Final Report
Town of Hearst Curbside Recycling Program
Project #978
Corporation of the Town of Hearst

August 9, 2019

Prepared for:

The Continuous Improvement Fund
Barrie, ON

This Project has been delivered with the assistance of Resource Productivity and Recovery Authority's Continuous Improvement Fund, a fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the views of the author(s), and Resource Productivity and Recovery Authority and Stewardship Ontario accept no responsibility for these views.

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Executive Summary

From the local forest—industry ensuring sustainable forests from which to harvest—to community recycling, the Town of Hearst has had a long and proud history of sustainability within its community. From inception of the Cochrane-Temiskaming Waste Management Board to the North-Eastern Recycling Association (NERA) and now its municipal program; from depot-based recycling to single-stream curbside recycling collection, the residents, businesses and Council of Hearst have always strived to improve on the betterment of the community.

NERA dissolved in 2016 and at that time, the Hearst Municipal Council opted for curbside recycling in lieu of a depot-based system, supported by the construction of a recycling transfer station with the goals of increasing recycling tonnage, lowering program costs and extending the life of the landfill.

In December 2016, an RFP for curbside collection of garbage and recycling collection services was issued and in June 2017, Hearst Municipal Council decided to use municipal forces, rather than contract out as the cost of doing so was lower. Along with this, Hearst issued an RFP for the purchase of an automated collection vehicle and awarded this work in September 2017 with the anticipated delivery of March 2018 to coincide with the launch of the new curbside collection program.

In July 2017, Hearst began the process of constructing a recyclable material transfer station to receive the curbside collected recyclables; in December 2017, the facility became operational. With the support of The CIF staff, a processing contract with Northern Environmental Services, Inc. (NES), located in Timmins, was secured whereby the collected recyclable tonnes were transferred from Hearst to Timmins for processing.

Leveraging the CIF's Cooperative Container Procurement Program (CCPP), Hearst procured garbage and recycling carts. While Hearst purchased the carts, residents were required to purchase carts from the Town with the objective of giving ownership of the cart to the purchaser and giving thought to their collection requirements.

The new curbside collection program commenced on March 5, 2018 consisting of every other week garbage and recycling service (i.e. week 1 garbage, week 2 recycling) for residential properties.

Executive Summary, continued

Upon completion of the first year of operation, compared to the year prior to implementation, curbside recycling tonnage increased by 271 tonnes; nearly three times that of the depot-based operation and although program costs have increased, they are much lower than was estimated for the project.

1. Introduction

The Corporation of the Town of Hearst is pleased to present this Final Report in relation to our funding application for CIF project number 978. The Town of Hearst has previously submitted reports for:

- Milestone 1 (Measurement and Monitoring (M&M) Plan) on May 26, 2017,
- Milestone 2 (Milestones Action Plan) on June 23, 2017, and
- Milestone 3 (Project Implementation) on August 7, 2018.

Dating back to 1995, Hearst was a member of regionally managed recycling associations across Northeastern Ontario; the first of which was the Cochrane-Temiskaming Waste Management board (dissolved in 2014) and then the Northeastern Recycling Association, NERA, both of which were depot-based recycling programs. In December 2015, Town Council decided to opt out of NERA and pursue a curbside collection program to facilitate greater waste diversion. In so doing, an application was submitted to The CIF for funding to construct a recyclable material transfer station and purchase a collection vehicle; the project was approved and funding in the amount of $99,216 was allocated.

The objectives of this project were to (in the first year of curbside collection as compared to the last year of the depot-based program):

- increase the quantity of recyclables collected by 50%,
- decrease overall program operating costs through consolidation and transportation efficiencies,
- extend the life of the Town's landfill, and
- expand the service to assist neighbouring communities, if desired.

Hearst staff have worked hard to meet the project objectives and transition to an effective and efficient curbside collection service. Thorough research and preparation prior to implementation offered clear direction for program implementation. In undertaking this project, however, staff has gained some insights and knowledge and this report provides some lessons learned so that others will benefit from our experience.

2. Community Profile

The Town of Hearst is located on Highway 11, approximately midway between North Bay and Thunder Bay, or approximately 935 kilometers north of Toronto. Considered by its residents as the Crown Jewel of Northern Ontario and the moose capital of Canada, Hearst is a French-speaking community with a population of 5,070 residents. The success of the previous depot-based program and of the new curbside collection program defies conventional wisdom of a community so far removed from larger cities. Hearst has 1,850 total households, of which 1,700 are single-family and 27 are multi-residential buildings (7 units or more).

3. Project Background

As a result of the dissolution of NERA, the Town of Hearst built a recycling transfer station and loading ramp in 2016 to meet its recycling needs. The transfer station design was inspired by the unit built in Cochrane, with a fabric membrane steel building constructed above steel shipping containers. The RFP for the supply and construction of the transfer station was issued in August 2016 with the main construction finishing in December 2016. The loading ramp was designed by a local engineering firm and constructed by municipal forces using locally available components; the work was completed in fall of 2016. Both projects were delivered on time and on budget. Since their construction, only the transfer station door was modified to a high-lift unit to prevent the collection vehicle from damaging it while unloading.

When the curbside recycling collection program was initially envisioned, the municipality would continue to work with a contractor to provide the curbside collection services for garbage and recyclables. As the then current contract for curbside garbage collection was coming to end, it was an opportune time to issue a new RFP for combined curbside collection of garbage and recyclables.

The curbside collection of garbage and recyclables RFP would require the successful proponent to:

- supply all equipment and labour for the curbside collection of garbage and recycling with specific requirements for complaint resolution, reporting and statistics,
- operate and maintain the transfer station,

- operate and maintain the landfill site, and
- deliver the residential roll-out carts.

The RFP was also designed to incorporate optional components which would permit the municipality to determine the best value for money and a pricing structure should the municipal requirements or needs change. Examples of such options include: weekly collection of garbage with every other week collection of recyclables and/or weekly collection of both.

In the end, Municipal Council determined that the municipality could undertake the collection, operation and maintenance programs internally with substantial savings. A follow-up discussion with the proponents concluded that there were many unknowns with the proposed new collection system with the estimated number of cart tips, the location of carts for collection in the downtown core and the operation of the landfill site being the most important factors.

Following the Municipal Council decision to offer the collection internally, RFPs were issued for roll-out recycling and garbage carts and a new split-compartment collection vehicle, with Purchase Orders given in July and September 2017, respectively. A split-compartment truck was purchased to service both residential and multi-residential systems.

Each household was to be provided with one cart for garbage (65 gallons) and a separate cart for recycling (95 gallons); to be purchased by each household from the Town at cost ($70.56 per cart).

A survey was distributed to multi-residential properties to determine cart needs with a municipal representative available to assist with their questions. Even with the available municipal assistance and follow up, it was difficult to get quantifiable data from these users since the original concept was to offer a collection schedule alternating between weekly garbage and recycling collection. Using the known data and best estimates, the carts were ordered and the Town of Hearst would resell the carts to the rate payers.

Even after the cart order, discussions continued with the multi-residential locations where an opportunity was seized to receive a greater than once per week collection frequency, therefore reducing the number of carts on a property and reducing the user's purchasing cost for the required volume. This, however, skewed the cart order and the municipality was left initially with approximately 1,000 extra recycling roll-out carts in inventory. Since then, approximately 250 additional carts have been sold to residents and another 50 to a neighboring

municipality with an opportunity for more. Inquiries from yet another nearby municipality for carts has the Town of Hearst optimistic for moving more inventory; however, replacement carts may eventually cost much more per unit than the initial bulk order so, the municipality is storing the surplus for future use.

Additional residential garbage requirements are on a user-pay basis directly at the landfill site. However, there is no fee for additional recycling when brought to the transfer station.

3.1. Previous Waste Management Performance

The Town of Hearst first began its recycling journey with the Cochrane-Temiskaming Waste Management Board from 2009 until 2014 and then with NERA until 2016. The recycling was depot-based and for the most part worked well with costs distributed among the member municipalities.

The Town of Hearst collects approximately

- 3,681 cubic metres of fibre,
- 250 cubic metres of metal and
- 695 cubic meters of plastic yearly (approximately 160 tonnes).

The system was a success. The Town of Hearst collected volume that would consistently outperform neighbouring municipalities and was growing annually. Additional bins were purchased in 2011 to satisfy the increased volume of recyclables. However, the recycling collection vehicle was beyond its useful life, many bins needed repairs, the site around the depots required constant attention to keep them clean and the Town of Hearst suspected that many residents did not recycle. The latter was confirmed with a residential survey conducted between December 2016 and January 2017 which indicated that 41% did not recycle.

Several factors forced the Town to completely rethink the direction for its garbage and recycling needs. The existing waste collection contract was up for renewal, the contractor was not interested in continuing and the closure of NERA was imminent.

One of the goals established at the conception of the new program was to use the best practices from other northern municipalities. Through much communication and site visits, the groundwork was established from which rose

the new Municipal Waste By-law No. 87-16. But this was not without its own challenges.

With a steering committee comprised of residents, business owners, Council members and municipal employees, the framework for the new bylaw would revolve around a set limit for garbage volume where users would be responsible for the cost and haulage of additional volume. It was decided in the best interest of the community to extend the life of the landfill site and conscientize the residents of the garbage they generate. Interestingly, this decision was made despite that many people did not agree with waste collection every second week.

3.2. New Waste Management System

As part of the new waste management by-law approved by Council in 2016, curbside garbage and recycling collection for all properties are by means of roll out carts. Doing so allows for the operation and maintenance of a single dual-stream collection vehicle and reduces the labour involved from two operators to a single driver.

The program design is that single-family dwellings are permitted one-65-gallon garbage cart and one-95-gallon recycling cart. Multi-residential property owners are permitted to use 95-gallon carts for garbage and recycling carts can be shared between the tenants; collection services are provided on an alternating weekly schedule for the full calendar year (garbage-recycling-garbage-recycling).

Working from Council's decision to convert the depot-based multi-stream recycling program to a single-stream curbside recycling collection program, several activities were undertaken, one of which was public engagement.

Public Engagement

The first public engagement was a rented booth at the local spring show in May of 2017 to explain the new program. Since the program's launch date was March 5, 2018, at least 12 public information meetings were held to explain the new program. Venues included local club halls, a municipal auditorium and on-site at local assisted-living buildings. Additionally, ten local radio information/interview chronicles were also performed.

A survey of multi-residential properties was undertaken between December 2016 and February 2017 to determine the required number of roll-out carts necessary for their needs. This was difficult since many properties did not recycle and could not determine the necessary amount. To overcome this, a municipal representative would assist in determining their needs based on the previous volume and any space constraints. The results of this survey work served as the foundation for the cart purchase through The CIF's CCPP.

(see *Appendix 1 Recycling Survey and Appendix 2 Recycling Survey Results*)

The municipality took delivery of the carts in August of 2017. In total, 2,800 95-gallon recycling carts, 1,100 95-gallon carts and 2,200 65-gallon carts were ordered and received. Unloading from the delivery vehicle proved difficult due to the size and weight of the stacked carts. Each stack had to be rolled unto the forklift forks to be lowered and moved to the storage. Following the first cart delivery, a jig that attached to the forklift was fabricated and allowed for easy and safe unloading and moving of cart stacks, while also reducing delivery time.

The space required to hold the carts was also a surprise but could have been determined in advance. A Town representative followed-up discussion with the supplier to suggest coaching future clients of the intensive labour required for delivery.

