THE URBAN POLITICAL ECOLOGIES OF VANCOUVER: SUSTAINABLE DEVELOPMENT AND AFFORDABILITY

A Thesis Presented to the Faculty of Architecture, Planning, and Preservation
COLUMBIA UNIVERSITY

In Partial Fulfillment of the Requirements for the Degree:
Master of Science in Urban Planning

Fred Sham
May 2012
ABSTRACT:

Urban political ecology combines the approaches of political economy and the study of human ecology. One subfield of this subject focuses on critically examining state policies relating to urban environmental and economic governance through a lens of distributional justice. This thesis investigates how political, economic, and social processes have collectively (re)created inequitable urban natures in Vancouver, Canada, under the banner of sustainability. In 2008, Vancouver’s City Council unanimously voted to pass the EcoDensity Initiative, a comprehensive policy and vision document that strategically used increased densities and high performance green design to not only reduce the city’s ecological footprint, but also simultaneously enhance housing affordability and livability. Using case studies, interviews and comparing assessed property value changes, this thesis demonstrates that Vancouver’s urban environmental governance policies have contributed to dramatically increasing property values, effectively exacerbating the city’s housing affordability crisis for low-to-middle income earners. At its core, EcoDensity strategically mandates high performance green design not only to meet ecological goals, but also to buttress markets of green enterprise and enforce its consumption as a means of economic development. While the pursuit of ecological sustainability and economic development are worthy priorities, without a realignment of institutional capacities to address social equity, the city’s ecological and economic gains may be eroded.
ACKNOWLEDGEMENTS:

Many thanks to my advisor Dr. Bob Beauregard and my reader Dr. Elvin Wyly for their invaluable advice and guidance throughout the process. Thank you as well to Peter Busby, Thor Kuhlmann, Mel Lehan, Michelle McGuire, Matthew Roddis, and Sam Sullivan who graciously volunteered their time to provide me with their professional insights on my thesis. I would also like to express my congratulations and thanks to my thesis team: Caroline Bauer, Judy Chang, Caitlin Hackett, Doneliza Joaquin, Caroline Massa, Charles Antoine Perrault, Michael Snidal, and Kerensa Wood.
THE URBAN POLITICAL ECOLOGIES OF VANCOUVER: SUSTAINABLE DEVELOPMENT AND AFFORDABILITY

Section 1: Introduction

Sustainability and environmental diligence have increasingly become core principles for many modern cities. Accordingly, local governments have begun incorporating sustainability initiatives within their policy and vision documents. This trend is especially true of post-industrial cities with strong capitalist markets (Keil, 2003, 2006; Braun, 2005; Heynen et al., 2006, Quastel 2009, 2011[2]). Moreover, this phenomenon has been documented within the academic literature, particularly within the emergent field of political ecology which focuses “on the relationship between environmental change, socioeconomic impact, and political process” (Bryant, 1992, p. 27). Urban political ecology, one subfield of political ecology, addresses this phenomenon more specifically as it analyzes how economic, social, and political processes have (re)created urban environments in response to the growing concern for sustainability. Along these lines, urban political ecology remains highly critical as the environments that are produced often reflect the unequal configurations of power between various actors (Swyngedouw and Heynen, 2003; Heynen et al., 2006, p.6).

The objective of this thesis is to explore the production and maintenance of urban political ecologies within Vancouver, Canada. In doing so, it considers what sorts of distributional conflicts result, and how planners can mediate the configurations of power in the production of urban environments to promote an ethic of environmental justice and social inclusion. This study will involve a focused analysis of the impacts of a policy that affects all new developments in Vancouver. This policy, named EcoDensity, was passed by City Council in 2008 and effectively legitimized ecological concerns, the production of urban environments, and housing affordability within the purview of local urban governance.

This thesis is divided into a series of sections. The following section presents the background for the study as well as the literature review. Specifically, it first illustrates the modern environmental movement and theory of entrepreneurial urban governance, both of which are the dominant roots of political ecology as it relates to urban environmental governance. This is followed by a review of the tenets of political ecology, the discourse of urban political ecology and the production of urban natures and environments. The third section introduces Vancouver as a crucible for urban political ecology. The fourth section presents this study’s research design and methodology. Section five introduces
Southeast False Creek (the Olympic Village) and the Cambie Corridor Plan as case studies. These case studies represent two of the largest and most recent projects initiated by the city since the passage of EcoDensity. Thus, through a systematic comparison of these cases vis-à-vis the main commitments of EcoDensity, this section illustrates and evaluates how Vancouver’s urban political ecologies are produced and maintained. The final section analyzes the change in assessed property values for these case studies from 2011 and 2012, and synthesizes the cases’ findings with the opinions of several key city actors through a narrative which links urban environmental governance, local political economy, and issues of sustainable urban development under one framework. The intent of this narrative is to develop a framework to critically assess the issues of environmental justice, social equity, and power within Vancouver’s urban political ecology. This thesis concludes with a number of policy recommendations that seek to balance the configurations of power to more effectively promote an ethic of environmental justice and social inclusion in the production of urban natures and environments.

The findings of this thesis will contribute to the understanding of urban political ecology within Vancouver, specifically, how EcoDensity reifies the tenets of this discipline and, as such, produces and maintains inequitable urban landscapes that reflect power imbalances within environmental urban governance.

Section 2: Background and Literature Review
(2.1.) Modern Environmental Movement

In North America, the emergence and evolution of environmental governance within the realm of urban planning is an acknowledgement that industrial and capitalist cities have a tremendous and detrimental impact on the natural world. The institutions and mechanisms which regulate and govern how North Americans interact with their environments are part of the trajectory of the modern environmental movement which dates to the mid-nineteenth century. The movement was prompted by growing social concern over the effects of environmental degradation by callous businesses and industries.

Not until the mid-to-late twentieth century did a growing awareness of the movement’s message permeate into popular thought. From this period on, three epochs of the environmental movement can be identified. These epochs illustrate the evolution not only of the tenets of the modern environmental movement, but also the shift in agency from government-led to a more individually oriented approach
(Mazmanian and Kraft, 2008). The evolution of the Canadian modern environmental movement can best be understood through first understanding the American version. Fueled by the tangible effects of environmental negligence, namely the reduction of air and water quality, the impingement on the health of ecosystems, and the infamous 1969 Santa Barbara oil spill, the US federal government became the nation’s environmental steward. In 1970, the Environmental Protection Agency (EPA), a centralized federal entity charged with regulating and policing pollution largely caused by industries was established. This first epoch of environmental governance focused heavily on top-down, command-and-control regulation in an effort to mitigate the effects of pollutants on air, water, and land (Mazmanian and Kraft, 2008, p. 18). Throughout the next few decades, the EPA crafted policies that standardized nationwide air quality standards (Clean Air Act, 1970), ameliorated surface water conditions and policed industrial discharge (Clean Water Act, 1972), set health standards for public water supplies (Safe Drinking Water Act, 1974), regulated hazardous waste management (Resource Conservation and Recovery Act, 1976), governed commercial chemicals (Toxic Substances Control Act, 1976), regulated the use of pesticides (Federal Insecticide, Fungicide, and Rodenticide Act, 1970; Food Quality Protection Act, 1996), and regulated the clean-up of hazardous waste sites (Superfund, 1980 and 1986).

Congress increased the agency’s responsibilities throughout the decades. However, its operating capacity failed to increase alongside its new roles. The EPA’s operating budget, after being adjusted for inflation, remained stagnant between 1980 and 2008 (Kraft, 2007, p. 232). The limitations of the EPA surpassed its financial constraints. Beginning in the 1980s, significant criticism of the agency’s organization and size emerged. Driven in part by the Republican takeover of Congress, as well as the expanding influence of business and industry, critics of the EPA argued that the agency’s broad size and scope made it cumbersome and inflexible, effectively dampening the competitive advantage of the businesses and industries it regulated. These critics argued for a more decentralized approach to environmental governance, one which shifted some of the responsibilities of regulation and enforcement to the subnational level, while respecting market forces (Durant, Fiorino, and O’Leary, 2004, p. 19).

The second epoch of environmental governance began as states and local governments took on a larger role in this discourse. And indeed, the rhetoric and politics of environmental governance began to shift towards decentralized and collaborative cost-effective market-based approaches. Specifically, market mechanisms, such as fees, taxes, and the creation of emissions trading markets, were implemented to protect the environment by internalizing many of the negative externalities produced by
industries. While the EPA still played a significant role in environmental governance during this period, its role shifted from regulation and policing towards facilitation and oversight (Mazmanian and Kraft, 2008, p. 20).

Beginning in the 1990s, a new philosophy came into play, one that focused less on the impact of industries and more on the impact of the individual citizen. The budding recognition that rampant freeways, heavy automobile reliance, and sprawling North American cities detrimentally affected the environment became the impetus for the third epoch of environmental governance (Mazmanian and Kraft 21). Concepts such as the “ecological footprint,” which provides the estimated land base required to support the consumption patterns of a city, illustrated that North Americans were living beyond their means (Wackernagel and Rees, 1996; Quastel, 2011, p. 3). Thus, the defining feature of this third epoch is the concept of sustainability. While sustainability in its broadest sense has a myriad of definitions, the most basic advocates for a change in lifestyles so as to consume no more than what one’s ecological footprint could support. Accordingly, the notion of sustainable communities, which sought to adopt and capitalize on technological advances, innovative urban design, and environmentally conscious lifestyles, became the objective of this third epoch of environmental governance (Mazmanian and Kraft, 2008, p. 15). Increasingly, proponents of sustainability argued that centralized regulatory approaches must be complemented with public/private partnerships, and community-level participation. The result of this collaboration is the rapid emergence of a new “green” market, in energy provision, manufacturing, construction, architecture, food, and in almost every other facet of the economy (Coglianese and Nash, 2006, p. 211).

While the evolution of the Canadian environmental movement follows a different trajectory compared to the American example, it adopted similar traits with respect to the three epochs. Environment Canada, the Canadian equivalent to the EPA, was established in 1971. However, while the EPA is directly under the purview of the federal government, Environment Canada falls under the control of both the federal and provincial governments (Smith, 1998). Nonetheless, the jurisdictions of federal provincial control over environmental policies are rather ambiguous. While the Canadian Constitution cedes the domain of international policies regarding the trade of resources and commerce to the federal government, the provincial governments are granted authority over policies impacting their respective natural resources—as such, federal and provincial governments have traditionally been in conflict regarding their roles in resource management and environmental governance (Mitchell, 2004; Brown,
2008a). Under the duress of growing debts and deficits between the early-to-mid nineties, Canada’s centralized authority of environmental regulation was downgraded to the level of municipalities. This decentralization was justified through the principle of subsidiary “which stipulates that decisions should be taken at the level closest to where consequences are most noticeable” (Mitchell, 2004, p. 2).

