
MEMORANDUM

PWC-C 30-2020

Subject: Illegal Dumping Enforcement Plan
Date: Tuesday, September 8, 2020
To: Public Works Committee
From: Katelyn Avella, Contract Supervisor, Waste Management Services

This memorandum is intended to provide Committee members with a response to the Councillor Information Request, from the March 10, 2020 Public Works Committee meeting, for a plan to deal with possible increased events of illegal dumping that may arise as a result of transitioning to every-other-week (EOW) garbage collection, commencing on October 19, 2020.

In preparation for EOW garbage collection, Niagara Region surveyed municipal comparators to gain insight on how this service change influenced illegal dumping. Staff contacted comparator municipalities such as Barrie, Durham, Halton, Markham, Ottawa, Toronto, Vaughan, Peel and Waterloo. These municipalities currently provide EOW garbage collection. All nine (9) municipalities did not track before and after statistical data specifically on illegal dumping. However, Niagara Region did receive anecdotal comments from these municipalities. The overall response to how EOW garbage collection influenced illegal dumping was that it did not create a significant long-term issue, but rather it was observed that there was a short-term increase in the number of illegal dumping issues during the transition period to EOW garbage collection. Municipal comparators also noted that common items that were illegally dumped during this transition period included items that are not collected curbside (i.e. construction and renovation waste and shingles) from non-residential sources.

In order to combat the influence of service level changes on illegal dumping, Niagara Region has developed an Illegal Dumping Enforcement Plan (the Plan) that outlines the current approach to enforcing illegal dumping and also outlines an enhanced strategy Niagara Region has committed to in order to deal with a potential increase of illegal dumping events. The full Illegal Dumping Enforcement Plan (the Plan) is attached as Appendix A.

In summary, the Plan details the following:

- Background information on every-other-week garbage collection and the progress of the Illegal Dumping Working Group (IDWG). The IDWG is a Region-lead committee that began in 2012 and consists of Niagara Region staff, members from each Local Area Municipality (LAMs) and partnerships with Crime Stoppers and the St. Lawrence Seaway. The purpose of the IDWG is to ensure a consistent and collaborative approach when dealing with illegal dumping and educate the public on illegal dumping through awareness campaigns. To date, the IDWG has collaborated and put forth various deliverables that have made improvements to the way in which illegal dumping is reported, managed and monitored in Niagara region.
- The personnel responsible for investigating, enforcing and cleaning up illegal dumping events.
- How information pertaining to illegal dumping is managed at Niagara Region.
- Niagara Region's current process to address illegal dumping events. This section details how illegal dumping reports are currently received, dispatched, investigated, cleaned, and enforced. Further, it also discusses how residents are incentivised to report non-compliant acts through a rewards program, where residents who report acts of illegal dumping may be entitled to a reward up to \$200 if the report leads to a conviction, or \$50 if the report leads to compliance. This rewards program is a tactic to encourage residents to report non-compliant acts and assists by-law officers with their investigation and enforcement.
- Niagara Region's plan to enhance the current approach to illegal dumping and enforcement methods. This section outlines plans to:
 - Refresh the illegal dumping campaign, incorporate illegal dumping messaging into the communication plan for the new waste collection contract and the introduction of a new anti-litter campaign that helps to educate and spread awareness on decreasing the amount of street litter in our communities.
 - Improve illegal dumping data tracking through the creation of a mobile app to track and analyze illegal dumping data.
 - Create by-law amendments to improve and clarify illegal dumping wording and other non-compliant acts that will allow by-law staff to enforce these issues more effectively and efficiently.
 - Improve the functionality of the IDWG by updating membership, defining more structure to attendance, generating more member participation and evaluate the effectiveness of the group's operations as a whole.
 - Dispatch staff to conduct more proactive monitoring at locations such as hot spots and litter bins. Beginning October 2020, Niagara Region plans to use

existing intern resources as additional resources to help monitor illegal dumping issues.

- Work with local area municipalities to ensure street litter bins are designed to prevent these bins from being used for illegal dumping.
- Request assistance from the new collection contractors with regards to reporting illegal dumping issues and assisting with illegal dumping cleanup if needed.

