How Density, Design, and Land Use Will Contribute to Environmental Sustainability, Affordability, and Livability

City of Vancouver submission to UBCM Community Excellence Awards (Leadership and Innovation category)
City of Vancouver: EcoDensity

ONE PARAGRAPH SUMMARY

The EcoDensity program, officially launched in 2007, was an unprecedented planning effort to use density, design, and land use as catalysts for an environmentally sustainable, affordable and livable Vancouver. Traditionally controversial, density holds many keys to directly addressing climate change and our city’s environmental impact – reducing greenhouse gas emissions through dramatically reduced auto reliance, more efficient use of urban land and existing infrastructure, improved viability of energy efficient buildings and green energy systems, and more resilient and adaptable communities through a greater diversity of building types and land uses. To build public consensus and spark creative thinking on well-designed and strategically located density, EcoDensity engaged citizens, planning and design professionals, leading environmental thinkers, neighbourhood groups, academics, and other stakeholders through workshops, presentations and publications, a multimedia and interactive website, and media outreach. The end result, after two years of consultation and policy development (and seven Special Council Meetings to accommodate the many passionate public speakers), is the EcoDensity Charter and Initial Actions – a policy framework and detailed implementation blueprint for a sustainable, affordable, and livable city.
City of Vancouver: EcoDensity

PROGRAM SUMMARY REPORT

There is a growing awareness in all of our cities and communities that we need to plan for the challenges of growth in a world defined by limited resources, increasing climate instability, and the desire to create compelling, complete, and livable communities. The EcoDensity program was part of the City of Vancouver’s efforts to meet these challenges – bringing the potential of design, density, and land use to serve as catalysts for environmental sustainability, affordability, and livability. EcoDensity builds upon the City’s legacy of innovative, thoughtful, and internationally-respected planning programs and adds the understanding that we need to act swiftly, intelligently, and collectively if we are to reduce our City’s ecological footprint while retaining livability and enhancing affordability.

The EcoDensity program itself was broad and comprehensive - designed to spark a citywide dialogue on planning for a more sustainable Vancouver. The program involved extensive public engagement both with the diverse citizens of our many neighbourhoods but also with experts, academics, and industry leaders to ensure the program was informed by innovative and insightful thinking. The final products, the EcoDensity Charter and the Initial Actions, provide the City of Vancouver with a blueprint for a greener city and a solid foundation for future planning efforts.

History/Context

Sparked by an increasing awareness of the relationship between our built environment and our environmental challenge, the Vancouver City Council launched the EcoDensity program in 2007. This program, in concert with other City planning and sustainability initiatives, was designed to answer three critical questions:

1. how can we grow in a way that reduces our impact on the environment?
2. how can we grow in a way that maintains our livability?
3. how can we grow in a way that creates more affordable types of housing?

These three issues: environmental sustainability, livability, and affordability, became the fundamental framework of the EcoDensity program – often visualized as a tricycle where each wheel is important, but with the larger wheel being environmental sustainability (where the steering and pedals are) and the side wheels of livability and affordability providing support and allowing movement. And while there are many programs and efforts to address these interrelated issues throughout the City, it became quickly understood that density-done-right is the key to maintaining Vancouver’s status as one of the most desirable places in the world to live. Indeed, we have already seen the benefits of well-planned density in the way the City has densified its downtown core and its emerging neighbourhood centres.

However, the potential for density, and placemaking, in the City has not been fully tapped. The majority of Vancouver is comprised of lower-density single-family neighbourhoods. To engage these neighbourhoods in planning for higher-density urban development required engaging a
broad spectrum of Vancouver’s citizenry in a public dialogue about density (the dreaded ‘D’ word). This challenge in many ways, defined the EcoDensity program.

**What is EcoDensity**

EcoDensity is built on the understanding that the strategic use of density, in the right place and right time, is one of our best tools to help reduce our ecological footprint. By planning for mid to higher density development throughout our city, EcoDensity can:

- make walking, transit, and cycling easier for more people;
- take advantage of existing infrastructure;
- allow for new green systems that reduce and better use energy, water, and materials;
- introduce urban agriculture to reduce ‘food miles’ (the distance that it takes to get food to our homes); and
- create more complete communities by having housing diversity within walking distance of shops and services, and accessible to transit.