One of the issues which created pushback from the residents was the requirement for the users to pay for their carts and to pick them up from the Town. A third-party delivery option was available for a cost which the Town opted not to use. Most residents conveyed their disapproval for the purchase as they felt the Town should pay for the carts. It was explained that in doing so, as some other municipalities have done, the cost would have been paid using municipal tax revenue and most likely would have accounted for a tax increase.

Every other week collection also generated discussion with most troubled by not having weekly garbage collection during the warmer months where the major concern was the smell (of food waste) which could attract bears. The summer

collection schedule was modified so it would have a garbage-garbage-recycling (i.e. garbage collection weeks 1 and 2 with recycling collection on week 3) collection schedule. A full-year calendar was developed to assist the public with the schedule (see *Appendix 3A 2018 Collection Calendar* and *Appendix 3B 2019 Collection Calendar*). Amazingly, many of the concerned parties noticed that the garbage was not as much an issue as originally thought, but in fact, the extra week between recycling collections greatly impacted the volume of recycling generated by residents (i.e. residents exceeded their capacity prior to collection). The 2019 schedule will be exclusively alternate-week collection (i.e. biweekly garbage and biweekly recycling) for residential properties.

4. New Waste Management System Infrastructure

With the Municipal Council decision to embrace a new waste management strategy, new infrastructure was required to facilitate the transition.

Loading Ramp

Many hours were spent in discussions with neighboring municipalities to determine efficiencies and minimise errors and oversights. The new municipal bylaw and rates were influenced greatly by Temiskaming Shores. The inspiration for the transfer station came from Cochrane. The collection vehicle RFP was originally created by Timmins and adapted for our needs. The CIF's CCPP was leveraged for the purchase of the waste and recycling roll-outs carts.

Transfer Station

The transfer station and ramps were constructed in 2016 to bridge the gap between the dissolution of NERA and the start of the new program. It was still used as a depot for those who prefer to drop off their recyclables. Measuring a respectable 40 by 80 feet of interior space, with steel shipping containers as the side walls, a concrete-block rear wall, and an asphalt floor extending three metres beyond the front of the building, the transfer station allows for room to compact and store recyclables in a clean and dry environment. Located next to the transfer station,

an engineered loading ramp was constructed by municipal forces using locally available materials. The ramp is a single-lane design where the truck moves forward as it is being loaded. The single-lane ramp design (as opposed to a ramp the length of the truck) reduced the construction costs significantly. Since the construction, signage has been installed with fonts and diagrams matching the information pamphlets distributed to residents. Interior LED lights have been installed on a timer to keep operational costs low. Finally, a steel bin used for the collection of glass in the previous depot system has been repurposed and repainted into a "contamination" bin located inside the transfer station, thus giving the users a last opportunity to remove contamination.

5. Project Results and Analysis

With a new waste management by-law in place, a decision to do the collection with municipal forces, a new collection vehicle ordered and garbage and recycling carts purchased by the users, the new collection program went on-line on Monday March 5, 2018.

Many performance objectives were established to determine the success of the new program, all of which are identified in monitoring and measuring plan and described in more detail below.

Table 1: Performance Metrics

	Baseline	**Target**	**Actual**	
Item	March 2017-March 2018	Year-1 of program	March 2018-March 2019	Comments
Recycling Stream Quality (percentage of contamination in blue box)	8%	10-15%	10%	Feedback from Northern Environmental Services
MSW/Garbage Stream Quality (i.e. percentage of recyclables in the garbage stream)	21%	< 20%	13%	A commendable 37% decrease in recyclables in the garbage stream
Recycling Stream Tonnage	160 tonnes	375 tonnes	429 tonnes	From March 5, 2018 to March 4, 2019
Recycling Participation	59%	Increase to 85%	98%	The participation rate only considers the residential recycling since they were the intended target for baseline survey. Actual

	Baseline	Target	Actual	
Item	March 2017-March 2018	Year-1 of program	March 2018-March 2019	Comments
				values are cart tips determined from collection vehicle data
Recycling Stream Cost	$312 per tonne	$498 per tonne or lower	$346	A remarkable containment of costs despite and increase in processing fees

Although all the performance metrics show an improvement, some greatly exceeded expectations.

Table 2: Tonnage Results - Depot versus Curbside

	Depot	Curbside
Dates	February 16, 2017 to February 23, 2018	March 16, 2018 to March 4, 2019
Tonnes collected	157	429

(detailed results can be found in *Appendix 4 Historical Tonnage Data*)

The most anticipated performance result was the additional volume collected. With a projected 50% increase in volume (from 157 tonnes in the baseline year to 375 tonnes in year 1), the expectation was high. The target tonnage, although close to the target amount, is actually three times the volume previously collected. The reason, we suspect, for the difference between the baseline tonnage and the actual tonnage is because the previous program only measured loose collected volume to which a conversion factor was applied to estimate the tonnage. The Town determined actual tonnage values collected following the construction of the recycling transfer station. From January 1, 2017 to February 23, 2018, NERA and residents would bring their recyclables to the transfer station. This depot collected material was then weighed and, since using the same measurement unit and the same weighing and shipping method as the new curbside collection program, demonstrated that the program collection increased from a 3-tonne per week average to an 8.4-tonne per week average. Note that since shipments are irregular and scheduled only when required or

availability of the MRF, it is best to consider a longer period to better assess the improvement.

The cost per tonne is also considered a monumental success. The costs include the MRF processing fee, the MRF contamination fee, the haulage, the collection equipment costs, the collection labour and the amortized cost of the equipment required for the recycling collection (details can be found in *Appendix 5 Cost per Tonne Data)*. It should be noted in the costing that Hearst works with neighbouring Matice (30 km away) who tip approximately 10 tonnes of single-stream blue box materials per year at the transfer site on a cost-recovery basis.

The capital investment required for the curbside collection included the construction of the transfer station and loading ramp and the purchases of the collection vehicle and the recycling carts, as noted previously in this report. The cost of the new collection vehicle is only partially factored into the cost of the program as new vehicle would have been required due to the condition of the previous vehicle. Therefore, we estimated the supplemental cost for the vehicle at half the purchase price.

We experienced savings on the purchase of the carts and the construction of the loading ramp, while the collection vehicle was more expensive than the quote provided by the supplier several months earlier. The transfer station was nearly on budget. In the end, the town enjoyed a total savings of nearly $47,000 over the estimated capital investment.

Streamlining of the process and the efficiencies of curbside collection also had a positive effect on the projected operational labour costs which were much lower than projected. Savings were noted for the supervisor and attendant positions, as well as the collection vehicle operator and maintenance staff. We do expect at some point that the collection vehicle will require more maintenance as it ages. However, the largest contributor to the savings was the unfilled position of Waste Management Clerk. Instead, public works, engineering and bylaw all contributed to the program roll out.

Conversely, the market for recyclables is more difficult as the price per tonne of recyclables sent to the MRF in Timmins increased from $85/tonne to $128.75/tonne in April 2018.

The original cost-per-tonne estimate took note of a lofty 500 tonnes. However, following the suggestions from CIF staff, a more realistic goal of a 50% increase in recycling was adopted for the application. Unfortunately, the tonnage estimate

table was never updated and as such the hauling, MRF tonnage fee and MRF penalty fees would have been lower. Yet, the same cost-per-tonne estimate considered an average of 18-tonnes per shipped load (as advised by a nearby municipality) which we now know is impossible to achieve without a higher contamination rate. Finally, the actual cost per shipment of $900 is considerably higher than the $600 estimate.

If we were to consider only the hauling and tonnage fees, the estimate versus actual cost per tonne would be $140 versus $210, respectively.

What was expected from the new collection program was increased collection efficiency from the previous rear-load to the new automated system. Information provided by the CIF predicted this fact. Unfortunately, the previous collection program did not have collection data regarding the number of stops. However, the new program did follow the exact same route as the previous program, and those who previously elected not to receive the service, now requested a stop because of the implementation of user-pay. Residential stops did increase but no data is available to quantify this statement other than the driver's knowledge of the routes and the change to the routine.

A baseline composition assessment was performed in 2017 by AET Group Inc. Notes were taken on the collection routes and audit setup which permitted municipal forces to duplicate the inspection in 2018 and adapt the same report. Outliers were removed from the study when there was an abnormal amount of a particular waste, skewing the results. The waste audit showed that recyclables in the MSW/garbage stream decreased by 37%.

Table 3: MSW/Garbage Stream Quality Results

	2017	2018	% Decrease
Total Recyclable Paper	4.5%	1.6%	64%
Total Recyclable Paper Packaging	8.2%	4.1%	50%
Total Recyclable Metals	2.9%	2.8%	4%
Total Recyclable Plastics	5.2%	4.6%	12%
Overall	20.80%	13.14%	37%

(detailed results can be found in *Appendix 6 2017-18 Waste Composition Study*)

At the onset of the new program, the Town of Hearst surveyed residents within the municipality regarding their current recycling habits and thoughts. From that survey, 59% of those polled recycled. Since the inception of the new program and using RFID tracking data, the participation rate with the curbside recycling increased to nearly 98%.

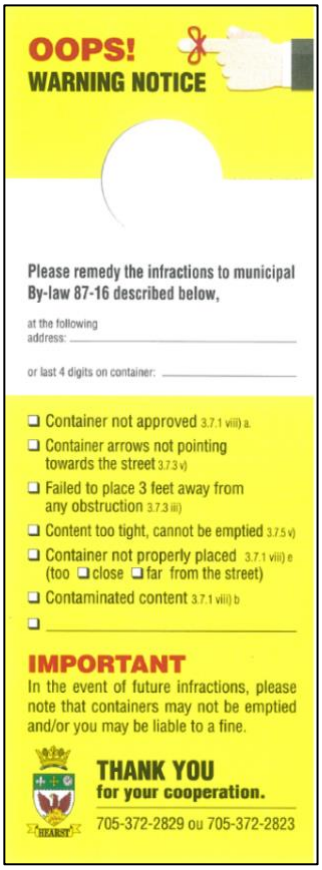
Public information sessions were provided in several venues and slightly modified to best meet the target audience. All presentations used the same garbage and recycling carts for display and (clean) samples were used to interact with the participants. Refrigerator magnets were distributed and an explanation given to why certain items were recyclable while others aren't.

Success has not only translated with the participation, but the quality of the recycling, or specifically, the low contamination rate, has set the Town of Hearst apart from neighboring municipalities. Municipal audits of recycling carts set to the curb has confirmed the feedback from the NES who supplies the service to all the north-eastern municipalities.

Four months after the implementation of the new curbside program, a curbside visual assessment was performed by municipal bylaw officers. Of the 103 carts inspected, approximately 26% did not have contamination. Plastic film, which is not an acceptable item in the recycling stream, continues the long-term contamination trend. Surprisingly, food residue and durable plastic contributed to a substantial amount of contamination.

Feedback to the cart owner was provided with a door hanger-type information card with a small sticker applied advising that the cart was inspected. The contamination was also noted on the card. The door hanger also serves to remind owners of other program requirements.

Communication & Education



6. Conclusion

Most people do not like change, especially changes to their waste collection. Most of the pushback received from the general population was regarding the garbage collection frequency and the use of carts; the curbside recycling was well received. So well, in fact, that some residents asked for additional recycling roll-out carts since they recycled more than they expected. It is important to note that those requests came in the summer of 2018 when the garbage collection schedule was modified to include an extra week of garbage between recycling collection weeks (garbage-garbage-recycling). For 2019, the schedule follows an alternate week for the full calendar year (garbage-recycling-garbage-recycling).

