

## Systems Strategies

# Fraser Lowlands - PATTERNS OF WORK

### Sustainable Strategies - Employment

Richmond is a complete community. Richmond has 12,000 more jobs than qualified workers. South Delta has fewer jobs but faces the same problems of land use segregation. The issue in the Fraser Lowlands is the separation of residential, industrial and commercial zoning. The re-integration of these three separate yet essential land uses could increase the prosperity and quality of life in the Fraser Lowlands considerably.

People are forced to commute on an East-West axis from the mainly residential West Richmond into the strictly industrial Knight Street business parks. Richmond's neighbourhoods are mature and established but lack local centres. Residents must drive to the nearest strip mall to buy even the most basic supplies.

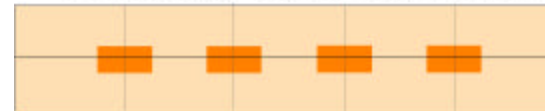
South Delta is less dense than Richmond and this creates long commutes between residential areas, work and services.

Flexible zoning could add density at edges and corners. Density creates walkable centres which complete a community. The addition of live/work to these communities saves everyone time and money by reducing commuting and reinforcing local centres. This gives people a chance to employ themselves in their neighbourhoods

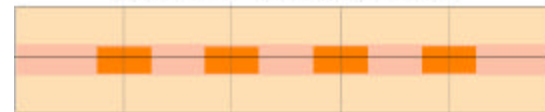
*A Network of Centres:* Walkable centres add livability and employment to Richmond's and South Delta's neighbourhoods.

## Residential Strategies

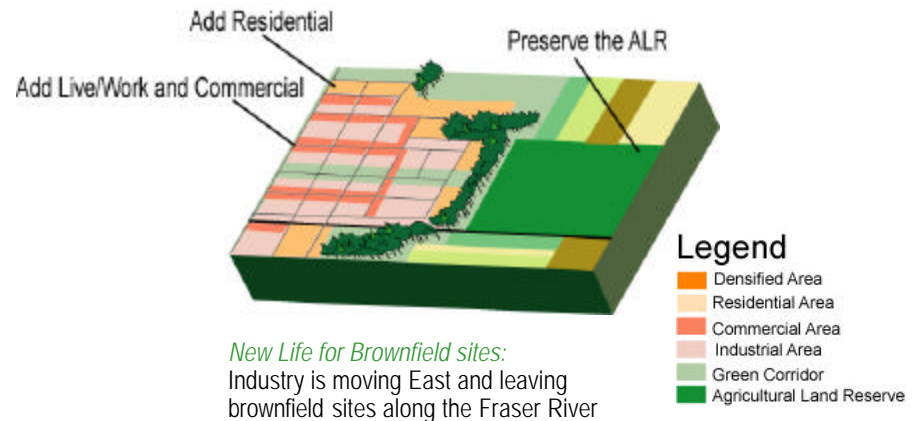
### Densify the Corners



### Add Live/Work



## Brownfield Infill



## Fraser Lowlands - PATTERNS OF WORK

### Strategies Applied - Employment

Richmond and South Delta anticipates the loss of industrial jobs to the Fraser Valley. The result will be the proliferation of brownfield sites in the Lowlands along the Fraser River.

These brownfield sites present the opportunity to de-segregate land uses and relieve development pressure on the Agricultural Land Reserve. De-conditioned industrial sites in the Fraser Lowlands often offer spectacular views and easy access to openspace.

Flexible zoning and the infill of medium to high density residential will make communities out of these brownfield sites while allowing existing industrial to continue functioning. Residents will have the opportunity to live near services, their places of employment and close to open spaces. Possible strategies:

Allow Flexible Zoning

Create Dense Centres

Preserve Open space

Add Live/Work

Add Commercial

### Complete Communities Create Jobs



### *New Life for Brownfield sites in the Fraser River Lowlands*

To relieve pressure on the ALR , re-develop and infill brownfield sites.