Overall, illegal dumping continues to be an environmental, aesthetic and financial concern throughout the Niagara region. Illegal dumping is not unique to Niagara, but rather all Ontario municipalities have similar challenges. Appendix B provides an overview of illegal dumping statistics. Addressing illegal dumping takes time and there is no one quick fix in completely resolving the issue. Therefore, Niagara Region staff will continue to work with their counterparts at the LAMs to promote reporting of illegal dumping, educate residents that illegal dumping is a crime and cooperatively enforce and clean-up these dumped items.

Respectfully submitted and signed by

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Appendices

Appendix A – Illegal Dumping Enforcement Plan

Appendix B – Illegal Dumping Statistics and Trends

Niagara Region

Illegal Dumping Enforcement Plan



1. Purpose

Illegal dumping continues to be an environmental, aesthetic and financial concern throughout the Niagara region. Illegal dumping is not unique to the Niagara region; all Ontario municipalities have similar challenges. It is defined as the disposal or abandonment of material in non-designated areas such as public roads, ditches, public property, rural areas, vacant lots and in public litter receptacles. It is a crime and Niagara Region along with the Local Area Municipalities (LAMs) advocates, if you see it, report it.

The purpose of this illegal dumping enforcement plan is to outline Niagara Region's current enforcement approach and put forth a plan with enhanced methods that will address the potential for an increased number of illegal dumping reports, as a result of the upcoming every-other-week (EOW) garbage collection services, commencing on October 19, 2020.

2. Background Information

2.1 Every-Other-Week Garbage Collection

In preparation for EOW garbage collection, the Niagara Region surveyed municipal comparators to gain insight on how this service change influenced illegal dumping. Staff contacted comparator municipalities such as Barrie, Durham, Halton, Markham, Ottawa, Toronto, Vaughan, Peel and Waterloo. These municipalities currently provide EOW garbage collection. All nine (9) municipalities did not track before and after statistical

data specifically on illegal dumping. However, Niagara Region did receive anecdotal comments from these municipalities. The overall response to how EOW garbage collection influenced illegal dumping was that it did not create a significant long-term issue, but rather it was observed that there was a short-term increase in the number of illegal dumping issues during the transition period to EOW garbage collection. Municipal comparators also noted that common items that were illegally dumped during this transition period included items that are not collected curbside (i.e. construction and renovation waste and shingles) from non-residential sources. These observations are consistent with past experiences in Niagara as a result of the various garbage service levels changes that have occurred over the past 24 years.

In 2007, Niagara Region procured a consultant to conduct a study entitled, “Assessment of Illegal Dumping in the Niagara Region”. This study reviewed the opinions of various stakeholders and historical illegal dumping data to assess the current state of illegal dumping in Niagara region and determine if service level changes lead to higher levels of illegal dumping or not. One of the key conclusions outlined in this report was that there was no clear indication that service level changes resulted in an increase of illegal dumping. The extent to which service adjustments may trigger illegal dumping is difficult to determine, particularly during the spring, when clean-up and disposal of garbage tends to be at its highest, regardless of any service level changes. The report also noted that although illegal dumping may increase after service changes, the impact of service level changes, such as increased number of illegal dumping events, is very short in duration. Overall, the study recommended that illegal dumping requires ongoing management and in order to achieve this goal, the Niagara Region would have to continuously provide education, create public awareness, monitor, clean-up and enforce illegal dumping.

2.2 Illegal Dumping Working Group

The Illegal Dumping Working Group (IDWG) is a Region-lead committee that began in 2012 and consists of Niagara Region staff, members from each Local Area Municipality (LAMs) and partnerships with Crime Stoppers and the St. Lawrence Seaway. The purpose of the IDWG is to ensure a consistent and collaborative approach when dealing with illegal dumping. The group coordinates clean-up efforts between Niagara Region and LAMs collaboratively. It ensures a consistent enforcement approach through the use of the Niagara Region Waste Management By-Law, as well as other Municipal anti-dumping By-Laws. Further, the IDWG helps educate the public on illegal dumping through awareness campaigns.

To date, the IDWG has collaborated and put forth various deliverables that have made improvements to the way in which illegal dumping is reported, managed and monitored in Niagara region. Below is a summary of work completed by the IDWG.

In 2012, the IDWG coordinated a litter bin audit which focused on addressing illegal dumping and was titled the Litter Bin Blitz. Typically this audit was to be scheduled annually, utilizes Region intern staff who audit and sort through litter bin waste and mail out warning letters to any suspects of illegal dumping. Due to resourcing issues, subsequent Litter Bin Blitzes have only occurred in 2017 and 2018.