The Town of Hearst was fortunate to implement the new garbage and recycling program as the previous contractor agreement was ending, allowing for a complete overhaul of the bylaws, offering the collection using municipal forces and purchasing a new split-compartment collection vehicle without affecting the previous collection schedule timelines.

To further reduce costs, the Town of Hearst required residents to purchase their carts. Estimates were based on MPAC data and a survey of multi-residential needs. However, even with the best data possible, too many roll-out carts were ordered creating a storage issue and media fanfare. The fanfare has since subsided and the carts are stored in a sheltered environment ensuring they will not be damaged by the environment.

The overall cost of the waste management program has increased, but not ballooned, since the previous depot program, but with a nearly three-fold increase in recycling, the yearly savings of approximately 2,807 cubic meters translates into an estimated 30% reduction in the total yearly volume at the landfill.

Continued promotion and education remain an important factor in the success of the program to keep contamination low. Community sessions, especially school presentations have influenced this and the next generation of the importance of recycling.

7. Lessons Learned

The Town of Hearst is extremely pleased with the success of this project. We did, however, encounter some issues during planning and implementation which posed some challenges. For municipalities seeking to implement a similar program change, the Town offers the following advise:

- Invest the time to travel to other municipalities, learn from their experiences and copy best practices.
- Ensure an accurate count of the carts needed to avoid over purchase and the associated costs.
- Determine a practical location for the storage of additional carts.
- Ensure proper equipment is available to facilitate effective unloading and distribution of the carts including a cart-lifting jig to ensure the safe and efficient unloading of cart stacks.
- Ensure that adequate pre-program launch time and budget are allocated to inform and educate the public about the program change that is coming and to prepare for push-back/negative views about the change.
- Ensure that recyclables are properly crushed (by front-end loader tires) to maximise the available capacity of the transfer station and maximise the tonnage for haulage.

- The decision to have alternate-week curbside collection for residential was approved by Council, despite pushback by some residents, and had a positive effect on efficiency and costs.
- Collect data prior to any changes to the collection program. When possible, the data collected should have the same units as the new program to better identify improvements.

8. Next Steps

The Town of Hearst has and will continue to monitor the collection of recyclables and identify any opportunities for improvement:

- Shipped tonnage is continuously tracked on a weekly basis. This metric allows for the maximizing of loads and of collected recyclables.
- The bylaw department will continue with random cart inspections and using the notice cards to nudge people into reducing their contamination.
- Public sessions will continue with an emphasis in local schools.
- There exists a cooperative opportunity with most north-eastern communities shipping their recyclables to NES and to work out a long-term agreement.
- Ongoing review of operating costs.
- The Town will follow up with a resident and business feedback survey this winter.

Town of Hearst Recycling Survey 2016

Mission: The Town of Hearst will be implementing an automated curbside collection of recyclable material in 2017. The municipal council's vision is to offer a sustainable action plan in order to increase recycling and thereby reduce solid waste disposed to the municipal waste disposal site. The Town of Hearst Council has approved, in 1st and 2nd reading, by-law No. 87-16 *Solid Waste Management* to offer a value-added service to the community within budgetary limits.

The information is being compiled for statistical purposes only. Your input will only be used in combination with the responses of others participating in the survey. Our survey examines the opinion of groups of respondents. Please contribute to the survey's effectiveness by responding only once.

Q1. How old are you?

_____

Q2. What type of property do you own? (Check all that applies)

- ○ House
- ○ Duplex
- ○ Apartment building
- ○ Business
- ○ I am not a property owner (tenant)

Q3. What type of dwelling do you reside in?

- ○ Single dwelling unit
- ○ Duplex (semi-detached)
- ○ Apartment building (please specify the number of units in the building) _____

Q4. Please fill in your address:

House number : _____

Street name : _____

Apartment number : _____

Q5. How many people reside in your household per age group?

Under 12 years old : _____

12-17 years old : _____

18-24 years old : _____

25-34 years old : _____

35-44 years old : _____

45-54 years old : _____

55-64 years old : _____

65-74 years old : _____

Over 75 years old : _____

Q6. How many garbage bags a week do you currently put out curbside?

- ○ Kitchen bags (regular) : _____
- ○ Green bags (large outdoor bags) : _____

Q7. How often do you bring recyclables to the recycling bins by Mcdonald's, the Public Works garage, J.D. Levesque Park?

- ○ Monthly (please go to question 8)
- ○ Bi-weekly (please go to question 8)
- ○ Weekly (please go to question 8)
- ○ Never (please skip to question 9)

Q8. If you recycle, how many equivalent garbage bags do you bring to the recycling bins?

- ○ Kitchen bags (regular) :_____
- ○ Green bags (large outdoor bags) :_____

Q9. If you do not recycle, as a percentage (%), how much recycling materials do you estimate goes into your garbage for collection at curbside?

_____%

Q10. How much recycling material do you think is thrown away in the community as garbage for collection at curbside?

- ○ 0-10%
- ○ 11-19%
- ○ 20-29%
- ○ 30-39%
- ○ 40-49%
- ○ 50% or more

Did you know:

Approximately 34% of household waste contains recyclables (plastic, paper, metals)?

Did you know, in 2015:

- The total cost for the waste and recycling collection services was $481,466, which represented 3.8% of the municipal budget?

- A 1% increase in municipal taxes = $52,800. This means a $14 increase for residences valued at $90,000; $22

increase for residences valued at $140,000; and a $39 increase for residences valued at $250,000.

- The cost of creating a new cell at municipal waste disposal site was estimated at $5,000,000.

Q11. On a scale of 1 to 6, please indicate whether you agree or disagree with the following statement:

The Town of Hearst should do more to extend the life cycle of the current waste disposal site?

strongly disagree	1	2	3	4	5	6	strongly agree

Q12. Are you willing to accept an increase in municipal taxes to pay for a curbside recycling program?

- ○ Yes
- ○ No

Q13. Knowing that in 2015, a 1% increase in municipal taxes = $52,800. This means a $14 increase for residences valued at $90,000; a $22 increase for residences valued at $140,000; and a $39 increase for a residences valued at $250,000. How much more are you willing to pay extra (%) to receive a curbside recycling program?

_____%

Q14. Should the Town of Hearst implement a tipping fee for all users bringing waste to the waste disposal site to offset the costs of opening a new site?

- ○ Yes
- ○ No

Q15. Would an alternating weekly collection (1 week garbage, 1 week recycling) be a concern for your household?

- ○ Yes, please explain why:

  _____

  _____

- ○ No

Q16. The total cost for the purchase and distribution of garbage and recycling bins is estimated at $600,000. In your opinion, who should bear the cost for the purchase and distribution of the bins?

Note: In 2015, the total capital project budget for all municipal projects was $540,000. This means that no other project in the community would be completed in 2017.

- ○ Town of Hearst
- ○ Property and/or business owners

Q17. Do you have any other comments or suggestions related to the new waste management program?

Thank you for participating in our resident survey. This will greatly help our community build an efficient waste management program. If you have any additional questions, please contact us via e-mail at mletourneau@hearst.ca, or by phone at 705-372-2800 ext.2103.

APPENDIX 2: RESULTS OF PRE-PROGRAM SURVEY TO TOWN OF HEARST RESIDENTS.

Age of Respondants		
	Count	(%)
18-24	13	9.6%
25-34	24	17.6%
35-44	30	22.1%
45-54	24	17.6%
55-64	31	22.8%
65-74	12	8.8%
Over 75	2	1.5%
Total	136	100.00%

What type of property do you own?		
	Count	(%)
House		0.00%
House, duplex		0.00%
House, apartment		0.00%
House, business		0.00%
House, apartment, business		0.00%
Duplex		0.00%
Apartment Building		0.00%
Business		0.00%
Tenant		0.00%

What type of residence do you live in?		
	Count	(%)
Single dwelling unit		84.56%
Duplex		9.56%
Apartment building		5.88%
Apt. Size		
3		
4		
5		
6		
9		

Population Sample		
	Count	(%)
Under 12 years old	43	12.5%
12 to 17	27	7.8%
18 to 24	38	11.0%
25 to 34	47	13.7%
35 to 44	52	15.1%
45 to 54	48	14.0%
55 to 64	68	19.8%
65 to 74	18	5.2%
Over 75 years old	3	0.9%
Total	344	

Household size		
	Count	(%)
1	25	18.4%
2	56	41.2%
3	23	16.9%
4	24	17.6%
5	6	4.4%
6	2	1.5%
	136	

How often do you bring recycling at depot?		
	Count	(%)
Monthly		33.1%
Bi-weekly		14.7%
Weekly		11.0%
Never		41.2%
Total (do you recycle?)		
Yes	59%	
No	41%	

Do you recycle?		
Age group	Yes	no
18-24		
25-34		
35-44		
45-54		
55-64		
65-74		
Total	0.00%	0.00%

The town should do more to extend the life cycle of landfill?		
	Count	(%)
(Strongly Disagree)1	2	1.5%
2	6	4.4%
3	15	11.0%
4	21	15.4%
5	28	20.6%
(Strongly Agree) 6	64	47.1%
average	4.92	100.0%

Willing to accept tax increase?	
Yes	43.38%
No	42.65%
N/A	13.97%

Tipping fees for all users?	
Yes	40.44%
No	59.56%

Would alternate collection be a concern?	
Yes	37.50%
No	62.50%

Who should pay for bins?		
Town of Hearst		64.7%
Property and/or business owners		33.8%
Shared		1.5%

Did you know (%recycling in garbage)		
0 to 10%	8.8%	
10% to 19%	4.4%	
20% to 29%	16.2%	
30% to 39%	11.0%	correct answer
40% to 49%	19.1%	
over 50%	35.3%	
Did not answer	5.1%	100.00%

Percentage that want the Town of Hearst to pay for the containers, but do not want a tax increase.
31%

Percentage of people that would have concern with an alternating weekly collection, but do not recycle.
59%

Percentage of people that do not want tipping fees at the landfill, but do not recycle.
46%

Percentage of people that are not willing to accept a tax increase, tipping fees at the landfill, and would prefer the Town to bear the cost of the containers.
24%

Percentage of people that want the Town of Hearst to bear the cost of the containers and are willing to accept a tax increase.
24%

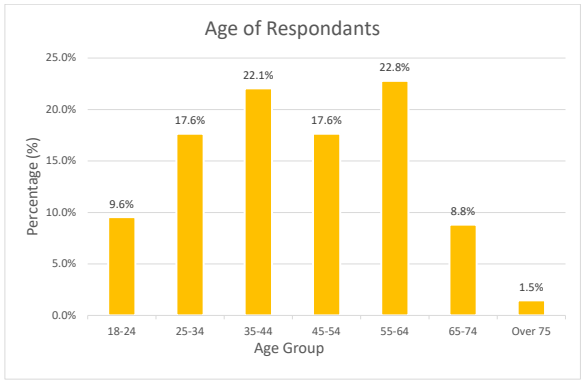
Percentage of people that think the Town should do more to extend the life of the landfill, but do not want tipping fees.
51%

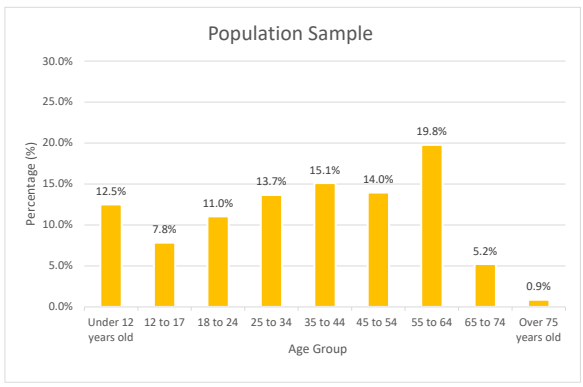
Percentage of people that want the Town of Hearst to bear the cost of containers, but do not recycle.
45%

