



Public Works & Transportation Committee

**Anderson Room, City Hall
6911 No. 3 Road**

**Wednesday, September 19, 2012
4:00 p.m.**

Pg. # ITEM

MINUTES

PWT-5 *Motion to adopt the minutes of the meeting of the Public Works & Transportation Committee held on Wednesday, July 18, 2012.*



NEXT COMMITTEE MEETING DATE

Wednesday, October 17, 2012, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DEPARTMENT

- 1. PROVISION OF RESERVED ON-STREET PARKING SPACES FOR CAR-SHARE VEHICLES**

(File Ref. No. 10-6455-00) (REDMS No. 3611395 v.4)

PWT-13

See Page **PWT-13** for full report

Designated Speaker: Joan Caravan

STAFF RECOMMENDATION

- (1) *That the provision of reserved on-street parking spaces for the exclusive use of car-share vehicles, as outlined in the staff report dated August 24, 2012, from the Director, Transportation, be endorsed;*
- (2) *That Traffic Bylaw No. 5870, Amendment Bylaw No. 8944 (Attachment 2), be introduced and given first, second and third reading; and*
- (3) *That Notice of Bylaw Violation Dispute Adjudication No. 8122, Amendment Bylaw No. 8949 (Attachment 3), be introduced and given first, second and third reading.*



ENGINEERING AND PUBLIC WORKS DEPARTMENT

2. **PARTNERSHIP WITH FORTISBC TO UTILIZE AND PROMOTE RENEWABLE NATURAL GAS FROM THE LULU ISLAND WASTE TREATMENT PLANT**

(File Ref. No. 10-6600-10-01) (REDMS No. 3495055 v.14)

PWT-25

See Page PWT-25 for full report

Designated Speaker: Cecilia Achiam

STAFF RECOMMENDATION

- (1) *That a letter be sent, on behalf of Council, to the British Columbia Utilities Commission (BCUC) indicating that the City of Richmond:*
 - (a) *Supports the FortisBC application to convert biogas from the Lulu Island Wastewater Treatment Plant to renewable natural gas; and*
 - (b) *Will purchase up to 360 GJ of renewable natural gas, which represents approximately 10% (\$1,870) of the annual natural gas consumption of City Hall and South Arm Community Centre, from FortisBC in 2013;*
- (2) *That the City commit to purchasing 10% of the City's annual corporate natural gas consumption of all City facilities under the corporate energy management program as renewable natural gas produced at Lulu Island Wastewater Treatment Plant (Lulu RNG) when it comes on stream with an opt out clause with 90 days notice at the sole discretion of the City; and*

- (3) *That staff develop and report to Council on a pilot incentive program, including any financial implication and external funding opportunities, to encourage community utility users (i.e. property and business owners) to reduce GHG emissions by shifting up to 10% of their natural gas consumption to the Lulu RNG.*



3. **FOOD SCRAPS/ORGANICS RECYCLING PROGRAM EXPANSION**
(File Ref. No. 10-6370-10-05) (REDMS No. 3596009 v.5)

PWT-35

See Page PWT-35 for full report

Designated Speaker: Suzanne Bycraft

STAFF RECOMMENDATION

That:

- (1) *the new and enhanced recycling program service levels, effective June, 2013, outlined in Option 2 of the staff report from the Director, Public Works Operations be referred for consideration as part of the 2013 utility and capital budget processes to:*
- (a) *add a new level of service for food scraps and organics collection services using City-provided wheeled carts for all multi-family townhome residents currently receiving the City's blue box collection services;*
 - (b) *provide wheeled carts to all residents in single-family households for the storage and weekly collection of food scraps and organic materials;*
 - (c) *provide kitchen containers for the temporary storage of food scraps/organics to all residents in single-family and townhome units who currently receive the City's blue box collection services;*
- (2) *a large item pickup program, limited to four items per household per year, as outlined in Option 2a) of the staff report from the Manager, Fleet and Environmental Programs, be considered as part of the 2013 utility budget process for implementation in June, 2013 for all single-family and townhome residents in conjunction with the proposed expanded food scraps/organics recycling program; and*

Pg. # ITEM

- (3) *staff review and report on potential options for food scraps and organics collection services for residents in multi-family dwellings and commercial businesses.*

☐

4. **MANAGER'S REPORT**

ADJOURNMENT

☐



Public Works & Transportation Committee

Date: Wednesday, July 18, 2012

Place: Anderson Room
Richmond City Hall

Present: Councillor Linda Barnes, Chair
Councillor Chak Au
Councillor Derek Dang
Councillor Linda McPhail
Councillor Harold Steves
Mayor Malcolm Brodie

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works & Transportation Committee held on Wednesday, June 20, 2012, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Wednesday, September 19, 2012 (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DEPARTMENT

1. **REACHING CARBON NEUTRALITY – CORPORATE GREENHOUSE GAS EMISSIONS INVENTORY TO INCLUDE DIRECT EMISSIONS**
(File Ref. No.) (REDMS No. 3553494 v.6)

Public Works & Transportation Committee

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Margot Daykin, Sustainability Manager, Community Services, advised that the Metro Vancouver Regional Administrative Committee recently passed a resolution to send a letter to the Joint Provincial-UBCM Green Communities Committee regarding resolving inequities presented in the Province's new 'Guidance on Including Contracted Emissions in Local Government Corporate Inventories'.

In reply to queries from Committee, Ms. Daykin provided the following information:

- the City has not achieved complete carbon neutrality;
- a progress report on the City's overall progress towards carbon neutrality is anticipated to be presented to Council in late Fall 2012;
- the City is reimbursed approximately \$200,000 for its carbon tax expenditures; and
- the City is represented by UBCM on the Joint Provincial-UBCM Green Communities Committee.

It was moved and seconded

- (1) *That the City continues its current practice to only include emissions from direct activities in its corporate greenhouse gas emission inventory at this time; and*
- (2) *That a letter be sent to the Joint Provincial-UBCM Green Communities Committee, requesting that amendments be made to the "Guidance on Including Contracted Emissions in Local Government Corporate Inventories" to resolve inequities, ensure that no new costs are borne by local governments without adequate funding and that action is being directed towards appropriate priorities.*

CARRIED

2. **2011 ANNUAL WATER QUALITY REPORT**

(File Ref. No. 10-6650-01) (REDMS No. 3569613)

In reply to queries from Committee, Doug Anderson, Manager, Water Services, advised the following:

- Richmond has very high quality water based on the 1,936 water samples collected;
- a mobile water supply unit costs approximately \$10,000;
- a significant number of Water Services staff will be eligible for retirement in the near future, as such there is a strong focus on staff training to ensure adequate succession planning;
- Water Services staff continue to implement a comprehensive water loss management and leak detection program; and

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- when high water consumption is detected, Water Services staff attend the residence to inform the homeowner that they may have a water leak.

Discussion ensued regarding Richmond's high quality water and it was noted that Richmond residents were provided with some of the best drinking water in the world. Committee expressed their desire to see that this information, along with the tips provided in the 2011 Annual Water Quality Report be promoted Richmond-wide. Also, it was noted that groups such as the Intercultural Advisory Committee might be of assistance in promoting this information in different languages.

It was moved and seconded

That the 2011 Annual Water Quality Report dated July 10, 2012 be received for information.

CARRIED

3. **ANNUAL FLOOD PROTECTION REPORT 2012**

(File Ref. No. 10-6060-04-01) (REDMS No. 3529445)

It was moved and seconded

That the staff report titled Annual Flood Protection Report 2012 (dated June 20, 2012, from the Director, Engineering) be received for information.

The question on the motion was not called as in reply to queries from Committee, Robert Gonzalez, General Manager, Engineering and Public Works, commented on the City's communication plan for flood protection.

Discussion ensued and Committee requested that the Annual Flood Protection Report 2012 be presented at a future Council meeting, highlighting the various mechanisms in place that keep Richmond safe from flooding.

In response to a comment made by Committee, Lloyd Bie, Manager, Engineering Planning, advised that the City's drainage systems is constantly upgraded and improved to accommodate new development and climate change. Mr. Gonzalez stated the City's drainage models are based on the previous year's statistics.

Mayor Brodie left the meeting (4:38 p.m.).

The question on the motion was then called and it was **CARRIED**.

4. **DIKE MASTER PLAN – PHASE 1**

(File Ref. No. 10-6060-01) (REDMS No. 3553300 v.3)

John Irving, Director, Engineering, provided background information.

Mayor Brodie returned to the meeting (4:44 p.m.).

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In response to a query from Committee, Mr. Irving stated that the Dike Master Plan is intended to be a comprehensive guide to upgrade flood protection infrastructure in a practical manner, which will allow the City to make the most of its resources and plan for the future. Also, Mr. Irving commented on key stakeholders, noting that the Federal and Provincial governments would be included in the stakeholder discussions.