In 2013, the Region conducted an illegal dumping engagement survey where 124 responses were received. 87% of respondents indicated illegal dumping is a problem in the Region and other responses helped direct the IDWG on how to prioritize actions that would lead to reducing illegal dumping. For instance, 33% of people did not know how or where to report acts of illegal dumping and 16 % had issues with wanting to remain anonymous during a report. As a result, the IDWG used these survey results to enhance how residents can report illegal dumping and revised their promotion and education materials to highlight the phone number or online reporting tool.

Since 2013, Niagara Region has continued to track the location and frequency of illegal dumping in Niagara as a means of monitoring high occurrence areas (hot spots) and measuring success. Niagara Region translates this raw illegal dumping data into hot-spot maps and distributes to interested LAMs to better direct monitoring and clean-ups.

In 2014, the IDWG implemented an incentive plan to increase the number of illegal dumping reports received through a reward program. A \$50 dollar reward is given to any person whose report of illegal dumping results in an act of compliance (i.e. person who dumped material, returns to site and cleans the material) or a \$200 reward is given to any person whose report of illegal dumping leads to a conviction.

In 2017, the IDWG collaborated with Crime Stoppers to allow residents to report illegal dumping anonymously and entice more people to report and maintaining anonymity.

Throughout the lifespan of the IDWG, other projects that have been ongoing include: updating illegal dumping signage, keeping an inventory of illegal dumping signage to monitor hot-spots, tracking costs associated with illegal dumping and creating consistent wording amongst Regional and Municipal by-laws.

Overall, the IDWG is a platform where information is shared to create a common goal of reducing illegal dumping. For instance, the IDWG shares illegal dumping promotion and

education tools; illegal dumping signage inventories to help enforce hot-spots and shares local clean up groups details so that residents interested in volunteering for clean ups can be better directed.

3. Personnel

Niagara Region and LAMs have trained and equipped by-law staff to address issues of illegal dumping. Niagara Region's Waste Management Services department has a total of seven (7) on road staff who have jurisdiction to enforce illegal dumping issues found on public property and roadside. All private property illegal dumping issues are addressed by LAM by-law staff as property standards issues, where applicable.

4. Information Management System

Illegal dumping reports are received in various ways. Niagara Region staff may come across these issues during on-road monitoring, LAMs may flag issues to Niagara Region, or residents may also report illegal dumping issues. Niagara Region has created various platforms for illegal dumping reports to be submitted to Niagara Region staff. For instance, residents can call the Waste Info-Line, submit a report online, or call Crime Stoppers to submit a report anonymously. Once a report is received, all events are recorded within an internal database, dispatched to staff for follow up and any investigative details obtained or enforcement results are saved for future analysis and investigation.

5. Niagara Region Process to Address Illegal Dumping

5.1 Illegal Dumping Reports

Niagara Region receives reports of illegal dumping from residents and LAMs through various portals: via telephone through our Waste Info-Line, online electronic submissions and anonymously through Crime Stoppers. Further, on-road waste management staff that monitor waste related issues throughout the region also address illegal dumping issues as they come across them. All illegal dumping reports received by Niagara Region are tracked, dispatched and addressed in a timely manner.

When residents report illegal dumping events, customer service staff and online reporting tools encourage residents to report as many details as possible to assist with the investigation. For instance, it is extremely helpful if residents can provide details on

the time, location, material dumped, witnessed events, description of accused, car make and model and/or license plate.

5.2 Jurisdiction & Filed Investigation

When a Region by-law officer receives an illegal dumping issue within their jurisdiction (public property or roadway), their first step is to find and investigate the material as soon as possible or within 24 hours of receiving the report. All private property illegal dumping issues are forwarded to the LAMs for follow up since this is outside of the Niagara Region's jurisdiction. When conducting the field investigation, Region by-law staff will sort waste and attempt to uncover pieces of evidence that would lead to a potential suspect. If evidence is discovered during the field investigation stage, then by-law officers will use those leads to tactically speak with suspects and work towards compliance or will issue a ticket if possible. If suspects cannot be tracked down, then by-law staff will coordinate cleanup efforts between the Region and or LAMs and close out the issue. If the illegally dumped material is roadside, then the owner of the road, Niagara Region or LAMs, will be responsible for the final clean-up.

