

# Southeast False Creek Transportation Study: Sustainable Transportation for a Sustainable Community

### Organizations

City of Vancouver

### Status

Initiated 1990, draft ODP adopted 2004

### Overview

The City of Vancouver has set a goal to develop a model of high density, sustainable urban development on the southeast shore of False Creek and is now in the process of preparing an Official Development Plan.

Southeast False Creek (SEFC) is a 36 hectare former industrial area neighbouring Downtown Vancouver. The site will focus on residential uses, but will also include significant office and commercial retail/service floor space. When built out, it will house 14,000 new residents.

When approved, Southeast False Creek's Plan and its component transportation plan will contain some of North America's highest green sustainable transportation standards and requirements.

As part of planning process, the City of Vancouver completed a Transportation Study with the assistance of the Green Municipal Enabling Fund. The study recommends a short list of strategies to provide a wide range of ecologically, socially and economically sustainable transportation choices for future residents.

### Contacts

Dale Bracewell, Transportation Engineer  
Strategic Transportation Planning, City of Vancouver  
Email: [dale.bracewell@vancouver.ca](mailto:dale.bracewell@vancouver.ca)  
Telephone: (604) 871-6440

### Resources

- Copies of the SEFC Transportation Study and other related documents are available at [www.city.vancouver.bc.ca/commsvcs/southeast/background.htm](http://www.city.vancouver.bc.ca/commsvcs/southeast/background.htm)

### Community context

Located just south of Downtown Vancouver, the Southeast False Creek project is a major initiative to redevelop a large parcel of former industrial lands as a mixed-use sustainable community on the waterfront with a focus on residential use. The 36 hectare site is mostly City-owned, but also includes 13.6 hectares of privately owned land.

The vision for Southeast False Creek (SEFC) is to create a community where people live, work, play and learn in a neighbourhood designed to maintain and balance the highest possible levels of social equity, livability, ecological health and economic prosperity. With a planned population of 13,700, SEFC will complete the circle of high density residential development surrounding False Creek.



*Southeast False Creek: a major redevelopment site*

### Policy context

In 1991, Council directed that Southeast False Creek (SEFC) be developed as a residential community that incorporates principles of energy efficient design in its

area plan and explore the possibility of using SEFC as a model “sustainable community.”

- The planning of Southeast False Creek began when Vancouver City Council approved the rezoning of these lands from industrial zoning in 1990 to allow for the development of housing near downtown jobs. Council directed that the site be used as a model for "sustainable development."

After a series of preliminary design charrettes and negotiations with project stakeholders, the Southeast False Creek Policy Statement was approved in October 1999. The document identified general planning principles to guide the development of SEFC, including the stewardship of ecosystem health, economic viability and vitality, and social and community health. With regards to transportation and accessibility in particular, the Policy Statement document states that:

“The transportation network in SEFC will greatly shape the neighbourhood's form and liveability. Developing transportation and circulation systems, which focus on pedestrian and bicycle paths and transit linkages, is of primary importance in ensuring a liveable and environmentally sustainable waterfront neighbourhood”.

Next, staff, consultants, an advisory group, and an external working group worked to prepare four major environmental studies plans to help develop a basic site structure plan to be used as a basis for a preliminary Official Development Plan (ODP). The studies included:

- **SEFC Urban Agriculture Study:** discusses the fundamental goals of urban agriculture and the strategic objectives to achieve these goals in the SEFC sustainable community. Urban agriculture is defined in this study to include food production, food processing, and food distribution opportunities.
- **Southeast False Creek Energy Options Study:** identifies strategic opportunities for energy efficiency and to utilize local energy supplies within the SEFC site.
- **Southeast False Creek Water and Waste Management Plan:** provides a Water Management Plan and a Waste Management Plan for the SEFC community. The Water Management Plan discusses potential reductions in the use of potable water and potential reuse of stormwater and grey water. The Waste Management Plan discusses solid waste issues including waste reduction, recycling and reuse

opportunities, composting of organic waste and educational opportunities.

- **Southeast False Creek Transportation Study:** identifies a wide range of transportation choices that promote more sustainable modes of travel and recommends a short list of sustainable transportation strategies best suited for SEFC. This study is discussed at length in this case study.

In addition to these studies, two additional studies were completed. One study assessed the potential for applying LEED™ building designations to the SEFC project, while the other reviewed the four main environmental studies to combine their recommendations in a meaningful way to be incorporated into the area’s Official Development Plan and Urban Design Guidelines for SEFC.

Based on these studies, a draft Official Development Plan (ODP) was completed in October 2004 for SEFC. The ODP allots land use and density, secures public amenities and development rights, and defines green building and sustainability requirements. The draft ODP is currently under public review.

