

**Reconciling Ecological and Social Sustainability: The Case of the EcoDensity  
Initiative**

Research Report

Undergraduate Student: Ryan C. Brown

Supervising Professor: Don Alexander

Vancouver Island University

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## Abstract

This report assesses how the EcoDensity Initiative may impact housing affordability, which is a vital component of social sustainability. I use a combination of document assessments, selective informant interviews, and a review of the relevant academic literature to triangulate my findings. The report assesses key EcoDensity documents to determine the methods EcoDensity will use to improve housing affordability. I establish the initiative's planning policy context and the context of the opposition to EcoDensity. The report outlines non market housing policy and the context of market housing in regards to housing affordability.

Interview respondents indicated that the market has the potential to help with affordability through densification, but the market is hindered due to the influence of the economy and the desirability of Vancouver as a World Class City, which serves to maintain the growth in housing prices. In general, these conclusions are supported by the academic literature. Interview responses highlight the need for provincial and federal governments to provide an increased and permanent funding stream for non-market housing. The report finds that if EcoDensity makes Vancouver a more desirable urban environment, then there may be a tradeoff between ecological sustainability and housing affordability.

## 1. Introduction

### 1.1. Purpose

In this report, I assess a key policy issue that city planning needs deal with when engaging in urban intensification: housing affordability. By utilizing Vancouver's EcoDensity Initiative as a case study, I highlight some of the main components that influence the EcoDensity concept's ability to provide a transition towards sustainability.

EcoDensity has received a substantial amount of media attention and has experienced some vocal opposition.<sup>1</sup> The EcoDensity Initiative is a planning "concept

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<sup>1</sup> Vancouver Sun. (February 23, 2008). Where's the affordability, livability? Retrieved from <http://www.canada.com/vancouver/news/westcoasthomes/story.html?id=cd8ad691-cc50-4617-b824-8bd66a301d9d>

Villagomez, E. (February 29, 2008). Will EcoDensity make city more affordable? *The Tyee*. Retrieved from <http://thetyee.ca/Views/2008/02/29/EcoDensity/>

CBC News. Housing density plan opposed by Vancouver neighbourhood. Retrieved from <http://www.cbc.ca/canada/british-columbia/story/2007/09/18/bc-density.html>

Woolley, P. (November 29, 2007). EcoDensity won't cut housing prices. *The Straight.com*. Retrieved from <http://www.straight.com/article-120349/ecodensity-wont-cut-house-prices>

Montgomery, C. (February 27, 2008). EcoDensity debate begins. *The Province*. Retrieved from <http://www.canada.com/theprovince/news/story.html?id=fac99cce-7590-4619-9f2a-e409c991201e&k=34417>

currently being discussed with the Vancouver community” (City of Vancouver, 2008, *EcoDensity Website*). Vancouver’s EcoDensity concept is based on urban intensification, which focuses on infill and redevelopment. EcoDensity “has been illustrated as a tricycle, where the driving wheel is environmental sustainability, while the side wheels that keep it up and allow movement, are livability and affordability” (City of Vancouver, 2008, *EcoDensity Website*).

In this report, I synthesize, compare, and assess the responses to questions about EcoDensity that I gave to selected informants. The dialogue is based on key issues that have arisen during EcoDensity’s public consultation process. Housing affordability is the main focus of this report. For my interviews, I gave semi-structured, open ended questions combined with a literature review and analysis of key city documents. I use these three methods to triangulate my findings in order to develop a richer understanding of the source and substance of this public policy conflict and conclude by highlighting issues that will need to be overcome to integrate ecological and social sustainability.

## 1.2. Interview Subjects

David McLellan and Thor Kuhlmann are planning staff members working on the EcoDensity Initiative for the City of Vancouver. Mark Holland is co-founder and principal of the Holland Barrs planning consulting firm. Bill Rees is the creator of the ecological footprint concept. Rees is a professor at the University of British Columbia’s School of Community and Regional Planning. Joseph Jones is a vocal opponent of EcoDensity.<sup>3</sup> Mel Lehan is a representative of the “Neighbourhoods for a Sustainable Vancouver,” which opposes the EcoDensity Initiative.<sup>4</sup> The anonymous informant was a reliable source of information, but the individual’s credentials cannot be given, due to a request for confidentiality.

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<sup>3</sup> Joseph Jones is the website manager for the “Norquay Neighbours” website, which outlines their opposition to the Norquay Village Neighbourhood Centre Plan as well as EcoDensity. Joseph Jones has produced several of their documents. See: <http://www.vcn.bc.ca/norquay/>

<sup>4</sup> The “Neighbourhoods for a Sustainable Vancouver” are a “citywide, ad hoc organization of neighbourhood groups” opposed to the EcoDensity Initiative. They have produced a set of recommendations: <http://dunbar-vancouver.org/DRAnews/media/2/20080408-NSV-Council%20Letter-V17April2-08.pdf>

### 1.3. Research Framework

Social sustainability has had a mixed history in the planning profession. Although social sustainability is often spoken of by planners, planners have often contradicted the goal of social sustainability through actions such as downtown redevelopment, freeway planning, and economic development strategies. According to Scott Campbell, social sustainability must be reconciled with economic and environmental sustainability to move towards sustainable development. Campbell argues that “the challenge for planners is to deal with the conflicts between competing interests by discovering and implementing complementary uses” (Cambell, 1996, p. 7).

Vancouver’s citizen participation process falls within the realm of consultation, roughly in the middle of Arnstein’s ladder of citizen participation (Arnstein, 1969). The citizen consultation process allows citizens to become more informed about the tradeoffs inherent in planning policy and to better grapple with substantive issues (Beatly and Brower, 1994). The public interests conveyed during the consultation process may be used for plan, project, and policy evaluation. The public interest can help the plan making process by highlighting issues that the plan may not have previously considered (Alexander, 2002). It is within the framework of the conflicts between the different objectives of sustainability and the public discourse on EcoDensity that I assess the potential role of EcoDensity in helping or hindering housing affordability, which is a key component of social sustainability.