5.3 Compliance Promotion

Once field investigations are complete, if there is not enough evidence to issue a certificate of offence for illegal dumping beyond reasonable doubt, by-law staff will still attempt to promote compliance. By-law staff achieve compliance promotion through various techniques such as issuing warning letters to suspects, communicating potential fines, verbal warnings, providing promotion/education and possibly even requesting immediate cleanup. All of these measures are used to deter people from committing acts of illegal dumping in the future and possibly obtaining compliance.

5.4 Enforcement

In Canada, a person accused of a crime is presumed innocent until the Justice of the Peace finds them guilty, which is known as "presumption of innocence". This right means: the accused does not have to prove their innocence; the prosecutor must prove that the accused is guilty beyond reasonable doubt and the judge must be fair.

Therefore, it is vital for by-law officers to have sufficient evidence that proves beyond reasonable doubt or is close to absolute certainty that the accused committed an act of illegal dumping. Issuing a fine without evidence that proves absolute certainty, may jeopardize the officer's credibility with the Justice of the Peace.

In the event by-law staff discover enough evidence, where they feel the accused has committed an act of illegal dumping beyond reasonable doubt, then the officer in charge will issue a certificate of offence and charge the resident with a fine of up to \$500 dollars, excluding the victim fine surcharge and the court fee. Although it can be challenging to gather enough evidence to prove the accused guilty beyond reasonable doubt, usually if the officer in charge can confirm: the accused's identity; has a piece of physical evidence (disposed mail or bills) that links the accused to the illegally dumped material; and has proof of the non-compliant act (video, picture or witness), then the officer may be more likely to build a sufficient case to lay a charge.

5.5 Rewards

In 2014, the IDWG implemented an incentive plan to increase the number of illegal dumping reports received through a reward program. Therefore, residents who report acts of illegal dumping may be entitled to a reward of \$200 if the report leads to a conviction or a \$50 rewarded if the illegal dumping results in an act of compliance (i.e. the person returns to the site and removes the dumped material). This tactic encourages residents to report non-compliant acts, which ultimately assist by-law officers with their investigations and enforcement. Since 2014, the Region has issued eighteen (18) rewards to residents who have reported suspects who were either successfully convicted of illegal dumping or have cleaned up the illegal dump. On average, Niagara Region has issued approximately three (3) rewards per year.

Upon confirmation of successful illegal dumping conviction or compliance, Niagara Region will contact the reward winner to inform them their illegal dumping report lead to a successful conviction or compliance. Niagara Region By-Law Officer will coordinate the reward to be paid out to the reward winner and a joint letter from the Region and participating LAM will accompany the reward payment, co-signed by the Regional Chair, and the Mayor of the LAM. Niagara Region will charge back the LAM for their share of the reward at 50%.

6. 2020 Enhancements to Addressing Illegal Dumping

6.1 Illegal Dumping Campaign & Refresh

Niagara Region uses various strategies to communicate and promote illegal dumping messaging to encourage reporting and help deter future acts of illegal dumping. As part of our annual illegal dumping campaign, messaging is communicated through a variety of different tactics, including transit ads, post-secondary student outreach, arena board

advertisements, pop-up banners, public litter bin stickers, social media, newsletters, and collection guides.

The current illegal dumping campaign messaging is simple and to the point - 'See it. Report it.' with reference to a bag of garbage. In preparation for the new contract, the illegal dumping campaign is undergoing a branding refresh, which will look at developing an entirely new campaign brand with new graphics, while the current 'See it. Report it.' message will be updated to 'See it. Report it. Stop it.'

Repeat advertisements for several years can cause your audience to become accustomed to the content/images which can result in people ignoring the message. This new campaign refresh will capture resident's attention, promoting our message to increase reporting, and deter illegal dumping in Niagara region. It will also tie into the new education campaign for the new contract, which includes an Anti-Dumping campaign.

In May 2019, Niagara Region also implemented an educational awareness campaign to decrease the amount of street litter in our communities, specifically in neighbourhoods, parks and other public spaces, while increasing the understanding and use of proper disposal methods for commonly littered items.

The key messages were educational in nature, including the following:

- Don't litter
- Keep our public spaces clean
- Use waste and recycling containers

The campaign engaged the public through animated characters of commonly littered items (i.e. coffee cups, chip bags etc.) seen in a variety of streetscapes where litter is often found (i.e. roadside, sidewalk, park, and shoreline). The characters, shown with tears in their eyes, are upset that they have been discarded and left behind. The message included asked residents to rethink their current litter behaviour, and place these materials in the appropriate waste and recycling containers. Communication tactics included targeting public space advertising in litter hot spots (i.e. bus shelters or waste containers), web promotion, and social media.