It was moved and seconded

That the public and key external stakeholders be consulted to provide feedback on the Steveston area and the West Dike flood protection concepts identified in the staff report titled Dike Master Plan – Phase 1 (dated June 27, 2012 from the Director, Engineering).

The question on the motion was not called, as in reply to a query from the Chair, Mr. Irving stated that once staff have received feedback from stakeholders, staff would begin formulating options to bring forward for Council consideration.

The question on the motion was then called and it was **CARRIED**.

5. **CITY INFRASTRUCTURE PROTOCOL AGREEMENT AND CANADA LINE RICHMOND ACCESS AGREEMENT AMENDMENT NO. 3**

(File Ref. No.) (REDMS No. 3417174 v.5)

In reply to queries from Committee, Tom Stewart, Director, Public Works Operations, advised that (i) InTransit BC is the operator of the Canada Line; and (ii) columns for the Canada Line provide drainage and as such must remain fully accessible for maintenance purposes; therefore, it was determined that the columns were not suitable for public art and decorative lighting installations.

It was moved and seconded

(1) *That the City enter into the following attached agreements:*

(a) *the City Infrastructure Protocol Agreement dated for reference May 1, 2011 between the City of Richmond, South Coast British Columbia Transportation Authority and Intransit BC Limited Partnership; and*

(b) *the Canada Line Richmond Access Agreement Amendment No. 3 made as of August 12, 2009 between the City of Richmond and the South Coast British Columbia Transportation Authority; and*

(2) *That the Mayor and City Clerk be authorized to execute the above-mentioned agreements on the City's behalf.*

CARRIED

Public Works & Transportation Committee

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PLANNING AND DEVELOPMENT DEPARTMENT

6. **PROVINCIAL 2012-2013 BIKEBC PROGRAM – SUBMISSIONS FOR COST-SHARING**

(File Ref. No. 01-0150-20-THIG1) (REDMS No. 3559232 v.4)

Victor Wei, Director, Transportation, highlighted that the City has received confirmation from TransLink that \$201,000 was approved for the Railway Avenue Corridor Greenway: Granville Avenue-Garry Street (Phase I).

In reply to queries from Committee, Mr. Wei, accompanied by Mike Redpath, Senior Manager, Parks, advised that (i) the City has a good history of receiving funding from external sources for such projects; and (ii) a concept design is underway for the Railway Avenue Corridor Greenway project.

It was moved and seconded

(1) *That the submission for cost-sharing to the Province's 2012-2013 BikeBC Program of the following two projects:*

(a) *the Railway Avenue Corridor Greenway; and*

(b) *Phase I of the Parkside Neighbourhood Bike Route;*

as described in the staff report titled Provincial 2012-2013 BikeBC Program – Submissions For Cost-Sharing (dated June 20, 2012 from the Director, Transportation and the Senior Manager, Parks) be endorsed; and

(2) *That should the above applications be successful, the Chief Administrative Officer and the General Manager, Planning and Development, be authorized to execute the funding agreements as outlined in the staff report dated June 20, 2012.*

CARRIED

7. **DEVELOPMENT OF NATIONAL RAILWAY-ROADWAY GRADE CROSSING STANDARDS AND REGULATIONS**

(File Ref. No. 01-0140-20-TCAN1) (REDMS No. 3559698)

Mr. Wei provided background information and stated that the feedback received by Transport Canada has been fairly consistent in that public and private owners of railway crossings are concerned with the feasibility of the proposed new regulations. Also, he commented on the next steps for the proposed new Standards and Regulations.

It was moved and seconded

(1) *That a letter be sent to the Minister of Transport requesting that:*

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- (a) *the proposed Railway-Roadway Grade Crossings Standards be revised to be engineering guidelines, to allow for a risk-based approach that provides flexibility for owners of railway crossings, including road authorities, to address any identified safety concerns in light of limited financial resources and technical constraints;*
- (b) *a dedicated program be established to provide adequate funding support to owners of railway crossings, including municipalities, for any upgrades required to meet the new guidelines; and*
- (2) *That a copy of the above letter be sent to all Richmond Members of Parliament and Lower Mainland municipalities affected by the proposed Regulations for support of the above request.*

CARRIED

8. MANAGER'S REPORT

(i) *Night Market Traffic Conditions*

Mr. Wei commented on the Duck Island Night Market's traffic conditions, noting that it has been consistently improving. He stated that staff have been working closely with the Night Market operator and the River Rock Casino to address these concerns. In reply to a query from Committee, Mr. Wei advised that the Night Market has seen crowds ranging from 5,000 to 11,000 visitors a night.

Discussion ensued regarding commercial operations on 3rd Avenue in Steveston and the feasibility of a loading area.

(i) *Alexandra District Energy Utility*

Mr. Irving stated that the Alexandra District Energy Utility is operational and awaiting to provide services to two developments. Also, he noted that staff anticipate a formal opening in September 2012.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:22 p.m.).

CARRIED

Public Works & Transportation Committee

Wednesday, July 18, 2012

Certified a true and correct copy of the Minutes of the meeting of the Public Works & Transportation Committee of the Council of the City of Richmond held on Wednesday, July 18, 2012.

Councillor Linda Barnes
Chair

Hanieh Berg
Committee Clerk



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: August 24, 2012

From: Victor Wei, P. Eng.
Director, Transportation

File: 10-6455-00/Vol 01

Re: Provision of Reserved On-Street Parking Spaces for Car-Share Vehicles

Staff Recommendation

1. That the provision of reserved on-street parking spaces for the exclusive use of car-share vehicles, as outlined in the attached report, be endorsed.
2. That Traffic Bylaw No. 5870, Amendment Bylaw No. 8944 (Attachment 2), be introduced and given first, second and third reading.
3. That Notice of Bylaw Violation Dispute Adjudication No. 8122, Amendment Bylaw No. 8949 (Attachment 3), be introduced and given first, second and third reading.

for: Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)

Att. 3

| REPORT CONCURRENCE | | | |
|---|-------------------------------------|---------------------------------------|----------------------|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER | |
| Community Bylaws | <input checked="" type="checkbox"/> | | |
| Finance | <input checked="" type="checkbox"/> | | |
| Law | <input checked="" type="checkbox"/> | | |
| Sustainability | <input checked="" type="checkbox"/> | | |
| Engineering | <input checked="" type="checkbox"/> | | |
| Fleet | <input checked="" type="checkbox"/> | | |
| REVIEWED BY SMT SUBCOMMITTEE | INITIALS: | REVIEWED BY CAO | INITIALS: |

Staff Report

Origin

A car-share company based in Vancouver has contacted the City regarding the provision of an exclusive reserved parking space near the Canada Line to facilitate the expansion of its service to Richmond. As the availability of car-share services in Richmond would support Council goals related to sustainability (e.g., reducing greenhouse gas emissions, reducing private vehicle ownership, increasing the convenience of alternative modes of travel, etc), this report proposes that the establishment of car-share services in Richmond be supported via the provision of on- and off-street parking spaces reserved for the exclusive use of car-share vehicles.

Analysis

1. What is Car-Sharing?

Car-share services give members 24-hour access to a fleet of cars stationed conveniently around a city or region. Typical features include:

- vehicles are booked by phone and/or on-line and can be reserved for as long or as little as one needs;
- vehicles are picked up and dropped off at an agreed time and are usually parked in neighbourhoods conveniently near members' homes and along transit routes;
- trip logs are recorded to track time and distance and note any maintenance required;
- provision of a monthly itemized bill for vehicle use, similar to a utility bill;
- insurance, repairs and fuel costs are included with membership;
- all administration, financing, insurance, and maintenance needs are managed by the car-share company;
- members can receive discounts through partners (e.g., when renting vehicles for longer trips, using transit); and
- members need to meet minimum age and driving experience requirements due to insurance requirements.

2. Benefits of Car-Sharing

Access to car-share services provides a number of benefits for both individual users and the broader community including:

- increased transportation choices and financial savings for users;
- increased affordability for lower-income drivers who occasionally need a vehicle;
- reduced per capita annual mileage, resulting in reduced congestion, road and parking facility costs, crashes, pollution, greenhouse gas emissions, and energy use; and
- reduced residential parking requirements due to reduced per capita vehicle ownership.

Studies¹ suggest that car-sharing typically results in:

- a net reduction in per capita driving among members that averages 40 to 60 per cent, which translates to an average reduction of 0.8 to 1.2 tonnes of greenhouse gases; and

¹ Victoria Transport Policy Institute (<http://www.vtpi.com/tpi47.htm>).

- the replacement of six to eight private cars for every shared car.

3. Car-Sharing in Greater Vancouver

Currently, there are three primary car-share companies in the Greater Vancouver area: Modo, ZipCar and Car2Go. Table 1 identifies the approximate size and locations of their fleets. Currently, only Car2Go is present in Richmond with two vehicles stationed in the parking lot of Kwantlen Polytechnic University campus.