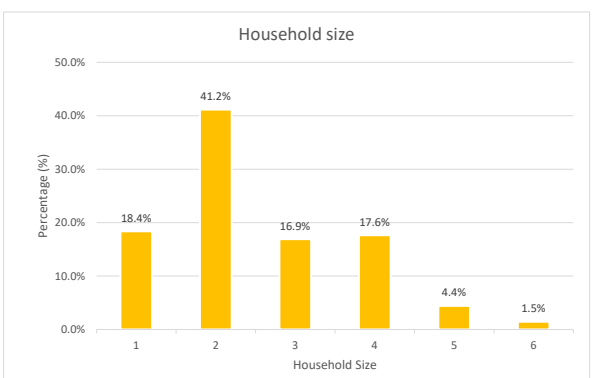
Percentage of people that do not recycle and thinks the Town should do more to extend the life of the landfill.
32%

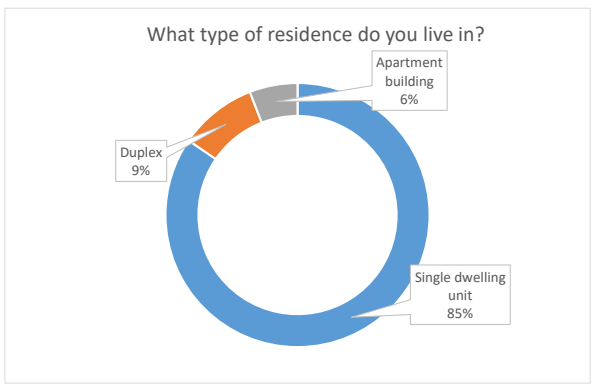
Percentage of people that recycle and still have a concern with an alternating weekly collection.
26%

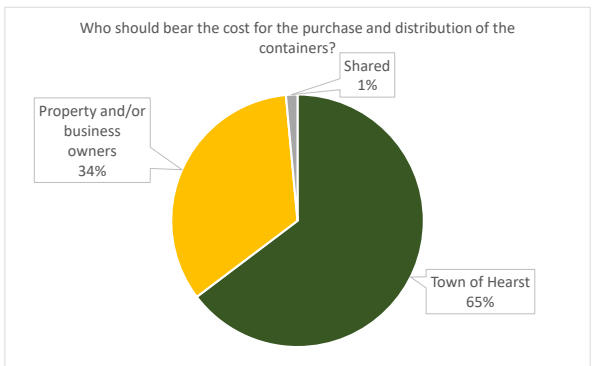
Percentage of people that recycle, have more than 2 people living in their household, and have a concern with an alernating weekly collection.
67%

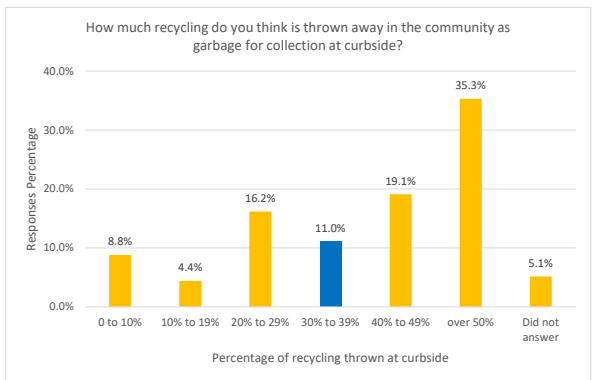


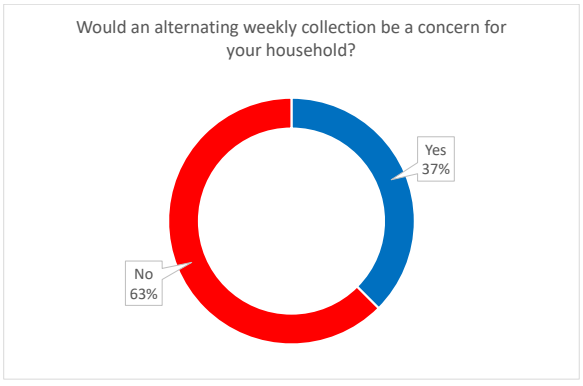


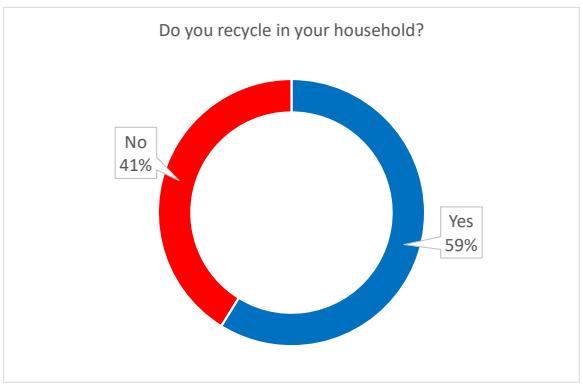


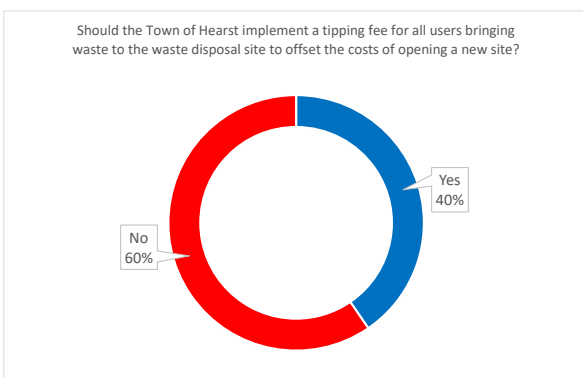


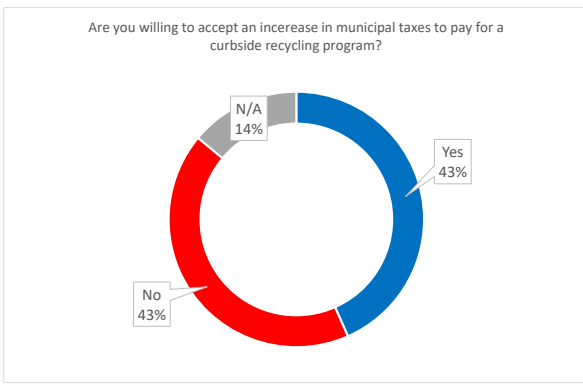


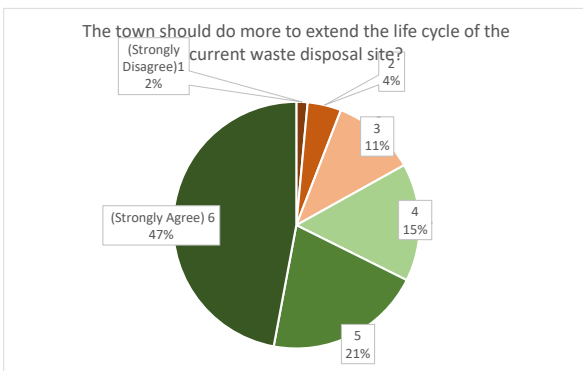












CORPORATION OF THE TOWN OF HEARST

Residential waste and recycling collection

2018 Schedule

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY

PITCH-IN CANADA

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JANUARY 2019

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Waste collection

Recycling collection

Statutory holiday

When a normal curbside collection day falls on a holiday, the collection shall be made one (1) day before and /or later as advertised by the Town.

Pitch-In Month: May 2018

Treasure Hunt week: May 27 – June 3 2018

Items placed at the curbside on the specified day or time may be collected by other residents of the Town for the purpose of reuse. Residents are responsible for removing uncollected items following Treasure Hunt Days.

Amnesty Week: June 4-9 2018

"Amnesty program" means a program that permits residents to drop off up to two (2) cubic yards of garbage in the landfill site free of charge.

NOTE: 2018 SUMMER SCHEDULE ADDED AN EXTRA WEEK FOR WASTE COLLECTION BETWEEN RECYCLING WEEKS TO MINIMISE ODOUR COMPLAINTS.

CORPORATION OF THE TOWN OF HEARST

Residential waste and recycling collection

2019 Schedule

JANUARY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

MARCH						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY (PITCH-IN CANADA)						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

OCTOBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	

- Waste collection
- Recycling collection
- Statutory holiday

When a regular collection day falls on a holiday, the collection shall be made one (1) day before and /or later as advertised by the Town.

- Pitch-In Month: May 2019
- Treasure Hunt week: May 26 – June 2 2019

Items placed at the curbside on the specified day or time may be collected by other residents of the Town for the purpose of reuse. Residents are responsible for removing uncollected items following Treasure Hunt Days.

- Amnesty Week: June 3-8 2019

"Amnesty program" means a program that permits residents to drop off up to two (2) cubic yards of garbage or 8 bags of garbage in the landfill site free of charge.

Reminder

Place approved containers at the curb any time after 5:00 p.m. the evening prior to your collection day and no later than 6:00 a.m. on your collection day.

NOTE: NO EXTRA WASTE COLLECTION WEEK ADDED FOR 2019

Tonnage of Recyclables Hauled to MRF

Dates	Tonnes		Notes:
16-Feb-17	6.38	NERA - DEPOT	NERA collects Hearst Depots and drop off in the new Transfer Station
23-Feb-17	7.94	NERA - DEPOT	
28-Apr-17	7.71	NERA - DEPOT	
31-Mar-17	10.06	NERA - DEPOT	
02-Jun-17	10.46	NERA - DEPOT	
08-Jun-17	11.6	NERA - DEPOT	
20-Jun-17	9.4	NERA - DEPOT	
20-Jul-17	7.49	HEARST - TS	NERA ends June 30 2017
04-Aug-17	9.35	HEARST - TS	Residents are asked to drop off their recyclables at the Transfer Station
13-Sep-17	10.77	HEARST - TS	
29-Sep-17	10.23	HEARST - TS	
09-Nov-17	11.46	HEARST - TS	
15-Dec-17	11.48	HEARST - TS	
12-Jan-18	5.37	HEARST - TS	
22-Jan-18	7.4	HEARST - TS	
29-Jan-18	10.65	HEARST - TS	
23-Feb-18	9.29	HEARST - TS	
53 weeks	**157.04**	**Total Depot tonnage**	**~ 2.96 tonnes per week**
16-Mar-18	7.45	HEARST -CS	Hearst curbside collection begins March 5, 2018
26-Mar-18	11.57	HEARST -CS	
2-Apr-18	11.5	HEARST -CS	
16-Apr-18	8.49	HEARST -CS	
20-Apr-18	12.69	HEARST -CS	
27-Apr-18	11.86	HEARST -CS	
4-May-18	9.11	HEARST -CS	
14-May-18	9.43	HEARST -CS	
28-May-18	12.44	HEARST -CS	
4-Jun-18	11.02	HEARST -CS	
18-Jun-18	9.66	HEARST -CS	
22-Jun-18	9.04	HEARST -CS	
9-Jul-18	8.14	HEARST -CS	
12-Jul-18	9.02	HEARST -CS	
13-Jul-18	7.11	HEARST -CS	
20-Jul-18	8.59	HEARST -CS	
27-Jul-18	11.17	HEARST -CS	
10-Aug-18	12.09	HEARST -CS	
20-Aug-18	10.14	HEARST -CS	
24-Aug-18	7.64	HEARST -CS	
10-Sep-18	10.83	HEARST -CS	
17-Sep-18	11.7	HEARST -CS	
24-Sep-18	10.62	HEARST -CS	
1-Oct-18	10.86	HEARST -CS	
12-Oct-18	17.65	HEARST -CS	
22-Oct-18	13.95	HEARST -CS	
2-Nov-18	15.99	HEARST -CS	
19-Nov-18	13.61	HEARST -CS	
26-Nov-18	13.09	HEARST -CS	
3-Dec-18	12.72	HEARST -CS	
10-Dec-18	16.24	HEARST -CS	
20-Dec-18	19.68	HEARST -CS	
07-Jan-19	9.53	HEARST -CS	
14-Jan-19	9.08	HEARST -CS	
21-Jan-19	8.03	HEARST -CS	
04-Feb-19	11.72	HEARST -CS	
11-Feb-19	9.21	HEARST -CS	
04-Mar-19	16.26	HEARST -CS	
51 weeks	**428.93**	**Total Curbside tonnage**	**~ 8.4 tonnes per week (includes approximately 10 tonnes rom Mattice)**

