Meeting Date: April 21, 2015  
Agenda Item #: 11.1

Capital Region Waste Minimization Advisory Committee (CRWMAC) Proposed Recommendations for Residential Waste Minimization

Report Purpose
To provide the Priorities Committee with an update on the Capital Region Waste Minimization Advisory Committee’s (CRWMAC) progress and provide an opportunity to review the Committee’s recommendations on residential waste minimization in the Alberta Capital Region.

Council History
June 25, 2013: Council was provided with an update on the CRWMAC Integrated Regional Waste Management Strategy.

Strategic Plan Priority Areas
Economy: n/a  
Governance: Continue to partner with our neighbouring communities through CRWMAC to generate solutions for regional waste management challenges.  
Social: n/a  
Culture: n/a  
Environment: CRWMAC encourages collaboration for waste minimization that achieves diversion from landfill.

Other Impacts
Policy: n/a  
Legislative/Legal: n/a  
Interdepartmental: Corporate Planning and Intergovernmental Affairs, Utilities

Summary
CRWMAC is a voluntary group of technical and political representatives from 24 municipalities in the Alberta Capital Region. Strathcona County has been a founding member of the CRWMAC since its inception in 1992.

Council was presented with the CRWMAC Integrated Regional Waste Management Strategy in June 2013. This strategy provided opportunities for the region to reduce residential waste. The recommendations for waste reduction are grouped into five areas that are meant to be implemented over the next year (Enclosure 1). Unless otherwise noted these recommendations are meant to be “quick wins” that could be implemented easily by most municipalities in the Alberta Capital Region.
**Performance Measurement**

<table>
<thead>
<tr>
<th>Harmonization regarding Recycling Programs</th>
<th>Contract Management</th>
<th>Information sharing within the Alberta Capital Region</th>
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<tbody>
<tr>
<td>Standardized waste diversion calculation for region</td>
<td>Municipalities should formally share the successes and failures of communication programs</td>
<td>Standardized list of common recyclables that should be collected</td>
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**Education and Communication Strategies**

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<tr>
<th>Contract Management</th>
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<td>Tracking of residual waste</td>
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**Harmonization**

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<th>Consultation with external organizations on best practices</th>
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<td>Municipal participation with the National Zero Waste Council (NZWC)</td>
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* These recommendations represent a long term strategy of CRWMAC (two to ten years)

In order to implement the longer term recommendations above, there will be a need to find new resources. The table below provides cost estimates associated with implementing the recommendations.

<table>
<thead>
<tr>
<th>Request</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>Staffing (1 FTE)</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
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<tr>
<td>*Website Creation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*Website Maintenance</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>$130,000</td>
<td>$130,000</td>
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</tbody>
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* AUMA would be willing to provide in-kind support (~$20,000/year) through their website with an annual check in with CRWMAC.

CRWMAC is looking at multiple funding scenarios to address these needs including a request for funding from the Capital Region Board or through the Alberta Community Partnership (ACP) program. Once determined the CRWMAC recommended funding approach will require approval from each respective Council. If neither funding source is available CRWMAC will need to reassess funding options to present to their respective Councils.

**Enclosures**

1. CRWMAC Recommendations (Document: 7048091)

Author: Bobby Kuruvilla, Utilities
Director: Jeff Hutton, Utilities
Associate Commissioner: Kevin Glebe, Infrastructure and Planning Services
Date: April 7, 2015
**Capital Region Waste Minimization Advisory Committee (CRWMAC) Recommendations**

<table>
<thead>
<tr>
<th>Date:</th>
<th>January 30, 2014</th>
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<tbody>
<tr>
<td>To:</td>
<td>Capital Region Waste Minimization Advisory Committee – Subgroup</td>
</tr>
<tr>
<td>From:</td>
<td>Capital Region Waste Minimization Advisory Committee – Technical Committee</td>
</tr>
<tr>
<td>Subject:</td>
<td>Integrated Waste Management Plan Recommendations</td>
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</tbody>
</table>

**Purpose:**
To provide the CRWMAC Subgroup with short and long term recommendations to further advance waste minimization strategy within the ACR.