Canada’s foray into sustainability largely coincided with its participation in the United Nations Conference on Environment and Development (Earth Summit) held in Rio de Janeiro in 1992. Furthering the concept of sustainable development detailed in the 1987 *Our Common Future* report completed by the Brundtland Commission, the Earth Summit sought to forge a global action plan for sustainable practices in a number of areas ranging from consumption patterns to toxic waste management (Mitchell, 2004, p. 9). The resulting action plan came to be known as Agenda 21, and focused heavily on problems and how local actions by ordinary citizens could provide potential solutions (Smardon, 2007, p. 120). In this regard, problems and solutions for sustainability were rooted in individual consumption. This suggests that ‘sustainable consumption’ became a responsibility of the individual consumer, whose role was to discover more ecologically benign goods and behaviours (Hobson, 2004; Slocum, 2004; Quastel, 2009).

(2.2.) Entrepreneurial Cities

While the tenets of the modern environmental movement evolved, so too did those of urban political economies. In the face of widespread economic deterioration that pervaded large capitalist cities in the 1970s, urban governments began to explore other avenues which would facilitate economic development and growth. A strong consensus amongst many policy makers and theorists soon emerged, suggesting that cities ought to shift away from a “managerial” form of urban governance, to one which not only embraced innovation and entrepreneurialism, but actively pursued it (Harvey, 1989, p. 3). Consequently, entrepreneurial cities began playing a more direct role in the formation of new economic ventures, marketed cultural and social amenities, and spurred innovation through tax incentives in addition to a myriad of other activities which sought to revitalize old and spur new forms of economic development.

The question thus became how much of a direct role urban governance has under this new paradigm. Urban governance refers not only to urban “government” in the strict sense, but includes the coalition of institutions and organizations, the private sector (financiers, firms, developers), and
even individual social agents who collectively reconfigure the urban economy and landscapes (Harvey, 1989, p. 6). Together, under the directive of entrepreneurialism, these actors formed a series of public-private partnerships which became the backbone of this new form of urban governance. While these partnerships were inherently speculative, the private sector became less risk-averse, especially since the public sector began absorbing more of its risks. Thus, the collaboration of local governmental power alongside public and private capital facilitated the rapid transformation of urban environments. However, rather than improving physical living and working conditions, urban entrepreneurialism focused much more on the construction of place. Place, in this regard, could be referred to the upgrading of a city’s image through the construction of new cultural or commercial buildings alongside various urban amenities. Accordingly, the enhancement of place was speculative as it sought to project both a physical and social imagery of a city that was apt for inter-urban competition (Harvey, 1989, p. 14).

(2.3.) Towards an Urban Political Ecology

At the intersection of the modern environmental movement and the emergence of entrepreneurial urban governance lies the study of political ecology. Political ecology combines the approaches of political economy with the study of human ecology. Specifically, it concentrates “on the relationship between environmental change, socioeconomic impact, and political process” (Bryant, 1992, p. 27). One of its central tenets is the notion that the binary of the urban versus the natural world is fundamentally flawed; that is, these two realities do not exist separate from each other, but are inextricably linked (Fisher and Hajer, 1999; Keil, 2003, p. 728; Heynen, Kaika, and Swyngedouw, 2006, p. 3; Quastel, 2009, p. 698).

A recent emphasis on the urban in political ecology literature has inspired the subfield of urban political ecology. Urban political ecology has a multitude of roots in fundamental theories of social critique, ranging from Marxism to feminism to radical democratic politics. Because of this, the field has an “intensely critical predisposition” (Keil, 2003, p. 724). Specifically, many urban political ecologists view policies and regulations of urban environmental governance through a lens of distributional justice that adheres to a normative concept of producing environments with an inclusive and equitable division of social power (Davis, 2002; Swyngedouw et al., 2002; Keil, 2003).
While urban political ecology expands into an array of research clusters, this thesis focuses predominately on the ‘British school,’ which involves the study of urban environmental and economic policies around the issue of local sustainability (Keil, 2003, p. 732). More specifically, much of the literature analyzes how economic, social, and political processes have (re)created urban environments in capitalist global cities under the call for sustainability (Keil, 2003, 2006; Braun, 2005; Heynen et al., 2006, Quastel 2009, 2011[2]). This transformation is linked to the notion of urban metabolism. Urban metabolism views the city as a socio-ecological process, stressing that “natural or ecological conditions and processes do not operate separately from social processes, and that the already existing socionatural environments are always the result of intricate transformations of pre-existing configurations that are themselves inherently natural and social” (Swyngedouw, 1999, p. 445). In other words, urban metabolism suggests that urban environments and natures are always socially and materially produced. In capitalist cities, ‘nature’ is primarily exemplified by commodities, ranging anywhere from drinking water to the steel and glass of buildings (Heynen et al., 2006, p. 5). This relationship of commodities to market-led processes and socio-ecological relations illustrates the role of urban metabolism in the production of urban natures within capitalist cities. Urban political ecology is critical of this relationship because it is power-laden and, as such, the production of urban environments is often dictated by the shifting configurations of power between various groups of actors (Swynegedouw and Heynen, 2003; Heynen et al., 2006, p.6). Thus, the mobilization of metabolic processes within the arrangement and networks of social power produces and transforms urban environments in inequitable terms.

This concern for equity is inherent in the political of urban political ecology, which suggests that as a result of the role of the state in environmental governance, mechanisms may exacerbate “distributional and systemic inequities” (Keil, 2003, p. 726). Prompted by the third epoch of the environmental movement and an entrepreneurial mode of governance, the concept of sustainability has increasingly become a hegemonic structure under which urban environmental and political governance operates (Keil, 2005, p. 642). The surge of environmental awareness and regulation has effectively created burgeoning ‘green’ markets, especially within real estate development. And as such, this has resulted in the process of eco-gentrification in some neighbourhoods (Lees and Demeritt, 1998; Gibbs and Kreuger, 2007; Hagerman, 2007; Jonas and While, 2007; Kear, 2007; Kreuger, 2007; Kreuger and Savage, 2007; Quastel, 2009).
This active remaking of the urban environment, in which both public and private sectors are complicit, has been labelled the ‘new sustainability fix’ (While, Jonas, and Gibbs, 2004). This draws on David Harvey’s notion of a ‘spatial fix,’ whereby a variety of class interests are united through a common strategy that mediates tensions between capital and labour for the betterment of economic development and consumption practices, sustainable urban governance and development “are not just attempts to promote economic reinvention in the face of evidence of global environmental change, but can also be read as attempts to neutralize environmental opposition by projecting a value-free vision of ‘win-win-wins’ between economic growth, social development, and ecological protection” (While et al., 2004, p. 554). Thus, sustainable urban governance and development lie distinctly within the heart of political ecology, as they equally impact political and economic discourse, as they do tangible changes in the built and natural environment.

Section 3: Vancouver and EcoDensity

(3.1.) Vancouver, British Columbia

Located in British Columbia, Vancouver is one of Canada’s foremost global cities. Incorporated in 1886, the city is quite young in relative terms, but nonetheless, its urban and social fabric have undergone significant reconfigurations since it began its evolution into a post-industrial city beginning in the 1960s (Hutton, 2004, p. 1953). In the 1980s, Vancouver experienced severe and rapid business and financial disinvestment within its downtown core which fundamentally transformed its space-economy (Punter, 2003, p. 258). As global business ventures left the city, they were soon replaced by incipient waves of Asian-Pacific investment in Vancouver’s real estate market. Consequently, beginning in the mid-1980s, and continuing to the present day, Vancouver’s downtown core has become disproportionately dominated by a series of high-density residential complexes as opposed to corporate complexes which are more typical of post-industrial cities (Beasley, 2000; Boddy, 2004).

Vancouver’s office sector erosion and disproportionate high-density residential development has subsequently directed attention towards expanding livability within the central city. As such, since the early 1980s, City Council has prioritized a ‘living first’ strategy which sought to promote excellence in urban design, foster a sense of neighbourhood, and promote walkability and alternative sustainable modes of transport by planning for a multitude of amenities nearby (Beasley, 2000; Punter, 2003). In addition, constrained by the mountains and the ocean, and coupled with containment boundaries
intended to preserve the peripheral agricultural lands, the city has historically favoured sustainable development and densification. Specifically, through a series of planning and policy documents, namely the *Living First Strategy* (1980s), *Clouds of Change* (1990), *CityPlan* (1995), *CityPlan’s Community Visions* (1997), and the *Liveable Region Strategic Plan* (1996), Vancouver has generally directed development through a Smart Growth approach (Quastel, 2009, p. 710).

For example, following the hosting of the 1986 Summer World Fair (Expo ’86), Vancouver sold the 67 hectares of Expo ’86 land located within the downtown core and north of False Creek to a Hong Kong business mogul, Li Ka-Shing. The land was sold for $145 million with the assurance that the developer would pay for “seventeen hectares of parks, a waterfront promenade, a community centre, eight daycares, [with] a fifth of the units devoted to social housing” (Olds, 1998). These 67 hectares eventually became Yaletown, a sustainable, high-density, mixed use neighbourhood built in modernist architectural styles. Home to over 15,000 new residents, Yaletown became an exemplar of a sustainable, dense, and liveable neighbourhood replete with nearby urban amenities to promote walking, cycling, and alternative modes of transport.

The city’s natural aesthetics, prioritization of livability, and adherence to Smart Growth strategies have led it to be ranked consistently as one of the most livable cities in the world (Economist Intelligence Unit, 2011). As such, Vancouver has witnessed intense real estate investment and immigration since the 1980s (Punter, 2003). The city’s scarcity of land and the fact that it is nearing build-out conditions has resulted in a decline in the supply of new housing, rapidly diminishing vacancy rates, and consequently, an affordability crisis. Vancouver not only has some of the highest real estate prices in all of Canada, but is also ranked as the 15th least affordable city in the world (Brown, 2008b; Holt and Goldbloom, 2008; Cox and Payleich, 2008). Thus, Vancouver serves as an excellent crucible for urban political ecology because it combines a strong capitalist real estate market with an equally robust sustainability movement.

