



Regional Collaboration Solid Waste and Recycling System Feasibility Study

The Town of Vegreville and County of Minburn

October 2013

Outline

- Scope
- Methodology
- Findings
- Recommendations
- Questions & Answers

Scope

The purpose is :

- To identify points of collaboration and the impact of these in accordance with the terms of the provincial grant awarded to the Town of Vegreville by the Regional Collaboration Program.

Includes:

- A waste management survey and analysis to provide decision makers with information.

Methodology

- 1) Review of Methodology**
- 2) Waste Management Survey**
- 3) Review of Best Practices and Innovations**
- 4) Waste Management Option Analysis**
- 5) Short-term and Long- term Recommendations**

Findings

1) Current Waste Management Programs

a) Town of Vegreville

- Rear lane garbage, recycling, food and yard collection
- Vegreville Landfill
- Vegreville Material Recovery Facility
- Central Recycling Drop off Centre
- Communication (brochures, website etc.)

Findings

b) County of Minburn

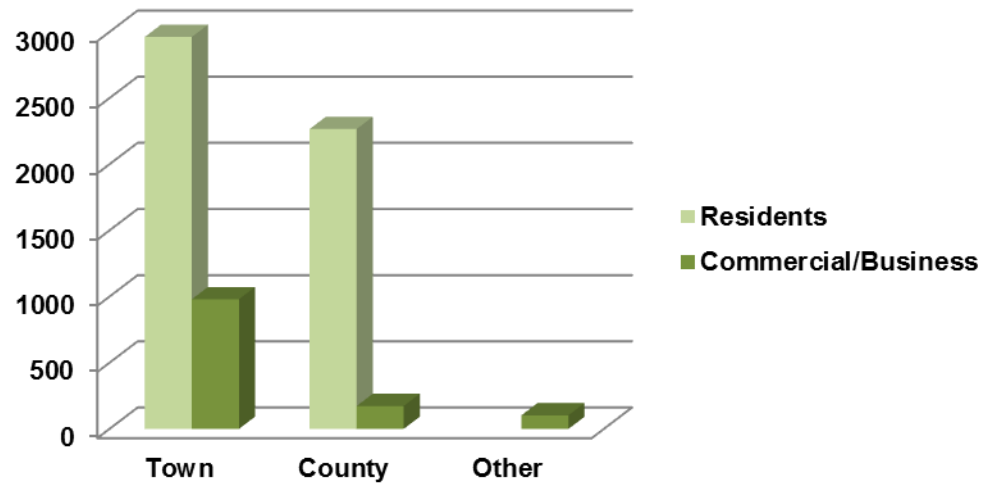
- Residents are allowed to burn garbage
- Some residents have contracted private haulers
- Vegreville Landfill (west of HWY 36 including Hamlet of Lavoy) and Two Hills Landfill (east of HWY 36)
- Vegreville Material Recovery Facility
- Central Recycling Drop off Centre
- Home composting
- Communication (Website)

Findings

Solid Waste and Diversion Data

	Garbage to Landfill	Pop(Town + County)	Per capita
2012	7,134 Tonnes	7,249	984 Kg

Number of Vegreville Landfill users



Findings

Type and amount of material diverted in 2012






Product	Metric Tonnes
Old Corrugated Cardboard (OCC)	338
Old Newsprint (ONP)	157
Sorted Office Whites (SOW)	25
Solid Plastics (SP)	18
Film Plastics (FP)	8
Electronic Waste	34
Paint/HHW	36
Scrap Metals	229
Scrap Tires	153
Compostable Material	44
Total	1,042

Findings

Residential Tonnage and Diversion Rate in 2012

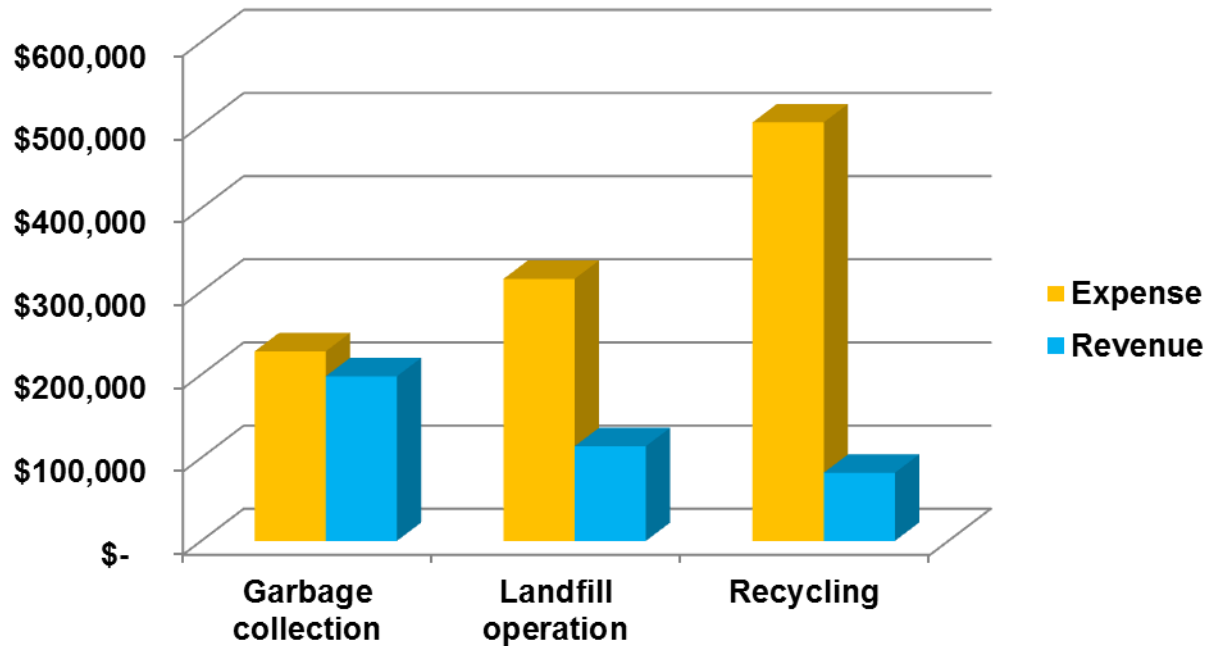
Waste type (Tonnes)	2012
Landfilled (total)	7,134
Recycled (VMRF, Central Recycling Drop Off and Vegreville landfill)	998
Composted (Residential compost program and Vegreville landfill)	44
Total residential waste generated	8,176
Diversion rate	13%