## Systems Strategies

# The Fraser Lowlands – PATTERNS OF MOVEMENT

### Sustainable Strategies – Summary

#### **Build an interconnect transit and bikeway network.**

Developing a network of pedestrian and bike friendly streets and paths throughout Richmond connects the residential areas with the towncentre and the future rapid transit stops. This reduces the dependence on the car. Density allows for new transit routes and more frequent service along the main corridors.

#### **Create greenways and trails along natural features.**

such as the Fraser River and the ocean. "Greenways are linear recreational, travel, and habitat corridors that link pedestrians and cyclists to the surrounding community and regional open space system." Greenways can also carry out important ecological functions, such as connecting habitat, as well as filtering and conveying stormwater.

#### **Densify and commercialize transit corridors.**

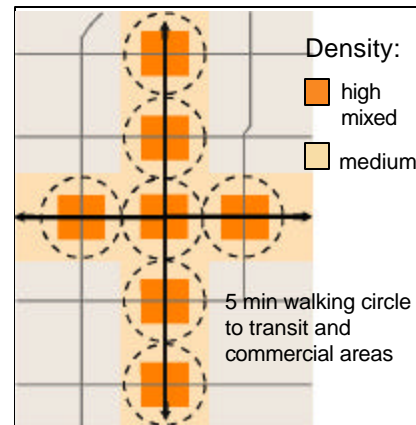
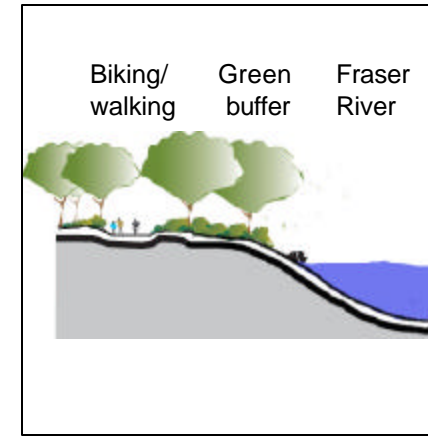
Increasing density and adding commercial spaces along the main corridors especially at the corners allows for viable, frequent transit service. Residents along the corridors are a maximum 5 min walking distance to transit, shopping and services.

**Retrofit blocks to encourage the flow of people, water and animals.** Poorly connected blocks greatly impede biking and walking as a means to get around and foster car dependence. Where possible enlarge public open space and connect streets to create mid-block connections. These green fingers visually and ecologically enhance the block.

*Build an interconnected transit and bikeway network:* Bike and pedestrian friendly roads, and a well serviced transit system lead to a less car dependent Richmond and South Delta.



*Create greenways and trails along natural features:* A network of greenways along stream corridors and dikes connect pedestrians, bikers, and wildlife from the local area to the greater region.



*Densify and commercialize transit corridors:* Increasing density along corridors and adding commercial zones allows for better transit service and walkable neighbourhoods.



*Retrofit blocks to encourage the flow of people, water and animals:* Green fingers through the block improve the walkability of the neighbourhood and create corridors and habitat for animals.