### 1.4. Sustainability Framework

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 43). In the context of EcoDensity, sustainability involves reducing the per capita ecological footprint of Vancouver residents. The ecological footprint is the amount of productive land that is required to sustain an individual’s consumption patterns (Rees and Wackernagel, 1996). For Vancouver to be sustainable or ‘quasi sustainable’<sup>5</sup> the ecological footprint of

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<sup>5</sup> Bill Rees noted that Vancouver is not sustainable, if the world is not sustainable. If Vancouver became the epitome of sustainability, while the rest of the world remained unsustainable, Vancouver would be ‘quasi-

residents, if extrapolated to the globe as a whole, would need to be reduced from four planets to one planet.<sup>6</sup> According to Rees, “in biophysical terms, energy and material throughput, the amount of energy and material we use, is the primary driver of unsustainability.” According to Rees, EcoDensity will make a substantial contribution towards the reduction of Vancouver’s energy and material unsustainability. Rees, the anonymous informant, and Lehan were critical of the Leadership in Energy and Environmental Design (LEED) building standard<sup>8</sup> that is being proposed through the EcoDensity Initiative. Rees and the informant argued that Vancouver should be using the German Passivhaus standard,<sup>9</sup> which is much more energy efficient than the LEED standard. Rees stated that EcoDensity would reduce unsustainability through “a whole series of economies of scale and economies of agglomeration,” unless the cost savings arising from these density effects and the energy savings from LEED buildings are used to consume other energy and material intensive goods.

## 2. Document Assessment

I begin this section by outlining the history of the EcoDensity concept. In addition to ecological sustainability, EcoDensity has as its stated goals enhanced livability and affordability. As affordability is the main focus of this paper, below I highlight statements from the EcoDensity documents that relate to affordability to establish what methods EcoDensity is relying on to improve affordability.

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sustainable.’

<sup>6</sup> This is based on the calculation of how many planets would be needed for sustainable use of the earth’s natural capital, the flow of ecosystem goods and services, if the world’s population had per capita ecological footprints as large as Vancouver citizens.

<sup>8</sup> See also: Canada Green Building Council. (2008). The LEED Green Building Rating System. Retrieved from <http://www.cagbc.org/leed/systems/index.htm>

<sup>9</sup> Passive Houses use approximately 90% less energy than existing buildings.

See also: *International Conference on Passive Houses*. (2008). What is a Passive House? Retrieved from [http://www.passivhaustagung.de/twelf/english/09\\_start\\_presse.html](http://www.passivhaustagung.de/twelf/english/09_start_presse.html)

### **2.1. History of EcoDensity (City of Vancouver, 2008, *EcoDensity Website*):**

- I. June 2006: Mayor Sam Sullivan Announces the EcoDensity Initiative
- II. July 2006: Council Supports the Development of an EcoDensity Charter, Toolkit, and a Spring 2007 EcoDensity Forum.
- III. Fall 2006: Preliminary Consultation with interest groups
- IV. November 2006: Council approves terms of reference
- V. December 2006: Development of the EcoDensity Primer
- VI. February to May 2007: Public launch of the EcoDensity Initiative
- VII. June 2007: EcoDensity Forum
- VIII. November 2007: Progress Report to Council
- IX. December 2007 – February 2008: Public Consultation on Draft Charter and Initial Actions
- X. February – April, 2008: Special Council Meetings to receive input on Draft Charter and Initial Actions
- XI. May 2008: Release of Revised Draft Initial Actions and Charter

### **2.2. The EcoDensity Primer and Website**

EcoDensity is supposed to create a greater diversity of “types, sizes, locations, and tenures of housing” (City of Vancouver, 2008, *EcoDensity Website*) to promote affordability, including coach houses, suites within apartments, and more ground oriented, mid-rise, and high-rise multifamily housing (City of Vancouver, 2008, *EcoDensity Website*). The Primer considered resale covenants, efficiency mortgages, cost savings, and separating home and land purchases to improve affordability.<sup>10</sup> The Primer mentioned increasing the rental stock by increasing secondary suites and using density bonusing to obtain more non market housing. The Primer claimed that increasing the housing supply could mitigate the increase in the cost of housing (City of Vancouver, 2007, *EcoDensity Primer*).

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<sup>10</sup> Resale covenants restrict the price of a house to a percentage below the market rate. ‘Location Efficient Mortgage’ is a project being developed by the Ministry of Community Services through their ‘Smart Development Partnership Program.’ Efficiency mortgages allow for a greater level of borrowing for energy efficient houses close to transit, which results in substantial cost savings to homeowners.

### **2.3. Draft EcoDensity Charter**

The EcoDensity Charter commits Vancouver to “make environmental sustainability a primary consideration...while at the same time improv[ing] affordability” (p. 2). The charter promises to provide “a range of housing types, needs, and costs” (p. 2) and provide “more inherently affordable housing” (p. 3). The charter states that it will take account of how new development can help social housing objectives and that it will attempt to retain existing affordable rental units (City of Vancouver, 2008, *Draft EcoDensity Charter*).

### **2.4. Revised EcoDensity Charter**

The revised EcoDensity Charter has an increased emphasis on affordability in order to address concerns raised by participants in the consultation process. The charter seeks to moderate the rate of price increases, increase affordable housing choices for all households, facilitate purpose built rental and non market housing, protect existing purpose built rental, and reduce living costs (City of Vancouver, 2008 *Revised EcoDensity Charter*).

### **2.5. Draft EcoDensity Initial Actions**

Some of the concern over affordability *may have arisen due to the limited discussion of housing affordability in the Draft Initial Actions*. The action “developing options for new housing types” (p. 2) discusses allowing secondary suites in multi-family housing, laneway housing, and mid-rise housing along arterials (City of Vancouver, 2008, *Draft EcoDensity Initial Actions*).