Findings

GHG savings (eCO ₂)	Number of items
<i>1,042 tonnes of residential materials diverted from the landfill in 2012 is equivalent to any of the following:</i>	
CO ₂ emissions from  passenger cars	527
CO ₂ emissions from  barrels of oil used	5,886
CO ₂ emissions from  tanker truck's use of gasoline	33.4
CO ₂ emissions from  Energy use of homes	130
Carbon sequestered from  tree seedlings (grown for 10 years)	64,895

Findings

c) Current Waste Management Cost



Survey

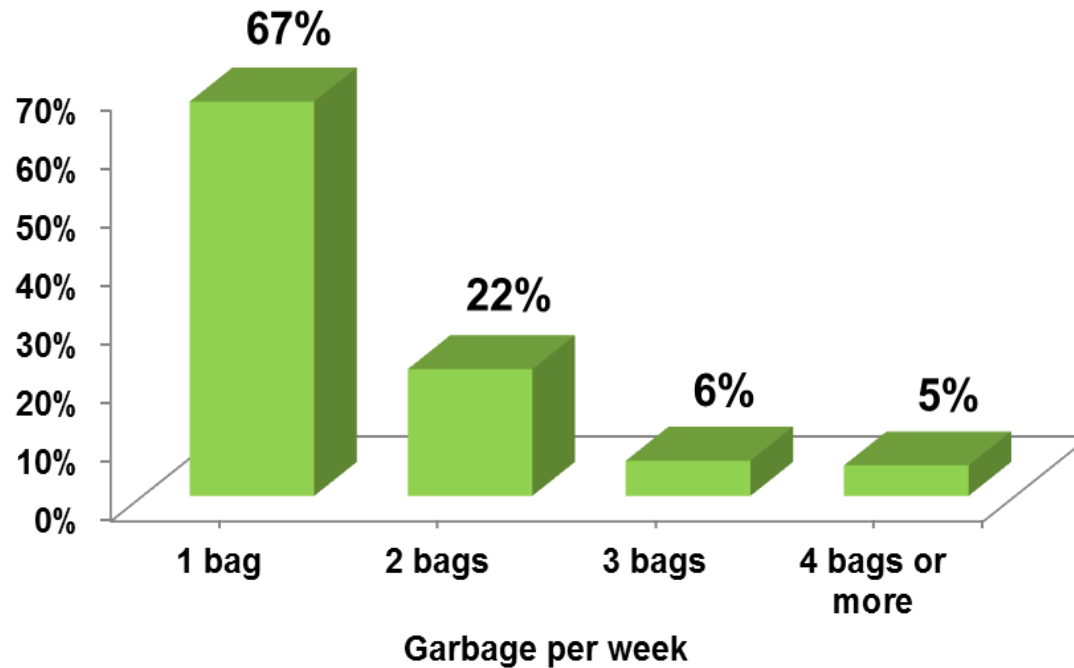
2. Waste Management Survey

Response Rates

- 69% of survey respondents were Town residents
- 31% County Residents
- 25% age 55- 64
- 31% 35 to 54 years
- 57% female
- 43 % male

Survey

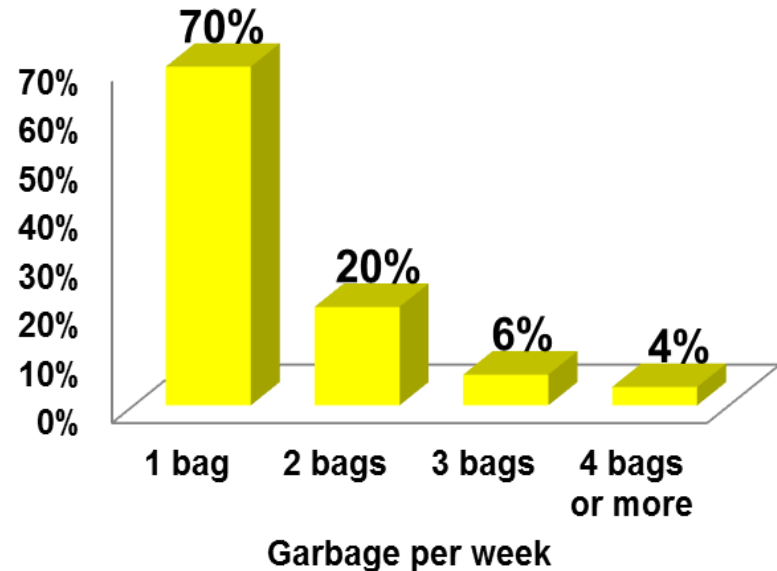
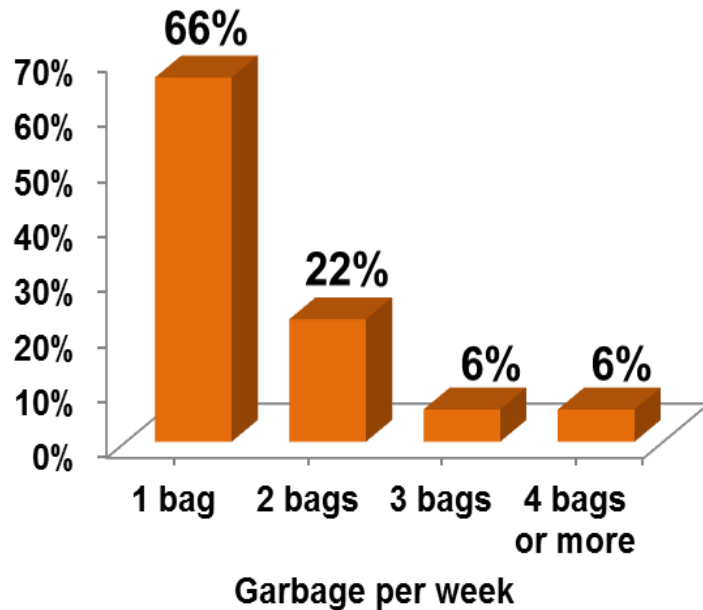
Amount of garbage generated / week