(3.2.) The Nascence of EcoDensity

Cognisant of Vancouver’s affordability crisis and driven by the city’s legacy of sustainable initiatives, in 2006 former Mayor Sam Sullivan proposed EcoDensity. The EcoDensity initiative is divided into a framing ‘Charter’ which outlines eight commitments to enhancing the three major tenets of sustainability, livability, and affordability and a series of phased ‘Initial Actions’ (see Appendix B and
C). In this context, sustainability is defined as the reduction of greenhouse gas emissions through increasing density and the promotion of livable and green design, mainly through reducing the reliance on automobiles and enhancing energy efficiency. Livability is characterized by an excellence in urban and architectural design which principally fosters neighbourhood vitality and resilience by providing an extensive breadth of amenities, various opportunities to engage and interact in open neighbourhood spaces, and choices for alternative modes of transportation. And lastly, affordability relates not only to the provision of affordable housing for low-income residents, but also the notion that a range of housing types and tenures will be provided (City of Vancouver, 2008d, p. 5).

EcoDensity is both broad and comprehensive, providing policies for both mega-developments and for projects down to the scale of single family residential homes. The initiative’s overarching priorities of sustainability, livability, and affordability explicitly acknowledge that “climate change, environmental stress, resource depletion, food security challenges and rising costs-of-living are seriously threatening Vancouver’s environment, economy, livability and long term sustainability” (City of Vancouver, 2008a, p. 3).

(3.3.) The EcoDensity Debate

While EcoDensity was unanimously passed by City Council in 2008, the initiative was protested by a number of groups. Much of the contestation revolved around increasing densities and housing affordability (Brown, 2008b). The principle tenet of EcoDensity emphasized increasing affordability through the creation of a more diverse, dense, and environmentally sustainable housing stock. In this regard, the EcoDensity initiative promoted the expansion of high-rise condominiums, mid-rise apartments, and infill housing in the form of secondary suites or laneway houses, where applicable (City of Vancouver, 2008d). Moreover, depending on the size of the project, developers must build, at minimum, in accordance to LEED Silver in the New Construction program standards (this requirement has been upgraded to LEED Gold as of July 2010).

Proponents of EcoDensity argued that increasing housing diversity and supply would mitigate Vancouver’s housing affordability crisis through cost savings from density effects and energy savings from sustainable building codes (Brown, 2008b, p. 5; City of Vancouver, 2008d). In addition, sustainable living through densification and green building regulations were necessary to reduce Vancouver’s oversized
ecological footprint (City of Vancouver, 2008a). Furthermore, Vancouver’s low vacancy rates signalled that the current growth rate of housing units could not sufficiently accommodate projected demands. In 2007, Vancouver’s estimated population was 611,869, with initial projections suggesting that the city’s housing market could handle the projected population growth to 635,000 by 2031 (BC Statistics, 2007). However, more recent projections have indicated that Vancouver would reach a population of 656,000 by 2021, and 685,000 by 2031—indicating that there will be a supply shortfall, and additional housing capacity will be required to accommodate the projected growth (Brown, 2008b, 14). These justifications for EcoDensity were predominantly advocated by the municipal government, effectively suggesting that EcoDensity embodies the ‘new sustainability fix’ by neutralizing environmental opposition, while promoting social welfare through improving affordability, and facilitating economic growth through the production of new housing stock.

The protests by community groups suggested that EcoDensity failed to legitimately address affordability (Brown, 2008b, p. 13). And indeed, the EcoDensity initiative contains no new provisions to increase non-market housing. Currently, non-market housing in Vancouver is capped at 8.5 percent of the total housing stock, equating to roughly 23,000 units (City of Vancouver, 2008c). Additionally, while Vancouver has an inclusionary zoning policy that requires developers of large projects to set aside twenty percent of units for non-market housing, the financing for these units comes from the city’s ‘affordable housing fund,’ which is subsidized by the provincial and federal governments. Interviews conducted for one study with local planning officials confirmed that the city had no intention to either review the 8.5 percent non-market housing cap, or subsume the provincial and federal responsibility of funding non-market units within the EcoDensity initiative (Brown, 2008b, p. 12-13). Moreover, the interviews indicated that “when the City is trying to add another item to the agenda, the other amenities extracted may have to adjust accordingly,” so while “the City would like to increase the amount of affordable housing that gets created, [it] is constrained because the City will also be increasing green building requirements” (Brown, 2008a, 12). This quote suggests that equity tradeoffs were necessary to better secure sustainability goals.

(3.4.) Political Context of EcoDensity and Sustainable Development

The local municipality’s budding interest in planning for sustainable development is rooted in the twentieth century municipal politics of Vancouver. The Non-Partisan Association (NPA), a municipal
party, shaped and dominated much of Vancouver’s local political landscape. Governing the city from 1937 to 1972, 1986 to 2002, then again from 2005 to 2008, the NPA “[was] bred from the city’s business and social elite,” favouring Harvey’s mode of entrepreneurial urban governance over all else (Gill, 2011, p. 11; Harvey, 1989). The city’s local politics was also influenced by The Electors Action Movement (TEAM), which succeeded the NPA from 1972 to 1986. TEAM instilled a sense of civic responsibility through a strong philosophy for neighbourhood planning, effectively augmenting public participation in local planning culture (Punter, 2004). Today, Vancouver’s City Council is led by Vision Vancouver, a party founded on the platform of neo-liberal economics, social progressivism, and a strong sustainability agenda.

While EcoDensity was pioneered and passed by Mayor Sam Sullivan and the NPA in 2008, the chief architect of the initiative was then-director of Vancouver’s Planning Department, Brent Toderian. Appointed as the city’s planning director by Sullivan in 2006, Toderian was charged with crafting and implementing EcoDensity. Through an intense and unprecedented period of public review, private consultation, and council meetings, Toderian directed the design EcoDensity Charter’s final draft which was unanimously approved by City Council in June 2008, much to the dismay of the public. With forthcoming municipal elections in November 2008, and with Sullivan’s popularity on a steep decline, internal conflicts erupted within the NPA culminating with Sullivan losing his candidacy for re-election. The 2008 municipal election results largely reflected the anti-NPA and anti-EcoDensity public sentiment. Specifically, the NPA lost the Mayorship and all but one Council seat; conversely, Vision Vancouver under a newly elected Mayor Gregor Robertson secured eight out of eleven Council seats, forming a new majority municipal government.

Following Vision’s victory, Mayor Robertson commissioned the “Greenest City Action Team” in February 2009. It was tasked with researching local strategies and practices to make Vancouver the world’s “Greenest City.” In July 2011, City Council approved the “Greenest City 2020 Action Plan” (GCAP), a comprehensive strategy report which sets concrete targets and strategies to meet these goals in an effort to reduce Vancouver’s ecological footprint (City of Vancouver, 2012, p. 5). Within GCAP, 10 goals span a variety of categories, ranging from food security to green economies to green buildings (see Appendix D). Politically, GCAP represented a less-diplomatically perilous replacement to Sullivan’s EcoDensity. While EcoDensity is no longer the prevailing framework under which sustainable development is dictated, much of the initiative’s principles and tenets have either been passed by City
Council in 2008 or subsumed under the more ambitious GCAP. As such, at its core, the municipal politics of Vancouver have historically been driven by a market ideology of ecological awareness, economic development, and civic engagement.

**Section 4: Research Design and Methodology**

This thesis seeks to contribute to the growing discourse in urban political ecology through a focused study of Vancouver, British Columbia. The research design explores the questions of how urban political ecologies are produced and maintained within Vancouver, what distributional conflicts result from this, and how planners might seek to rectify these inequities. As such, this study systematically compares existing and emerging developments in regards to the EcoDensity initiative.

The two case studies that were analyzed are the Olympic Village located in Southeast False Creek and the Cambie Corridor Plan (see Figure 1). These case studies illustrate to what extent newer developments have adopted the principles outlined in EcoDensity. These two developments represent two of the most recent and largest projects since the passage of EcoDensity. The Southeast False Creek development was completed in 2010, while parts of the Cambie Corridor Plan is slated to begin construction in late 2012. Nonetheless, two out of the three phases for the latter project have already been approved by City Council and a detailed comprehensive plan for the project was recently released. Through a comparison of EcoDensity criteria and property assessment values across these two projects, this study will expound on the similarities and differences in their produced and projected urban environments and natures.

After being granted IRB approval\(^1\), this study used a range of criteria selected from the EcoDensity Charter principles as a baseline against which the case studies were compared. These criteria include: (1) relative increases in density, (2) types of densities that are produced (e.g. high rises, mid-rises, low-rises, and ‘hidden’ forms of densities such as laneway houses), (3) the inclusion of sustainable design and construction features, (4) presence of sustainable district energy systems, (5) promotion of a sustainable transportation strategy, (6) measures taken to enhance the public realm (streetscape design, public spaces), (7) measures to taken to enhance affordability, and (8) the extent of neighbourhood

---

\(^1\) The Institutional Review Board (IRB) of Columbia University is charged with overseeing the conduct of research dealing with human subjects. IRB approval is granted only if the research is conducted ethically and that participants are protected according to institutional policy, along with state and federal regulations.
participation in the planning process. Second, data were obtained from British Columbia Assessment Authority\(^2\) (BC Assessment) with respect to property assessment values in 2011 and 2012. Specifically, for both case studies, property assessment value changes from 2011 to 2012 relative to average citywide property assessment value changes were analyzed and illustrated through a series of maps.

The data for the two case studies were gathered predominantly through policy and document analyses, BC Assessment property assessment reports, and open-ended semi-structured interviews. A total of six interviews were conducted, including: former Mayor Sam Sullivan, three city planners (Matthew Roddis, Michelle McGuire, and Thor Kuhlmann), a prominent Vancouver architect (Peter Busby), and the spokesperson and member of the city’s largest anti-EcoDensity community group (Mel Lehan). All interviewees were part of a semi-structured interview which inquired about their professional role in the EcoDensity approval process, and their knowledge or experience with either of the case studies (see Appendix A).

**Figure 1 - Case Study Areas**

Through an assessment of both projects and a synthesis of the interviewee’s experiences and opinions, a narrative with respect to the dynamics and distributions of power in the maintenance of Vancouver’s urban political ecologies was performed. This narrative aimed to develop a framework

---

\(^2\) The British Columbia Assessment Authority is a publically owned corporation charged with assessing all property values for the City of Vancouver. These values are then used to calculate property taxes collected by the provincial and municipal governments.
which links urban environmental governance to socially inequitable forms of sustainable urban
development. By means of this undertaking, the substantive issues of environmental justice, social
equity, and power are critically examined. An attempt to engage urban change and activism is provided
through a series of pertinent policy recommendations and planning interventions which support an
active movement towards an ethic of environmental justice and social inclusion in urban political
ecology.

