()} indicates number of respondents in each subgroup.

Profile of the development sector

Respondents from the development sector reflect the diversity in the development and building industry. Some work for large companies with international land holdings;

others are largely based in a particular region of the province. One is a private landowner, and one is a representative of a national nonprofit association of the development industry. Questions 1 and 2, directed only to developers, inquired about their amount of experience with density bonus arrangements, and the provision of green space set aside, as a percentage of a development property. Most developers have experience with two or three density bonus arrangements; the range was from one to four. The amount of green space usually dedicated in a density bonus arrangement ranges from a low of 10%, including parkland dedication requirements and undevelopable land, to as high as two thirds of a development property. According to one developer, 30% of a property is a common starting point for negotiations.

Profile of the planning sector

The portion of the sample group representing planners is comprised of nine planners with local government, a former elected official, and two planning consultants. Questions 3 through 6, directed only to planner respondents, concern their experience with density bonusing. These include: how long their respective communities have used density bonusing; number of density bonus schemes they have been involved with; types of development that may be eligible for density bonus; and methodologies or approaches to determine the value of a density bonus exchange.

The local government respondents, mostly planners, represent five jurisdictions including Regional District of Comox-Strathcona, District of Highlands, Islands Trust, District of Maple Ridge, and Regional District of Nanaimo. Frequency of use ranges from zero on Galiano Island, part of the Islands Trust, where density bonus provisions are on the books but have not been triggered by developers, to Maple Ridge, which, according to recollection of a staff planner, has approved about eight developments with density bonus arrangements. Each jurisdiction has taken a different approach to the development and administration of a density bonus system. This is a reflection of the different philosophies specifically regarding the concept of concept of density bonus and how it should be used and, more generally, land use planning and development. These differences reveal themselves in their respective density bonus systems, outlined below, and throughout the results in this chapter. In some cases, an official community plan

(OCP) or zoning bylaw simply contains a provision for density bonusing; in others, the purpose, objectives, and other details of the system are articulated in supporting documents. These include: policy guidelines, amenity lists, specifications of a density ceiling resulting from bonus density, requirements for review and monitoring to ensure the system remains relevant to community objectives, and, in one case, a pro forma worksheet used to calculate the value resulting from additional density, which then determines the value of the amenity. Appendix E contains excerpts from planning and policy documents of the participating local governments including density bonus provisions and policies pertaining to density bonusing.

Overview of five density bonus systems

District of Highlands, a rural community located northwest of Victoria, uses density bonusing predominantly for residential developments, but it was also used once for a commercial center. It is the only jurisdiction in the survey to have used density bonus for a nonresidential application. Highlands Council views protection and preservation of green space within the jurisdiction as its major contribution to the region, a philosophy that is stated in the Capital Regional District's Regional Growth Strategy (CRD 2002). To promote its strong ecological preservation ethic, Highlands has used density bonusing, or amenity zoning, extensively since its incorporation in 1993, the same year the legislation was introduced,. In four developments, Highlands acquired almost 1000 hectares of parkland through amenity zoning (Curran 1999, 24). In five years, the amount of park space in Highlands increased from 5% to 30 % of the total land base of the community. These impressive results are juxtaposed with two lawsuits levelled by local landholder and developer, First National Properties Ltd. In the first case, the Court found that Highlands Council had improperly dealt with the plaintiff's rezoning application by refusing to grant rezoning approval because First National had not suggested or offered any amenities in exchange for the density. In a second, related case, the Court held that Highlands, its mayor and administrator had committed an abuse of public office.

Following these incidents, Highlands revised its zoning bylaw to avoid further legal challenge. It essentially provides three options for development. These include

conventional subdivision development at the existing low density, 30-acre zoning; and two options for amenity zoning: cluster development with no change in the lot yield, or clustering with increased lot yield. The first amenity zoning option is actually a provision for *density averaging*; no additional density is awarded. The rationale for including density averaging as an amenity zoning option is that simply permitting a developer to create smaller lots results in cost savings by reducing road lengths (Curran 1999, 25). The second option permits smaller, clustered lots and an increase in yield—a true density bonus—and calls for the provision of additional amenities. Highlands' OCP contains an appendix listing potential amenities, the provision of which could be exchanged for higher density (appendix E).

Upon receiving an application for development and rezoning approval, staff planners draft an alternative cluster design that uses land and resources more efficiently, and maximizes the amount of land preserved in a natural state. They have also created a pro forma template, which is used to calculate the revised projected revenues and costs of a development proposal for the new configuration. It includes a "developer risk" amount, usually equal to 15% of gross sales, recognizing the higher risk that a developer could assume by foregoing conventional subdivision design in favor of cluster development in this rural community. The alternative cluster design and revised pro forma calculations allow developers to compare the costs of conventional versus cluster development. These services are considered part of the benefits for developers of Highlands' amenity zoning system.

The District negotiates amenity zoning arrangements on a site-specific basis. However, a consistent philosophy guides the establishment of each exchange value: the value of the additional density should be shared between the community and the developer (Highlands 1997, 34). Sharing is considered to be a fifty-fifty split of the profit derived from the higher density. Highlands' pro forma template provides the information upon which this value is calculated.

Regional District of Comox-Strathcona (RDC-S) has used density bonusing since the mid-1990s to achieve its goal of conserving and protecting existing wildlife habitat and

creating a network of green-space linkages for nature (RDC-S 1997, 8). The *Comox Valley Zoning By-law* allows, in certain areas, for one additional lot to be achieved per 0.4 hectare of land dedicated, or per \$15,000 expenditure on construction of agreed upon facilities, features and/or services (RDC-S 1986, 100). In more rural areas, both mandatory and optional provisions for open space may apply. Regarding the former, a minimum of 30% of the land area is required to be established as publicly owned ecological and recreational greenways, as a condition of development at densities of one residential unit per acre and one residential unit per half acre. The optional provision offers a density bonus as an incentive. A developer who dedicates more than 30% of a property to public ownership may be awarded additional residential units (RDC-S 1999, 8). Two developments with density bonus arrangements have been approved in RDC-S, and there have been several additional expressions of interest.

District of Maple Ridge has used density bonusing since the mid-1990s. A provision for density bonus is contained in the local OCP. It allows for an increase in the density of the developable portion of a site by 2.5 residential units for each hectare (2.47 acres) of land set aside. Maximum densities have been established for developable areas; however, a planning staff member doubts that the 2.5-unit bonus rarely exceeds the density limit. At least six developments using density bonus have been approved in this community.

Islands Trust is a unique governance structure in B.C., with a legislated mandate to "preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally," (B.C. 1996c). It started exploring the concept of density bonusing in the mid-1990s. In 1995, Islands Trust administrators prepared a policy manual entitled, Amenity Bonus Tools. The manual provides direction for the local trust committees that comprise the Islands Trust. Each trust committee independently decides whether or not to adopt density bonusing provisions. Two islands, Salt Spring and Gabriola, are represented in this study. Both adopted density bonus policies in 1998. Four applications involving density bonus have been approved on Salt Spring Island; none have gone through on Gabriola Island.

The Salt Spring Island Local Trust Committee articulated the purpose and objectives of its amenity zoning bylaw in a document appended to Salt Spring's OCP (Salt Spring Island Local Trust Committee 1998). The document includes guidelines for amenity zoning applications, amenity and density value exchanges and procedures, and a list of eligible community amenities. Community amenities are categorized according to priority. *Level One Priority* amenities would secure a land base for a variety of specific community goals. *Level Two Priority* amenities include the construction of actual community facilities and affordable, or special needs, housing. Where the community amenity provided is land, a one-to-one exchange is allowed. In such cases, one additional density, a lot or a dwelling unit, could be allowed for each parcel of dedicated land that is equal or greater than the minimum lot size specified in the zoning bylaw (ibid. 1998).

The methodology used to determine an amenity and density value exchange is similar to Highlands' approach: the dollar value of the community amenity should approximate 75% of the net appraised value that accrues to the property owner due to the increased density. The amenity zoning guidelines include a number stipulations that are not found in any other jurisdiction surveyed, but the literature on density bonusing would suggest they are not uncommon in urban density bonus systems. These include:

- establishment of a density cap, allowing the creation of no more than 100 new dwelling units from the use of amenity zoning
- exchange of no more than 33 densities for any one amenity
- assignment of a government or nonprofit agency to be responsible for managing the resulting green space
- erection of a plaque explaining the origin and purpose of the bonused green space
- requirement for the amenity zoning bylaw to undergo annual review. If
 necessary, the bylaw should be amended to ensure it remains consistent with
 community objectives, or withdrawn if the amenities provided are no longer needed
 by the community

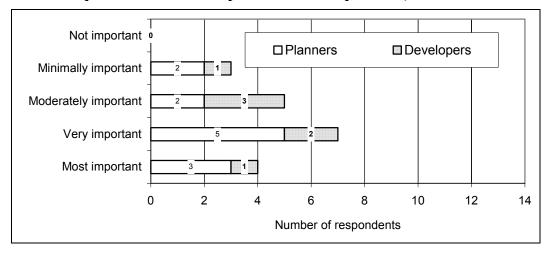
Regional District of Nanaimo (RDN) developed a density bonus system for the French Creek community in the late 1990s (RDN 1998). Density bonusing is anticipated in two

comprehensive development areas (CDA) within the French Creek Plan Area. In the first CDA, a two-tiered density bonus system is administered through a prezoning approach. The first tier allows for a maximum increase of 53 units out of the total build out of 375 units. In exchange, the proposed development must provide a minimum of 20% of the land area for community parks and or publicly accessible open space. It must also comply with other guidelines regarding height, form, and character of development. The second bonus tier allows for a bonus of five additional units per hectare if the open space dedication is increased to a minimum of 25%. The second CDA anticipates a more negotiated approach to density bonusing. In this case, the OCP only specifies that a bonus would be awarded as additional height and provides a list of the types of amenities that would be considered.

Importance of density bonus, now and in future

The remainder of the interview questionnaire addressed all respondents. Questions 7 and 8 asked respondents to gauge the present and future importance of density bonusing as a tool for green space conservation in the rural-urban fringe. Most respondents say density bonusing is a very (7/19 or 37%), or most (4/19 or 21%), important tool for conserving green space in the rural-urban fringe (table 4.2). More than two thirds (13/19 or 68%) think the tool will become more important in future (table 4.3).

Table 4.2: Respondents' answers to question 7 on importance of density bonus as a tool for green space conservation in the rural-urban fringe (see Appendix D for interview-questionnaire and responses to closed questions)

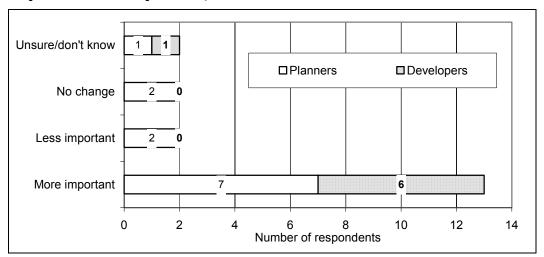


DEVELOPMENT SECTOR

Opinion is divided among developers regarding the importance of density bonusing as a green space tool. Three rank it as a very, or the most, important tool (2/7 or 29% very important, and 1/7 or 14% most important). According to one developer, density bonus enhances efficiency because "the market determines whether or not the developer will provide the requested amenity". Three (43%) rank it as moderately important or have no response to the question. It is of minimal importance in the opinion of one developer.

Six developers (86%) indicate that density bonusing will become more important over time. One of these provides an interesting analysis. He thinks density bonusing is a valuable tool and thus should become more important in future; however, developers and local governments avoid it because it is frequently and easily abused. The respondent applauds Section 904 for attempting to bring back the ability of local governments and developers to negotiate, but he cautions that "we are going to lose a good piece of legislation if it is not dealt with properly [W]e will be seeing more legal actions and court cases". Local governments are not operating in a spirit of cooperation, as advised by the *Density Bonus Guide*, he explains; instead they are using it to blackmail developers. Along with other developers, he compares density bonus to the land use contracts (LUCs) of the 1970s, pointing to their widespread abuse by local governments and eventual repeal.

Table 4.3: Respondents' answers to question 8 on importance of density bonus as a green space tool in future (see Appendix D for interview-questionnaire and responses to closed questions)



PLANNING SECTOR

Eight planners rank density bonusing as a very important (5/12 or 42%), or the most important (3/12 or 25%), tool for conserving green space in the urban fringe. One planner asserts that it is "the most cost effective tool and publicly accepted tool to conserve green space". Slightly fewer (7/12 or 58%) think density bonusing will become more important in future. Two respondents (17%) believe it will stay the same, and two suggest it will become less important over time. Perhaps the best approach to interpret these numbers is by way of example.

Salt Spring Island's experience with introducing a density bonus system illustrates that economic fluctuations and other factors can affect the importance of the tool. Local planners thought it would be very important because the local economy was buoyant and lots were in demand in the mid-1990s when the system was initially developed—even one extra lot was attractive. By the time the system was implemented in 1998, the economy was in a slump; there was a surplus of lots on the market and developers who might have previously been interested in density bonus were waiting until the economy rebounded. There is still little developer interest in density bonus on Salt Spring Island, so planners are re-evaluating the density bonus system. They hope to answer several questions including: Is the lack of developer interest a result of a flat economy? Does the system need to be modified to create a stronger incentive for developers? Is the density

bonus tool itself flawed, or unsuitable for Salt Spring's economic and development environment?

Experience with density bonus in Highlands has been quite different. While it has been an effective tool for acquiring and protecting a significant amount of valued parkland, planners think its importance will stay the same, or become less so, in future. During the first five years of using density bonus, parks and green space in Highlands increased from 5% to 30%, largely due to density bonus arrangements. The utility of density bonus as a green space tool in Highlands perhaps has already been fully exploited. Future opportunities for amenity zoning are limited; by both the availability of green space and public pressure to acquire other much needed "amenities" such as fire trucks.

Analysis: While most respondents rank density bonus as a very, or the most, important tool, the percentage is higher for planners than developers. And while most respondents think the tool will become more important in the future, the percentage of developers who think so is slightly higher than planners. This slight discrepancy is probably explained by the unique situation in Highlands, where the amount of green space acquired through density bonus has been optimized, and a decline in future use seems inevitable, or at least will focus on amenities other than green space. The importance of robust local real estate markets cannot be overlooked on a successful density bonus system. Market fluctuations can stifle any efforts to introduce a market-based tool such as density bonus. Although developers generally think density bonus is important, and will be more so in the future, the references and comparisons to the ill-fated LUC legislation some twenty years ago, speak to their concerns about local governments acting fairly and in good faith when implementing density bonus systems.

Density bonus legislation: Are changes needed?

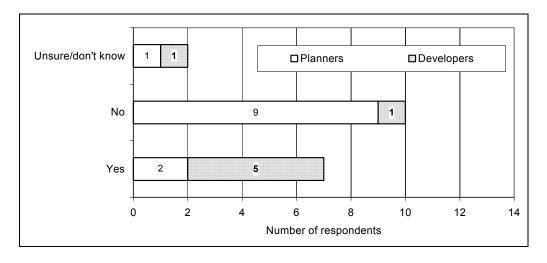
The language in Section 904 allows for a broad application of the tools. Most notably, it does not define the term amenity. This provides local governments immense local flexibility and discretion to negotiate with developers over a broad range of community amenities. Fully aware that some that some local governments "will be creative in their use of the legislation, and will push the planning envelope," MMA indicated that future

planning legislation could be less flexible if local governments and developers fail to demonstrate that they can negotiate to good effect under the provisions in Section 904:

The degree of success of communications between local governments and the development industry will greatly influence the direction and shape of future planning legislation. Will we move forward and further empower local government or will the pendulum swing toward provisions which further constrain municipalities? (B.C. MMA 1994, 9).