APPENDIX 5 - COST PER TONNE - ESTIMATED VERSUS ACTUAL

Town of Hearst

Municipal Recycling + Garbage collection Program

Assuming automated collection

Operational budget		Estimated					Actual		
Revenues		Hearst Only		Mattice & Hearst			Mattice & Hearst		
				$ 9,153	Mattice's share: 339 households x $27		$ 2,953		
Funding from Datacall	20% of total operating expenses (1)	$ 51,654		52,328			$ 97,369		assume 40% like Cochrane
Grant FedNor for hiring Clerk		31,500	$ 83,154	31,500	$ 92,981		$ -	**$ 100,322**	no clerk
Expenditures									
Wages									
Site Supervisor	Based on annual salary, 10% of time, including benefits 2016	$ 11,372		$ 11,372			$ 8,938		recycling only - includes Real & Luc + 35%
Attendants Waste Disposal Site	2 attendants @ 30 hours/wk including overhead + vacation	65,211		65,211			41,067		recycling only - Cindy @ 19.98 & Tania @ 19.03 hourly
Maintenance Staff	Mechanic, 20% of time, including benefits 2016	17,188		17,188			10,297		recycling only - Fleet - includes 35% benefits
Administration Staff	Administrative assistant, class 5 mid, 5% of time, including benefits 2016	3,150		3,150			3,302		Administrative assistant, class 5 mid, 5% of time including benefits
Collection Vehicle/tractor Operator	Assuming OP.1, 100% of time, including benefits 2016	73,408		73,408			25,225		recycling only + 35% overhead
Temporary Waste Management Clerk	Assuming rate of 22.50$/hour NO benefits	43,875	214,204	43,875	214,204		-	**$ 88,829**	
Municipal Equipment									
Trucks	Estimated use of truck for capping sand hauling based on 2015 GL detail	$ 30,000		$ 30,000			-		not required
Loader	150 jours @ 1.5 hours/day x 44.29$/hour	10,000	40,000	10,000	40,000		-	-	cost recovered in amortization
Other									
Promotion and Education		$ 10,000		$ 10,000			9,416		
Utilities - Office at waste disposal site		3,800		3,800			2,155		recycling only - 50% for attendant and 100% for dome
Waste disposal site monitoring program		5,000		5,000			-		not required
Insurance		10,000	28,800	10,000	28,800		5,000	**$ 16,571**	recycling only
Vehicles									
Gas-oil-fuel	120 liters per week @ 1.20$/ liter + oil	$ 8,000		$9,360	150 litres per week @ 1.20/liter + oil		14,424		recycling only
Vehicle Maintenance - Truck		5,000		5,000			5,062		recycling only
Hauling costs to MRF in Timmins	Cost per trip, assuming 27 trips per year ($600 + 10% fuel surcharge + 1.76% taxes) + ($85 x 19 + 1.76% taxes) = $2,315	62,505		64,820	Cost per trip, assuming 28 trips per year ($600 + 10% fuel surcharge + 1.76% taxes) + ($85 x 19 + 1.76% taxes) = $2 315		90,144		includes trips, tonnage fee increase and penalty fees
Penalty Fees MRF Timmins	Consensus on Cost estimate = 500 tonnes x 15% residual rate x $100 / MT	7,500		7,875	Consensus on Cost estimate = 525 tonnes x 15% residual rate x $100 / MT		-		included in number above
Maintenance Equipment		500		500					
Licences	Crown royalties + additional granular	12,000	95,505	12,000	99,555		-	**$ 109,630**	granular not required
Total Operating Expenditures			$ 378,509		$382,559			**$ 215,030**	
LESS : Municipal base budget costs									
	Site Supervisor	$ 11,372		$ 11,372			$ -		
	Maintenance Staff	17,188		17,188			-		
	Administration Staff	3,150		3,150			-		
	Municipal Equipment	40,000	71,710	40,000	71,710		-	-	
TOTAL OPERATING EXPENDITURES			$ 306,799		$ 310,849			$ 215,030	
LESS Revenues			83,154		92,981			100,322	
Total operating cost			$ 223,645		$ 217,868			$ 114,708	
Add: Amortization									
	Transfer Station (40 yrs)	$ 3,750		$ 3,750			$ 3,688		actual cost / 40yrs
	Recycling + waste bins (10 yrs)	48,600		48,600			19,757		recycling bins only
	Collection vehicle (20 yrs)	17,500		17,500			9,655		Hearst keeps its vehicles longer than 10 years consider half of cost of vehic'le
	Loading ramp (20 yrs)	2,500		2,500			749		
	D6 tractor (20 yrs)	22,500	94,850	22,500	94,850		-	33,849	
TOTAL NET OPERATING COST			**$ 318,495**		**$ 312,718**			**$ 148,557**	

CAPITAL EXPENDITURES		CAPITAL EXPENDITURES- ACTUAL	
Collection Vehicle Purchase	$ 350,000	386,181	
Recycling Bins (81$ x 3000)	243,000	197,568	2800 bins @ 70.56$ incl. unloading and assembly costs.
Waste Bins (81$ x 3000)	243,000	-	
Dome-Shaped Transfer Station	150,000	147,525	
Loading Ramp	50,000	14,988	
D6 Tractor	450,000	-	
	$ 1,486,000	**$ 746,262**	

	Estimated		Actual	
	Hearst Only	Mattice & Hearst	Hearst Only	Mattice & Hearst
50% of cost allocated to Datacall	$ 128,140	$ 128,820	$ -	$ -
100% of cost allocated to Datacall	130,130	132,820	-	243,422
(1) Total operating cost eligible to Datacall	$ 258,270	$ 261,640	$ -	$ 243,422
Estimated tonnage collected	500	525	419	429
Cost per tonne	**$ 517**	**$ 498**	$ -	**$ 346**