**Background:**
CRWMAC is an intergovernmental committee group of political and technical municipal solid waste representatives ranging from 24 municipalities in the Alberta Capital Region (ACR). The Committee is designed to facilitate waste minimization strategies through bringing key stakeholders together, facilitating discussion, closing performance gaps and sharing best practices. Particularly, the focus is to provide strategies for waste minimization through strengthening awareness of key issues throughout the ACR and share information to develop policy improvements. The group typically meets on the third Thursday of every month at 9:00 am at the Edmonton Waste Management Centre (EWMC).

**Executive Summary:**
For municipalities within the CRWMAC, waste minimization represents a challenge but also provides a great opportunity to transition to future environmental sustainability. This report serves as a guide to develop a long term vision to overcome the obstacles the CRWMAC will face in the future. It helps all municipalities within the ACR to create a long-term plan as to how waste minimization strategies can be improved upon. The terms of reference for this report were to collect recommendations from the CRWMAC Technical Committee and review information from the “Alberta Capital Region Integrated Waste Management Plan” created by EBA Engineering Consultants Ltd. (EBA). In September 2013, EBA released the report which reviewed current solid waste programs and services and identified high priority, short term issues for policy and program improvement for the ACR.

In addition to providing recommendations as to how the ACR can meet waste minimization goals, this report gives special emphasis on regional improvement over the long term. Recommendations have purposely been designed to be ambitious and require continued, intensified effort to reach them. Nonetheless, the existence of these recommendations will help the CRWMAC aim higher and gather resources in order to reach its goals. It is recognized that if policymakers, solid waste planners, and the public within the ACR focus on improving performance on these recommendations, the CRWMAC should be able to raise its overall level of waste minimization over time.
The CRWMAC Technical Committee has identified five key recommendations in the following areas:

Recommendation 1 - Performance Measurement
Recommendation 2 - Education and Communication Strategies
Recommendation 3 - Harmonization Regarding Recycling Programs
Recommendation 4 - Contract Management
Recommendation 5 - Information sharing within the Alberta Capital Region (ACR)

Performance Measurement

Key opportunities have been identified in the following areas:
1. Large gaps and ambiguities exist related to the waste diversion calculation methodology within the ACR.
2. Residual waste must be managed better through improved and transparent reporting.
3. Performance measurement within the ACR can benefit from third party stakeholders and governmental agencies.

Recommendations:
1. It is recommended the ACR municipalities develop and adopt a standardized waste diversion calculation for municipal solid waste (MSW) reporting.

   The Generally Accepted Principles (GAP) methodology for municipal waste flow should be further explored within the ACR. GAP is a nationally approved, manual spreadsheet model which automatically calculates the diversion rate based off inputs. Of special consideration, the calculation model standardizes various inputs with which many municipalities differ on such as: grass cycling, recycling and organics.

   The goal of having a standardized methodology calculation for waste diversion is to facilitate communication and enable effective comparisons of the results. Only through a uniform standard can municipalities begin to understand how and where waste diversion value can be realized. This creates greater understanding with respect to not only quantities of waste but overall waste composition. Furthermore, this adds transparency to the waste diversion calculation as municipalities can benchmark annual performance as the results are all standardized and compare “apples -to-apples.” Program development also benefits as accurate statistical information assists in the planning of future initiatives.

2. A generalized “closed-loop” performance measurement approach regarding residual reporting is recommended to effectively manage residual waste. Processors within the ACR have the capabilities to offer “closed-loop” reporting, it is simply a matter of putting this practice into contracts.
Closed-loop performance measurement is defined as reporting residual data from initiation to its final destination to improve the way residual information is acted upon. Ultimately, this drives continuous improvement as residual waste is tracked across the entire waste loop and offers a feedback mechanism in the form of contractor audits. Currently, there are considerable differences with the way ACR municipalities manage residual information with respect to residual tracking, residual input into diversion calculations and contractor reporting requirements. In addition, most municipalities do not have contract arrangements for residual tracking and information sharing between private processors. Enforcing this recommendation is a step in the right direction to improving residual management and ultimately contributes to future CRWMAC waste minimization goals. The hope CRWMAC is to achieve is to track volumes of recycling and organics collected in the region and where the recycling and organics ended up.

3. Municipalities in the ACR can benefit from consultation with external organizations such as the Canadian Council of Ministers of the Environment (CCME) regarding performance measurement and solid waste metrics.

The CCME is a resource that municipalities within the ACR should use to develop performance measures and solid waste metrics. CCME’s current priorities include: developing tools and best practices to achieve substantial reductions in waste and identifying indicators and exploring options to improve Canada’s record on reducing and recycling waste.

