Minute No. 310
Report – Standing Policy Committee on Innovation – April 16, 2018

Item No. 1 High Resolution Cameras - Surveillance of Illegal Dumping

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Innovation and adopted the following:

1. That the Winnipeg Public Service be directed to report back in 90 days to the Standing Policy Committee on Protection, Community Services and Parks with recommendations for the long-term sustainability of the surveillance program to deter and enforce illegal dumping of garbage.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Innovation – April 16, 2018

DECISION MAKING HISTORY:

Moved by Councillor Gilroy,

That the recommendation of the Standing Policy Committee on Innovation be adopted by consent.

Carried

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On April 17, 2018, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Innovation and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On April 16, 2018, the Standing Policy Committee on Innovation concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Pilot Program Evaluation – High Resolution Cameras for Surveillance of Illegal Dumping Activities

Critical Path: Standing Policy Committee on Innovation – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
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EXECUTIVE SUMMARY

The implementation of cameras for surveillance of illegal dumping activities began in April 2016. This report provides an overview and evaluation of the pilot program over the two year period ending February 28, 2018.

The program is being evaluated based on its effectiveness in reducing illegal dumping of garbage and saving the City of Winnipeg money. The initial report approved by Council cited three broad areas that would be addressed by the pilot program: (1) hot spots, (2) successful enforcement, (3) saving tax dollars. The evaluation includes both quantitative and qualitative information to assess those three areas, as well as other information related to operational and equipment review.

Results from cameras at known hotspots are mixed. Some areas continue to be impacted by illegal dumping while others have seen no further illegal dumping and/or have led to charges.

The pilot program identified an opportunity for the Public Service to leverage and create partnerships to enhance processes around deterrence and enforcement.

Photos taken from the units were good quality, but there were a number of challenges including breakdown, and reliability in extreme cold weather.

The Public Service will report back to Committee with recommended plans for sustainability of the program.

RECOMMENDATIONS

1. That the Public Service be directed to report back in 90 days to the Standing Policy Committee on Protection, Community Services and Parks with recommendations for the long-term sustainability of the surveillance program to deter and enforce illegal dumping of garbage.
2. That the proper officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On July 15, 2015 Council directed the Winnipeg Public Service to report back to Council identifying resources required to run a two year pilot that will utilize CCTV as a technology to assist in identifying vehicles / persons that are illegal dumping in priority sites identified by the Public Service and that upon completion of the aforementioned pilot project that the Public Service report back to Council on the impact that CCTV's have made as related to reducing illegal dumping in Winnipeg.

IMPLICATIONS OF THE RECOMMENDATIONS

A report will be provided by the Public Service outlining recommendations for the long-term sustainability of the surveillance program to deter and enforce illegal dumping of garbage.

HISTORY/DISCUSSION

On July 15, 2015, Council directed the Public Service to report back on resources required to run a two-year pilot program utilizing closed circuit television (CCTV) technology to assist in identifying vehicles and/or persons that are illegally dumping garbage in priority sites.

On September 17, 2015, the Standing Policy Committee on Finance approved $54,000 from the Innovation Capital Fund to conduct the pilot project and requested that, 12 months after commencement of the initiative, the Winnipeg Public Service provide an update related to the financial aspects of the pilot-project.

On May 4, 2017, the Winnipeg Public Service provided a financial update report to the Standing Policy Committee on Finance, which was received as information.

Illegal dumping investigations rely on sufficient visual evidence in order to have successful enforcement results. High resolution cameras are increasingly being used in Canadian and American cities to target illegal dumping "hot spots".

The two-year pilot program was adopted to evaluate the effectiveness of an Illegal Dumping Surveillance Program in Winnipeg in reducing the occurrences of illegal dumping in targeted areas and the resulting efficiencies realized by the three City departments involved in responding to these occurrences (Community Services, Water and Waste, and Public Works).

Key partnerships with other City departments and outside agencies were established to move this project forward, including with Manitoba Hydro, Public Works, and Water and Waste for the

installation of CCTV units, re-location of units, and benchmarking of enforcement and illegal dumping activities.

A number of priority locations were determined through consultation with community stakeholders, departments of the City of Winnipeg, and enforcement officers. Some of these locations are not on City-owned property.

Evaluation

The cost to the City of Winnipeg for this pilot project was the capital investment of $54,000 to purchase and install the cameras. Staff time from both Community Services and Public Works has been invested into the pilot with no incremental increase in resources. Consequently, no additional costs have been calculated above the initial capital investment.