6.2 Communication Plan for the New Collection Contract

The Communication Strategy and Education campaign for the new waste collection contract includes two main objectives which aim to promote awareness of the upcoming service collection changes and encourage an increase participation in diversion

programs and increase the quality of recyclable materials collected at the curb. To support the main objectives there are various secondary messages, several of which focus on encouraging reporting of illegal dumping, raising awareness of the Region's reward program for reporting, and educating residents about illegal dumping and proper disposal methods. These messages can be found in phase two of the campaign as we approach the collection changes, and phase three of the campaign where there is the collective expectation of compliance.

This campaign nevertheless maintains positive messages while embracing the community solidarity ("We all need to do our share") to help rally Niagara residents towards the goal of increasing diversion rates across the board, reducing our environmental impact and avoiding costs for future generations.

Below is a sample of some of the illegal dumping messages that are a part of the new 'See it. Report it. Stop it.' campaign:

- Illegal dumping costs: You can be fined \$500 or more (this amount may change due to recent changes to Niagara Region's Waste Management Bylaw).
 - Illegal dumping is a crime. Report illegal dumping by contacting Crime Stoppers of Niagara at 1-800-222-TIPS or by submitting an online form
 - Illegal dumping is everyone's responsibility – report it on online or call 1-800-222-TIPS.
 - Do your share to keep Niagara region clean by reporting illegal dumping.
 - You can earn cash rewards for reporting illegal dumping through Crime Stoppers.
- We all need to do our share to keep Niagara beautiful.

The Anti-Dumping campaign will be implemented in October to educate residents about illegal dumping activity, using our Illegal Dumping Campaign artwork and new messaging 'See it. Report it. Stop it.' Tactics such as print ads, videos, web, social media posts and editorials will be used to promote our messaging.

In addition to the Anti-Dumping campaign in October and looking ahead to 2021, if there is budget availability, Niagara Region will embark on an Anti-Litter campaign in the spring of 2021. This campaign aims to further educate residents about street litter in our communities, while increasing the understanding and use of proper waste disposal methods for commonly littered items. There may also be some supporting messaging around helpful proactive measures, such as proper preparation of recyclables for the curb to avoid wind-blown litter. Promotion will include social media posts and transit ads.

6.3 Improved Data Tracking

In January 2020, Niagara Region improved the way in which illegal dumping issues and investigative details are documented and tracked. On-road staff are now equipped with a mobile application where they can add an event of illegal dumping on a cell phone while in the field. Each staff have their own login that tracks their illegal dumping report submissions. Staff can take pictures of the material and evidence found and also enter applicable information from convenient drop-down menus such staff name, evidence found, material type, compliance achieved, etc. Once the event is saved and submitted, the information is automatically available for viewing in a desktop dashboard that automatically analyzes illegal dumping data in various charts, graphs and maps. For instance, this dashboard can manipulate data to compare the number of illegal dumps per municipality per month or can compute the total number of illegal dumps where evidence was found, versus no evidence was found. This application is connected to ArcGIS which is a mapping software that is also used to translate illegal dumping data into “hot-spot” mapping that illustrates areas of high occurrences. Please see Section 6.6 of this Enforcement Plan for more information on hot-spot mapping.

This improved method of electronic tracking is more efficient, convenient and allows staff to analyze data fluctuations in real time. Niagara Region has the ability to share this technology with LAMs if they are interested.

6.4 Waste Management By-Law Amendments

Niagara Region is making significant updates and revisions to our Waste Management By-Law, which is planned to be amended by October 2020. These amendments aim to improve and clarify wording surrounding illegal dumping and other non-compliant acts that will allow by-law staff to address these issues more effectively and efficiently. More specifically, the Niagara Region is amending this by-law to include a definition of illegal dumping; adding the ability to issue an Order for clean-up of any non-compliance outlined in the by-law; and includes an improved charge back process where convicted persons of illegal dumping could be charged back for remedial action. These improvements to definitions, enforcement and remedial action sections of this by-law will help deter illegal dumping from occurring, assist by-law officers to obtain compliance and have stricter enforcement penalties.

