

SxD STUDIO
MAPPING THE SPIKES

10.21.05



TEAM VANAGAIN.

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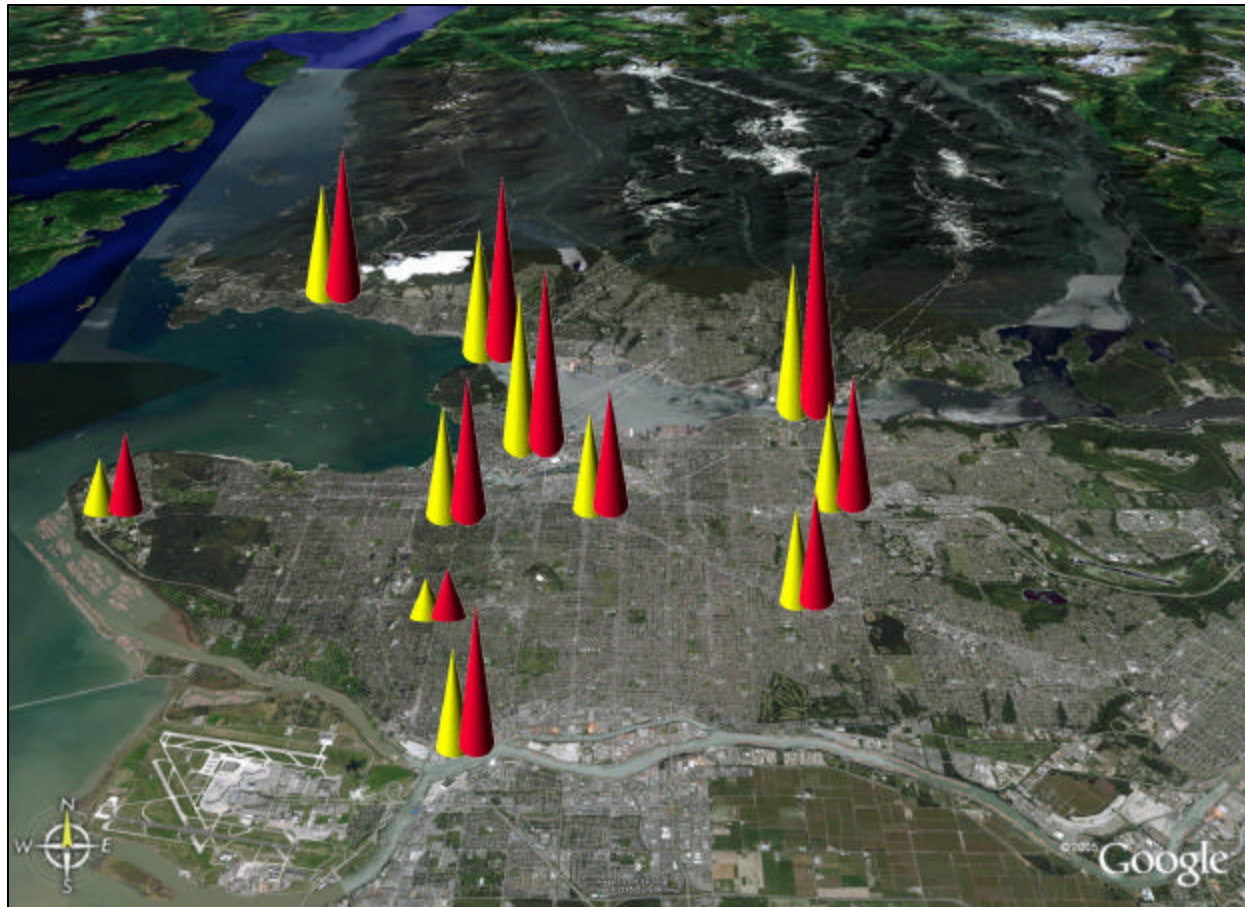
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- **Transportation**
- **Transit Ridership**
- **Population Density**
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- **Employment**
- **Conclusion**



Congestion

Yellow spikes represent present conditions and red spikes are representative of the 2021 projected conditions.