Question 9 asked whether changes should be made to density bonus legislation (table 4.4). Slightly over half of all respondents (10/19 or 53%) indicate that changes are not required. Seven respondents (37%) think changes are required, and two respondents (11%) are unsure or do not know.

Table 4.4: Respondents' answers to question 9 on whether density bonus provisions in Section 904 should be clarified or changed (see Appendix D for interview-questionnaire and responses to closed questions)



DEVELOPMENT SECTOR

Most developers (5/7 or 71%) think changes to Section 904 are needed. To a greater or lesser degree, each of these respondents asserts that local governments are not using the tool as it was intended: "playing favors" or even using it for blackmail or extortion. Again, comparisons are drawn between density bonusing and LUCs, with specific references to the repeal of LUC legislation resulting from local government abuseof the broad powers contained in it. One comment is that provincial legislation frequently

misses the mark when it comes to market-based regulations. A general observation is that the wording of the legislation is too vague. One developer says:

The province has tried to keep the provisions relatively flexible, but they are so flexible there are no ground rules. This leads to interpretation problems, where the public reads the section one way, planners another, and developers yet another. As a result, it is difficult to convince the public to accept the tools.

Another expects to see more legal action taken against local governments who misuse or abuse density bonus provisions. He warns that, although density bonus is a valuable tool, he thinks the legislation will be repealed unless the provisions are changed to curb such abuses.

Specific recommendations related to restricting or reining in the power that Section 904 gives local governments and planners include:

- require local governments to include clear policies on density bonusing in community planning documents in order to ensure transparency and consistent interpretation
- clarify the legislation by putting into Section 904some of the policies and guidelines contained in the *Density Bonus Guide*, which has no legal authority
- expand provisions to give planners specific tools for promoting cluster development
- remove provision for *amenities* from the legislation (s.904(2)(a)), thus restricting the application of density bonus to affordable and special needs housing
- remove provision allowing prezoning, wherein a zoning bylaw may have two tiers, the base density and the density that can be achieved when an amenity is provided (s.904(1))

The last two points above reflect the UDI's published position regarding density bonus.

PLANNING SECTOR

The majority of planners (9/12 or 75%) are satisfied with the existing wording of Section 904. The language of Section 904 should be broad, says one planner, since "a tight definition [of community amenity] could stifle opportunities". A few are critical of provincial legislation in general: "Provincial legislation is generally biased toward urban

areas, neglecting rural areas," and, "The province writes legislation but does not understand what the impacts will be".

Planners' suggestions for legislative changes include:

- define all possible amenities
- allow density bonus in return for cash. There could be a requirement to pool it
 into a special cash reserve account for future green space acquisitions. This would
 allow even greater local flexibility for acquiring highly valued green space, either at
 the time of a development or at a later date.
- expand local powers to include additional tools such as *transfer of development* rights (TDR)¹⁴

Analysis: Whereas most planners think the legislation is fine as it is; most developers think parameters should be placed on the discretion provided by Section 904. Those planners who suggested changes are looking for greater clarity, but in a way that does not fetter their discretion or flexibility to negotiate density bonuses. In stark contrast, developers are concerned that some local governments are abusing the density bonus provisions, as occurred with the almost unlimited scope of the LUC legislation. These results reveal, at least on the part of developers, a problem with the actual or perceived balance of power between developers and planners. To be fair, negotiations should occur between equal parties.

This divergence of opinion between planners and developers is a common thread weaving throughout the interview results. In some cases, the most extreme position is held by UDI, an association of the development industry. It suggests ineffective communication and trust between the sectors and is, in fact, one of the greatest challenges to successful use of density bonus, as later results confirm.

Although there is little case law on the topic of density bonus bylaws in B.C., the issues considered in *First National Properties Ltd. v. District of Highlands* (1996), 32 M.P.L.R.

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¹⁴ Like density bonusing, TDR programs use market forces to pay for open space preservation by promoting compact, clustered development in appropriate locations. A developer buys rights to increase development density at a "receiving site", and payment reimburses property owners to set aside open space at a "sending site" (Pruetz 1997).

26 (B.C.S.C.) provides some insight into the appropriate use of amenity zoning bylaws (see chapter two, p.15). In particular, the Court's decisions makes it clear that Section 904 does not replace or eliminate conventional rezoning applications: a developer is still within her rights to make application for rezoning of a property without the provision of amenities. Unless amenity zoning provisions are in place, bargaining on the part of a local government regarding the provision of amenities as a condition of rezoning approval would be improper.

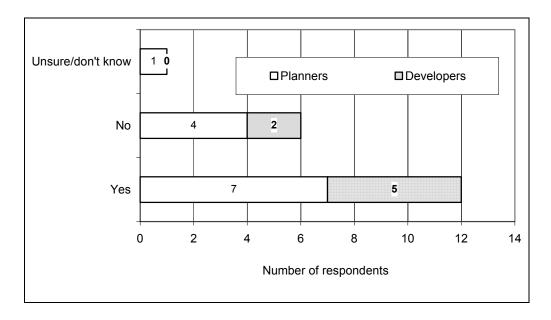
The density bonus exchange

This question set explores planners' and developers' on-the-ground experiences with determining the size and type of density bonus that will be granted. Question 10 concerns the difficulty of establishing a fair or acceptable value-for-value exchange between bonus density and environmental amenities such as green space and sensitive habitat (table 4.5). Questions 11 and 12 explore issues of fairness relating to the density bonus exchange.

Establishing the value of a density bonus exchange

Determining the size and type of density bonus that will be granted can be one of the most difficult tasks in the process of developing a density bonus system (Getzels et al. 1988, 16). Chapter two of this report reviews how the challenges of determining the value of a density bonus exchange in rural-urban fringe communities differ compared to urban centers. In an urban setting, bonus density, usually higher floor area ratio (FAR), is determined through the use of specialized bonus calibration models (see Appendix C). When density bonus is used as a tool for green space conservation, a bonus is usually awarded 'horizontally', as an increase in the number, and consequent decrease in size, of allowable lots. Economic analysis is less suited to the task of assigning a dollar value to green space. Other factors add to the challenge. Compared to cities, real estate values in the rural-urban fringe are typically discontinuous, capable of varying significantly over a small area. Rural-urban fringe land markets are also more vulnerable to fluctuation, resulting from boom and bust cycles characteristic of resource-based communities.

Table 4.5: Respondents' answers to question 10 on whether it is difficult to establish a fair or acceptable density-for-green space exchange value (see Appendix D for interview-questionnaire and answers to closed questions)



PLANNING SECTOR

Seven planners (58%) agree that establishing the value of a density bonus exchange is a difficult task. One of the biggest challenges is determining the size of a bonus, that is, how much incentive to provide. The presence of natural resources, such as forests, can thwart any possibility of density bonusing. On Salt Spring Island, for example, negotiations for a density bonus began but were quickly stifled by the realization that the value of standing timber alone far outweighed any offer of density bonus to encourage the developer to dedicate a portion of the forested land as public green space. One planner opposes the use of bonus calibration models in rural-urban fringe and rural applications of density bonusing because there are insufficient data in rural areas compared to urban centers, and because the community at large would find such an approach unacceptable. Some respondents say the challenge was much greater when density bonus policies were first offered in their communities, but they have since established a method or approach that works well.

DEVELOPMENT SECTOR

The majority of developers (5/7 or 71%) say it is difficult to establish a density bonus value. From a development perspective, the key issue that impedes reaching agreement

on the value of a density bonus exchange appears to be a lack of understanding on the part of planners and elected officials regarding the value of additional density in the rural-urban fringe. Several developers maintain that local governments frequently overestimate the value of incremental density increases, offering bonuses that exceed the density threshold: the housing market in the urban fringe prefers one- to five-acre lots to smaller, clustered lots. As well, local governments often overlook the need to discount the infrastructural savings realized through clustering units onto smaller lots over the time it takes to sell the units. One developer sums up his thoughts this way: "disagreement over the value of an amenity reveals a failure to understand the economics of the land development business."

A developer's experiences in Highlands illustrate how the process of establishing a density bonus exchange value can be contentious. As noted earlier, staff planners prepare an alternative design based on clustering and a revised pro forma worksheet each time a development application is submitted. The revised calculations performed by Highlands planners, however, do not always convince prospective developers of the merits of cluster development or amenity zoning. A developer recalls that Highlands estimated an additional profit of \$720,000 for one of his development proposals, compared to only \$157,000 according to the developer's calculations. The huge disparity between the two figures, largely due to different predicted cost savings from reduced road length, became the focus of bitter debate between developer and local government. Since Highlands uses its own pro forma calculations to determine the value of a required amenity (50% of the additional profit accruing from the increased density), the developer explains, amenity zoning is used to extort amenities from developers.

Analysis: This question finds the majority of developers and planners in agreement, although it is a case of agreeing to disagree. There is sector-based disagreement on what is a fair exchange value, and how to reach one. As well, there is a considerable range of opinions within sectors, especially among planners. For example, while some planners favor the use of formalized bonus calculations, others eschew economic analysis entirely outside urban centers. The gulf in opinion between sectors is, in part, a reflection of the different perspectives planners and developers have on the development process. In

some cases though, it is evident that planners and developers have little trust in each other. Many developers express concern about planners using a market-based tool without adequate understanding, or knowledge, of local real estate conditions and land development issues. Developers who operate in many jurisdictions must become familiar and adjust to different density bonus systems, which may contribute to this frustration. Some planners, on the other hand, say developers in the rural-urban fringe are usually less sophisticated than in the city; consequently they do not see the incentive in density bonusing.

The density bonus exchange: fair value-for-value?

In a theoretical density bonus arrangement, the value of bonus density should be equal to the value of the amenity (Burnaby 1997, 6). In reality, both sides want the exchange to weigh in their favor so that the longer process and additional effort are worthwhile. Since density bonus arrangements are voluntary, there must be a financial incentive to attract a developer. According to the *Density Bonus Guide*, "The value of the bonus has to more than cover the cost of providing the amenity," (B.C. MMA 1997a, 11). To this end, the value of land subject to amenity zoning may be discounted by as much as 25% in some cities in order to account for the risk and attendant costs of development associated with density bonus arrangements (Brook 1996, 18).

At the same time, local governments must be accountable to the larger community. A general concern among community members is that a fair return is obtained on the density bonus exchange, and that property owners or developers do not obtain windfall profits from density bonus schemes (North Vancouver 1996, 3). The amenity side of the equation is addressed in the *Density Bonus Guide*: "Amenities obtained should benefit the area where the development is located. The amenity is provided to maintain or improve existing community livability and quality of life in the area that takes the higher density" (B.C. MMA 1997a, 3). In fact, according to Getzels et al. (1988, 1), an amenity should *more* than compensate for the extra density to be acceptable from a community's perspective:

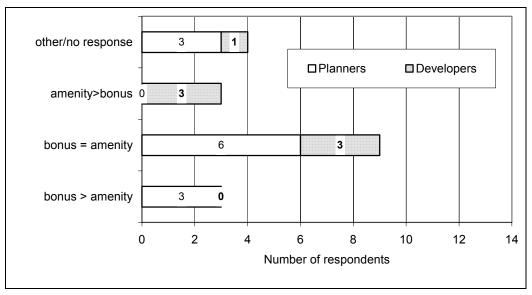
It is not enough to claim that a public amenity, such as open space, is intended to ameliorate the adverse effects of the increased density. This defence is paradoxical; in effect, density is increased in return for a feature that ameliorates the adverse

effects of the increased density. In order to make sense, of course, amenity must do more than offset the adverse effects of increased density—it must greatly improve the quality of the public environment.

Balancing the need to attract developers with large incentives on one hand, and provide an amenity that more than compensates for density increases on the other, underscores the difficulty of reaching a density bonus exchange in which the value of bonus density is equal to the value of the amenity.

Question 11 asks whether the financial gains owing to the bonus density are commensurate with green space amenities obtained by a community, and if not whether the value of the amenity is greater than the bonus density or vice versa (table 4.6). Nearly half of all respondents (9/19 or 47%) think the financial gains accruing to a developer from bonus density are, in general, equal to the green space amenities obtained by a community (table 4.6). Three respondents (16%) think the bonus is greater than the amenity, and three respondents say the amenity is greater than the bonus.

Table 4.6: Respondents' answers to question 11 comparing values in a typical density bonus arrangement (see Appendix D for interview-questionnaire and responses to closed questions)



PLANNING SECTOR

Six of twelve planning respondents (50%) indicate the financial gains accruing to a developer from bonus density, in general, are commensurate with the green space

amenities obtained by a community. None think the value of amenities outweighs developer gains.

Three (25%) think developers' gains are greater than the value of the amenities. The comments of two of these planners show they have an understanding and appreciation of a developer's perspective. Both maintain that the gains from additional density must be higher because: first, there must be a financial incentive or a developer will not opt for it; and second, a developer assumes a higher risk by entering into a density bonus arrangement. Three planners (25%) fall in the *other or no response* category. Two of these say that the exchange varies with each proposal, favoring the developer sometimes, the community in others.

DEVELOPMENT SECTOR

Most developers' opinions are evenly split between two response categories: the value of community amenities provided is commensurate to the value of developers' additional profits (3/7 or 43%); and, the value of amenities is greater than developers' profits (3/7). In mirror contrast to results in the planning sector, none think developer gains outweigh the value of amenities provided to a community. To make their point, some developers cite various regulatory controls including parkland requirements, DCCs for parks, streamside setbacks per negotiations with the Department of Fisheries and Oceans, and setbacks related to slope and other geotechnical constraints, that can amount to as much as 40% of the land base, quite aside from land dedications resulting from density bonus negotiations.

Other comments raise the issue of who ultimately pays for the conservation of green space within a density bonus arrangement. One developer notes that some of the costs of green space are passed on to future homebuyers who pay a premium in the acquisition of property adjacent to green space and also pay higher property taxes. In his opinion, this improves equity by setting the costs of green space provision where they should be and, to a great extent, apportions the benefits where they should be. He explains that residents who live nearby and thus benefit the most from green space should pay a greater portion of the cost. This viewpoint is at odds with the more widely held belief in the development industry that density bonus negatively impacts property owners and new

homebuyers. The rationale is that parkland or green space amenities would be used by an entire community and therefore should be funded through general taxation (Brooks 1996, 16).

Analysis: The first observation is that there is no 'typical' density bonus arrangement in the rural urban fringe, at least, none discernable based on the responses of the sample population represented in this study. This explains, in large part, the relatively high percentage of respondents (4/19 or 21%) who did not answer the question at all or provided comments only. Nonetheless, an interesting pattern emerges from a comparison of the results by sector. No developers think the value of the density bonus is greater than the value of the amenity, and, in a kind of opposite symmetry, no planners think the value of the amenity is greater than the value of the density bonus. The divergence of opinions between planners and developers, further evidenced by their comments, suggests each sector is concerned that density bonus negotiations produce inequitable outcomes that are unfavorable to its sector. Equity issues are further addressed in question 12, which looks at whether density bonus is seen as an incentive or additional development charge, and question 13, which assesses the pros and cons of different methods for implementing a density bonus system.