As a result of the August 4, 2020 memorandum PWC 7-2020, committee members requested that the Region increase the illegal dumping set fine from \$500 to \$1000. In order to initiate this change, the Region must first complete a set fine application and provide reasoning as to why an increased fine is being sought for the offence of illegal

dumping. If the increased set fine application is approved by the Chief Justice of the Ontario Court of Justice the Region would request LAMs submit the same application to maintain a consistent enforcement approach.

6.5 Illegal Dumping Working Group

In the later part of 2020/early 2021, Niagara Region plans to lead a review and update of the IDWG Terms of Reference. The purpose of this review will reevaluate the effectiveness of the group's operations as a whole. It will include updating membership, defining more structure to attendance and generating more member participation. The proposed updates will ensure the correct staff are in attendance and dedicate members who can play an active role. For instance, the IDWG plans to review and compare waste related Regional and Municipal by-laws and work towards aligning illegal dumping wording and fines. This task of creating consistency around illegal dumping enforcement will be a critical improvement to streamline our approach in addressing illegal dumping throughout Niagara Region.

6.6 Proactive Hot-Spot Monitoring

Hot-spot mapping is a technique that incorporates the location of each illegal dumping event and plots it on a map which identifies areas of high occurrence. Dark red "heated" areas illustrate where illegal dumping often occurs, and low occurrence areas are illustrated in lighter warm colours. Currently hot-spot locations are used as a means of justifying and erecting illegal dumping signage. The Niagara Region and LAMs continue to evaluate and install illegal dumping signage in hot-spot areas.

Niagara Region staff will now use these "hot-spot" locations to conduct proactive monitoring in these areas where illegal dumping often occurs. The more staff are present and visibly monitoring areas where dumping commonly occurs, the less likely people will have the chance to illegal dump there.

More specifically, the Niagara Region plans to utilize intern staff as a secondary illegal dumping monitoring resource at the start of the next Collection Contract, beginning in October 2020. Intern staff will help monitor illegal dumping hot-spots and also conduct litter bin audits. Interns will focus on locations in smaller municipalities that may not have dedicated staff to conduct regular monitoring. If intern staff come across illegal dumping issues in these areas, they will be directed to report the issues to Niagara Region's on-road staff immediately who will then follow up and address the issue accordingly. In addition, three temporary staff that were hired to assist with the current

collection contract will be retained until the end of December 2020 to assist with various issues including illegal dumping.

6.7 Collection Contractor Assistance – Illegal Dumping

The new collection contractors, Miller Waste and GFL, that have been procured to service the Niagara region for waste collection will also be utilized to assist with illegal dumping. On-road waste management staff will direct both contractors to ensure their collection staff are reporting any illegal dumping issues they observe each day. Having collection staff report these issues will allow on-road staff to address issues more efficiently and expand the geographical area we monitor on a regular basis.

In addition, Niagara Region has included improved terms in our Collection Contract that allows the Region to request assistance with illegal dumping. More specifically, our Collection Contract outlines that Niagara Region staff can direct GFL and Miller Waste to clean-up a maximum of 36 illegal dumping events in Area 1 (GFL) and a maximum of 84 illegal dumping events in Area 2 (Miller Waste) per year, at no additional cost. If illegal dumping assistance is required in excess of this provision, then each Contractor has provided a price per illegal dumping clean-up, where Area 1 has a cost of \$120 per clean-up event and Area 2 has a cost of \$400 per clean-up event.

6.8 Collection Contractor Assistance – Community Clean-Ups

Niagara Region has included improved terms in our Collection Contract that allows the Region to request collection assistance with community clean-ups. Sometimes minor illegal dumping issues are not uncovered until community groups organize clean-ups in their area. Although community clean-ups usually focus more on collecting litter, these clean-ups can also include illegally dumping material. As a result, our Collection Contract now outlines that Niagara Region staff can direct GFL and Miller Waste to clean-up a maximum of 12 community clean-up events in Area 1 (GFL) and a maximum of 28 community clean-up events in Area 2 (Miller Waste) per year, at no additional cost. If community clean-up assistance is required in excess of this provision, then each Contractor has provided a price per community clean-up, where Area 1 has a cost of \$150 per clean-up event and Area 2 has a cost of \$1,000 per clean-up event.

7. Challenges

There are challenges that by-law officers face when enforcing illegal dumping issues and making non-compliant persons accountable for their actions. These challenges prevent staff from issuing charges and force the Niagara Region and LAMs to: allocate

resources for clean-up/disposal and ultimately absorb remedial action costs. In order to continue to combat illegal dumping, these challenges must be considered and addressed (if possible) in order to help improve the way in which illegal dumping is enforced.

