

## Impact of the 2010 Winter Olympic Games on the Vancouver and Sea-to-Sky Housing Markets

### INTRODUCTION

Cities are increasingly using mega events such as the Olympic Games to enhance short- and long-term economic opportunities and to raise their international profile. The events are anticipated to attract tourism, garner international media recognition, stimulate rapid development of infrastructure, and lead to the construction of sports and leisure facilities.

Extensive research has been conducted on the economic impacts of hosting mega events, but very few studies have examined the impact on housing markets in host regions.

The 2010 Winter Olympics and Paralympics (the Games) will take place in Vancouver and Whistler, British Columbia and potential impacts will reflect on the entire Southwest Metropolitan region of the province. The purpose of this research is to estimate the impact of the 2010 Games on the region and its sub-regional housing markets. The accompanying map shows the place names used in the research.

### METHODOLOGY

The research entails three components:

- a literature review
- a review of the housing market
- forecasts of population, housing and employment for the region between 2001 and 2031.

The literature review recounts various host cities' experiences with mega events, such as the Olympic Games, specifically the impact on their economies and housing markets. The review relates these experiences to the potential implications of the 2010 Olympic Games on the economy and housing markets of communities in the host region.

The second component, the housing market review, comprises a series of reports on housing markets in Vancouver and the Sea-to-Sky corridor (including the municipalities of Squamish, Whistler, Pemberton and Lillooet). These reports present current and historical

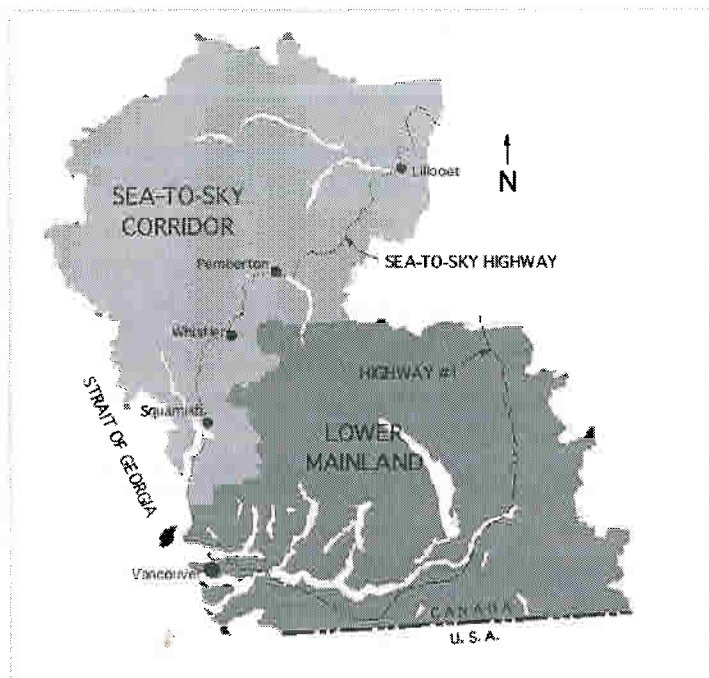


Figure 1 The Southwest Metropolitan Region

information related to population and residential real estate. They also include a discussion of non-market housing components, and identify population groups that may be impacted by the Games.

Building on the first two components, the projections provide estimates of the potential impact of the Games on regional housing markets. This required projections of housing market conditions under two scenarios—one that included hosting the Games and one that did not. The “no Games” scenario was constructed by extending pre-2002 demographic and economic trends for the region into the future, while the “Games” scenario built on federal and provincial data on the economic impacts of hosting the Games.

## EXPERIENCE OF PAST HOST CITIES

The Olympics have been heralded as an opportunity to bring forward long-term real estate and development plans, create tourism and investment opportunities, and assist host cities in realizing their economic objectives. The experience of previous host cities indicates many such *opportunities* for positive development and change in a host region can occur. The Olympic Games may:

- Act as a catalyst for infrastructural improvements and large scale planning projects;
- Lead to an increase in tourism activity prior to the event, reaching peak levels in the Olympic year, and continuing to higher-than-average levels in years following the event;
- Create short-term jobs to assist with service delivery and preparations for the mega event, generating net in-migration for the host region;
- Impact people's decisions to visit, re-visit or invest in the region;
- Lead to the development of new neighbourhoods and potential for urban regeneration; and
- Provide an opportunity to build affordable housing for lower-income residents.