It is important to note that there are a series of additional policy documents that supported the development more sustainable transportation system for SEFC. These documents include:

- 1990 - Clouds of Change Report (Vancouver)
- 1993 - Transport 2021 Long Range Transportation Plan for Greater Vancouver (GVRD/Province of BC)
- 1995 - Livable Region Strategic Plan (GVRD)
- 1997 - Transportation Plan (Vancouver)
- 1999 - Downtown Streetcar Study (Vancouver)
- 2002 - Downtown Transportation Plan (Vancouver)



*An artist's rendering showing one of SEFC's local collector streets*

## Rationale and objectives

Policy-makers around the world are struggling with urban transportation and land use management issues. Population growth, decreasing rates of public transit use, and increasing automobile dependence are intensifying stress on the global environment and contributing to global climatic change. Strategies to manage these issues are plentiful and diverse; however, their diversity and lack of proven experience frustrate policy-makers when selecting the most appropriate sustainable transportation strategies.

As a project, SEFC represents an opportunity for designers, policy makers and other community stakeholders to design and develop a community that supports a wide range of accessible and equitable transportation choices that promote more sustainable modes of travel.

To achieve the sustainability goals outlined in the SEFC Policy Statement, it was determined that the Transportation Study should develop the best and most effective strategies in aiming to ‘balance’ the transportation system, improve transportation choices, and reduce the environmental, social, and economic costs of an automobile-dependent transport system.

Some of the key transportation objectives outlined in the guiding 1999 SEFC Policy Statement included:

- To provide for the access and mobility needs of residents and visitors in SEFC, in such a way as to promote neighbourhood livability, convenience, safety, and a modal shift from cars to pedestrians, bicycles and transit.

Supporting Policy: As ranked priorities, the transportation network in SEFC should address pedestrians, bicycles, transit (including ferries), goods movement and then automobiles.

- To ensure that, in meeting transportation objectives, other social, economic and environmental objectives are considered, especially in street design.

Supporting Policy: Streets should minimize paved surfaces where possible, to reduce impermeability, to reduce embodied energy and to encourage the calming of traffic.

## Actions

The SEFC Transportation Study is separated into eight key sections, including a forecast of future conditions (to 2021), a traffic impact assessment, a review of sustainable transportation strategies, an analysis of

sustainable strategy benefits and impacts, recommendations on street and parking standards, and a monitoring and evaluation program. It also includes a section that reviews alignment concepts for a proposed streetcar line that will ultimately link Vancouver’s popular Granville Island shopping precinct with Downtown Vancouver.

The study occurred in two phases. The first phase looked at meeting the requirements of a “typical” traffic impact study and identified transportation improvement requirements to serve current and future needs. The second phase assessed the implications of implementing a more sustainable transportation improvement strategy.

The first phase included a review of existing conditions and involved the collection and analysis of traffic, bicycle and pedestrian count data. Total trip generation was based on SEFC’s proposed residential population of 13,700 people in 6,850 multi-family units and 833,000 square feet of office and commercial retail/service space.

The “typical” impact study determined that the SEFC development would generate 4,070 person trips in the AM peak hour and 6,250 person trips in the PM peak hour at build-out. The base trip generation estimates assumed considerable expansion of the locally accessible transit system, including the Granville Island to Downtown streetcar service and new regional rapid transit links.

Given the area’s good quality accessible transit and its proximity to downtown Vancouver and Central Broadway, it was determined that the SEFC street network would enjoy a high non-auto share even without specific sustainable transportation strategies. Under the ‘business as usual’ scenario it was estimated that just over 50% of all trips to/from SEFC would be made by auto.

Although the modal split under the “typical” study was good, the study next looked at the development of SEFC as a model sustainable community with a wider range of transportation choices that promoted more ecologically, socially and economically sustainable modes of travel.

An extensive literature review was carried out to identify and evaluate the range of sustainable transportation strategies available for implementation in SEFC. Each strategy was evaluated against two key criteria: (1) applicability to SEFC at a “neighbourhood” level; and, (2) effectiveness at reducing vehicle trips to/from SEFC.

The resulting short-term list of sustainable transportation strategies best suited for SEFC included

the following: community transit pass, car sharing service, parking management, transit oriented design/complete community development, improved/multi-modal transit, and pedestrian and bicycle improvements.

