



To: Public Works and Transportation Committee

Date: February 7, 2012

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

File: 10-6000-01/2011-Vol  
01

Re: Sustainable Green Fleet Policy 2020

Staff Recommendation

That Green Fleet Policy 2020 be re-named "Sustainable Green Fleet Policy 2020" and that the policy be amended by replacing the text of the current policy with the text set out in Attachment 4 of the report dated February 7, 2012 from the Director, Public Works Operations.

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

Att. 4

FOR ORIGINATING DEPARTMENT USE ONLY			
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>		<b>CONCURRENCE OF GENERAL MANAGER</b>
Sustainability	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
<b>REVIEWED BY TAG</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<b>REVIEWED BY CAO</b>
			YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

## Staff Report

### Origin

This report presents an overview of the City's Public Works equipment and the corporate vehicle fleet. Discussion concerning the funding status and actions which have been implemented to close the funding gap, recommended actions and future policy-based strategies to secure the long-term financial well-being of the reserve -- are outlined for consideration.

It should be noted that there is currently inadequate funding to replace the vehicles and equipment on a long term sustainable basis in the fleet reserve. This report only addresses the Policy and does not commit Council to additional levels of funding. If, in the future additional funding is required, it will be brought to Council for consideration under a separate report.

### Analysis

#### *1. Background*

Under Reserve Fund Establishment Bylaw No. 7812, the City has established a separate reserve fund (Public Works/Corporate Vehicle and Equipment Reserve) for replacement of Public Works equipment and the corporate vehicle fleet. The reserve is populated with an annual contribution which is recovered via monthly or hourly vehicle charges assessed on individual units. In turn, the contribution from each respective department is funded by general revenue/utility rates/taxes or receivable work. Monthly charges are used generally for cars and trucks, and hourly charges are used for larger equipment, which allows for tracking of costs associated with various activities or assets (e.g. maintenance, receivable or construction activities).

In keeping with the purpose of the reserve, these funds are used to purchase replacements for existing vehicles or equipment that have reached the end of their life cycle. Equipment/vehicles, which have been replaced and determined as surplus, are disposed of in accordance with Disposal of City Assets Policy 2003, unless approved by Council for donation. Generally, vehicles are sold at auction unless they are not safe or suitable for this purpose, in which case they are scrapped.

The vehicle reserve is not intended to be used in situations where additional vehicles/equipment are required due to plant growth or staffing increases, or to top-up/expand the features of a vehicle being replaced where those additional features add considerably to the purchase price of the vehicle. In these situations, an alternative funding source requiring Council approval (one-time additional level, surplus, etc.) is sought for the initial acquisition or the additional features, with subsequent replacement being funded from the vehicle reserve (once the vehicle has paid into the reserve over its life-cycle).

#### *2. Overview of Corporate Vehicle and Equipment Fleet*

The City has approximately 525 units in its corporate vehicle and equipment fleet. This includes light duty (cars and small pickup trucks), medium duty (utility workhorse vans and large pickup trucks), heavy duty (backhoes), equipment (tractors, excavators) and machinery (pressure

washers, etc.). These vehicles and equipment are used to support all business units within the City (excluding Fire and RCMP) in delivering services to the community and maintaining City infrastructure and operations. The total replacement value of the corporate vehicle and equipment fleet is approximately \$34 million.

### ***3. Current Reserve Situation***

The reserve balance will fluctuate based on on-going vehicle replacements and timing of expenditures. As of December 31, 2010, the reserve balance was \$5,888,546.

At the present time, approximately \$1,675,000 is contributed annually from the vehicle/equipment charge-out rates to help fund the reserve, which, in turn, is funded by general revenue/utility rates/taxes or receivable work. Annual capital expenditure requests for acquisitions based on priority (age, condition, etc.) are submitted for Council approval. In general, annual expenditures are limited to the level of the annual contribution in order to ensure the financial stability of the reserve balance. This results in replacement of a lower number of vehicles than required, causing a ballooning effect which is driving up the age of vehicles/equipment and future funding requirements.