Incentive or additional development charge?

As a policy instrument, density bonus is categorized as a financial incentive. Whether a density bonus offer actually provides an incentive for a developer to set aside green space depends on a number of factors. These include: the terms of a bonus exchange; prevailing real estate conditions; and how the system is implemented. If an insufficient incentive is provided, developers will be disinclined to trigger a density bonus. At worst, density bonus can be seen as an additional development charge if development approval seems conditional upon willingness to enter into a density bonus arrangement. Question 12 asks respondents to categorize density bonus as an incentive or additional development charge (4.7). The majority of respondents (12/19 or 63%) say density bonusing is an incentive. Four (21%) think it is a development charge. As with the previous question, the aggregate results veil the rift between the two sectors. Three

quarters of planners (9/12 or 75%) think density bonusing is an incentive, compared to less than half of developers (3/7 or 43%).

DEVELOPMENT SECTOR

Responses from the development sector are mixed. Three developers (43%) view density bonuses as an incentive. In many cases, however, they qualify their answers: "It is an incentive—given a fair and level playing field," or, "most developers that I am involved with see it as a DCC. I try to see it as an incentive but I could make both arguments."

Two developers (29%) think density bonusing is an additional development cost. They are strongly critical, and sometimes cynical, of how local governments use—or abuse—the tool. Referring to amenity negotiations in Highlands, one developer says they are forced to "pay amenities under duress". According to another: "The real value is if you do it, you stand a better chance of a positive outcome on your application. In any other endeavour this is called coercion or bribery. It is tantamount to selling zoning . . ."

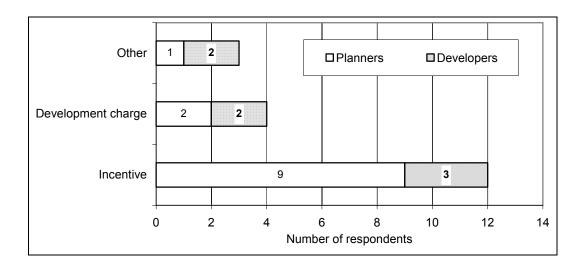
Two developers (29%) are ambivalent. One describes density bonusing as both a carrot and a cost. The other cautions: "it can be an incentive until you actually do one. The results vary . . . depend on whether there is a market for the denser product". He explains that, unlike builders who accrue profit on a per unit basis (and so higher density fetches greater profits), developers' gain is based on the amount of land developed; therefore, higher density does not result in higher profits. Consequently, developers are sensitive to market preferences regarding density: the sooner a product is sold, the better the return on investment. Since the market preference in the rural-urban fringe is low-density hobby farms or country estates, it is not surprising that developers view planning policies or tools that promote other kinds of land uses with some reservation.

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¹⁵ The following example illustrates how, independent of density, the revenue for a one-acre site is the same:

³ single family residences x \$100,000 = \$300,000; or, 12 townhouses x \$25,000 = \$300,000. The consumer's price for single family residences reflects not only higher per unit costs for building and larger lot sizes, but also a market premium for that type of development.

Table 4.7: Respondents' answers to question 12 on whether density bonus is an incentive or an additional development cost charge (see Appendix D for interview-questionnaire and answers to closed questions)



PLANNING SECTOR

The majority of planners (9/12 or 75%) describe density bonusing as an incentive. Two planners (17%) describe density bonusing as an additional development charge. Many stress that a number of factors are involved, including: local market conditions, how density bonus systems are administered, size and other physical attributes of a property, and whose perspective is considered. For example, some planners acknowledge that downzoning followed by offerings of density bonus would not be an incentive. Lassar (1989, 9) described such practices as, "a glorified name for a downzoning followed by an "upzoning with strings". A downturn in the economy is viewed as the main culprit for an inactive density bonus system on Salt Spring Island. When Salt Spring developed its system in the mid-1990s, few lots were available; even one additional lot was an attractive prospect for developers. Since then, a substantial inventory of lots has accumulated on the island and local developers see no incentive in giving up land to get "bonus" lots. Local planners do not foresee improved demand for density bonusing until the economy improves.

Some planners see the value of density bonus as a way to direct development away from undevelopable or environmentally sensitive areas, while still allowing reasonable use of

land on a site. This is most commonly occurs when a planner is working with twenty- or thirty-year-old zoning bylaws that contain no provisions barring development on steep slopes, wetlands, floodplains, watercourses, and other ESAs. As mentioned earlier, the outcome of such applications of density bonus is to allow development at the base density stipulated in a bylaw, where it would otherwise be precluded due to the amount of undevelopable area. One planner describes the situation in this way:

The development potential [of a site] seems to depend on the terrain, the ability for the soil to percolate, geological hazards, environmental significance. So it often seems the developer's potential is not equivalent to what is permitted under a zoning bylaw. Thus, if the lots are clustered . . . the development is moved to part of a lot to avoid those limitations, the base density [prescribed in a zoning bylaw] may be achieved.

The point this respondent is making is that regardless of the level of density permitted in a zoning bylaw, the actual development potential of a property may be restricted by the presence of geophysical and environmental constraints on site. In such cases, the incentive becomes, not the awarding of *additional* density, but rather the introduction of more flexibility into the development approval process, allowing both the protection of ESAs and developer compensation for impacts on development yield.

Another planner maintains that developers and small landowners typically are less sophisticated in the rural-urban fringe. They assume development rights are absolute, failing to understand that zoning does not guarantee of a property's development potential. Consequently, a landowner might see the required provision of green space as a land grab or extortion if their density "bonus" is merely the base density allowed in a zoning bylaw.

Examples from the Comox Valley and Highlands further illustrate how a variety of factors influence the viability of a density bonus system. Land development in the rural Comox Valley is often restricted because of geophysical limitations. Like other exurban areas, much of the rural Comox Valley is not serviced with municipal sewers or water. Before development is allowed to proceed, a property must demonstrate that it can accommodate both a groundwater well and a septic field. The public health authority requires a minimum lot size of 2.5 acres and has soil percolation requirements. Consequently, the development potential of land in the Comox Valley and other rural

areas is uncertain, despite zoning designations. This uncertainty affects all aspects of development, including whether or not landowners and developers see density bonusing as an incentive. In some parts of the Comox Valley, dedication of a property as public open space is a requirement of subdivision approval. Where a landowner is willing to dedicate greater than 30%, density bonusing shifts to a voluntary option (see Appendix E). An RDC-S planner recounts the experience of an owner of an 8-acre property who wanted to subdivide a 2.5-acre lot off a parent parcel. To be approved for subdivision, the owner would have been required to dedicate 2.4acres (30% of 8 acres)—almost the equivalent of a new lot—to public ownership. Alternatively, the landowner could have dedicated more than 30%, thereby triggering a density bonus of additional lots. This option did not improve the economics of the situation, either. With the creation of more and smaller lots, individual septic fields would not meet health and safety requirements. A sewage treatment system would have been required. Thinking this option would be very costly, the landowner concluded that the whole concept of density bonus was a disincentive, since neither option allowed him to achieve his development objectives. ¹⁷

The existing or base zoning in a bylaw is another factor that can bear significantly upon the utility and effectiveness of density bonusing in the rural-urban fringe. Much of the land base in the rural District of Highlands is zoned for 30-acre lots. In comparison, the zoning in the neighboring community of Metchosin is predominantly for 10-acre lots. Highlands takes advantage of its very low-density zoning to improve its bargaining position with prospective developers by subjecting all rezoning applications to the provision of amenities, either in return for higher density or simply for being granted permission to cluster development (thereby cutting costs by reducing road and pipe lengths and other infrastructural savings). A former Highlands elected official concedes that amenity zoning can appear to be a disincentive at first sight, until developers

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¹⁶ Policy has been changed since the research for this study was conducted; the policy is now permissive and the only requirement is the consideration of creating small lots and a minimum 30% provision of green space. Many residents in the affected electoral area objected to the mandatory policy, so it was changed to make 30% a target for initiating negotiations. The only requirement is the consideration of creating small lots with the provision of a minimum of 30% green space.

¹⁷ Waste treatment systems are available in all sizes, shapes, and price ranges. Some are costly, but many, depending on the number of units to be connected, are not. The issue must be addressed on an individual, site-by-site basis, but should be addressed as part of a specific set of negotiations.

recognize it is a "cost of doing business" in Highlands. But he insists developers do have a choice: develop at the base 30-acre zoning, or apply for rezoning, and share the profits from the higher density with the community.

Analysis: The question of incentive or development cost charge elicited an abundance of comments from respondents, often prompting planners and developers to explain whether density bonusing has "worked" in their experience and speculate as to the underlying reasons. Their comments, often situational examples, reinforce the difference of opinions between planners and developers—three quarters of planners (9/12) think density bonusing is an incentive, compared to less than half of developers (3/7 or 43%). They also reveal lines of thought that cut across the two sectors. One issue that has both planners and developers on both sides is the notion that density bonus is an "urban" tool, inappropriate or unsuited for rural-urban fringe applications. Overall, a number of factors emerge that can be categorized as either supporting or hindering green space applications of density bonusing in the rural-urban fringe. Except for the first factor, they all relate to physical features and other characteristics of a development property:

- Real estate market conditions. Density bonusing is most successful in areas that experience sustained pressure for growth and, as well, community acceptance of growth and development. If the market is flat or declining, or if there is no market for type of development promoted through density bonus provisions, there will be no incentive for developers to trigger a density bonus. In contrast, there is usually a market for higher density in urban areas, consequently bonus density offers are reliable incentives.
- Size of property. Density bonusing tends to be more effective on larger properties because the financial incentives can be significant for a relatively small increase in density, relative to the cost of the land. It is easier to create additional lots when the parent parcel is, for example, 100 acres, than it is with a 10-acre lot. The same amount of green space becomes a smaller percentage of the total, as the property gets larger. Moreover, when the parent parcel is larger, the size of the subdivided lots is still likely to be consistent with a rural context, even though they are smaller than those permitted under the base density of the zoning bylaw.

- Allowable density in base or underlying zoning. Density bonusing can be valuable in situations where the base zoning is very low density, as it places local governments in a strong strategic position from which to initiate density bonus negotiations. The tool can also be useful when the base zoning is higher than is suitable due to the presence of environmentally sensitive areas or geotechnical constraints on a development site. By clustering development, the base density yield may be achieved, which otherwise could not be attained due to site constraints. In such cases, additional density is not necessarily granted.
- Presence or absence of public services. When a property is not hooked up to
 municipal water or sewage lines, a well and septic field must be installed.
 Requirements for minimum lot size and soil percolation requirements can constrain
 development potential. On the other hand, if only a portion of a site is suitable for
 development because of soil drainage characteristics, clustering development on the
 developable areas may result in higher yields of development density than through
 conventional development.

The use of density bonusing by the District of Highlands warrants further discussion. Highlands was incorporated in 1993; it developed an amenity zoning system the same year. It was the year Section 904 was introduced. Whereas most respondents who label density bonusing a development charge are not supportive of the tool, or at least how it is used, one ardent supporter acknowledges it is a "cost of doing business" in Highlands. This comment seems to reflect both the community's philosophy regarding how the costs and benefits of development should be distributed, and its self-image as the green space "jewel" of CRD. Unlike other local governments that tend to encourage development, especially industry and business, to increase their tax base, Highlands may forgo a development opportunity in order to preserve much of its land base in a natural state. As a result, this rural community is forced to explore alternative ways to fund much-needed public services and utilities. Since Highlands does not levy DCCs, density bonusing is as much a financial tool as it is a planning tool. Highlands' amenity zoning system is based on the belief that profits accruing from land rezoning should be evenly divided between a developer and a community. It is intended to prevent developers and builders from

receiving all windfall profits associated with land development. A local developer points out, however, that Highlands does not provide any public services that would warrant DCCs. He asserts that Highlands uses density bonus as a blackmail tool, forcing developers to "pay amenities under duress".

Implementing density bonus through prezoning or case-by-case negotiation

The second element in the development of a density bonus system evaluated in this study is the method of administration. Density bonuses can be negotiated on a case-by-case basis, or they can be implemented through a prezoning approach. Question 13 asks which implemen approach is preferable for green space applications of density bonusing in the rural-urban fringe (table 4.8). The results are divided. Nine respondents (47%) prefer to implement density bonusing through prezoning, and eight (42%) believe that negotiating on a case-by-case basis works best.

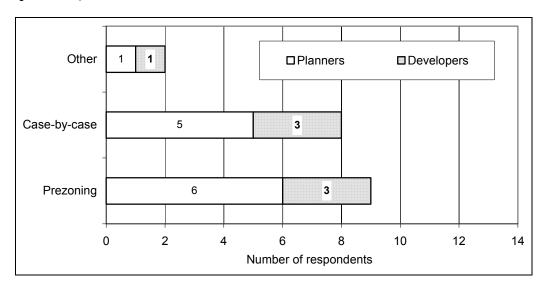
DEVELOPMENT SECTOR

The responses are evenly split: each approach is supported by three developers (43%). Proponents of prezoning assert that this approach improves the certainty of outcomes. Uncertain zoning, they say, is problematic. It prolongs the development approval process, which increases costs and can inhibit development. Costs can escalate when negotiations require several alternative land plans, which can wipe out any gain from bonus density in the long run. Uncertain zoning means uncertain real estate values. Consequently, landowners are unlikely to be willing to sell to interested developers until the precise value of land can be assessed.

Developers favoring a negotiated approach in the rural-urban fringe make their arguments with equal conviction. Prezoning is too inflexible, says one developer: "Once zoning is in place it is difficult to make any changes to reflect the changing needs of communities". Another observes that prezoning is more common in urban areas for large developments because densities and land uses can more easily be laid out in advance. He adds that rural communities would strongly resist development on that scale, and the idea of imposing an "instant neighborhood". Another, expressing the position of the Urban Development Institute (UDI), explains: "The density bonus concept only works on a spot

or case-by-case basis. The added value must come after the zoning is in place; it must come as a surprise". In its position paper on density bonus, UDI (1998) argued that prezoning techniques employed by some municipalities negatively impact property owners and new homebuyers. The report claimed this approach results in additional real estate development costs that must either be recovered in the price paid by consumers for new homes, or compensated by a reduced price to developers for the land itself. This is because urban land trades at its maximum density value, and any change in the density bonus system that adds costs to a development would ultimately reduce the land value, or, like all exactions on new development, be passed on as "amenity charges" to purchasers through increased dwelling prices (UDI 1998, 3; Brooks 1996, 16).

Table 4.8: Respondents' answers to question 13 on preferred implementation approach (see Appendix D for interview-questionnaire and answers to closed questions)



PLANNING SECTOR

Six planners (50%) prefer prezoning, compared to 42% (5/12) favoring case-by-case negotiations. Referring to case-by-case negotiations, planners point to the extra time and effort required, which could be a disincentive for prospective developers. Despite this, supporters maintain that the main value of this approach is that a community is more likely to obtain desired amenities if density bonus negotiations are successful.