TOWN OF HEARST WASTE COMPOSITION STUDIES FOR 2017 AND 2018

2018 Town of Hearst Single Family Residential Curbside Study

Material Category	Stream	Halle Street	Piper Street	Labelle Street	Prince Street (between 15th & 13th)	McManus Street	Alexandra Street (between 7th & 5th)	Alexandra Street (between 15th & 13th)	Edward Street (between 5th & 7th)	Kitchener Street	Picard Street	Total 7-Day Disposed	Average Weekly Disposed	Estimated Annual Disposed	Average Disposed per Household per week	Estimated Disposed per Household per year	Composition Percentage
Waste Stream:		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage
Date Collected (month/day/year):		7-16-2018	7-16-2018	7-17-2018	7-17-2018	7-18-2018	7-18-2018	7-18-2018	7-19-2018	7-19-2018	7-19-2018						
Waste Generation Period (number of days):		7	7	7	7	7	7	7	7	7	7						
Audit Supervisor:		Luc	Luc	Luc	Luc	Luc	Luc	Luc	Luc	Luc	Luc						
Notes:																	
Material Category	Stream	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)
1. PAPER																	
Newspaper – Dailys and Weeklys	R	0.00	0.00	0.00	0.00	0.38	0.00	0.02	0.88	0.09	0.00	1.36	1.36	71.02	0.01	0.72	0.27%
Newspaper - Other	R	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	2.29	0.00	0.02	0.01%
Telephone Books / Directories	R	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	11.94	0.00	0.12	0.05%
Magazines & Catalogues	R	0.00	0.00	0.00	0.02	0.00	0.00	0.08	0.00	0.00	0.32	0.42	0.42	21.80	0.00	0.22	0.08%
Mixed Fine Paper	R	1.31	0.19	1.28	1.31	0.29	0.09	0.21	1.15	0.11	0.23	6.15	6.15	320.89	0.06	3.24	1.22%
Books	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other Paper	W	0.36	1.35	0.45	0.60	0.24	0.42	0.43	0.87	0.47	0.09	5.27	5.27	274.64	0.05	2.77	1.04%
Total Recyclable Paper	**TR**	1.56	0.21	1.28	1.33	0.67	0.09	0.30	2.03	0.19	0.55	8.21	8.21	427.94	0.08	4.32	1.62%
Total Non Recyclable Paper	**TND**	0.36	1.35	0.45	0.60	0.24	0.42	0.43	0.87	0.47	0.09	5.27	5.27	274.64	0.05	2.77	1.04%
Total Paper		**1.92**	**1.56**	**1.73**	**1.93**	**0.91**	**0.50**	**0.73**	**2.90**	**0.66**	**0.64**	**13.47**	**13.47**	**702.57**	**0.14**	**7.10**	**2.66%**
2. PAPER PACKAGING																	
Corrugated Wine Bag in Box	R	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	1.63	84.99	0.02	0.86	0.32%
Other Corrugated	R	0.00	0.00	0.43	0.26	0.20	0.23	0.22	0.92	0.94	0.00	3.19	3.19	166.39	0.03	1.68	0.63%
Kraft Paper	R	0.75	0.39	1.91	0.64	1.53	0.07	0.84	1.19	0.42	0.31	8.03	8.03	418.76	0.08	4.23	1.59%
Boxboard / Cores	R	0.00	1.12	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	1.38	1.38	72.01	0.01	0.73	0.27%
Molded Pulp	R	0.18	0.11	0.19	0.12	0.35	0.00	0.00	0.00	0.28	0.00	1.23	1.23	64.03	0.01	0.65	0.24%
Paper Cups and Paper Ice-Cream Containers	R	0.21	0.18	0.18	0.55	0.13	0.07	0.53	0.02	0.03	0.10	1.99	1.99	103.66	0.02	1.05	0.39%
Laminated Paper Packaging	W	0.54	0.29	1.75	0.50	0.33	0.23	0.40	0.65	0.13	0.16	4.99	4.99	260.04	0.05	2.63	0.99%
Composite Cans	R	0.04	0.00	0.18	0.10	0.19	0.00	0.07	0.29	0.05	0.03	0.95	0.95	49.28	0.01	0.50	0.19%
Gable Top Cartons	R	0.57	0.42	0.36	0.60	0.05	0.04	0.07	0.21	0.00	0.06	2.36	2.36	123.21	0.02	1.24	0.47%
Aseptic Alcohol Beverage Containers (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Aseptic non-Alcohol Beverage Containers (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Aseptic Other Containers	R	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.07	0.07	3.75	0.00	0.04	0.01%
Total Recyclable Paper Packaging	**TR**	3.40	2.22	3.23	2.53	2.45	0.41	1.76	2.63	1.70	0.49	20.83	20.83	1,086.08	0.21	10.97	4.12%
Total Non Recyclable Paper Packaging	**TND**	0.54	0.29	1.75	0.50	0.33	0.23	0.40	0.65	0.13	0.16	4.99	4.99	260.04	0.05	2.63	0.99%
Total Paper Packaging		**3.94**	**2.51**	**4.98**	**3.04**	**2.78**	**0.64**	**2.17**	**3.28**	**1.84**	**0.65**	**25.82**	**25.82**	**1,346.12**	**0.26**	**13.60**	**5.10%**
3. METALS																	
Aluminum Alcohol Beverage Containers (all sizes)	R	0.11	1.10	0.80	0.04	0.03	0.00	0.05	0.00	0.00	0.00	2.12	2.12	110.60	0.02	1.12	0.42%
Aluminum non-Alcohol Beverage Containers (all sizes)	R	0.07	0.10	0.27	0.04	0.03	0.04	0.01	0.10	0.05	0.18	0.88	0.88	46.04	0.01	0.47	0.17%
Aluminum Food Cans	R	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	4.17	0.00	0.04	0.02%
Aluminum Foil & Foil Trays	R	0.47	1.30	1.21	0.35	0.13	0.22	0.40	0.38	0.13	0.17	4.75	4.75	247.73	0.05	2.50	0.94%
Other Aluminum Containers	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Steel Alcoholic Beverage Cans (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.27	0.27	14.03	0.00	0.14	0.05%
Steel non-Alcoholic Beverage Cans (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Steel Food Containers	R	0.04	0.10	0.15	0.04	0.14	0.00	0.06	0.67	0.00	0.04	1.23	1.23	64.14	0.01	0.65	0.24%
Steel Aerosol Cans	R	0.20	0.19	0.24	0.77	0.11	0.00	0.00	0.11	0.00	0.08	1.70	1.70	88.49	0.02	0.89	0.34%
Steel Paint Cans	R	0.00	0.00	1.45	0.00	0.00	0.00	0.00	1.07	0.00	0.49	3.01	3.01	156.69	0.03	1.58	0.59%
Other Metal	W	1.32	0.05	0.86	0.01	0.10	0.00	0.00	0.00	0.44	6.28	9.05	9.05	472.05	0.09	4.77	1.79%
Total Recyclable Metals	**TR**	0.97	2.79	4.11	1.23	0.42	0.26	0.51	2.34	0.45	0.96	14.04	14.04	731.88	0.14	7.39	2.77%
Total Non Recyclable Metals	**TND**	1.32	0.05	0.86	0.01	0.10	0.00	0.00	0.00	0.44	6.28	9.05	9.05	472.05	0.09	4.77	1.79%
Total Metals		**2.29**	**2.84**	**4.96**	**1.24**	**0.52**	**0.26**	**0.51**	**2.34**	**0.89**	**7.24**	**23.09**	**23.09**	**1,203.93**	**0.23**	**12.16**	**4.56%**
4. GLASS																	
Clear and Coloured Alcohol (all sizes)	W	0.20	5.20	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.51	6.51	339.50	0.07	3.43	1.29%
Clear and Coloured Glass Other Beverage, non alcohol	W	0.00	0.00	0.00	1.98	0.00	0.00	0.00	0.00	0.18	0.00	2.16	2.16	112.68	0.02	1.14	0.43%
Clear and Coloured Glass Food Containers	W	3.17	2.80	1.46	1.33	1.49	1.31	0.51	0.37	0.88	0.96	14.26	14.26	743.77	0.14	7.51	2.82%
Other Glass	W	0.00	0.20	0.00	0.02	0.09	0.03	0.00	0.44	6.09	0.00	6.86	6.86	357.80	0.07	3.61	1.36%
Total Recyclable Glass	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Glass	**TND**	3.37	8.20	2.57	3.33	1.57	1.34	0.51	0.81	7.14	0.96	29.80	29.80	1,553.75	0.30	15.69	5.89%
Total Glass		**3.37**	**8.20**	**2.57**	**3.33**	**1.57**	**1.34**	**0.51**	**0.81**	**7.14**	**0.96**	**29.80**	**29.80**	**1,553.75**	**0.30**	**15.69**	**5.89%**
5. PLASTICS																	
PET Alcohol Containers (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.11	0.11	5.68	0.00	0.06	0.02%
PET Other Beverage Bottles (all sizes)	R	0.00	0.45	0.00	0.00	0.00	0.27	0.15	0.00	0.09	0.00	0.95	0.95	49.38	0.01	0.50	0.19%
PET Other Bottles & Jars	R	2.01	0.00	1.51	0.12	0.46	0.00	0.00	0.00	0.00	0.05	4.15	4.15	216.50	0.04	2.19	0.82%
PET Other Packaging	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00%
HDPE Beverage Bottles	R	0.58	0.46	0.16	0.00	0.00	0.20	0.04	0.00	2.78	0.00	4.22	4.22	219.83	0.04	2.22	0.83%
HDPE Other Bottles & Jugs	R	0.40	0.07	1.42	1.23	0.00	0.00	0.31	2..47	0.50	0.07	3.99	3.99	208.10	0.04	2.10	0.79%
PVC Bottles & Jars	R	0.12	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.98	51.20	0.01	0.52	0.19%
Other Bottles, Jars & Jugs	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Polystyrene Packaging (expanded and rigid)	R	1.28	0.18	1.22	0.63	0.59	0.54	0.36	0.61	0.06	0.09	5.55	5.55	289.55	0.06	2.92	1.10%
Wide Mouth Tubs & Lids	R	0.29	0.09	0.23	0.35	0.13	1.18	0.37	0.14	0.00	0.01	2.79	2.79	145.22	0.03	1.47	0.55%
Large HDPE & PP Pails & Lids (>20L)	R	0.00	0.00	0.28	0.00	0.15	0.00	0.13	0.00	0.11	0.00	0.67	0.67	35.09	0.01	0.35	0.13%
Polyethylene Bags - Packaging	W	0.61	0.28	1.63	0.55	0.02	0.23	0.18	0.06	0.12	0.38	4.05	4.05	211.34	0.04	2.13	0.80%
Polyethylene Bags - Non-Packaging	W	1.12	0.56	0.38	0.50	0.08	0.11	0.85	0.09	0.11	0.10	3.89	3.89	202.94	0.04	2.05	0.77%
Laminated Film Packaging	W	1.01	1.08	1.85	0.24	0.71	0.61	0.71	0.14	0.73	0.72	7.79	7.79	405.93	0.08	4.10	1.54%
Other Rigid Plastic Packaging	W	1.04	0.61	1.45	1.37	0.20	0.61	0.51	0.15	0.80	0.07	6.80	6.80	354.31	0.07	3.58	1.34%
Durable Plastic Products	W	1.14	0.14	2.15	1.97	0.16	0.44	1.21	0.51	1.23	0.11	9.04	9.04	471.48	0.09	4.76	1.79%
Total Recyclable Plastics	**TR**	4.67	2.11	4.83	2.33	1.33	2.18	1.46	0.75	3.54	0.22	23.41	23.41	1,220.61	0.24	12.33	4.63%
Total Non Recyclable Plastics	**TND**	4.92	2.66	7.46	4.62	1.17	1.99	3.46	0.94	2.98	1.37	31.57	31.57	1,645.99	0.32	16.63	6.24%
Total Plastics		**9.59**	**4.77**	**12.28**	**6.95**	**2.49**	**4.17**	**4.92**	**1.69**	**6.52**	**1.59**	**54.98**	**54.98**	**2,866.61**	**0.56**	**28.96**	**10.87%**
6. HOUSEHOLD SPECIAL WASTE																	
Batteries (automotive)	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Batteries (small / personal)	W	0.07	0.01	0.09	0.00	0.01	0.00	0.69	0.03	0.00	0.00	0.90	0.90	46.82	0.01	0.47	0.18%
Paint & Stain	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Pesticides	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Motor Oil	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other HSW liquids	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Sharps	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other HSW	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Recyclable Household Special Waste	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Household Special Waste	**TND**	0.07	0.01	0.09	0.00	0.01	0.00	0.69	0.03	0.00	0.00	0.90	0.90	46.82	0.01	0.47	0.18%
Total HSW		**0.07**	**0.01**	**0.09**	**0.00**	**0.01**	**0.00**	**0.69**	**0.03**	**0.00**	**0.00**	**0.90**	**0.90**	**46.82**	**0.01**	**0.47**	**0.18%**
7. ORGANICS																	
Food Waste	W	16.00	11.60	16.33	25.68	16.05	9.69	16.11	14.29	11.98	5.33	143.05	143.05	7,459.04	1.44	75.34	28.28%
Yard Waste	W	23.17	0.20	0.00	1.69	15.36	1.20	7.25	1.52	22.89	2.48	75.76	75.76	3,950.40	0.77	39.90	14.97%
Pet waste	W	0.15	2.60	3.02	4.52	6.02	0.00	0.03	0.21	0.00	2.54	19.09	19.09	995.41	0.19	10.05	3.77%
Total Acceptable Organics	**TAO**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Acceptable Organics	**TND**	39.32	14.40	19.35	31.89	37.43	10.89	23.38	16.01	34.88	10.35	237.90	237.90	12,404.84	2.40	125.30	47.02%
Total Organics		**39.32**	**14.40**	**19.35**	**31.89**	**37.43**	**10.89**	**23.38**	**16.01**	**34.88**	**10.35**	**237.90**	**237.90**	**12,404.84**	**2.40**	**125.30**	**47.02%**
8. OTHER MATERIALS																	
Tissue/Toweling	W	5.08	3.08	3.67	2.91	3.59	0.52	3.75	3.29	2.29	2.75	30.94	30.94	1,613.09	0.31	16.29	6.11%
Diapers and Sanitary Products	W	5.98	0.00	2.89	2.87	0.00	3.45	0.43	0.15	0.15	5.85	21.77	21.77	1,135.05	0.22	11.47	4.30%
Textiles	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Carpeting	W	0.00	0.00	0.00	0.00	0.00	0.00	2.73	0.00	0.00	1.75	4.48	4.48	233.44	0.05	2.36	0.88%
Construction & Renovation	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Computer / IT Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Telecom Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
TV & Audio Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Small Kitchen Appliances	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other Electronics	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Tires and Other Rubber	W	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.00	1.17	0.00	2.34	2.34	122.17	0.02	1.23	0.46%
Ceramics	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Furniture	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Mattresses	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Dead Animals	W	0.49	0.00	0.33	0.02	0.00	0.01	0.35	0.24	0.12	0.00	1.56	1.56	81.24	0.02	0.82	0.31%
Other Waste	W	5.29	3.17	11.34	9.48	0.72	0.34	1.98	12.17	7.86	6.54	58.89	58.89	3,070.59	0.59	31.02	11.64%
Total Recyclable Other Materials	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Other Materials	**TND**	16.85	6.25	18.23	15.28	4.32	4.33	10.40	15.84	11.60	16.89	119.97	119.97	6,255.58	1.21	63.19	23.71%
Total Other Materials		**16.85**	**6.25**	**18.23**	**15.28**	**4.32**	**4.33**	**10.40**	**15.84**	**11.60**	**16.89**	**119.97**	**119.97**	**6,255.58**	**1.21**	**63.19**	**23.71%**
Overall Total Recyclable		**10.60**	**7.33**	**13.45**	**7.42**	**4.87**	**2.94**	**4.03**	**7.75**	**5.89**	**2.21**	**66.48**	**66.48**	**3,466.51**	**0.67**	**35.02**	**13.14%**
Overall Total Accepted Organics		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00%**
Overall Total Non-Recyclable		**66.74**	**33.20**	**50.76**	**56.23**	**45.16**	**19.19**	**39.28**	**35.16**	**57.63**	**36.12**	**439.44**	**439.44**	**22,913.71**	**4.44**	**231.45**	**86.86%**
Grand Total		**77.34**	**40.53**	**64.20**	**63.64**	**50.03**	**22.13**	**43.31**	**42.90**	**63.52**	**38.33**	**505.92**	**505.92**	**26,380.22**	**5.11**	**266.47**	**100.00%**
PE-Packaging Film Bag Count (Reused as garbage or recycling bag)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