Survey

Amount of garbage generated / week

Town vs. County



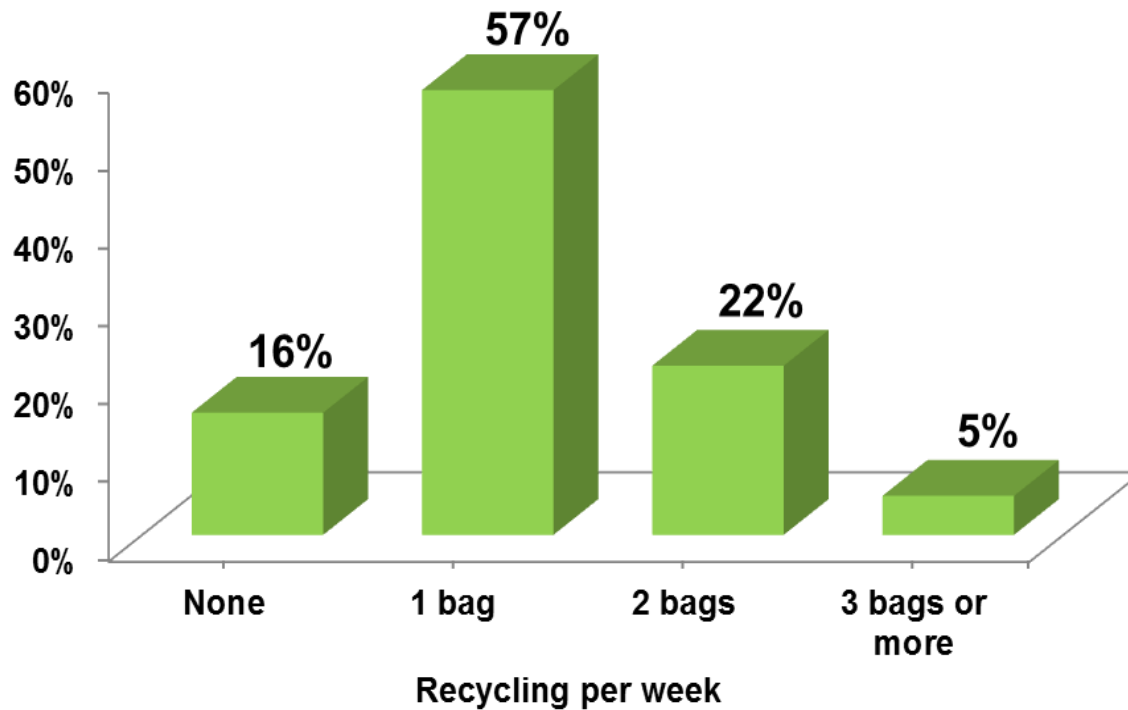
Survey

- 1% of the Town respondents burn \leq 1 bag/week
- 42 % of County respondents burn \geq 1 bag/ week

- 5% (Town) & 38% (County) take garbage to Town bins
- 1% (Town) & 6 % (County) use private garbage pick up
- 4 % (Town) & 30% (County) would like to have private garbage pick up

Survey

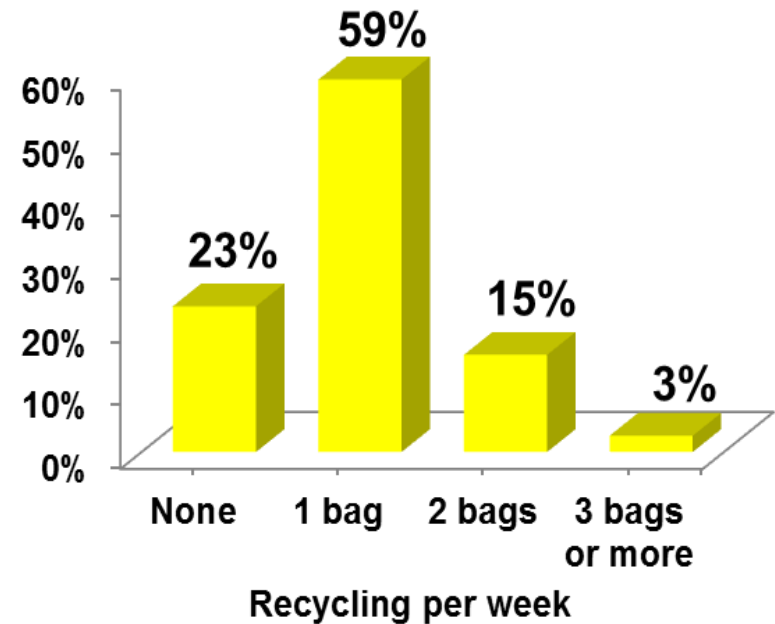
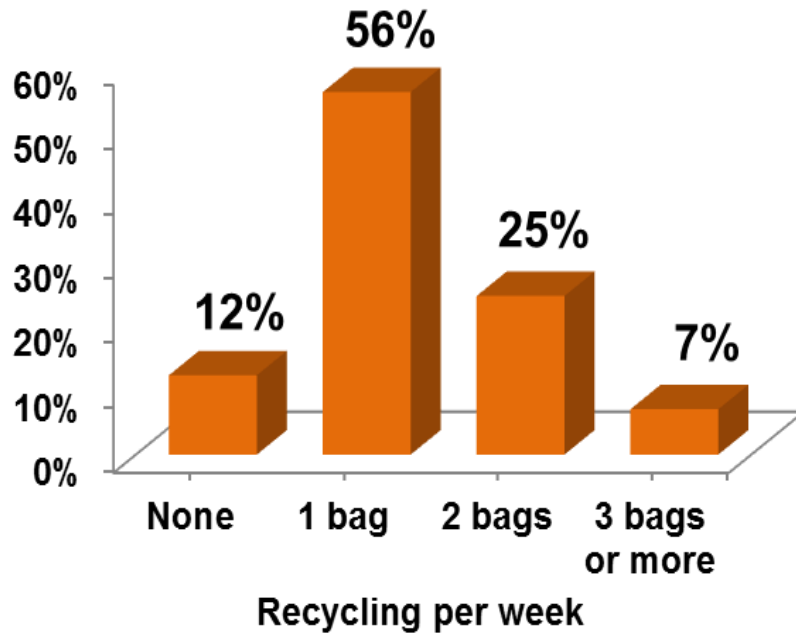
Amount of recyclables generated / week



Survey

Amount of recyclables generated / week

Town vs. County



Survey

Total willingness to pay for recycling service

- 60 % are not willing to pay or pay extra
- 40% are willing to pay \$ 1-10, \$ 11-20, \$ 21/month for recycling

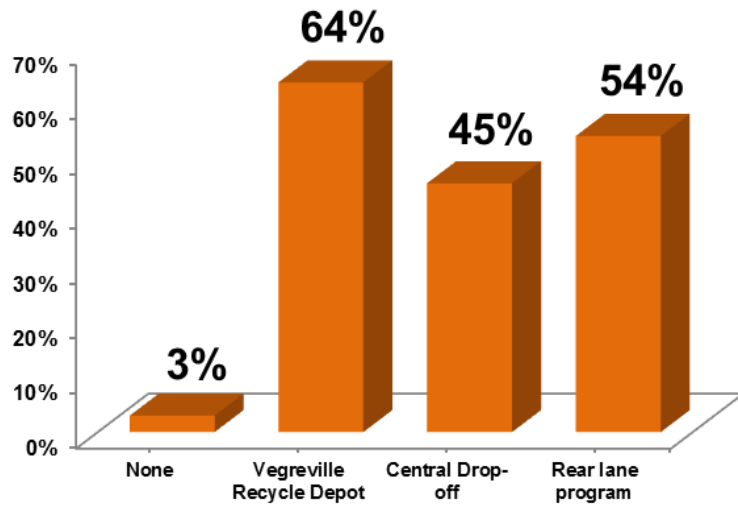
Split out willingness to pay for recycling service