CONGESTION HOT SPOTS

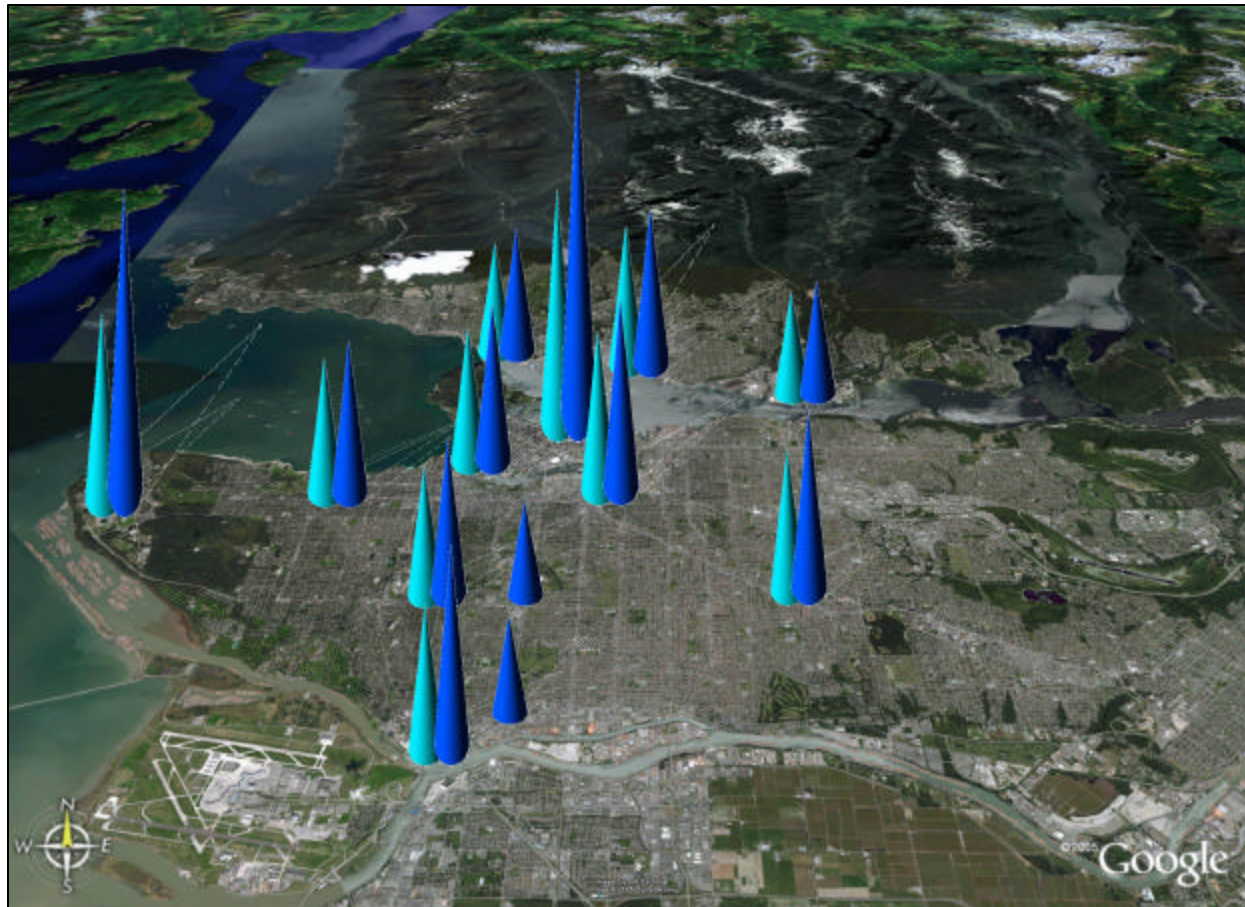
Automobile use

"Transportation demand projections are based in large part on the expected and planned land use. Land use data for transportation modeling was based on zoned capacity... plus expectations of further rezonings." (Travel estimates for 2021) The source of this data is the 1997 Vancouver Transportation Plan.

The numbers used represent 1992 work and non-work trip estimates to the different parts of the city and also the transportation plan's 2021 targets based on the regional transportation projections.

Note that the forecast numbers both 1992 and 2021 estimates are based on morning peak hour trips (between the hours of 6 am and 9 am).