### **2.6. Revised EcoDensity Initial Actions**

There is increased emphasis on affordability within the actions. Action *C-2: Interim EcoDensity Rezoning Policy* seeks to address “how affordability requirements can be reasonably incorporated into projects of these scales through types, tenures, unit sizes, [and] finishes” (p. 20), while recognizing existing affordable units. There is an increased emphasis on affordability options for Revised Actions C-3, C-4, C-5, C-6, and C-7, including rental tenure requirements, increased emphasis on social housing, retention of

existing affordable units, and ‘suite ready’ requirements (City of Vancouver, 2008, *Revised EcoDensity Initial Actions*).

### **3. Context of EcoDensity and its Opposition**

#### **3.1. EcoDensity and CityPlan**

The CityPlan consultation process began in 1995. CityPlan’s Community Visions allowed neighbourhoods to develop neighbourhood plans. Neighbourhood centres were established to concentrate new housing, shops, and services near transit. An option identified in the vision process was “denser forms of housing in single family areas, and new housing along some main streets.” The Primer states that “the EcoDensity Initiative provides an opportunity to further develop these options.” Thus, EcoDensity adds an increased emphasis on the densification of existing single family neighbourhoods (City of Vancouver, 2007, *EcoDensity Primer*).

I asked the City planners what is the relationship between EcoDensity and CityPlan. The planners explained that “EcoDensity adds on a new aspect [by] focus[ing] on density and sustainability” and by addressing “climate change” and “global issues.” EcoDensity “builds on CityPlan,” while the city’s existing policies take precedence. The planners do “not anticipate that there will be conflicts,” although regulatory or process changes are expected; nevertheless, the “existing policy is not written in stone.” As new priorities develop, some policies will be “questioned and amended over time.”

The discussion in the Revised Initial Actions and Charter confirm many of the statements about the relationship between CityPlan and EcoDensity made by the planning staff that are discussed above. In contrast Mel Lehan thought that CityPlan was locally based and grass roots, while “EcoDensity was top down and city imposed,” and would override the CityPlan process. Jones also claimed that EcoDensity would take precedence over existing policies and plans (Joseph Jones, personal communication, 2008). The opposition to EcoDensity is therefore in part due to concern over how EcoDensity will relate to CityPlan.

### 3.2. Opposition to EcoDensity

Densification is one of the most difficult components of 'Smart Growth' to implement. NIMBYism has likely been a contributor to the opposition against the EcoDensity Initiative. In most cities NIMBYism is very prominent when attempts are made at densifying single family neighbourhoods (Downs, 2005). Bill Rees claimed that some opposition comes from "concern from a very selfish point of view" and that "NIMBYism is rampant in some of these comments." Rees thought citizens should participate in the planning process to ensure that EcoDensity is done well; however, Vancouver citizens need "to recognize that the world is grotesquely unsustainable." McLellan noted that some of the opposition is political and some of the opposition is about more substantive issues. Some opponents want to stop growth. Some of the opposition may have come from the shorter timeline, but according to McLellan there is "an optimal timeline for any process to be effective," because "the vast majority of people start to lose interest." McLellan argued that the opposition has mostly come from "the perception of the process."

Kuhlmann said that "change causes anxiety" and that "not all change has been positive." The anonymous informant claimed that EcoDensity needed to also function as "a social change campaign, instead of a design[ed] to fail campaign." The informant thought that most of the opposition stemmed from NIMBYism. Holland thought that "the way EcoDensity was launched was very confusing to everybody," because there was confusion about what EcoDensity meant and how it fit in with other plans. Holland asserted that "lack of information will always lead to everybody fearing the worst and even worse than that." Most of the people who spoke against EcoDensity, spoke out against the process or issues that needed to be addressed, but few were against density. The other side of the opposition was composed of "people who were against council, including some long time political activists." Holland argued that these two groups combined to form the opposition.

Lehan stated that "we were opposed to [EcoDensity] before we even saw the actual document, because the process stunk to high heaven." Lehan pointed out that the 'Neighbourhoods for a Sustainable Vancouver' are not against growth, but EcoDensity

was a “developer’s charter and did not address the issues of sustainability.” Jones said that he opposed EcoDensity, because what EcoDensity proposed could be achieved through other city initiatives, that it could override existing policies and citizen input, and that it was being rushed through. Jones argued that he was not a NIMBY as “all of Vancouver is my backyard” and that it was “an issue of having a livable city” (Joseph Jones, personal communication, 2008). In addition to process issues and elements of NIMBYism, *much of the opposition is about substantive issues, particularly concerns about the affordability of housing in Vancouver.*

#### **4. Housing Affordability**

##### **4.1. The Affordability Crisis**

The need for affordable housing has grown due to the decline in the supply of new rental stock, lower vacancy rates, and upward pressure on rents. New rental supply has failed to emerge, because the risks are high, while the return is relatively low. Further, the existing stock is susceptible to redevelopment. As rental construction was declining in the mid 1990s, “social housing programs were almost entirely eliminated” (Carter, 1997, p. 6). In addition, the price of housing has risen substantially in Canada within the last several years, particularly in Vancouver (Statistics Canada, 2001, 2006; RealtyLink.org, 2008). The combination of these factors has created an affordable housing crisis.

##### **4.2. Background and Policy Context of Affordable Housing**

There are a variety of housing options that municipal governments can use to improve housing affordability.<sup>i</sup> There are also numerous methods that can be used by municipal and senior governments to increase the supply of rental properties.<sup>ii</sup> Non market housing is intended for those “not able to meet their shelter needs through their own resources” (Pomeroy, 2001, p. 2). A household is in ‘core housing need’ and ‘at risk’ if it is spending more than 30% and 50% of its income on housing, respectively (Pomeroy, 2001). As of 2006 in Vancouver, 45% of rental households and 29% of owner occupied households were spending more than 30% of household income on gross rent and owner’s major payments, respectively (Statistics Canada, 2006).