Planners comments are mostly in terms of arguments for or against prezoning. Supporters of prezoning say it:

- provides the public with the best assurance that the desired lands will be protected
- creates a level playing field for developers
- is favorable from a public and landowner acceptance point of view
- is simpler and less time consuming to administer than a case-by-case approach. This is because land parcels in the rural-urban fringe are larger, land values are lower, and development is simpler than in urban centers; therefore, establishing the precise value of a density bonus is not as critical as in urban applications. In contrast, site-specific negotiation fails in rural areas because there is not likely the sophistication on the part of local government staff to deal with it at the approval stage, and because development proponents are unlikely to have the financial resources or expertise to provide the necessary detailed mapping. One respondent likens a case-by-case approach to comprehensive development zoning, which works well in metropolitan areas for larger, more sophisticated, developments where higher land values justify the extra effort and expense of a negotiated density bonus.

Three main arguments against prezoning are that it:

- creates too much certainty for density bonusing, which in turn, creates
 uncertainty for environmental protection because density bonusing is voluntary.
 A community could appear to be sending a message to developers that
 environmental protection is optional.
- could inadvertently foster "rural sprawl". Rural sprawl is of particular concern in the rural-urban fringe where there may be development pressure in unserviced, or partially serviced, areas. While density bonusing may help a community to achieve one objective—the acquisition and preservation of valued green space—it may also inadvertently thwart growth management objectives by encouraging development in areas where growth is neither appropriate nor desirable

amenity value, such as sensitive habitat or desired parkland, on a property Analysis: Each implementation approach is preferred by almost equal numbers of planners and developers. This result is consistent with the literature, which provides arguments for—and shortcomings of—both approaches. To a large degree, the choice of implementation approach is a matter of preference. However, several respondents say the urban setting—the degree of urbanization—should be taken into consideration when deciding how to administer a density bonus system. Among these, there is a tendency to

prefer prezoning, which can be simpler, in the rural-urban fringe, and leave the case-

zoning, requires more sophistication and is "riskier" (Paget 2000).

specific negotiation for urban centres. Indeed, one of the authors of Section 904 observed

that prezoning is "safer" and case-by-case negotiation, like comprehensive development

is impractical in larger, rural areas, to analyze *a priori* whether there is any

Many respondents, planners and developers included, emphasize the importance of articulating a clear policy framework around the use of density bonusing, regardless of which way the system is administered. From a developer's standpoint, this would help to ensure a transparent process that is applied in a fair and consistent manner. The benefit from a planning perspective is that a clear policy framework minimizes *ad hoc*, discretionary, decision making that typically results in fragmented, sprawling development.

Administrative challenges to using density bonus as a green space tool

The idea of density bonus is simple enough, but more complicated is the actual development and administration of a density bonus system. Ease of administration is an important determinant of the effectiveness of density bonus as a tool for green space conservation in the rural-urban fringe. To gauge administrative ease, question 14 presents a series of statements concerning various aspects of the approval process for a development involving density bonus. Respondents are asked to rank each statement in terms of the degree of challenge or obstacle it poses to using density bonus as a tool for green space conservation in the rural-urban fringe (table 4.9). Most respondents think *community understanding and support for density bonusing* is the greatest challenge to using density bonus as a green space tool (challenge rating, the average of weighted

responses, is 0.67; see explanation below table 4.9). Other significant challenges or obstacles to the administration of a density bonus system, according to several respondents, include: *duration of development approval process* (challenge rating=0.66); *elected official understanding and or support* (challenge rating=0.62); *calculation of density bonus exchange* (challenge rating=0.62); and *predictability of development approval process* (challenge rating=0.61).

DEVELOPMENT SECTOR

Developers clearly think *duration of development approval process* (challenge rating=0.82) and *predictability of development approval process* (challenge rating=0.82) are the greatest challenges in the administration of a density bonus system. One developer relates an experience in which he entered into density bonus negotiations hoping to achieve a development design that avoided encroaching on environmentally sensitive areas within a property while optimizing yield. He provides the following description of the four-year long negotiations for thirty bonus lots:

It took an extraordinary amount of effort. We met at least 15 times in the field, with eight to ten consultants. We must have done thirty, forty, fifty layouts. We spent \$250,000 on environmental consultants. We literally had to go inch by inch. We never got [the municipality] to sign off and agree to it. It was like pulling hen's teeth.

Other issues that received a high challenge ranking include *calculation of density bonus exchange* (challenge rating=0.71) and *elected official understanding and support* (challenge rating=0.71). Although the responsibility of making *arrangements for ongoing management of green space* does not rank among the greatest challenges to density bonusing (challenge rating=0.57), it elicited additional comments from some developers. Publicly owned green space, says one developer, does not have any real benefit because it does not belong to anyone, and so problems related to maintenance and neglect are common. In contrast, another developer explains that even when green space is held privately, such as a under a strata corporation, disagreements over management and maintenance costs can arise among homeowners.

Table 4.9: Respondents' answers to question 14 on challenges or obstacles to using density bonusing for green space conservation in the rural-urban fringe (see Appendix D for interview-questionnaire and responses to closed questions)

Challenge or obstacle	Respon- dent category	NC	MinC	ModC or N/R	sc	GC	Overall Challenge rating
Community	All	1	1	5	8	4	0.67
understanding/support	DS	1	-	2	2	2	0.64
	PS	-	1	3	6	2	0.69
Elected official understanding/	All	-	2	8	7	2	0.62
support	DS	-	-	3	2	2	0.71
	PS	-	2	5	5	-	0.56
Development industry	All	1	4	10	3	1	0.49
understanding/support	DS	1	3	2	1	-	0.36
	PS	-	1	8	2	1	0.56
Planning staff	All	5	6	3	3	2	0.38
understanding/support	DS	-	2	2	1	2	0.61
	PS	5	4	1	2	-	0.25
Calculation of density bonus	All	0	5	4	6	4	0.62
exchange	DS	0	1	2	1	3	0.71
	PS	0	4	2	5	1	0.56
Predictability of development	All	1	4	3	8	3	0.61
approval process	DS	-	-	1	3	3	0.82
	PS	1	4	2	5	-	0.48
Duration of development approval	All	-	1	9	5	4	0.66
process	DS	-	-	1	3	3	0.82
	PS	-	1	8	2	1	0.56
Arrangement for ongoing	All	-	8	8	3	-	0.43
management of green space	DS	-	1	3	3	-	0.57
	PS	-	7	5	-	-	0.35
Administrative burden	PS	-	4	6	2	-	0.46
Risk of legal challenge	PS	3	4	3	2	-	0.33

DS: Development sector; PS: Planning sector.

NC: no challenge; MinC: minimal challenge; ModC: moderate challenge; N/R: no response; SC: significant challenge; GC: greatest challenge. Overall challenge rating: average of responses, with GC=1.0, SC=0.75, ModC=0.5, MinC=0.25, and NC=0. Highest challenge rating values for each respondent category in **bold**.

PLANNING SECTOR

The only significant administrative challenge to emerge among planners is *community* understanding and support for density bonus (challenge rating=0.69). This result is consistent with planners' comments throughout the interview, and by the literature on

amenity zoning. Most obvious is the widespread resistance to the idea of increasing or even clustering development in the urban fringe. Planners point to public suspicions at the prospect of using an "urban tool", fearing it would mean inevitable urbanization of the rural countryside. Says one planner; "cluster" is a four-letter word in the community. When initial discussions of density bonusing survive public scrutiny, other problems can be encountered, including:

- community disagreement over which types of amenities should be obtained through a density bonus system.
- little appreciation of an amenity because no cash is directly spent in its acquisition
- unrealistic public expectations that significant and amenities ought to be
 provided without being willing to accept a commensurate increase in density
 Planner's ranking of the other statements presented in question 14 can be roughly

classified as either moderate or minor challenges. In some cases, the results are unexpected. For example, risk of legal challenge (challenge rating=0.33) has the lowest challenge ranking, with the exception of planning staff understanding and support (challenge rating=0.25). Despite MMA's (1997, 10) caveat that "the bonus system must be applied in a fair and equitable manner, with all parties acting in good faith or the local government risks legal challenge," and the successful legal actions mounted against the District of Highlands, its mayor and administrator, planners seem undaunted. In fact, one planner describes the amenity zoning policy as "watertight" with respect to the risk of legal challenge. This confidence is perhaps explained by the voluntary nature of density bonusing: "courts may be unsympathetic to developer claims that incentive zoning violates their legal rights once the court determines that the developer voluntarily elected to place himself under the obligations and constraints of the bonus system," (Getzels et al. 1988, 14). Alternatively, this apparent lack of concern over court action could be a reflection of the composition of the survey sample: jurisdictions seriously concerned about the risk of legal challenge are less likely to pursue density bonusing and thus not be represented in this study.

Another unexpected result: the ease of administering density bonus is not impacted by the need to make *arrangements for ongoing management of green space* (challenge rating=0.35). In cities, at least, the procurement and ongoing management of public amenities can be problematic. Although the reference is to public plazas, atria, and other "built" or "urban" amenities, there have been issues with the location, maintenance, accessibility, timely building of, and overall appropriateness of bonused amenities (Lassar 1989, 26; Getzels et al. 1988, 3). The solution, in most cases, is to prevent such problems from arising by clearly articulating the requirements and specifications of bonusable amenities. Salt Spring Island took this approach in the development of its density bonus system. Planners prepared guidelines that require a government or nonprofit agency with a well-established mandate to manage bonused green space. The guidelines also require a plaque to be erected explaining the origin and purpose of the green space, and assurance that public access to the green space will be maintained.

Analysis: As with most other aspects of density bonusing, planners and developers have quite divergent opinions regarding what poses a challenge to using density bonus for green space conservation. Across the board, developers give the statements higher challenge ratings than do planners. This may suggest that developers are not—or at least the perception is that they are not—playing on a level field when they enter density bonus negotiations. For planners, the greatest challenge is *community understanding and support*; for developers, *duration and predictability of the development approval process* presents the biggest obstacle. In reality, these issues are overlapping and interconnected, as revealed by this planner's comments:

Every time we go through one of these [density bonus proposals], we have to rejustify the criteria for value exchanges for the community, particularly if people are concerned about extra density zoned into their neighbourhoods . . . rejustifying through the public process for six months or more.

The problem seems to arise from a poor understanding of density bonus. Rural-urban communities are inclined to think of it as an "urban tool", in other words, a green light for development. There is concern that density bonus arrangements will favor developers. Since such schemes allow density provisions in a zoning bylaw to be altered, a public process is required to ensure transparency. Suspicions and misunderstanding

among the electorate, in turn, can drag the process on for months, escalating developers' and local governments' costs and frustration.

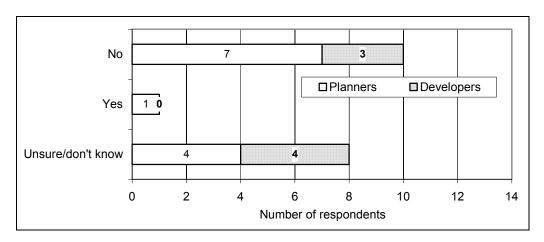
Impacts on land use and development patterns

Proponents of density bonus claim that when used to encourage clustering, it has the added benefit of supporting an urban form that encourages the use of public transit and energy savings (Dovetail 1996, 21). Cluster development was born out of the need to curb suburban sprawl; reduce the rate of rural-to-urban land consumption; and lower development costs. Critics maintain that an increase in cluster development in the countryside simply creates "clustered sprawl". Questions 15 through 17 explore the impacts on land use and site development of a tool that encourages cluster development, and higher density, in order to conserve green space.

Achieving green space and development objectives

Question 15 asks respondents whether unexpected impacts on development patterns have resulted from the use of density bonus as a green space tool (table 4.10). Ten respondents (53%) indicate that density bonusing has not resulted in any unexpected impacts on development patterns. Almost as many (8/19 or 42%) are unsure or undecided. A single respondent (5%), a planner, thinks density bonusing has resulted in unintended or unexpected impacts on development patterns.

Table 4.10: Respondents' answers to question 15 on whether use of density bonus in the rural-urban fringe has resulted in unintended development patterns (see Appendix D for interview-questionnaire and answers to closed questions)



In land use planning, parks and natural areas are sometimes little more than an afterthought to the development of land with the resulting "islands of green" lacking any ecological and recreational connections to other green space (Sandborn 1996, 41). Such poorly planned open space has been described as "SLOAP": Space Left Over After Planning (ibid.). The purpose of question 16 is to assess whether density bonusing provides green space that is valuable to a neighborhood or community, or whether it simply generates more "SLOAP". It sets out four criteria by which to evaluate green space acquired through density bonus, including: *amount of green space*; *ecological significance*; *contribution of green space to parks plan* or "wish list"; and *neighborhood satisfaction* (table 4.11). For each criterion, respondents are asked to rank the effectiveness of density bonus. The rankings are similar for all criteria: challenge ratings range from 0.53 to 0.61.

Continuing with the same format, question 17 presents four development criteria: appropriate density; appropriate location; proximity to services and facilities; and environmentally sensitive site design. The criteria and quantitative results of both questions are presented in table 6. There is a greater range of opinion regarding the site development criteria, as well they are ranked lower overall than the green space criteria in question 16: challenge ratings range from 0.33 to 0.57, which is assigned to design of development is sensitive to site ecology.

DEVELOPMENT SECTOR

Most developers (4/7 or 57%) are unsure or undecided whether unexpected impacts on development patterns have resulted from the use of density bonus. The remaining three developers (43%) think there have not been unexpected impacts. However, one answers the question as follows: "No, on the contrary: the lack of foresight and inability of local government in this area to impose the use of density bonusing at a larger scale because of public resistance has resulted in the proliferation of classic urban sprawl." When density bonus schemes are approved, in his opinion, it is difficult to strike the right balance in terms of additional density: either too few lots are created, adding to the problem of rural sprawl, or the clustering is too dense to be marketable in the rural-fringe. As indicated in

table 6, developers, in most cases, are harsher in their evaluation of density bonus than planners.

Table 4.11: Respondents' answers to questions 16 and 17 on effectiveness of density bonus. Question 16 is based on selected green space criteria, and question 17 is based on development criteria (see Appendix D for the interview-questionnaire and responses to closed questions)

	Respon-		ModE				
	dent			or			Effectiveness
Green space criteria:	category	ME	VE	N/R	MinE	NE	rating
Amount of green space acquired through density bonus	All	1	8	5	2	3	0.53
	DS	-	2	2	-	3	0.36
	PS	1	6	3	2	-	0.63
Ecological significance of bonused green space	All	1	8	7	1	2	0.57
	DS	1	1	3	-	2	0.46
	PS	-	7	4	1	-	0.63
Contribution of bonused green space to local parks plan	All	3	6	6	3	1	0.59
	DS	1	2	2	1	1	0.54
	PS	2	4	4	2	-	0.63
Satisfaction of neighborhood with bonused green space	All	1	9	7	1	1	0.61
	DS	1	3	2	-	1	0.61
	PS	-	6	5	1	-	0.60
Site development criteria:							
Density of development is appropriate with respect to OCP	All	-	4	6	4	4	0.37
	DS	-	-	3	1	3	0.25
	PS	-	4	4	3	1	0.48
Location of development is appropriate with respect to OCP	All	-	4	6	4	5	0.37
	DS	-	1	2	1	3	0.29
	PS	-	3	4	3	2	0.42
Proximity of development to public services and facilities	All	-	2	7	5	5	0.33
	DS	-	1	3	1	2	0.36
	PS	-	1	4	4	3	0.31
Design of development is	All	3	5	6	4	1	0.57
sensitive to site ecology	DS	1	1	3	1	1	0.50
	PS	2	4	3	3	-	0.60

DS: Development sector; PS: Planning sector.