Total morning peak automobile trips in 1992 to Vancouver were 780,000 and are estimated to rise to 1,009,000 by 2021. The major congestion hotspots are at the bridges / entry points into the city as well as certain areas along highways 1 and 7.



Ridership numbers

Light blue spikes represent present numbers and dark blue spikes are representative of the 2021 projected numbers.

TRANSIT HOT SPOTS

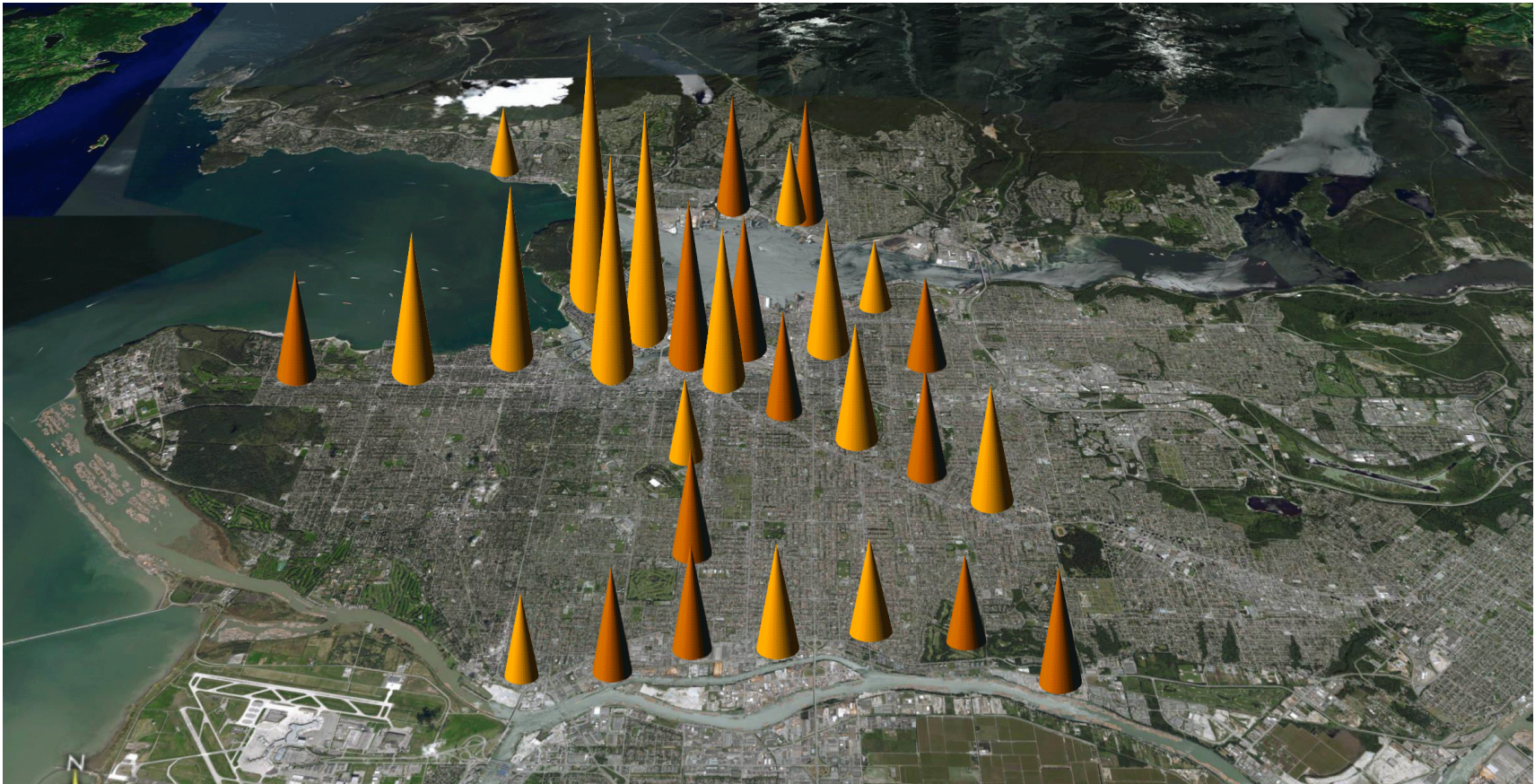
Ridership Numbers

The major intentions (or assumptions) of the 2021 projections is that firstly the number of cars in the downtown district would remain almost the same in 2021; and secondly that transit use would increase to 43% of all trips in the city (62% of trips to the downtown).