The program is being evaluated based on its effectiveness in reducing illegal dumping of garbage and saving the City of Winnipeg money.

The initial report approved by Council cited three areas that would be addressed by the pilot program. The following evaluation includes both quantitative and qualitative information to assess those three areas, a fourth section is provided for operational and equipment review:

1. Hot spots
    - Officer observations on pre-existing hot spots pre-, during, and post-pilot program.
    - Impact on the community – illegal activity related to hot spots, conditions of the area (before and after pictures).
2. Successful Enforcement
    - Number of violations, charges laid, and number of successful prosecutions.
    - Prevention through education – were people more aware of the program and legitimate means to dispose of garbage?
3. Saving of tax dollars
    - Key messages communicated to citizens, awareness through media.
4. Other Information
    - Operational review.
    - Community engagement and third party agreements.
    - Equipment review

I) HOT SPOTS

Neighbourhood	Observations		
	Before (April 2016)	**During (March 2017)**	**After (Feb 2018)**
Tyne-Tees (west end of Mission Industrial)	Accumulations of multiple dumps. Rail line and vacant properties have accumulated garbage over the years and was discovered as an illegal dump site by officers as early as 2011.	No new incidents since program was announced in the media. Property was fenced off, limiting access. Rail property continues to be of concern.	Location remains incident free. Rail property continues to be of concern.
Riverbend	Large remote industrial and vacant land. Large accumulation of garbage dumping over a long period of time.	Since the program was announced and cameras were installed, no new illegal dumping incidents have occurred in the coverage area, an excessive amount of garbage had been removed, and the area has experienced no further illegal dumping. During the cameras operation, illegal dumping did occur on the roadway leading to the area of coverage, but not captured on the cameras. However their presence did prevent further dumping and reduced the occurrence of open liquor and loitering issues, and even prostitution, as reported by area businesses.	One known incident of illegal dumping occurred in the immediate area of concern for the duration of the pilot. No further reports of illegal dumping on the roadway leading to the area of coverage since last report.
Dufferin Industrial	Isolated industrial back lane, frequented by unreported multiple incidents of dumping with the earliest documented report in 2006.	Illegal Dumping continues to occur at this location. Most incidents occurred farther away from the camera; second camera unit installed on the opposite end but malfunctioned due to temperatures upon installation. 1 chargeable investigation.	Due to environmental conditions (vegetation growth) and limited assets to attach video equipment, illegal dumping continues to occur at this location. • 16 cases of illegal dumping where no evidence was collected or evidence was inconclusive; • 2 investigations led to charges (1 was dropped due to service issues) and 1 led to a conviction.

Mynarski	Vacant Property situated near commercial; Vacant Building Officer has discovered multiple illegal dumping events.	2 incidents of garbage on this property has been investigated with no charges.	The vacant building has since been demolished and is now maintained as a vacant lot. The last reported incident of illegal dumping occurred in April of 2017; the area has not experienced any further illegal dumping.
Mission Industrial	Water & Waste staff indicated that this property has illegal dumping occurring on a weekly basis.	Multiple incidents investigated, photo evidence lead to charges on multiple incidents.	*As of January 18, 2018*, 69 investigations were opened via this program, 28 were closed without charges, 6 are currently being investigated, 12 are awaiting registered owner information, and 4 tickets are out for service. 8 matters are before the courts, 5 have been convicted, and 6 accused have opted to pay an early payment option of $1000 each.
Deer Lodge	Water & Waste staff indicated that this property has illegal dumping occurring on a weekly basis.	11 incidents investigated. 8 incidents captured by camera with 4 leading to charges.	Technical issues related to location of asset and wind speeds required relocation. Of the 4 charges, there was 1 conviction, 2 unable to serve, and 1 stayed.
Daniel McIntyre	A vacant residential lot next to commercial properties which has a history of illegal dumping dating back to 2012. Nearby property owner indicates that bulky waste is common on the vacant lot and along the back lane of the commercial and vacant properties.	3 incidents investigated, location remains under review.	Location did not experience any further illegal dumping.
St. Matthews	Stretch of back lane that had frequent illegal dumping incidents and was of major concern by area residents. Reports of illegal dumping and garbage conditions as early as 2004.	No incidents have occurred after pilot implementation, partly due to a large vacant property becoming occupied.	There has not been any new illegal dumping activity to date at this location.
St. Matthews	Vacant residential lot beside busy commercial zone. Bulky materials have been observed on multiple occasions with history of garbage on the property as early as 2004.	This location remains active, and remains under review.	A new residential structure is in its final stages of development and no reports of illegal dumping has recently occurred.