7.1 Lack of Evidence

Investigating illegally dumped material often results in a lack of evidence where staff cannot find information that leads back to the generator or person who dumped the material. By-law officers will collect any material they suspect may contain pertinent information to help identify the non-compliant person and if they are not able to find bills, mail, flyers, magazines or cards with a name or address that would identify the illegal dumper, then the investigation is cut short, clean-up will commence and enforcement is not an option.

To provide further insight into a lack of evidence being a challenge, as of May 6, 2020, Niagara Region staff have investigated a total of 154 illegal dumping issues, where 134 of those issues resulted in finding no evidence after investigation. Of the illegal dumping issues where evidence was found, only two (2) tickets have been issued, 12 warning letters were distributed (seven for public property/roadside dumping and five for litter bin dumping) and the remaining are still under investigation.

If evidence is discovered upon inspection of illegally dumped material, the by-law officer will then continue their investigation to confirm the identity, address and non-compliant action of the suspect. Follow up on identity confirmation is critical and is usually time consuming, requiring multiple attempts to find and speak with suspects. Only when the by-law officer is certain, beyond reasonable doubt, that the suspect committed an act of illegal dumping, then a by-law officer should issue a certificate of offence. It is in the by-law officer's best interest to only issue tickets when there is sufficient evidence to support the charge, if not, the by-law officer can lose credibility with the Justice of the Peace if the charge is dropped due to lack of evidence.

Regardless if fines are issued, staff believe that making contact with a suspect can be effective and sends a strong message that individuals can be located and possibly fines could be subsequently issued, if a re-offense occurs.

7.2 Surveillance

Surveillance is the one mechanism to help enforce illegal dumping, if the footage is clear enough to capture critical details, then it can be used to prove a non-compliant act

and identity of the criminal. Home videos and/or photo evidence are usually the ultimate form of surveillance since they can be mobile; they are usually taken from a close proximity and can better capture critical investigative details. Security camera surveillance can also be helpful, but has limitation. Security cameras are stationary, and the quality of the video varies if footage is taken at night or from a far distance. As a result, Region staff mainly rely on eyewitness accounts or video/picture submission from staff and residents who submit reports of illegal dumping. Typically, if a resident provides clear video or photo proof of non-compliant events and is willing to testify in court, Niagara Region is much more likely to be able to enforce illegal dumping through fines and possibly obtain compliance by getting the suspect to return and remove the material.

Currently the Niagara Region, Waste Management has three surveillance cameras at the Humberstone landfill due to repeat issues of theft and vandalism. This surveillance system is currently being upgraded to a high-resolution system to help enforce perpetrators in case a fine is laid. Unfortunately, this surveillance system alone has not stopped theft and vandalism from reoccurring. As a result, Niagara Region is currently looking into additional mechanisms, such as enhanced signage and security patrolling to enforce this issue.

In February 2016, the Niagara Region investigated the use of surveillance cameras for illegal dumping at hot-spot locations. It was determined that the benefits of using surveillance may lead to more illegal dumping charges and it may reduce illegal dumping occurrences if people are being recorded. However, the challenges with surveillance seemed to outweigh the benefits where there may be a high probability of poor quality of videos, expensive costs for night vision technology, finding discrete locations to install cameras, moving cameras to ever changing hot-spot locations and implementing policies for managing surveillance footage from cameras would be time consuming. As a result, the report concluded that using surveillance cameras would not result in an increase in convictions due to the low visibility at night and subsequent difficulty obtaining appropriate, usable evidence. Alternatively, staff decided to amended the Niagara Region's Waste Management by-law to allow by-law officers to issue charges based on witnesses willing to testify in court.

7.3 Staffing Level & Geographical Area

Niagara Region encompasses a total area of 1,852 km² with a growing population of 449,098. The Niagara Region's Waste Management department addresses and

monitors illegal dumping issues on public property and roadside. Private property illegal dumping issues are addressed by LAMs by-law staff.

Niagara Region has a total of seven (7) on-road waste management staff who cover this large geographical area and investigate an increasing number of illegal dumping issues each year. Currently, Niagara Region and LAMs do not have dedicated staff where their entire job is devoted to only addressing illegal dumping issues. However, Niagara Region and LAMs utilize various staff (by-law, roads, transportation and waste management) to address illegal dumping issues on a daily basis. Specifically in Niagara Region, seven (7) on-road staff prioritize time to address illegal dumping issues each day as efficiently and effectively as possible, along with the rest of their daily tasks.