On the other hand, host cities' experiences also bring forward a number of strong *cautions and considerations* related to hosting the event, including:

- The challenge of balancing international/external expectations, while meeting local objectives;
- The specialized uses associated with *Winter Games*-related facilities;
- The costs of infrastructure such as transportation, tourist accommodation, athletes' complexes and media centres. While these can provide significant long-term legacies, they can also be a source of increased financial risk.
- Long-term changes in tourism and real estate are not solely attributed to the mega event, but are influenced by multiple processes including migration, employment and income levels.
- Hotel occupancy rates increase to above-average levels during the lead-up to the Olympics, but an over supply is typical for a period of time following the event.
- Increases in new and international tourism depend on a strong marketing program.
- Regular visitors may be "crowded out" by the number of visitors and costs associated with the mega event. Also, an internal substitution effect can potentially draw tourists away from other resort communities in nearby regions.

- Increases in short-term rental housing demand are primarily generated by workers involved in preparations for the Games rather than by spectators. There is a possibility of displacement of tenants due to the conversion of lower-cost rental units.

## HOUSING MARKETS IN 2006

A review of sub-regional housing markets provides baseline information on market and non-market housing. It sets the context for projections of the impact of the Games on housing in the host region.

### Lower Mainland Market

The Lower Mainland—Greater Vancouver and the Fraser Valley—is by far the most populated and economically dominant area of the region, with a 2005 population of more than 2.4 million residents.

- After a period of slow growth during the late 1990s, there has been a significant upturn in the housing sector in the past five to six years. Housing starts, real estate sales and prices have shown strong increases supported by growth in employment and high levels of consumer spending.
- Strong demand for rental accommodation has also resulted in consistently low vacancies during the past six years.
- With respect to the low-income segment of the market, there has been a decline in the number of affordable rental units for tenants receiving government assistance, and increasing levels of homelessness.
- In the Lower Mainland, a number of new sports facilities and expansions or upgrades to existing venues, will be constructed. This includes the Olympic Village at False Creek with a capacity for 2,800 athletes and officials.

### Sea-to-Sky Market – Squamish

Squamish, a community of 15,000 located halfway between Vancouver and Whistler, has experienced increasing levels of real estate activity and interest in the past few years. Underlying factors behind the recent wave of new residents and homebuyers include a robust regional economy, low interest rates, and better accessibility due to improvements to the Sea-to-Sky Highway—advanced by the announcement of the Games.

- Squamish's housing products reflect its relatively youthful population—primarily entry-level homeownership options. With 7,600 residential units at various stages of application and approval, there is much anticipation of significant change and revitalization.
- No sporting venues, athletes' housing, or other infrastructure items directly related to the Games have been planned for Squamish.

### Sea-to-Sky Market – Whistler

Co-host of the 2010 Olympic Games, Whistler has a population that ranges from 10,000 permanent residents to more than 30,000 residents, visitors and seasonal staff in the winter season.

- Despite a leveling-off of Whistler's real estate prices, market housing prices remain inaccessible to many Whistler households, leading many to consider alternative options such as employee-restricted homes or commuting between neighbouring communities of Squamish or Pemberton, where prices and rents are lower. It is estimated that 24 per cent of Whistler's workforce in 2004 commuted into the community for work from elsewhere in the region.
- The majority of Whistler's housing stock consists of multi-family units such as townhouses and duplexes, with less than one-third of the stock is in the form of single-detached dwellings.
- Whistler's growth management policy has a build-out capacity limit, which has almost been attained. This development constraint, and the demand for high-end lifestyle products, continue to impact supply and affordability levels within the municipality.
- While diversifying towards a year-round tourist destination, winter snow conditions are a major economic driver, determining the number of skier visits and overnight stays. Tourism indicators, including occupancy rates, have shown a slow down in tourism activity in recent years.
- Whistler will be home to the second Athletes' Village, accommodating 2,400 athletes and officials. A number of new sports facilities and upgrades to existing venues are also planned for the resort community.

### Sea-to-Sky Market – Pemberton

Pemberton, a community of 2,500 people located 30 minutes north of Whistler, has tripled in population since 1996. Many of the newcomers are young families and individuals working in Whistler, resulting in a young population profile, and high rates of labour force participation.