Table 1: Size and Location of Car-Share Company Fleets

| Area | Modo | ZipCar | Car2Go | Est. Total |
|-------------------|------------|------------|------------|------------|
| Vancouver | 197 | 175 | 258 | 630 |
| Burnaby | 17 | 2 | 0 | 16 |
| New Westminster | 6 | 0 | 0 | 10 |
| Surrey | 3 | 0 | 0 | 2 |
| North Shore | 6 | 2 | 0 | 7 |
| Richmond | 0 | 0 | 2 | 2 |
| Est. Total | 229 | 179 | 260 | 667 |

In all areas, vehicles are predominantly parked in reserved off-street spaces (e.g., private parking lot) that are required to be publicly accessible 24 hours per day. Typically, reserved on-street parking spaces are provided where no practical off-street location exists. For example, less than 30 per cent of Modo's fleet is parked on-street.

4. Current City Actions to Facilitate Car-Sharing in Richmond

Currently, the City is supporting the establishment of car-share services in Richmond by seeking the provision of off-street car-share parking spaces in multi-family residential developments as a transportation demand management (TDM) measure to reduce private vehicle travel and

Table 2: New Developments with Car-Share Spaces

| Area | Location | # of Spaces | Status |
|-------------|--------------------------|-------------|--------------------|
| City Centre | No. 3 Rd & Ackroyd Rd | 2 | Under Construction |
| Broadmoor | No. 3 Rd & Williams Rd | 2 | Under Construction |
| Steveston | No. 1 Rd & Moncton St | 1 | Completed |
| Ironwood | No. 5 Rd & Steveston Hwy | 2-4 | Under Construction |

promote the use of alternative modes including transit, cycling and walking. Upon completion of the development, the spaces will be made available at no cost to car-share companies. Table 2 lists the locations where car-share parking spaces have been secured to date.

In past discussions with staff, the car-share operators have indicated that any initial expansion of their services to Richmond would be targeted to vehicle locations around the Canada Line.

5. Provision of Reserved On-Street Parking for Car-Share Vehicles

Generally, the parking and storage of vehicles is best provided within off-street lots while on-street spaces should only be considered as a supplement to off-street parking. However, as car-share companies desire to initially locate along the Canada Line and no off-street parking spaces are yet available in close proximity to the Canada Line, staff propose that reserved on-street spaces be made available to all interested car-share organizations as an interim measure until off-street spaces become available. The ability to utilize street parking would further promote car-sharing due to the increased visibility and convenience.

As shown in Table 3, the proposed spaces would be located within 250 m (five minute walk) of a Canada Line station with up to three on-street spaces designated at each of the four existing Canada Line stations in Richmond: Bridgeport, Aberdeen, Lansdowne, and Richmond-Brighouse. **Attachment 1** identifies the proposed streets and locations that could accommodate reserved parking spaces around each Canada Line station. Staff have confirmed that the proposed locations have sufficient capacity for the designation of up to three reserved parking spaces without impacting other street operations or uses (e.g., existing kiss-and-ride locations, loading zones, etc).

Table 3: Car-Share Parking Locations

| Station | Location | Distance to Station |
|--------------------|---|---------------------|
| Bridgeport | South side of River Rd just east of Sexsmith Rd | 120 m |
| Aberdeen | North side of Cambie Road west of No. 3 Rd and CPR tracks | 120 m |
| Lansdowne | South side of Lansdowne Rd in lay-by east of No. 3 Road | 150 m |
| Richmond-Brighouse | North side of Park Rd just east of No. 3 Road | 250 m |

The actual designation of an on-street space at these sites would be triggered by demonstrated demand (e.g., a request from a car-share company) and would be assigned on a first-come, first-served basis. At this time, only MODO has requested one on-street parking space in the vicinity of Richmond-Brighouse Station. Should all on-street spaces be allocated and there is a further request from a car-share company, preference would be given to a company that is unrepresented in Richmond or relatively underrepresented vis-à-vis other car-share companies already established in the city.

Dedicating sections of streets for specific users such as car-share companies is similar to existing zones that the City establishes for tour buses and commercial loading. Staff recommend that an annual administration fee of \$300 be levied per reserved parking space to offset program costs such as signage and vehicle decals. Staff propose that each on-street parking space be allocated for a two-year term and the fee reviewed on an annual basis. Community Bylaws would undertake administration of the program with respect to the receipt of permit payments, the issuance of decals and enforcement of the on-street parking regulation.

At this time, there is no interest from the car-share companies for an on-street reserved space that is located within an existing pay parking zone (block meter or permit). Should there be interest for such a site in the future, staff suggest that an additional fee be charged based on the average annual revenue collected by the City for that space in the previous calendar year in order to remain revenue neutral. For example, a location on Saba Road east of Buswell Street currently generates \$1,500 in annual revenue for the City; thus, the additional annual fee would be \$1,500. Any required bylaw amendments to facilitate this proposed policy would be brought forward at that time.

**City of Vancouver
Parking Signage**

6. Required Amendments to Municipal Bylaws

The provision of reserved on-street parking spaces for the exclusive use of a specified car-share company would require amendments to Traffic Bylaw No. 5870 and Notice of Bylaw Violation

Dispute Adjudication No. 8122 as proposed in **Attachment 2** and **Attachment 3**, respectively. These amendments are summarized below in Table 4.

Table 4: Summary of Proposed Bylaw Amendments

| Bylaw | Summary of Amendments |
|--|---|
| Traffic Bylaw No. 5870 | <ul style="list-style-type: none"> • add appropriate definitions (e.g., "shared vehicle") • permit the designation of any part of a street for the reserved parking only of a shared vehicle • define the annual permit fees |
| Notice of Bylaw Violation Dispute Adjudication No. 8122 | <ul style="list-style-type: none"> • add fine for improper use of reserved on-street parking space |

7. Consultation with Richmond Parking Advisory Committee


Staff shared the proposed measures to support car-share services in Richmond with the Richmond Parking Advisory Committee, who indicated support as car-sharing can indirectly increase parking availability by reducing demand via lower private vehicle ownership.

Financial Impact

The proposed car-sharing parking program is intended to be revenue neutral with the annual \$300 administration fee generating funds to pay for the program costs such as signage and the issuance of vehicle decals. Staff time to implement and administer the program can be accommodated within existing divisional operating budgets.

Conclusion

Access to car-share services not only can allow households to reduce their vehicle ownership but also provides an incentive to reduce driving and rely more on alternative travel modes. City support for the establishment of car-share services in Richmond would assist the advancement of several goals including reducing greenhouse gas emissions and improving community mobility by providing a greater choice of cost-effective travel options.

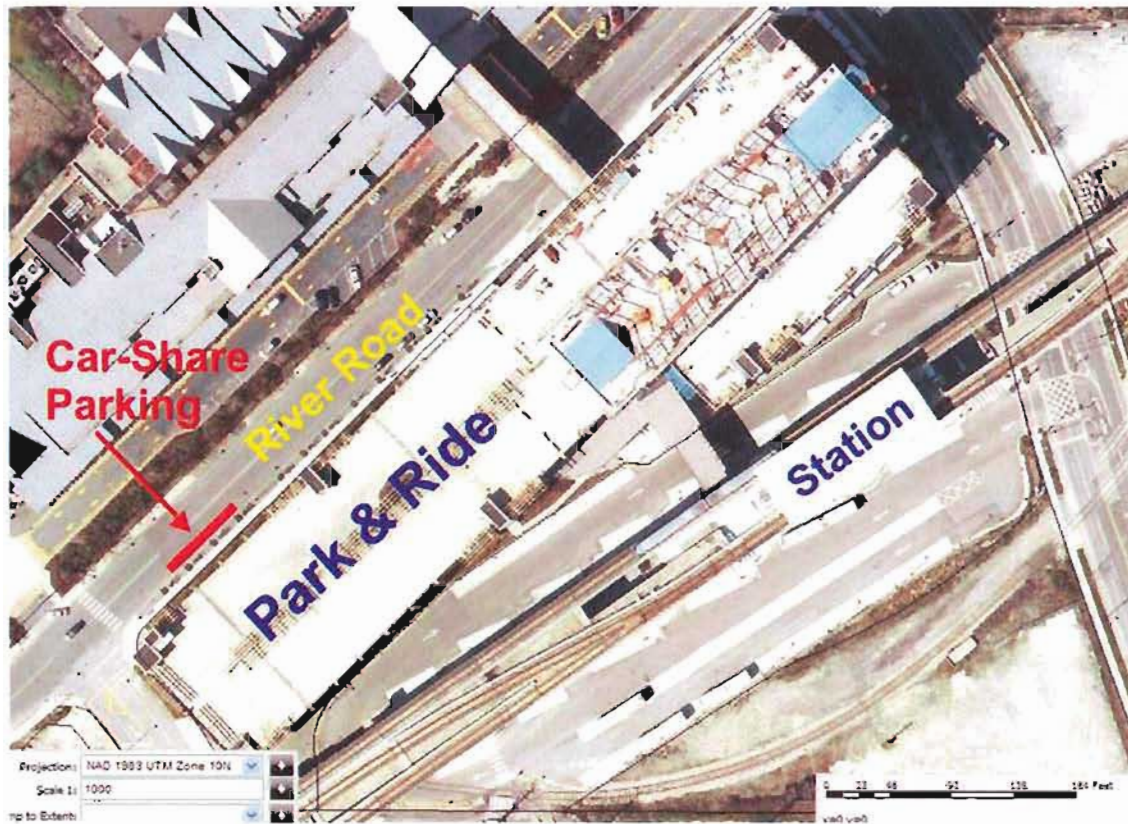


Joan Caravan
Transportation Planner
(604-276-4035)