Non market housing may be owned by government, a non profit, or a co-operative society. Before 1993, funding for non market housing came from the federal government through the National Housing Act. Since 1993, funding has come from the provincial government through the Homes BC Program (Housing Centre, 2008). Under the National Housing Act amendment in 1973, Canada changed to small scale and locally managed nonprofit housing. Municipalities were heavily involved in helping to develop nonprofit cooperatives<sup>11</sup> in the 1970s (Dreier and Hulchanski, 1993). In addition, Canada had numerous programs<sup>12</sup> in the 1970s that provided incentives for the production of rental housing (Lampert, 1999). Social housing programs in Canada peaked in 1980 at 31,400 units per year. In 1992 social housing was reduced to 8200 units per year and the federal cooperative program was eliminated (Dreier and Hulchanski, 1993). The federal government's current non market housing program is the Homelessness Partnership Strategy, based on bilateral partnerships with the provinces (Government of Canada, 2008).

There are over 23,000 non market units in Vancouver (City of Vancouver, 2008, *EcoDensity Primer*). Vancouver has an *Affordable Housing Fund*. The City purchases land and in some cases may “require private developers to set aside a percentage of their units for non-market housing” (City of Vancouver, 2008, *Housing Centre*). The city has a twenty percent policy for large developments. Vancouver engages in negotiations with developers. Vancouver has a one to one replacement policy for social housing units. A third of the city's Development Cost Levies<sup>13</sup> go towards affordable housing (Kuhlmann, personal communication, 2008). Paul Raynor stated that the city has a target to maintain the percentage of non market housing at 8.5% of the Vancouver housing market. Raynor indicated that the percentage of non market units as a share of the total housing stock in

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<sup>11</sup> Cooperative housing is a nonequity form of homeownership and includes a broader mix of income groups. Housing cooperatives are self managed, which lowers operating costs (Dreier and Hulchanski, 1993).

<sup>12</sup> To combat the decline in rental housing during the 1970s the federal government created the Multiple Unit Residential Building Program, which gave favourable income tax treatment to rental properties. Federal government subsidies were also used, such as the Assisted Rental Program and the Canada Rental Supply Program.

<sup>13</sup> Development cost levies are charges on development on a per square foot basis. Source: City of Vancouver. (2007). *Information Bulletin: Development Cost Levies*.

Vancouver has declined, because less than 8.5% of housing completions in the last decade have been non market units (Paul Raynor, personal communication, 2008). The city recently received funding from the BC government to construct 2000 units of non market supportive housing (City of Vancouver, 2008, *Housing Centre*). Vancouver also adopted a 'rate of change' bylaw, which prevents the loss of affordable rental properties (City of Vancouver, 2007, *Policy Report*).

#### **4.3. Non Market Housing and EcoDensity**

There appears to be a difference in opinion over what the appropriate role is for EcoDensity in relation to Vancouver's planning policy. Rees asserted that EcoDensity does not address the issue of affordability to the extent that some citizens want, because extracting units from the marketplace is a "political decision that has to be taken outside of the main goal of EcoDensity," which is to "reduce our overall housing and transportation footprint." Rees explained that "you cannot look at EcoDensity in isolation" from existing city policies. Nevertheless, Rees noted that EcoDensity must take into account social requirements and economic realities to be a successful initiative.

According to Kuhlmann "the City has been doing everything it can to improve non market affordability." Further, Kuhlmann indicated that when the City is trying to add another item to the agenda, the other amenities extracted may have to adjust accordingly. Kuhlmann said that the City would like to increase the amount of affordable housing that gets created, but is constrained because the City will also be increasing green building requirements. Kuhlmann mentioned that density bonusing may be used more extensively through the EcoDensity Initiative, which would involve allowing extra density in exchange for non market housing contributions. McLellan stated that Vancouver was not considering a review of the non market housing target (8.5%) as part of the EcoDensity Initiative. (David McLellan, personal communication, 2008). In light of Vancouver's unaffordable housing market, the targets may need to be increased to continue to meet those in 'core housing need' and those 'at risk.'

McLellan explained that coops have been mentioned often during the EcoDensity consultation process, but require provincial and federal programs. Holland suggested that coops were unlikely to be a part of the EcoDensity Initiative. The role of the city would

be limited to securing land for coops. The provincial or federal governments need to build the unit. Holland asserted that the current EcoDensity concept may or may not support more cohousing<sup>14</sup> projects. Holland noted that one possibility is for an agreement between government and developers to have developers build social housing units in a large building, instead of donating land or money, but such arrangements would be outside of the EcoDensity Initiative.

Lehan argued that EcoDensity does not address affordability in a meaningful manner. Lehan thought that the EcoDensity document should have included measures to increase non market housing. Lehan suggested that Vancouver should lobby the federal and provincial government for an affordable housing strategy. Lehan also felt that the City should support coops. Lehan argued that the most important way to develop ideas on housing affordability was through an intensive process, involving neighbourhoods, citizens, and interest groups. Jones claimed that non-market housing was the only effective way to achieve affordability, such as “coop or cohousing, where the land is not an investment.” Jones thought that it was unlikely that coops and social housing could be included under EcoDensity, because senior government funding is required. One option that Jones offered was to use some of the land value increase from TransLink lines to fund coop housing. Jones emphasized that the retention of the older housing stock, particularly purpose built rental and housing with secondary suites, is a vital component of housing affordability. The anonymous informant submitted that market housing would not solve the problem; therefore, “non market [housing] is the only option.” The informant suggested more coop housing, land leases, and resale covenants. The informant thought the City should start its own non-profit development company or prefabricated building component factories. The informant argued that the City is not engaging in any of these options, because the City is risk averse.

Most interview subjects agreed that an increase in funding from senior governments is required to create sufficient levels of non market housing. Notably, a recent paper by the Federation of Canadian Municipalities (FCM) argued for a National

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<sup>14</sup>Cohousing is the private variant of government coops. Holland argued that there are reasons why cohousing projects are not a significant part of the market. Cohousing does not give people the benefit of an equity gain and they have higher down payments than conventional mortgages.

Action Plan on Housing and Homelessness. The paper argued for a continuance and expansion of the \$2 billion of funding from the federal government between 2007 and 2009 and a strategy to eliminate chronic homelessness and reduce the affordability problem in Canada (FCM, 2008). Further, the Greater Vancouver Regional District has a draft “Discussion Paper on a Regional Affordable Housing Strategy for Greater Vancouver.” The draft outlines strategies to meet the needs of low income renters, eliminate homelessness, and increase the supply and diversity of modest cost housing. The housing strategies include making better use of existing government funding, securing additional stable funding, and establishing partnerships with senior governments and non profit housing providers (GVRD, 2006).