ME: most effective; VE: very effective; ModE: moderately effective; N/R: no response; MinE: minimally effective; NE: not effective. Effectiveness rating: average of responses, with ME=1.0, VE=0.75, ModE=0.5, MinE=0.25, and NE=0. Highest effectiveness rating values for each respondent category in **bold**.

PLANNING SECTOR

Most planners (7/12 or 58%) think the use of density bonusing in their communities has not produced unexpected impacts on development patterns. One third (4/12) are unsure or undecided. There is some concern about the potential for future unintended impacts resulting from the use of density bonus in rural-urban fringe communities. For example, could a density bonus arrangement allow clusters of higher density development to occur outside those areas that are best able to accommodate new growth? As well, some planners wonder whether the level of density in an area would be appropriate if density bonus provisions were fully exploited.

One planner (8%) thinks there have been unintended impacts resulting from the use of density bonusing. He bases his answer, which consists of two related factors, on his experience in Highlands. First, amenity zoning has resulted in higher density development than would otherwise have been permitted in the greenbelt community. Initially, Highlands negotiated amenity zoning based on *density averaging*—lots of various sizes were created but a density increase was not awarded. For example, one development entailed a reduction of minimum lots sizes from 30 acres to 4 acres, and an increase in the number of lots from 15 to 26. Subsequent deals have awarded actual density bonuses. The community also accepts cash as a portion of an amenity, which is then placed in an amenity reserve fund. Consequently, less green space is dedicated up front. He is concerned that the level of development permitted through amenity zoning will be inconsistent with the district's goal of being a major contributor to green space in the CRD.

The second factor he raises is a shift in community interests from the acquisition of green space to social amenities. The community is at a point where it has to decide whether sufficient parkland has been protected, and if so, whether amenity zoning could be used help acquire other "amenities", a fire truck for example.

Analysis: Two general observations can be made on the results of this section. First, the high percentage of undecided responses—or "not yet"—suggest that it is probably too early to assess whether density bonus has, or is having, an impact on land use and

development patterns, particularly for a study employing a qualitative approach. Changes or trends in development patterns may be imperceptible without the aid of spatial analysis. A quantitative approach is recommended to address this question.

The second observation is that respondents generally rank density bonus more favorably against the green space criteria than the development criteria. One exception is *design of development is sensitive to site ecology*, which is ranked comparably to the green space criteria. This suggests that density bonus is valued more as a site-specific tool for promoting sensitive site design and environmental protection than for creating more compact development patterns or promoting other smart growth strategies.

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter begins with comments regarding the type of research conducted in this study and some general observations about the nature of the data it produced. The next sections return to the three criteria against which density bonus was evaluated: efficiency, equity, and effectiveness. Conclusions drawn from these discussions lead to the formulation of recommendations for future green space applications of density bonus in the rural-urban fringe. Finally, the chapter concludes with some suggestions for future research.

Reflections on research methodology and results

This study was conducted using three research instruments: a literature review, a preliminary survey, and an interview-questionnaire. The interview results show that, since the introduction of legislative provisions for density bonus in 1993, usage of the tool is fairly low in the five rural-urban fringe jurisdictions investigated in the study, and in the experience of developer interviewees. As a result, a number of interviewees have limited knowledge or practical experience with this planning tool. Partly because of this, but also due to the nature of qualitative research, it is not always possible to differentiate between responses that are informed by a respondent's actual experience and those based on theoretical opinion. Also, it is important to stress that it is not possible to describe a 'typical' density bonus scheme in the rural-urban fringe; such agreements, and the processes by which they were developed, vary within and across jurisdictions, and over time. Generalizations about rural-urban fringe applications of density bonus beyond the case study jurisdictions, and opinions provided by respondents, are necessarily limited. However, general issues that emerged from the results can be extrapolated to other situations under similar conditions.

This research summarizes the experiences of some of the players in the planning and development sectors and identifies general trends of thought and opinion regarding the opportunities and pitfalls of adapting density bonus to serve as an environmental protection tool in the rural-urban fringe context. The snowball sampling methodology

employed in this study, a technique of finding respondents with experience in the use density bonus, introduces the potential for skewed results. In general, planners are more favorable in their assessment of amenity zoning than developers. However, snowball sampling did not locate any planners that do not use amenity zoning; such individuals may have quite a different perspective on the issue. The results may also be skewed as a result of an overrepresention of planners in the sample. In addition to the qualitative results—the perspectives of respondents—the study could have benefited from a quantitative or spatial approach. For example, a cost-benefit analysis of one or more density bonus arrangements, or a spatial analysis of the actual and potential impacts of density bonus on land use patterns.

This study concludes that the value or importance of density bonus in rural-urban fringe communities is not derived from level of use, and the amount of green space acquired, through such arrangements alone. Although it is used relatively infrequently, more than half of all respondents think density bonus is either a very, or the most important, tool for conserving green space in their community; and more than two thirds think it will become more important in future. While developers are usually more critical of density bonus and how it is used than planners, a larger majority of developers think the tool will gain importance in future years. Despite some developers' severe criticism of density bonus and how it is administered, this result, more than any other, warrants continued efforts to adapt the tool to provide more effective environmental protection. In as much as developers choose whether to trigger a density bonus, they determine how much the tool is used

Efficiency

Theoretical requirements

The allocation of land for uses desired by society at least cost is one of two requirements of this criterion. The underlying principle of density bonus is efficiency-enhancing: mutual benefits accrue to both a community and a developer as a consequence of private investment in public amenities. Theoretically, a desired amenity would not be economically feasible without a bonus—either for a developer or a local government (Getzels et al. 1988, 1). Ministry of Municipal Affairs (MMA) stated that the provisions

for density bonus enable "bargaining through the development approval process to achieve win-win solutions for local governments and developers" (B.C. MMA 1998, 12). As a market-based planning tool, density bonus provides a cost-effective mechanism: since developers can 'take it or leave it', the market will sort out the value of an efficient density bonus exchange. At the same time, the societal value of an amenity is revealed by what a community is "willing to pay" in terms of accepting higher density.

Linking the costs and benefits of land uses or activities is the second requirement of an efficient policy or tool. The process of making trade-offs between higher density and preservation of natural areas facilitates a kind of direct valuation between private goods (additional development rights) and public goods (green space) that link the private and societal costs and benefits of development. In as much as density bonus arrangements are market-driven, they can improve the efficiency of government expenditures by preserving more land as green space, stretching parkland budgets, and providing a mechanism to link costs and benefits.

Efficiency of density bonus in practical applications

Based on the results of this study, the benefits of using density bonus to promote green space conservation in British Columbian rural-urban fringe communities appear to be more theoretical than actual. Of the case study jurisdictions, Highlands is the only exception to this finding. Although the basic notion of bartering or trading is inherently efficient, the potential of density bonus systems in rural-urban fringe communities remains largely untested. Many communities do not have sustained development pressure necessary to support a density bonus system. Moreover, the low-density threshold in rural-urban fringe land markets frequently excludes density bonus as a financial incentive. The potential benefits do not exist unless a developer triggers a density bonus. Perhaps the greatest weakness of density bonus as a tool for environmental protection is that it cannot be relied upon in all situations to conserve rural landscapes, or save critical natural areas, from being developed.

When density bonus is used, the amount of land dedicated to public ownership can range from 10% of a development property to as much as two thirds in some cases. Even in the

lowest case, the amount is greater than what is possible through other tools, such as the standard five percent park dedication. Planners recognize that while other tools are available to protect a specific environmentally sensitive area, there are few tools besides density bonus for acquiring and conserving large tracts of green space in addition to fee simple purchase. Increasingly, public ownership is not an option for many budgetrestrained communities, without risking charges of expropriation and compensation demands for negative impacts on development. Another key advantage of the tool is that it introduces more flexibility into the development approval process, allowing site design to be sensitive to local ecological features. Respondents give high marks for neighborhood satisfaction with bonused green space and its contribution or relevance to local park plans. However, they are generally critical of the resulting developments for being inappropriate in terms of density, location, and proximity to public services and facilities, according to most respondents surveyed. This finding points to a possible connection between density bonus and the proliferation of sprawl in the rural-urban fringe; however, further research is necessary to explore whether such a relationship actually exists.

Users of density bonus emphasized certain aspects of individual development sites influence whether density bonus is likely to be successful. In all cases, an active market for developable lands, and for the level of density that would be achieved through density bonus, are a prerequisite. In general, density bonus is more likely to be successful on properties with the following features: a large property, serviced with public sewer and water, and with a very low base or residual density.

In addition to the acquisition of land for public green space, density bonus best lends itself to achieving design and environmental protection objectives on a site-specific basis. The larger goals of directing growth and development to appropriate locations should be addressed through comprehensive regional and local land use planning and growth management strategies, within which density bonus may play a part.

Equity

Theoretical requirements

Equity, or fairness, encompasses many dimensions or principles. In this study, density bonus is evaluated against the benefit principle, which requires individuals to pay a fair share for benefits they receive; and the principle of horizontal equity, which concerns the equal treatment of individuals in equivalent circumstances.

In terms of the *benefits principle*, density bonus provides a mechanism for developers and local governments to account for green space in land use development decisions. This is important because, as a public good, green space provides predominantly nonmarket benefits to society. Thus, it is not supplied, or is undersupplied, by private markets. Through density bonus arrangements, local governments shift some cost and responsibility of protecting the environment onto private development interests, who traditionally have not been held responsible for the consequences of their decisions. Density bonus is sometimes described as a "win-win" tool because, while both parties must make compromises, they can also mutually benefit: developers are compensated for any adverse development impacts arising from the dedication of green space, and local governments are helped to achieve environmental protection objectives without a direct outlay of cash.

From a community perspective, density bonus allows some of the profits of land development to be returned to a community. A local government captures a percentage of the added land value resulting from density increases through the provision of amenities; were density increases to be awarded instead through a traditional rezoning application, all added land value resulting from a zoning change would accrue to a developer as windfall profits. On a smaller scale, those who benefit most from the preservation of green space—future homebuyers of adjacent lots—"pay" through a reduction in lot size and a higher density neighborhood. As well, some developers say the costs of green space conservation are passed on to the consumer as a premium on the price of new houses adjacent to green space. While some think this places costs fairly, others disagree. The impact of density bonus arrangements on costs to prospective

homebuyers is an important consideration that deserves a more thorough, quantitative, analysis than was possible in this study.

Equity of density bonus in practical applications

Horizontal equity, or the fair and equitable treatment of all parties, should be taken into consideration when deciding how to implement a density bonus system. Prezoning and case-by-case negotiation are substantially different approaches to density bonus implementation. Each option is preferred by almost equal numbers of planners and developers. Both have merits and limitations. The clarity of prezoning, wherein requirements for density bonus are explicitly stated and, if met, must be granted to a developer, helps to level the playing field for developers. However, each property possesses unique characteristics and prezoned density bonuses affect properties uniformly, which could create inequities. Alternatively, case-by-case negotiation is a more flexible approach that can take into account the individual circumstances of each property. But the price of flexibility is uncertainty and a prolonged development approval process, which increases costs and can inhibit development. Protracted negotiations are one of the greatest impediments to a density bonus system. It is also more difficult to ensure transparency and consistent interpretation of a density bonus bylaw with a case-by-case approach.

Perhaps the best way to ensure that all parties are treated in a fair and equitable way is for all parties to act in good faith and without discrimination. However, it is not possible to legislate "acting in good faith" without discrimination. If significant problems with the use of density bonus arise, the mostly likely response is for the legislation to be repealed. In a cautionary tone, MMA emphasized the importance of local government-developer relations with respect to section 904:

The degree of success of communications between local governments and the development industry will greatly influence the direction and shape of future planning legislation. Will we move forward and further empower local government or will the pendulum swing toward provisions which further constrain municipalities? (B.C. MMA 1994, 9).

Responses and comments from interviewees frequently reveal an underlying mistrust between planners and developers regarding density bonus. For example, while almost half of the respondents think the exchange value of a density bonus arrangement equally benefits a developer and a local government or community on average, it is perhaps more interesting that no developers think density bonus exchanges favor the developer. On the other hand, no planners think the exchange favors the local government or community. Perhaps this is an indication that current arrangement are as fair as can be expected from a flexible negotiation process in that both sides can accept agreements but neither feels it received a windfall gain.

Developers, in particular, have misgivings about fairness in density bonus negotiations, suggesting problems with horizontal equity. Several developers think the density bonus provisions in section 904 are not being used according to the spirit of the legislation. Almost half think density bonus is used as an additional development cost charge, not as an incentive. The most severe critics allege certain local governments are abusing the tool: requiring developers to *pay* for amenities as a condition of rezoning. Most developers think the legislation should be changed to clarify and restrict local governments' authority to use density bonusing.

Planners generally present a different perspective. A zoning bylaw, it is stressed, does not guarantee that a property can be fully developed: geophysical hazards and sensitive habitats are undevelopable areas that should not be included in calculations of density yield. In such circumstances, density bonus may allow a developer to achieve the base density stipulated in a bylaw, which would not be possible through a conventional development process, but no additional bonus density. Planners generally recognize that such applications do not involve density bonus proper—the situations are probably similar to the informal use of density bonus prior to the introduction of the tool in legislation. The *First National* cases dealing with the District of Highlands, despite raising doubts about the "correctness of all aspects of this decision", highlight the importance of acting at all times fairly and in good faith in dealings with the public (McDannold 1999, 17).

Effectiveness

This study evaluates the effectiveness of density bonus in terms of ease of administration and political acceptability. Both requirements concern practical application of the tool.

Effectiveness of density bonus in practical applications

Ease of administration is influenced by the choice of implementation approach, but also by the overall ease of use of a tool to achieve desired objectives. Respondents made several valid and insightful arguments for and against both approaches, which suggests, as does the literature, that either method can be effective. Of course, from the results it is also true that problems can be encountered with both approaches when a local government does not have a good working relationship with the development industry, or where political support is lacking.

Regardless of implementation approach, the experience of most respondents is that it is difficult to establish a fair or acceptable value-for-value exchange between bonus density and green space. While a few of the case study jurisdictions employ simple formulae to help calculate the value of density bonus exchange, most have proceeded on an *ad hoc* basis, learning what works—or does not work—by trial and error. Several planners admit they do not know how much extra density to offer as an incentive. Inexperience creates uncertainty, which leads to drawn out development approval processes. From a development perspective, protracted negotiations and unpredictability are the greatest challenges to the use of density bonus.

The effectiveness of a planning tool or policy is also a function of its *political* acceptability. Part of the rationale for adapting density bonus, with its origins in central cities, to rural-urban fringe applications as a tool for green space conservation is an appealing idea; it provides a forum for developers, planners, elected officials, and community members to discuss and evaluate trade-offs between land use development and green space conservation. One of the few areas where developers and planners have a meeting of the minds is that neighborhood and political resistance can quash a sound, but innovative, development proposal. In many rural-urban fringe communities, any talk of increased development is unlikely to be attractive from a community acceptance

perspective; clustering is viewed as anathema to the ideals of rural country living. It is not surprising then that respondents rank community understanding of, and support for, density bonus as the greatest challenge to its use. Elected officials' understanding of, and support for, density bonus is also a significant constraint. Assuming there will always be conflict in matters of land use planning and development, to the extent that density bonus brings together local governments, development interests, and community representatives to discuss values and visions, and helps create a more participatory decision making process, these positive forces can be considered strengths of the tool.