- 71% (Town) & 89% (County) are not willing to pay for recycling
- 24% (Town) are willing to pay \$ 1- 10, 5% are willing to pay \$ 11-20
- 11% (County) willing to pay \$ 1-10

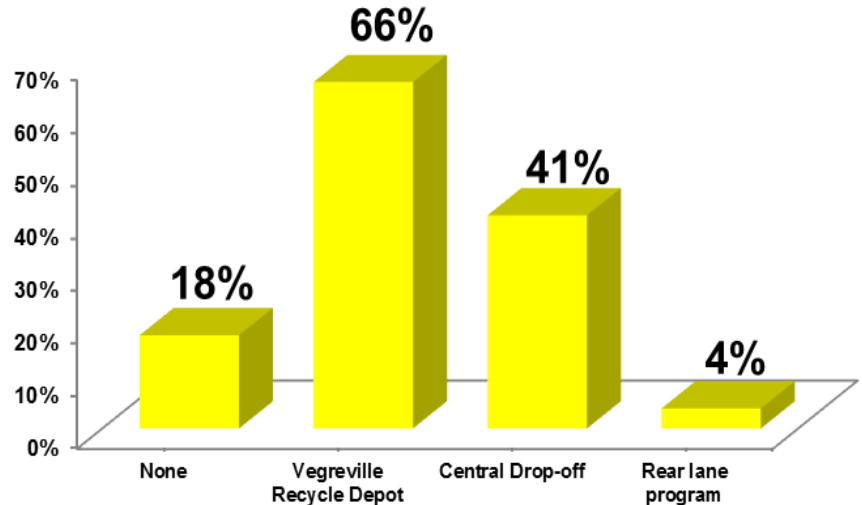
Survey

Recycling Usage

Town vs. County



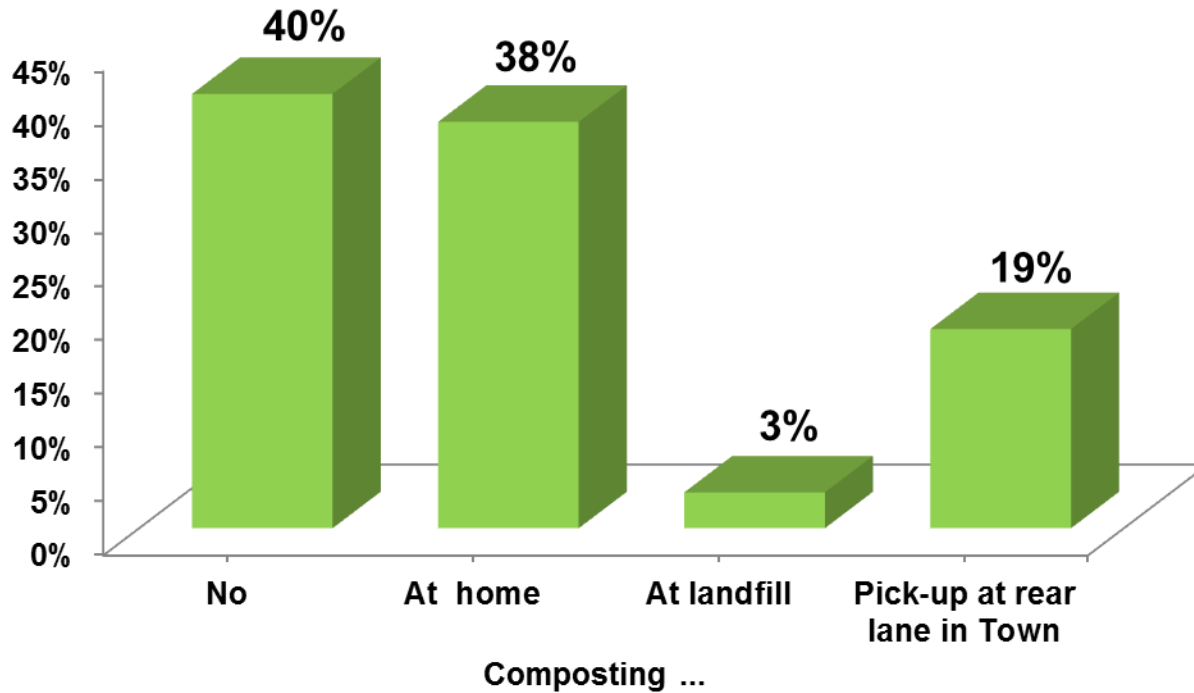
Recycling services