Retaining vehicles that have well-exceeded standard replacement cycles, i.e. based on age, hours of use, mileage, condition, etc., can result in a fleet which may not meet changing or current operational requirements. At the same time, maintaining an ageing fleet can drive up operating and maintenance costs. Having vehicles or equipment fail unexpectedly is costly given work crew downtime impacts and material delays, which leads to leasing equipment at higher rates for short periods of time to meet customer service commitments.

### ***4. Reserve Review, Findings and Actions***

An independent management and business consulting firm was retained to undertake a financial review to assess the adequacy of the vehicle/equipment reserve to meet the City's short and long term requirements for replacements. Key findings from this study and the actions undertaken or in-progress to date are discussed in the following section.

#### ***Key Findings***

- 4.1 **Fleet Renewal:** Richmond's fleet is relatively old given daily usage patterns and operational wear and tear -- the average age of vehicles in the fleet is 9.8 years. As a result, many vehicles are nearing the end of their useful service life, making the fleet due for significant renewal.
- 4.2 **Replacement Cycle:** Replacing all of the units due for replacement based on age would deplete the existing reserve fund under current contribution levels -- a considerable funding requirement given the total value of the fleet is approximately \$34 million.
- 4.3 **Reserve levels:** To be sustainable, the annual reserve payment needs to be increased from the current \$1.67 million to approximately \$3.1 million (or an increase of \$1.43 million annually).

Each of these points is discussed further as follows.

#### 4.1 Fleet Renewal

A significant renewal program is currently underway through the capital programs approved by Council. There are approximately 76 units, totalling \$5,876,421 which are actively undergoing renewal. This represents approximately 14% of the total fleet (vehicles and equipment ~525 units). At present, approximately 42 vehicle and equipment units have either been received or are on order and will be received shortly (including excavators/backhoe, a sweeper, a 22-passenger bus, various cars and trucks) totalling approximately \$3 million. Replacements for the remaining units are underway - at various stages of the process, tender stage, evaluation stage, etc. A summary of the active replacement program, the status and associated value of the replacements is included in **Attachment 1**. Also included is the listing of 2012 planned replacements, per the capital budget process. The 5-year plan, from 2012 – 2016, includes replacements for 265 units.

#### 4.2 Replacement Cycle

As noted previously, the average age of the City's fleet is 9.8 years. It is not affordable or practical to replace all of the vehicles/equipment due for replacement at once based on a standard 10 year life-cycle. Therefore, an individual assessment (age/condition/repair history, etc.) of the fleet (vehicles and equipment) was undertaken to establish realistic replacement timeframes, ranging from a low of 7 years to a high of 20 years, depending on use. In some cases, units will not be replaced at the end of their useful life where the level of use does not justify replacement, i.e. downsizing.

This exercise of not replacing vehicles due to a lack of usage is a best practise that should be embedded in the City's fleet replacement strategy going forward.

The outcome of the individual vehicle/equipment assessments undertaken has been formulated into a long-term replacement plan, which projects replacements to 2030. The plan will be somewhat fluid in nature and will be reviewed regularly to reflect realistic replacement timeframes, costs and needs on an on-going basis.

#### 4.3 Vehicle/Equipment Reserve Level

The consultant review identified that the annual reserve contribution should be increased to \$3.1 million (from \$1.675 million) or a total annual increase of \$1.43 million. Recognizing the impact that such a significant increase would have on budgets, staff undertook a number of measures to try to reduce the impact of the required increase, and in particular, the impact on budgets:

- a) As part of the vehicle assessment (as noted under Item 4.2, above), the funding allocation for individual replacements was evaluated and tightened up as much as possible to reflect optimal pricing strategies, in alignment with Council's existing Green Fleet Policy 2020 (**Attachment 2**). Included in optimal pricing strategies will be a value-based approach, meaning that where it makes best business sense and in

accordance with Council’s Green Fleet Policy, staff can review alternative acquisition strategies for vehicles and equipment (such as acquiring lease return units, financed purchases, etc.) where it provides best value and in consideration of the total cost of ownership. It is recommended that this approach also be embedded in the City’s funding strategy going forward.