A need for cluster development legislation

This study shows that density bonus can and has been adapted as a tool for green space conservation. Both planners and developers think such purposes are important applications of density bonus. Planners and, to a large extent, developers are convinced of the importance of preventing urbanization of the countryside. Some planners contend density bonus is the only tool available to protect natural areas in rural-urban fringe jurisdictions that are not designated as critical habitat. Both sectors are interested in ways to depart from conventional "cookie-cutter" development patterns in favor of more efficient patterns that preserve more land as green space, but they do not agree on how to achieve these goals. Most developers are supportive of the concept, but they are dissatisfied with their practical experiences with density bonus negotiations.

The results overall point to a need for new legislation that gives local governments direct authority to include provisions for cluster development without the offer of bonus density. Existing density bonus provisions would not be affected by the introduction of cluster development provisions. But local governments would have discretion to implement mandatory or optional provisions, and the option of using clustering independently, or in conjunction with, density bonus.

The purpose of both tools is the concentration or clustering of lots and buildings on the portion of a site with the least environmental constraints, allowing the remaining land to be set aside as permanent open space. The basic concept of cluster development is less complicated than density bonus because no additional density is awarded. This

eliminates the difficulty of factoring in a density bonus: determining how many extra lots to allow and then equating the additional value to the provision of green space. With clustering, the proportion of green space to be set aside must be determined and alternative development layouts must be prepared. This should not be overly problematic as one of greatest strengths of both tools is the introduction of greater flexibility into the land development process. Facilitating developments that are sensitive to site ecology was one area where respondents scored density bonus more favorably than others.

Especially In the rural-urban fringe, basic cluster development may be more politically acceptable than amenity zoning, since there is no higher density to accept. Some developers maintain, moreover, that density bonus offers often exceed urban fringe market preferences. In such cases, a density bonus does not provide much incentive. What, then, would the incentive be for a developer to opt for cluster development in the absence of a density bonus? A fast-track development approval process for cluster development proposals that truly is more expedient than conventional development approvals would provide a real incentive to developers. The incentive is financial but not market-based, a subtle but important shift that augurs well for rural-urban fringe applications. Importantly, a streamlined approval process would address developers' greatest objection to density bonus: unpredictable and protracted negotiations.

Clearly there is a need in exurban areas for planners to have the tools to manage and direct growth into patterns that are less land consumptive than present trends. Using density bonus to encourage cluster development is a potent combination and, in certain circumstances, is likely the preferred approach. Authority to require or encourage cluster development without bonus density would provide local governments with the tools to achieve their green space conservation objectives, without having a "thorough knowledge base of markets and legal opportunities and pitfalls/risks" necessary to use the "complex and risky" density bonus effectively (MMA 1994, 9).

Recommendations

This study suggests some general recommendations for local governments, developers, and community citizens interested in the use of density bonus as a tool for green space conservation:

Local governments

Recommendation 1: A consultation process should be initiated early, before deciding whether to develop a density bonus system. The objectives are to determine whether a market exists for this type of tool, and to gauge political support. Concerns and uncertainty about what rural clustering or compact development would look like on the ground can usually be resolved, but entrenched opposition to any possibility of awarding developers bonus density signifies a need to identify and address such issues before proceeding further. This process will help determine the feasibility of a density bonus system and provide input on how to structure and administer it in a way that attracts developers.

Recommendation 2: Clearly articulate goals and objectives, policies and procedures, and any methods for establishing the value of a density bonus exchange. Strive for transparency, especially where density bonus is negotiated on a case-by-case basis, so that a local government can demonstrate it is following due process and diligence, acting in good faith, and without discrimination. This is facilitated when a local government's actions and intentions are supported by strong policy.

Recommendation 3: A density bonus system should be administered with flexibility, as much predictability as possible, and with minimal delays. The approval process for developments with density arrangements should not require more time, effort, and cost than for conventional developments. Indeed, preferably the process should be more streamlined. If the tool is going to work, there must be real incentives to adopt it.

Recommendation 4: Evaluate the policies and provisions of a density bonus system periodically, every two to four years, to ensure they remain consistent with a community's objectives. Ineffective or irrelevant provisions should be amended or withdrawn.

Recommendation 5: A density bonus system should be developed and used within the context and guidance of a community's comprehensive land use plans and growth management strategies. This would ensure that new growth and development are located where they can best be accommodated, not simply where sensitive habitat is threatened by encroaching development.

Provincial government

Recommendation 6: Introduce legislation giving local governments direct authority to require or encourage cluster development. These would be introduced as an amendment to the *Local Government Act*.

Recommendation 7: Document real-life examples of developments that all parties—developer, community, and local government—consider to be successful examples of density bonus in rural-urban fringe settings. This would allow other communities to understand how density bonus actually works, and to determine if more compact development would be attractive to them. It could suggest potential for density bonus alternatives in their own communities. Ministry of Community, Aboriginal and Women's Services is the appropriate agency to assemble and distribute such information.

Provincial and local governments

Recommendation 8: Jurisdictions using, or planning to use, density bonus require staff with a good knowledge of land economics, economic development, and local real estate market valuation. These subjects should be in required course curricula in B.C.'s planning education institutions. Ensure local government planners maintain and have access to continuing education in these areas. A better understanding in these topics would assist in site-specific negotiations for bonus density, and the formulation of density bonus exchange methodologies where prezoning is in place.

Directions for future research

This research used a preliminary survey and a subsequent series of interviews to assess the use of density bonus as a green space conservation tool in B.C.'s rural-urban fringe. It gathered information about the experiences and opinions of locally based, national, and international developers, planning consultants, and planners representing five local jurisdictions. Together with a literature review, the interviews provided information on the advantages and disadvantages of a specific application of one of the few financial incentive planning tools available to local governments, as well as a view to the many challenges ex-urban communities face in their efforts to balance urban develop with ecological sustainability, including preservation of rural landscapes and heritage. This study provides a clearer understanding of green space applications of amenity zoning in B.C., which can be used to improve future efforts. The results suggest several questions for future research into the use of density bonus and cluster development as a tool for environmental protection:

- What would cluster development regulations look like, and what are the next steps toward introduction of such legislation?
- How do density bonus arrangements affect the distribution of costs of new development, particularly on homebuyers, the final consumer?
- Does a relationship exist between rural-urban fringe applications of density bonus and rural sprawl? Is use of the tool inadvertently creating pockets of automobiledependent residential development that are disconnected from community centers?
- Is density bonus suited for use as a very specialized aspect of green space conservation: helping local governments fulfill the streamside protection measures (SPPDs) under the provincial *Fish Protection Act*?

APPENDIX A

Results of preliminary survey: use of amenity zoning in regional districts

Amenity zoning provisions (4)

Comox-Strathcona Nanaimo

Greater Vancouver Okanagan-Similkameen*

Density bonus negotiated under existing zoning—no provisions: (2)

East Kootenay Fraser Valley

Considering amenity zoning—no provisions (7)

Central Okanagan
Cowichan Valley

North Okanagan
Peace River

Fort Nelson-Liard Thompson Nicola*

Kootenay Boundary

No amenity zoning provisions (14)

Alberni-Clayoquot Kitimat-Stikine
Bulkley Nechako Mount Waddington
Conital**

Capital** Powell River

Cariboo Skeena-Queen Charlotte

Central Coast
Columbia Shuswap
Sunshine Coast
Squamish-Lillooet

Central Kootenay Fraser-Fort George

^{*} Amenity zoning used for affordable housing only.

^{**} Electoral Areas of Sooke and Langford only, not municipalities.

APPENDIX B

Excerpt from the *Local Government Act***:**

Zoning for amenities and affordable housing

Section 904 (1) A zoning bylaw may

- (a) establish different density regulations for a zone, one generally applicable for the zone and the other or others to apply if the applicable conditions under paragraph (b) are met, and
- (b) establish conditions in accordance with subsection (2) that will entitle an owner to a higher density under paragraph (a).
- (2) The following are conditions that may be included under subsection (1) (b):
 - (a) conditions relating to the conservation or provision of amenities, including the number, kind and extent of amenities;
 - (b) conditions relating to the provision of affordable and special needs housing, as such housing is defined in the bylaw, including the number, kind and extent of the housing;
 - (c) a condition that the owner enter into a housing agreement under section 905 before a building permit is issued in relation to property to which the condition applies.
- (3) A zoning bylaw may designate an area within a zone for affordable or special needs housing, as such housing is defined in the bylaw, if the owners of the property covered by the designation consent to the designation.

APPENDIX C

Density bonus calibration models

Equivalent land cost model

This model compares the cost of providing a public amenity to the costs a developer would incur by purchasing additional land under the existing allowed density to achieve the same overall project density allowed under the bonus density. Equivalent land cost occurs when the cost of acquiring development rights through additional land purchase is equal to the cost of acquiring the same rights through a bonused amenity. Under this model, a developer would provide an amenity only if the cost of building area per square foot is equal to or less than the cost of acquiring additional land to construct the same building area under the site's base zoning.

Equivalent development rights model

This calibration model is similar to the Equivalent Land Cost Model, except that it considers what a developer would have to pay to acquire the additional development space or development rights on the open market and not merely additional land acquisition costs.

Rate of return on investment model

This model uses a developer's return on investment (ROI) to compare the benefits awarded by various zoning bonus and amenity options. This approach assumes that developers will rationally select amenities and associated bonuses that provide the greatest return on every dollar invested in a building. The economic value of a bonus is established by estimating the combined net revenues and construction costs for both the bonus density and the chosen amenity, then adds this "bonus value" to the base density permitted by right under zoning.

Marginal cost to profit model

This model compares the marginal profits derived from bonused space to the cost of the provided amenity. This model defrays the cost of providing each square foot of an amenity by a specific amount of square feet of bonus floor area equal in value to the amenity cost. The bonus is determined by the value of incremental square footage, which represents the additional net rentable square footage compared to the square foot cost of the amenity.

Source: Calibration of the Zoning Bonus in Getzels et al. (1988, 16-21).

APPENDIX D

Interview questions and responses to closed-ended questions

The following questionnaire, together with an introduction to the research, was provided to respondents. In most cases, the respondents received the interview questions prior to the interview.

Quantified responses to closed questions are presented in table format following the question. These responses are best interpreted if read in conjunction with the qualitative results reported in Chapter 4.

Experience with density bonus in the rural-urban fringe

Questions addressed to development sector respondents only:

1.	How many subdivision proposals have you been involved with that included density bonus negotiations?
2.	In each case, how much land was dedicated as green space, as a percentage of the
	total size of the property?%

Questions addressed to planning sector respondents only:

- 3. How long have density bonus policies been in place in your community?
- 4. Please indicate the type(s) of developments for which density bonuses are offered in your community:

Residential: 4 jurisdictions; Residential & non-residential: 1 jurisdiction

- 5. How many density bonus schemes have been approved in your community? How many applications are in progress?
- 6. What methodology is used to calculate the value of a density bonus exchange?

Refer to Appendix C for excerpts from local planning and policy documents, including density bonus provisions and policies pertaining to density bonusing.

Questions addressed to all respondents:

7. Please use the following scale to rank the importance of density bonus as a tool for conserving green space in your community:

Respondents		ost ortant		Very		Moderately Important or N/R		mally ortant	Not Important	
	n/ total	%	n/ total	n/		%	n/ total	%	n/ total	%
All	4/19	21%	7/19	37%	5/19	26%	3/19	16%	0/19	ı
Development sector	1/7	14%	2/7	29%	3/7	43%	1/7	14%	0/7	ı
Planning sector	3/12	25%	5/12	42%	2/12	17%	2/12	17%	0/12	1

N/R: no response

8. Given the growing number of tools and options for local governments to promote environmental protection during urban development, do you think the use of amenity zoning to obtain green space in your community will become more or less important in coming years?

Respondents	Less im	Less important		ange	More im	portant	Unsure or N/R		
	n/total % n/		n/total	%	n/total	%	n/total	%	
All	2/19	11%	2/19	11%	13/19	68%	2/19	11%	
Development sector	0/7	-	0/7	-	6/7	86%	1/7	14%	
Planning sector	2/12	17%	2/12	17%	7/12	58%	1/12	8%	

N/R: no response

9. Do you think that the amenity zoning provisions in the Local Government Act need to be clarified or further codified in order to make the tools more amenable to green space conservation, or to ensure appropriate utilization of the tools?

Respondents	Ye	es	N	lo	Unsure or undecided		
	n/total %		n/total	%	n/total	%	
All	7/19	37%	10/19	53%	2/19	11%	
Development sector	5/7	71%	1/7	14%	1/7	14%	
Planning sector	2/12	17%	9/12	75%	1/12	8%	

The density bonus exchange

- 10. Density bonuses have traditionally been offered in exchange for affordable housing, public plazas and other amenities with easily defined market values.
- 11. In your experience, is it difficult to establish a fair or acceptable value-for-value exchange between bonus density and environmental amenities such as green space or sensitive habitat which tend to have non-market values?

Respondents	Ye	s	No)	Unsure or undecided		
	n/total % n		n/total	%	n/total	%	
All	12/19	63	6/19	32	1/19	5	
Development sector	5/7	71	2/7	29	0/7	-	
Planning sector	7/12	58	4/12	33	1/12	8	

12. In your experience, are the financial gains owing to the bonus density commensurate with green space amenities obtained?

Respondents	Bonus >	Bonus > Amenity B		Amenity	Bonus <	Amenity	Other or N/R		
	n/total	%	n/total	%	n/total	%	n/total	%	
All	3/19	16	9/19	47	3/19	16	4/19	21	
Development sector	0/7	-	3/7	43	3/7	43	1/7	14	
Planning sector	3/12	25	6/12	50	0/12	-	3/12	25	

N/R: no response.

13. Would you describe density bonuses as an incentive or an additional Development Cost Charge?

Respondents	Incen	tive	Co	st	Other		
	n/total %		n/total	%	n/total	%	
All	12/19	63	4/19	21	3/19	16	
Development sector	3/7	43	2/7	29	2/7	29	
Planning sector	9/12	75	2/12	17	1/12	8	

Implementation approach

14. Is it preferable to implement amenity zoning policies in urban fringe communities through a pre-zoning approach or on a case-by-case basis?