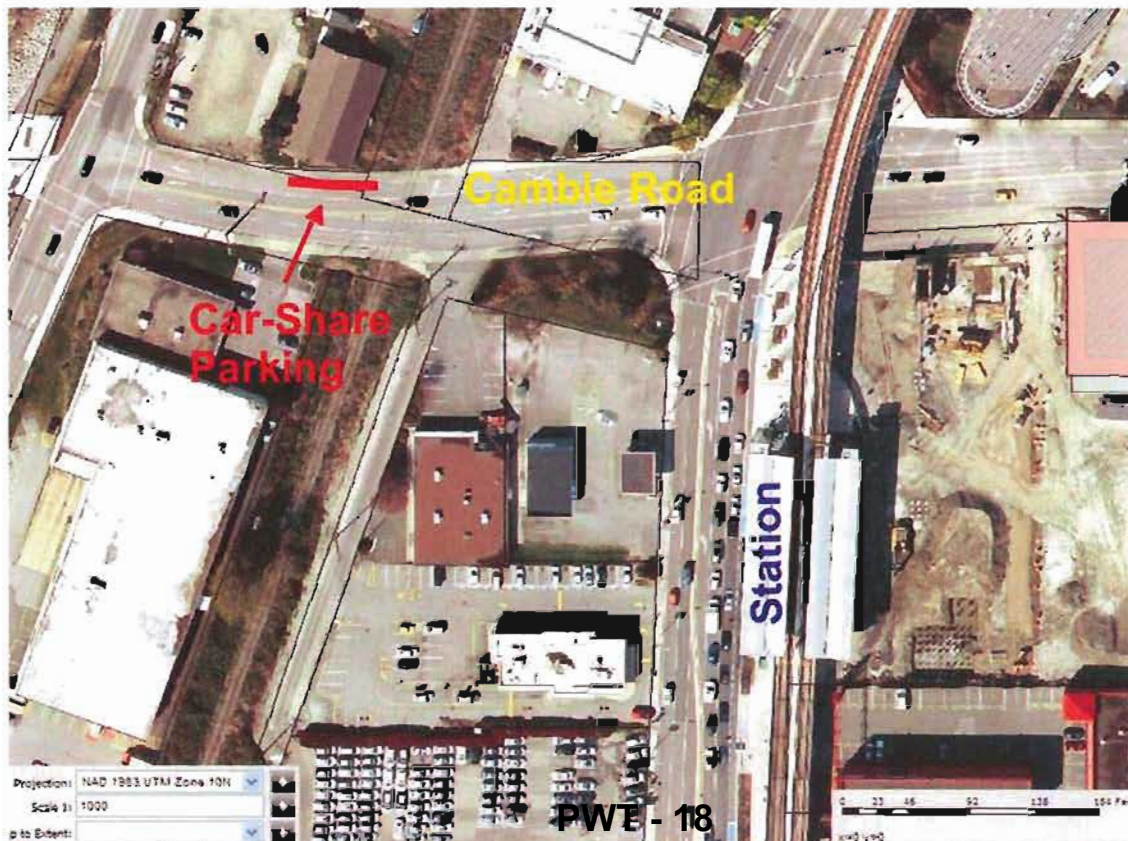
JC:rg

Proposed Locations of On-Street Parking Spaces for Car-Share Vehicles

Bridgeport Station



Aberdeen Station

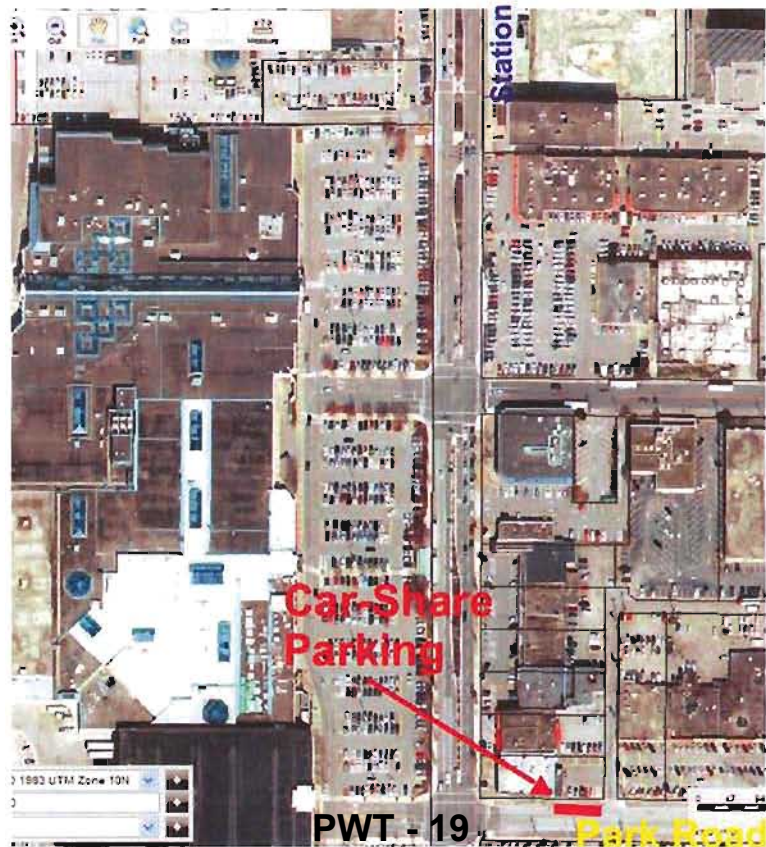


Proposed Locations of On-Street Parking Spaces for Car-Share Vehicles

Lansdowne Station



Richmond-Brighouse Station





Traffic Bylaw No. 5870, Amendment Bylaw No. 8944

The Council of the City of Richmond enacts as follows:

1. Traffic Bylaw No. 5870, as amended, is further amended at Section 1.2 by adding the following definitions to Section 1.2, after the definition of “CURB”:

**DIRECTOR OF
TRANSPORTATION**

means the Director of Transportation in the Planning and Development Department of the City and includes a person designated as an alternate.

2. Traffic Bylaw No. 5870, as amended, is further amended at Section 1.2 by adding the following definitions to Section 1.2, after the definition of “RICHMOND OVAL”:

SHARED VEHICLE

means a **vehicle** that is owned and operated by a **shared vehicle organization**.

**SHARED VEHICLE
ORGANIZATION**

means an entity approved by the **Director of Transportation** that provides its members, for a fee, a car-sharing service whereby such members have access to a fleet of **shared vehicles** which they may reserve for use on an hourly basis.

**SHARED VEHICLE
DECAL**

means a colour-coded plastic sticker issued by the City to a **shared vehicle organization** that is affixed to the lower, driver side of the windshield of a **shared vehicle**.

3. Traffic Bylaw No. 5870, as amended, is further amended by adding the following after 12B:

SHARED VEHICLE PARKING

- 12C.1 The City may designate any **street** or part of the **street** for the reserved **parking** only of **shared vehicles** by posting on the **street** signs indicating a prohibition on **parking** except for a **shared vehicle** owned by the **shared vehicle organization** described on the **street** sign.
- 12C.2 A person may park a **shared vehicle** on any such **street** or part of the **street** as designated in 12C.1 under the following conditions:
 - (a) the **shared vehicle** has a properly located and current **shared vehicle decal**;

- (b) the name of the **shared vehicle organization** on the **shared vehicle decal** corresponds with the name of the **shared vehicle organization** described on the **street** sign; and
- (c) the **shared vehicle** complies with all other parking restrictions that apply in that area.

12C.3 The general allocation of **shared vehicle parking** spaces on the **street** will be based on the following:

- (a) on a first-come, first-served basis; and
- (b) at high demand locations, spaces will be allocated to the **shared vehicle organizations** by way of a lottery draw on the basis of rules the **Director of Transportation and Manager, Community Bylaws** consider just and equitable in the circumstances.

12C.4 The annual fee for a permit authorizing the use of a **shared vehicle parking** space under Section 12C.1 for each **shared vehicle** is \$300 plus applicable taxes.