Recycling services

Survey

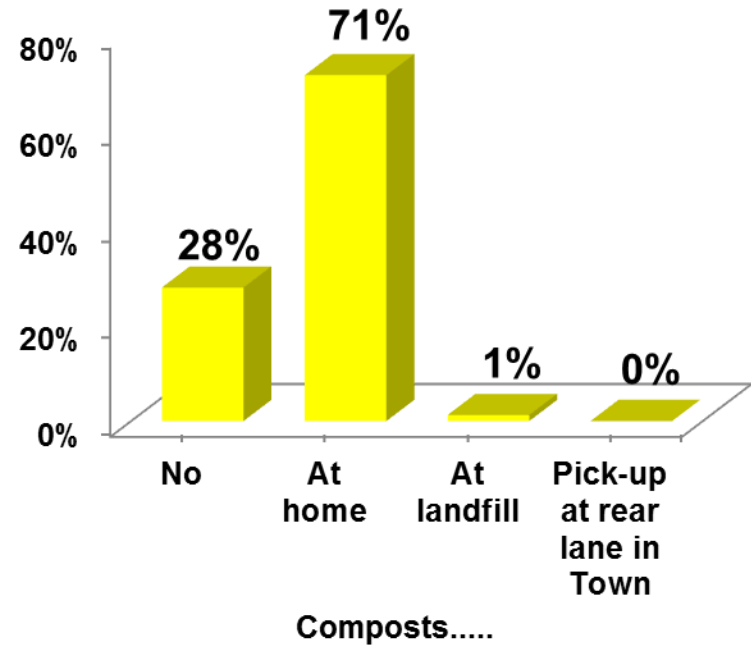
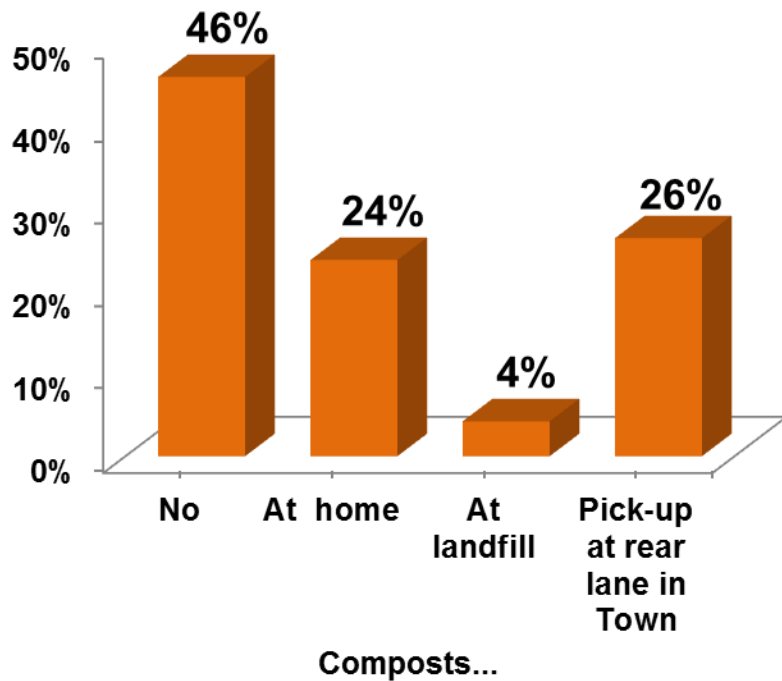
Composting



Survey

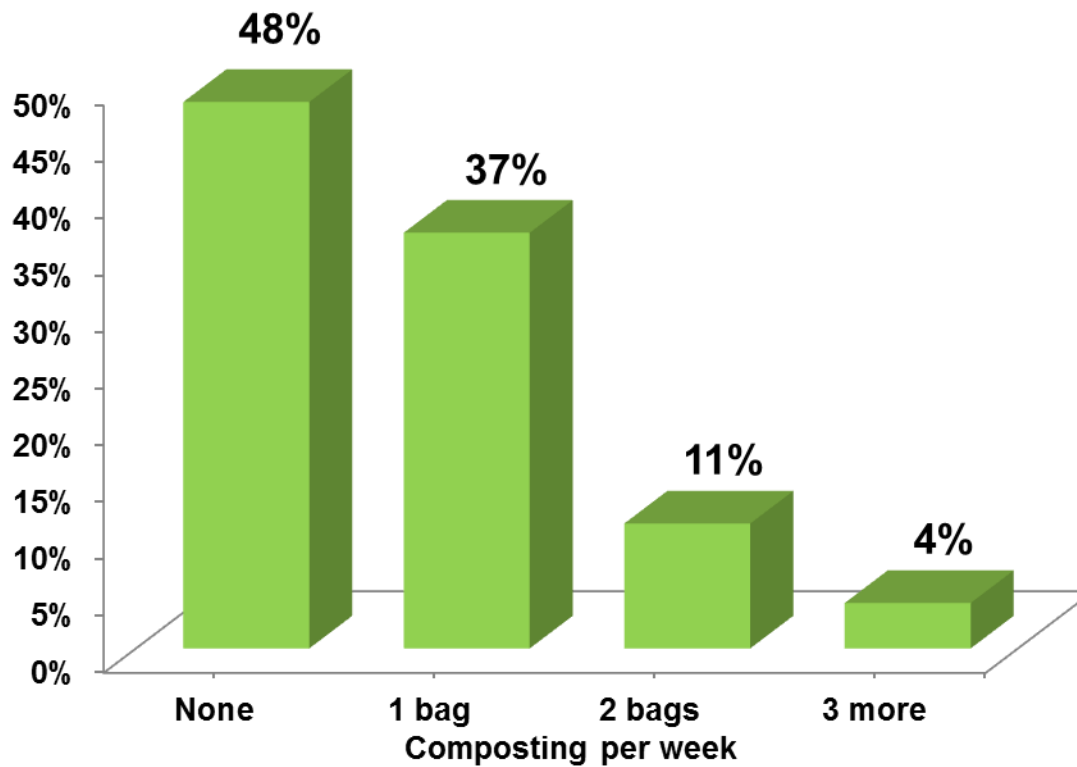
Composting behaviour

Town vs. County



Survey

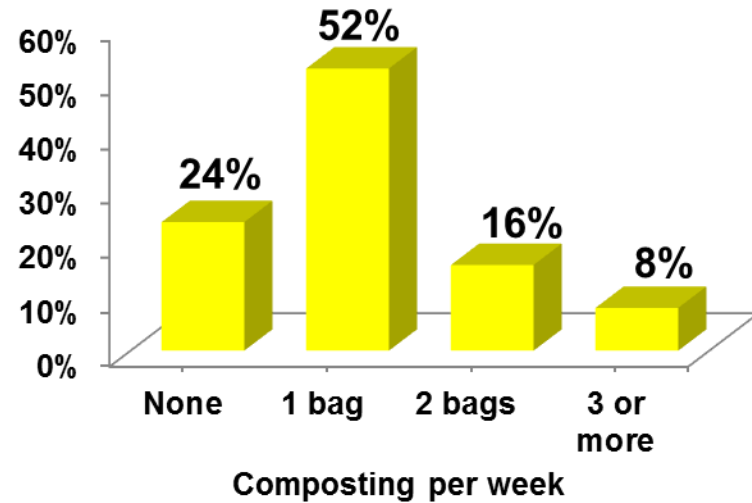
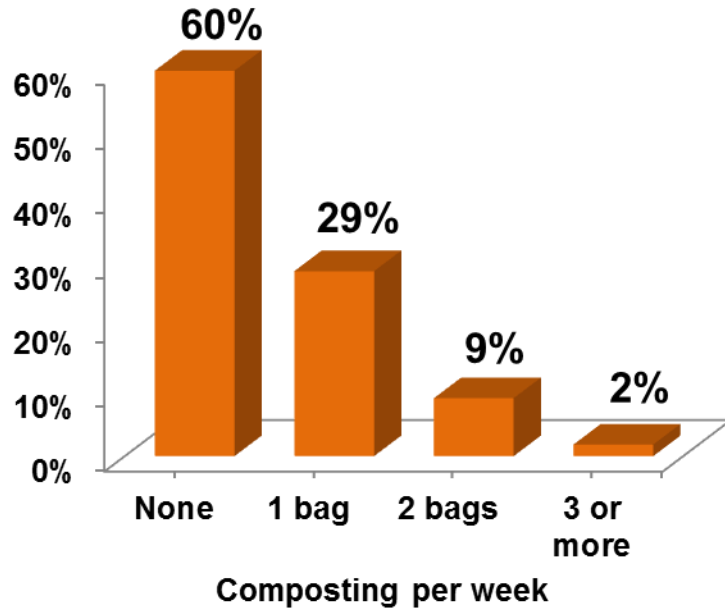
Amount of organics composted / week