Section 5: Case Studies – Southeast False Creek and Cambie Corridor

(5.1.) Southeast False Creek (Olympic Village)

By the early twenty-first century, Southeast False Creek (SEFC) remained as one of the last
vestiges of Vancouver’s industrial legacy. The city began planning for the site’s reclamation and
redevelopment beginning with the adoption of a SEFC policy statement in 1999 which highlighted
the vision of SEFC as being a “model sustainable development based on environmental, social, and
economic principles” (City of Vancouver, 2007a). In 2005, the city issued a request for proposal for the
development of the site, and by 2006, Millennium Development was declared the winner. By 2007, the
same year that the EcoDensity initiative was launched, an official development plan for the site had been
approved by an NPA-led City Council. The development was completed in the summer of 2009 (see
Image 1).

Image 1 - Completed Olympic Village

The development plan divided the site into a series of sections, primarily based on public or
private landownership (see Figure 2). The Olympic Village, located in 2A, was envisioned as the capstone
of the development, which would later become home to the Olympic Winter athletes in 2010. The principles of the development plan were applied uniformly across all areas.

While the development plan was not drafted under the mandates of EcoDensity, its conception was guided by the simultaneous crafting of the EcoDensity Charter. From its conception, this project was intended to become a showcase of sustainable development through strict adherence to Leadership in Energy and Environmental Design (LEED) standards\(^3\). Consequently, City Council adopted a Green Building Strategy for SEFC’s official development plan area in 2004. This Green Building Strategy served as an overarching policy for all medium and high density buildings, regardless of land use (City of Vancouver, 2008e, p. 1). Specifically, it provided a baseline for sustainable building standards, requiring all structures built on public lands to satisfy LEED Silver accreditation at minimum, but nevertheless strive for LEED Gold accreditation. At the development’s culmination, all but one building within the Olympic Village achieved LEED Gold accreditation, with that building awarded a coveted LEED Platinum rating for being a net-zero-energy building.

Figure 2 - SEFC Site Divisions (http://vancouver.ca/commsvcs/southeast/ownership.htm)

In addition to requiring LEED Silver compliance, the Green Building Strategy also mandated specific compliance to otherwise optional features in each of LEED’s five evaluation categories, as

---

\(^3\) LEED represents one of North America’s third-party rating systems for green buildings. The program awards points for compliance in five categories of sustainability: (1) sustainable sites, (2) water efficiency, (3) energy and atmosphere, (4) materials and resources, and (5) indoor environmental quality (US Green Building Council, 2011, p. vi-vii). Depending on the number of points a building acquires, it becomes LEED accredited in one of four ranks, which in ascending order are: (1) Certified, (2) Silver, (3) Gold, and (4) Platinum.
well as green design elements not mentioned in LEED. One of the most stringent mandates required all buildings within the Olympic Village to integrate into a neighbourhood energy utility. Previously unexplored policy for Vancouver, SEFC’s neighbourhood energy utility would become the city’s first district energy systems which heated buildings and water through sewer heat recovery. Specifically, heat would be captured from sanitary sewer lines (e.g. water from showers, dishwasher discharge), and through a series of sewer and heat pump systems, redistributed back into the energy grid in the form of steam which would be subsequently used to provide heat for buildings and heat hot water (Lee, 2010). Additional green performance features included optimal solar orientation of buildings, design conducive to cross ventilation of buildings, retention of storm water for on-site landscape irrigation, sites reserved for community-based edible agriculture, and the inclusion of green roofs for over 50 percent of the development (City of Vancouver, 2007b). Indeed, much of SEFC’s Green Building Strategy shared similar components to the EcoDensity Charter and EcoDensity’s mandates for high performance green buildings, particularly the mandate for specific LEED compliance and the development of district energy systems outlined in Initial Actions A-1 and A-2.4

Density also played an integral role in SEFC’s development. Analogous to the principles of EcoDensity, SEFC’s official development plan used density as a vehicle to deliver an integrated, compact, and mixed-use community. The project’s net floor space ratio, a measure equivalent to floor area ratio, sits at a dense 3.5, a figured supported by an assemblage of mid and high rise typologies reaching 24 stories at its height (see Figure 3). While high density is not a peculiarity for downtown Vancouver, density at these levels is a novelty outside of the downtown core. Consequently, this issue of introducing an increasingly compact form of living outside of the central city became a point of concern for community members who were resistant to witnessing the spread of ‘Vancouverism’5 outside the downtown peninsula. This urban form was hitherto prevalent and virtually exclusive to downtown Vancouver, but its acclaim as a successful style of design which provided high densities, facilitated mixed

---

4 Action A-1, entitled ‘Rezoning Policy for Greener Buildings,’ requires that all new buildings constructed as part of a rezoning meet LEED Silver accreditation, this mandate has since been upgraded to LEED Gold. Furthermore, Action A-1 also mandates a baseline of points to be met in the categories of energy performance and water efficiency. Action A-2 obliges developers of sites greater than two acres to not only meet the standards set forth in Action A-1, but to also satisfy additional green performance features. Specifically, this includes the design and implementation of a district energy system, a ‘sustainable transportation demand management strategy,’ a rainwater recapture and reuse system, a solid waste diversion strategy, and passive design considerations to replicate natural systems (City of Vancouver, 2008b, p. 2-6).

5 The term ‘Vancouverism’ was coined by urbanists and architects to characterize the widespread form of tall and slim glass curtain-wall towers resting atop of, and set back from a podium base (Bogdanowicz, 2006, p. 23).
uses, activated the streetscape, and preserved striking view corridors quickly became the norm for many new developments across the city. Cognisant of increasing community opposition to this style of growth, Brent Toderian, then-director of city planning, negotiated for a new four to ten story mid-rise typology to be applied as the dominant urban form in Southeast False Creek. Toderian believed that a mid-rise typology had the potential to be as sustainable, and likely more affordable and acceptable to a “public, who tends to be more negative to height than they are to density” (Villagomez, 2011). Perhaps not so coincidentally, one of the EcoDensity Charter objectives committed the city to explore alternative housing types, using “density, design and land use strategically to support and facilitate greater housing affordability” (City of Vancouver, 2008a, p. 5). Nevertheless, while this new mid-rise typology would be the prevailing urban form along the waterfront, high rise buildings were still permitted further inland so as to produce an overall aesthetic that reified the notion of False Creek as a “basin” (City of Vancouver 2007b, p. 7).

Figure 3 - SEFC Building Heights (City of Vancouver, 2007b, p. 44)

This mid-rise typology also offered feasible options for transportation networks and public realm enhancements which would have been equally practical under a high rise podium-point tower design. SEFC’s official development plan enshrined priority movement for pedestrians, bicyclists, and forms of mass transit over the personal automobile. Effectively an attempt at reducing the city’s ecological footprint through curbing greenhouse gas emissions from vehicular travel, an integrated transportation network which facilitated pedestrian movement and linkages, implemented a series
of bicycle lanes, minimized driveways, and envisioned a streetcar system was approved by City Council. The development’s public realm enhancements largely complemented this transportation network. Specifically, with over 25 acres of parks and open space spread throughout the development, these spaces are intended to reinforce pedestrian movement and linkages. Moreover, an activated, pedestrian-oriented waterfront along False Creek, coupled with intricately ornamented sidewalks, promoted an environment conducive to animated pedestrian activity.

SEFC’s comprehensive vision and official development plan, while crafted predominantly by city planners, solicited input through a series of public consultations beginning in 2004. These public consultations allowed the city to present ongoing changes to SEFC’s official development plan, while gathering feedback and suggestions from community members. In February and October of 2004, six similar survey questions were posed to the attendees of a public consultation meeting. The results showed relatively strong public support for the official development plan (see Figures 4 and 5).

The official development plan also highlighted the need to attract a diverse social mix, especially in terms of income. As such, affordable housing became mandated for at least 20 percent of the units in areas 1A, 2A, and 3A. However, since the project’s completion, City Council announced that only 10 percent of all units would be dedicated towards social housing, while the remaining 10 percent would be designated ‘core need’ housing, which essentially allocated the units at market rate to essential municipal service workers, such as police, fire, and medical staff (CBC, 2010a). Moreover, the city failed to contract out the operations of both social and core need housing, leaving these much needed units vacant following the project’s completion (CBC, 2010b). The reneging of the original 20 percent of units dedicated purely to social housing was attributed by the city to cost overruns and budget shortfalls. Specifically, the SEFC development has been plagued with financial woes since the economic collapse of 2008. As a result of anticipated cost overruns, the project’s main investor terminated the construction loan, leaving an already financially encumbered city to cover the remaining costs of construction (Donville, 2009).
**Figure 4 – SEFC February 2006 Public Consultation Results** (City of Vancouver, 2004a, 2004b)

<table>
<thead>
<tr>
<th>February 2006 (sample size: 64)</th>
<th>Yes</th>
<th>No</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you support the “New Base Case Sustainability Package” proposed for the SEFC ODP?</td>
<td>58%</td>
<td>19%</td>
<td>24%</td>
</tr>
<tr>
<td>Do you support the Revised ODP waterfront proposals?</td>
<td>68%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Do you support the Revised ODP development parcel pattern?</td>
<td>77%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Do you support the Revised ODP park location?</td>
<td>67%</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Do you support the Revised Proposal’s approach to remembering the history of the site?</td>
<td>72%</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>Considering the above, do you support the overall ODP concept design for the SEFC Public Lands?</td>
<td>54%</td>
<td>22%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Figure 5 – SEFC October 2006 Public Consultation Results** (City of Vancouver, 2004c)

<table>
<thead>
<tr>
<th>October 2006 (sample size: 94)</th>
<th>Yes</th>
<th>No</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you support the sustainability directions proposed for the SEFC ODP (see: Sustainability Boards)?</td>
<td>85%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Do you support the Revised ODP waterfront proposals?</td>
<td>85%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Do you support the ODP development form proposed for SEFC Public Lands?</td>
<td>73%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Do you support the Revised ODP park locations?</td>
<td>78%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Do you support the Revised Proposal’s approach to remembering the history of the site?</td>
<td>82%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Do you support the overall ODP concept design for the SEFC Public Lands?</td>
<td>74%</td>
<td>16%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Despite not being drafted directly under the purview of EcoDensity, SEFC’s official development plan largely mirrors the eight commitments in the EcoDensity Charter (see Appendix B). The project prioritizes environmental sustainability through a tactical implementation of density, design, and mixed use development. Moreover the city’s attempts at providing alternative forms of densities and housing choices are accomplished through an inclusion of a new mid-rise typology coupled with a traditional high rise ‘Vancouverism’ urban form at the peripheries of the Olympic Village. Indeed, the project strives towards an ‘eco-city’ through a synergetic approach with respect to the creation of a district energy system, sustainable transportation strategy, and a pedestrian-oriented public realm. However, while measures taken to include social housing were initially part of the official development plan, this element has since been largely forsaken. Specifically, as a result of financial setbacks, the city has since reneged on the initial guarantee of 20 percent social housing and 80 percent market rate housing,
and has done little to address the lost social housing units. Thus, while initial public support for SEFC’s development was largely positive, City Council has subsequently been confronted with growing dissent.