Wilkes South	Complaint investigation revealed that illegal dumping extended deep into the forested area next to the road. 4 tandem trucks of garbage were removed.	Site was previously unknown to CBES as no reports were made to the City.	A CCTV unit was setup to monitor this area. To date, 1 incident of illegal dumping was detected and is still awaiting confirmation of the registered owner of the vehicle involved. However, due to the unit's "known" operation, no further incidents have occurred.

Attachments: Before and After Pictures: Appendix A

II) SUCCESSFUL ENFORCEMENT

Enforcement Statistics (as of March 8, 2018):

# of CCTV Program Investigations = 103						
Unsubstantiated = 54		Active Investigations = 15		Enforcement Results = 34		
Out of Range - Distance	4	Under investigation	2	Unable to serve	4	
Out of view	12	Pending info from MPI	8	Before the courts	13	
License plate obscured	6	Out for service of tickets	5	Court Disposition	17	**FINES**
License plate angle	4			Conviction	7	$7800.00
Not captured on camera	22			Early payment	9	$9000.00
Non-vehicle dumping	2			Stay proceedings	1	n/a
MPI rejected – incomplete information	4			Not guilty	0	n/a Total: $16,800.00

Sample photo of violation – Appendix B

Awareness of Program / Public Education:
Community By-law Enforcement Services (CBES) staff attend many community meetings and have noted increased awareness and interest on issues related to illegal dumping. A consequence of community interest is the creation of opportunity for staff to provide information on the pilot program, the impact of illegal dumping on neighbourhoods, and legitimate ways to remove bulk garbage. The pilot program has created opportunity for CBES to further engage with community organizations on ways to revitalize and better their neighbourhoods.

III) SAVING OF TAX DOLLARS

Awareness through Media:
The majority of media coverage on this issue was positive and created awareness of the program and issue of illegal dumping of garbage. Messages, such as legitimate ways to dispose of garbage, and the consequence of illegal behavior, were also communicated.

To quantify the savings (cost of advertising) to the City of Winnipeg, had the City purchased media advertising to create awareness, an average cost per ad in typical print and electronic media was used to calculate a sampling of the operational cost savings:

April 2016 to December 2016:

Typical cost per ad per day (print) Typical cost per ad per day (electronic)	$550 Various - $
Number print media coverage	11
Number of electronic media coverage	9
Total number of days of print media coverage	5
Total number of days of electronic media coverage	7
Approximate cost savings to City for Advertising	**$30,250 (Print only)**

IV) OTHER INFORMATION

Operational Review, Gains and Insights:

- The implementation of the pilot project has resulted in new processes that may facilitate enforcement through third party evidence. Initiatives the public service pursued include partnerships with businesses and agencies to enforce violations through evidence provided by their CCTV units.
- Agreements with third parties for use of property to secure cameras, increasing flexibility, agility, and coverage area.
- Most investigations confirmed that illegal dumping is intentional (Appendix C). If full licence plates cannot be identified or other offences are noted, CBES is coordinating enforcement efforts with the Winnipeg Police Service to further investigate those situations. In other circumstances, illegal dumpers intentionally went beyond the range of the cameras to dump garbage.
- In one location, a secondary effect of the cameras' presence was a reduction in the occurrence of open liquor and loitering issues and even prostitution as reported by area businesses.
- Service delivery of offence notices were cumbersome due to the requirement to "personally serve". With the implementation of the Municipal By-law Enforcement Act

and the Provincial Offences Act, the public service is investigating possible changes to facilitate enforcement in a more efficient manner.

Equipment Review:

- Pros of equipment
    - Sensitivity of units resulted in significant increase in number of pictures taken
    - Picture quality was good
- Cons of equipment
    - 50% of equipment required warranty work or replacement due to technical issues with both software and hardware
    - Units did not operate very well in extreme cold weather
    - Cumbersome to relocate

SUMMARY

Through a combination of increasing awareness, and enforcement, the pilot is having a positive impact on reducing illegal dumping. The pilot has created opportunity for the public service to further coordinate activities with other agencies and private businesses and organizations to enhance vigilance and increase awareness to reduce illegal dumping.

FINANCIAL IMPACT

Financial Impact Statement Date: March 9, 2018

Project Name:
Pilot Program Evaluation – High Resolution Cameras for Surveillance of Illegal Dumping Activities

COMMENTS:

There are no financial implications with respect to this report as it is being received as information.