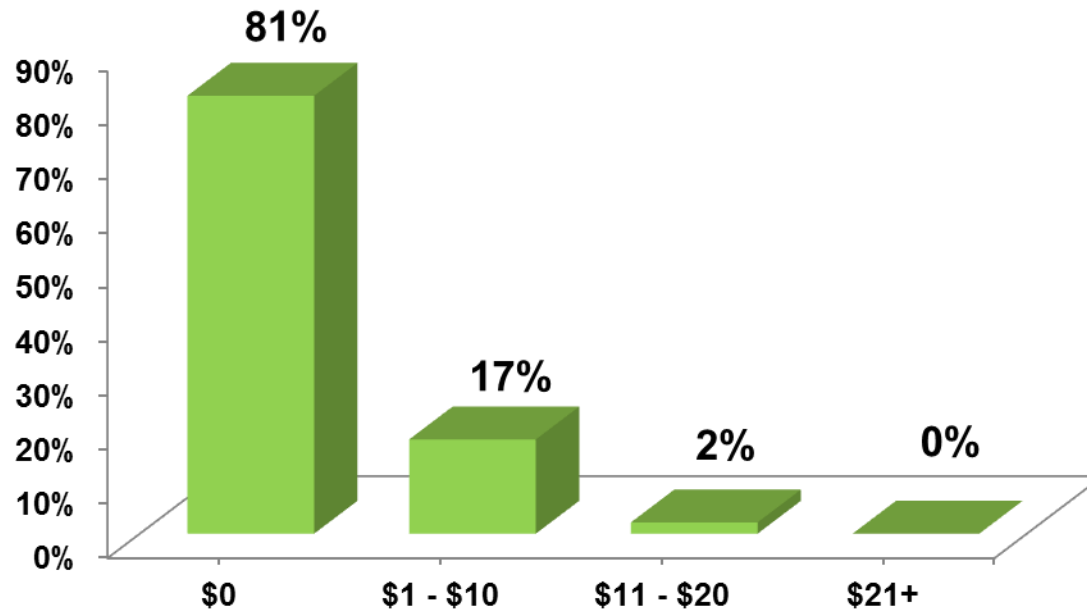
Survey

Amount of organics composted / week

Town vs. County

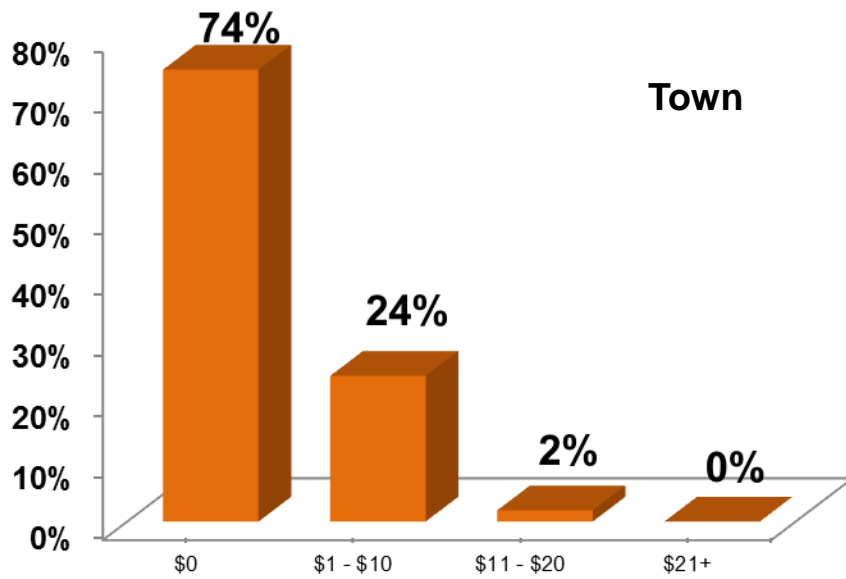


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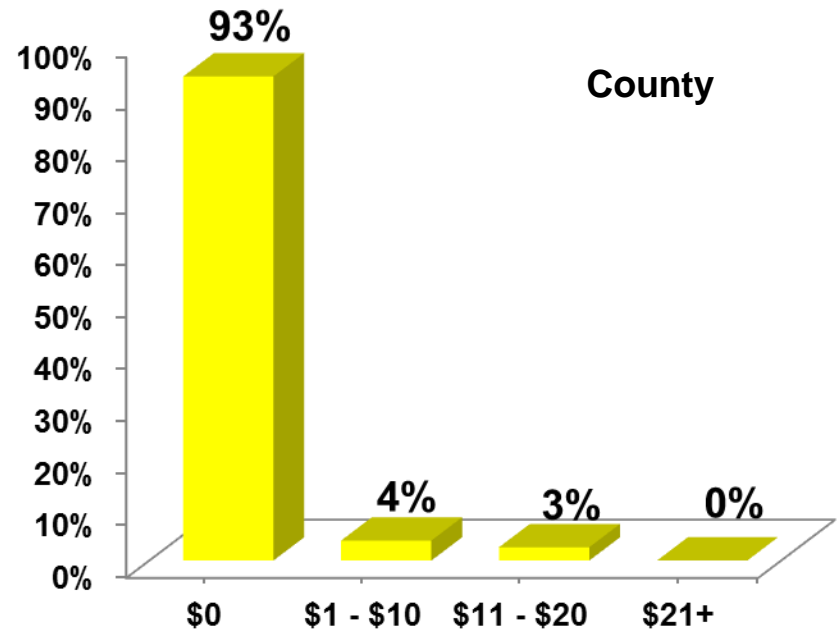