#### **4.4. Market Housing Context**

Vancouver has the highest housing prices in Canada (Royal Bank of Canada, 2008). Vancouver is the 15<sup>th</sup> least affordable city in the world, based on an income to housing cost ratio (Cox and Pavletich, 2008). The estimated population of Vancouver was 611,869 in 2007 (BC Statistics, 2007). The City has a projected housing capacity<sup>16</sup> that will “be able to accommodate anticipated growth beyond 2031,” which was targeted to be 635,000 (City of Vancouver, 2007, *Insights into Population and Housing*). Recent estimates indicate the population of Vancouver will be approximately 656,000 by 2021 and 685,000 by 2031. Population growth may slow down by 2021 as the larger development projects, such as South East False Creek, are finished. Initial work on EcoDensity suggests that it may offset the growth slowdown projected for 2021 by creating additional development capacity (Andy Coupland, personal communication, 2008). Therefore, the development capacity of Vancouver may be put under strain within the next two decades if additional capacity for housing is not created. The debate surrounding the supply of market housing focuses on two key issues: the impact of housing supply on housing prices and the impact of different housing types on housing affordability.

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<sup>16</sup> Capacity is the quantity of housing units that can be developed in the city. Vancouver had an estimated capacity in 2001 for another 97,710 housing units (GVRD, 2006).

#### 4.5. Densification and Housing Prices

Kuhlmann pointed out one of the reasons people may not be buying into EcoDensity's affordability claims is because they think EcoDensity is claiming it will *lower prices*, but EcoDensity is claiming that increasing the supply of housing *mitigates price increases*. The planning officials thought that restricting supply would definitely not help with housing affordability. McLellan stated that "the region has a limited land base and high growth" because Vancouver is "a very desirable location to live," so it must make maximum use of its land. Kuhlmann explained that because the market decides how much housing to build, it is unlikely that city policy could generate an excess housing supply. Kuhlmann asserted that "the economy is the number one determiner of housing prices," in addition to "the costs of materials and labour." Kuhlmann argued that the City's role is to set development requirements and to ensure that there is enough capacity to meet demand.

According to Kuhlmann, EcoDensity will lead to "greater gains on relative affordability on the market side than...on the non market side." EcoDensity will create greater types and choices of housing. Currently, there are instances where people will choose to live in a "house that is too small or too big for them...which has a cost implication back on them." EcoDensity is about creating the right range of housing, so that people are "buying only as much housing as they need." McLellan said that "we have experienced a pattern of decreasing household sizes," which makes it "appropriate to have smaller house sizes." Kuhlmann stated that the City will try to encourage more rental housing, such as secondary suites, through the EcoDensity Initiative.

Rees said that EcoDensity could reduce the rate of house price increases, because "land is the main cost of housing in Vancouver." Rees thought that "if you can free up a lot of land, while densifying in general, then the land cost per unit should fall." Land costs could be reduced by freeing up land for housing that is currently dedicated to automobiles. Rees argued that smaller house sizes would help with affordability, but are not being provided by the existing housing market. Holland claimed that densification would help with affordability, because densification creates a variety of dwellings to meet different housing needs and incomes. Holland noted that "in economic theory, if you have enough supply, then the prices go down." "In land development, it's only barely

true.” On the other hand, “if you do not allow any development, it will drive prices higher.”

Holland argued that the cost of housing is determined by three factors, the *cost of land*, the *cost of construction*, and *what the market is willing to pay*. The cost of construction varies little between cities. The amount people are willing to pay is capped out at what they can afford. Land value is the main determinant of housing prices and it is “set by a whole sequence of transactions.” Holland argued that there are few opportunities to help affordability that EcoDensity has failed to exploit. Further, “affordability is a market question, while EcoDensity is a density question. Holland submitted that there are many other more appropriate programs that a city can use to address the affordability question (Mark Holland, personal communication, 2008). However, concurrent development of other affordability initiatives could have improved public acceptance of EcoDensity.

Lehan asserted that “densification never leads to *lower prices*.” Densification leads to gentrification by forcing out lower income people. Lehan argued that “densification is a tool...but it is not a god or a goal.” Lehan and Jones suggested that EcoDensity was not necessary, because Vancouver already had sufficient density capacity. Jones noted that “people have said if you increase supply, prices will fall.”<sup>17</sup> Jones explained that Vancouver has a peculiar local market, where there have been large increases in supply, but prices have continued to rise dramatically, because “Vancouver is a speculative hotspot.” Jones stated that he “objects to mass rezoning, [because] people get gentrified out of their neighbourhood.” Jones agreed a smaller unit would be cheaper than a larger unit, but that you get a lot less land and living space, which is “where the real value lies.” Jones said that affordability could be improved by preserving single family homes with suites or retrofitting the homes by turning them into multiple dwelling units. Jones and the anonymous informant thought that Vancouver should have a penalization or requirement to prevent owners from leaving suites empty as vacation homes.

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<sup>17</sup> Upon further communication, Jones stated that he did not think that EcoDensity would *mitigate the rate of price increases*. Jones argued that Vancouver was still cheap relative to other high cost housing markets and that continued expansion of supply would only fuel the continuation of demand from the international market.

#### 4.6. The Potential for Induced Housing Demand

Induced demand implies that an increase in the development of housing could result in an increase in the demand for housing. Kuhlmann and McLellan claimed that inducing demand was unlikely. The housing market is responsive to demand, which is driven by the economy. The planners explained that the City does not control the amount of construction, the City controls the *capacity*. Kuhlmann noted that induced demand might occur if a ‘cachet’ for a particular type of development was created. For example, EcoDensity could shift demand away from people choosing to live in the suburbs towards people choosing to live in the city. McLellan stated that Vancouver has had high demand for a prolonged period. McLellan said that “I do not think that by building housing, you are creating a market,” unless marketing is driving the development as in a resort development.

