



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 5, 2014
From: Tom Stewart, AScT. **File:** 10-6370-00/Vol 01
Director, Public Works
Re: **Proposed Policy for Management of Waste and Recyclable Materials from
City Facilities Demolition and Construction Activities**

Staff Recommendation

That a new policy respecting the Management of Waste and Recyclable Materials from City Facilities Demolition and Construction Activities, as outlined in Attachment 1 to the staff report from the Director, Public Works dated June 5, 2014, be adopted.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Project Development	<input checked="" type="checkbox"/>	
Facility Services	<input checked="" type="checkbox"/>	
Sustainability	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

The Integrated Solid Waste and Resource Management Plan (ISWRMP) outlines a number of strategies to increase reuse and recycling of demolition, land clearing and construction (DLC) waste. These include legislative tools to require recycling at demolition sites and a target to ban clean (untreated) wood from disposal at regional facilities in 2015. These are among many action items identified in the ISWRMP that will be necessary to reach regional waste diversion targets of 70% by 2015 and 80% by 2020.

To help advance recycling of DLC waste and as part of considering a potential industry bylaw, City staff are working on a pilot initiative with the small building industry to trial the practicalities of recycling increased quantities of waste from housing demolition projects. This will be the subject of a future report.

As part of demonstrating leadership in this area, this report presents a policy targeted at corporate actions the City can take to ensure the sound management of waste and maximum reuse/recycling of materials from City facilities construction and demolition activities. By introducing actions ahead of any potential bylaw impacting industry, the City is demonstrating its commitment to advancing recycling of demolition and construction waste in its own internal practices.

Analysis

Recycling practices within the construction and demolition sectors currently target materials which are required or generally cost effective to recycle, i.e. gypsum, concrete and metals. Among single-family homes, typical recycling rates for demolitions are approximately 40% by weight. Commercial demolitions generate higher recycling rates (approximately 80%) due to the weight of materials involved (i.e. concrete).

In addition to cost, barriers to increased recycling can include concerns to project schedules due to the added time requirements to de-construct or otherwise separate materials. Further, lack of awareness or familiarity with new approaches and/or available recycling facilities can also presents challenges to advanced recycling efforts.

The City has taken a number of measures among its own internal practices to recycle materials from demolition and construction activities as outlined below.

Current City Approach

Demolitions:

The City currently undertakes, on average, between 10-15 demolitions annually. Current practice is to work with demolition contractors to maximize recycling from demolitions with no specific stated/required targets. Consideration is given to balancing cost effectiveness against environmental objectives. While recycling rates vary depending on a variety of factors relating to the building type, in general, diversion rates up to 80% are achievable however with a cost

that can be two or three times that of conventional house demolition practices (i.e. \$5,000 to \$7,000 versus \$15,000). The higher the desired diversion rates, the higher the cost due to the additional effort required to sort and/or deconstruct various parts of buildings. A diversion rate of 95% can cost up to three or more times that of achieving 80% diversion (\$15,000 vs. \$45,000 for a standard single-family style home).

New Construction:

In relation to new construction, the LEED (Leadership in Energy and Environmental Design) rating systems are utilized on suitable projects (i.e. LEED gold certification is the desired target). LEED points are awarded to projects based on diverting waste from landfill, and from using reused and recycled materials.

Existing City Policies

The City has a number of existing policies which promote leadership and responsibility in environmental approaches in relation to this issue, including:

- Corporate Sustainability Policy 1400 – commits to “excellence in local government sustainability practice and serving as an inspiration for greater collective change”.
- Sustainable “High Performance” Building Policy – City Owned Facilities Policy 2307 – requires new construction and major renovations to incorporate sustainable building practices, which are measured using the LEED rating system.
- Demolition of City Owned Substandard Houses Policy 9001 – promotes reuse and recycling of buildings and demolition materials, where economical.

To capture and harmonize the City’s existing efforts and policies, while at the same time demonstrating leadership ahead of proposed Metro Vancouver disposal bans and as part of advancing recycling market growth, a new policy is proposed which would apply to both demolition and construction waste from City facility projects. As this proposed policy will replace the recycling/reuse component of Policy 9001, a revision to remove this aspect from Policy 9001 will be included as part of an upcoming City Housekeeping Policy report.