Willing to pay/month for composting service

Survey



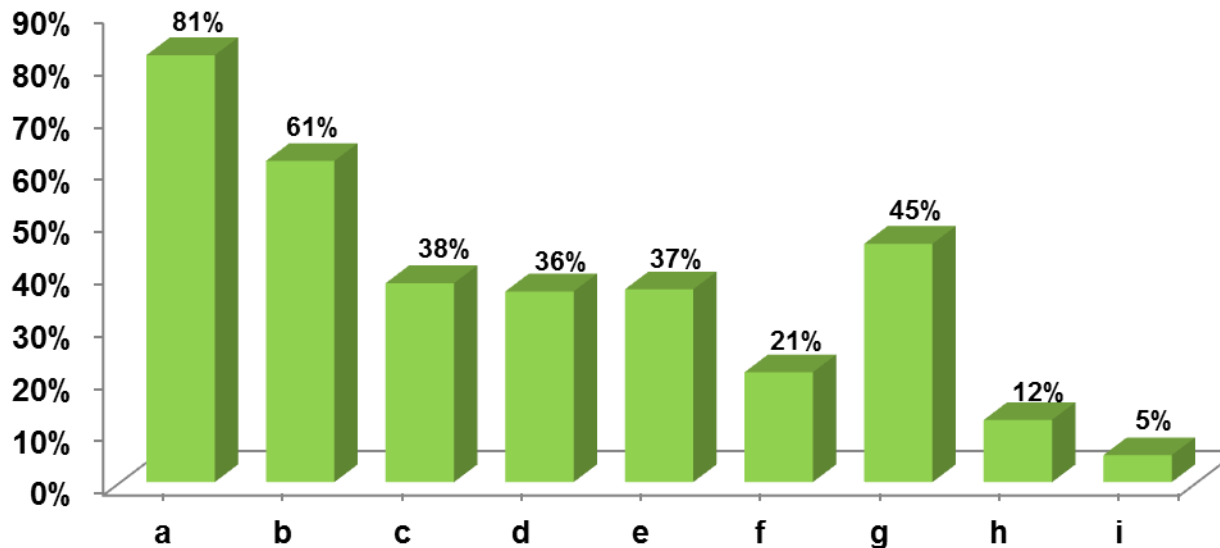
Willing to pay/month for composting



Willing to pay/month for composting

Survey

Waste Management Services

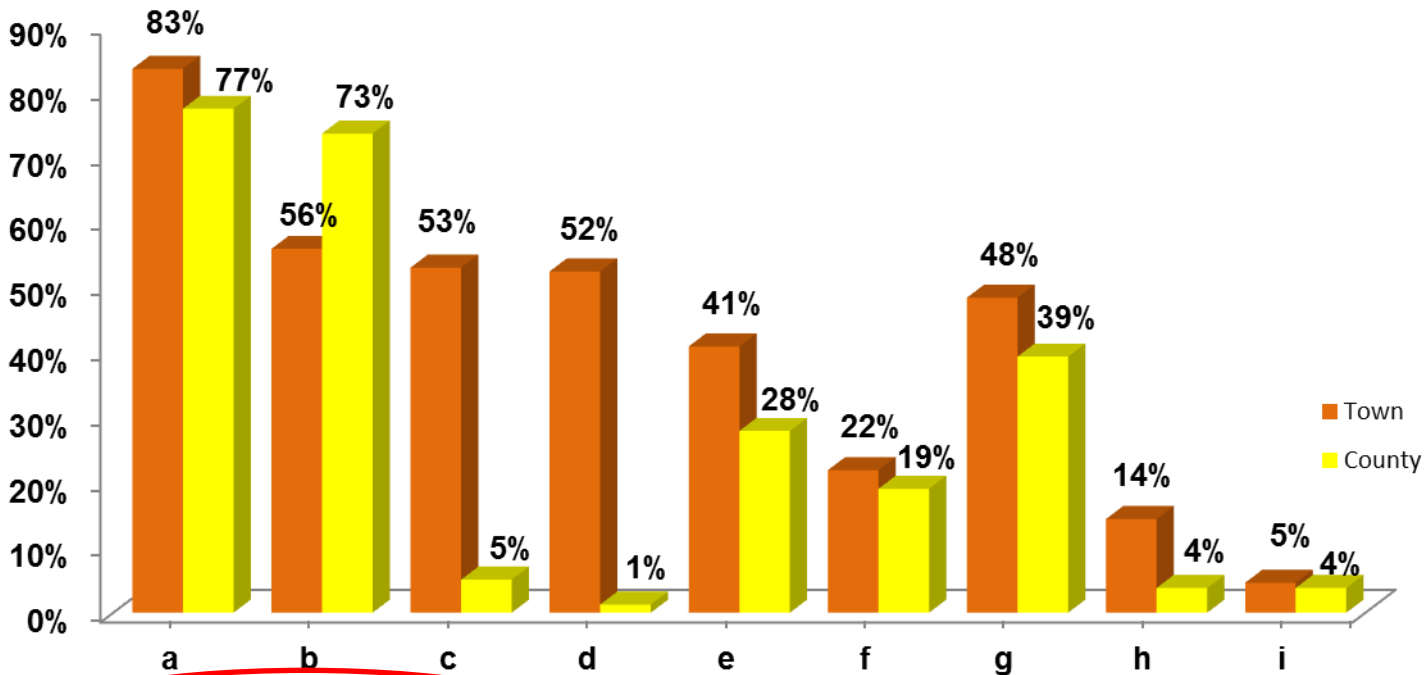


a. Vegreville Recycling Depot(s)
b. Vegreville landfill
c. Rear lane food & yard waste collection by Town/County on how to reduce waste
d. Rear lane recycling collection
e. Household hazardous waste annual event or drop off at landfill

f. Backyard composting
g. Mulch lawn clippings
h. Educational materials put out
i. Other

Survey

Waste Management Services



a. Vegreville Recycling Depot(s)