Transit usership numbers show 1992 morningpeak use of 96,000 and estimate 2021 numbers at around 257,000 passengers.

This more than 2.5 times increase in usership takes into consideration the improvement of existing transit lines as well as major additions to the system (the RAV line, multiple new skytrain extensions, etc.)

The location of the hotspots will remain as they are but major increases in numbers are projected for the Downtown core, UBC, and stations where multiple modes of transit intersect such as Commercial and Waterfront stations.



Population Density Hotspots for Vancouver, North and West Vancouver

Areas of current high population density are represented by light orange cones, while areas with an anticipated high population density are represented by dark orange cones. The taller the cone, the greater the density.



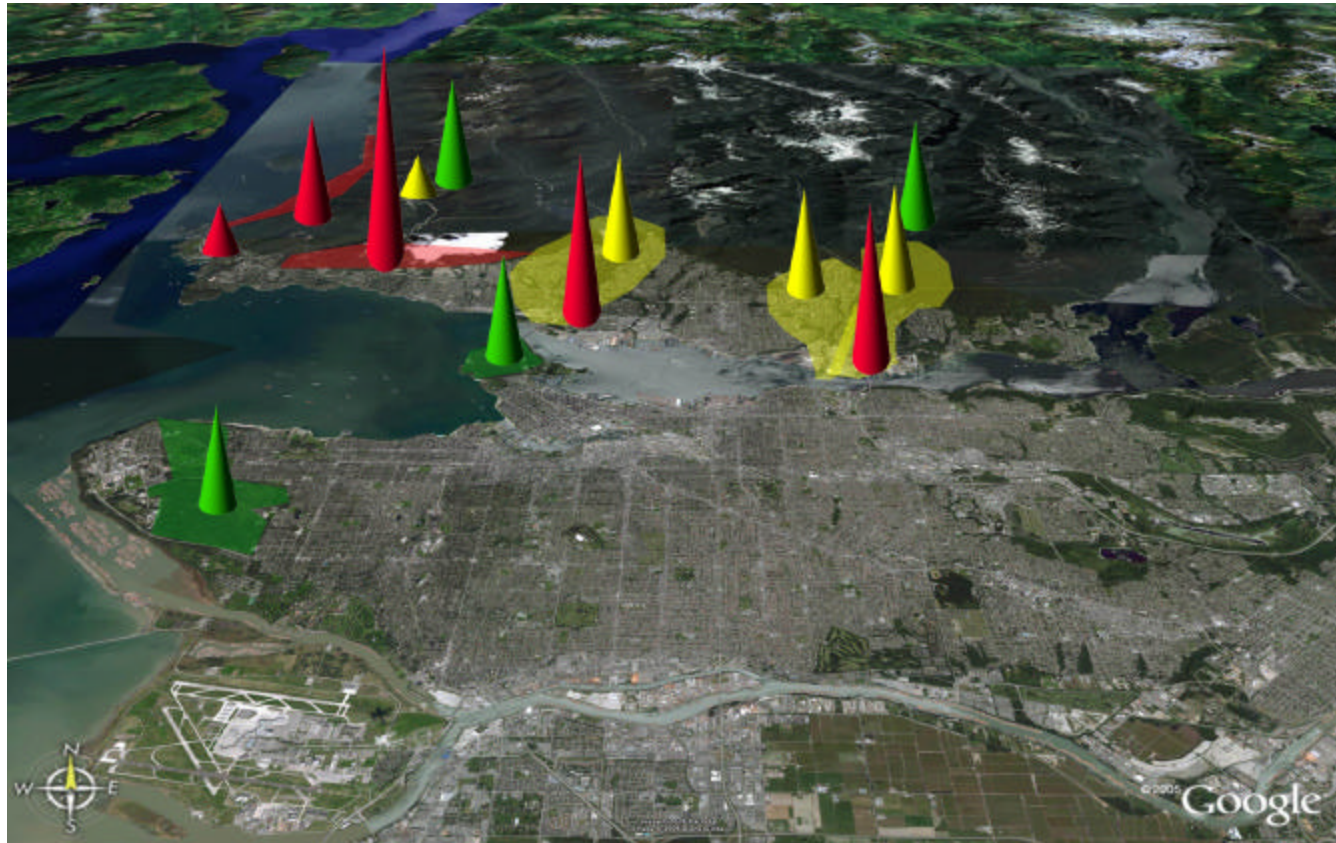
VANAGAIN POPULATION DENSITY

Current and Future Hotspots

The West End and Downtown areas of Vancouver have the highest population densities in the GVRD, as well as one of the highest densities in North America. Based on Census data, these areas accommodate more than 500 people per acre. Other neighbourhoods with a density of 100 people or more per acre are:

Fairview, Kitsilano, Mount Pleasant, Grandview, Kensington, Renfrew-Collingwood, Sunset, Victoria Fraserview, Marpole, Lonsdale in North Vancouver and Ambleside in West Vancouver. Anticipated population density is based on planning strategies involving commercial enhancement along major thoroughfares, the rezoning of single-family dwelling units into multi-family

dwelling units, and finally, the redevelopment of former industrial lands for residential use, such as Southeast False Creek and East Fraserlands. Southeast False Creek will accommodate roughly 13,000 people within 80 acres while the East Fraserland development will accommodate 10,000 people within 126 acres. Patterns of future population increase signal the emergence of multiple 'downtown' centres throughout the area.



Green infrastructure hotspots in Vancouver, West Vancouver and North Vancouver. Red cones indicate areas in poor ecological health or facing high development pressure, yellow indicates areas of moderate concern, and green indicates area in good health and with high ecological value.