4. This Bylaw is cited as “**Traffic Bylaw No. 5870, Amendment Bylaw No. 8944**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

| |
|--|
| CITY OF RICHMOND |
| APPROVED for content by originating dept. |
| APPROVED for legality by Solicitor |

MAYOR

CORPORATE OFFICER



City of Richmond

Bylaw 8949

Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 8949

The Council of the City of Richmond enacts as follows:

1. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended, is further amended by adding to the end of the table in Schedule A of Bylaw No. 8122 the content of the table in Schedule A attached to and forming part of this bylaw.
2. This Bylaw is cited as “**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 8949**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

| |
|--|
| CITY OF RICHMOND |
| APPROVED for content by originating dept. |
| APPROVED for legality by Solicitor |

MAYOR

CORPORATE OFFICER

SCHEDULE A TO BYLAW NO. 8122

Designated Bylaw Contraventions and Corresponding Penalties

| A1 Bylaw | A2 Description of Contravention | A3 Section | A4 Compliance Agreement Available | A5 Penalty | A6 Early Payment Option | A7 Late Payment Amount | A8 Compliance Agreement Discount |
|-------------------------------|---|-----------------------|--|-----------------------|------------------------------------|-----------------------------------|---|
| | Period of Time from Receipt (inclusive) | | n/a | 29 to 60 days | 1 to 28 days | 61 days or more | n/a |
| Traffic Bylaw No. 5870 (1992) | Parking without displaying a valid shared vehicle decal | 12C.2 | No | \$70.00 | \$45.00 | \$95.00 | n/a |

PWT - 23

Bylaw No. 8949

SCHEDULE A TO BYLAW NO. 8949



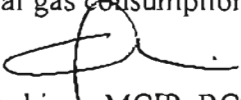
City of Richmond

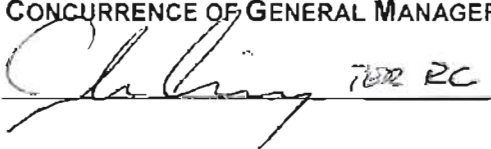


Report to Committee

To: Public Works and Transportation Committee
From: Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy
Date: August 15, 2012
File: 10-6600-10-01/2012-Vol 01
Re: Partnership with FortisBC to Utilize and Promote Renewable Natural Gas from the Lulu Island Waste Treatment Plant

Staff Recommendation

1. That a letter be sent, on behalf of Council, to the British Columbia Utilities Commission (BCUC) indicating that the City of Richmond:
 - Supports the FortisBC application to convert biogas from the Lulu Island Wastewater Treatment Plant to renewable natural gas; and
 - Will purchase up to 360 GJ of renewable natural gas, which represents approximately 10% (\$1,870) of the annual natural gas consumption of City Hall and South Arm Community Centre, from FortisBC in 2013.
2. That the City commit to purchasing 10% of the City's annual corporate natural gas consumption of all City facilities under the corporate energy management program as renewable natural gas produced at Lulu Island Wastewater Treatment Plant (Lulu RNG) when it comes on stream with an opt out clause with 90 days notice at the sole discretion of the City.
3. That staff develop and report to Council on a pilot incentive program, including any financial implication and external funding opportunities, to encourage community utility users (i.e. property and business owners) to reduce GHG emissions by shifting up to 10% of their natural gas consumption to the Lulu RNG.


Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy
(604-276-4122)
Att: 2

| REPORT CONCURRENCE | | | |
|---|---|---|---|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER | |
| Budgets | <input checked="" type="checkbox"/> |  7002 RC | |
| Project Development | <input checked="" type="checkbox"/> | | |
| REVIEWED BY TAG SUBCOMMITTEE | INITIALS:  | REVIEWED BY CAO | INITIALS:  |

Staff Report

Origin

Goal # 8.1 in the Council Term Goals for the Term 2011-2014 states:

“Sustainability – Continued implementation and significant progress towards achieving the City’s Sustainability Framework, and associated targets.”

Furthermore, in April 2010, Council illustrated its commitment to sustainability by adopting the provincial targets and approved an amendment to the Richmond Official Community Plan (OCP) Bylaw 7100, Amendment Bylaw No. 8599. The OCP amendment contained a series of actions including the following:

- Establish a grant, rebate and/or low interest loan program to assist property owners to retrofit their buildings to reduce GHG emissions;

Council also adopted community-wide Greenhouse Gas (GHG) Reduction Targets of 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050.

The proposed initiatives in this report meet the intent of these Council directives.

Background

Staff have been collaborating with Metro Vancouver to explore ways to utilize the energy recovered from solid waste treatment produced at the Lulu Island Wastewater Treatment Plant. Two potential energy sources have been identified:

1. Waste heat recovery for a local district energy system; and
2. The recovery of biogas, which can be refined into a carbon neutral natural gas “substitute”.

MetroVancouver completed a study, in consultation with the City, which has concluded that there is insufficient development potential in the vicinity of the Lulu Island Wastewater Treatment Plant to warrant development of a district energy system at this time. On the other hand, it has been deemed feasible to develop the recovery of biogas from the plant to support the production of a natural gas substitute in partnership with a utility provider. As there are significant costs to the production of biogas, Metro Vancouver and FortisBC Energy Inc. (Fortis), a division of FortisBC, have been exploring arrangements to develop the most effective way to bring biogas into production on a cost recovery basis (**Attachment 1**).

Biogas is produced when in the absence of oxygen, in a process called anaerobic digestion, bacteria break down organic waste from sources like landfills, wastewater plants and agriculture. In its raw form, biogas contains other gases that are not typically found in natural gas. It can, however, be purified (or upgraded), so that it is interchangeable with natural gas. Once upgraded it is often referred to as biomethane or renewable natural gas (RNG).

The provincial government considers RNG to be a carbon neutral source of energy. As a result, FortisBC is now able to offer its customers wishing to reduce their carbon footprint the option to purchase a maximum of 10% of their natural gas consumption as RNG.

FortisBC's renewable natural gas has been granted Carbon Neutral Product status by Offsetters BC after assessing the expected lifecycle emissions savings of the program¹. Offsetters BC is a company that verifies carbon offset in accordance with the British Columbia Carbon Protocol. As RNG is considered to be carbon neutral in BC, displacing a portion of the traditional natural gas purchased with RNG will lower respective customers' GHG emissions.

Fortis is already offering its customers the ability to designate 10% of their energy use as renewable via RNG purchase in BC. For example, Fortis has partnerships with Catalyst Power of Abbotsford, BC and the Columbia Shuswap Regional District to capture, upgrade, and market RNG from agricultural and landfill sources. Fortis is actively researching and developing additional sources for RNG as it looks to expand its market into renewable clean energy.

From a local perspective, FortisBC and Metro Vancouver are currently co-developing biogas from the Lulu Island Wastewater Treatment Plant (Lulu RNG) and installing new equipment to upgrade the biogas into renewable natural gas on a cost recovery basis. The renewable natural gas from the Lulu RNG is anticipated to come on stream in late 2013 upon completion of the British Columbia Utilities Commission (BCUC) regulatory approval process and will be delivered using the existing Fortis infrastructure.

Analysis

Richmond has been an early adopter and recognized leader in the municipal energy management and renewable energy development. Council adopted assertive community targets of 33% GHG emissions reduction below 2007 by 2020 and 80% by 2050.

The City has been following three overarching strategies, as adopted by Council, for transitioning towards a more sustainable energy and low carbon future with lower GHG related emissions:

- **Energy conservation** - reduce the overall demand for an energy service (e.g., insulating buildings)
- **Energy efficiency** - reduce the energy required to provide an equivalent energy service (e.g., take rapid transit to work instead of driving a vehicle)
- **Renewable and clean energy** – increase the use of renewable energy sources and reduce the carbon intensity of emissions resulting from an energy service (e.g., fuelling the same vehicle with gasoline that includes 5% renewable content)

¹ The full report titled "Biomethane Greenhouse Gas Emissions Review, FortisBC, dated May 30th, 2011", completed by Offsetters, is available at <http://www.fortisbc.com/NaturalGas/Homes/Offers/RenewableNaturalGas/Documents/BiomethaneGreenhouseGasEmissionsReview.pdf>

The purchase of RNG is another opportunity to incorporate more sustainable energy into the City's operation. While the City's primary focus is to reduce GHG emissions through energy conservation and efficiency, our facilities will continue to require natural gas for many of their operations. Increasing the use of renewable energy sources, such as RNG, will help to further reduce GHG emissions.

The availability of RNG captured from the solid waste produced in Richmond at the Lulu RNG, represents a "made in Richmond" opportunity for the City to replace up to 10% of the corporate natural gas consumption using RNG to offset greenhouse gas emissions locally. This approach is considered to be preferable to purchasing GHG emission offsets from the private market that often pays large corporations to switch fuel from more polluting sources, such as coal, to less polluting sources. Unlike purchasing offsets from the private market, the Lulu RNG initiative supports the development of locally produced renewable energy.