Pemberton's housing market is closely connected with the markets in Squamish and Whistler. While high shelter costs in Whistler have seen some spillover into Pemberton, it now faces competition from Squamish. New construction activity has slowed down somewhat in the past two years, with proposed developments on hold and little stock coming on the market. There are no Games facilities planned for Pemberton.

### Sea-to-Sky Market – Lillooet

Lillooet, a community of 2,800 people, is located 104 km northeast of Pemberton. Lillooet's economy has historically been based on forestry and mining. Economic changes in the region have resulted in many households leaving the community in search of job opportunities elsewhere. Lillooet's population is estimated to have decreased by 2.5 per cent between 2001 and 2005.

The existing housing stock in Lillooet is primarily ground oriented, with one-fifth of the stock in mobile homes. In the past five years, development has averaged four new units per year, with additional activity on First Nations reserve lands. Reportedly, there is new interest from retirement and lifestyle buyers from the Lower Mainland. While proposed enhancements to the primary highways will improve accessibility to the area, no Games facilities are to be located in Lillooet.

## POTENTIAL HOUSING IMPACTS OF THE GAMES

Estimating the impact of the Games on housing markets required the projection of housing market conditions and their underlying determinants of employment, labour supply, migration and population. Two projection scenarios were considered, one based on the projected economic impacts of the Games and another trends-based "no Games" scenario which excluded these. As necessitated by an impact analysis, the research focused on *differences* between the two scenarios, meaning certain broad context setting factors common to both scenarios are not considered in the analysis.

## ECONOMIC DIMENSIONS

The foundation of the impact analysis was projected differences in provincial real Gross Domestic Product (GDP). Under the "Games" scenario, the provincial economy, measured by real GDP, will grow by an annual average of 2.0 per cent over the projection period, compared to an average of 1.8 per cent under the "no Games" scenario. Total projected provincial real GDP of \$228.1 billion in 2031, with the impact of the Games, was only 4.8 per cent larger than the \$217.6 billion projected without them.

The employment consequences of the Games would be an additional 92,000 jobs in the Southwest Metropolitan region under the "Games" scenario in 2031; that is 74 per cent more jobs than in 2001 and 4.6 per cent more than there would be under the "no Games" scenario.

This increase in the demand for workers would augment migration to the region; meeting this demand would result in a 2031 labour force of 2.18 million people in the Southwest Metropolitan region, 4.5 per cent more than under the "no Games" scenario.

The regional population would therefore grow to 2.73 million residents in 2010 under the "Games" scenario, versus 2.67 million in the absence of the Games (a 2.2 per cent difference). By 2031, this difference would be 4.0 per cent (3.76 million residents compared to 3.60 million residents).

The differences in projected employment, labour force and population between the two scenarios over the 30-year period are relatively small, reflecting the reality that this will be the most populous region to ever host the Winter Games.

## HOUSING IMPACTS

Accommodating the projected additional population under the “Games” scenario will determine the impact of the Games on the region’s housing markets. The number of households (occupied dwellings) in the Southwest Metropolitan region in 2031 will be 4.0 per cent larger under the “Games” scenario, with a total occupied stock of 1.58 million units in 2031, versus 1.52 million under the “no Games” scenario<sup>1</sup>.

The Games would add 26,959 occupied units to the single-detached housing stock in the Southwest Metropolitan Region over the 2001 to 2031 period, beyond those that would be added under the “no Games” scenario. There would be an additional 13,619 occupied attached ground-oriented units (on top of the 146,193 additional under the “no Games” scenario), and an additional 20,523 occupied apartments units (on top of the 229,356 additional apartments that would occur in the “no Games” scenario).

Given the size of the region’s economy and population, the impact of the Games will be relatively modest at both the region wide and Lower Mainland level, with greater relative impacts being felt in the much smaller Squamish Lillooet Regional District.

### Lower Mainland

With a 2031 population of 3.68 million residents in the Lower Mainland (the Greater Vancouver and Fraser Valley Regional Districts), this part of the region would grow by 58 per cent over the projection period under the “Games” scenario. The impact of the Games would be to add 4.0 per cent more people, or 145,200 more residents by 2031 than without the Games.