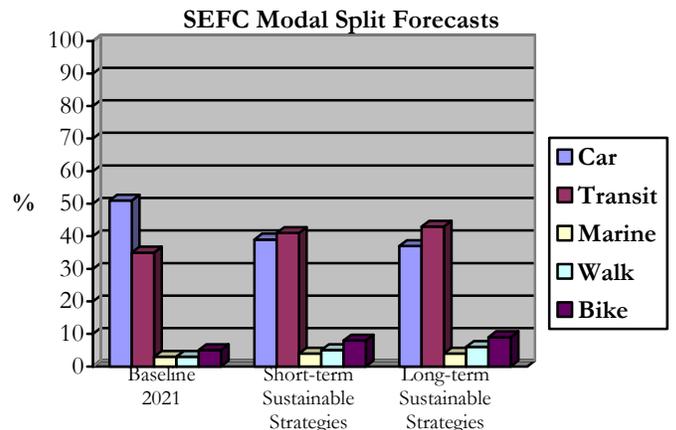
Longer-term strategies included traffic calming, voluntary employee trip reduction programs, walking, school bus, and home delivery services.

The study estimated that during the PM peak period, the short-term strategies will reduce auto mode usage by approximately 17%, and that the longer-term strategies will provide an additional auto mode usage reduction of 6%.

As part of the study, Vancouver’s street and parking design policies/standards were reviewed and compared against best practices in other sustainable communities. Based on these, a road classification system was defined, and where applicable, best practices from other similar areas were used to set associated street design and parking design requirements for SEFC.

Some of the proposed guidelines included: adopting a reduced 2.1 metre parking standard (down from 2.5 metres) on main streets; a reduced 1.8 to 2.4metre unpaved, permeable parking strip on neighbourhood streets; a reduced 2.4 to 3 metre travel lane for ‘neighbourhood streets’ (basically a single travel lane which will require vehicles to queue to pass one another); and, reduced parking standards for family units of 1.25 to 1.5 spaces per unit. As per Vancouver’s current practices, parking standards will be further reviewed on a case-by-case basis.

In order to provide a framework for measuring the success of the sustainable transportation achievements of the SEFC, a monitoring and evaluation program was also established – comprised of evaluation indicators, data requirements, potential targets, and strategies to communicate the results to the public. The evaluation indicators have been grouped into three categories: Transportation, Environment, and Quality of Life, with measures such as mode splits, vehicle kilometres of travel, and location efficient living index.



## Results

When approved, Southeast False Creek’s Official Development Plan and its component transportation plan will contain some of North America’s highest green sustainable transportation standards and requirements.

The site will also permit new and progressive parking standards that will be tested and evaluated for their environmental and social benefits and their cost effectiveness.

## Participants

An Advisory Group (now called the Stewardship Group) was created with representatives from adjacent neighbourhoods, landowners, environmental and youth groups, ecological organizations, technical experts and City staff. The Stewardship Group has monitored the implementation of the original SEFC Policy Statement through to the planning process and its constituent studies and advises the City on this process.

With heightened community interest in the project, an independent Working Group also established itself to monitor the planning process and advocate for increased environmental standards. The group is now formally integrated with the Advisory/Stewardship Group and helped advise the City and consultants on the SEFC Transportation Study.

In order to involve current residents of adjacent and similar neighbourhoods, a stakeholder workshop was also held and a residents’ transportation survey was administered to 2,000 residents of False Creek communities.

## Resources

The study was prepared by an external consultant with a study budget of \$70,000. The consultants were

supported by a five City staff. The work was also carried out with \$30,000 in financial assistance from the Canada's Green Municipal Enabling Fund.

## Lessons learned

Some of the lessons learned in developing sustainable transportation policies for SEFC include:

- **Be prepared to dedicate significant staff and financial resources.** Developing and implementing sustainable transportation policies and programs is time consuming. Anticipate that anything to do with sustainability will take longer than anything you have ever done before
- **Build on past work and incorporate lessons from elsewhere.** Much valuable work and research has been carried out elsewhere, including locally. Remember to incorporate past plans, and to consider local bylaws and regulations
- **Explore all opportunities.** There is no silver bullet to sustainable transportation planning and small incremental strategies will have their greatest effect when combined with others

## Next steps

The SEFC Official Development Plan is currently in public review. It is expected to be passed by Council in February, 2005. Following its passing the next step in the overall SEFC planning process is to complete sub-area rezonings for the City-owned and private lands respectively.

In terms of the on-site sustainable transportation program and policy development, some of the next steps include:

- Finalize the streetcar alignment, layout, and station spacing as part of the overall Downtown Streetcar Project Update
- Complete a SEFC Sustainable Transportation Strategy similar to the SEFC Green Building Strategy to guide the sustainable transportation planning of the various sub-area rezonings.
- Carry out a more comprehensive street design process with relevant stakeholder groups to develop appropriate and innovative street design concepts for all streets within SEFC.