Another significant advantage of RNG is the ease of conversion for customers. In addition to being considered a carbon neutral renewable resource, there is no new equipment needed for the businesses and residents to receive RNG. Fortis is responsible for constructing the new infrastructure at the waste treatment plant to convert the biogas to RNG and to inject the equivalent quantity of RNG purchased by its customers to displace conventional natural gas into the supply. Further benefits include the ease of monitoring and accurate verification.

There are two components to this proposal: Corporate Leadership and Community Action. Depending on Council's instruction, these components can be executed independently. However, staff believe that adopting both components will generate the best results.

Corporate Leadership

As a leader in municipal energy conservation, the City can show its support for the development of local green house gas offset solutions during the developmental phase of the Lulu RNG by:

1. Providing a letter of support for the FortisBC application to the British Columbia Utilities Commission to bring an additional renewable natural gas supply to customers in British Columbia as described in the Staff Recommendation.
2. In 2013, purchasing 360 GJ of renewable natural gas from FortisBC will result in an additional net cost of \$1,210 (as compared to the projection for current natural gas contract costs - See **Attachment 2**). This gesture of support for the development of RNG to reduce green house gas emissions symbolically represents approximately 10% of the natural gas consumption of City Hall and South Arm Community Centre.

Richmond will be amongst the first municipalities to take this symbolic step to support the FortisBC initiative. While the incremental premium in 2013 of approximately \$1,210 is modest, it represents a meaningful gesture and a triple bottom line (TBL) approach in decision making. The total GHG emissions reduction from this purchase in 2013 would be equal to approximately 18 tonnes, which is the equivalent of diverting 13,160 lbs of waste from landfills.

In 2013

| | |
|---|-------------------|
| The additional cost for 360 GJ at \$5.191 per GJ incremental cost = | \$1,870 |
| Cost avoidance for carbon offset \$30/ton of CO ₂ e | <u>= \$ 660</u> |
| Net additional cost to the City in 2013 | = \$ 1,210 |

3. When the Lulu RNG becomes available (estimated to be in 2014), based on the availability or RNG production, the City will have the option to replace up to 10% of the natural gas energy use of all City facilities managed under the corporate energy management program with Lulu RNG. The estimated net incremental cost for 2014 is approximately \$32,857 (See **Attachment 2**) after including the cost avoidance of the carbon offset. Staff recommend including an "opt out" clause in the contract with 90 day termination notice at the sole discretion of the City.

The GHG emission reduction would be approximately 405 tonnes, which is the equivalent of diverting 304,790 lbs of waste from landfills. In addition, this GHG emissions reduction would avoid the need to purchase approximately \$18,015 worth of carbon offsets² to meet the City's carbon neutral commitments to the province.

In 2014

| | |
|---|--------------------|
| The additional cost for 360 GJ at \$5.191 per GJ incremental cost = | \$ 50,872 |
| Cost avoidance for carbon offset \$30/ton of CO ₂ e | <u>= \$ 18,015</u> |
| Net additional cost to the City in 2014 | = \$ 32,857 |

Corporate energy retrofit projects are funded based on the capacity of the project to pay back the investment through cost avoidance and successful application for external grants. While the cost of Lulu RNG will be higher than conventional natural gas, it is anticipated that the incremental increase in the natural gas cost for 2013 (\$1,210) and 2014 (\$32,857) can be fully offset by the projected cost avoidance from the corporate energy management program in 2013 and 2014 (**Attachment 1**).

Capital costs for energy management projects are funded from the Corporate Enterprise Fund. Cost avoidance and grants received are used to reimburse the fund. Enterprise fund repayments for energy management projects, through savings from utility operating budgets, have totalled over \$1 million dollars since the program's inception in 2008. The Corporate Energy Management program, through a variety of energy saving projects, has avoided over \$300,000 in additional operational costs (2009-2011). In addition, the program has secured approximately \$660,000 in incentive and grant funding support over that same time period. Three energy management projects have been fully paid ahead of schedule and closed, and two other projects recently had their repayment schedule timelines reduced by three and five years respectively. It is expected that an additional \$200,000 will be repaid to the Enterprise Fund by the end of this year, from Energy Management Program incentive funding.

² Given the anticipated average price of private market carbon offsets at \$30/ton of CO₂e.

The purchase of up to 10% of the City's corporate building natural gas consumption as Lulu RNG, is a highly viable way to offset unavoidable corporate GHG emissions while supporting a made in Richmond innovation. The projected annual net incremental cost of approximately \$33,000 from 2014 onwards is one way for the City to continue demonstrating corporate leadership.

Community Action

Regardless of the success of the City's corporate energy management program, it will require significant community participation in energy conservation, reduction actions, and the development of other renewable energy sources to meet Richmond's community GHG emissions and energy reduction targets. The Lulu RNG represents a seamless way to switch a portion of the community natural gas consumption to a locally produced carbon neutral renewable energy source at a relatively low conversion cost. This makes the Lulu RNG a viable and simple option for Richmond residents.

According to FortisBC, an average BC residential single family household uses approximately 95 Gigajoules (GJ)/year of natural gas, which is currently approximately \$875/yr. Fortis has offered its customers the option to purchase 10% of their natural gas consumptions as RNG. According to Fortis, the incremental cost of purchasing of RNG for such a household is approximately \$67/yr (or \$5.60/mo).

At this time, according to FortisBC, only 1,200 BC residential customers are taking advantage of the 10% RNG purchase offered by FortisBC. Of these 1,200 households, 36 households (approximately 3%) are from Richmond.

One of the barriers preventing more community participation may be the higher cost of RNG when compared to conventional natural gas, which does not take into consideration the costs of the higher GHG emissions of conventional natural gas.

From a community perspective, since taking specific actions to reduce energy or emissions is completely on a voluntary base, the best approach the City can take to encourage community action would be through:

- **Corporate leadership** – the City leading by example
- **Increasing awareness** – raising awareness about the value and benefits of reducing energy consumption and GHG emissions
- **Providing incentives** – developing an incentive program to encourage energy reduction and switching to the “made in Richmond” available renewable energy source⁴

In consideration of this approach, staff recommend that a report be brought to Council for consideration after investigating the following:

⁴ For example, FortisBC Energy Inc. has partnered with AIRMILES to offer airmiles for participating customers. Fortis could work with the City to offer additional bonuses to offset the incremental cost and run special promotions to raise awareness and encourage participation.

1. A pilot incentive program designed to encourage Richmond businesses and residents to purchase the Lulu RNG, and the associated costs of the program; and
2. Explore opportunities to work with external partners to establish an incentive (i.e. grant/rebate) program for the purchase of Lulu RNG by residents and businesses.

This approach follows Council's direction (April 26, 2010 Council meeting) to


"Establish a grant, rebate, and/or low interest loan program to assist property owners to retrofit their buildings to reduce GHG emissions",

Financial Impact

There is no request for additional funds at this time. The net incremental cost is \$1,210 for 2013 and approximately \$32,857 for 2014 which takes into consideration the reduced cost of carbon offsets to meet the City's carbon neutral commitments. Based on the track record of the corporate energy management program, the cost avoidance and external grants resulting from the corporate energy management is expected to fully offset the marginal cost increase to purchase the Lulu RNG.

Conclusion

The successful implementation of this initiative will represent a positive step forward to meeting our corporate GHG reduction targets in City-owned buildings and structures. As well, it provides an example of a simple alternative for Richmond residents and businesses to participate in achieving the adopted community-wide energy and GHG reduction targets.



Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy
(604-276-4122)

| | | |
|--------|--|----------------|
| Att. 1 | Letter – Metro Vancouver, Jeff Carmichael, dated May 2, 2012 | REDMS #3532966 |
| Att. 2 | Table 1: Natural Gas Purchase Trend for Corporate Buildings 2009-2014 | REDMS#3640112 |


metrovancouver

Greater Vancouver Regional District • Greater Vancouver Water District

Greater Vancouver Sewerage and Drainage District • Metro Vancouver Housing Corporation

4330 Kingsway, Burnaby, BC, Canada V5H 4G8 604-432-6200 www.metrovancouver.org

MAY 02 2012

 Utility Planning Department
 Tel. 604 432-6375 Fax 604 436-6811

File No.: CP-03-04-LW022

 Alen Polstolka
 City of Richmond
 5599 Lynas Lane
 Richmond, BC V7C 5B2

 Cecilla Achlam
 City of Richmond
 5599 Lynas Lane
 Richmond, BC V7C 5B2

Dear Mr. Polstolka and Ms. Achlam.:

This letter is in response to a request for clarification regarding the financial plan for the proposed Green Biomethane project at the Lulu Island Wastewater Treatment Plant, specifically with respect to how the project costs will be covered. The proposed project is led by Metro Vancouver, but includes FortisBC, Paradigm Environmental Technologies Inc., the Innovative Clean Energy Fund, and the Union of British Columbia Municipalities as partners, funders, or suppliers to the effort.