Housing occupancy demand under the “Games” scenario would increase by 668,100 dwellings (76 per cent), from 881,000 in 2001 to 1,549,200 in 2031. The impact of the Games on total occupancy demand would be 3.9 per cent, or 58,200 more occupied dwellings in 2031 than under the “no Games” scenario. The “Games” scenario would add 266,400 occupied single-detached units, 154,400 attached ground-oriented units and 247,300 apartment units in the Lower Mainland between 2001 and 2031. For each structure type, there would be roughly a four per cent difference in occupancy demand between the two scenarios.

Each scenario shows a continuation of the pattern of increasing housing starts seen in the Lower Mainland since 2001. With 20,300 recorded in 2005, housing starts would increase to 28,000 in 2006, and further to 28,500 in 2007 under the “Games” scenario. These units would become available for occupancy during the immediate lead-up and hosting of the Games. Starts would remain in the 25,000-unit range between 2008 and 2016 under the “Games” scenario, falling slightly to an annual average of 23,000 between 2017 and 2026, and further to 20,000 annually by the end of the projection period.

The impact of the Games on housing starts would be to increase the number of average annual starts by 9.3 per cent over the “no Games” scenario. Under the “no Games” scenario, annual starts would fall from roughly 23,000 units between 2006 and 2010, to under 20,000 annually over the last decade of the projection period.

In addition to these dimensions, the Games will lead to differences in occupancy demand by tenure, turnover in the rental and ownership markets, prices, listings, rents and vacancy. By 2031, compared to the “no Games” scenario, the “Games” scenario will result in:

- Demand for 3.9 per cent more ground-oriented owner-occupied units and 3.6 per cent more demand for owner-occupied apartments;
- Demand for 4.2 per cent more rental ground-oriented units and 3.9 per cent more rental apartments;
- Housing turnover in the ownership segment of the market that would be 4.3 per cent greater for ground-oriented units and 3.9 per cent greater for apartments;
- MLS single-detached listings that would be 4.3 per cent greater, and listings in multi-unit buildings that would be 4.0 per cent greater;
- Real average prices for new units that would be on average 3.0 per cent higher;
- Housing turnover in the rental segment of the market that would be 4.2 per cent greater for ground-oriented units and 4.0 per cent greater for apartments;
- Rental vacancy rates being 0.25 per centage points lower under the “Games” scenario; and,
- Residential rents continuing the historical pattern of increasing with inflation.

<sup>1</sup> Please note that the dwelling unit figures have been rounded in this summary and will differ from the numbers in the technical report.

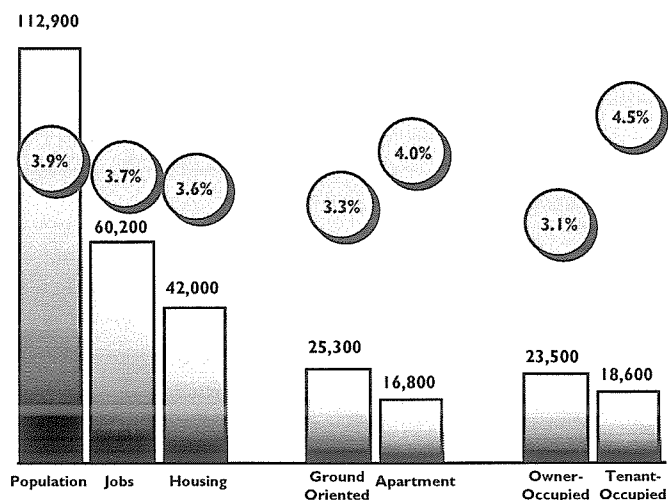


Figure 2 Impacts of the Games, Lower Mainland, 2016—Difference between “Games” and “No Games” Scenarios

The following chart provides a mid-period snapshot of the relative and absolute impact of the Games on selected dimensions of the Lower Mainland market in 2016, the year that the economic impacts directly associated with the Games are expected to be completed.

**Sea-to-Sky Corridor**

Under the “Games” scenario the Sea-to-Sky Corridor (Squamish-Lillooet Regional District) would add 40,400 residents to its 2001 population of 34,600, for a total of 75,000 residents by 2031 (a 117 per cent increase). This 2031 population would be 11 per cent above that of the “no Games” scenario.

Economic and demographic change would result in housing occupancy demand for 18,700 new units, increasing the total housing stock from 13,000 occupied units in 2001 to 31,800 by 2031. Between 2001 and 2031 there would be a demand for 10,700 additional single-detached units, 5,400 attached ground-oriented units, and 2,600 apartment units under the “Games” scenario. The impact of the Games would be 19 per cent more occupied units added within the Sea-to-Sky Corridor over the projection period than there would be under the “no Games” scenario.