b. Vegreville landfill

c. Rear lane food & yard waste collection
Town/County on how to reduce waste

d. Rear lane recycling collection

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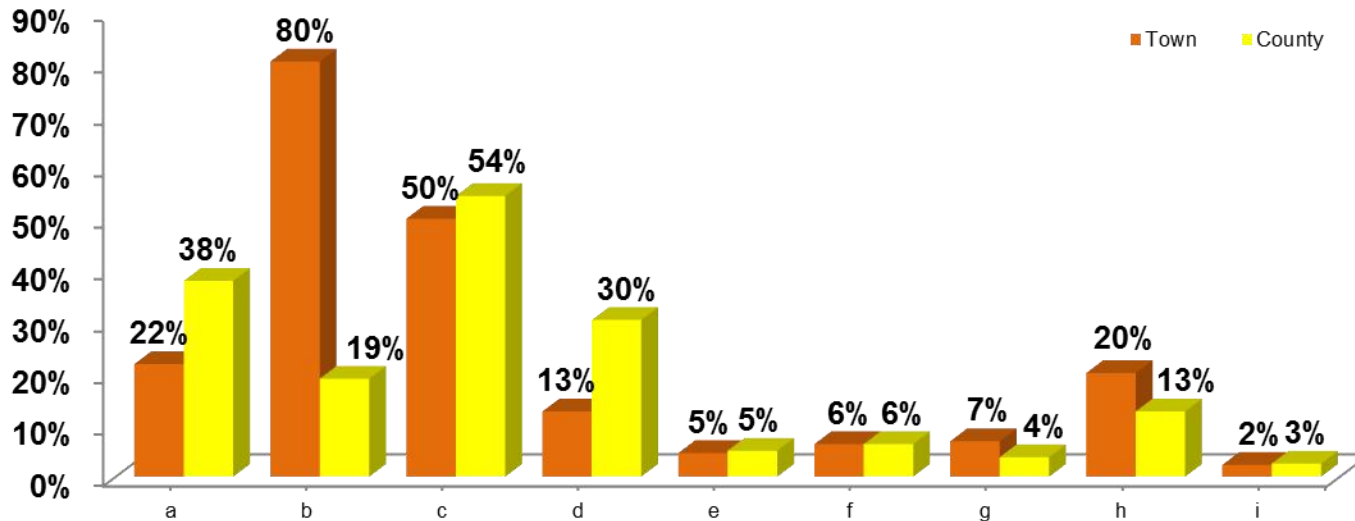
Survey

- In general 62% think that **50%** or more waste should be diverted from landfill.
- 18% think that 30% should be diverted
- 9% think that 10% should be diverted from landfill.

- **50% waste diversion seems the desirable amount and could become an overall program goal.**
- **The goal can be achieved through programs that are low cost such as education**

Survey

Best Communication Methods



- | | |
|--|--|
| a. Direct mail | f. Information brought home by school children |
| b. Information sent with utility bills | g. Community bulletin boards |
| c. Articles in local newspaper | h. Information on Town/County websites |
| d. Information package sent once or twice per year | i. Other |
| e. Radio announcements | |

Findings

REVIEW OF BEST PRACTICES AND INNOVATION

Renfrew County, Ontario

- Renfrew County opened a waste management facility “Ottawa Valley Waste Recovery Centre (OVWRC), in 2002
- OVWRC is responsible for managing 19,471 tonnes/year of residential solid waste (3,928 tonnes of recyclables)
- It has a goal of 65% diversion rate
- It serves around 40,000 people, the partner municipalities are home to 19,418 households and 1,216 seasonal dwellings had diversion rate of 15% in 2009.
- The total net annual recycling costs for the OVWRC in 2009 was \$1,616,918

Findings

Strathcona County, Alberta

- In 1996 Strathcona County was designated a “specialized municipality” as it serves a diverse population of urban, farm, and rural communities
- County has a population of 92,490 out of which 64,733 are urban (Sherwood Park) residents and 27,757 are rural (acreages, farms, rural hamlets) residents
- Green routine program includes curbside recycling, organics collection, and roll-out collection carts
- In 2012 County has diverted a total of 18,027 tonnes/29,552 tonnes of waste.
- Residents must subscribe to use waste collection services
- County has 3 unmanned recycling stations that are open 24/7, curbside large item pick up (2/year), extra yard waste collection (4/year)
- Urban and rural residents pay for waste, recycling and organics collection

Findings

Athabasca, Alberta

- Athabasca Regional Waste (ARW) provides services to communities throughout Athabasca County and the Municipal District of Lesser Slave River
- Athabasca has 2 landfills: Athabasca Regional Landfill and Boyle Landfill and Recycle Site, and other transfer facilities
- All the Transfer Sites and Landfills collect user fees to support operational costs
- Waste collections has 100% cost recovery

Findings

Leduc, Alberta

- The Leduc and District Regional Waste Management Facility is a Class II facility
- It has a Material Recovery Facility (MRF) for drop off of recyclables and has designated “Take it or Leave it” area
- The Authority has a beneficial reclamation plan under its innovative “Refuse to Refuge”
- Member municipalities pay different rates for residential solid waste services
- Operate the Leduc and District Regional Waste Management Facility jointly

Findings

Lac La Biche, Alberta

- Residents are charged (included in their utility bill) for waste and recycling services
- The County of Lac La Biche is in the process of closing landfills
- The landfills and transfer stations accept regular household garbage and recycling (kitchen and bathroom waste) for free and require a landfill token for everything else
- The County has put waste and recycling bins in Lac La Biche and Plamondon as a convenience

Recommendations

Short-Term

- Town and County should consider forming a joint committee comprised of Town, County and public representatives.
- Set a target of 50% diversion rate in the next three to five years.
- Use education and communication as low cost opportunities to increase diversion rates of existing infrastructure.
- Focus education and communication on backyard composting and mulching, which are low cost waste reduction options.
- County should investigate the Town or other service provider, offering garbage collection service to those in the County who want it.

Recommendations

- The cost of recycling may be reduced by allowing recyclables from the County into the Vegreville system, thus increasing the amount of recyclables going to the Vegreville Material Recovery Facility (VMRF) offsetting the operating cost. This item should be further discussed at the joint committee meetings.
- County should investigate a low cost opportunity for a simple recycling, composting and garbage transfer spots using bins in an easily accessible location for County residents.
- County should communicate health issues related to burning garbage.

Recommendations

- Designate a collective (Town and County) 'Take-it-or-Leave-it' area at a public place, a street side collection day, the landfill or depot from which materials can be taken. This is a relatively low cost activity to increase diversion.
- Town to consider placing organics bin at the recycling depot(s) especially in the summer season and year round recycling of all acceptable materials.
- Town to consider scaling incoming loads at the landfill to know the tonnage and cost per tonne.
- Include organics fees on landfills, depot signs and website.

Recommendations

Long-Term

- The Committee can study cost sharing mechanism based on amount of waste and recyclables generated by % of usage which may lead to 100% cost recovery through provision shared waste management services.
- Currently most people generate one bag of garbage or less per week. Implement one bag limit to increase diversion, in future.
- Town and County to consider implementing pay-as-you-throw system for garbage disposal at the landfill, for example, \$1 - \$3 per bag of garbage to encourage residents recycle and divert more.
- Review rates to cover costs after scale is implemented to increase diversion of the recycling and diversion options.

Recommendations

- Develop a joint communication program and review the budget required.
- Conduct waste audit to find out the actual diversion and capture rate and plan accordingly.
- Constant communication with residents.
- County may agree to form Intermunicipal Agreements or Regional Services Commissions.
- Based on Accounting Principles and Cost sharing concepts, the landfill invoices deficits costs to members based on where waste and recyclables were generated from by % of usage



Questions and Answers

October 2013