2017 Town of Hearst Single Family Residential Curbside Study

Material Category	Stream	Halle Street	Piper Street	Labelle Street	Prince Street (between 15th & 13th)	McManus Street	Alexandra Street (between 7th & 5th)	Alexandra Street (between 15th & 13th)	Edward Street (between 5th & 7th)	Kitchener Street	Picard Street	Total 7-Day Disposed	Average Weekly Disposed	Estimated Annual Disposed	Average Disposed per Household per week	Estimated Disposed per Household per year	Composition Percentage
Waste Stream:		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage
Date Collected (month/day/year):		6-26-2017	6-26-2017	6-27-2017	6-27-2017	6-28-2017	6-28-2017	6-28-2017	6-29-2017	6-29-2017	6-29-2017						
Waste Generation Period (number of days):		7	7	7	7	7	7	7	7	7	7						
Audit Supervisor:		Nicole	Nicole	Nicole	Nicole	Nicole	Nicole	Nicole	Nicole	Nicole	Nicole						
Notes:																	
Material Category	Stream	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)	Net Weight (kg)
1. PAPER																	
Newspaper – Dailys and Weeklys	R	0.33	0.00	0.67	0.11	0.06	0.03	0.13	0.22	0.48	0.07	2.10	2.10	109.50	0.02	1.11	0.25%
Newspaper - Other	R	1.28	0.13	0.41	0.81	0.35	1.25	0.86	0.20	1.33	0.89	7.51	7.51	391.59	0.08	3.96	0.88%
Telephone Books / Directories	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Magazines & Catalogues	R	0.00	0.24	0.31	0.26	0.06	0.33	0.15	2.00	0.34	0.00	3.69	3.69	192.41	0.04	1.94	0.43%
Mixed Fine Paper	R	4.92	0.48	1.54	4.70	1.36	2.27	1.26	4.72	1.77	1.21	24.23	24.23	1,263.42	0.24	12.76	2.83%
Books	R	0.00	0.00	0.43	0.13	0.00	0.00	0.00	0.77	0.00	0.00	1.33	1.33	69.35	0.01	0.70	0.16%
Other Paper	W	0.12	0.00	0.74	0.05	0.49	0.18	0.03	0.18	0.89	0.24	2.92	2.92	152.26	0.03	1.54	0.34%
Total Recyclable Paper	**TR**	6.53	0.85	3.36	6.01	1.83	3.88	2.40	7.91	3.92	2.17	38.86	38.86	2,026.27	0.39	20.47	4.54%
Total Non Recyclable Paper	**TND**	0.12	0.00	0.74	0.05	0.49	0.18	0.03	0.18	0.89	0.24	2.92	2.92	152.26	0.03	1.54	0.34%
Total Paper		**6.65**	**0.85**	**4.10**	**6.06**	**2.32**	**4.06**	**2.43**	**8.09**	**4.81**	**2.41**	**41.78**	**41.78**	**2,178.53**	**0.42**	**22.01**	**4.89%**
2. PAPER PACKAGING																	
Corrugated Wine Bag in Box	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other Corrugated	R	2.45	1.10	2.40	2.30	0.36	3.87	0.17	1.62	0.94	0.15	15.36	15.36	800.91	0.16	8.09	1.80%
Kraft Paper	R	0.94	0.22	0.37	0.28	0.64	0.69	0.25	0.37	0.52	0.34	4.62	4.62	240.90	0.05	2.43	0.54%
Boxboard / Cores	R	4.88	1.97	3.85	3.30	3.15	4.59	1.95	3.12	4.34	1.94	33.09	33.09	1,725.41	0.33	17.43	3.87%
Molded Pulp	R	0.19	0.13	0.28	0.38	0.25	0.66	0.06	0.38	0.51	0.00	2.84	2.84	148.09	0.03	1.50	0.33%
Paper Cups and Paper Ice-Cream Containers	R	0.13	0.43	0.74	0.85	0.54	0.42	0.22	0.27	0.71	0.12	4.43	4.43	230.99	0.04	2.33	0.52%
Laminated Paper Packaging	W	0.46	0.37	0.86	0.48	0.23	0.86	0.23	0.38	0.33	0.11	4.31	4.31	224.74	0.04	2.27	0.50%
Composite Cans	R	0.16	0.00	0.07	0.18	0.05	0.09	0.04	0.10	0.08	0.29	1.06	1.06	55.27	0.01	0.56	0.12%
Gable Top Cartons	R	0.20	0.31	1.19	0.39	0.78	1.09	0.44	0.59	0.68	0.27	5.94	5.94	309.73	0.06	3.13	0.69%
Aseptic Alcohol Beverage Containers (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Aseptic non-Alcohol Beverage Containers (all sizes)	R	0.80	0.00	0.02	0.10	0.23	0.32	0.01	0.04	0.24	0.00	1.76	1.76	91.77	0.02	0.93	0.21%
Aseptic Other Containers	R	0.00	0.00	0.16	0.00	0.00	0.04	0.13	0.15	0.09	0.00	0.57	0.57	29.72	0.01	0.30	0.07%
Total Recyclable Paper Packaging	**TR**	9.75	4.16	9.08	7.78	6.00	11.77	3.27	6.64	8.11	3.11	69.67	69.67	3,632.79	0.70	36.69	8.15%
Total Non Recyclable Paper Packaging	**TND**	0.46	0.37	0.86	0.48	0.23	0.86	0.23	0.38	0.33	0.11	4.31	4.31	224.74	0.04	2.27	0.50%
Total Paper Packaging		**10.21**	**4.53**	**9.94**	**8.26**	**6.23**	**12.63**	**3.50**	**7.02**	**8.44**	**3.22**	**73.98**	**73.98**	**3,857.53**	**0.75**	**38.96**	**8.65%**
3. METALS																	
Aluminum Alcohol Beverage Containers (all sizes)	R	0.01	0.00	0.10	0.41	0.00	0.09	0.00	0.18	0.03	0.01	0.83	0.83	43.28	0.01	0.44	0.10%
Aluminum non-Alcohol Beverage Containers (all sizes)	R	0.26	0.51	0.46	0.23	0.53	0.33	0.62	0.36	0.19	0.28	3.77	3.77	196.58	0.04	1.99	0.44%
Aluminum Food Cans	R	0.08	0.00	0.06	0.00	0.05	0.00	0.00	0.50	0.11	0.00	0.80	0.80	41.71	0.01	0.42	0.09%
Aluminum Foil & Foil Trays	R	0.78	0.52	0.53	0.33	0.43	0.54	0.32	0.42	0.18	0.20	4.25	4.25	221.61	0.04	2.24	0.50%
Other Aluminum Containers	R	0.00	0.00	0.00	0.08	0.06	0.00	0.00	0.00	0.04	0.07	0.25	0.25	13.04	0.00	0.13	0.03%
Steel Alcoholic Beverage Cans (all sizes)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Steel non-Alcoholic Beverage Cans (all sizes)	R	0.00	0.00	0.05	0.08	0.00	0.26	0.20	0.24	0.00	0.27	1.10	1.10	57.36	0.01	0.58	0.13%
Steel Food Containers	R	2.24	1.22	0.87	0.34	0.35	0.31	0.67	1.81	2.27	0.76	10.84	10.84	565.23	0.11	5.71	1.27%
Steel Aerosol Cans	R	0.00	0.42	0.18	0.66	0.00	0.21	0.10	0.67	0.08	0.11	2.43	2.43	126.71	0.02	1.28	0.28%
Steel Paint Cans	R	0.11	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.51	26.59	0.01	0.27	0.06%
Other Metal	W	0.10	1.87	2.97	1.68	0.09	0.08	0.00	0.96	1.01	0.08	8.84	8.84	460.94	0.09	4.66	1.03%
Total Recyclable Metals	**TR**	3.48	2.67	2.25	2.53	1.42	1.74	1.91	4.18	2.90	1.70	24.78	24.78	1,292.10	0.25	13.05	2.90%
Total Non Recyclable Metals	**TND**	0.10	1.87	2.97	1.68	0.09	0.08	0.00	0.96	1.01	0.08	8.84	8.84	460.94	0.09	4.66	1.03%
Total Metals		**3.58**	**4.54**	**5.22**	**4.21**	**1.51**	**1.82**	**1.91**	**5.14**	**3.91**	**1.78**	**33.62**	**33.62**	**1,753.04**	**0.34**	**17.71**	**3.93%**
4. GLASS																	
Clear and Coloured Alcohol (all sizes)	W	0.00	0.00	0.00	2.86	0.00	0.00	0.00	0.00	0.00	0.00	2.86	2.86	149.13	0.03	1.51	0.33%
Clear and Coloured Glass Other Beverage, non alcohol	W	0.42	0.50	0.00	0.00	0.51	0.00	0.00	0.00	0.20	0.00	1.63	1.63	84.99	0.02	0.86	0.19%
Clear and Coloured Glass Food Containers	W	2.55	1.13	0.75	3.09	1.69	1.52	1.97	2.17	1.42	1.62	17.91	17.91	933.88	0.18	9.43	2.09%
Other Glass	W	0.41	0.77	0.34	1.24	0.00	0.95	0.05	0.89	1.33	0.04	6.02	6.02	313.90	0.06	3.17	0.70%
Total Recyclable Glass	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Glass	**TND**	3.38	2.40	1.09	7.19	2.20	2.47	2.02	3.06	2.95	1.66	28.42	28.42	1,481.90	0.29	14.97	3.32%
Total Glass		**3.38**	**2.40**	**1.09**	**7.19**	**2.20**	**2.47**	**2.02**	**3.06**	**2.95**	**1.66**	**28.42**	**28.42**	**1,481.90**	**0.29**	**14.97**	**3.32%**
5. PLASTICS																	
PET Alcohol Containers (all sizes)	R	0.00	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.05	0.05	2.61	0.00	0.03	0.01%
PET Other Beverage Bottles (all sizes)	R	1.50	0.92	0.65	0.51	0.71	1.53	0.39	1.00	2.22	0.76	10.19	10.19	531.34	0.10	5.37	1.19%
PET Other Bottles & Jars	R	0.60	0.58	0.81	0.25	0.28	0.90	0.27	0.68	0.40	0.34	5.11	5.11	266.45	0.05	2.69	0.60%
PET Other Packaging	R	1.07	0.69	0.90	1.00	0.69	1.48	0.08	0.43	0.55	0.44	7.33	7.33	382.21	0.07	3.86	0.86%
HDPE Beverage Bottles	R	0.28	0.03	0.07	0.00	0.14	0.01	0.00	0.35	0.42	0.19	1.49	1.49	77.69	0.02	0.78	0.17%
HDPE Other Bottles & Jugs	R	0.51	0.86	0.58	0.96	0.27	2.60	0.38	1.27	0.62	0.09	8.14	8.14	424.44	0.08	4.29	0.95%
PVC Bottles & Jars	R	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.13	0.00	0.19	0.19	9.91	0.00	0.10	0.02%
Other Bottles, Jars & Jugs	R	0.00	0.11	0.00	0.00	0.05	0.15	0.21	0.24	0.12	0.09	0.97	0.97	50.58	0.01	0.51	0.11%
Polystyrene Packaging (expanded and rigid)	R	0.68	0.31	0.62	0.45	0.30	1.02	0.28	0.33	0.93	0.28	5.20	5.20	271.14	0.05	2.74	0.61%
Wide Mouth Tubs & Lids	R	0.55	0.18	0.77	0.37	0.92	1.01	0.24	0.47	1.12	0.28	5.91	5.91	308.16	0.06	3.11	0.69%
Large HDPE & PP Pails & Lids (>20L)	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Polyethylene Bags - Packaging	W	1.61	1.03	2.15	1.23	1.16	1.86	0.50	1.16	1.46	0.48	12.64	12.64	659.09	0.13	6.66	1.48%
Polyethylene Bags - Non-Packaging	W	1.15	0.68	2.66	0.78	0.82	1.47	0.77	0.72	1.26	0.90	11.21	11.21	584.52	0.11	5.90	1.31%
Laminated Film Packaging	W	2.11	0.86	2.27	1.48	1.63	1.91	0.76	1.63	1.69	0.65	14.99	14.99	781.62	0.15	7.90	1.75%
Other Rigid Plastic Packaging	W	0.88	0.27	0.52	0.67	0.33	1.14	0.32	0.37	0.43	0.46	5.39	5.39	281.05	0.05	2.84	0.63%
Durable Plastic Products	W	0.50	1.45	0.92	0.45	0.82	0.76	0.19	3.75	0.60	0.23	9.67	9.67	504.22	0.10	5.09	1.13%
Total Recyclable Plastics	**TR**	5.19	3.68	4.40	3.60	3.37	8.74	1.85	4.77	6.51	2.47	44.58	44.58	2,324.53	0.45	23.48	5.21%
Total Non Recyclable Plastics	**TND**	6.25	4.29	8.52	4.61	4.76	7.14	2.54	7.63	5.44	2.72	53.90	53.90	2,810.50	0.54	28.39	6.30%
Total Plastics		**11.44**	**7.97**	**12.92**	**8.21**	**8.13**	**15.88**	**4.39**	**12.40**	**11.95**	**5.19**	**98.48**	**98.48**	**5,135.03**	**0.99**	**51.87**	**11.52%**
6. HOUSEHOLD SPECIAL WASTE																	
Batteries (automotive)	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Batteries (small / personal)	W	0.33	0.00	0.30	0.10	0.19	0.11	0.00	0.07	0.11	0.03	1.24	1.24	64.66	0.01	0.65	0.15%
Paint & Stain	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Pesticides	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.20	0.20	10.43	0.00	0.11	0.02%
Motor Oil	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other HSW liquids	W	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	13.04	0.00	0.13	0.03%
Sharps	W	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	3.13	0.00	0.03	0.01%
Other HSW	W	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.37	19.29	0.00	0.19	0.04%
Total Recyclable Household Special Waste	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Household Special Waste	**TND**	0.61	0.00	0.70	0.10	0.19	0.11	0.00	0.27	0.11	0.03	2.12	2.12	110.54	0.02	1.12	0.25%
Total HSW		**0.61**	**0.00**	**0.70**	**0.10**	**0.19**	**0.11**	**0.00**	**0.27**	**0.11**	**0.03**	**2.12**	**2.12**	**110.54**	**0.02**	**1.12**	**0.25%**
7. ORGANICS																	
Food Waste	W	27.01	16.02	33.69	25.26	26.26	28.98	11.84	25.47	25.95	13.31	233.79	233.79	12,190.48	2.36	123.14	27.34%
Yard Waste	W	0.05	3.11	8.23	0.10	31.92	4.42	40.13	11.00	8.92	2.69	110.57	110.57	5,765.44	1.12	58.24	12.93%
Pet waste	W	4.87	0.00	1.82	5.39	11.17	12.01	0.00	4.93	2.28	12.63	55.10	55.10	2,873.07	0.56	29.02	6.44%
Total Acceptable Organics	**TAO**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Acceptable Organics	**TND**	31.93	19.13	43.74	30.75	69.35	45.41	51.97	41.40	37.15	28.63	399.46	399.46	20,828.99	4.03	210.39	46.72%
Total Organics		**31.93**	**19.13**	**43.74**	**30.75**	**69.35**	**45.41**	**51.97**	**41.40**	**37.15**	**28.63**	**399.46**	**399.46**	**20,828.99**	**4.03**	**210.39**	**46.72%**
8. OTHER MATERIALS																	
Tissue/Toweling	W	3.81	2.90	5.83	3.10	2.95	4.39	3.10	3.63	4.76	3.26	37.73	37.73	1,967.35	0.38	19.87	4.41%
Diapers and Sanitary Products	W	7.76	5.23	8.12	1.16	0.12	3.52	1.59	3.85	1.47	1.28	34.10	34.10	1,778.07	0.34	17.96	3.99%
Textiles	W	3.89	7.39	3.00	10.85	1.36	2.47	0.08	6.56	1.35	1.59	38.54	38.54	2,009.59	0.39	20.30	4.51%
Carpeting	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Construction & Renovation	W	0.00	0.00	4.82	0.03	0.00	0.00	0.00	1.66	0.00	0.00	6.51	6.51	339.45	0.07	3.43	0.76%
Computer / IT Equipment	W	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.55	0.55	28.68	0.01	0.29	0.06%
Telecom Equipment	W	0.09	0.00	0.04	0.00	1.12	0.00	0.00	0.00	0.00	0.00	1.25	1.25	65.18	0.01	0.66	0.15%
TV & Audio Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.23	0.23	11.99	0.00	0.12	0.03%
Small Kitchen Appliances	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.61	0.00	3.61	3.61	188.24	0.04	1.90	0.42%
Other Electronics	W	0.26	0.24	0.00	0.98	0.28	0.80	0.00	1.37	0.00	0.00	3.93	3.93	204.92	0.04	2.07	0.46%
Tires and Other Rubber	W	0.00	0.00	0.00	0.09	0.00	0.08	0.00	0.04	0.00	0.00	0.21	0.21	10.95	0.00	0.11	0.02%
Ceramics	W	0.30	0.29	0.66	1.07	0.00	1.99	0.00	0.05	0.00	0.00	4.36	4.36	227.34	0.04	2.30	0.51%
Furniture	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.00	0.00	1.37	1.37	71.44	0.01	0.72	0.16%
Mattresses	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Other Large Bulky Items	W	0.00	0.00	0.00	7.96	0.00	0.00	0.00	1.00	0.00	0.00	8.96	8.96	467.20	0.09	4.72	1.05%
Dead Animals	W	2.03	2.64	0.00	0.77	0.00	0.00	0.00	1.36	0.00	0.00	6.80	6.80	354.57	0.07	3.58	0.80%
Other Waste	W	4.34	0.65	3.06	2.39	2.02	4.17	1.91	4.63	4.43	1.47	29.07	29.07	1,515.79	0.29	15.31	3.40%
Total Recyclable Other Materials	**TR**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Total Non Recyclable Other Materials	**TND**	22.48	19.34	25.53	28.40	7.85	17.97	6.68	25.52	15.85	7.60	177.22	177.22	9,240.76	1.79	93.34	20.73%
Total Other Materials		**22.48**	**19.34**	**25.53**	**28.40**	**7.85**	**17.97**	**6.68**	**25.52**	**15.85**	**7.60**	**177.22**	**177.22**	**9,240.76**	**1.79**	**93.34**	**20.73%**
Overall Total Recyclable		**24.95**	**11.36**	**19.09**	**19.92**	**12.62**	**26.13**	**9.43**	**23.50**	**21.44**	**9.45**	**177.89**	**177.89**	**9,275.69**	**1.80**	**93.69**	**20.80%**
Overall Total Accepted Organics		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00%**
Overall Total Non-Recyclable		**65.33**	**47.40**	**84.15**	**73.26**	**85.16**	**74.22**	**63.47**	**79.40**	**63.73**	**41.07**	**677.19**	**677.19**	**35,310.62**	**6.84**	**356.67**	**79.20%**
Grand Total		**90.28**	**58.76**	**103.24**	**93.18**	**97.78**	**100.35**	**72.90**	**102.90**	**85.17**	**50.52**	**855.08**	**855.08**	**44,586.31**	**8.64**	**450.37**	**100.00%**
PE-Packaging Film Bag Count (Reused as garbage or recycling bag)		35.00	22.00	47.00	29.00	24.00	17.00	3.00	26.00	38.00	11.00	252.00	252.00	13140.00	2.55	132.73	