(5.2.) Cambie Corridor

The Cambie Corridor Plan was a strategic planning exercise that transcended the boundaries of several neighbourhoods outside of the downtown core (see Figure 6). Initiated by Vancouver’s Planning Department in 2009, and spearheaded by Brent Toderian, the Cambie Corridor Plan sought to capitalize on the newly built transit infrastructure for the 2010 Winter Olympics. Specifically, the Canada Line, a 19 kilometre (12 mile) rapid skytrain system, opened in 2009 servicing Vancouver, Vancouver International Airport, and the suburb of Richmond, while connecting riders to existing rapid transit systems throughout the city. In Vancouver, the Canada Line runs subgrade under Cambie Street, a north/south main arterial corridor. With four existing, and two prospective station terminals along the Cambie Corridor, the plan sought to tactically re-vision and densify the area through a series major upzonings. The planning process for this project is divided into three phases. Phase one, which was passed by City Council in January 2010, envisioned the principles and priorities for this project, essentially manifesting EcoDensity and Greenest City 2020 Action Plan goals into practice. A series of “sustainable neighbourhoods and inclusive, affordable, mixed use communities supported by a sustainable and diverse economy” became the core vision of the plan (City of Vancouver, 2011). Phase two sought to develop a focused strategic plan for core areas directly adjacent to the Cambie Corridor, culminating with the approval of a comprehensive Cambie Corridor Plan by City Council in May 2011. Phase three is currently in development, and endeavours to develop land use policies for ‘transit-influenced’ areas on the peripheries of the Cambie Corridor (City of Vancouver, 2011, p. 11).

Similar to the SEFC Official Development Plan, the Cambie Corridor Plan is largely defined by its dedication to lowering the city’s ecological footprint through densification and sustainable construction. A vast majority of properties along the Cambie Corridor are privately owned, thus, applications for redevelopment would be subject to EcoDensity Initial Actions A-1 and A-2 (see footnote 4, above), passed by City Council in 2008.

The emphasis on sustainable systems, whether energy, water, transportation, or waste is apparent throughout the EcoDensity Initial Action mandates. Indeed, this principle is inherently and directly illustrated within the Cambie Corridor Plan. On a conceptual level, while the project
spans across multiple neighbourhoods and multiple transit nodes (see Figure 6), the plan itself was an exercise in multi-scalar planning—specifically, transitioning away from a traditional neighbourhood by neighbourhood plan towards one which embraced the corridor as a networked system, while still respecting individual neighbourhood character. More directly, the Cambie Corridor Plan dedicated two chapters to seven urban systems: (1) movement, (2) habitat, (3) connections, (4) streets and lanes, (5) public places, (6) parks and green space, and (7) district energy. The plan provides a comprehensive vision for each of these urban systems, along with maps of site-specific improvement proposals, and strategic policy directions. Furthermore, the first six urban systems are envisioned to synergistically feed off one another as part of a greater strategy to enhance the public realm.

While the Cambie Corridor Plan was drafted under the purview of the Greenest City 2020 Action Plan, its tenets were equally guided by the EcoDensity Charter. Specifically, the plan’s urban systems worked to synergistically realize multiple commitments outlined in the Charter. For example, the plan’s movement system strived to prioritize and facilitate travel by foot, bicycling, or transit by enhancing pedestrian streetscapes with wider sidewalks, additional bike racks, vegetation,
furniture, and renovated streetlights. Moreover, new bikeways and greenways were proposed along the Cambie Corridor to provide linkages to existing routes.

Individual neighbourhood character and identities were protected against the plan’s devotion towards an integrated corridor of sustainable systems by engaging with each of the five neighbourhoods. Throughout phases one and two of the project, the city brought together local residents, businesses, neighbourhood groups, developers, experts, and academics to facilitate discussion and generate ideas for the plan. During the first phase, the Planning Department held two corridor-wide public workshops in September and October 2009. Based on the feedback and suggestions from these two workshops, a revised draft of the corridor’s key priorities was presented in a third workshop in November 2009 for further public review and comment. In phase two, public workshops fell under the categories of either corridor-wide meetings or core area group meetings. The core area groups were delineated into three regions which represented all five neighbourhoods that lined the corridor. Effectively, the public workshops in phase one solidified a corridor-wide vision, while the public workshops in phase two afforded the opportunity to synthesize individual neighbourhood visions with the Cambie Corridor Plan’s key priorities. Overall, the sentiments from the series of public workshops largely supported the plan’s key priorities of developing an environmentally, socially, and economically sustainable corridor. However, the greatest area of debate was around the notion of density. While residents were largely in support of increasing density around transit hubs, they were concerned that the proposed densities and heights were too high and would negatively impact the physical and socio-economic character of neighbourhoods (City of Vancouver, 2010).

Currently, the majority of properties along the Cambie Corridor are single family homes (see Image 2), with the exception of the brownfields of Marine Landing, and Oakridge Centre where a series of 12-22 story towers exist. The proposed heights are predominately four to eight story mid-rises, with ten to twelve story high-rises around Oakridge Centre (see Figure 7). While Figure 7 illustrates Marine Landing to be 6-8 stories, a more detailed examination into the plan reveals proposals for five residential and one commercial high-rise towers ranging from 230-355ft, resulting in potential tower heights of approximately 36 stories (City of Vancouver, 2011, p.62-64). Nonetheless, the majority of these upzonings respond to the existing built forms of each neighbourhood as well as proximity to the Canada Line transit stations. The plan’s adherence to a predominantly mid-rise typology marks a significant shift away from the podium and high-rise point tower form which has generally pervaded new developments.
in the city. Indeed, the Cambie Corridor Plan sought to adopt and further develop mid-rise densification as a means to provide additional housing choices for different levels of affordability, similar to what was attempted in the Olympic Village.

Despite using the mid-rise typology to provide a more diverse and affordable housing stock for the city, the Cambie Corridor Plan does not provide additional mandates for producing non-market housing units other than what is already applicable via existing city policy\textsuperscript{6}. However, whether or not these non-market units are allocated to low-income individuals or whether they are designated as ‘core need’ units is not prescribed, but is arbitrated by the availability of the city’s affordable housing fund (City of Vancouver, 2011, p. 116). However, the Cambie Corridor Plan does require 20 percent of housing units located in target rental areas to be market rental units—these units are largely east/west properties directly along Cambie Street.

\textbf{Image 2 - Cambie Corridor, Single Family Homes} (City of Vancouver, 2011, Cover Page)

To a large extent, the Cambie Corridor Plan aligns precisely to the eight priorities of the EcoDensity Charter (see Appendix B). First and foremost, the Corridor-wide upzoning uses density as

\textsuperscript{6}Since 1988, existing city policy requires large sites with a residential component (generally over two acres) undergoing rezoning to provide a 20\% non-market housing component.
Figure 7 – Cambie Corridor Proposed Heights and Land Use (City of Vancouver, 2011, p. 24-25)

Numbers represent proposed building heights
a vehicle to drive sustainable urban development. The increased densities not only reduce the city’s overall ecological footprint, but also afford the opportunity for a new midrise typology to develop, effectively increasing and diversifying the city’s housing stock. Moreover, new developments along the Cambie Corridor would be subject to EcoDensity Initial Actions A-1 and A-2, guaranteeing a strong baseline for green construction and design. Second, the plan observes a systems-based planning approach, developing a network of urban systems ranging from movement and transportation to district energy. Collectively, these systems deliver an increasingly sustainable and livable public realm and infrastructure for the populations they serve. Third, community and neighbourhood engagement in the planning process is respected through consistent public workshops throughout all phases of the plan. However, while affordability is addressed through an increase and diversification in housing stock and a 20 percent target rental area approach, little is done to ensure the provision of affordable housing units for low-income individuals and families.

Section 6: Narrative
(6.1.) Urban Political Ecologies of Vancouver

The urban political ecologies of a place are predominantly defined by how urban natures and urban environments are transformed as a result of political, economic, and social processes. The acknowledgement that the cities are, by and large, transformed by socio-ecological processes suggests that cities are organic bodies capable of bio-chemical reactions. These reactions are reflected in the production and transformation of urban natures through the notion of urban metabolism. Just as how cells of living organisms metabolize substances to maintain their configurations and grow, cities metabolize influxes of political, economic, and social influences into its urban natures and landscapes. Effectively, urban metabolism transforms urban natures into unique assemblages which reflect dominant positions of social power. In Vancouver, these assemblages are reified in its regional plans and real estate developments.

Since the early twentieth century, the city’s municipal politics have predominantly favoured an entrepreneurial approach to urban governance. Specifically, the ascendency and reign of the Non-Partisan Association (NPA), a municipal party propagated by the city’s cadre of business and social elites, from 1937 to 1972 and again from 1986 up until 2008 entrenched Vancouver’s admission into a competitive global economy. This global economy, specifically following the fiscal crises faced by many
Western cities in 1970s, became dominated by a neo-liberal ideology (Gleeson and Low, 2000, p. 15). Neo-liberalism is interminably betrothed to the free market, capitulating to the notions of deregulation and privatization as the panacea to economic woes. Equally important, however, is the idea that while states must purge themselves from correcting market failures, they must provide the strong regulatory frameworks to defer to and legitimize the market in urban governance. As such, many domains of civil institutions (e.g. City Council and the Planning Department) become complicit in the neo-liberal political economy.

In effect, as Vancouver’s corporatist post-industrial economy was superseded by a robust residential and real estate industry in the 1980s, the Planning Department, under the directive of the municipal government, began drafting policies to enhance sustainable urban growth. By 2008, the city’s political engine had incorporated ecological, economic, and social concerns associated with growth into a single unprecedented initiative, EcoDensity. At its core, the initiative primarily sought to reduce the city’s ecological consumption patterns through densification and green design. Strategically, however, EcoDensity capitalized on the cachet of the modern environmental movement, LEED accreditation, Vancouverism, and New Urbanist planning principles as magnets for attracting additional growth and development into the city. This phenomenon, also termed the ‘new sustainability fix,’ imbues the neo-liberal market ideology with ecological modernization in order to “[refine] markets and regulatory frameworks to better reflect ecological priorities” (Gleeson and Low, 2000, p. 5; Blowers, 1993; While, Jonas, and Gibbs, 2004).