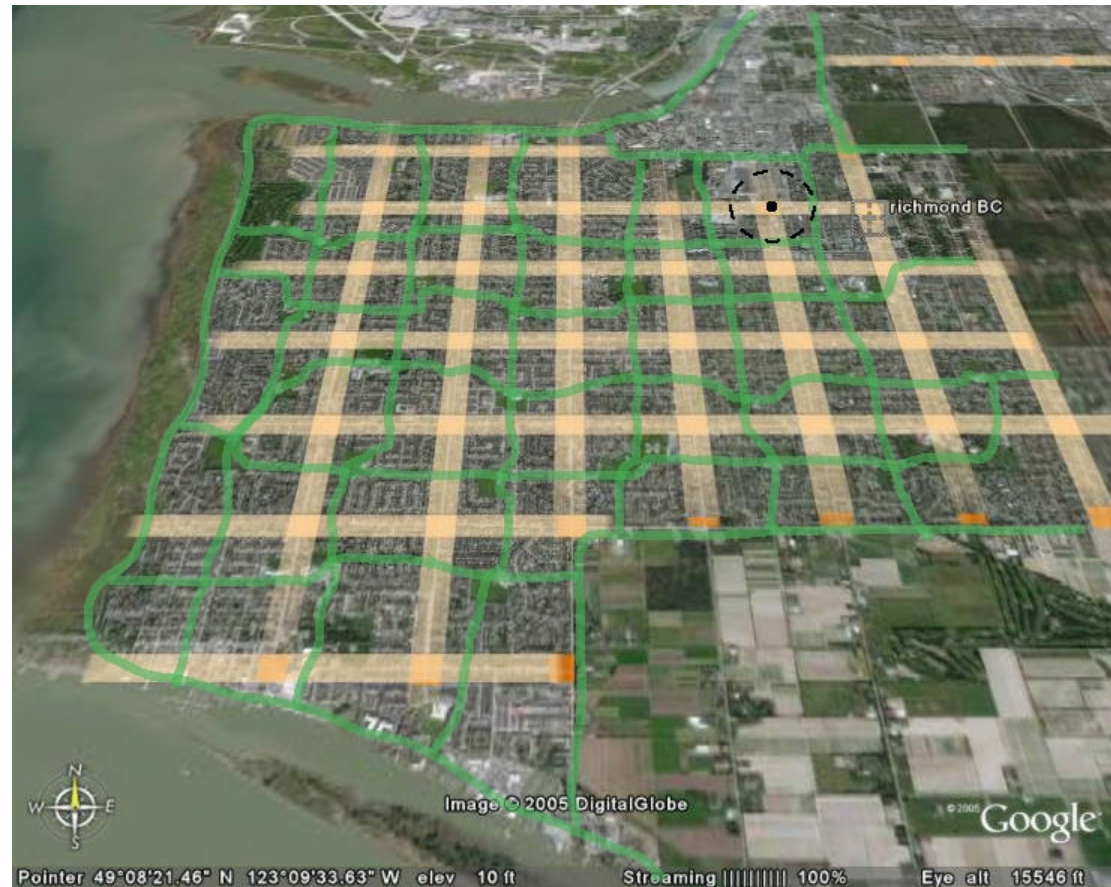
## The Fraser Lowlands- PATTERNS OF MOVEMENT

### Strategies Applied - Summary

**Densify and commercialize along transit corridors.** Richmond's towncentre is increasing in density. New multi-story commercial buildings are rapidly replacing former strip malls. This aerial picture of Richmond illustrates how these dense commercial centres can be extended out into the predominantly residential areas. The corridor along No 3 Rd that will be serviced by the RAV could become a new Broadway type street bringing transit, jobs, services and vibrancy to the area.

**Build an interconnect transit and bikeway network.** The continuous greenways along the Fraser and the ocean connect Richmond to Vancouver and the region. They also function as green buffers along the waters edge and create habitat for many species. In order for biking and walking to become a major mode of transportation, roads need to be equipped with bike paths and walkways.

**Retrofit blocks to encourage the flow of people, water and animals.** In the image the green line indicates possible green corridors through the middle of the quarter mile blocks of Richmond. This strategy has great potential to make walking and biking real options.



*The densified and interconnected Richmond:*

The orange lines highlight the densified corridors along the main transit routes. The green lines represent greenway corridors along the Fraser and ocean that connect bikers, and wildlife to the region. These greenways extend through the middle of the large quarter mile blocks of Richmond. They improve connectivity and allowing for better access for bikes and pedestrians.

## Systems Strategies

# The Fraser Lowlands – PATTERNS OF NATURE

## Sustainable Strategies – Summary

Where covered, reveal. Where revealed, restore.