By incorporating optimal pricing strategies, combined with the downsizing exercise (identifying those units which will not be replaced at the end of their life-cycle per 4.2, above), the additional annual increase requirement is reduced by \$425,000, or to approximately \$1 million (or a total annual reserve contribution of \$2.675 million).

- b) In an effort to further reduce the impact of the additional annual requirement on operating budgets, the purchase costs for vehicle replacements principally used to support Water/Sewer Services can be funded from Water/Sewer utility budgets, with user charges flowing back to the fleet reserve. By incorporating this approach into the long-term vehicle replacement plan analysis/funding strategy (to 2030), the additional annual funding requirement can be reduced by a further \$500,000.

The above strategies represent a significant reduction in the additional funding requirement to stabilize the reserve; however, an annual shortfall of \$500,000 in the required annual reserve contribution remains, as outlined below.

<b>Fleet Vehicle Reserve – Additional Annual Funding Required</b>		
1.	Existing Annual Reserve Contribution	\$1,675,000
2.	Required Annual Reserve Contribution per Independent Review	\$3,100,000
3.	Annual Reserve Shortfall	(\$1,425,000)
4.	Downsizing/Optimal Pricing Strategies – Savings (per Item 4.2 & 4.3 a)	\$425,000
5.	Running Sub Total: Annual Reserve Shortfall	(\$1,000,000)
6.	Fund Vehicles from Utility Budgets – Reallocation (per Item 4.3 b)	\$500,000
7.	Running Sub Total: Annual Reserve Shortfall	(\$500,000)

To summarize, the strategies outlined above have reduced the total annual funding requirement from that identified by the independent consultant from \$3,100,000 to \$2,175,000. With the annual reserve contribution currently at \$1,675,000, there remains a shortfall of \$500,000 annually. The following section presents a recommended approach to address this gap.

**5. Funding Strategy Options to Address Remaining Annual Reserve Shortfall**

- a) *Contribution to Reserves:* Staff annually estimate annual hourly usage of vehicles in order to develop the fleet operating budget. The estimate of hourly usage is based on projections for maintenance, capital, receivable and servicing agreement work that may be requested of the City’s hourly vehicle fleet, which incorporates a prediction on how much development servicing will be requested for the year. As can be expected, the projected usage is somewhat conservative in order to ensure that budgeted revenue targets can be met. However, when receivable and servicing

agreement work requested through development exceeds budgeted revenues, a portion of the rate (approximately 20%) is dedicated to the replacement of the vehicle or equipment given its usage. Included in the proposed policy amendment is the transferring of excess revenues related to vehicle and equipment usage into the Public Works/Corporate Vehicle and Equipment Reserve. While this amount will vary annually, it is a key principle in establishing a sustainable reserve – the more equipment is used, the sooner it will require replacement and the revenues recovered should contribute towards replacement.

- b) *Status Quo*: No action could be taken to increase the reserve contribution. This option would result in the reserve being completely depleted by the 2020/2021 timeframe, as shown by the blue line on **Attachment 3**. This option does not create a sustainable funding source for replacements beyond that timeframe. Other options, such as borrowing, could be pursued at that time.

Staff do not recommend this option since it is not financially sustainable.

- c) *Increase the annual reserve contribution; review incremental increases annually*: Under this option, based on ongoing reviews of the reserve status and vehicle/equipment replacement funding requirements, an incremental increase would be proposed on an additional level basis at appropriate intervals.

The green line on **Attachment 3** reflects a \$250,000 annual increase, supplemented by an arbitrary incremental increase of \$25,000 commencing in 2013. The \$25,000 annual incremental increase was selected arbitrarily for evaluation purposes. Any proposed annual amount would be adjusted to reflect an approach toward creating sustainable reserve levels. Amounts will vary based on efficiency gains or increased revenues and will be evaluated annually. Any proposed increases would be submitted as part of the budget process for Council's consideration and, as such, this will not be included as a recommendation in the Sustainable Green Fleet Policy. However, staff will continue to evaluate and recommend an approach which leads towards embedding full costs into vehicle and equipment rates in alignment with best sustainability practices.

## **6. Funding Strategy Policy Elements**

As discussed throughout in this report, there are a number of components necessary to create an effective funding strategy. These include best practises designed to help minimize costs, increased revenues from expanded use of City equipment resulting from overall efficiencies in Public Works operations, fleet efficiency gains, and supplemental funding – all of which are designed to create a sustainable funding approach to the City's fleet and equipment needs. To capture the best practices aspects of the strategy as outlined in this report and embed them in City policy, it is recommended that existing "Green Fleet Policy" 2020, be amended by:

- a) Renaming the policy to "Sustainable Green Fleet Policy",
- b) Adding to the existing policy statement, "employ an effective strategy to ensure a sustainable funding model is maintained for vehicle and equipment acquisitions".

- c) Adding the following best practices as Item “5. Vehicle and Equipment Reserve Funding Strategy”:

“The City will employ strategies to maintain a sustainable reserve funding model for vehicle and equipment acquisitions which allows for appropriate replacement cycles, maximizes suitability and efficiency to required applications and which:

- Downsizes by not replacing units where usage does not constitute an on-going need
- Clarifies that replacement of vehicles and equipment will be on a same level of service basis consistent with the approved budget
- Incorporates alternative acquisition strategies which represent best value and take into account the total cost of ownership
- Provides funding for vehicle/equipment acquisitions from utility funding sources, where those vehicles/equipment principally support those business areas
- Transfers any operating budget surplus due to the use of vehicles and equipment to the Public Works/Corporate Vehicle and Equipment Reserve.”

The proposed policy, as outlined above, is contained in **Attachment 4**.

### **Financial Assumptions**

The following are key assumptions included in this financial analysis:

- Assumes a 3% annual return on the reserve. While not realistic at current banking interest rates, it is expected this is a reasonable assumption over the ~20 year life of the plan.
- Assumes that vehicle replacement costs will increase by 5% annually.
- Assumes that revenues flowing back into the reserve for salvage (auction/trade-in, etc.) will be 5% of the original purchase price of the vehicle.

### **Financial Impact**

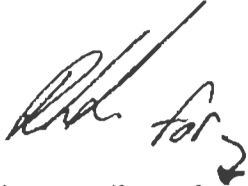
None.

### **Conclusion**

A comprehensive approach to address the existing shortfall in the corporate vehicle and equipment reserve is outlined in this report. A funding strategy is proposed which comprises a combination of actions, including a recommendation to embed best practices in Council policy, to transfer to the vehicle/equipment reserve any operating budget surplus arising from vehicle and equipment use, and to supplement the reserve by consideration of additional annual funding as part of future budget deliberations.

Implementation of the strategies outlined in this report will create the opportunity for a sustainable funding model going forward for the Public Works Corporate Vehicle and Equipment Reserve. This will ensure the availability of needed resources to maintain service levels in various City and Public Works functional areas. The funding strategy is outlined as an amendment to the existing Green Fleet Policy, which is proposed to be renamed the "Sustainable Green Fleet Policy", as presented with this report.

The proposed adoption of the Sustainable Green Fleet Policy is one of the key ways that the City is implementing the principles and practices in the Corporate Sustainability Policy.



Suzanne Bycraft  
Manager, Fleet & Environmental Programs  
(604-233-3338)

SJB:



## Attachment 1

## Summary of Active Replacement Program

Item #	Unit #	Description	Status*
1	419	1982 Crown Forklift	Planned
2	501	1987 Art Tec Fldck Trailer	Planned
3	718	1992 GMC Van	Evaluation
4	732	1992 John Deere Excavator	Received
5	756	1993 GMC Crew Cab	On-order
6	806	1994 Ford Truck	Evaluation
7	807	1994 Ford Truck	On-order
8	819	1994 Ford 2WHDR Truck	Pending
9	828	Clark Forklift	Planned
10	829	1994 Ford Pick Up Truck	Pending
11	830	1994 Ford Pick Up Truck	Pending
12	842	Leroi Compressor	Planned
13	845	1995 Ford Pick Up Truck	Pending
14	848	1995 Ford Van	Received
15	859	1995 Freightliner Dump	On-order
16	867	1995 Ford Van	Pending
17	871	1995 Ford Pick Up Truck	Pending
18	874	Forklift	Planned
19	876	1996 Freightliner Dump	On-order
20	881	1995 Ubilt Trailer	Planned
21	891	1996 Ford Passenger Bus	Received
22	895	1997 Ford Pick Up Truck	Pending
23	901	1996 Ford Ranger	Pending
24	902	1996 Ford Pick Up Truck	Pending
25	904	1996 Ford Pick Up Truck	Pending
26	905	1996 Ford Pick Up Truck	Pending
27	906	1996 Ford Pick Up Truck	Pending
28	913	1996 Caterpillar	Received
29	916	1996 Ford Pick Up Truck	On-order
30	917	1996 Ford Pick Up Truck	Received
31	919	Zamboni Resurfacer	Evaluation
32	921	1997 Ford Pick Up Truck	Pending
33	922	1996 Ford Econo Van	On-order
34	923	1996 Ford Econo Van	On-order
35	928	1997 Ford Street Sweeper	Received
36	931	1997 Ford Ranger Pick Up	Pending

\* Planned – Specification Development Stage

Pending – Specification Complete

Received – In-Service

On-Order – P.O. Issued

Evaluation – Tenders Issued &amp; Closed

Item #	Unit #	Description	Status*
37	942	1997 Ford Crane	Received
38	943	1997 Ford Pick Up Truck	On-order
39	952	1997 Chevrolet Cavalier	Pending
40	958	1998 Cat Excavator	Received
41	962	1997 Ford Econo Van	Pending
42	963	1997 Ford Econo Van	Pending
43	965	1996 Ford Pick Up Truck	Pending
44	966	1996 Ford Pick Up Truck	Pending
45	968	1997 Ford Econo Van	Pending
46	969	1998 Ford Econo Van	Pending
47	994	1999 Ford Crew Cab Dump	On-order
48	1000	1996 Ford Pick Up Truck	Pending
49	1003	Yamaha Golf Cart	Evaluation
50	1006	1997 Cat Excavator	Received
51	1035	2001 Ford E250 Cargo Van	On-order
52	1036	2001 Ford E250 Cargo Van	On-order
53	1038	2001 GMC Safari Mini Van	Received
54	1039	2001 GMC Safari Mini Van	Pending
55	1040	2001 GMC Safari Mini Van	Received
56	1041	2001 GMC Safari Mini Van	Received
57	1042	2001 Chev Cavalier	Received
58	1043	2001 Chev Cavalier	On-order
59	1044	2001 Chev Cavalier	On-order
60	1048	2001 Chev Cavalier	Received
61	1049	2001 Chev Cavalier	Received
62	1050	2001 Chev Cavalier	Received
63	1051	2001 Chev Cavalier	Received
64	1052	2001 Chev Cavalier	On-order
65	1053	2001 Chev Cavalier	Received
66	1054	2001 Chev Cavalier	On-order
67	1157	2001 Ubilt Trailer (Box)	Planned
68	1199	2003 Chevrolet Cavalier	Received
69	1439	2006 Smart Car	Received
70	1444	2010 Arkfield Emergency Water Mobile Response Unit	Received
71	1450	2011 Chevy Cruze	Received
72	1504	2010 JD Front Mower	Received
73	1505	2009 3080 Kubota Ride on Mower	Received
74	1508	2011 Ford Econo Van	Received

\* Planned – Specification Development Stage

Pending – Specification Complete

Received – In-Service


On-Order – P.O. Issued

Evaluation – Tenders Issued &amp; Closed


Item #	Unit #	Description	Status*
75	1539	2006 Husqvarna Aerator Sod Cutter 18"	Received
76	1541	2011 Haulmark Box Trailer (Portable Water Stations)	Received

**2012 Planned Replacements  
(Pending Approval via Capital Budget Process)**

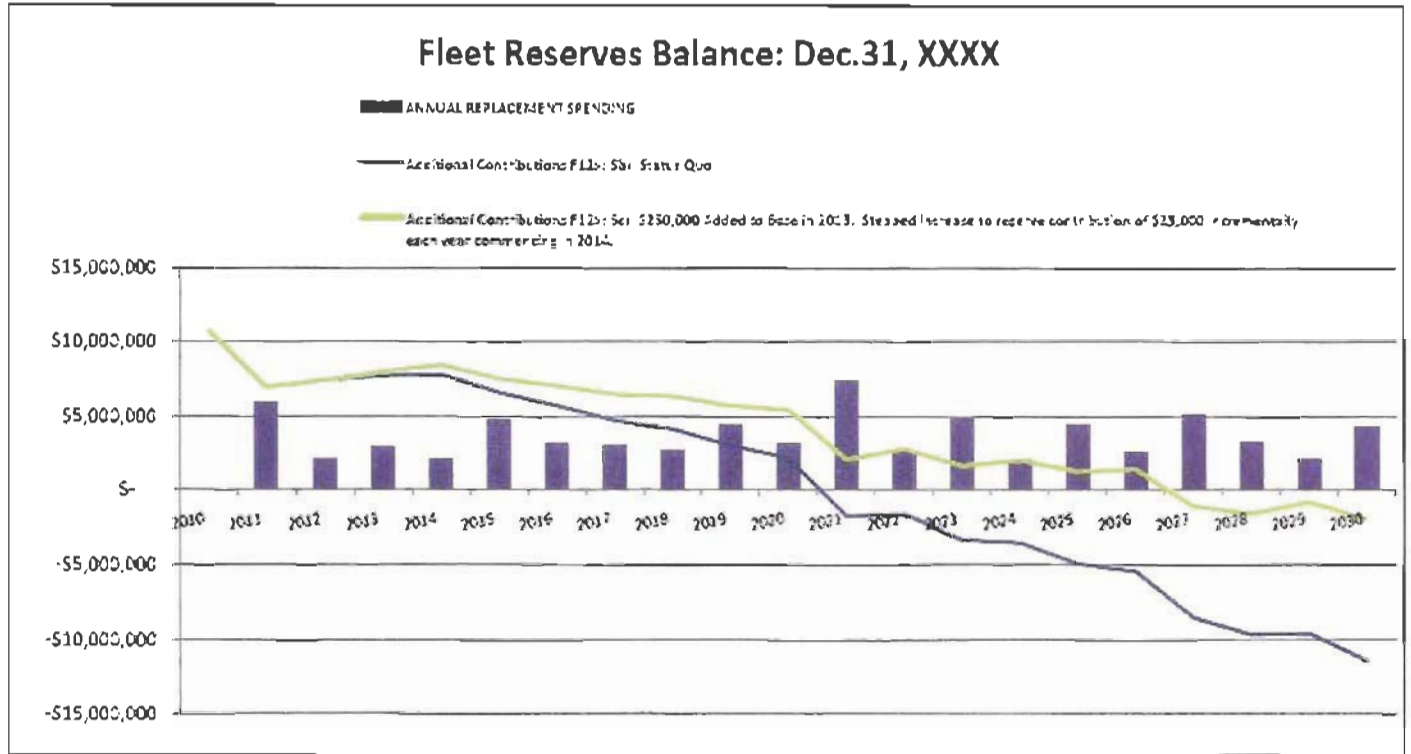
Item #	Unit #	Description
1	503	1987 Art Tec Flatdeck Trailer
2	557	1988 Ubilt Flatdeck Trailer
3	667	Toro Mower
4	729	1992 E H Wachs Tank
5	794	1994 Hino Flatdeck Paint Stripper
6	849	1995 Ford Flatdeck
7	884	1996 G&M Flatdeck
8	945	1997 Ford Econo Van
9	964	1997 Ford Econo Van
10	981	1999 Ford F450 Truck
11	1004	1998 Plymouth Voyager Van
12	1007	1996 Ford Pick Up Truck
13	1008	1996 Ford Pick Up Truck
14	1009	1997 Ford Pick Up Truck
15	1010	1996 Ford Pick Up Truck
16	1016	1999 Ford E450 Mini Bus
17	1023	2000 John Deere Tractor Mower
18	1024	2000 John Deere Tractor Mower
19	1025	1999 New Holland Tractor
20	1026	Verti Drain
21	1028	1999 John Deere Tractor Mower
22	1030	2000 GMC 4x4 Pick Up Truck
23	1079	2000 Hitachi Excavator
24	1085	2001 Grumman Workhorse Van
25	1086	2001 Chev Cavalier
26	1095	2001 E350 1 Ton Versalift Van
27	1096	2001 E350 1 Ton Versalift Van
28	1105	1982 Hyster Forklift
29	1134	2001 John Deere Ride On
30	1135	2001 John Deere Ride On
31	1136	2001 John Deere Ride On
32	1137	2001 John Deere Ride On
33	1193	2003 Ford Cargo Van
34	1197	2003 Ford F-150 Pick Up Ext. Cab
35		Contingency

 <b>City of Richmond</b>		<b>Policy Manual</b>
Page 1 of 2	Adopted by Council – December 11, 2006 Amended by Council – February 23, 2009	Policy 2020
File Ref:	Green Fleet Policy	
<p><b>Policy:</b></p> <p>It is Council policy that:</p> <p><i>in recognition that the production, use and disposal of motor vehicles result in significant impacts to human health and environment, and pose a sizeable cost requirement for the City, the City of Richmond will seek to:</i></p> <ul style="list-style-type: none"> <li>• be a leader in incorporating innovation and leading-edge technology in the management of its fleet, and</li> <li>• manage its corporate fleet according to the following Green Fleet objectives and performance standards.</li> </ul> <p><b>1. <u>Acquisition</u></b></p> <p>Purchases of new vehicles will be conducted in accordance with the City’s Environmental Purchasing Policy and specifically aimed at:</p> <ul style="list-style-type: none"> <li>• minimizing overall fleet.</li> <li>• using the smallest size vehicles available to meet assessed need</li> <li>• using vehicles with highest fuel efficiency and cost effectiveness based on considerations of life-cycle costing and financial investment requirements</li> <li>• maximizing the use of alternative fuels and technologies.</li> <li>• biofuels will be evaluated by taking into account their effect on agriculture, environmental impact, cost, source location and energy balance. The highest blends available will be used subject to operational constraints.</li> </ul> <p>Efficiency performance standards will be incorporated into bid specifications.</p> <p><b>2. <u>Operational Safety and Efficiency</u></b></p> <p>The City’s fleet will be operated in a manner which:</p> <ul style="list-style-type: none"> <li>• maintains high safety standards</li> <li>• maximizes manufacturer recommended performance standards</li> <li>• supports, implements and complies with current operations and emissions standards</li> <li>• incorporates technologies to accurately measure individual vehicle emissions</li> <li>• ensure optimal vehicle operations and minimize emissions and fuel consumption</li> <li>• adopts new technologies, including retrofits, aimed at improving fuel efficiency and reducing emissions, wherever practicable and cost effective</li> <li>• prevents non-purposeful idling of City vehicles</li> <li>• supports alternative transportation programs for City employees.</li> </ul> <p>The City’s driver/operator training program will include education on:</p> <ul style="list-style-type: none"> <li>• operational practices for maximizing fuel efficiency and reducing emissions (e.g., minimizing travel distances, anti-idling, etc.)</li> <li>• increasing safety, and</li> </ul>		

**Attachment 2 (Cont'd)**

 <b>City of Richmond</b>		<b>Policy Manual</b>
Page 2 of 2	Adopted by Council – December 11, 2006 Amended by Council – February 23, 2009	<b>Policy 2020</b>
File Ref:	Green Fleet Policy	
<ul style="list-style-type: none"> <li>• encouraging acceptance of alternate technologies and approaches.</li> </ul> <p><b>3. <u>Education and Awareness</u></b></p> <p>The City will work in partnership with the Richmond community and other agencies to support community-wide green fleet initiatives, wherever practicable and cost effective.</p> <p><b>4. <u>Monitoring and Reporting</u></b></p> <p>Corporate fleet practices, including annual fuel consumption, will be monitored and reported on in the City's State of Environment reporting program.</p>		
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Attachment 3





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Adopted by Council – December 11, 2006  
Amended by Council – February 23, 2009

Policy 2020

File Ref:

Sustainable Green Fleet Policy

**Policy:**

It is Council policy that:

*in recognition that the production, use and disposal of motor vehicles result in significant impacts to human health and environment, and pose a sizeable cost requirement for the City, the City of Richmond will seek to:*

- be a leader in incorporating innovation and leading-edge technology in the management of its fleet.
- manage its corporate fleet according to the following Green Fleet objectives and performance standards, and
- employ an effective strategy to ensure a sustainable funding model is maintained for vehicle and equipment acquisitions.



**1. Acquisition**

Purchases of new vehicles will be conducted in accordance with the City's Environmental Purchasing Policy and specifically aimed at:

- minimizing overall fleet
- using the smallest size vehicles available to meet assessed need
- using vehicles with highest fuel efficiency and cost effectiveness based on considerations of life-cycle costing and financial investment requirements
- maximizing the use of alternative fuels and technologies
- biofuels will be evaluated by taking into account their effect on agriculture, environmental impact, cost, source location and energy balance. The highest blends available will be used subject to operational constraints.

Efficiency performance standards will be incorporated into bid specifications.

**2. Operational Safety and Efficiency**

The City's fleet will be operated in a manner which:

- maintains high safety standards
- maximizes manufacturer recommended performance standards
- supports, implements and complies with current operations and emissions standards
- incorporates technologies to accurately measure individual vehicle emissions
- ensure optimal vehicle operations and minimize emissions and fuel consumption
- adopts new technologies, including retrofits, aimed at improving fuel efficiency and reducing emissions, wherever practicable and cost effective
- prevents non-purposeful idling of City vehicles
- supports alternative transportation programs for City employees.



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File Ref:	Sustainable Green Fleet Policy	

The City’s driver/operator training program will include education on:

- operational practices for maximizing fuel efficiency and reducing emissions (e.g., minimizing travel distances, anti-idling, etc.)
- increasing safety, and
- encouraging acceptance of alternate technologies and approaches.

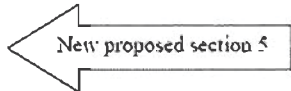
**3. Education and Awareness**

The City will work in partnership with the Richmond community and other agencies to support community-wide green fleet initiatives, wherever practicable and cost effective.

**4. Monitoring and Reporting**

Corporate fleet practices, including annual fuel consumption, will be monitored and reported on in the City’s State of Environment reporting program.

**5. Vehicle and Equipment Reserve Funding Strategy**



The City will employ strategies to maintain a sustainable reserve funding model for vehicle and equipment acquisitions which allows for appropriate replacement cycles, maximizes suitability and efficiency to required applications and which:

- Downsizes by not replacing units where usage does not constitute an on-going need
- Establishes that replacement of vehicles and equipment will be on a same level of service basis consistent with the approved budget
- Incorporates alternative acquisition strategies (including consideration of leases and financing purchases) which represent best value and take into account the total cost of ownership
- Provides funding for vehicle/equipment acquisitions from utility funding sources, where those vehicles/equipment principally support those business areas
- Transfers any operating budget surplus due to the use of vehicles and equipment to the Public Works/Corporate Vehicle and Equipment Reserve.