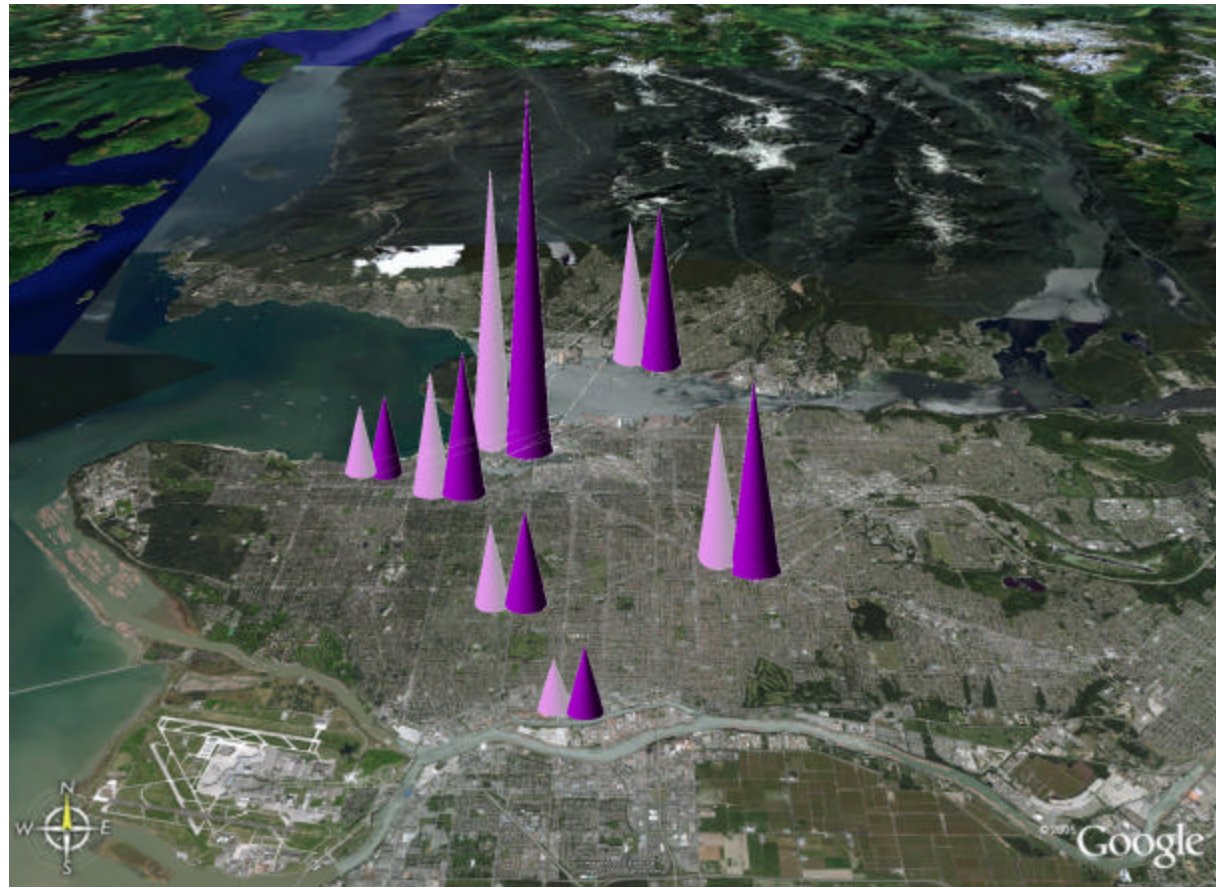
VANAGAIN GREEN INFRASTRUCTURE

Many of the natural areas in West Vancouver are located on developable lands. The most significant of these is the area north of the Upper Levels Highway, owned by British Pacific Properties Trust. Development is proposed to take place up to 1200m. This area currently has a high level of wildlife value, and is home to black bears, black tail deer, cougars, and many species of songbirds and raptors. It is also made up of the watersheds of numerous fish-bearing streams. Several stands of old growth forest remain intact on the slopes of Mount Strachan and represent a biodiversity hotspot.

Other critical hotspots include Eagleridge Bluffs near Horseshoe Bay, the site of a proposed highway expansion, areas of residential development on previously undeveloped steep slopes along the Sea to Sky corridor, and the Capilano River estuary. Other areas of concern include the highly urbanized and dammed Capilano River watershed and a swath of forest on Black Mountain that will be the site of the expansion of the Cypress Mountain downhill ski area.

The Seymour River estuary appears to be the most critically endangered hotspot in North Vancouver. Lynn Creek and its watershed and the Lower Seymour conservation reserve are also of concern. The upper Seymour watershed above the dam is in good health and is considered wild and has a very high wildlife value.

Two major pieces undeveloped land exist in Vancouver proper – Stanley Park and Pacific Spirit Regional Park. Both of these provided significant habitat to urban wildlife in the city.



Existing & Anticipated Employment in Vanagain:

Light purple cones show existing employment and dark purple cones show projected employment by 2021.

VANCOUVER EMPLOYMENT

Change Through Time.

Vanagain, as recently depicted by Patrick Condon in Larc 505 – Sustainable Urban Design Studio, is a city that has experienced significant employment growth over the past 30-40 years. This passage of time has witnessed a drastic change in the types of work being done in the city. Traditional heavy industries have been increasingly subjected to