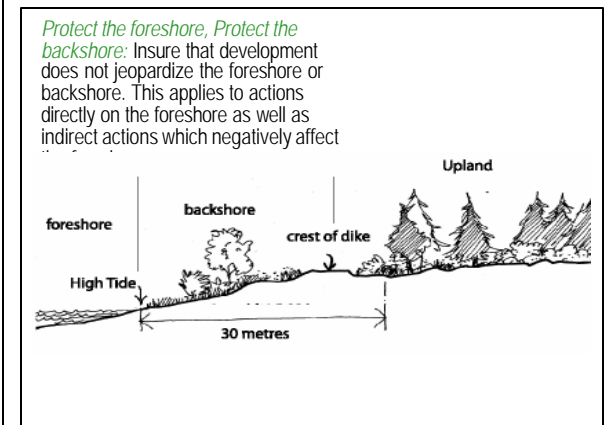
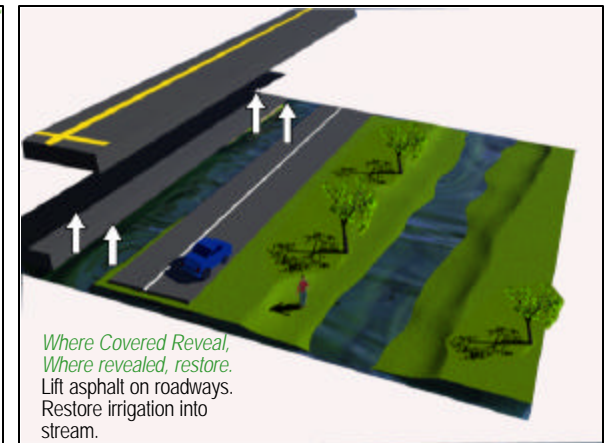
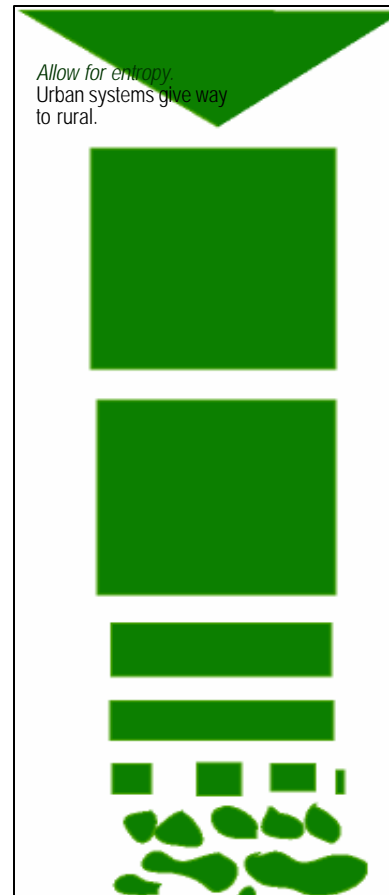
Protect the backshore, protect the foreshore.

**Where covered, reveal. Where revealed, restore.**

Opportunities are lost when streambeds are covered over with asphalt. As transportation strategies become more sustainable and efficient, drainage networks may be revealed where it is hygienically feasible and used as pedestrian walking networks.

**Protect the Foreshore, protect the backshore.**

Deltas and Coastal areas are the interface between given watersheds and the oceanic system. Protecting the backshore and foreshore is crucial for management of the estuary. Having living systems increases the ability of systems to continue functioning under states of environmental duress.



## The Lowlands-PATTERNS OF NATURE

### Strategies Applied - Summary

Lost streams and piped drainage were an unfortunate by-product of urban development in this area. When streams are filled in or piped, precious opportunities are lost.

In areas where stream restoration is economically and spatially feasible strive to undergo restoration work. Financial contribution towards these efforts may be supplied as a development stipend from adjacent industrial land users(as outlined in the OCP).