8. Conclusion

Overall, illegal dumping is an ongoing challenge that continues to affect our environment, safety and financial resources. Illegal dumping not only poses a concern to Niagara Region, but is also a challenge across all Ontario municipalities. Further, as the Niagara Region moves towards collecting garbage every-other-week, we predict a transition period where illegal dumping may also increase, short term. In order to combat the influence of service level changes on illegal dumping, the Niagara Region plans to continue to work with LAMs and also make enhancements to our enforcement methods. As outlined in this enforcement plan, Niagara Region has made the following enhancements to address illegal dumping by: refreshing our illegal dumping campaign; incorporating illegal dumping into our new collection contract communication plan; creating a mobile app to track and analyze illegal dumping data; amending the Niagara Region's waste management by-law; planning to improve the operations of the IDWG; incorporating "hot-spot" mapping into monitoring; and utilizing the collection Contractor for illegal dumping clean-up assistance. Although there are many challenges by-law officers face when attempting to enforce illegal dumping, these enhancements to our current methods will continue to help reduce non-compliant acts, educate residents that illegal dumping is a crime and ultimately keep Niagara region clean.

Niagara Region Illegal Dumping Statistics and Trends

Table 1: Illegal Dumping Statistics 2013-2020

Statistics	2013	2014	2015	2016	2017	2018	2019	2020 Jan 1 - July 31
TOTAL ILLEGAL DUMPING REPORTS	394	506	530	589	681	755	676	367
ONLINE REPORTING TOOL SUBMISSIONS	42	83	112	129	115	42	103	55
CRIME STOPPERS REPORTS	N/A	N/A	N/A	N/A	11	1	5	8
WARNING LETTERS ISSUED	35	42	39	37	47	140	74	15
COMPLIANCES ACHIEVED	1	2	5	4	4	2	8	10
OFFENCE NOTICES /SUMMONS ISSUED	1	2	7	7	3	2	5	3
REWARDS AWARDED	N/A	1	1	5	4	2	2	2

Niagara Region has continued to track the location and frequency of illegal dumping as a means of monitoring high occurrence areas (hot spots) and measuring success. Further, the Region has continued to encourage illegal dumping reporting through promotion and education materials, offering rewards and utilizing various reporting mechanisms such as the Waste-Info Line phone number, online reporting tool or anonymous reporting through Crime Stoppers.

Since 2013, these promotional improvements, incentives and reporting mechanisms have created a positive impact on the total number of illegal dumping reports we receive year-over-year. As seen in the table above, as residents became more educated on how to report these acts of non-compliance, more residents have reported illegal dumping events. This data does not necessarily suggest increased acts of illegal dumping, but could be an indication of more residents, who have witnessed these events, wanting to be part of the solution. The more eyewitness illegal dumping reports

received, the more likely staff are able to obtain the necessary evidence needed to enforce.

Region staff have jurisdiction to address and enforce illegal dumping issues on public property and roadside. All private property illegal dumping issues are forwarded to counterparts at the Local Area Municipalities (LAMs) for follow up. Table 1 above highlights the enforcement actions Region staff have completed since 2013, with regards to issuing warning letters and fines. Warning letters are issued when minimal evidence is found, such as a suspect's contact information on a piece of mail, but does not contain enough proof to issue a fine. The number of warning letters issued has increased each year since 2013, which has become an effective tool at warning suspects of their crime and help deter non-complaint acts from occurring again. Although the number of fines issued in comparison to the total number of illegal dumping events reported are minimal (due to lack of evidence), staff continue to stay committed to investigating each issue to the best of their ability.

When any suspect information is discovered during an illegal dumping investigation, staff also make every attempt to contact and conduct a site visit to the suspect's address. The purpose of this contact is a tactic to encourage compliance and request the dumper to return and clean up the material. Table 1 above illustrates that acts of compliance continue to increase each year. This is a result of Region staff utilizing their negotiation skills and having a working knowledge of by-law enforcement to persuade suspects to resolve the illegal dumping issue they committed.

Overall, Niagara Region will continue to work with LAMs to improve the way in which we cooperatively address and enforce illegal dumping. By keeping a detailed record illegal dumping events, the Region can continue to analyze trends and pinpoint what improvements have resulted in success or what actions needs to be pursued to direct positive change.