However, it is important to note that EcoDensity is not a specific building type, development style, or land use pattern. EcoDensity is a city-wide policy vision, developed in consultation with our citizens, that added environmental sustainability, affordability, and livability to our City’s planning priorities. EcoDensity built upon CityPlan, Community Visions, and the many other planning policy documents that guide development in Vancouver. Further, EcoDensity is part of a broader sustainability effort underway in Vancouver, including our rental housing strategy, green building strategy, food security program, and parks and transportation planning efforts. EcoDensity is designed to be open-ended: the ultimate ‘form’ of EcoDensity will only be determined after further planning work citywide and in our individual neighbourhoods and neighbourhood centres – it will be the result of work on an ‘EcoCity’ plan and on how the many different stakeholders, citizens, and city agencies work together to implement the EcoDensity Initial Actions and create innovative solutions to our development challenges in a place-specific and place-sensitive fashion.

**How EcoDensity Qualifies as Excellence in Leadership and Innovation**

The planning and design of our urban environment holds the potential to be the most dramatic variable in addressing climate change and environmental quality. For the City of Vancouver to meet its ambitious carbon reduction targets (80 percent by 2050), we must address our largest sources of greenhouse gas emissions straight on. 88 percent of Vancouver’s total greenhouse gases can be attributed to buildings (55 percent) and transportation (33 percent). The urban environment – the connection of buildings, their uses, and the pattern by which the buildings and spaces between them are arranged – is the most fundamental aspect to how our buildings perform and how far (and by what mode) we must travel to complete our daily tasks.

In response, by emphasizing our urban environment, EcoDensity qualifies as an innovative program to address one of the most pressing environmental challenges of our time: climate change.
change and the need to reduce our greenhouse gas impacts. And therefore, EcoDensity and the City of Vancouver should be seriously considered for a UBCM Community Excellence Award, for the broader vision and process, and for creating the blueprint to achieve the following:

- **Higher Density and More Efficient Land Use.** EcoDensity directly addressed the interrelated issues of density, urban form, and land use planning. By planning for strategic urban densification, Vancouver can make more efficient use of urban land, improve the viability of high-performance and energy-efficient development, support a variety of uses and amenities to enable walkable (and non automobile-dependent) neighbourhoods, and reduce development pressures on open space, agricultural, and natural habitat lands. This vision of urban densification also includes the concept of ‘complete communities’ with a mix of land uses to support a variety of activities and build more resilient communities.

  Equally, and perhaps more, significant was that EcoDensity succeeded in shifting perceptions of density from something that must be managed and mitigated into something that can be a catalyst for a better community – more sustainable, more affordable, and more livable. By creating public support for urban densification, the challenging task of reforming our land use planning regulations to support a more environmentally sustainable development pattern is possible.

- **Better Buildings.** On the theory that the whole is only as good as the sum of its parts, addressing climate change at the urban scale requires individual buildings that perform better: more energy efficiency, higher performance building exteriors (including green roofs, energy production, and ‘living’ walls), greater flexibility of potential uses, and careful design to complement and enhance neighbourhood character and the building’s relationship to the site, the street, and the sidewalk. With EcoDensity, new buildings in Vancouver that require a rezoning approval are required to meet a minimum equivalent of LEED Silver (with a minimum of 3 optimize energy performance points, 1 water efficiency and 1 storm water point) or BuiltGreen BC Gold (with a score of Energuide 80), larger projects (2 acres or more) have additional green building and site design requirements (including a business case analysis for campus or district-energy) and the zoning by-law has been amended to ensure green building upgrades and features are encouraged and not penalized. Further, EcoDensity is designed to evolve over time, with the rezoning requirement increasing to a minimum equivalent of LEED Gold in 2010 and moving forward as sustainable building practices become more sophisticated and accessible.