The impact of the Games on housing starts in the Sea-to-Sky Corridor would result in the number of ground-oriented housing starts being 26 per cent greater than under the “no Games” scenario, with an average of 126 more ground-oriented units started per year between 2001 and 2031. Apartment starts would be 24 per cent greater under the “Games” scenario, with an average of 30 more apartment units started each year.

Compared to the “no Games” scenario, by 2031, the Sea-to-Sky Corridor will also experience:

- Demand for 17 per cent more ground-oriented owner-occupied units and 14 per cent more demand for owner-occupied apartments;
- Housing turnover in the ownership segment of the market that would be 10.8 per cent greater for ground-oriented units and 9.8 per cent greater for apartments;
- Demand for 27 per cent more rental ground-oriented units and 19 per cent more rental apartments;
- Housing turnover in the rental segment of the market that would be 10.9 per cent greater for ground-oriented units and 10.3 per cent greater for apartments.

Within the Sea-to-Sky Region, the “Games” scenario would result in an 11 per cent greater population in the Municipality of Squamish and its surrounding communities, a 13 per cent greater population in the Whistler-Pemberton community, and a 3.4 per cent greater population in Lillooet and its surrounding communities than would occur with the “no Games” scenario.

The following chart provides the mid-period snapshot of the relative and absolute impact of the Games on selected dimensions of the Sea-to-Sky market in 2016.

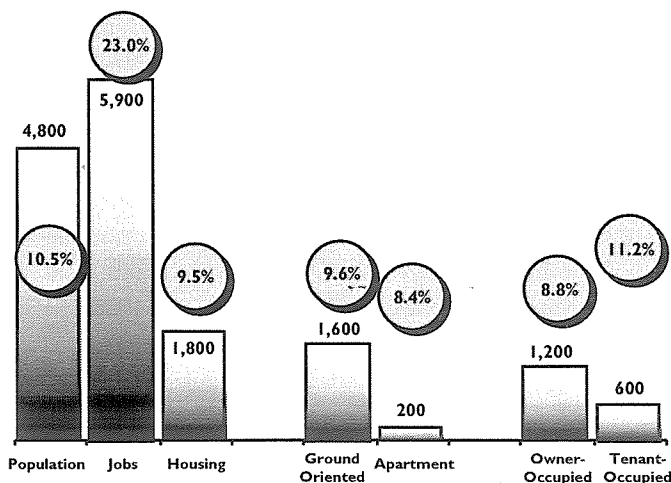


Figure 3 Impacts of the Games, Sea-to-Sky Corridor, 2016—Difference between “Games” and “No Games” Scenarios

### STRATEGIC CONSIDERATIONS

While this project focused on the impact of hosting the Games on the private housing market, the impact on the commercial accommodation sector (including hotels, motels and bed and breakfasts) also warrants some consideration, as accommodating the Games-related visitors may have a spillover effect on the housing market.

The capacity of the commercial accommodation market to accommodate Games visitors was considered in relation to estimates of Games attendance. As the attendance estimates vary, this analysis indicated that the impact on the commercial accommodation sector would range from a small surplus of rooms to a slight shortfall, which could potentially affect the rental residential sector. The magnitude of this impact will largely be determined by the success of the Games in attracting visitors to the region, and the success of programs put in place to accommodate visitors during the Games.

This impact analysis was based on data available up to the end of June 2006. As actual costs and revenue data become available during the next months and years, they can replace the projected ones used, thus far to provide a measurement of the actual impact of the Games. In this specific regard, and in the broader context of the impact of the Games on regional housing markets, it will be critical to continue monitoring and reporting during the lead-up to the Games. This will reduce the potential uncertainty regarding both opportunities and challenges associated with hosting the Games and assist with the post-event evaluation of the projected impacts. On-going monitoring during and after the Games will be important, both in measuring the value of the investment of the Games and its legacies, and in assisting other host cities to build on our successes.

This impact assessment was based on comparing the economic and demographic dimensions of a "Games" scenario to a trends-based "no Games" scenario. There are certainly other scenarios to which the "Games" scenario could be compared. It is intended that this research would provide a baseline to those who wish to undertake such empirical comparisons.

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#### Housing Research at CMHC

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