Respondents	Pre-zo	ning	Case-b	y-case	Other		
	n/total	n/total %		%	n/total	%	
All	9/19	47	8/19	42	2/19	11	
Development sector	3/7	43	3/7	43	1/7	14	
Planning sector	6/12 50		5/12	42	1/12	8	

15. Using the following scale, please rate the extent to which each issue below poses a *challenge or obstacle* to implementing amenity zoning in your community:

Challenge or obstacle	Respon-	N	NC		nC	ModC	or N/R	S	c	G	c
- namenge en eizeraene	400	n/ total	%	n/ total	%	n/ total	%	n/ total	%	n/ total	%
Community	All	1/19	5	1/19	5	5/19	26	8/19	42	4/19	21
understanding/support	DS	1/7	14	0/7	-	2/7	29	2/7	29	2/7	29
	PS	0/12	-	1/12	8	3/12	25	6	50	2	17
Elected official	All	0/19	-	2/19	11	8/19	42	7/19	37	2/19	11
understanding/support	DS	0/7	-	0/7	-	3/7	43	2/7	29	2/7	29
	PS	0/12	-	2/12	17	5/12	42	5/12	42	0/12	-
Development industry	All	1/19	5	4/19	21	10/19	53	3/19	16	1/19	5
understanding/support	DS	1/7	14	3/7	43	2/7	29	1/7	14	0/7	-
	PS	0/12	-	1/12	8	8/12	67	2/12	17	1/12	8
Planning staff	All	5/19	26	6/19	32	3/19	16	3/19	16	2/19	11
understanding/support	DS	0/7	-	2/12	17	2/7	29	1/7	14	2/7	29
	PS	5/12	42	4/7	57	1/12	8	2/12	17	0/12	-
Calculation of density	All	0/19	-	5/19	26	4/19	21	6/19	32	4/19	21
bonus exchange	DS	0/7	-	1/7	14	2/7	29	1/7	14	3/7	43
	PS	0/12	-	4/12	33	2/12	17	5/12	42	1/12	8
Predictability of	All	1/19	5	4/19	21	3/19	16	8/19	42	3/19	16
development approval	DS	0/7	-	0/7	-	1/7	14	3/7	43	3/7	43
process	PS	1/12	8	4/12	33	2/12	17	5/12	42	0/12	-
Duration of development	All	0/19	-	1/19	5	9/19	47	5/19	26	4/19	21
approval process	DS	0/7	-	0/7	-	1/7	14	3/7	42	3/7	43
	PS	0/12	-	1/12	8	8/12	67	2/12	17	1/12	8
Arrangement for ongoing	All	0/19	-	8/19	42	8/19	42	3/19	16	0/19	-
management of green	DS	0/7	-	1/7	14	3/7	43	3/7	43	0/7	-
space	PS	0/12	-	7/12	58	5/12	42	0/12	-	0/12	-
Administrative burden	PS	0/12	-	4/12	33	6/12	50	2/12	17	0/12	-
Risk of legal challenge	PS	3/12	25	4/12	25	3/12	25	2/12	17	0/12	-

DS: Development sector; PS: Planning sector.

NC: no challenge; MinC: minimal challenge; ModC: moderate challenge; N/R: no response; SC: significant challenge; GC: greatest challenge. Overall challenge rating: average of responses, with GC=1.0, SC=0.75, ModC=0.5, MinC=0.25, and NC=0.

Impacts on land use and development patterns

16. Has the use of density bonuses resulted in any unintended or unexpected development patterns in your community?

Respondents	Ye	es	N	0	Unsure or undecided		
	n/total %		n/total	%	n/total	%	
All	1/19	5%	10/19	53%	8/19	42%	
Development sector	0/7	-	3/7	43%	4/7	57%	
Planning sector	1/12	1/12 8%		58%	4/12	33%	

17. For each of the criteria below, please rate the efficacy of amenity zoning as a tool for conserving green space against the following scale:

Green space criteria:	Respon- dents	M	E	VI	E	ModE (or N/R	Mii	ηE	N	E
		n/ total	%	n/ total	%	n/ total	%	n/ total	%	n/ total	%
Amount of green space	All	1/19	5	8/19	42	5/19	26	2/19	11	3/19	16
acquired through	DS	0/7	-	2/7	29	2/7	29	0/7	-	3/7	43
density bonus	PS	1/12	8	6/12	50	3/12	25	2/12	17	0/12	-
Ecological significance	All	1/19	5	8/19	42	7/19	37	1/19	5	2/19	11
of bonused green space	DS	1/7	14	1/7	14	3/7	43	0/7	-	2/7	29
	PS	0/12	-	7/12	58	4/12	33	1/12	8	0/12	-
Contribution of bonused	All	3/19	16	6/19	32	6/19	32	3/19	16	1/19	5
green space to local	DS	1/7	14	2/7	29	2/7	29	1/7	14	1/7	14
parks plan	PS	2/12	17	4/12	33	4/12	33	2/12	17	0/12	-
Satisfaction of	All	1/19	5	9/19	47	7/19	37	1/19	5	1/19	5
neighbourhood with	DS	1/7	14	3/7	43	2/7	29	0/7	-	1/7	14
bonused green space	PS	0/12	-	6/12	50	5/12	42	1/12	8	0/12	-

DS: Development sector; PS: Planning sector.

ME: most effective; VE: very effective; ModE: moderately effective; N/R: no response; MinE: minimally effective; NE: not effective. Overall effectiveness rating: average of responses, with ME=1.0, VE=0.75, ModE=0.5, MinE=0.25, and NE=0.

18. For each of the criteria below, please evaluate the impact of amenity zoning on rural-urban fringe land use and growth management goals against the following scale:

Land use and development criteria:	Respon- dents	М	E	V	E	ModE	or N/R	Miı	nΕ	NI	E
		n/ total	%	n/ total	%	n/ total	%	n/ total	%	n/ total	%
Density of development is	All	0/19	-	4/19	21	6/19	32	4/19	21	4/19	21
appropriate with respect to	DS	0/7	-	0/7	-	3/7	29	1/7	14	3/7	43
OCP	PS	0/12	-	4/12	33	4/12	33	3/12	25	1/12	8
Location of development is	All	0/19	-	4/19	21	6/19	32	4/19	21	5/19	26
appropriate with respect to	DS	0/7	-	1/7	14	2/7	29	1/7	14	3/7	43
OCP	PS	0/12	-	3/12	25	4/12	33	3/12	25	2/12	17
Proximity of development to	All	0/19	-	2/19	11	7/19	37	5/19	26	5/19	26
public services and facilities	DS	0/7	-	1/7	14	3/7	43	1/7	14	2/7	29
	PS	0/12	-	1/12	8	4/12	33	4/12	33	3/12	25
Design of development is	All	3/19	16	5/19	26	6/19	32	4/19	21	1/19	5
sensitive to site ecology	DS	1/7	14	1/7	14	3/7	43	1/7	14	1/7	14
	PS	2/12	17	4/12	33	3/12	25	3/12	25	0/12	-

DS: Development sector; PS: Planning sector.

ME: most effective; VE: very effective; ModE: moderately effective; N/R: no response; MinE: minimally effective; NE: not effective. Overall effectivness rating: average of responses, with ME=1.0, VE=0.75, ModE=0.5, MinE=0.25, and NE=0.

- 19. What are the advantages of using amenity zoning as a tool for green space conservation in your community?
- 20. What are the disadvantages of using amenity zoning as a tool for green space conservation in your community?

Are there any other issues that were not raised during the interview that you would like to discuss now? Thank you very much for sharing your time and knowledge today, that is the end of the interview.

APPENDIX E

Density bonus policies and provisions of case study jurisdictions

1. District of Highlands

- Objectives, excerpts from Official Community Plan, 1997
- Appendix A: Public Amenities, from Official Community Plan, 1997
- Subdivision Density and Lot Area Requirements, excerpts from *Zoning Bylaw*, No. 100, A Bylaw to Regulate Land Use and Density

2. Regional District of Comox-Strathcona

- Goals and Objectives, excerpts from *Comox Valley Greenways Plan Report, October 31*st 1997
- Rural Settlement Area, Form, and Character Policies, excerpts from *Rural Comox Valley Area B, Anderton Road Area Local Area Plan, 1999*
- Rural Subdivision Requirements, excerpts from *Comox Valley Zoning By-Law,* No. 869, 1986, Schedule 'A'

3. Islands Trust

• Amenity Bonus Tools Policy Manual

4. Salt Spring Island

- Amenity Zoning, excerpt from *Background and Summary to the Official Community Plan*
- Acquisition of Public Recreational Land and Park Land, Objectives and Policies, excerpts from *Official Community Plan for Salt Spring Island*
- Appendix 3: Amenity Zoning, from *Official Community Plan for Salt Spring Island*

5. Regional District of Nanaimo

• Development Amenities Objectives and Policies, excerpts from *French Creek Official Community Plan, Bylaw no. 1115*

1. District of Highlands

Official Community Plan, 1997 (excerpts)

1.1 Objectives

e. To continue to acquire land desirable for park and trails through negotiations during the rezoning or subdivision of large land parcels.

2.2.1 Housing and Settlement Pattern

- c. Subdivision layouts or detailed design schemes that promote clustering of lost are encouraged wherever practicable, to provide natural greenspace, other amenities, minimize impacts on Environmental Protection Areas and existing neighbourhoods, reduce road length, and improve the efficiency of providing public services.
- f. Development proposals that involve clustering will not result in an increase in the number of lots permitted under existing zoning. However, public or environmental amenities (as listed in Appendix A) may be offered through rezoning to justify an increase in density.
- g. Development proposals requiring rezoning may propose to provide public amenities as part of the completed project. Such amenities would be beneficial to the proposed development as well as the wider community, and may be offered in recognition of the increased value of land resulting from rezoning. Amenities will be provided in accordance with the guidelines in Appendix A.

Appendix A: Public Amenities

The Plan identifies a variety of public amenities that may be offered as part of development in the Highlands and provides guidelines for acquiring these amenities. For example, the provision of roads, parks, trails, greenways, affordable housing, community recreational facilities, and protection of environmentally significant features are potential contributions of any proposed development. Although some of these items are standard development requirements, other items may be offered as a "public amenity" in a development proposal in exchange for more density (such as residential lots) than is normally permitted.

The basic premise of an amenity proposal is that the value of the additional density should be shared between the community and the developer. Negotiating public amenities as part of the development approval process can be a "win-win" arrangement, in which the community benefits from acquiring the amenity and the developer benefits from the value of the additional units and from the increased values associated with having amenities on or near the development site.

A. **Potential amenities** (not in order of priority):

Amenities to be considered include but are not limited to the following

- 1. additional road corridor dedication, construction, or improvement;
- 2. additional trail corridor dedication and construction, including roadside trails;
- 3. additional or high value park land;
- 4. dedication of intact Environmental Protection Area land to a public or private conservation body:
- 5. conservation covenants to protect environmentally-sensitive areas on private lands:
- 6. land for greenways:
- 7. restoration of ecologically-damaged lands and waters;
- 8. land for a municipal office or a community hall;
- 9. construction of a municipal office or a community hall;
- 10. land and construction of recreational facilities such as a major playfield;
- 11. construction of affordable or special needs housing units; and
- 12. payment into a reserve fund specifically set aside for a particular amenity.

B. Procedures

- 1. Each proposal will be evaluated through a process that includes public participation; usually rezoning. Criteria for determining acceptability of public amenity proposals may include:
 - a. characteristics of the site where the amenity could be provided:
 - b. characteristics of the development site (size, development capacity and feasibility, water supply, traffic, etc.);
 - c. long-term costs to the municipality, neighbourhood(s);
 - d. characteristics of surrounding neighbourhoods, land uses, and environmental features;

- e. the size, type, and timing of the proposed amenity and the proposed development; and
- f. the desires of the residents of the surrounding neighbourhood.
- 3. The dollar value of the community amenity provided should usually be approximately 50% of the net appraised value that accrues to the property owner due to the increased density. For example, if after land acquisition, development and selling costs are deducted and the net value of an additional residential lot is \$60 000, an amenity worth \$30 000 must be provided before that additional lot is permitted.

Zoning Bylaw, No. 100, A Bylaw to Regulate Land Use and Density (excerpts)

SECTION 6.4 RURAL RESIDENTIAL 4 (RR4) ZONE

- 6.4.4 Subdivision Density and Lot Area Requirements
- (1) No subdivision plan may be approved unless *lots* created by the subdivision have a minimum area of at least 12 hectares (30 acres).
- (2) Despite section 6.4.4(1), if the amenities described in section 12.1 of this Bylaw are provided, a subdivision plan may be approved to create a maximum of 58 *residential lots* with no *lot* less than 1.25 ha (3 acres) in area.

SECTION 6.5 RURAL RESIDENTIAL 5 (RR5) ZONE

- 6.5.4 Subdivision Density and Lot Area Requirements
- (1) No subdivision plan may be approved unless *lots* created by the subdivision have a minimum area of at least 12 hectares (30 acres).
- (2) Despite section 6.5.4(1), if the amenities described in section 12.2 of this Bylaw are provided, a subdivision plan may be approved to create a maximum of 26 *residential lots* with no *lot* less than 1.2 ha (3 acres) in area.

SECTION 7.2 RURAL 2 (R2) ZONE

- 7.2.4 Subdivision Density and Lot Area Requirements
- (1) No subdivision plan may be approved unless *lots* created by the subdivision have a minimum area of at least 12 hectares (30 acres).
- (2) Despite section 7.2.4(1), if the amenities described in section 12.3 of this Bylaw are provided, a subdivision plan may be approved to create a maximum of 22 *residential lots* with no *lot* less than 2 ha (5 acres) in area.

SECTION 12 AMENITIES

- 12.1 Rural Residential Four (RR4)
- 12.1. Land with an area of no less than 100 ha in the RR4 Zone may be subdivided into the maximum number of residential lots and the prescribed lot area specified in section 6.4.4(2) of this Bylaw, if the following amenities are provided:
 - (1) The transfer to the Province of B.C. for Provincial Park purposes of approximately 583 ha of land as shown on Schedule B attached to and forming part of this Bylaw.

12.2 Rural Residential Five (RR5)

12.2.1 Land with an area of no less than 50 ha in the RR5 Zone may be subdivided into the maximum number of residential lots and the prescribed lot area specified in section 6.5.4(2) of this Bylaw, if the following amenities are provided:

- (1) The transfer to the Capital Regional District for Regional Park purposes of approximately 140 ha of land as shown on Schedule C attached to and forming part of this Bylaw, no later than March 1st, 1998;
- (2) The registration of a Restrictive Covenant under section 219 of the Land Title Act on the lands described in 12.2.1(1), between the District of Highlands and the Capital Regional District and restricting the use of those lands to Regional Park purposes only, no later than March 1st, 1998;
- (3) The payment of \$350 000 of the funds from the transfer of land specified in Section 12.2.1(1) to be placed in a Special Reserve fund established by the Municipality for the purpose of Municipal Park Acquisition and Development;
- (4) The registration of a Conservation Covenant under section 219 of the Land Title Act between the owner, the District of Highlands and a nature conservancy organization, satisfactory to the owner and the Approving Officer, on a portion of each residential lot created under Section 6.5.4(2), for the purposes of preserving land in its natural state;
- (5) The payment of \$150,000 to be placed in a General Reserve fund established by the Municipality for the purpose of the construction of a municipal office building; and
- (6) The dedication to the District of Highlands for Municipal Park purposes of approximately 3 ha of land as approximately shown on Schedule C.

12.3 Rural Two (R2)

- 12.3.1 Land with an area of no less than 80 ha in the R2 Zone may be subdivided into the maximum number of residential lots with the minimum lot area specified in section 7.2.4(2) of this Bylaw, if the following amenities are provided:
 - (1) The transfer to the Province of B.C. for Provincial Park purposes of approximately 63 ha of land as shown on Schedule D attached to and forming part of this Bylaw; and
 - (2) The dedication to the District of Highlands for Municipal park purposes of approximately of 101 ha of land as shown on Schedule D.

2. Regional District of Comox-Strathcona

Comox Valley Greenways Plan Report, October 31st 1997 (excerpts)

Goals and Objectives

2. Conserve and protect existing wildlife habitat and create a network of green-space linkages for nature.

Achieved through:

• Supporting density bonus planning to create/promote open space.