- **Innovative and Denser Housing Types.** EcoDensity actively sought to identify new types of housing that would provide affordable options located within existing neighbourhoods and in close proximity to established community amenities and sustainable travel options. Included in this effort has been laneway housing (smaller-scale detached housing that can be located where the rear-yard garage currently sits), expanded options for secondary suites (including secondary suites in apartments), new options for arterial mid-rise buildings, and an interim rezoning policy to enable innovative housing types that would otherwise require further area planning.
• **City Leadership.** Included in the EcoDensity Actions is the development of a strategy for using City-owned assets and options for using City land for demonstration projects. These projects would be required to include innovative and market- replicable performance-based green design (carbon-neutral or better), renewable energy sources/production opportunities, sustainable transportation demand management strategies, innovative affordability approaches, alternative parking standards and designs, and urban agriculture. The emphasis is on projects that enable the City to test new ideas and generate interest and understanding in emerging sustainability practices.

Also included in this approach is a ‘green ribbon’ project application that would provide green projects of the highest standard with ‘front-of-the-line’ staff review status, alongside heritage and social housing projects.

• **Building Community Capacity.** The two-year EcoDensity process was equally about education, collaboration, and developing community awareness, as it was about developing new policy for a more sustainable Vancouver and the need to reduce our ecological footprint (in fact, UBC’s William Rees, the author of the ecological footprint concept was an advisor and a speaker during the EcoDensity project). The EcoDensity process itself was centered on a broad and comprehensive public engagement strategy – including an EcoDensity Ideas Fair and Forum, colourful and informative publications, an interactive website, Speaker Series (featuring leading thinkers on sustainable design, transportation, and affordable housing), and many community meetings, workshops, public open houses, and presentations to stakeholder and neighbourhood groups.

Throughout the EcoDensity process, residents and other stakeholders and experts collaborated and built a shared understanding of the issues we face and creative solutions that can work in Vancouver.

• **Affordability and Livability.** Density benefits environmental sustainability, but also affordability and livability. EcoDensity addressed all three in a unified and comprehensive manner, to ensure the long-term sustainability of our city as well as our environment. By explicitly incorporating ideas and policies for increased affordability and livability, Vancouver will continue to be an inclusive city that provides opportunity for many British Columbians and will maintain its status as an international leader in livable urbanism.

• **Education for Vancouver and Other Municipalities.** EcoDensity was an exceptional learning process for the City of Vancouver and, we hope, for many planners and communities throughout the province and the world (as evidenced by the frequent requests we receive for tours and presentations on the EcoDensity project from cities and international organizations). It was never an easy process, density is a controversial topic and EcoDensity was the focus of considerable community and media attention, but by directly discussing and debating density Vancouver was able to begin to shift the dialogue in a positive way. Other municipalities can benefit from the work and research done for the EcoDensity project and can achieve similar results (and will need to, if British Columbia is going to reduce our carbon emissions), a significant benefit of the project. And the entire EcoDensity process and all the supporting material is freely and publicly available via the project website: [www.vancouver-ecodensity.ca](http://www.vancouver-ecodensity.ca).
• **Complete and Adopted.** Finally, EcoDensity qualifies as a complete project. The EcoDensity Charter and Initial Actions were unanimously adopted by Vancouver City Council in June 2008 and now serve to inform and direct new policy initiatives and City practices. Since adoption, more work continues to be done to implement the EcoDensity vision, including developing new policies for laneway housing, secondary suites, green building standards, rezoning for small-scale and incremental densification, and creating the foundation for an even more ambitious step – an EcoCity Plan that will translate the EcoDensity vision into physical form and spatial planning, continuing and expanding on the legacy of Vancouver’s CityPlan.

It is the City of Vancouver’s intention and interest in being considered for a UBCM Community Excellence Award for Leadership and Innovation. Should the Selection Committee have any questions, please contact Brent Toderian, Director of Planning, at brent.toderian@vancouver.ca or 604 873-7698.