Original signed by Kelly Lemoine

Kelly Lemoine, CPA, CA
Manager of Finance & Administrative Services
Community Services Department

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

This Report directly aligns with a number of Our Winnipeg directions, most predominately with:

01-4 Housing Direction 4: Provide leadership in encouraging and enforcing property related housing standards that create and promote safe living conditions for homeowners, tenants and for communities as a whole; and

03-2 Vitality Direction 6: Promote cleanliness and beautification.

SUBMITTED BY

Department: Community Services
Division: Community By-law Enforcement Services
Prepared by: Winston Yee
Date: March 15, 2018
File No: CMS-2016-14

Attachments:
Appendix A
Appendix B
Appendix C

Appendix A – Before and After Pictures - Neighbourhood: Riverbend

BEFORE 2016



Being in a remote location, multiple incidents have amassed into a large amount of garbage.

AFTER 2017



No new incidents since the program was announced and cameras were installed.

AFTER 2018



Appendix A – Before and After Pictures - Neighbourhood: Dufferin Industrial

BEFORE 2016



Dumping of bulky waste at this location has been an ongoing issue.

AFTER 2017



Illegal dumping at this location continues, but on a smaller scale.

AFTER 2018



Appendix A – Before and After Pictures - Neighbourhood: Mynarski

BEFORE







Between April 2014 and April 2016, 10 incidents of illegal dumping were investigated.

AFTER



Since the camera was installed, of the occurrence of illegally dumped garbage decreased to 2 incidents.

Appendix A – Before and After Pictures – Neighbourhood: Wilkes South

2016 (Discovery)



2016 Cleanup Samples

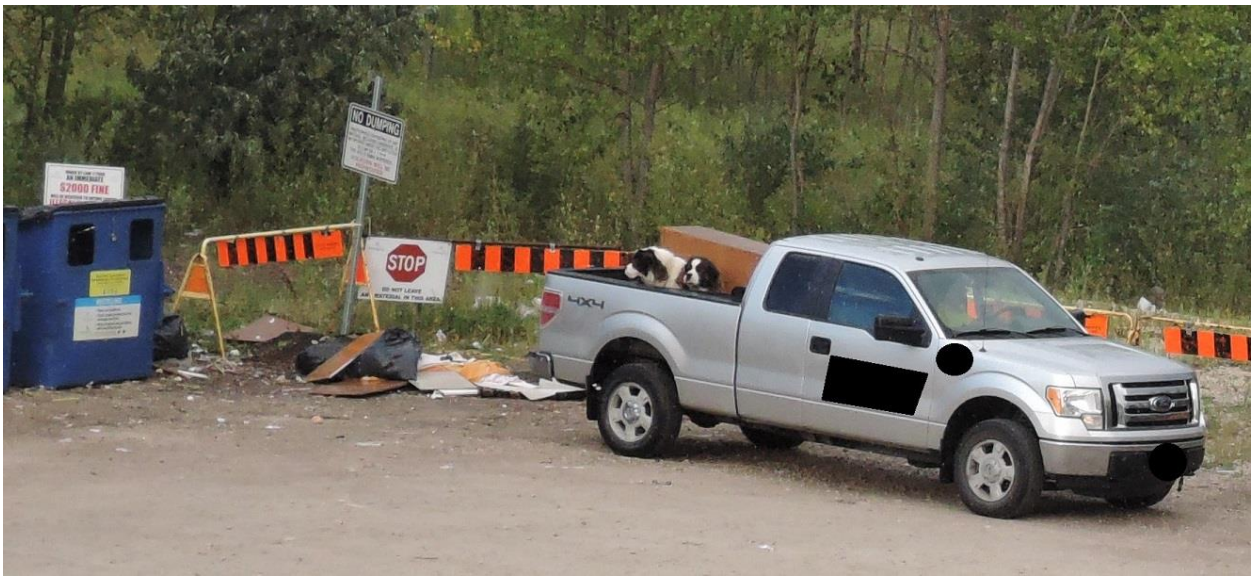




2018



Appendix B – Sample Photo of Violation



Multiple signs stating that dumping of garbage is illegal is not enough of a deterrence.



A conviction was achieved through evidence collected from the program surveillance equipment.

Appendix C – Intentional Dumping of Garbage



Dumping of renovation items: 9 kitchen cabinet doors and 5 kitchen drawers.