Education and Communication Strategies

Key opportunities have been identified in the following areas:
1. Social marketing programs and communication plans are not being shared continually between ACR municipalities.

2. ACR waste management education and outreach programs can be improved through shared templates, manuals, and materials.

3. A formal method to coordinate information flow has not been identified in the ACR.

4. The resources and expertise of the National Zero Waste Council (NZWC) is underutilized and has not been adequately considered as part of CRWMAC’s long term planning.

Recommendations:
1. Municipalities within the ACR should take a collaborative approach with one another and formally share the successes and failures of communication programs.
Many commonalities are present with respect to the educational and social programs that are implemented throughout the ACR. All municipalities in the ACR are willing to share program information, but not all municipalities are actually continuously sharing. Furthermore, the mechanism to facilitate this information flow is not formalized. Developing educational campaigns and communication plans is a collaborative process and there is no “one size fits all” approach. To ensure continuous improvement, municipalities must share program results and materials with each other on a formal basis.

2. Provided future resources are available, opportunities exist to create templates, manuals, and materials that document the best practices, successes, and lessons learned of localized communication programs.

Opportunities exist in the future to develop communications related templates, manuals and materials that may serve as a guide for municipal waste leaders to effectively plan waste minimization strategies. To implement this plan, it is recommended that facilitated workshops are used. Facilitated workshops are planned events in which stakeholders come together to create a deliverable or document. This recommendation is aligned with using a formal approach in the production of documents. The goal is to provide harmonization, alignment and opportunity to share communication programs around residential waste diversion in the region.

3. Municipal participation and membership with the National Zero Waste Council is recommended to collaborate on waste minimization issues.

The NZWC was formally launched in 2013 and includes solid waste experts from both the private and public sector. With this initiative, the NZWC has extensive resources and represents an untapped resource that is currently underutilized by the CRWMAC. Establishing collaboration with the NZWC gives access to new networks within the solid waste industry and potentially more human resources.

4. It is recommended the CRWMAC coordinates information workflow through specific measures which include: a share site and a web site specifically created for the CRWMAC.

In the past, the CRWMAC has coordinated information on an informal basis through meetings, conversations, and dialogue between each member representatives. In order to fully capture the value of the CRWMAC partnership, formal mechanisms for knowledge sharing must be implemented. Member logins should be utilized within a website to protect sensitive information as well as public information should be made readily available. Each municipality must also link the CRWMAC from each respective waste web page.

Harmonization Regarding Recycling Programs

Key opportunities have been identified in the following areas:
1. Commonalities and challenges exist with recyclable material programs in the ACR. There is potential to engage processing stakeholders to provide information that contributes towards the harmonization of service levels and programs.
2. A standard for acceptable recyclable materials does not exist in the ACR.

3. Standardizing the list of recyclables has potential to add value in terms of cost savings and increasing waste diversion.

Recommendations:
* Note – Recommendation #1 and #2 should be considered in the near short term and will greatly contribute towards harmonization. Recommendation #3 represents a long term strategy of the CRWMAC.

1. Advancement towards harmonization may include a standardized document which lists common recyclables that should be collected, and the opportunity and threats of each item.

   Aligned with harmonizing recycling programs, a standard list of common recyclables that should be collected is needed. Currently, the lack of uniformity between ACR recycling programs creates duplication of effort and inefficiencies especially with smaller municipalities. Smaller municipalities serve to benefit as they can access economies of scale for program operations and administrative functions. It is recommended that key stakeholders from both the public and private sector are engaged in the creation of a standardized recyclables document. Setting the standard for acceptable recyclable materials requires much collaboration with processors as they handle recyclables from multiple municipalities. If certain recyclables are not cost effective to process, the material loses much value in the recycling loop and may deteriorate future recycling goals for the material and waste diversion for the ACR.

2. It is recommended that expanding the list of recyclables is fully explored and feasibility analysis studies are conducted with respect to recyclables that are determined to potentially add value.

   Feasibility analysis studies may be used to identify alternatives to collecting and recycling low value materials such as: polystyrene, film plastics, glass, and shredded paper, fibre, aluminum, tin, and most plastics (HTPE plastics #1, #2, #5, #7) are considered to be of high recycle value.