Holland asserted that EcoDensity would not induce housing demand. Holland did not think there was ‘pent up’ foreign demand. An international market would not be very interested in infill housing and secondary suites. The “bigger projects have a lot more foreign investment.” Further, “Vancouver is still pretty pricey compared to...other cities.” Rees said “if there is a large demand for [housing], then the market will keep the price up.” Further, “the success of [EcoDensity] may mean that it fails to reduce housing costs.” Vancouver “has been wonderfully planned and it has...created some of the highest quality urban environments on the planet.” This phenomenon is “independent of the EcoDensity Initiative” (Rees, personal communication, 2008). To the extent that EcoDensity enhances “Vancouver’s status as one of the most desirable places in the world to live” (EcoDensity Primer, 2007, p. 3) housing price increases may not be mitigated by the EcoDensity Initiative.

Lehan suggested that housing demand could be induced because “there is enough international money to come in and buy just about everything that we build.” Jones supported the concept of induced housing demand “to the extent that people really want to buy new” housing. The anonymous informant argued that the densification and housing types proposed through EcoDensity only provide temporary affordability,

because the attractive design of Vancouver's housing serves to drive up the market value of the units, thereby mitigating any of the initial cost savings.

Cameron Gray, Vancouver Housing Centre Director addressed many of the above issues at the April 15<sup>th</sup> council meeting in Vancouver. Gray said that "housing developed in accordance with EcoDensity will be more affordable than housing that is not." Gray said that most people who presented to council agreed that if there is "increased demand without an increase in supply, prices have nowhere to go but up." Gray asserted that the rental market is a good example that supply does not create demand. There has been a limited supply, but demand has continued to increase, resulting in low vacancy rates. In response to concerns about the type of housing being built, staff will be changing EcoDensity to direct the market to ensure more affordable housing is created through measures such as size limitations and tenure requirements. Further, EcoDensity will "address the issue of older and affordable housing specifically."<sup>18</sup> The investment properties are more complex as they also provide rental stock, but the City will look into the hydro information presented at the council meeting<sup>19</sup> that indicated there may be 18,000 empty condo units in Vancouver. Further, Gray argued that "*the market and non market both need opportunities to increase the supply of housing...if Vancouver is to remain a socially inclusive city*" (City of Vancouver, 2008, Council Meeting).

#### **4.7. Laneway Housing**

Laneway housing has been the most frequently discussed housing form proposed through the EcoDensity Initiative. The planners explained that "laneway housing is a very popular housing type...because people do not see it as abhorrent to their own quality of life." Such units provide affordability because they use less expensive wood frame construction. The price of laneway housing will depend on their location. "Places that are more desirable will...tend to be more expensive." Kuhlmann explained that the affordability of laneway housing depends on the tenure. Kuhlmann said that "if the City

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<sup>18</sup> See sections 2.4 and 2.6 above for a discussion of the revisions to the EcoDensity Charter and Initial Actions.

<sup>19</sup> See also: City of Vancouver. (2008). Special Council Meeting (EcoDensity), March 13<sup>th</sup>. Retrieved from [http://www.city.vancouver.bc.ca/ctyclerk/councilmeetings/meeting\\_schedule.cfm?offset=21](http://www.city.vancouver.bc.ca/ctyclerk/councilmeetings/meeting_schedule.cfm?offset=21)

allows the sale of those units, rather than rental...we are going to see a lot fewer gains.” Rees indicated support for laneway housing, because they offer smaller house sizes that are more affordable and can provide housing for a family member, such as a parent or child. Holland thought laneway housing would experience a slow and relentless growth, but would not experience a large growth in the short run. Laneway housing and secondary suites help with affordability, because they are mixed in with existing housing, are smaller, and have little private outdoor space. According to Holland, “the cost of the unit will reflect the relative cost of the neighbourhood...because the cost of the unit will reflect the cost of the land.”

The anonymous informant said that laneway housing would not provide long term housing affordability, but single family neighbourhoods would object less to laneways. Jones was “not opposed to laneway housing, provided it does not negatively impact the neighbour’s property” by decreasing the neighbours sunlight or by overcrowding the neighbourhood with automobiles. Lehan thought that there was not very much potential for affordability gains from laneway housing. Lehan argued they would still be too expensive to provide affordability to people with moderate incomes, because they would cost between \$200,000 and \$300,000 (Mel Lehan, personal communication, 2008). Although, one company has stated that they can construct laneway houses for \$150,000-175,000 (Annadale, 2008)

#### **4.8. Literature on Housing Capacity and Housing Prices**

There are a variety of factors that influence housing prices. A recent report suggests that the 2010 Olympics Games may be responsible for some of the housing price increases and pressures on low income housing in Vancouver.<sup>20</sup> Numerous classical economic analyses outline and assess supply and demand within the housing market.<sup>21</sup> Some literature indicates that regulation may contribute to high housing prices.<sup>22</sup>

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<sup>20</sup> Fair Play for Housing Rights: Mega-Events, Olympic Games and Housing Rights. (2007). Centre on Housing Rights and Evictions: Geneva, Switzerland.

<sup>21</sup> Glaeser, E., Gyourko, J., Saks, R. (2005). Urban Growth and Housing Supply. *The Social Science Network*, Discussion Paper 2062.

Grimes, A., Aitken, A. (2006). Housing Supply and Price Adjustment. *Social Sciences Research Network*, working paper no 0601.

A study by the Greater Vancouver Regional District (GVRD) concluded that affordability was in large part “determined by the capacity of the housing sector to respond to future demand” (GVRD, 2006, p. 2). The study noted that supply had kept pace with demand in the region within the last 5 years, but that there is typically a lag between increased demand and the housing supply response, which puts upward pressure on housing prices. The study forecasted three scenarios for housing demand and housing supply from 2006 to 2021. Two of the study’s forecasts indicated that housing supply would exceed housing demand, which could “have some moderation on price” (GVRD, 2006, p. 29). The third scenario indicated a housing shortfall, which could result in “upward pressure on housing supply and prices” (GVRD, 2006, p. 29). Rental housing is expected to experience a shortfall in production in all three scenarios, putting further upward pressure on rents (GVRD, 2006).