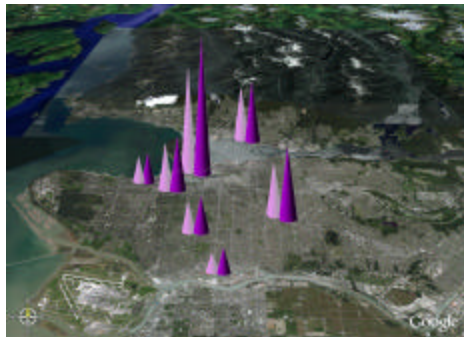
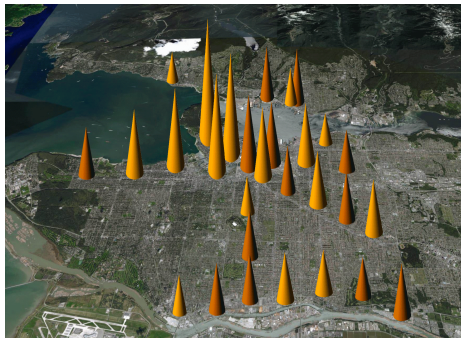
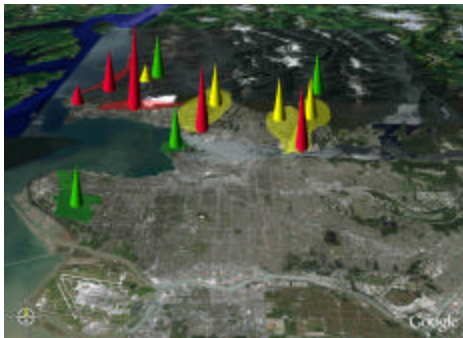
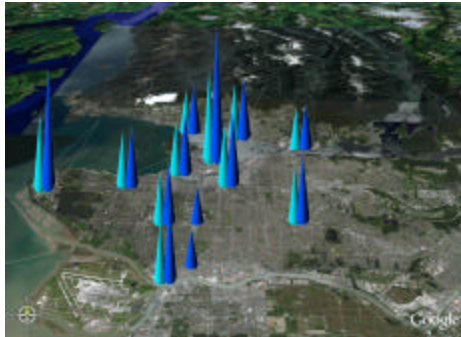
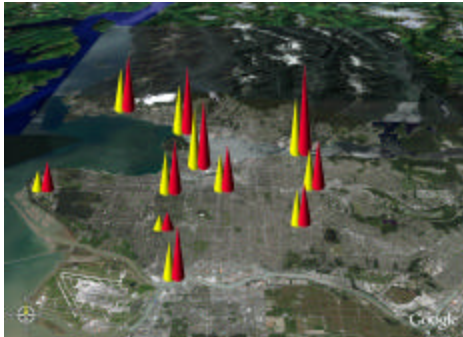
decline as jobs move towards personal and business services. In addition, industrial areas are transforming into residential areas. An example of this type of change is False Creek, an area of Vancouver that has historically acted as a major industrial area. The industries have since moved to other locations or out of the city altogether, leaving in its place a new thriving community.

Vancouver has approximately 37% of the Greater Vancouver Regional Districts total employment. More specifically, this map has been broken into existing employment and projected employment by 2021; North Vancouver: 50,000 existing & 60,000 by 2021, downtown Vancouver: 131,500 existing & 172,000 by 2021, Broadway/Cambie: 40,500 existing & 52,700 by 2021, remainder of the city: 169,200 existing & 208,900 by 2021.

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References.

City of Vancouver Community Web Pages. *Community profiles.*

http://www.city.vancouver.bc.ca/community_profiles/CommunityList.htm

City of Vancouver Planning Department. *Current and Recent Projects.* <http://www.city.vancouver.bc.ca/commsvcs/planning/index.htm>

City of Vancouver Planning Department. *Insights into Employment.*

<http://www.city.vancouver.bc.ca/commsvcs/cityplans/employment/insightintoemployment.com>