3. The ACR has an opportunity to harmonize service levels, programs and acceptable recyclable materials.

   It is the confusion between the different recycling programs within the ACR that is causing issues with waste planning. Harmonization of service levels, programs, and acceptable recyclable materials is needed in order to reduce this confusion. The advantages of harmonization is numerous due to the inherent nature of recycling collection and processing as they often cross municipal lines through avenues such as: public drop off stations, collectors, waste processors, and other waste disposal facilities. Differences also exist with the collection and processing of many recyclable materials and special attention is necessary for problem materials such as: polystyrene, film plastics, glass, and shredded paper.
Engaging stakeholders to collaborate with municipalities regarding harmonization is an opportunity for the future. As many neighbouring communities within the region share services, municipalities benefit as a harmonization streamlines processes and reduces confusion. Smaller municipalities also can achieve economies of scale by harmonizing. From a contract management standpoint, harmonization increases rate competitiveness and offers the opportunity to obtain favourable contract terms with 3rd party contractors.

**Contract Management**

**Key Opportunities have been identified in the following areas:**
1. External contract management services are available and are underutilized within the ACR.

2. Future opportunities exist to formalize information flow between the ACR through a web site.

3. Obtaining outside consultation is an alternative to develop favorable contract terms and maintaining competitive contract terms.

**Recommendations:**
1. Municipalities within the ACR should seek outside consultation through private stakeholders, most notably private waste haulers. Legal consultation should also be considered.

Consultation with private waste haulers is a valuable resource that is currently underutilized within the ACR. Private waste haulers (and outside consultants) provide specialized insight and experience into contract negotiations that serve to benefit the region. Across the ACR, each municipality may lack the resources to properly process RFPs. Even experienced waste management leaders may have limited experience in contract management whereas the private sector and outside consultants have proven expertise. It is recommended that outside consultation be heavily considered and utilized, especially the use of private haulers.

2. Regional contractor management practices within the ACR can be improved through 3rd party organizations such as the “Alberta Purchasing Connection” (APC).

Resources to improve contract management practices exist within the ACR and are currently not being used. In particular, the APC has been identified as a valuable resource. The APC is an organization that host workshops and provides other tools and information related to contract management. Utilizing organizations such as the APC, contract management policies can be improved upon and in the future shared between municipalities. Terms of areas where consultation is needed is in areas such as contractor performance management, penalties for violations, contractor audits, renewals/extension opportunities, residual management and GPS data management. With respect to supporting the RFP process, engaging the APC can also add value for municipalities.
Major areas for consultation with respect to the RFP process have been identified and include: developing selection criteria for a contractor, financial arrangements (ie. base service fees, processing fees, etc.), performance assurance (recordkeeping, audits, inspection rights), and data reporting obligations.

3. In order to formally facilitate information flow regarding contract management practices, it is recommended that a web site is created. Long term, the creation of a contractor management guidebook would also benefit the ACR.

In addition to the creation of a web site, the inclusion and creation of a contractor guidebook is a long term solution. This recommendation rests on the premise of the CRWMAC having the resources available to create the web site and guidebook. Furthermore, this recommendation supports the RFP process and future contract negotiations. A created web site allows continual communication and knowledge sharing to be done on a formalized basis. The best technique to implement this recommendation would be through a shared site which would include a member login and a site administrator. As there is potential for sensitive information to be leaked, information sharing agreements between municipalities would have to exist and factors considered such as: information accessibility, dissemination of information, specific parties involved, the purpose of the information flow, the nature of the information, and practices for when information communications can be severed. Some of the issues that should be addressed with the guide book include haulers providing verification of organics and recycling final destinations, penalties to haulers or processors who negatively impact waste diversion, provide best practices with renewal clauses between municipalities and private haulers, and address privacy issues haulers may have sharing information with the municipality.

Information Sharing within the ACR

Key opportunities have been identified in the following areas:
1. A mutually beneficial relationship exists between other municipalities and partnerships outside the ACR.

2. The CRWMAC lacks resources for creation of tools such as a public domain web site but future opportunities exist to develop these projects further.

3. CRWMAC visibility can be enhanced through eventual web site creation and link building.

Recommendations:
1. Continued participation is recommended with Partnerships such as the Calgary Waste Reduction Partnership (CRWRP) and the Alberta Urban Municipalities Association (AUMA).