Thus, the metabolizing of a neo-liberal political economy and ecological modernization has accordingly (re)shaped Vancouver’s urban natures and urban environments, especially with respect to real estate development. This transformation is largely enforced by new public policies like EcoDensity, whereby the state has intervened to bolster a burgeoning green market through facilitating, and in some instances, obligating public and private consumption of green enterprise. Accordingly, the eight commitments outlined in the EcoDensity Charter, coupled with the EcoDensity Initial Actions not only shape new developments throughout the city to align with an entrepreneurial public policy, but more importantly, produce and maintain inequitable urban environments which reflect unequal configurations of social power.

The Olympic Village and the Cambie Corridor Plan epitomize this phenomenon through extensive adherence to the EcoDensity Charter in their urban form, and through disproportionate
changes in their assessed property values relative to the rest of the city. Data acquired from the BC Assessment indicated that average citywide assessed property values, accounting only for land values, increased by roughly 17 percent between 2011 and 2012 (Vancouver Open Data Catalog). Comparatively, the Cambie Corridor and the Olympic Village experienced an increase of 50 percent and 15 percent in assessed land values, respectively, for the same years (see Figure 8).

Figure 8 – Assessed Land Value Changes, 2011-2012

The figure above also indicates that land values for the five neighbourhoods within the Cambie Corridor faced disparate degrees of growth, ranging from 19 percent to 75 percent. In addition, a more nuanced parcel-by-parcel analysis illustrates that specific areas within neighbourhoods experienced a spike in land values above the citywide average, while other areas appeared to grow below the citywide average (see Figures 9 through 15).
Average citywide property assessment values increased 17% from 2011 to 2012.
Figure 10 – Property Assessment Changes (2011-2012), Cambie Corridor Overview

Average citywide property assessment values increased 17% from 2011 to 2012.
Figure 11 – Property Assessment Changes (2011-2012), Cambie Corridor: Cambie Village

Average citywide property assessment values increased 17% from 2011 to 2012.
Average citywide property assessment values increased 17% from 2011 to 2012.
Figure 13 – Property Assessment Changes (2011-2012), Cambie Corridor: Oakridge Town Centre

Average citywide property assessment values increased 17% from 2011 to 2012.
Figure 14 – Property Assessment Changes (2011-2012), Cambie Corridor: Langara

<table>
<thead>
<tr>
<th></th>
<th>No Data</th>
<th>&lt; 0 %</th>
<th>0 to 17%</th>
<th>&gt; 17%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td></td>
<td>Above Average</td>
<td></td>
</tr>
</tbody>
</table>

Average citywide property assessment values increased 17% from 2011 to 2012.

The map shows the property assessment changes along Cambie Street from W48th Ave to W64th Ave, with areas shaded in different colors to indicate above and below average assessment values.
Figure 15 – Property Assessment Changes (2011-2012), Cambie Corridor: Marine Landing

Average citywide property assessment values increased 17% from 2011 to 2012.

The diagram shows the assessment changes with the following color coding:
- No Data
- < 0%
- 0 to 17%
- > 17%

The streets marked are:
- Cambie Street
- Ash St
- Yukon St
- West Kent Ave N
- SW Marine Dr
- W64th Ave
- W65th Ave

The percentages indicate the average citywide property assessment changes:
- 48%
- 26%
- 26%
It is evident that as of 2012, assessed land values for properties within the Cambie Corridor have disproportionately increased in relation to the citywide average. Specifically, the land values of 266 out of the 321 sample properties along the corridor have increased over 17 percent in value between 2011 and 2012. While the same cannot be said of the Olympic Village, where the land values for the majority of its properties have not risen above the citywide average, this analysis does not tell the entire story.

There are several critical distinctions which must be made between these two projects. First, the Olympic Village was predominantly city-owned property which was masterplanned by the city down to the very minutiae of architectural and urban design. Second, the Olympic Village was the city's first full-fledged attempt at redeveloping a neighbourhood in adherence to a mid-rise typology. And third, due to the necessity to synchronize the completion of the project with the arrival of the 2010 Winter Olympics, nominal value engineering was taken into consideration (Roddis, 2011). The stringent design standards and the lack of experience in constructing mid-rises coupled with the pressure to complete the project according to a fixed deadline put the development in a severe state of financial distress. Consequently, consistent cost overruns and the looming 2008 financial crisis pressured the development’s main investor to drop out midway, leaving an economically enervated city to finance the remainder of the project. Almost a year after the end of the 2010 Winter Olympics, the project’s development firm managed to sell fewer than half of the 737 market-rate units, with the price of an average condo hovering around one million Canadian dollars (Baker, 2011). Consequently, the development firm defaulted on its $750 million worth of payments to the city and was placed into receivership. Ensnared by outstanding public debt, the city reneged on part of its initial agreement to dedicating 20 percent of the total units to housing low-income individuals, and began slashing prices of market-rate units by 30 to 50 percent (CBC, 2011).

On the contrary, the Cambie Corridor Plan is a comprehensive re-zoning and re-visioning of entirely privately owned properties. The corridor’s rapid ascendency to becoming one of the most financially valued areas is a testament to the metabolizing of a neo-liberal political economy and ecological modernization. Specifically, shaped by the principles of EcoDensity, the Cambie Corridor is an exemplar of how Vancouver’s urban natures and environments are transformed by socio-ecological processes. Moreover, the public and private negotiations which take place throughout this process highlight the unequal configurations of social power. Much of the negotiations which occurred throughout Cambie Corridor Plan are reflective of the general parameters of negotiations for
citywide real estate development. Because Vancouver has one of the most robust real estate markets in North America, City Council and the Planning Department have tremendous power in development negotiations (McGuire, 2011). Prior to the passage of EcoDensity, large developments which required rezoning in the city were generally negotiated on a case-by-case basis, with few requirements other than conforming with the design principles of Vancouverism, and providing 20% of new units to core need housing. Presently, under Initial Actions A-1 and A-2 of EcoDensity, all large developments which require rezoning must not only build to the standards of LEED Gold, but also commit to exploring district energy systems, providing rainwater management systems, delivering solid waste diversion strategies, preparing sustainable transportation demand strategies, in addition to concomitant exactions to fulfill the EcoDensity Charter and the Greenest City 2020 Action Plan goals. Effectively, the city uses EcoDensity as a strong regulatory tool to sustain and enforce the twin industries of development and green enterprise under the purview of the free market.

The neo-liberal tenet that the role of the state is not to centrally plan, but rather to intervene through the development of firm governmental frameworks to facilitate reliance on the market is further emphasized in an interview with former Mayor Sam Sullivan, the pioneer of EcoDensity. Sullivan offered an anecdote where a senior Councilman staunchly advised against the inclusion of the word ‘density’ within the initiative’s name, warning him, “a name like that won’t get you re-elected” (Sullivan, 2011). He did not win another term of mayorship. However, Sullivan claimed that despite vocal public opposition to the EcoDensity Initiative, he believed his role was emphatically to proclaim and inure the notion of density in the city’s political landscape. For him, increasing density not only made sense ecologically, but also advanced the city’s competitive advantage through attracting growth and development.

Thor Kuhlmann, an urban planner in Vancouver’s Planning Department, agreed that EcoDensity was a “strategic failure” (Kuhlmann, 2011). His emphasis on strategic referred to the notion that while EcoDensity failed to garner public support as a policy and brand strategy, it tactically prepared the public and private sectors to not only adapt for density, but also for ecological modernization. While the latter is familiar to Vancouver’s development industry, where new developments are often marketed under the cachet of being environmentally friendly, EcoDensity introduced and mandated increasingly rigorous forms of green design and construction. Thus, district energy systems, enhanced building envelopes, and mid-rise typologies, for example, became increasingly burdensome for developers as
the industry was not only inexperienced in these new forms, but it also increased soft and hard costs to each development project. The financial woes of the Olympic Village are often used as an example to illustrate how green design is costly and unaffordable. However, the Olympic Village failed as a development due an extraordinary situation where temporal pressures inhibited value engineering, and where spiralling cost overruns intersected with the 2008 financial crisis. Peter Busby, one of Vancouver’s leading green architects argues that the costs associated with LEED Gold accreditation are marginal, equating to a two to three percent premium on costs (Busby, 2011). While more advanced forms of green design, such as insulating the edges of concrete blocks to improve energy performance, or striving for LEED Platinum accreditation may cost up to seven to ten percent more for construction, Busby argues the benefits are worthy of the premium. From an ecological standpoint, increasingly innovative forms of green design which confront energy issues singlehandedly outperform buildings which have more basic green or ‘greenwashing’ features. From an economic perspective, high performance buildings are capable of reducing energy consumption by half, offsetting initially high premium on costs almost dollar for dollar for the consumer (Bula, 2010). And from a developer’s position, high performance buildings not only provide a valuable brand strategy, but also result in greater returns through capitalizing on a higher price premium from the market.

(6.2.) Stratified Urban Landscapes

While EcoDensity plays a critical role in reducing Vancouver’s ecological footprint, both the public and private sectors have been engrossed in capitalizing on the initiative’s pro-growth approach. Buttressed by a neo-liberal adherence to market environmentalism, the rate of property value increases have increased far beyond the assessed citywide averages, with condos in the Olympic Village initially averaging one million dollars per suite and properties along the Cambie Corridor increasing an average of 50 percent in value within a one year period. Given this, and because the majority of properties along the Cambie Corridor are still held by individuals and households, land assemblage costs will be particularly high for new developments in the area. Furthermore, since demand for developable land in Vancouver is relatively inelastic, housing prices are largely dictated by market demand (Brown, 2008a, 21; Nelson et al., 2003, p. 33). In other words, because EcoDensity and the Greenest City 2020

---

Greenwashing advertises and markets a product’s green design features which have little or no bearing to reducing energy consumption.
Action Plan produces more livable communities, they become increasingly attractive for the market. Consequently, housing prices will become more costly to not only offset the increased land assemblage costs, but also to capitalize on enhanced livability and the prestige of green design.