Rural Comox Valley Area B, Anderton Road Area Local Area Plan, 1999 (excerpts)

C 4 Rural Settlement Area Policies

- C.4(b) Densities of 1 residential unit per acre and 1 residential unit per $\frac{1}{2}$ acre where shown in the LAP shall be considered, provided that a minimum of 30% of the land area is established as publicly-owned ecological and recreational greenways in the general locations indicated. Preservation of sensitive habitats and woodlots is encouraged.*
- C.4(c) If property owners are willing to dedicate more than 30% to public ownership and/or to provide other amenities in the areas mentioned above, density bonusing may be used to allow additional residential units.

C.6 Settlement Form and Character Policies

- C.6(b) Where subdivision or development involves three or more new lots, density bonusing shall be encourages to provide more efficient use of the land, greater innovation in subdivision design, provision of affordable or special needs housing, and the preservation of rural open space, greenways, sensitive habitats and similar public amenities.
- * Policy has been changed since the research for this study was conducted; the policy is now permissive and the only requirement is the consideration of creating small lots and a minimum 30% provision of green space. The only requirement is the consideration of creating small lots with the provision of a minimum of 30% green space.

Comox Valley Zoning By-Law, No. 869, 1986, Schedule 'A' (excerpts)

Where density bonus arrangements have been negotiated on a one-off basis, the appropriate zoning bylaw was amended in order to accommodate that specific agreement. For example:

5.6.11 RURAL ONE (RU—1)

vii) SUBDIVISION REQUIREMENTS

a) Minimum Lot Area

4) For the following properties:

Location: Lot 1, Section 25, Twp 6, Comox District, Plan 62463 – Eagles Drive – Schedule 'A-9'.

A density bonus to a maximum of 10 lots in total may be granted in exchange for the provision of amenities as noted below. A minimum lot size of 2 hectares (4.94 acres) shall apply to all lots created through this provision.

Amenity Provided	Bonus
Parkland	1 Lot per 0.4 ha of parkland
Construction of a Community Amenity or Park Improvements	1 Lot per \$15,000 expenditure on construction of agreed upon facilities, features, services.

3. Islands Trust

Islands Trust POLICY MANUAL

Code: 5.4.iil.	Bylaw Policy <u>X</u> Procedure <u>X_</u> Guideline
Title: <u>Amenity Bonus Tools</u>	
Approved By: Trust Council	Date: 11 March 1995
Further References: <u>Trust Council Binder</u> <u>Act</u> , Section 963.1	- December 1994, Item H.8.1.c.; <i>Municipal</i>

A. PURPOSE:

Amenity bonus tools provide an opportunity for local communities to obtain "amenities" in return for permitting increase in the density of development.

B. POLICY

- Amenities gained through the use of amenity bonus tools shall be consistent with the object of the Islands Trust and the Islands Trust Policy Statement. In particular, these amenities should enhance the preservation and protection of the environment, natural amenities, resources and/or community character.
- The Local Trust Committees should determine the context for amenity bonus tools during the preparation or revision of Official Community Plans or, where use of amenity bonus tools is proposed outside a period of plan preparation or review, then the Official Community Plan must be amended to permit the use of this tool.

PROCEDURE:

Official Community Plan Amendments

OCP amendments to accommodate amenity bonus tools should deal with at least the following matters:

- 1. Identification of "amenities" that are required or considered desirable in the area covered by the plan. There is no statutory definition of "amenities" so Local Trust Committee discretion in this area is very broad.
- 2. Establishment of an overall permissable density of development for the area covered by the plan.
- 3. Consideration of whether the overall permissible density of development of the area covered by the plan would be affected by the provision of amenities. That is, does the provision of the amenity itself mitigate the effect of the density, such that greater overall density can be accommodated if the amenities are provided?
- 4. Specification of an outright permitted density at an appropriate level to allow for the operation of an amenity bonus tools.
- 5. Establishment of a relationship between the value of amenities to be provided and the value of density bonuses to be granted in at least general terms.

Zoning Bylaw Amendments

Within the OCP context established above, zoning bylaws may either be amended on an ad hoc basis to authorize amenity bonuses in respect of particular sites, or a comprehensive zoning amendment building in amenity bonus provisions could be adopted. The latter approach would require that the Local Trust Committee "prezone" land for a density of development that includes the bonus density, or some intermediate density as they see fit. The general steps involved in the preparation of a zoning amendment would be as follows:

- 1. Establishment of outright permitted density for each zone. This could be, but need not necessarily be, the same as the density already permitted in the zone, and must correspond to the outright density specified in the OCP.
- 2. Establishment of maximum density for each zone inclusive of bonuses, based on the maximum permissible density established in the OCP.

- 3. Identification of the amenities the provision of which will "earn" bonus density. The description of the amenity could include a reference to standard terms of trust for land to be given, for example, to a local conservation organization; standard s.215 covenant terms of land to be subject to a conservation covenant; and so forth.
- 4. The bylaw should set out, in tabular form if necessary, the relationship between amenities provided and units of bonus density "earned". As a simple example, in a zone permitting commercial uses outright at 1.0 floor space ratio (fsr) the Local Trust Committee might wish to permit an additional 0.1 fsr in respect of each 50 linear feet of waterfront walkway constructed in a local park, up to a maximum of 1.5 fsr.

Regulations establishing amenity bonus tools must be revisited from time to time to ensure that the relationship between local property values and amenity costs remains adequate to stimulate the provision of amenities and to obtain a fair "return" to the community in exchange for the extra density that the community is being obliged to absorb.

Where zoning bylaws are amended to "pre-zone" for amenity bonuses, these bylaws may be further amended to withdraw the bonus if the additional density proves to be excessive or the bylaws have yielded sufficient amenities that no more are required or desirable.

Local Trust Committees exercising s.963.1 powers should ensure that relevant approving officers and regional district building inspection departments are familiar with the amenity bonus tools and committed to ensuring that amenities have been properly provided to the satisfaction of the Local Trust Committee before development approvals are given. This is so whether amenity bonuses are given on an ad hoc basis or under a "pre-zoning" approach.

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4. Salt Spring Island

Sale Spring Island - Background and Summary to the Official Community Plan

June 10, 1998

AMENITY ZONING

Spring Island. The sub-committee was asked to advise whether amenity zoning should be used, and if so, for what purposes it would be most appropriate. The sub-committee was also asked to recommend some safeguards to ensure that amenity zoning would only be used in a way that was consistent with other community objectives. In 1995, a public workshop was held to get additional public opinion on the use of amenity zoning in our community. Several Focus Groups and community groups who contributed to the OCP review process also made specific recommendations about the use of amenity zoning in our community.

Summary: The policies about amenity zoning in this Plan are based on the advice of the Amenity Zoning subcommittee, the OCP Review Focus Groups and on feedback received from the public.

This Appendix defines "amenity" by outlining the types of "eligible" community amenities that could be exchanged for extra density. They are described in order of priority. Level One Priority amenities would secure a land base for a variety of specific community goals. Level Two Priority amenities include the construction of actual community facilities and affordable or special needs housing units. This section indicates that no more than 100 new dwelling units should result from the use of amenity zoning in our community. It also says no more than 33 densities should be exchanged for any one community amenity.

Applications to exchange higher density for community amenities would not be considered in all parts of the island. They would only be used in Land Use Designations that can absorb additional development. In such designations, target density levels are outlined - the highest one could be realized through amenity zoning.

This Appendix also includes some guidelines to ensure the community gets a fair deal when bonus densities are exchanged for amenities. Other guidelines ensure amenities are properly secured and maintained for public use.

Official Community Plan for Salt Spring Island (excerpts)

B.7.2	Acquisition of Public Recreational Land and Park Land
B.7.2.1	OBJECTIVES
B.7.2.1.1	To acquire at least 15% of the island's land base for public
B.7.2.2	POLICIES
B.7.2.2.6	Public park and recreation lands (or money to purchase it) is an eligible community amenity , which could be exchanged for higher density of development, as outlined in Appendix 3. Preference should be given to proposals that would provide the park and recreation lands of high community priority outlined in Appendix 5.



H.3 APPENDIX 3 - AMENITY ZONING

H.3.1 Guidelines for Amenity Zoning Applications

- H.3.1.1 Applications for amenity zoning should propose a density level that does not exceed the target density levels outlined in this Plan for the applicable Land Use Designation. For example, an application in the Rural Neighbourhoods Designation should propose a density level no greater than 1 lot per 1.2 ha, as outlined in the policies for that Designation (See Policy B.2.5.2.3).
- H.3.1.2 Applications for amenity zoning should show that one of the **eligible community amenities** listed in Section H.3.2 will be provided in exchange for the higher density level being requested. Eligible amenities are listed in two levels of priority. The Trust Committee should give higher priority to applications that offer amenities in the Level One Priority list. However, identification of priority levels should not prevent the Committee from considering applications that provide amenities in the Level Two Priority list if a unique opportunity to do so arises.
- H.3.1.3 The Trust Committee should ensure the total number of additional dwelling units allowed in exchange for community amenities on Salt Spring Island does not exceed 100.
- H.3.1.4 The Trust Committee should ensure that no more than 33 additional dwelling units are allowed in exchange for any one community amenity.
- H.3.1.5 Amenity Zoning Applications should be consistent with other policies of this Plan regarding rezoning.
- H.3.1.6 Amenity Zoning Applications should be accompanied by a site plan that shows how additional building sites and accesses will be designed to minimize the impact on the surrounding neighbourhood.

H.3.2 Eligible Community Amenities

H.3.2.1 The Trust Committee could consider Amenity Zoning applications that would provide the following eligible community amenities.

LEVEL ONE PRIORITY LIST (Securing a Land Base)

(Note: the amenities within this list are **not** in order of priority)

- a. land for affordable housing provided to a public body or a service club based on Salt Spring Island.
- b. land that is acceptable to the Salt Spring Fire District for the location of a fire station, if provided to the District at no charge and it results in use of the Ganges Firehall site as public parkland
- c. land for community cultural purposes provided to a public body
- e. land for community-owned farmland or land for community agricultural processing or storage facilities provided to the Salt Spring Farmers' Institute
- f. suitable, productive forest land provided to a community organization for the operation of a community owned and managed woodlot
- g. the dedication of public park and recreation lands or of funds to be held in trust for their purchase to the Capital Regional District
- h. the construction of cycle paths on public road rights-of-way or on other public property or easements.
- i. the dedication of alignment and construction of the Ganges Alternate Route



j. the dedication of intact Environmentally Sensitive Areas to a public or private conservation body.

LEVEL TWO PRIORITY LIST (Building Infrastructure) (Note: the amenities within this list are **not** in order of priority)

- a. construction of community facilities
- b. construction of affordable or special needs housing units
- c. the provision of underground automobile parking in Village Core areas
- d. restoration and designation of heritage property
- H.3.2.2 The Trust Committee could consider applications that would provide either a maintenance annuity or funds in trust for the purchase or development of all or part of an eligible community amenity.

H.3.3 Guidelines for Amenity and Density Value Exchanges

- H.3.3.1 The dollar value of the community amenity provided should usually approximate 75% of the net appraised value that accrues to the property owner due to the increased density.
- H.3.3.2 Where the community amenity provided is **land**, then a maximum of **one** additional parcel or **one** additional dwelling unit could be allowed for **each** parcel of dedicated land that is equal to the **base minimum average parcel size** for the Land Use Designation where it is located. For example, if land in the Uplands Designation is dedicated, a maximum of one density could be exchanged for each 8 ha dedicated.

H.3.4 Procedures

- H.3.4.1 Applications to exchange higher density levels for community amenities are to be made as a rezoning application.
- H.3.4.2 Detailed specifications of the community amenity to be provided are to be included in the rezoning application.
- H.3.4.3 Where a community amenity is to be provided to a third party for operation and maintenance, the application should be accompanied by a written agreement from that party to accept and maintain the amenity for the intended use. Restrictive covenants may be required to ensure the amenity is used as intended. Parties chosen to hold an amenity should be public bodies or well-established non-profit groups with a mandate consistent with the amenity provided.
- H.3.4.4 Applications that would provide an amenity that is not land should be accompanied by an appraisal that shows the net increase in value expected to accrue to the property owner as a result of the increased density level being requested.
- H.3.4.5 If the Trust Committee adopts a rezoning bylaw that permits the exchange of higher density levels for a community amenity, it should review the bylaw annually to find out if the proposed amenity has been provided. If it has not been provided, the Trust Committee should consider whether the bylaw is still consistent with community objectives. The Committee could consider withdrawing the bylaw, if it would no longer provide an amenity needed by the community.
- H.3.4.6 When a community amenity is provided in exchange for extra density, the amenity must be provided or legally guaranteed before or at the time of development of the extra density.
- H.3.4.7 Community amenities provided in exchange for a higher level of density should be identified with a



e that outlines the	nature of the ameni	ity/density exchar	nge. If the amen	ity is intended fo	or public use

then the hours of operation and the body responsible for operation and maintenance should also be identified.

5. Regional District of Nanaimo

French Creek Official Community Plan, Bylaw no. 1115 (excerpts)

11.2 Development Amenities

To facilitate the acquisition and development of amenities of value to the residents of French Creek, this section of the Plan provides a framework for negotiating amenities in consideration of changes to the Land Use and Subdivision Bylaw for increased development potential. The basic premise of development amenities is that the increased value, often conveyed with the approval of a new zoning designation, should be shared between the community and the developer. Negotiating public amenities as a part of an application to develop land can be a "win-win" arrangement, in which both the community benefits from acquiring these amenities while the developer benefits from the increased value associated with having those amenities on or nearby the site.

Objective:

• Acquire and develop public amenities of value to Plan Area residents in conjunction with development.

Policies:

- 1. In recognition of the impact that development may have on residents of French Creek and the increased value usually conferred on land in the course of rezoning, and in recognition of the need for new development to contribute to the amenities and services from which they will also benefit, development proposals, that propose rezoning, will generally be requested to include some public amenity as a part of the completed project.
- 2. In determining the appropriate amenities, the provisions of this section, as well as any applicable design guidelines will provide guidance.
- 3. Amenities to be considered include (not in order of priority):
 - extra road dedication for Major Roads and road construction;
 - sidewalk and trail improvement;
 - park land (in the case of subdivision, in excess of 5% required under the *Local Government Act*);
 - other greenbelt or open spaces;
 - covenants to protect environmentally sensitive areas not included within a Development Permit Area;
 - recreational space or facilities;

- multi-use recycling, re-use, education centres;
- community activity centre or other facilities (i.e. daycare, culture, library facilities);
- transit pull-outs, bus stop shelters;
- cash-in-lieu of any of the above; or
- extraordinary design features.
- 4. Site specific features will suggest that amenities are indicated for consideration in a project. Criteria for determining priority among possible amenities may include:
 - site characteristics (natural features that are environmentally, historically, or archaeologically sensitive and needing protection, viewscapes, outdoor recreational opportunities);
 - needs of surrounding neighbourhood;
 - size of proposed development; or
 - projected population on site.
- 5. The Regional District shall establish development standards and requirements for amenities for commercial, industrial or multi-family projects in French Creek equivalent to or better than those required by the City of Parksville and the Town of Qualicum Beach.

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Protection Act.

¹⁸ As part of the changes resulting from the election of a Liberal government, the names of certain ministries were changed in June 2001. Ministry of Environment, Lands and Parks (MELP) is now Ministry of Water, Land and Air Protection (WLAP); Ministry of Municipal Affairs (MMA) is now part of Ministry of Community, Aboriginal and Women's Services (CAWS). To provide consistency, government documents published prior to June 2001are referenced in this report using the former ministry names; present and future references to these ministries use current names.

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