Partnerships such as the CRWRP and the AUMA provide the CRWMAC with access to more information, knowledge sharing and potential human resources to accomplish its objectives.
2. A cost effective way to increase participation and information sharing within the CRWMAC is to create a public domain web site and a shared section for CRMWAC members to collaborate. An Edmonton based website design company called “Webmonton Media” has been identified as a potential contractor.

Currently, the CRWMAC lacks the resources to develop a public domain web site. However, a public domain web site is needed to advance the CRWMAC. In the creation of a web site, member login pages would be included and only accessible through user name and password credentials. If this is undertaken, this is a cost effective way to increase active participation between municipalities and information sharing within the CRWMAC. It also allows collaboration and CRWMAC messages to be under a single web site.

This solution also allows representatives to access information on demand from a single point of access and whenever necessary. It is much more efficient and effective compared to face-to-face contact, phone conversations, meetings or e-mail. If undertaken, this initiative encourages interactive communication between municipalities and allows the CRWMAC to advance its vision with an up-to-date, technology oriented approach. A single administrator is recommended in order to better perform website tasks, administration and facilitate website information updates. Each member would be given access to upload documents to facilitate information flow and collaboration.

3. Provided a CRWMAC web site is created, it is recommended to add hyperlinks to other member municipality official web sites and implement link building between each site.

Each municipality within the ACR differs in factors such as size, type, program style(s) and population; however, many of the municipalities still have the same common issues. To close this gap, municipalities within the ACR should explore opportunities to share best practices online in formats that are easily accessible. A commitment to increase collaboration through formal communication is needed. This recommendation helps municipalities to see changes over time and may reveal narratives about the effects of implemented policies.

Since the CRWMAC does not have an official web site, it is extremely difficult to not only advance the CRWMAC but formally collaborate. If undertaken, eventual link building between municipality solid waste web pages is recommended. In this case, link building refers to the process of linking an external web page to another web site. Link building is low cost, would be done separately by each municipality and greatly enhances the visibility of the CRWMAC to all stakeholders.
CRWMAC Proposed Recommendations for Residential Waste Minimization

Utilities
Agenda

• Background

• Recommendations:
  - Performance Measurement
  - Education and Communication Strategies
  - Harmonization regarding Recycling Programs
  - Contract Management
  - Information sharing within the Alberta Capital Region

• Feedback
Background
Capital Region Waste Minimization Advisory Committee (CRWMAC)

- 24 municipalities represented on the Committee
- Strathcona County has been a founding member since 1992
- CRWMAC Integrated Regional Waste Management Strategy
  - Presented to Council June 25, 2013
CRWMAC Integrated Regional Waste Management Strategy

• Phase 1 recommendations
  – Performance Measurement
  – Residential Recycling
  – Organics Reduction
  – Industrial, Commercial, and Institutional Waste Reduction
  – Construction and Demolition Waste Reduction
  – Infrastructure
  – Waste Collection Contracts
  – Waste Management Policies

• Focus: Performance Measurement, Residential Recycling, Waste Collection Contracts
Recommendations
Recommendations

• 16 recommendations grouped into the following themes
  – Performance Measurement
  – Education and Communication Strategies
  – Harmonization regarding Recycling Programs
  – Contract Management
  – Information sharing within the Alberta Capital Region

• Recommendations will require multi-year implementation
Performance Measurement

- Standardized waste diversion calculation for region
- Tracking of residual waste
- Consultation with external organizations on best practices
Education and Communication

- Municipalities should formally share the successes and failures of communication programs
- Aligning municipal waste communication programs
- Municipal participation with the National Zero Waste Council (NZWC)
- Create a website specifically for CRWMAC
Harmonization of Recycling Programs

- Standardized list of common recyclables that should be collected
- Expanding the list of recyclables if feasible to improve waste diversion
- Harmonize service levels, programs and acceptable recyclable materials
Waste Collection Contract Management

• Municipalities seek outside consultation through private stakeholders, most notably private waste haulers and lawyers

• Contractor management practices can be improved through external organizations (e.g. Alberta Purchasing Connection)

• Create a website specifically for CRWMAC and a contractor management guidebook
Information Sharing - Capital Region

• Continued collaboration with partnerships like the Calgary Waste Reduction Partnership and the Alberta Urban Municipalities Association

• Create a website specifically for CRWMAC

• Link CRWMAC website to capital region municipal websites
Questions