The project includes two distinct elements: the use of MicroSludge technology to enhance biogas creation, and the use of a biogas upgrading technology to create pipeline-grade biomethane which is expected to be sold to FortisBC. Both of these elements use new equipment that is not part of the existing wastewater treatment process.

The total project capital cost is estimated to be \$13.1 million. These capital costs will be recovered through a combination of grants, in-kind contributions, and revenue from the sale of the biomethane. No sewage charges collected from users of the Lulu Sewerage Area wastewater treatment facility will be used for this project. Economic analysis indicates that the project is expected to break even; no profits will be generated by the project.

Agencies and individuals who choose to purchase "green" biomethane from FortisBC will be contributing to the recovery of capital costs necessary to upgrade the biomethane, allowing it to be transported and used through the FortisBC system. They will also be contributing to the region by reducing greenhouse gas emissions, by replacing fossil fuel-based natural gas with biomethane. Metro Vancouver encourages its residents and municipal members to consider this option as one of several possible means of contributing to meeting greenhouse gas reduction targets.

Please feel free to contact me if you need further information or clarification on this issue.

Yours Truly,

 Jeff Carmichael
 Division Manager, Utility Research and Opportunity Projects

JC:lah

Orbit #: 6119010

Table 1: Natural Gas Purchase Trend for Corporate Buildings 2009-2014

| | Actual | Actual | Actual | Projection (to be recognized at end of year) | Projection | Projection | |
|--|-------------|-------------|-------------|--|-------------|-------------|--|
| | 2009 | 2010 | 2011 | 2012* | 2013* | 2014* | * including cold weather contingency to conform to industry best practice |
| Natural Gas Consumption (GJ) | \$94,176 | \$85,391 | \$92,875 | \$98,000 | \$98,000 | \$98,000 | Note: Increase from 2011 includes the Richmond Olympic Oval in full operation post Games |
| Gas Purchase from Marketer | \$705,760 | \$667,911 | \$686,950 | \$837,492 | \$852,442 | \$0 | Note: Negotiated termination of gas marketer purchase contract ending 2013 |
| Gas Purchase from Fortis | \$593,724 | \$350,673 | \$360,669 | \$439,708 | \$447,558 | \$1,010,472 | |
| Total Cost | \$1,299,484 | \$1,018,584 | \$1,047,620 | \$1,277,200 | \$1,300,000 | \$1,010,472 | 2013 Projected costs for natural gas after renegotiation of contracts = \$8.5/GJ (dropping from \$13.5/GJ in 2013) |
| Projected Incremental Cost of RNGas Purchase | | | | | \$1,870 | \$50,872 | Based on a purchase of 360 GJ of RNG in 2013 and 9800 GJ in 2014 |
| Avoided Carbon Neutral Costs | | | | | -\$660 | -\$18,015 | @ \$30/ton of CO2e |
| Total Projected Costs | | | | | \$1,301,210 | \$1,043,329 | |



To: Public Works and Transportation Committee

Date: September 4, 2012

From: Tom Stewart, ASCT.
Director, Public Works Operations

File: 10-6370-10-05/2012-
Vol 01




Re: Food Scraps/Organics Recycling Program Expansion

Staff Recommendation

That

1. the new and enhanced recycling program service levels, effective June, 2013, outlined in Option 2 of the staff report from the Manager, Fleet and Environmental Programs be referred for consideration as part of the 2013 utility and capital budget processes to:
 - i) add a new level of service for food scraps and organics collection services using City-provided wheeled carts for all multi-family townhome residents currently receiving the City's blue box collection services;
 - ii) provide wheeled carts to all residents in single-family households for the storage and weekly collection of food scraps and organic materials;
 - iii) provide kitchen containers for the temporary storage of food scraps/organics to all residents in single-family and townhome units who currently receive the City's blue box collection services.
2. a large item pickup program, limited to four items per household per year, as outlined in Option 2a) of the staff report from the Manager, Fleet and Environmental Programs, be considered as part of the 2013 utility budget process for implementation in June, 2013 for all single-family and townhome residents in conjunction with the proposed expanded food scraps/organics recycling program.
3. staff review and report on potential options for food scraps and organics collection services for residents in multi-family dwellings and commercial businesses.

Tom Stewart, ASCT.
Director, Public Works Operations
(604-233-3301)

| REPORT CONCURRENCE | | | |
|---|--|---|---|
| ROUTED TO: Finance Division | | CONCURRENCE <input checked="checked" type="checkbox"/> | CONCURRENCE OF GENERAL MANAGER  |
| REVIEWED BY SMT SUBCOMMITTEE | | INITIALS:  | REVIEWED BY CAO INITIALS:  |

Staff Report

Origin

At their May 28, 2012 meeting, Council received a report on “Green Cart Pilot Program Results” and approved the following resolution:

1. That based on the successful results of the Green Cart Pilot Program, staff report back on costs and options for an expanded cart-based collection program for a food scraps and organics recycling program for all townhome units in conjunction with the introduction of a similar program for residents in single-family homes; and
2. That the Green Cart Pilot program be continued pending a determination by Council on actions relating to a permanent food scraps/organics recycling program for townhomes.

This report responds to this resolution.

Analysis

Background

A principal strategy and action outlined in the regional Integrated Solid Waste and Resource Management Plan (ISWRMP) is to divert organic waste, including food scraps, from the single-family, multi-family and commercial sectors. Food waste comprises 21% of waste disposed and can be composted along with yard and garden waste to produce a beneficial and marketable compost product. The ISWRMP also establishes an action to ban all compostable organics from the waste disposal stream by 2015. In light of this pending disposal ban, expansion of food scraps and organics programs to multi-family residents is a key next step in order to ensure residents have reasonable alternatives for recycling this aspect of their waste.

Further, on November 14, 2011, Council established the Solid Waste Strategic Program as a component of the City’s Sustainability Framework and as part of working toward our target to achieve community-wide waste diversion of 70% by 2015. Given that food scraps represent the largest remaining component of the waste disposal stream, food scraps and organics recycling is an important initiative in advancing overall community waste diversion.

Actions to Date

Single-Family Homes: Richmond was one of the first municipalities in the region to implement food scraps collection starting in April, 2010 for single-family homes. Through this program, labelled as the “Green Can” program, an estimated additional 1,000 – 1,500 tonnes of material is being diverted from disposal annually. The total amount of waste disposed by residents in single-family homes has also reduced substantially, i.e. between 2,000-3,000 tonnes since the introduction of food scraps recycling.

Townhomes: A pilot program commenced in April, 2011 involving approximately 3,200 townhome units as part of next steps in introducing food scraps recycling for multi-family residents. This program provided valuable information to help guide potential future expansion

to this portion of the multi-family residential sector (outlined in the May 9, 2012 staff report – “Green Cart Pilot Program Results”).

This program resulted in estimated diversion of approximately 22% of total estimated waste generated by townhomes involved in the pilot program, or approximately 140 kg. per unit per year. Based on expanding this program to all 11,217 townhome units currently serviced under the City’s recycling program for blue box service, it is estimated that an additional 1,500 tonnes could be diverted from the waste disposal stream annually, increasing our overall diversion rate by 2.5%.

The pilot program is continuing to maintain services to residents involved in the pilot program pending a decision on options for potential program expansion. Due to the nature of the program being a pilot, the associated costs have been funded via the sanitation and recycling provision. This means that no fees have been charged to these townhome residents, nor has the cost of this program impacted the solid waste and recycling rates charged to residents.

Options for Program Expansion

In the May 9, 2012 staff report on the “Green Cart Pilot Program Results”, staff were requested to report back on two options:

1. *Townhomes only Food Scraps/Organics Collection Program Expansion (Not Recommended)*: Amend the City’s existing waste management services contract (current expiry date December 31, 2014) to include food scraps/organics recycling to all townhomes (those currently receiving City blue box recycling collection service – or approximately 11,217 units). Key elements of this program would include:
 - Wheeled carts provided by the City, where residents choose between a 46.5 L or 80 L cart (one cart per townhome unit). Residents may use paper yard waste bags for any additional garden trimmings which may not fit into the cart.
 - A kitchen container provided by the City as a one-time issue for temporary food scraps storage inside the home to promote ongoing participation.
 - Weekly service, with collection provided door-to-door on the same day as City blue box collection service.

This option is not recommended due to the short-term nature of the contract (to December 31, 2014), which will result in higher annual operating costs to townhome residents than that identified under Option 2, which follows.