The urban development Division of the city of Richmond also has a natural concept map for connecting areas using existing ditches, canals, hedgerows and streams. There is no reason why urban areas could not also incorporate revelatory hydrological infrastructure in a limited manner. Urban waterways may be used as scenic corridors where pedestrians can stroll and feel a connection to the water and place.



### *Patterns of Nature(Richmond):*

The areas highlighted in red are the lost streams of the area. The areas in green are eco sensitive zones and/or the ALR. The blue lines represent existing and proposed waterways which would serve as green corridors. Where those lines fall within heavily urban areas, an urban canal with transport systems built around it , tree lined and pedestrian friendly could provide a cultural focal point for the region. These urban canals would progress into restored streams and eventually the Fraser itself.



## Systems Strategies

# The Fraser Lowlands – PATTERNS OF NEIGHBOURHOOD

### Sustainable Strategies – Neighbourhoods

Integrate the Employment, Transportation and Openspace strategies to improve the Fraser Lowland's neighbourhoods:

Higher density, the addition of live/work and the creation of walkable centres allows for more efficient use of public transportation and makes communities more liveable. The protection of openspace and green corridors also enhances the quality of resident's lives. The Agricultural Land Reserve is protected through densification and infill, helping to ensure food safety.

Transform main streets into pedestrian, bike and transit oriented green corridors. Such green streets are opportunities to restore natural drainage and daylight streams. Reducing infrastructure saves money and maintenance for future generations while protecting environmental integrity.

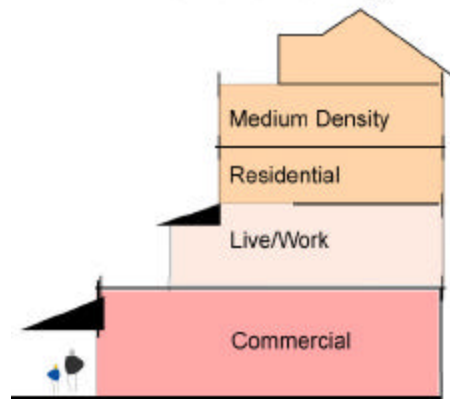
These canalised green streets add character to the neighbourhoods and provide recreational opportunities to the residents. By providing easy alternatives to automobile travel, alternative transportation such as bikes and walking become easier options. By giving walking, biking and public transit first priority. Neighbourhood's will be able to maintain and in many situations improve the quality of life of their residents.

#### *Connect the district to the region:*

Develop an interconnected network of bike and pedestrian friendly roads, and a diverse transit system that connect the district to the region.



Flexible Zoning

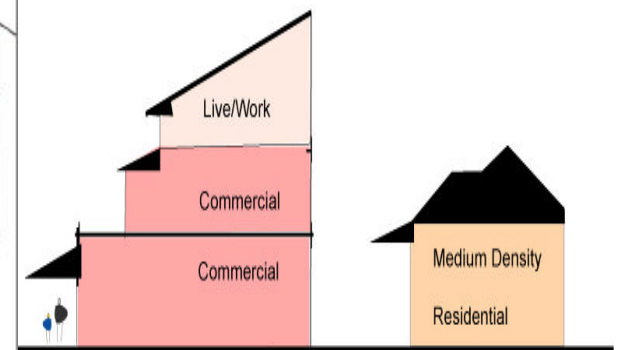


#### *Create greenways and trails along natural features:*

A network of greenways along stream corridors and connect pedestrians, bikers, and wildlife from a local area to the greater region.