Proposed Approach

It is suggested that a new policy be adopted, which identifies aggressive targets for waste diversion. The proposed policy, “Management of Waste and Recyclable Materials from City Facilities Demolition and Construction Activities”, is outlined in Attachment 1. Key aspects of this proposed policy include:

1. Applies to demolition and construction of City facilities
2. Establishes an 80% diversion objective for all waste generated from demolition and construction activities
3. Requires that all clean (untreated) wood waste be diverted from disposal

4. Establishes the waste reduction hierarchy to be followed, (i.e. salvage/re-use, recycling then disposal).
5. Requires that a Waste Disposal and Recycling Services Plan be submitted to outline estimated quantities of waste to be generated and how these materials are expected to be managed to meet established City targets
6. Requires that a Compliance Report, documenting adherence to the Waste Disposal and Recycling Services Plan, be submitted
7. Requires compliance with health and safety regulations pertaining to management of hazardous materials

The Bylaw would be administered principally by the Facilities and Project Development sections of Engineering and Public Works. The City's experience and learning from application of the proposed policy can be made available and/or shared with industry as part of helping to promote best practices in this area.

Financial Impact

The proposed policy has no direct financial impact.

Any financial impacts associated with achieving a higher diversion rate target will be evaluated in relation to each individual City facility construction and demolition project, and will be reviewed as part of standard budget processes.

Conclusion

The proposed policy, "Management of Waste and Recyclable Materials from City Facility Demolition and Construction Activities", establishes aggressive waste diversion objectives in the City's corporate practices. By adopting this policy, the City would be demonstrating leadership ahead of any future industry requirements in this regard; would ensure City practices are in place ahead of any planned clean wood disposal bans; and would be in support of the diversion targets and strategies outlined in the regional Integrated Solid Waste and Resource Management Plan.


These actions will also help to further growth in the recycling industry relating to demolition, construction and land clearing activities.



Suzanne Bycraft
Manager, Fleet & Environmental Programs
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Att. 1: Proposed Policy – Management of Waste and Recyclable Materials from City Facilities Demolition and Construction Activities

Proposed Policy: Management of Waste and Recyclable Materials from City Facilities Demolition and Construction Activities

 City of Richmond		Policy Manual
Page 1 of 1	Adopted by Council: <date>	Policy <policy no.>
File Ref: <file no>	MANAGEMENT OF WASTE AND RECYCLABLE MATERIALS FROM CITY FACILITIES DEMOLITION AND CONSTRUCTION ACTIVITIES	
<p>POLICY <POLICY NO.> :</p> <p>It is Council policy that:</p> <p>1. TARGETS</p> <p>1.1 The City of Richmond will target a diversion rate of 80% by weight for the demolition of City facilities houses, new facility construction, and major facility renovations, recognizing that in some instances it will not be feasible to achieve this target in a fiscally prudent manner.</p> <p>2. OBJECTIVE</p> <p>The City of Richmond will:</p> <p>2.1 Continue to increase the reuse and recycling of demolition, land clearing and construction (DLC) waste from City facilities.</p> <p>(a) Require contractors to provide a Waste Disposal and Recycling Services Plan for demolition and construction projects.</p> <p>(i) Require contractors to provide a Compliance Report, documenting adherence to the Plan.</p> <p>(b) Prioritize the salvage of building components for reuse, then recycling, and finally other waste diversion and disposal technologies, whenever technically feasible and fiscally prudent.</p> <p>(c) Encourage contractors to recycle and/or salvage for reuse wood especially, to help build markets for wood waste diversion, and avoid disposal.</p> <p>(i) Require that all clean/untreated wood waste be reused or recycled.</p> <p>2.2 Seek to improve DLC waste management practices in the demolition and waste management industries.</p> <p>(a) Document and share the City's DLC waste management practices with industry.</p> <p>2.3 Ensure the demolition activities of City facilities shall comply with the applicable health and safety regulations.</p> <p>(a) Ensure a qualified person inspects the site to identify hazardous materials that may be handled, disturbed or removed.</p> <p>(b) Ensure the City is provided the resulting hazardous materials report.</p>		
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