The affordability of housing is further impacted as high assemblage costs coupled with a robust real estate market encourage developers to finance projects predominately through the sale of condos. Accordingly, while 52 percent of dwelling units in Vancouver are rental units, only 6 percent of all new development units since 2004 have been purpose-built rental (City of Vancouver, 2011, p. 115). Coupled with an extremely low vacancy that hovers between 0.9 to 1.2 percent for rental units, many middle income renters find it difficult to obtain housing within the city (City of Vancouver, n.d.). Moreover, while the city has a policy that dedicates 20 percent of all units in a new development to social housing, it relies heavily on provincial and federal government subsidies to finance those units—and as of 1993, this program has been substantially hamstrung when the federal government withdrew its financial contributions. Consequently, the burden for financing an 8.5 percent non-market housing stock target was subsumed by a financially beleaguered city. As of 2010, only 1,360 out of 3,457 non-market housing units in eleven major projects have been built, with the remainder stalled due to city’s depleted affordable housing fund. Moreover, the city has also begun scaling back the provision of affordable housing units for low-income individuals, as was the case in the Olympic Village development where an initial assurance of 20 percent of total units was effectively reduced to 10 percent.

To address the issue of a waning non-market housing program, the city legalized secondary suites and laneway houses in 2009 as part of EcoDensity’s strategy to diversify and increase the city’s housing stock. However, one study found that the legalization of laneway homes has been correlated with a rise in average city-wide property values (Gill, 2011). This is due to the fact that laneway homes provide a significant monthly income for owners. Thus, not only do property values for lots containing laneway homes increase, but also, property values for lots without laneway houses increase due to the capacity and potential to construct an additional dwelling structure (Gill, 2011, p. 3). Moreover, the rise in assessed property values results in increased property taxes. These increased taxes, coupled with new financing payments for the construction of laneway homes are not offset by the monthly rental income from the accessory units in some instances (Gill, 2011, p. 4). Thus, while existing homeowners

---

8 Secondary suites are rental units located within single and multi-family homes (e.g. livable basements).
9 Laneway houses are detached secondary rental suites constructed within existing single-family lots.
benefit from this initiative through reaping the rewards of their increased property values, prospective homeowners and renters may find it increasingly difficult to either purchase or rent homes, this is especially true of middle-to-low-income earners.

The city’s mandate for new developments to not only include high performance features, but also increasingly adopt a mid-rise typology has sundered its ability to negotiate for more exactions. For example, the Cambie Corridor Plan provides very few provisions for the creation of non-market units to house low-income individuals, but instead, requires that 20 percent of units along the bulk of the corridor to be purpose-built market rate rental. Michelle McGuire, a city planner working on the Cambie Corridor Plan, stated that this concession illustrates “the failures of own success,” eluding to the irony that Vancouver’s economic and ecological successes have diminished its ability to negotiate for the wellbeing of its poorest residents (McGuire, 2011). Mel Lehan, a vocal community activist against the EcoDensity Initiative not only agreed, but further argued that “EcoDensity is nothing more than a developer friendly document” (Lehan, 2011). Specifically, he argued that increases in density provided developers the opportunity to demolish existing secondary rental suites for the construction of unaffordable high-rise condominiums.

**Section 7: Conclusion and Recommendations**

Vancouver’s mission statement claims the need “to create a great city of communities which cares about its people, its environment and the opportunities to live, work and prosper” (City of Vancouver, 2008a, p. 1). This statement defines a literal commitment to the three principles of sustainable development: social, ecological, and economic. While there will always be a discursive and tangible tension between these principles, it has inherently been the state’s role to negotiate their balance. Urban political ecology is most concerned with how trade-offs and compromises between these three principles are dictated by social power relations. The problématique emerges as these social geometries of power are metabolized into socially stratified urban natures and landscapes, which is reified in Vancouver through the production of increasingly unaffordable neighbourhoods. This fundamental problem originates with the rise of a neo-liberal economy committed to the trinity of the free market, privatization, and deregulation. Under this philosophy, the state is fixated with regional competition for capital accumulation and growth through facilitating and legitimizing reliance on the market, often to the detriment of ecology. Thus, as a growing modern environmental movement
concerned with issues of environmental justice emerged, a shift to encapsulate ecological goals within the purview of a neo-liberal political economy occurred. Urban governance, consequently, became involved in regulating environmental quality not only to meet ecological goals, but to also create markets of green enterprise and subsequently enforce its consumption as a means to the goals of economic development.

The EcoDensity Initiative epitomizes this phenomenon. From an ecological standpoint, EcoDensity and the Greenest City 2020 Action Plan have the potential to reduce Vancouver’s ecological footprint substantially. The ability to curtail building energy consumption is critical as HVAC systems are the highest greenhouse gas contributors in Vancouver (City of Vancouver, 2011, p. 120). In addition, density done well, where greater density located around mixed-use transit oriented neighbourhoods with a lively public realm, has the capacity to reduce personal automobile reliance, the second largest contributor of greenhouse gases in the city (City of Vancouver, 2009, p. 4-5). However, there is no denying that the same environmental governance policies are just as equally pro-growth initiatives. Along the Cambie Corridor, for example, surging assessed property values reflect an economically inelastic demand for developable lands. Furthermore, the ability to sell these units well beyond the premium on costs for high performance buildings illustrates not only an incursion on non-market and affordable market-rate housing, but also results in the production of socially stratified urban natures.

The metabolizing of this initiative has resulted in a robust real estate and development market, and a city deeply invested in protecting its ecology. However, both economic and ecological gains are at risk if the city’s affordability crisis is not pragmatically addressed. The deficiency of safeguards and provisions for middle-to-low income individuals further exacerbates this fundamental problem. Specifically, the increase in property values through enhancing livability and capitalizing on ecological modernization will fundamentally transform Vancouver’s bid-rent curve. As the city becomes more attractive as a model of livability and ecological sustainability, individuals with these consumer preferences and the means to afford increasingly costly homes will out-compete rental tenants and existing homeowners. Consequently, many middle-to-low-income earners may relocate to the city’s suburbs, outside of major regional transportation hubs, and commute to work in the city by car. The increased use of private automobiles, which already exists as the second largest contributor of greenhouse gases, could therefore singlehandedly offset ecological gains acquired through high performance buildings. Further, while the EcoDensity Initiative and the Greenest City 2020 Action
Plan actively seek to brand Vancouver as a hub for green industries, the city remains predominantly a residential centre. Among major Canadian cities, Toronto has a strong corporate and financial presence, Calgary is reputed as an energy node, while Vancouver has failed to attract any significant commercial developments for at least the past couple decades (Fontaine, 2010). While the future of a capital for green industries remains ambiguous, Vancouver will face a tremendous challenge in retaining any form of industry if its employees are not able to find affordable housing, market-rate or otherwise.

The city’s affordability crisis is predominately the result of surging property values due to a robust real estate market. Moreover, environmental governance policies which not only mandate high performance green design, but contribute to disproportionately increase the market valuation of ecologically sustainable features as a price premium on property values further exacerbates this issue. At its core, Vancouver’s affordability crisis impacts two distinct income groups, the first being low-income residents who are challenged with the shrinking availability of a non-market housing stock, and the second being middle-income residents who are confronted with a shortage of market-rate rentals, as well as rising property taxes for existing homeowners due to rapidly increasing property assessment values.

If one is to accept that a capitalist pursuit of ecological modernization and sustainable development is a worthy priority for the city, then policies which balance social justice must be part and parcel of this endeavour. In order to address this issue, the city must first not only acknowledge that affordability is intricately linked to ecological and economic goals, but also actively work to develop social policies which reflect socio-economic realities.

First, to ensure that low-income individuals are provided with sufficient housing options, the municipal government must invest in expanding the number of available non-market units. This can be accomplished by providing proportionate density bonuses relative to the percentage of affordable units created in feasible project areas to encourage developers to not only provide affordable housing units, but finance part of its development, the cost of which is subsequently offset through the provision of additional market-rate units. The construction and partial financing of these affordable housing units is not only more efficient as affordable units would be constructed alongside market-rate units, but also take the burden off the city’s under-subsidized affordable housing fund.

Second, affordability for new and existing units could be preserved through the creation of
community land trusts or limited equity housing cooperatives. A community land trust is a private non-profit community organization which permanently retains rights to land ownership within a community. While a number of models exist, they all share the common characteristic where land ownership is separated from homeownership. Thus, when a leaseholder who owns the physical house and other improvements opts to sell their home, the resale value of the house is separated from the cost of the land, effectively preventing land market speculation from entering the equation. A limited equity housing cooperative is also a private non-profit organization, but differs from a community land trust in that residents collectively share control of their building. Moreover, it differs from market-rate cooperatives in that it prevents memberships to the cooperative from being sold at market value. Instead, members of the cooperative democratically control the pricing of memberships in order to maintain affordability. These models would not only provide tenure security for low-to-middle income earners, but also inhibit speculation of property values by limiting the resale value of a home, effectively allowing homeowners to capture a limited equity if they decide to sell, while keeping the property affordable for subsequent homeowners.

Third, to ensure a healthy supply of market-rate rental units, the financing strategies for developers must evolve from strictly creating condominiums. Currently, high land assemblage and capital costs discourage developers from creating market-rate rental units because the yield from operating rental units does not provide a sufficient return on investment. While it may be difficult to request additional exactions on top of the financing of non-market units and the inclusion high performance green design from developers, the city may instead incentivize the creation of market-rate units. This can be done through minimizing and expediting the permitting of developments which provide a certain percentage of market-rate units. Rental units can also be preserved through the creation of zero-equity housing cooperatives, which have a similar internal governance structure to limited equity housing cooperatives. Zero-equity housing cooperatives, however, allow prospective residents to buy into the cooperative at a very low share price, equivalent to a security deposit. In addition to the share price, residents would contribute a monthly fee to the cooperative, equivalent to one month’s rent. When a resident decides to sell, they would only recover and capitalize on their initial share payment, and forego their monthly fee payments. Thus, a zero-equity housing cooperative would not only preserve the availability of a rental stock, but also provide tenure security and an alternative option for the operations of rental units.
Lastly, tenure security for existing homeowners in detached single-family zones must also be taken into consideration. Since 2009, no single family zone is truly a single family zone, as each single family property can effectively house three units: the home itself, a laneway house, and a secondary suite. In order to offset greater property taxes as a result of increased property assessment values, tax abatements may be provided to homeowners who do not receive any additional income from either a secondary suite or a laneway house.

Thus, urban governance needs to be largely redefined to promote a more equitable distribution of social welfare. The apparatus for urban governance must begin to strengthen their institutional capacities and begin adopting more cooperative forms of sustainable development. Specifically, both inter-and-intra-city competition needs to be curtailed and substituted with more collaborative forms of mutual growth. Only then can an inclusive mode of urban metabolism that produces more equitable urban natures be achieved.
Works Cited


Appendix A:

Interviews

A series of semi-structured interviews were conducted with six individuals with respect to their professional experience and opinion of sustainable development in Vancouver. Below are a list of the interviewees, their professional position, as well as the initial questions which framed each interview.