2. *Townhomes Food Scraps/Organics Collection Program Expansion in Conjunction with Introducing a Cart-Based Collection Program for Single-Family Homes (Recommended)*: Expand food scraps/recycling collection to all townhomes currently receiving City blue box recycling collection service (11,217 units), ***in conjunction with*** a cart-based collection program for residents in single-family homes. Under this option, the existing waste management services contract is extended to December 31, 2017 to achieve economies of scale for optimal pricing. Key elements of this program would include:

- As per Option 1 (above) - all townhomes currently receiving City blue box collection services are serviced with food scraps/organics recycling using wheeled carts provided by the City.
- Wheeled carts provided by the City to single-family households, where residents choose between one 80L, 120L, 240L or 360L cart (one cart per single-family household). Residents may continue to use paper yard waste bags for any additional garden trimmings which may not fit into the cart on an on-going basis. Residents may also continue to use their existing Green Cans as part of the program phase-in process, with the intent of phasing out the use of Green Cans after the end of 2013.
- A kitchen container provided by the City as a one-time issue per household for temporary food scraps storage inside the home to promote ongoing participation.
- Weekly service, with collection provided door-to-door on the same day as City blue box collection service for single-family and townhome residents on City blue box service.
- Contract T.2988, Residential Garbage and Recycling Collection Services, is extended to December 31, 2017 for all garbage and recycling services.

This option is recommended as it results in the least annual cost option for townhome residents and provides for cart-based collection for single-family households at minimal increased operating cost. This approach:

- ensures a consistent level of service for townhome residents and single-family residents,
- allows for reductions in waste disposed by residents in townhomes, which can translate into reduced costs for garbage collection servicing arrangements for those townhomes. This is particularly important in light of planned Metro Vancouver tipping/disposal fee increases, i.e. currently \$107/tonne and projected to increase to \$205/tonne by 2016,
- is expected to increase the volume of food scraps collected from single-family homes due to switching to wheeled carts since the carts offer greater animal/rodent-resistance (encouraging greater participation in food scraps recycling),
- will eliminate weight concerns since the carts will be serviced using automated tippers,
- will reduce missed pick-ups due to lack of the Green Can labels being visible to collectors (with the phasing out of Green Cans).

a) Large Item Pick-Up Program

The provision of a new service to residents for collection of large items is opportune associated with the potential extension of the existing service contract T.2988 through December 31, 2017. Under this new service, residents in single-family homes and those townhomes with blue box collection (and food scraps/organics collection – if approved) would also be eligible to have up to four large items collected per year. This could include items such as a mattress, couch, stove, refrigerator, household furniture (table, chair, etc.).

Under this program, residents would contact the service provider and arrange for collection of up to four items at one time, or one item on four different occasions, or two items on two different occasions, etc. The additional collection and disposal costs would be paid by the City as part of the Solid Waste and Recycling utility.

It is recommended that Item a) be included as part of an enhanced level of service associated with the introduction of the expanded food scraps/organics recycling program.

A summary of the costs of the options described above is provided in the table below:

| Option | Service Description | Capital Cost (One-Time) | Annual Operating Cost | 2013 Operating Cost Portion |
|--------|--|-------------------------|-----------------------|-----------------------------|
| 1. | Townhome Food Scraps/ Organics Recycling (to December 31, 2014) | \$535,000 | \$742,500 | \$433,100 |
| | | | | |
| 2. | Townhome Food Scraps/ Organics Recycling PLUS cart-based collection for single-family homes (to December 31, 2017) | \$3,250,000 | \$700,000 | \$408,400 |
| a) | Optional Large Item Pickup Program (townhomes and single-family) | | \$250,000 | \$145,800 |
| | Total – Option 2 a) (Recommended) | \$3,250,000 | \$950,000 | \$554,200 |
| | | | | |

The total cost of the recommended option, (Option 2 a), is \$4.2 million, which includes \$3.25 million one-time capital costs and \$950,000 annual operating. The 2013 portion would be slightly lower (\$3,804,200) based on costs prorated to a June 1, 2013 start date.

3. Status Quo – No Expansion of Programs (Not Recommended): Existing service levels for food scraps/organics recycling can be maintained, where residents in single-family homes continue to use the Green Can program. The existing pilot program for townhome organics recycling would need to be discontinued, and residents in townhomes would then be required to make independent arrangements for their food scraps/organics

recycling requirements to comply with the pending organics disposal ban. Under this Option, a large item collection service would not be offered, however, residents could continue to take advantage of the City's Garbage Disposal Voucher program. Under this program, residents purchase a voucher for \$5 from any City facility and can use the voucher to dispose of up to \$20 worth of garbage items at the Vancouver Landfill.

This option is not recommended as it does not encourage greater recycling of food scraps from single-family homes through the use of a designated, secure container. It is also expected to result in higher costs to townhomes associated with needing to make independent recycling arrangements for food scraps/organics recycling. Further, by not managing the program/service for townhomes, the City would not get the recycling tonnage data in order to be able to measure recycling rates as part of tracking our diversion progress. Finally, the lack of a City-coordinated collection program for large items contributes to illegal dumping and is inconvenient to residents who do not have vehicles large enough to take advantage of the Garbage Disposal Voucher program.

Multi-Family and Commercial Properties

The suggested Option 2 a) provides for a comprehensive and full service food scraps/organics recycling program for those residents in townhomes (who currently receiving blue box collection services) as well as residents in single-family homes. However, it does not address food scraps/organics collection service for residents in multi-family complexes or commercial properties. In light of the pending regional disposal ban for organics in 2015, program options for multi-family food scraps/organics recycling should also be evaluated to provide recycling services for these residents. Staff suggest a review of options be undertaken and reported back to Council for consideration. To assist businesses, staff can also evaluate whether there might be opportunities to frame a potential multi-family program expansion to include optional servicing to interested commercial properties. It is suggested that staff include this in their review and report back with findings and a suggested approach.

Financial Analysis

Capital: Funding for the capital cost (carts, containers and related items of \$3.25 m) is proposed from the sanitation and recycling provision, hence there would be no direct financial impact reflected in the rates charged to residents for sanitation and recycling services. This reserve funding has been established with this type of program expansion/change envisioned. Staff will submit a 2013 capital budget request for consideration of the capital costs associated with this proposed program implementation.

Operating: The annual operating cost is proposed to be funded from the sanitation and recycling utility rates, and therefore, reflected in the rates charged to residents who are eligible for the services. This would represent a **new charge** to townhome residents who received City blue box service of approximately \$49/unit/year and an increased charge to residents in single-family homes of approximately \$15.50/unit/year. These charges are summarized in the following table. Note that residents in multi-family/apartment developments would not be assessed any charges for the organics services associated with the new and enhanced recycling programs outlined in this report since the service is not available to them at this time. Future charges for multi-family

developments would be applied if and when a food scraps/organics program is introduced for these residents.

| Anticipated Annual Utility Rate Increase | | | | | |
|---|---|---|---|-----------------------------------|---|
| <i>Resident Type</i> | <i>Current ~Net Organics Service Charge¹</i> | <i>Anticipated Increase for Organics per Option 2</i> | <i>Anticipated Increase for Large Item Pick Up Program (Item a of Option 2)</i> | <i>Total Anticipated Increase</i> | <i>Total Annual Estimated Organics Charge</i> |
| Townhomes on Blue Box | \$0.00 | \$42.00 | \$7.00 | \$49.00 | \$49.00 |
| Single-Family Residents | \$68.50 | \$8.50 | \$7.00 | \$15.50 | \$84.00 |

¹ Organics charge only, not including recycling or garbage service charges, etc.

The rate impact in 2013 would be pro-rated based on the June 1st implementation date, or approximately one-half. The above rates are approximate and would be formalized upon completion of the sanitation and recycling utility budget and rates.

Financial Impact

This report has no direct financial impact as the related costs will be considered as part of the 2013 capital and 2013 and future utility budget processes.

Conclusion

Expansion of food scraps and organics recycling to residents in multi-family residences is a priority in light of pending disposal bans for this material in 2015. The success of the pilot program undertaken during 2011 demonstrated that 22% of the waste generated in townhomes (or approximately 1,500 tonnes) can be diverted by expanding food scraps/organics recycling to all townhomes.

The provision of wheeled carts will make it easy and convenient for residents to participate in the program. For consistency in levels of service and to encourage greater participation in food scraps recycling by residents in single-family homes, this report recommends transitioning the existing Green Can program to cart based collection. In-home kitchen containers are also suggested to be provided as part of improving convenience for residents and serving as a regular reminder to encourage ongoing participation.

The contract expansion presents the opportunity to also offer a large item collection service for residents, which provides a convenient alternative to dispose of up to four large items annually at minimal increased cost. This would enhance the City's level of service by assisting residents who do not have the ability to transport large items to disposal/recycling facilities.

It is recommended that these new and enhanced recycling program service levels be referred for consideration as part of the 2013 capital and utility budget processes. It is further recommended that staff review and report back on options to provide food scraps/organics collection services to multi-family and potentially commercial businesses.

September 4, 2012

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A handwritten signature in black ink, appearing to read 'S. Bycraft', with a stylized flourish at the end.

Suzanne Bycraft
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(604-233-3338)

SJB: