



City of Richmond

Report to Committee

To: General Purposes Committee

Date: January 20, 2021

From: Peter Russell
Director, Sustainability and District Energy

File:

Ivy Wong
Acting Director, Finance

Re: Procurement Policy Enhancements with Circular Economy Criteria

Staff Recommendation

That the Procurement Policy #3014 be revised to include Circular Economy criteria, as described in the staff report titled "Procurement Policy Enhancements with Circular Economy Criteria," dated January 20, 2021, from the Director, Sustainability and District Energy and the Acting Director, Finance.

Peter Russell
Director, Sustainability and District Energy
(604-276-4130)

Ivy Wong
Acting Director, Finance
(604-276-4046)

Att. 6

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Public Works	<input checked="" type="checkbox"/>	
Facility Services	<input checked="" type="checkbox"/>	
Economic Development	<input checked="" type="checkbox"/>	
Information Technology	<input checked="" type="checkbox"/>	
Community Services	<input checked="" type="checkbox"/>	
Fire Rescue	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: MO	APPROVED BY CAO

Staff Report

Origin

This report responds to a referral from the February 25, 2019 Council meeting, which requested:

"That staff review the City's current purchasing practices for ways to support the circular economy."

This report also responds to the May 27, 2019 Council direction to initiate a program of work to conduct interdepartmental and external stakeholder engagement, and develop a proposed approach for integrating the circular economy into City procurement processes.

This report supports the Council Strategic Plan 2018-2022 focus area #2 A Sustainable and Environmentally Conscious City:

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

This report supports the Council Strategic Plan 2018-2022 focus area #5 Sound Financial Management:

5.3 Decision-making focuses on sustainability and considers circular economic principles.

This report summarizes the recommended circular economy principles and criteria practices to be integrated into the City Procurement Policy #3104 (Attachment 1 – Proposed Procurement Policy #3104, with edits highlighted to identify changes).

Analysis

Policy Development Work Plan

In the work plan endorsed by Council on May 27, 2019, staff reported the following activities would be undertaken. The work plan aimed to incorporate best practices, and identify cost considerations, guidelines, standards, toolkits and circular economy indicators (Table 1). Outcomes of staff work is summarized in Attachments as noted below.

Table 1: Work plan for integrating circular economy into City's procurement policy

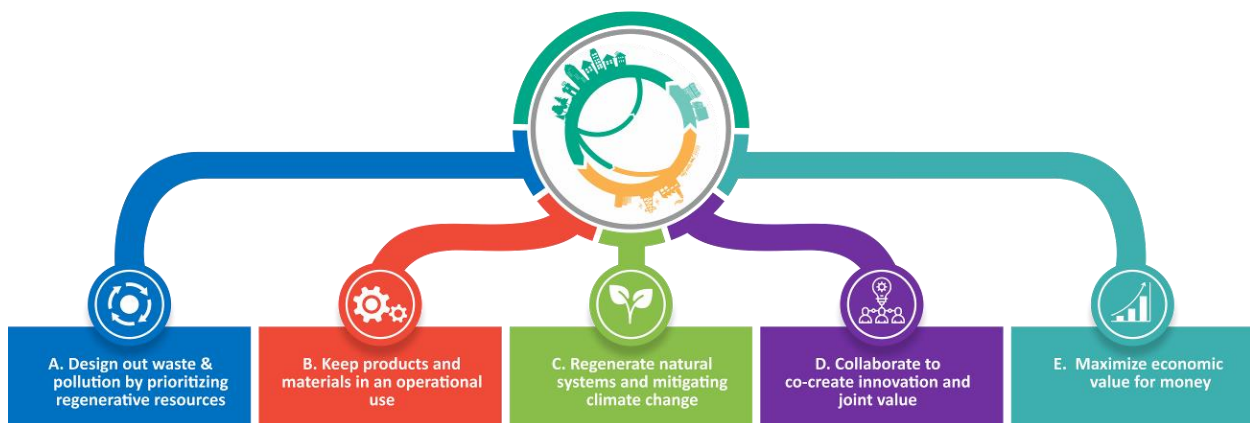
1. Assess procurement processes in the Construction, Professional Services, Fleet, MRO and IT areas for:	
a. establishing a well-defined framework that integrates circular economy criteria specific to Richmond activities and procurements;	Attachment 2
b. developing indicators for measuring results and impacts (e.g. GHG emissions, materials and resources, job training opportunities, product and service lifecycle, etc.).	Attachment 3
c. assessing cost implications for circular economy considerations.	

2. Initiate an interdepartmental staff engagement program to identify innovative solutions and specifications based on circular economy criteria and anticipated cost considerations.	Completed
3. Initiate stakeholder engagement with vendors and local businesses to:	Attachment 4
a. inform vendors of the City's circular economy initiatives and expectations for their participation;	
b. identify and explore opportunities among stakeholders along the entire supply chain for products, services and solutions that address circular economy criteria;	
c. promote potential partnerships and work closer with industry that could interact and exchange with staff market knowledge and solutions providers.	

Circular Economy Principles Framework

Based on emerging global best practices and as a result of the City's engagement with staff, local vendors and suppliers, and the City's Economic Advisory Committee, a framework was developed to reflect the City's vision for the circular economy. The framework is aligned with Council policies on environmental sustainability and emerging Canadian policy context (Attachment 5) by the circular economy principles as detailed in Figure 1. (More information in Attachment 2).

Figure 1: City of Richmond Circular Economy Principles Framework



Summary of revisions to the City Procurement (Policy #3104)

The proposed circular economy principles are intended to be a shared organizational responsibility where incremental progress will be achieved as circularity is applied to existing and future procurements. This allows feedback, learning and adjustment to occur in an environment of continuous improvement.

Based on the circular economy principles, staff propose to include the following in the City's Procurement Policy #3104:

- **Section 11:** Circular economy criteria that contribute to sustainability goals, reduce environmental and social impacts and potentially improve value and generate financial benefits into City projects and operations. The circular approach included in the Policy entails a systemic multi-level change toward the circular economy, including technological innovation, new business models, and stakeholder collaboration, by understanding more fully the potential life cycle impacts and potential benefits of available options. A circular procurement ensures that value is retained and impact minimized through lifetime optimization.
- **Section 14:** Revisions to the Policy include a City definition for Circular Economy to allow staff and stakeholders to make more informed decisions and better understand how to drive suppliers towards circularity while achieving City's goals and strategies.

See Attachment 1 - Proposed Procurement Policy #3104 (with highlighted changes). Further housekeeping amendments are described below.

Implementation Considerations

Adopting the policy is just the start. Transitioning from a linear to circular economy is a journey characterized by short- and medium-term milestones, building toward a long-term objective of 100% circularity. Successful integration of circular economy criteria into City procurements is expected to take place over the medium- to long-term. The United Nations and leading cities have reported that at least 25% of global circular procurement is attainable by 2023, with an estimated 75%-100% by 2035.

The following activities will be undertaken to support progress toward the implementation of circular economy principles in procurement activities in Richmond (see Attachment 6 for more information):

- **Education, Change-Management and Capacity-Building:** Active learning opportunities will be developed for staff involved in procurement;
- **Staff Collaboration and Support:** Support will be provided to help identify opportunities to achieve desirable objectives that relate to product longevity, enhanced value, cost reduction and/or waste reduction;
- **External Market Engagement:** Staff will maintain dialogue and pilot programs with suppliers on circular procurement principles to support the 'co-creation' of circular products and services;
- **Shared Learning and Pilot Projects:** Promising examples and experiences will be captured through case studies, pilot projects, key contacts and research; and,
- **Update Procedures and Guidelines:** Staff will update procurement procedures and guidelines to integrate circular tools and indicators.

Staff anticipate the need for continued learning, iteration and process adjustments to achieve the policy's ambition and outcomes. The proposed activities support a learn-by-doing approach for both City staff and the external market. This is a best practice by leading, early adopter cities and organizations worldwide, who are at different stages of maturity with respect to circular

procurement. Staff intend to bring forward periodic updates to Council on the progress made toward creating a local circular economy.

Best Value Considerations

The proposed amendments to the City's Procurement Policy maintains a focus on products and services that offer the 'best value' to the City. While this has long included sustainability considerations, the addition of circular economy criteria further clarifies how the City defines 'best value' to its suppliers and external stakeholders. For every procurement, the City will have an opportunity to assess its overall value considering other direct and indirect benefits, including the potential for either increased costs or cost savings. Non-cost benefits encompass four key sustainability objectives of the City: zero carbon, zero waste, ecosystem resilience, and business mobilization.

Each industry sector has a different readiness level, circular maturity, opportunities and barriers. Using outcomes of an extensive literature review and interviews with leading cities' representatives, staff undertook a high-level analysis to compare possible cost impacts of a circular economy policy on different categories of City expenditures, as follows:

- **Information Technology (IT):** The IT sector already offers diverse circular business models that improve a product performance beyond the product itself. Innovative sector models in use today reduce acquisition and maintenance costs, maximize performance, and reduce additional fees such as unpredictable breakdowns, ongoing maintenance or obsolescence, and end-of-use treatment costs. At the heart of this model lies a mutual benefit for suppliers and buyers to reduce the total cost of ownership. Staff expect no increase in capital and maintenance costs with potential for up to 10% savings in the total cost of ownership.
- **Professional Services:** Vendors and suppliers can provide solutions that can reduce the need for raw materials and resource footprint while being more cost-efficient. A potential impact on costs for including circular criteria in Services procurements may result in an increase of up to 2% in the acquisition price and up to 5% savings in the total cost of ownership.
- **Civil Construction and Infrastructure:** Optimization of design and technical specifications can result in potential savings by considering the total cost of ownership. An increasing number of cases show that increased coordination of all construction value-chain stakeholders have the potential to reduce current construction waste and material flow performance. Potential impacts for including circular criteria in Construction and Infrastructure procurement activities could potentially result in a 10% increase in the acquisition price in the short and medium term as the market evolves.
- **Facilities, Maintenance and Operations (FMO):** The City is responsible for many different and diverse operations. New business models based on increased performance and reduced cost of ownership may provide the opportunity to realize greater efficiencies by specifying higher standards. These standards may facilitate extended product lifecycles and preserve value. Acquisition cost could therefore increase.

- **Fleet:** Available information suggests that potential circular economy opportunities for fleets already exist. New requirements emphasising the circular economy are gradually influencing product designs (and technology), business models, reverse cycle skills, and cross-sectoral collaboration to pursue a circular performance before the end-of-use of materials. A potential impact on costs for including circular criteria in Fleet procurement activities might result in an increase of up to 15% in the acquisition price and but could potentially deliver up to 15% savings in the overall total cost of ownership. An example of these type of projects are the Alternative Fuel Pilot Project and the Truck Solar Panel Project.

From a systems perspective, circular criteria in procurement activities reflects how new business models might enable materials to retain their value during the life cycle and at end-of-life by improving the total performance. Based on the outcomes of the extensive literature review and interviews with representatives from leading cities, the potential financial impact on the acquisition price and the total cost of ownership varies by sector and is undeterminable at this phase. Based on a maturing marketplace, staff expect any initial cost impacts to level out over the longer term with the inclusion of circular criteria in the City's product specifications. Under the revised Procurement Policy and the inclusion of circular economy criteria, staff will continue to be guided by the "best value" approach. Contract awards will also highlight where circular economy measures were included in the procurement as options for staff to assess. When staff identify a potential additional cost proposed by a vendor responding to a bid, staff will undertake a cost-benefit analysis to determinate overall value to the City.

Housekeeping Amendments

Housekeeping amendments are being proposed to the City's Procurement Policy (Attachment 1). In 2017, the City became subject to new trade agreements: a) the Canadian Free Trade Agreement ("CFTA"), which came into force on July 1, 2017, and replaced the Agreement on Internal Trade ("AIT"); and b) the Canadian-European Union Comprehensive Trade Agreement ("CETA"), which came into force on September 21, 2017. The City is also bound by the New West Partnership Trade Agreement ("NWPTA"), between British Columbia, Alberta, Saskatchewan and Manitoba, which came into force in 2010. These agreements commit government entities to a set of rules for public procurements which are intended to promote open procurement practices. Other proposed housekeeping amendments are to provide clearer guidance to staff regarding accountability in financial decision-making and to ensure the Policy reflects current procurement practices in the organization.

Financial Impact

None.

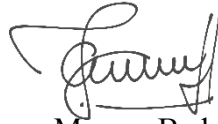
Conclusion

The proposed circular criteria and principles included into the [proposed](#) Procurement Policy are based on collaboration with staff throughout the City and many of the City's key suppliers. The experience gained through the engagement process serves as the foundation for staff and suppliers to enhance their contribution to the circular economy and secure economic benefits for both parties. The inclusion of recommended circular criteria and principles into the Procurement

Policy will ensure that value is maximized through a product's lifetime and stimulate a shift in the City's purchasing needs to increase Richmond's circularity. With Council's endorsement, staff will continue to engage internal and external stakeholders, expand tools for staff, carry out pilot procurements to develop detailed criteria and report outcomes to Council.



David Aarons
Manager, Purchasing
(604-276-4061)



Marcos Badra
Waste Management Analyst
(604-204-8643)

- Att. 1: Proposed Procurement Policy #3104
- Att. 2: City of Richmond Circular Economy Framework
- Att. 3: Circular Indicators
- Att. 4: Engagement Results and Outcomes
- Att. 5: Alignment of the Circular Criteria into the Procurement Policy with City Goals and Canadian Emerging Policies
- Att. 6: Implementation Considerations

Attachment 1: Proposed Procurement Policy #3104



City of
Richmond

Policy Manual

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POLICY 3104:

It is Council policy that:

1.0 Purpose

- 1.1 The City is committed to ensuring that best value is obtained for all funds expended.
- 1.2 The purpose of this Policy is to ensure that through open, fair and transparent purchasing practices, best value is obtained by the City for all goods and services required.

2.0 Scope

- 2.1 Subject to the Officer and General Manager Bylaw No. 8215 and subject to any Council resolution to the contrary, this Policy applies to contracts for the procurement of goods, services and construction management entered into by the City.

3.0 Policy Statements

- 3.1 The City will endeavour to practice an open, transparent, fair and accountable purchasing process for goods, services and construction management utilizing purchasing leading practices identified in the Purchasing Guidelines and Procedures document supplemental to this Policy.
- 3.2 The following principles shall guide procurement decisions towards the delivery of programs and services as approved by Council in the City's Financial Plan.
 - *Integrity*
 - *Best Value*
 - *Open and Fair Access*
- 3.3 Authorized City staff are required to ensure compliance with all City policies, all City Bylaws and all provincial and federal laws and regulations that apply to the purchasing of goods, services and construction.
- 3.4 Procurement planning will be undertaken as part of the City's financial processes. Departments will advise the Purchasing Section of their procurement plans and requirements for goods, services and construction in advance of program needs. Aggregating similar requirements can substantially reduce purchase prices and costs relating to maintenance, delivery, ordering and payment processing. All Departments will work with the Purchasing Section to review and identify opportunities for demand aggregation that provide overall savings to the City.



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- 3.5 Procurement values should be based on reasonable maximum cost estimates and in accordance with applicable laws and trade agreements.
- 3.6 In order to ensure best value, economies of scale and efficiencies, it is recommended that capital projects of a similar nature be consolidated.

4.0 Procurement methods

- 4.1 All City purchasing activities shall be in accordance with all applicable laws, and shall meet the terms of the following trade agreements:
 - 4.1.1 The New West Partnership Trade Agreement;
 - 4.1.2 The Canadian Free Trade Agreement (CFTA); and
 - 4.1.3 The Canada-European Union Comprehensive Economic and Trade Agreement (CETA).
- 4.2 Subject to any applicable exceptions in the trade agreement, all purchases for goods and services above the established thresholds in the trade agreements referenced in section 4.2 shall be formally competitively bid via methods described in the Purchasing Guidelines and Procedures document.
- 4.3 All formal competitive bid opportunities will be publically advertised on the BC Provincial Government's BC Bid website.

5.0 Confidentiality and Disclosure of Information

- 5.1 Personal information in the City's custody will only be released in accordance with the City's obligations under the Freedom of Information and Protection of Privacy Act (British Columbia).
- 5.2 Information made available to a potential supplier which may influence a response to a procurement will be made available to all interested suppliers.
- 5.3 Subject to any disclosure required by applicable law (including the Freedom of Information and Protection of Privacy Act (British Columbia)), confidential information provided to the City by a supplier as part of a procurement process will not be publically disclosed by the City. Notwithstanding the foregoing, confidential information shall not include information that: (i) was lawfully possessed, or independently developed without reference or access to the supplier's confidential information by the City; (ii) becomes rightfully known by the City from a third-party not under a confidentiality obligation to supplier; or (iii) is generally known by the public through no fault of or failure by the City. "Confidential information" means



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any information that is proprietary to the supplier and not generally known to the public.

- 5.4 The Purchasing Section shall report to Council all new contract awards on a quarterly basis for all contracts greater than \$75,000.

6.0 Authority to Award Contracts

- 6.1 The authority to award a contract as a result of a purchasing process for goods, services and construction is subject to the availability of funds within Council's approved Financial Plan and either express Council authority or the authority delegated to staff through the Officer and General Manager Bylaw No. 8215.

7.0 Execution of Contract Documents

- 7.1 Contract documents for purchases of goods, services and construction shall be executed on the City's behalf in accordance with an express resolution of Council or by the applicable authorities identified in the Officer and General Manager Bylaw No. 8215. Where the purchase of goods, services and construction has been authorized under this Policy, the contract shall be in a form approved by the City Solicitor.
- 7.2 All contracts executed pursuant to this Policy shall be delivered to the Director, City Clerk's Office.

8.0 Exclusions

- 8.1 When an unforeseeable Urgent Situation or Emergency exists and goods, services and construction cannot be obtained in time by means of open procurement procedures, the CAO or any respective General Manager may authorize procurement of goods, services and construction via single source procurement. Purchases made in these situations are subject to competition where circumstances permit and when practical.
- 8.2 The CAO and/or any respective General Manager is authorized to approve an expenditure that has been incurred for unforeseeable Urgent Situations when the expenditure can be accommodated within the Financial Plan, whether out of contingency funds or budget reallocations.
- 8.3 The CAO and/or any respective General Manager is authorized to approve an expenditure that has been incurred for an Emergency when the expenditure can be accommodated within the Financial Plan, whether out of contingency funds or budget reallocations. Emergency purchases that cannot be accommodated within the Financial Plan can be authorized by the CAO and/or any respective General Manager and will be reported to Council following the event. The Financial Plan



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will be amended to include the expenditure and the funding source for the expenditure.

- 8.4 When urgent life and safety situations occur that would preclude an effective competitive procurement process to be undertaken, the Manager, Purchasing is authorized to procure goods, services and construction via a single source procurement in the absence of the CAO and a General Manager.
- 8.5 Where the procurement is of a confidential or privileged nature and disclosure through an open procurement process could reasonably be expected to compromise confidentiality or be contrary to public interest, subject to the Officer and General Manager Bylaw No. 8215 the CAO and/or any respective General Manager may authorize the procurement of goods, services and construction via single source procurement.
- 8.6 When the City has standardized operational requirements to ensure compatibility with existing infrastructure, assure ongoing supply and enable economies of scale in the cost of necessary goods and services, maintenance, staff training and parts, subject to the Officer and General Manager Bylaw No. 8215 the CAO and/or any respective General Manager may authorize a single source procurement to advance such standardization goals.
- 8.7 Notwithstanding any other subsections in this Section 8.0, subject to the Officer and General Manager Bylaw No. 8215 the CAO and/or any respective General Manager may authorize procurement of goods, services and construction via single source procurement if: (i) such procurement is not covered by the trade treaties listed in section 4.1 above; or (ii) such procurement is otherwise eligible for limited tendering pursuant to the trade treaties listed in section 4.1 above.

9.0 Prohibitions

- 9.1 The following activities are prohibited under this Policy:
 - i. The dividing of contracts or purchases to avoid the requirements or thresholds of this or any Policy.
 - ii. Committing the City to acquisitions or contracts without the appropriate level of authority or without approved funding to do so.
 - iii. Purchases by the City of any goods or services for personal use by or on behalf of any member of City Council, appointed officers, employees of the City or their immediate families unless permitted under a separate policy.
 - iv. Purchases by the City from any member of City Council, appointed officers, employees of the City or their immediate families that could result in a conflict of interest unless that conflict has been disclosed.



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- v. Purchases made by appointed officers, employees of the City or their immediate families or from any other source that could result in a conflict of interest unless that conflict has been disclosed and approved by the CAO.
- vi. The purchase of any City goods by a member of City Council, appointed officers, employees of the City or their immediate families unless purchased through an authorized asset disposal process (e.g. auction).

10.0 Ethics in Public Purchasing

10.1 All employees shall act honestly and with integrity, avoiding the appearance of impropriety in all procurement practices. This provision supplements and does not supersede or replace other policies adopted by City Council with respect to staff code of conduct or conflict of interest.

10.2 No City employee directly involved in procurement activities shall have any interest, directly or indirectly, with or as a contracting party, surety or otherwise in any purchasing contract for goods, services or construction, or in any of the monies that may be derived there from.

11.0 Sustainable and Ethical Purchasing

11.1 Sustainable and ethical purchasing practice will align City's approach to purchasing and best practice with the objectives relating to people, the environment and prosperity as referenced in the City's Sustainability Policy 1400. Emerging best practices represent practices that are desirable for the City to engage in, pilot and further develop, with their widespread implementation occurring over time.

11.2 The City will support emerging best practices that advance circular economy principles: designing out waste & pollution by prioritizing regenerative resources, keeping products and materials in operational use, regenerating natural systems and mitigating climate change, collaborating to co-create innovation and joint value, and maximizing economic value for money if it is economically feasible.

11.3 The City will encourage all suppliers within the purchasing process to demonstrate quality-focused solutions, excellence and innovative leadership in sustainability, environmental stewardship and fair labour practices; and where practical will take these factors into consideration during the evaluation process. The City will work collaboratively with suppliers to pilot, co-create and advance circular economy business models, and environmentally friendly products and services.

11.4 The City will select suppliers based on best value, including, but not limited to, the economic attributes of the supplier's products and services, and where practical,



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circular economy outcomes that support innovation, long-term environmental quality, and business mobilization and collaboration.

11.5 In order to increase the development and awareness of sustainable products and services, City staff will review their contracts and tender specifications for goods and services, to ensure that wherever possible and economically feasible, specifications are amended to provide for consideration of sustainability and circular economy criteria. Consideration may be given to those environmental products that are certified by an independent accredited organization.

11.6 The City will endeavor to increase its use of products and services that are more responsible to the environment in the way that they are made, used, transported, stored and packaged and disposed of, and consider alternative options that may exist to deliver similar outcomes consistent with a circular economy. It is recognized that analysis is required in order to ensure that the products are made available at competitive prices and that the environmental benefits provided by a product or service should not significantly affect the intended use of that product or service.

11.7 The operators and caterers of City-run facilities are requested to use only certified organic, free-range or free-run whole (shell) chicken eggs.

12.0 Co-Operative Purchasing

12.1 The Manager of Purchasing may recommend the City awarding and/or entering into co-operative purchasing agreements with other public bodies for the purpose of combining requirements to increase efficiencies and reduce administrative costs in the purchasing process. All co-operative agreements shall comply with the principles contained in this policy and the Purchasing Guidelines and Procedures document, supplemental to this policy. For greater clarity and certainty, the execution of such agreements shall be governed by section 7.0 of this Policy.

12.2 The Manager, Purchasing may recommend the City piggybacks other public agency agreements where a supplier makes its products available to other public agencies and enable the City to reduce its acquisition costs, increase efficiencies and reduce administrative costs in the purchasing process.

13.0 Procedures & Guidelines

13.1 The Purchasing Procedures and Guidelines document is supplemental to this Policy and contains procedures and guidelines to be followed by City staff. Purchasing Procedures and Guidelines may be changed or updated as required by the General Manager, Finance and Corporate Services.

13.2 The Manager, Purchasing will be authorized to cancel any procurement where: (a) there is a request by the respective Director that originated the procurement



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request and responses are greater than the approved funding for the contract award in respect of the procurement; or (b) in the joint opinion of the Manager, Purchasing and the respective Director (i) A change in the scope of work or specifications is required and therefore a new procurement should be issued; or (ii) The goods, services or construction to be provided by the procurement no longer meets the City's requirements; or (c) in the opinion of the Manager, Purchasing the integrity of the procurement process has been compromised; or (d) there has been a change in the approved funding for the contract award in respect of the procurement.

- 13.3 The Manager, Purchasing may recommend the City purchases used goods or equipment via a single or sole source process where it would satisfy the City's operational requirements and ensure business continuity.

14.0 Unsolicited Proposals

- 14.1 All unsolicited proposals are to be forwarded and reviewed by the Manager, Purchasing and the respective Director that would utilize the goods or services to confirm if the unsolicited proposal offers something unique or innovative, and determine whether to authorize a procurement process to solicit market responses or to pursue a single source procurement process.

15 Definitions/Interpretation

- 15.1 All references in this Policy to City staff, an employee, official or other representative of the City are deemed to include any designate as contemplated by the Officer and General Manager Bylaw No. 8215.
- 15.2 In this Policy, the following terms have the following meanings:

Award	The business decision by City staff authorized under City Bylaws to enter into a contract for goods, services or construction work.
Best Value	The optimal combination of compliant responses to the City's terms and conditions and contract documents; providing the City with best value in total cost of ownership including, but not limited to, economic, environmental and social aspects as determined in accordance with specific criteria established by authorized City staff.
CAO	Chief Administrative Officer of the City of Richmond. The person appointed by Council pursuant to section 1.1.1 (a) of the Officer and General Manager Bylaw as an Officer of the City under section 146 of the <i>Community Charter</i> .



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Construction – Construction Management	Construction management is the process of professional management applied to a construction project from the project inception to completion for the purpose of controlling time, cost, scope, and quality. Construction, reconstruction, demolition repair or renovation of a building structure or other civil engineering or architectural work. Includes site preparation, excavation, drilling, seismic investigation, the supply of products and materials, the supply of equipment and machinery (incidental to construction) related to construction.
Circular Economy	The circular economy is an economic system that aims to maximize the value of resources by design through responsible consumption, minimizing waste and reimagining how resources flow in a sustainable, equitable, low-carbon economy.
Contract	A contract for purchase by the City of goods, services or construction, including the issuance of a purchase order or the execution of any agreement evidencing obligations.
Co-operative Purchasing	Purchasing conducted by the Manager, Purchasing on behalf of the City and other public bodies, or the involvement of the Manager, Purchasing in purchasing by other public bodies on behalf of the City.
Council	The City Council of the City of Richmond
Emergency	As defined under the Emergency Program Act of British Columbia. “emergency” means a present or imminent event or circumstance that <ul style="list-style-type: none"> (a) is caused by accident, fire, explosion, technical failure or by the forces of nature, and (b) requires prompt coordination of action special regulation of persons or property to protect the health, safety or welfare of a person or to limit damage to property.”
Financial Plan	As defined under section 165 of the <i>Community Charter</i> . A municipality must have a financial plan that is adopted annually, by bylaw. The planning period for the financial plan is 5 years and will set out the following for each year of the planning period: <ul style="list-style-type: none"> (a) the proposed expenditures by the City; (b) the proposed funding sources; (c) the proposed transfers to or between funds The financial plan may be amended by bylaw at any time.
Formal Competitive Bid	A bid advertised on BC Bid and the City’s website



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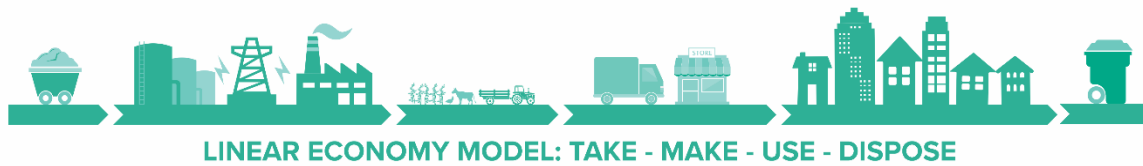
Fully Funded	The entire procurement cost must be funded in the year in which the item is procured.
GM Finance and Corporate Services	The person appointed by Council pursuant to section 1.1.1 (b) of the Officer and General Manager Bylaw as an Officer of the City under section 146 of the <i>Community Charter</i> .
Integrity	The procurement process will be conducted with honesty, moral principles and ethical standards.
Officer and General Manager Bylaw	The Bylaw which Council has delegated responsibility for entering into contracts, procedures for tendering/purchasing and limits on spending authority within limits established by Council.
Open and Fair Access	Ensuring that the public is aware of and permitted to compete for supply opportunities in their demonstrated field of expertise.
Purchasing Guidelines and Procedures Document	The City's administrative procedure which provides information to guide staff in the process of acquiring goods and services and in the process of construction management for the City.
Purchasing Process	The City's purchasing / acquisition process, from requisition, to purchase order or contract, to product or service receipt, to payment.
Purchasing Section	The Purchasing Section operates as a centralized function that manages the acquisition of all goods and services and construction for the City through acquisition processes identified in the Purchasing Guidelines and Procedure document.
Sustainability	The term used to describe a vision and practice for making choices that meet the diverse needs of communities today and those in the future.
Total Cost of Ownership	The direct social, environmental and financial costs and benefits to the City of products, services and construction during their acquisition, use and end of life phases. All contracts will be evaluated based on the full range of costs including acquisition, maintenance, replacement, legal, disposal and training costs associated with goods or services.
Urgent situation	Means a present or imminent event or circumstance that requires immediate attention where a lack of supplies or services may adversely affect the functioning of the City.
Unsolicited Proposal	An unsolicited proposal received by the City independently of a purchasing process submitted by a third party wishing to sell certain goods or services to the City.

Attachment 2: City of Richmond Circular Economy Framework

The City of Richmond has demonstrated leadership over the past decades by developing innovative policies, programs and service delivery in environmental sustainability, shaped by the inclusive community and stakeholder engagement. This resulted in increased use of environmentally sound products and services by the City. The City of Richmond is looking to further build on this by identifying a path to achieve a circular economy.

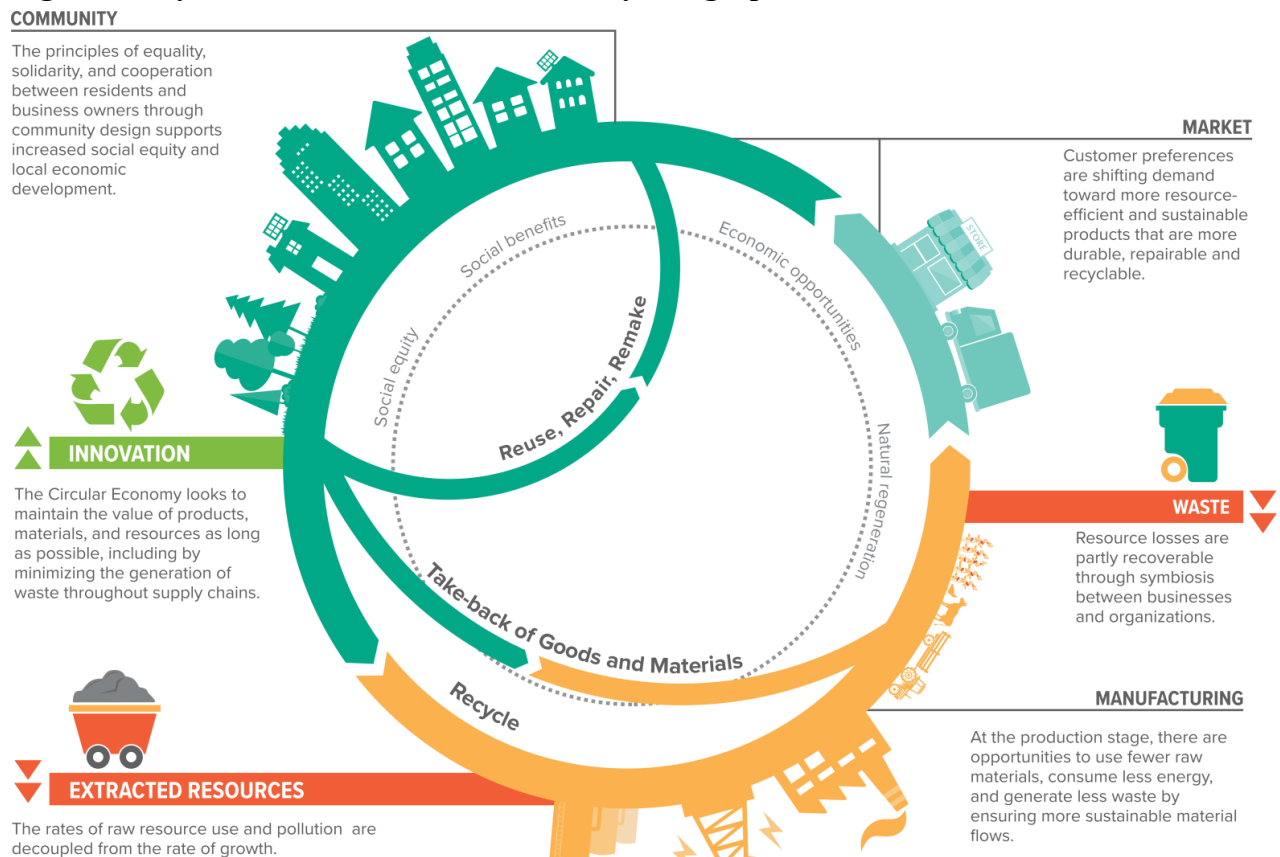
Historically, economic development and growth have required increasing amounts of raw materials to produce goods and increasing amounts of waste produced. Today, our economies have become so large that we have to question the wisdom of extracting ever more raw materials and dumping more and more waste. The current economic model of "take-make-use-dispose" is called the linear economy and is not a model for long-term sustainability.

Figure 1: Linear Economy Infographic



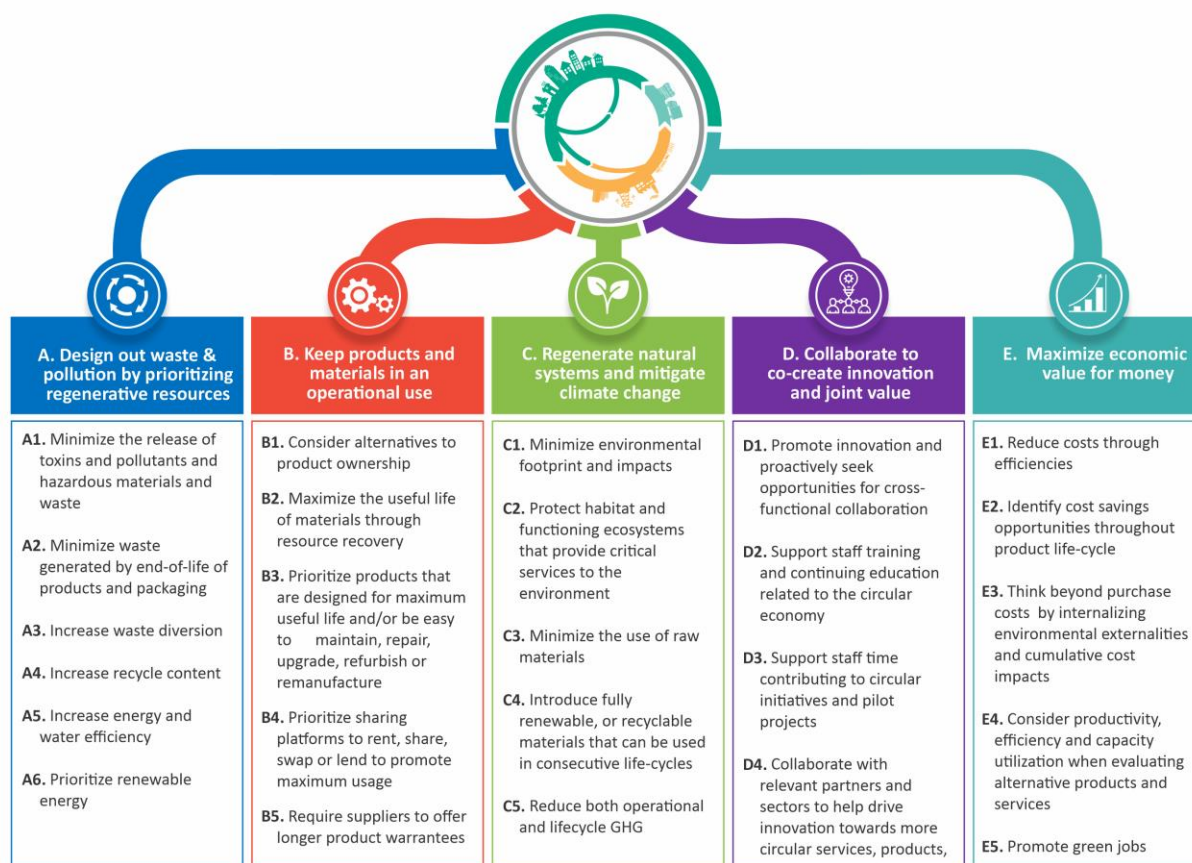
The City of Richmond's vision for the circular economy is to maximize the value of resources by design through responsible consumption, minimizing waste and reimagining how resources flow in a sustainable, equitable, low-carbon economy, as shown in the illustration below:

Figure 2 City of Richmond Circular Economy Infographic



This framework is aligned with Council policies on environmental sustainability and with the emerging Canadian policy context by the following circular economy principles and criteria:

Figure 3: City of Richmond Circular Economy Principles and Criteria



A circular business requires a longer-term view, using systems thinking during product design and production:

- Thinking at the design stage about what will happen to a product or material at the end of its life
- Starting discussions early in the design process to help the project team make choices that facilitate circularity
- Success depends upon collaboration with both internal and external stakeholders.
- Avoiding a 'one-size-fits-all' approach so that all options are considered.

Staff will proceed with the proposed implementation as described in this report. The circular principles and criteria into the Procurement Policy will be gradually implemented by selecting priority products and services based on a defined set of selection conditions such as potential cost-saving potential, environmental impacts, and market readiness.

Attachment 3: Circular Indicators

A. Designing out waste & pollution by prioritizing regenerative resources	Indicators	B. Keeping products and materials in an operational use	Indicators	C. Regenerating natural systems and mitigating climate change	Indicators	D. Collaborating to co-create innovation and joint value	Indicators	E. Maximizing economic value for money	Indicators
<ul style="list-style-type: none"> Substances that adversely affect human health or the environments associated with the production, distribution use and disposal of the goods Take-back systems Reusable packaging Renewable materials Design for circularity and closed loops Waste generation vs material consumption Reusable, renewable and recycled packaging Materials/products end-of-life options (plan, options) Type and volume of waste generations Eco-efficiency: virgin material usage Water efficiency or savings Energy efficiency or savings Renewable energy usage 	<ul style="list-style-type: none"> Circular model business proposed (specify options and combinations) Product efficiency and longevity Second product efficiency and longevity after repair, upgrade or remake to increase product lifespan Market for second hand available Product failures Modular parts, preventing switch in-switch out Total lifetime of a product and its components Access to internal workings Time of parts and suitable maintenance/repair service offered will be available in the market to repair, upgrade or remake the product Components, connectors, modules and leads are standardized Operations input and output volumes Product efficiency and longevity warranties 	<ul style="list-style-type: none"> Footprints of operations or product life-cycle Impact on natural habitat of operations or product life-cycle Material consumption: virgin material usage Biodiversity or scarce materials usage Eco-efficiency: Renewable and recycled materials usage (reduces demand for virgin resources) Certified or responsibly sourced materials Renewable energy usage CO2eq reductions compared to a conventional life-cycle Total CO2eq emission during operations or product life-cycle Supplier GHG reduction targets and proposed actions to achieve GHG reductions Climate change impacts associated with the production and distribution of the products or services 	<ul style="list-style-type: none"> CE-business profitability Sharing economy and collaborative consumption Consumers appreciation for CE products and services Collaborative production: industrial symbiosis Creating green employment Training opportunities provided by the company for costumers Initiative and pilot projects Participation in innovative initiative in the pre-competitive level Sharing knowledge Stakeholder engagement activities Donations 	<ul style="list-style-type: none"> Life-cycle cost and Total Cost of Ownership savings Cost-benefits analysis (cost environmental impact) Refurbishment/ remanufacturing costs Retained economic value of materials Economic value created through take-back systems Financial benefits Value-based resource efficiency Value added of the utilization of waste materials Retained economic value of materials 					

Attachment 4 –Engagement Results and Outcomes

Stakeholder engagement with vendors and local businesses was undertaken to identify innovative solutions and solutions using circular economy principles and anticipated cost considerations. City staff realized early on that engaging the market of existing suppliers would be a critical component in developing a successful implementation plan for circular procurement. The approach included engagement with a broad range of local and regional stakeholders, as well as interviews with leading public and private sector organizations.

Activity	Number of participants
City of Richmond Website information regarding the Circular Economy	Public
Government Staff Interviews: 12 interviews with leading, early adopter cities and organizations around the world, at different stages of maturity with respect to circular procurement	4 Cities and 10 organizations
Stakeholder Workshop: Canada's first vendor-focused Circular Economy Engagement Workshop hosted and facilitated by the City of Richmond. More below.	45 companies + 30 City's staff
City's Economic Advisory Committee	Committee Members
Industry Interviews: 15 one-per-one interview with vendors and other external stakeholders	15 one-per-one interviews with vendors and other external stakeholders

Stakeholder Workshop

In February 2020, the City hosted and facilitated Canada's first vendor-focused *Circular Economy Engagement Workshop*. Participants included representatives from 45 companies, other public sector organizations, and City staff. Workshop objectives were:

1. Create awareness of the City's circular economy initiatives and expectations for future participation;
2. Identify and explore opportunities on how products and services could incorporate tangible Circular Economy outcomes; and,
3. Promote closer relationships with City suppliers to encourage the sharing of ideas, market knowledge and solutions.

Key findings from this workshop are summarized in the following figures, encompassing responses to four questions asked of participants during roundtable breakout discussion:

Figure 1: Stakeholders motivation to work on Circular Economy activities

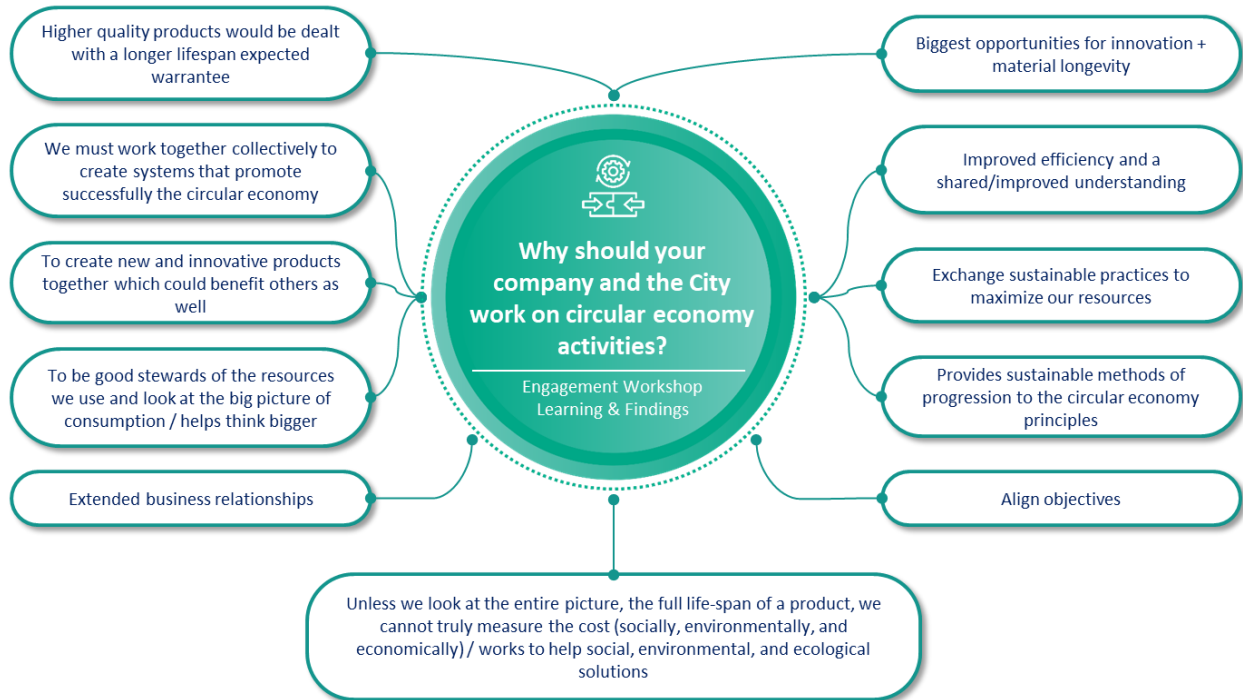


Figure 2: Benefits identified by stakeholders to include circular economy criteria into procurement activities

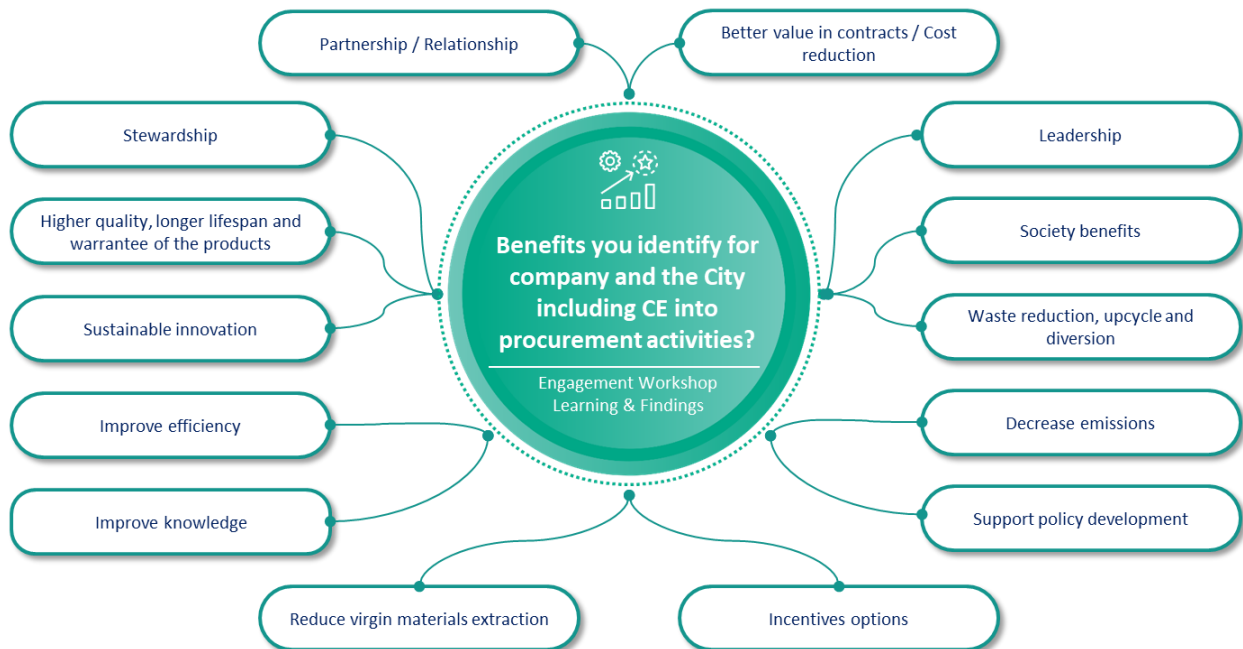


Figure 3: Opportunities identified by stakeholders for implementing circular criteria

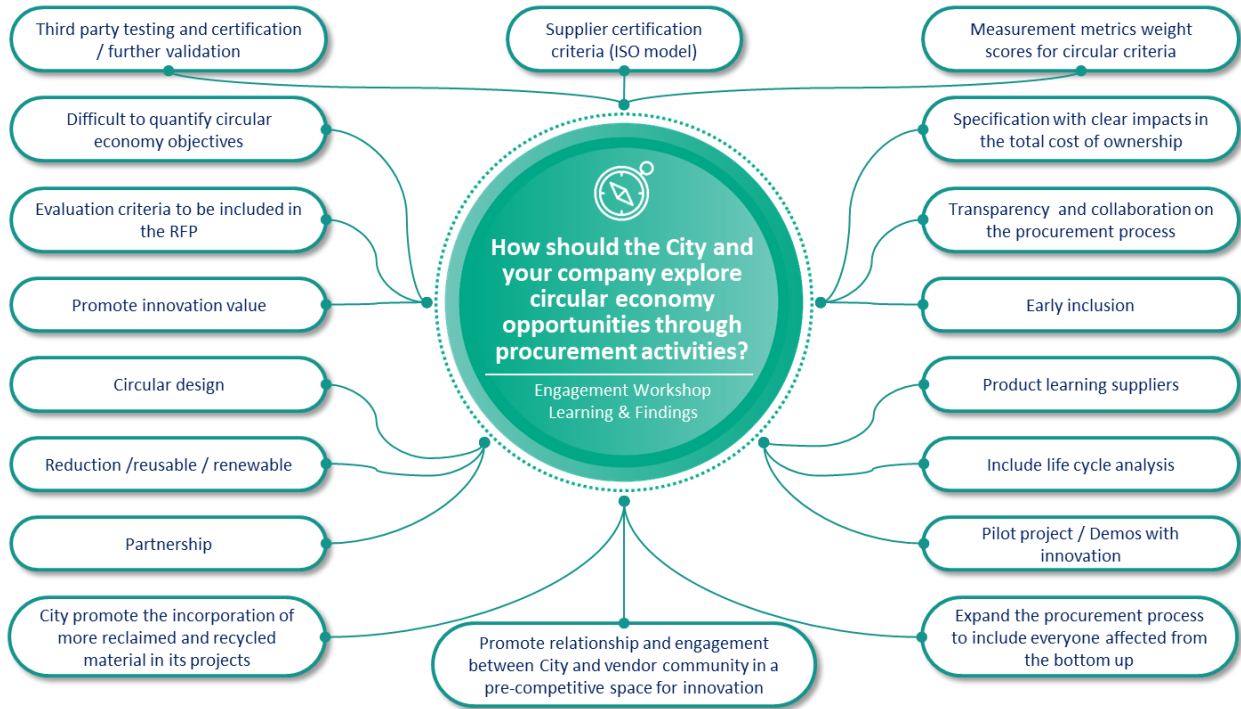
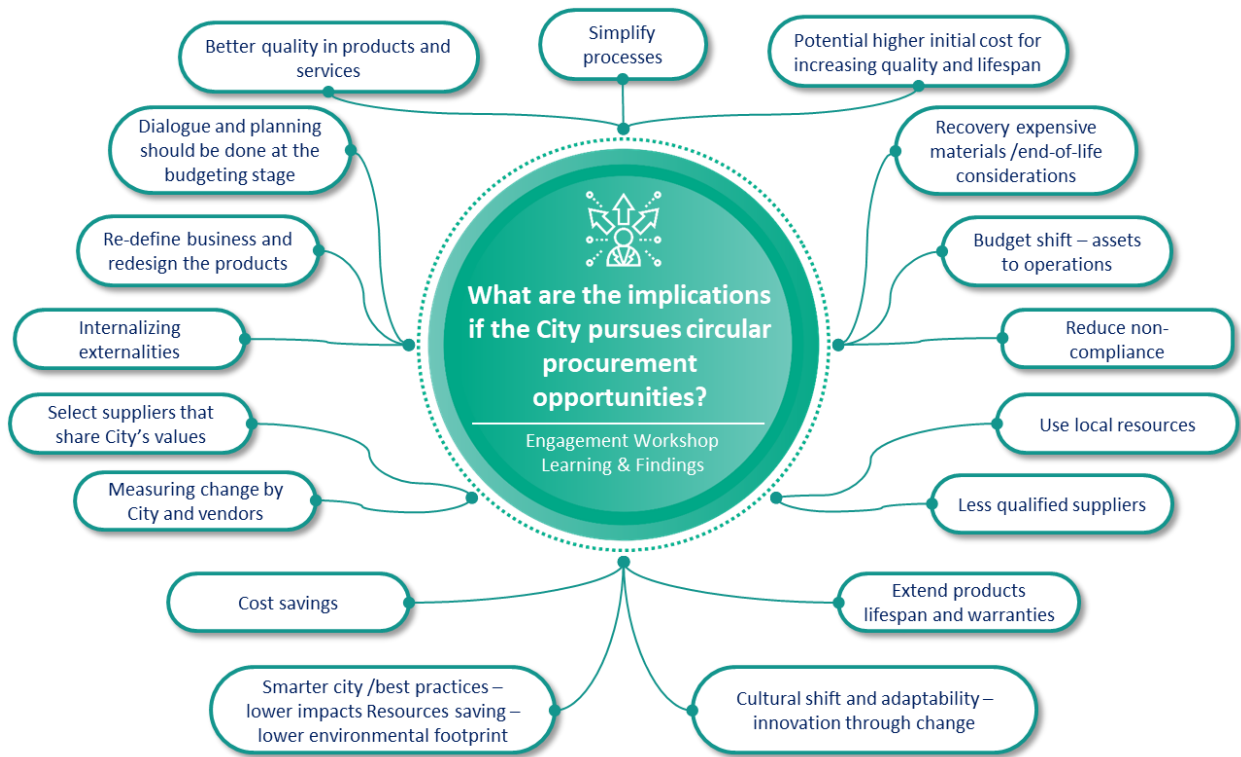


Figure 4: Impacts identified by stakeholders for implementing circular criteria



Summary of learnings from Non-profit Organizations

Staff engaged and analyzed reports by London Waste & Recycling Board, Ellen MacArthur Foundation, Dutch Public Procurement Expertise Centre, Sitra, World Economy Forum, and Organization for Economic Co-operation & Development, World Circular Economy Forum, National Zero Waste Council, European Commission, ICLEI, and the United Nations Environmental Program (UNEP).

Stakeholder Readiness to Implement Circular Procurement

Feedback from the City's engagement workshops indicated a moderate to very positive attitude in transitioning to a Circular Economy. While the level of readiness varied within each industry sector, it was felt that circular principles and criteria could be successfully integrated into City of Richmond's procurement activities. Workshops feedback also indicated that some circular procurement requirements could be utilized immediately, and within existing budgets.

A key take-away from the engagement workshops was the need to continue cross-sector conversations. Feedback indicated that engaging suppliers on this issue has beneficial impact, and stimulates organizations to think about opportunities, rather than barriers. The caveat is that Richmond is in the early stages of transition, and successful implementation requires a steady, incremental approach to achieve the long-term objective of 100% circularity. Participants also identified the need to have 'quick wins' in the early stages of implementation, and that innovative examples should be shared broadly.

Stakeholders and Vendors Barriers

Traditionally, transactions assess costs focused on investment on up-front costs or cost impacts over a short-term timeframe (capital costs is prioritised over operational costs). This tends to support transactional relationships over long-term collaborations, and works against projects with wider social and environmental objectives.

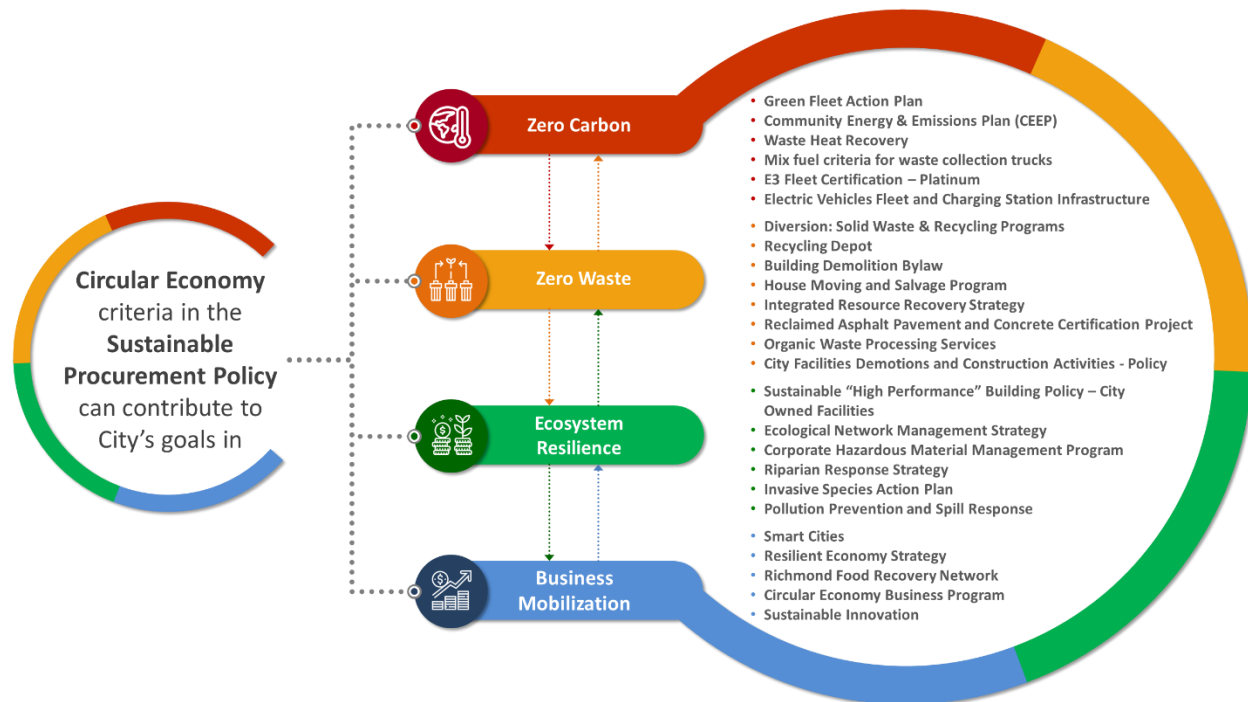
- **Investment costs** are mentioned in the contexts of a supporting goals and activities for circular economy procurement activities
- **Low virgin material cost** and even lower end-of-life fees are barriers to implement circular economy criteria into procurement activities
- **Low number of business cases, local pilot project or case study information available** as a reference to staff and suppliers and vendor to include circular economy principles in project and operational design and procurement.
- **Insufficient, incomplete, or low communication** between all stakeholders before, during or after procurement activity

Attachment 5 – Alignment of the Circular Criteria into the Procurement Policy with City Goals and Canadian Emerging Policies

Alignment with City goals

The Figure 1 of this Attachment shows how the transition to the circular economy into procurement activities has the potential to leverage City's sustainability drivers of zero carbon, zero waste, ecosystem resilience and business mobilization, and support a long-term perspective for cost reduction and innovation

Figure 1: Circular economy into procurement activities to leverage City's sustainability



Canadian Emerging Policy Context

Province of British Columbia

As part of the Climate Leadership Plan (March 2017) the BC Ministry of Environment launched the "Jurisdictional Scan for Circular Economy - Final Report"¹ that included circular economy best practices from leading jurisdictions around the world to inform the Province's strategy.

The objective of this research was to review circular economy actions with respect to policy effectiveness and impact, as well as opportunities and challenges that have arisen from governments

¹ https://www2.gov.bc.ca/assets/gov/environment/waste-management/zero-waste/zero-waste/delphi_circular_economy_scan.pdf

implementing these actions. This report highlights the need to integrate circular procurement requirements as a way to increase demand for circular products and services, and help drive innovation by considering a product's entire life cycle at the purchasing stage. Leading jurisdictions have set green procurement policies requiring that 7 specific sustainability and circular criteria are met by supply chains as a medium term approach to driving change.

Canadian Council of Ministers of the Environment (CCME)

In the Canada-wide Action Plan on Zero Plastic Waste², the CCME acknowledges that member jurisdictions have all taken steps towards more sustainable practices, which may include considerations related to lifecycle management, recycled content, packaging and single-use plastics reduction, durability and reparability. The Government of Canada will develop guidelines for jurisdictions to update their sustainable procurement practices to incorporate circular economic principles by the end of 2021.

Government of Canada

In preparation for the 2020 World Circular Economy Forum, which will be hosted and co-organized by the Government of Canada, the Ministry of Environment and Climate Change Canada noted that:

"...clean technology is crucial to make this shift toward a circular economy. New and innovative ideas can help to increase resource productivity, create jobs, reduce environmental impacts, and contribute to a clean and competitive Canadian economy. The Government of Canada is working to support the businesses and communities that are creating new economic opportunities that keep the value of our resources in the economy and out of the landfill."

Richmond's Community Energy and Emissions Plan 2020-2050 Directions

In January 27, 2020, City Council adopted the Community Energy and Emissions Plan 2020-2050 Directions (Report to General Purposes Committee dated November 29, 2019), which included the strategic direction that the City create a circular economy in Richmond that maximizes the value of resources through smart product design, responsible consumption, minimized waste and reimagining how resources flow in a sustainable, low-carbon economy.

² https://www.ccme.ca/files/Resources/waste/plastics/1289_CCME%20Canada-wide%20Action%20Plan%20on%20Zero%20Plastic%20Waste_EN_June%2027-19.pdf

Attachment 6 - Implementation Considerations

Staff identified that transitioning from a linear to circular economy is a journey characterized by short- and medium-term milestones, building toward the long-term objective of 100% circularity. Successful integration of circular economy criteria into the City's procurement processes is expected to take place over the medium to long-term. The United Nations and leading cities have indicated that at least 25% of the City's procurement in 2023 would be circular, with an estimated 75% of procurement at the basic stage, and 25% at the intermediate stage. This would grow to 50% of the City's procurement by 2025, and 100% circular procurement by 2035.

The City's current and proposed Procurement Policy focuses on products and services that offer the 'best value' to the City. While this has always included sustainability considerations, the addition of circular economy criteria further clarifies how the City defines 'best value' to suppliers and vendors. Implementation activities intend to accelerate the transition to a circular economy in Richmond, and signal out to the external market the City of Richmond's expectations and timing with respect to circular procurement requirements.

Staff anticipate the need for continued learning, iteration and process adjustments as needed to achieve the policy's ambition and outcomes. The proposed activities support a learning-by-doing approach for both City staff and external market. This is a best practice by leading, early adopter cities and organizations worldwide, at different stages of maturity with respect to circular procurement. The City of Richmond will likewise use a stepped methodology for procurement targets in the immediate term, building momentum toward more ambitious transition during the later stage. This supports broader implementation of circular economy locally, and in the regional market.

The following activities that will be undertaken to support progress toward the implementation of the circular economy principles in procurement activities using a shared 'learn-by-doing' approach: This is a best practice by leading, early adopter cities and organizations around the world, at different stages of maturity with respect to circular procurement. The City of Richmond will likewise use a stepped methodology for procurement targets in the immediate term, building momentum toward more ambitious transition during the later stage. This supports broader implementation of circular economy locally, and in the regional market.

- **Education, change-management and capacity-building:** Active learning will be developed for departmental staff involved in circular procurement through ongoing procurement activities. Engagement and training of external suppliers of product and services will also be carried out to ensure that they are able to effectively respond to the City's new circular procurement requirements. In the short-term staff will implement circular economy webinars for vendors and businesses in Richmond to promote circular best practices in City market. Capacity-building includes initial education/training on the circular model, provision of a series of sector-relevant case studies, provision of a series of tools for identifying and capturing opportunities and risks, external programs available and applicable to City's reality, and educational programs in partnership with other local governments in Canada
- **Staff collaboration and support:** Steps will be taken to ensure that circular procurement integrates with existing City operational requirements and functions. Tactical support will

ensure that staff can more readily identify opportunities to utilize circular principles as part of achieving objectives with respect to product longevity, enhanced value, cost reduction and/or minimizing waste. Examples of applying circularity will be shared between departments, to build experience and competency.

- **External market engagement:** Staff will establish ongoing dialogue with vendors / suppliers on circular procurement principles to support the 'co-creation' of products and services. Buyers will undertake regular studies to identify and incorporate circular economic criteria into the budget review process to support and advance City's environmental and sustainable performance goals and related core sustainability policies objectives.
- **Shared learning and pilot projects:** Successful early champions of the circular economy, such as City of Richmond, can benefit from sharing with, and learning from, other public sector organizations that are also transitioning their procurement practices towards circularity. Promising examples and experiences can be captured using a new circular approach and framework that includes case studies, pilot test results, key contacts and research publications.
- **Procedures and guidelines improvement:** Staff will update the procurement procedures and guidelines to integrate circular tools and indicators. The procurement procedures and guidelines will also integrate gradually circular thinking guidance by reassessing their approach based them on circular principles and the learning-by-doing outcomes. The City will contribute to the broad acceleration towards a circular economy with direct and indirect influence in the regional market.

With Council endorsement of updated Procurement Policy #3014, staff will proceed with the implementation actions described above. Staff intend to provide periodic updates to Council on progress made toward a circular economy through City procurements, plans, strategies, and actions.