City of Vancouver Planning Department. *Insights into Transportation.*

<http://www.city.vancouver.bc.ca/commsvcs/cityplans/transportation/insightintotransportation.htm>

City of Vancouver Planning Department. *Population and Housing Summary.*

<http://www.city.vancouver.bc.ca/commsvcs/planning/index.htm>

City of Vancouver Planning Department. *Transportation Plan travel estimates for 2021.*

<http://www.city.vancouver.bc.ca/commsvcs/cityplans/transportation/estimates.htm>

Coalition to Save Eagleridge Bluffs at Horseshoe Bay. *The Truth of the Matter: The Environment.*

<http://www.eagleridgebluffs.ca/learnmore/truth.html>

District of North Vancouver. *Community Profile for District of North Vancouver.*

<http://www.bcstats.gov.bc.ca/data/dd/facsheet/cf183.pdf>

District of West Vancouver. *West Vancouver Population Projections.*

<http://www.westvancouver.net/upload/documents/West%20Vancouver%20Population%20Projections.pdf>

GVRD + Province of British Columbia. *Transport 2021 Technical Report 14: Transportation Implications of a Compact Metropolitan Growth Option.* <http://www.gvrd.bc.ca/growth/transport2021/Report14.pdf>

Pacific Streamkeepers Association. *Seymour River Watershed Profile.* <http://www.pskf.ca/ecology/watershed/northvan/seymour.htm>

Pacific Streamkeepers Association. *Lynn Creek Watershed Profile.* <http://www.pskf.ca/ecology/watershed/northvan/lynn.htm>

Smart Growth BC. *BC Sprawl Report 2004 – Economic Vitality and Livable Communities.*

<http://www.smartgrowth.bc.ca/downloads/Sprawl2004.pdf>