NOTE: CELLS HIGHLIGHTED IN A COLOUR OTHER THAN BLUE REFERENCES TABLE 3 OF REPORT

RECYCLE
more often with the new curbside recycling collection.

RECYCLING GUIDE

5 STEPS TO RECYCLING

1. **Look for the number on plastics**
   

2. **Rinse all metal and aluminum cans**
   To avoid contamination
3. **Fold all cardboard material**
   To save space
4. **Place materials loosely in the recycling container**
5. **Place your recycling container at curbside** and leave 3 feet between your carts

LAUNCH DATE

March 5th , 2018.

FOR MORE INFORMATION

regarding the new waste management program contact the Town of Hearst at:

705-362-4341

or visit the Town of Hearst website:

www.hearst.ca

Your guide to the new
RECYCLING SYSTEM
in Hearst

hearst
c'est différent! is different!

Environmental Solutions at Work

RECYCLING Guide

List of **ACCEPTABLE** recyclable materials

Metal cans and containers
Push lids down inside containers. Remove any plastic or aluminum lid or seal.

Empty aerosol containers (household and edible goods)
Examples: shaving cream, hairspray, and air freshener containers.

Aluminum containers
Examples: soda cans, plates, foils, and trays.

Plastic containers
Items with the following recycling symbols.

Polycoat containers
Examples: juice, milk and cream cartons.

Aseptic containers
Examples: packaged milk, juice or soy beverages, sauces, broth and liquid meal replacements.

Household papers
Examples: newspapers, phonebooks, magazines, catalogues, flyers, paper gift wrap, etc.

Cardboard and boxboard:
No waxed cardboard. Remove any plastic, foil, residue, inserts, and liner bags.

List of materials **NOT ACCEPTED**

Clear and coloured glass containers
Examples: Glass bottles, and/or jars, dishes, crystal, window glass and light bulbs.

Empty aerosol containers (commercial and indusrial)
Examples: paint containers, brake cleaner and liquid lubricant.

Polystyrene foam
Any polystyrene plastic or foam product.
Any item that has the #6 recycling symbol.

Last-chance for Contamination

Located outside the Transfer Station door, the sign is the last opportunity to assist residents in identifying and removing any contamination. To ensure a consistent message, the images used are the same as the information pamphlet distributed to the residents.

Contamination bin inside Transfer Station

Contamination is removed from the transfer station during routine spot checks or by the operators who load the shipments. Any contamination found within the transfer station is redirected to this bin and then to the landfill.

Dual-Stream Collection Vehicle

Huge efficiencies were realised by adopting an alternate-week collection schedule and using a dual-stream collection vehicle that can collect waste and recycling from commercial properties.

Part of the Transfer Station was taken over during the Waste Composition Study. The Transfer Station provided shelter from elements and a safe and clean environment to work in.

During the residential collection week, all recycling bins wait their turn to be collected curbside.