Flexible Zoning



*Create centres, retrofit and infill blocks through Flexible zoning*

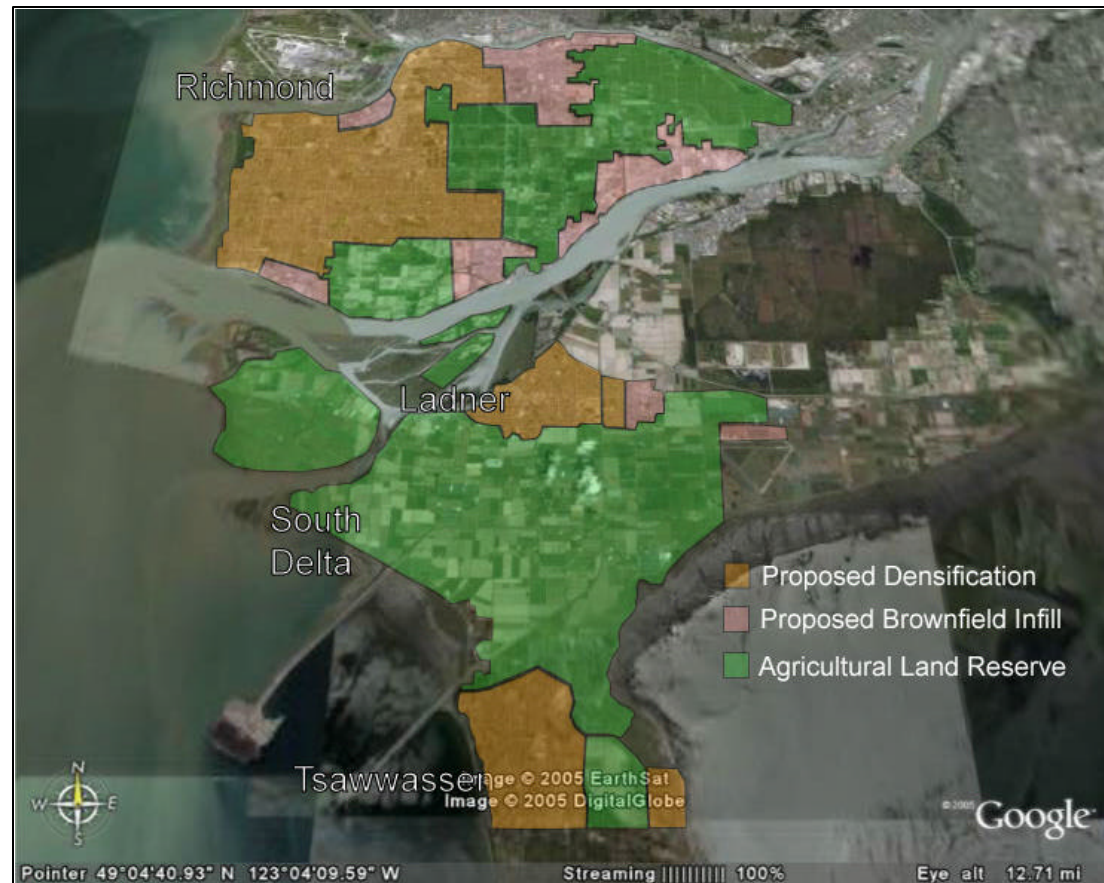
## Fraser Lowlands - PATTERNS OF NEIGHBOURHOOD

### Strategies Applied – Density and Infill.

The Fraser Lowlands already offer a high standard of living to their residents. The scenery is beautiful, employment is plentiful and access to open space is easy.

Over the next 50 years populations in the lowlands will increase and employment will shift. These new residents will face an increasingly tight housing market. They will also have to seek work in one of five employment centres. However, the Fraser Lowlands offer many alternatives that can maintain and even increase the liveability of the region. If zoning was changed and the lowlands were densified. Live/work could be incorporated and brownfield sites could be infilled. Many local, walkable centres would be created. Employment would be redistributed more evenly and commuting would be reduced. Offering residents more quality time in their neighbourhoods.

These local centres build a sense of community and strengthen the ties between residents. Such strategic planning relieves pressure on the Agricultural Land Reserve by eliminating the need to build on greenfield sites.



*Densification and Infill can improve the standard of living in the Fraser Lowlands while preserving the ALR.*

To relieve pressure on the ALR we could re-develop and infill brownfield sites.