Interviewees:
(1) Busby, Peter (Managing Director, Architect, Perkins+Will)
(2) Kuhlmann, Thor (Urban Planner, Central Area Planning – Vancouver Planning Department)
(3) Lehan, Mel (Community Activist, Spokesperson for a large anti-EcoDensity community group)
(4) McGuire, Michelle (Urban Planner, Cambie Corridor Plan – Vancouver Planning Department)
(5) Roddis, Matthew (Lead Urban Designer, Cambie Corridor Plan – Vancouver Planning Department)
(6) Sullivan, Sam (Former Mayor of Vancouver, Pioneer of EcoDensity)

Questions:
- To what extent does sustainable development drive municipal governance decisions in Vancouver, and vice versa?
- Have there been any challenges for you in accommodating for EcoDensity in projects?
- Have there been any trade-offs and prioritizations?
- How has EcoDensity impacted the way developments are marketed in the city?
- Is there anything missing from the EcoDensity initiative that you would like to see included?
- What is the future for sustainable development in Vancouver?
## Appendix B:

**EcoDensity Charter (City of Vancouver, 2008a)**

| (1) | An Over-Arching Environment Priority | Make environmental sustainability a primary goal in *all* city-building decisions – in ways that also foster and support affordability and livability.  

Promote strategic, well-managed density, design, and land use as primary tools in achieving this goal, in all city-building decisions. |
| (2) | Towards an Eco-City | Align density, design, and land use holistically and comprehensively with other tools and methods for environmental, economic, social, and cultural sustainability, to achieve mutual and cumulative benefits, including sustainable strategies for:  
- transportation and parking;  
- green energy and waste systems;  
- affordable housing choices for all;  
- parks, public realm and recreation;  
- arts, culture and creativity;  
- heritage conservation;  
- public and individual health;  
- vitality and public safety;  
- urban agriculture and local food access;  
- social planning and development;  
- economic development opportunities;  
- and many other related City initiatives. |
| (3) | A Greener, Denser, City Pattern | Achieve greater densities smartly and strategically inland-use patterns, locations and designs where carbon footprint improvements and environmental gains are highest (e.g., around fixed transit; walkable shopping, employment and amenity areas; district energy sources), and where affordability and livability are also fostered.  

Promote “gentle” (e.g., rowhouses, infill), “hidden”(e.g., laneway housing) or “invisible” (e.g., secondary suites) forms of density in suitable locations across the city with design that respects neighbourhood identity and sense of place.  

Densify and manage change in ways that constantly enhance and reinforce a city of walkable, complete neighbourhoods; improve biking and transit infrastructure and movement meaningfully and consistently over time; and reduce and de-emphasize automobile use and ownership.  

Protect and ensure proper space for diverse jobs, shopping and economic activity close to home for a balanced, resilient city with minimal commuting as the city grows, including protection of key commercial and industrial districts for economic activity rather than housing. |
|   | Increase Housing Affordability Types, and Choices | Use density, design and land use strategically to support and facilitate greater housing affordability and diversity, in partnership with all government levels, through:
- an increased and consistent supply to help moderate housing prices;
- the significant achievement of more affordable housing choices (sizes, types, finishes, locations and tenures) throughout the city and in every neighbourhood, including more affordable options for households with children, seniors, empty-nesters, singles, students and workforce;
- the facilitation of purpose-built rental housing construction;
- the facilitation of housing choices outside of the regular market system (such as co-operative housing);
- the reduction of living costs related to energy and transportation.

Plan densification strategically – including when and where to densify – to recognize the value provided by existing affordable housing stock and low income housing, including the strategic retention and enhancement of existing purpose-built rental options. |
|---|---|---|
|   | Greener and Livable Design with a ‘Sense of Place’ | Design all density with architecture and public realm that marries meaningful and significant ecological performance with lively, beautiful, accessible, responsible, people-oriented design, particularly as density levels increase.

Design new density to achieve both sustainable, timeless design, and respect for authentic neighbourhood values, context, character and identity at all scales.

Combine heritage conservation and the sustainability inherent in retention/reuse of existing structures and materials with more dense, efficient, sustainable design and technology.

Design sites and buildings, wherever possible, to consider microclimates, replicate natural systems and functions (e.g., evaporation and infiltration of water) and minimize waste.

Incorporate extensive natural and designed green features in creative ways, on sites and on/within buildings, to maintain connections with nature and mitigate urban heat/greenhouse gases.

Apply ecological “best practices” for public realm and infrastructure design to achieve sustainable, beautiful, safe, accessible, adaptable, and engaging streets, parks, and public places. Designs should embrace natural processes, use environmentally responsible materials, and consider opportunities for food and energy production.

Design city and neighbourhood patterns to enhance urban food production, access to local food, and waste reuse and recycling. |
| (6) Greener and Livable Support Systems | Ensure that parks, open space and public places, and other amenities, services, and infrastructure needed to support Vancouver’s neighbourhoods as they grow are provided in a timely way relative to the population levels they serve. Advance and achieve sustainable district energy systems at all scales, and particularly at mid and higher densities that make such systems more feasible. |
| (7) Neighbourhood Voice, Neighbourhood Responsibility | These commitments will be achieved with traditional and creative new approaches to consultation, education (in all directions), engagement and dialogue with all voices, while anticipating the needs of future or unrepresented voices. 

This requires a balance between the need for City leadership, and respect for neighbourhood-level influence, capacity-building and ownership.

We will respect and foster the voice of neighbourhoods, and their special values, aspirations and approaches.

We will also challenge all neighbourhoods across the city to help meet the commitments of this Charter, and their shared responsibilities to their city and beyond, and to future generations. An Eco-City must be made up of many Eco-Neighbourhoods. |
<table>
<thead>
<tr>
<th>(8)</th>
<th>How will the City use this Charter?</th>
</tr>
</thead>
</table>

We will consider this Charter in all aspects of our decision-making regarding the management of change in the city, and all decisions on city-building.

We will coordinate achievement of these Charter commitments with continued implementation of CityPlan, Community Visions and area policies, the Community Climate Change Action Plan, and other Council approved policies and plans.

Where an existing policy, plan, standard or rule (hereafter referred to as “direction”) specifically requires or prohibits a decision that may conflict with commitments of this Charter, the City will continue to be governed by the specific requirement or prohibition (e.g., height, density or land use) until the direction is consciously reconsidered by Council after appropriate process and consultation.

Where existing direction allows flexibility, discretion, interpretation or the weighing of choices, or where there is no governing or guiding direction, approaches that will support the achievement of these commitments will be emphasized.

New directions and approaches will be reflective of the commitments of this Charter and will seek to overcome barriers and obstacles to its implementation. Existing directions will be brought into alignment with these commitments over time.

We will bring to bear the appropriate resources, methods and timeframes for creative, responsible, thorough, transparent, engaging and educational planning and consultation to meet these commitments.

We will foster a creative civic environment for learning through well-considered risk and experimentation that might challenge traditional practices in order to achieve these commitments. We will monitor, adapt to learning and make adjustments in a more timely, dynamic manner. We will study and learn from the best and most creative ideas from around the globe to achieve these commitments.

We will evaluate how considerations relate to the whole of this Charter and its many balancing and tempering aspects, rather than focussing singly on individual passages to base support or opposition to an idea.

We will think beyond our city limits to regional, national and global needs, and champion change in other communities, at other levels of government and with other decision-makers to make these commitments a reality. We will partner creatively, do that which we can and should, and urge others to do what they can and should as well.
**Appendix C:**

**EcoDensity Initial Actions** (City of Vancouver, 2008b)

| Action C-1 | Rezoning Policy for Greener Buildings |
| Action C-2 | Rezoning Policy for Greener Larger Sites |
| Action C-3 | Historic Precinct Height Study |
| Action C-4 | Community Gathering Places in Each Neighbourhood |
| Action C-5 | Greener RS-5 Character Design Guidelines |
| Action C-6 | An “Eco” CityPlan |
| Action C-7 | Interim EcoDensity Rezoning Policy |
| Action C-8 | EcoDensity Leadership on City Land |
| Action C-9 | New Types of Arterial Mid-Rise Buildings |
| Action C-10 | Issues and Options for Backyard/Laneway Housing |
| Action C-11 | More Options for Rental SecondWary Suites |
| Action C-12 | Public Amenity and Public Benefit Cost Recovery and Funding Tools |
| Action C-13 | Discretionary Density Increase for Public Benefits |
| Action C-14 | Removal of Barriers to Green Building Approaches |
| Action C-15 | Priority to Applications with Green Leadership |
| Action C-16 | Accountability for EcoDensity Follow-Through |
## Appendix D:
### Greenest City 2020 Action Plan Goals and Targets (City of Vancouver, 2010)

| Goal 1: Green Economy | Double the number of green jobs over 2010 levels by 2020.  
<table>
<thead>
<tr>
<th></th>
<th>Double the number of companies that are actively engaged in greening their operations over 2011 levels by 2020.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2: Climate Leadership</td>
<td>Reduce community-based greenhouse gas emissions by 33% from 2007 levels.</td>
</tr>
</tbody>
</table>
| Goal 3: Green Buildings | Require all buildings constructed from 2020 onward to be carbon neutral in operations.  
|                        | Reduce energy use and greenhouse gas emissions in existing buildings by 20% over 2007 levels. |
| Goal 4: Green Transportation | Make the majority (over 50%) of trips by foot, bicycle, and public transit.  
|                           | Reduce average distance driven per resident by 20% by 2007 levels. |
| Goal 5: Zero Waste | Reduce solid waste going to the landfill or incinerator by 50% from 2008 levels. |
| Goal 6: Access to Nature | All Vancouver residents live within a five minute walk of a park, greenway or other green space by 2020.  
|                          | Plant 150,000 new trees by 2020. |
| Goal 7: Lighter Footprint | Reduce Vancouver’s ecological footprint by 33% over 2006 levels. |
| Goal 8: Clean Water | Meet or beat the strongest of British Columbia, Canadian and appropriate international drinking water quality standards and guidelines.  
|                       | Reduce per capita water consumption by 33% by 2006 levels. |
| Goal 9: Clean Air | Always meet or beat the most stringent air quality guidelines from Metro Vancouver, British Columbia, and the World Health Organization. |
| Goal 10: Local Food | Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels. |