Two literature reviews that are very relevant to the Vancouver experience assessed the relationship between restricted land supply and housing prices.<sup>23 24</sup> The reviews concluded that *local and regional amenities are at least as important as supply constraints in increasing house prices*. These amenities include open space benefits, increased service and infrastructure provision, greater accessibility to commercial and

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Leeuw, F. (1971). The Demand for Housing: A Review of the Cross-Section Evidence. *The Review of Economics and Statistics*, 53 (1).

Blackley, D. (1999). The Long-Run Elasticity of New Housing Supply in the United States: Empirical Evidence for 1950 to 1994. *The Journal of Real Estate Finance and Economics*, 18 (1).

<sup>22</sup> Glaeser, E., Gyourko, J., Saks, R. (2005). Why Have Housing Prices Gone Up? *The Social Science Network*, Discussion Paper 2061.

Glaeser, E. (2003). The Impact of Building Restrictions on Housing Affordability. *Economic Policy Review*, 9 (1).

Anthony, G. (2003). The Effects of Florida’s Growth Management Act on Housing Affordability. *Journal of the American Planning Association*, 69.

<sup>23</sup> Dawkins, C. J., Nelson, A. C. (2002). Urban Containment Boundaries and Housing Prices: An International Comparison with Implications for Future Research. *Land Use Policies*, 19, 1-12.

<sup>24</sup> Nelson, A., Pendall, R., Dawkins, C., Knaap, G. (2002). The Link between Growth Management and Housing Affordability: The Academic Evidence. *The Brookings Institution Centre on Urban and Metropolitan Policy*.

recreational land uses, and a greater sense of place due to compact, contiguous urban forms. Further, the study indicated that *increasing the desirability of infill and redevelopment should be expected to increase the value of land*. The review asserted that “higher new housing prices emerge in contained communities when the contained community is sufficiently unique from other surrounding jurisdictions” (Dawkins and Nelson, 2002, p. 11). The review revealed that “if sufficient demand exists for higher priced multifamily units, housing producers may produce sufficient quantities of new high density housing, but still fail to produce a sufficient quantity of new affordable units” (Dawkins *et al*, 2002, p. 28-29) (Dawkins and Nelson, 2002; Nelson *et al*, 2002).

The literature supports the notion that if development is restricted and regional demand continues, there will be upward pressure on housing prices. Most of the empirical evidence suggests that the demand for housing is relatively inelastic. Therefore, a restricted housing supply should increase the price of housing. The review concluded that “*market demand, not land constraints, is the primary determinant of housing prices.*” (Nelson *et al*, 2002, p. 33). In the context of the City of Vancouver, price increases are inevitable if one of the goals is to “increase the desirability of the subject community” (Nelson *et al*, 2002, p. 34) (Nelson *et al*, 2002; Dawkins and Nelson, 2002). This paradox suggests that there is *a fundamental need for both federal and provincial governments to increase non-market housing to help mitigate the impact of successful urban intensification policies on the segments of the population least able to cope with high housing costs.*

## **5. Affordability and Ecological Sustainability**

Policy goals that address sustainability should clearly define their relationship towards the goal of sustainability. Opposition from some neighbourhood groups<sup>25</sup> may have been generated because EcoDensity was perceived as offering sustainability, when in fact its goal was to make Vancouver ‘less unsustainable.’ Thus, opposition has emerged, because EcoDensity does not address the full holistic array of tools needed to develop a

<sup>25</sup> The “Neighbourhoods for a Sustainable Vancouver” are a “citywide, ad hoc organization of neighbourhood groups” opposed to the EcoDensity Initiative. They have produced a series of recommendations: <http://dunbar-vancouver.org/DRAnews/media/2/20080408-NSV-Council%20Letter-V17April2-08.pdf>

sustainable city. As Rees indicated, “you can not criticize a Volkswagen for not being a 747.” How EcoDensity addresses affordability and amenities will “depend on other policies.” Therefore, the EcoDensity Initiative may conflict with affordability to the extent that without other complementary policies (current and potential policies) the initiative will put more strain on housing affordability. When assessed in light of other policies, EcoDensity may contribute to housing affordability. Nevertheless, there are several areas where affordability may conflict with ecological sustainability.

Kuhlmann asserted that energy efficient housing could reduce housing costs. On the other hand, Rees noted that if EcoDensity resulted in substantial cost savings, the savings might be spent on other consumption and as a result may not reduce ecological footprints. For example, over the life cycle of a building, the initial investment in an energy efficient building could result in substantial cost savings. If the savings went towards consumption, the ecological footprint reductions would be minor. Thus, “you cannot isolate any of the trends from each other.” Although, the anonymous informant noted that the reduction in housing costs resulting from energy efficient buildings is difficult to account for in the housing market because of the longer payback period.

To a degree, Rees’ argument flips the idea of housing affordability on its head, implying that lower housing costs as a result of EcoDensity could work against the ecological footprint reductions from increased density (Bill Rees, personal communication, 2008). Depending on the situation, the rebound effect will be greater than or less than 100% of the initial consumption reductions. The rebound effect will be greater when the monetary savings from the efficiency gains are greater and the individual’s income is lower (Greening and Difiglio, 2000; Hertwich, 2005). Further, Jones noted that if LEED standards or other requirements included under EcoDensity have the effect of raising housing construction costs, then the developers may be able to pass the costs onto the buyer,<sup>28</sup> which would reduce housing affordability (Joseph Jones,

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<sup>28</sup> Huffman, F., Nelson, A., Smith, M., Stegman, M. (1988). Who Bears the Development Impact Fees. *Journal of the American Planning Association*, 54 (1), 49-55.

Watkins, A. (1999). Impacts of Land Development Charges. *Land Economics*, 75 (3) , 415-424.

Skaburskis, A., Qadeer, M. (1992). An Empirical Estimation of the Price Effects of Development Impact Fees. *Urban Studies*, 29 (5), 653-667.

personal communication, 2008). Since the cost of land is the main component of housing prices, environmental regulations are not likely to increase housing prices significantly.

On the other hand, Kuhlmann noted that affordability is a key to helping ecological sustainability. If people cannot afford to live in Vancouver, they may live farther away in a more affordable city and commute to Vancouver for work, resulting in an ecologically dense Vancouver restricted to the rich. Location can help affordability by reducing automobile and parking costs (which average \$10,000 a year) if more dwellings are close to transit, work, school, shopping, and recreational facilities. Holland argued that “the long term economic viability of the City is dependent on EcoDensity,” because entry level employees do not make enough money to be able to afford to live in Vancouver (Mark Holland, personal communication, 2008). Thus, Vancouver would either face an economic breaking point or would require more people to commute from far away suburbs and further contribute to environmental degradation.

Vancouver’s current housing market is already too expensive for many moderate income households. This makes it necessary to have additional measures to meet the needs of existing households who are spending high percentages of their income on housing. Further, it is the livability of Vancouver that may be at greatest odds with the affordability goal. *The success of EcoDensity in improving the livability and desirability of Vancouver could compromise any initial gains in affordability that result from EcoDensity.*

## **6. Conclusions and Recommendations**

There are a variety of motives behind the opposition, ranging from NIMBYism to political activism. There may have been less opposition to EcoDensity if its relationship to existing city policies, such as CityPlan, the Sustainability Group, and the Green Building Strategy were *clearly defined at the beginning of public debate and consultation*. Arguably, affordability has been the most significant factor that has generated concern and opposition to the EcoDensity Initiative. Assessment of EcoDensity documents indicate that creating different types and sizes of housing and the maintenance of an adequate supply of housing are the main tools being proposed to help with affordability through the EcoDensity Initiative.

Interview responses and academic evidence strongly suggest that *maintaining an adequate supply of housing will mitigate housing price inflation, ceteris paribus*. The caveat is that planning regulations and development patterns *that enhance the desirability of a location will drive up housing prices*. It is unclear to what extent EcoDensity would enhance the desirability of Vancouver. Vancouver's continued status as the most liveable city in the world<sup>29</sup> may be sufficient to maintain the desirability of Vancouver and thus continue to drive up housing prices into the foreseeable future. Given the high housing prices in Vancouver and the inherent challenges obstructing market affordability mentioned above, *an increase in non market housing from senior governments and protection of the existing affordable rental stock<sup>30</sup> is required to improve affordability*.

As per the Federation of Canadian Municipalities' recommendations, *a National Action Plan on Housing and Homelessness would go a long way towards addressing the growing affordability problems in Vancouver*. An increase in the pressure on senior government and partnerships with senior governments concurrently to the EcoDensity Initiative could have helped to mitigate the opposition to the EcoDensity Initiative and enhanced the initiative's ability to provide housing affordability.

Further, the 'rebound effect' may result in the *cost savings from efficiency gains overcoming the initial ecological footprint reductions that result from EcoDensity*. Given the affordability problems in Vancouver, the rebound effect may not be significant for overall housing costs, because the main problem is that *average income households may be forced out of Vancouver and into suburban locations due to escalating housing prices*.

The idea of creating a 'cachet' may be the main factor that mitigates affordability gains, but it is not related to increasing the capacity of housing *per se* nor is it indicative of an inherent tradeoff between ecological sustainability and housing affordability. To the extent that a 'cachet' is created for 'living green' as a result of the EcoDensity Initiative, there may be a tradeoff between ecological sustainability and social sustainability. There is a lot of potential for further analysis of the EcoDensity Initiative. The EcoDensity

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<sup>29</sup> The Economist Intelligence Unit. (2008). Liveability Ranking. Retrieved from [http://www.economist.com/markets/rankings/displaystory.cfm?story\\_id=11116839](http://www.economist.com/markets/rankings/displaystory.cfm?story_id=11116839)

<sup>30</sup> Vancouver's rate of change bylaw protects the conversion of some of the affordable rental stock in Vancouver.

Initiative could be assessed in the future by comparing the affordability and ecological sustainability of an ecodense project to a non ecodense project.

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## Appendix

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<sup>i</sup> Pomeroy outlined some the main roles of Municipalities' in procuring affordable housing. Municipalities can assist in the development of *housing for the homeless*, through such means as grants, ongoing subsidies, space, tax reductions, and administrative assistance. Many communities, such as Vancouver, use *intensification* to provide more affordable housing, such as secondary suites, mixed uses, conversion of nonresidential buildings, and small lot construction. Municipalities can use measures to *preserve the existing affordable housing stock*. In some instances, communities have attempted to *improve the speed of the approval process*. Municipalities can procure *land and financing for housing*, through loans to nonprofit housing groups or through the sale of land at below market rates. Municipalities can also fund *housing information and referral services*, such as housing registries, home share programs, and housing information services (Pomeroy, 2001).

<sup>ii</sup>Increasing rental supply can be addressed through non market housing, which provides affordable rents and increases the supply of rental units, although the high costs make implementation slow. Existing affordable rental units can be purchased for conversion to nonprofit housing. Government grants, interest free loans, or tax breaks can increase the rate of return for rental developments. This solution increases supply, but it does not create permanent affordable housing, unless specific conditions are included that provide for permanent affordable housing in exchange for the financial assistance. The tax structure of rental housing development can be changed to create a 'level playing field,' but it does not guarantee affordable housing. Demand measures mostly involve subsidies from senior government in the form of vouchers, rent supplements, or changes to welfare shelter allowances (Carter, 1997).

Municipalities can also assist rental development through several methods. To increase the supply of rental housing, municipalities could zone for tenure and use density bonuses for rental housing. Development cost reductions could be used, but they generally have a minor impact and reduce the city's budget and ability to extract amenities. Vancouver's EcoDensity Initiative focuses on promoting *lower cost forms of*

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*housing*, such as secondary suites, while Single Room Occupancy requirements and square foot limitations may need more consideration (Carter, 1997).