



## INTER OFFICE MEMORANDUM

**TO:** Privacy Advisory Commission

**FROM:** Michael Kashiwagi,  
Interim Director, OPW

**SUBJECT:** Illegal Dumping Surveillance Camera  
Annual Surveillance Report

**DATE:** June 26, 2024

### **Background**

According to **Oakland Municipal Code (OMC) 9.64.040: Surveillance Technology** “Oversight following City Council approval” requires that for each approved surveillance technology item, City staff must present a written annual surveillance report to the Privacy Advisory Commission (PAC). Oakland Public Works (OPW) first deployed the Portable Observation Device (POD) Surveillance System in March 2022 to enhance illegal dumping enforcement efforts. On June 1, 2023, staff presented the Illegal Dumping Surveillance Camera Program’s (Camera Program’s) first Annual Surveillance Report. This is the second Annual Report.

### **Illegal Dumping Surveillance Camera Program**

In accordance with the Surveillance Technology Ordinance, staff presents the following information for the Illegal Dumping Surveillance Camera Program for the reporting period of April 1, 2023 to March 30, 2024:

- A. **System Use** – A description of how the surveillance technology was used, including the type and quantity of data gathered or analyzed by the technology.

OPW deployed illegal dumping cameras near known dumping hotspots beginning March 2022 based on data from OPW’s work productivity and service request tracking system, Cityworks. The POD units use multiple pan/tilt/zoom (PTZ) cameras and stationary cameras to record videos locally to a digital video recorder (DVR) inside the unit.

Environmental Enforcement Unit’s (EEU’s) personnel – Environmental Enforcement Officers (EEOs), Clean Community Supervisor, and Administrative Analyst – review video footage a minimum of once and up to two times a day, Mondays through Fridays, looking for dumped material and related footage to identify the dumper and the dumper’s vehicle. The EEOs look for information such as:

- Location and specifics of dumped material
- Date and time of dumping
- Physical description of dumper(s)

- Description of vehicle used and license plate information

If sufficient evidence is present for enforcement, information is manually inputted into Cityworks, along with a copy of the citation issued and a screenshot photo of the dumper and vehicle taken from the video recording. From April 2023 to March 2024, EEU staff captured strictly screenshot photos from POD videos when issuing citations.

Neither the POD units nor the video viewing software applications (NETUS Pro and SmartEyes Pro) has the functionality to analyze video data captured by the surveillance system other than motion tracking.

- B. Data Sharing** – Whether and how often data acquired through the use of the surveillance technology was shared with outside entities, the name of any recipient entity, the type(s) of data disclosed, under what legal standard(s) the information was disclosed, and the justification for the disclosure(s).

During the reporting period, staff shared video data with POD vendor Security Lines, U.S., who assisted EEOs with resolving routine technical issues with the PODs or with the NETUS Pro software platform.

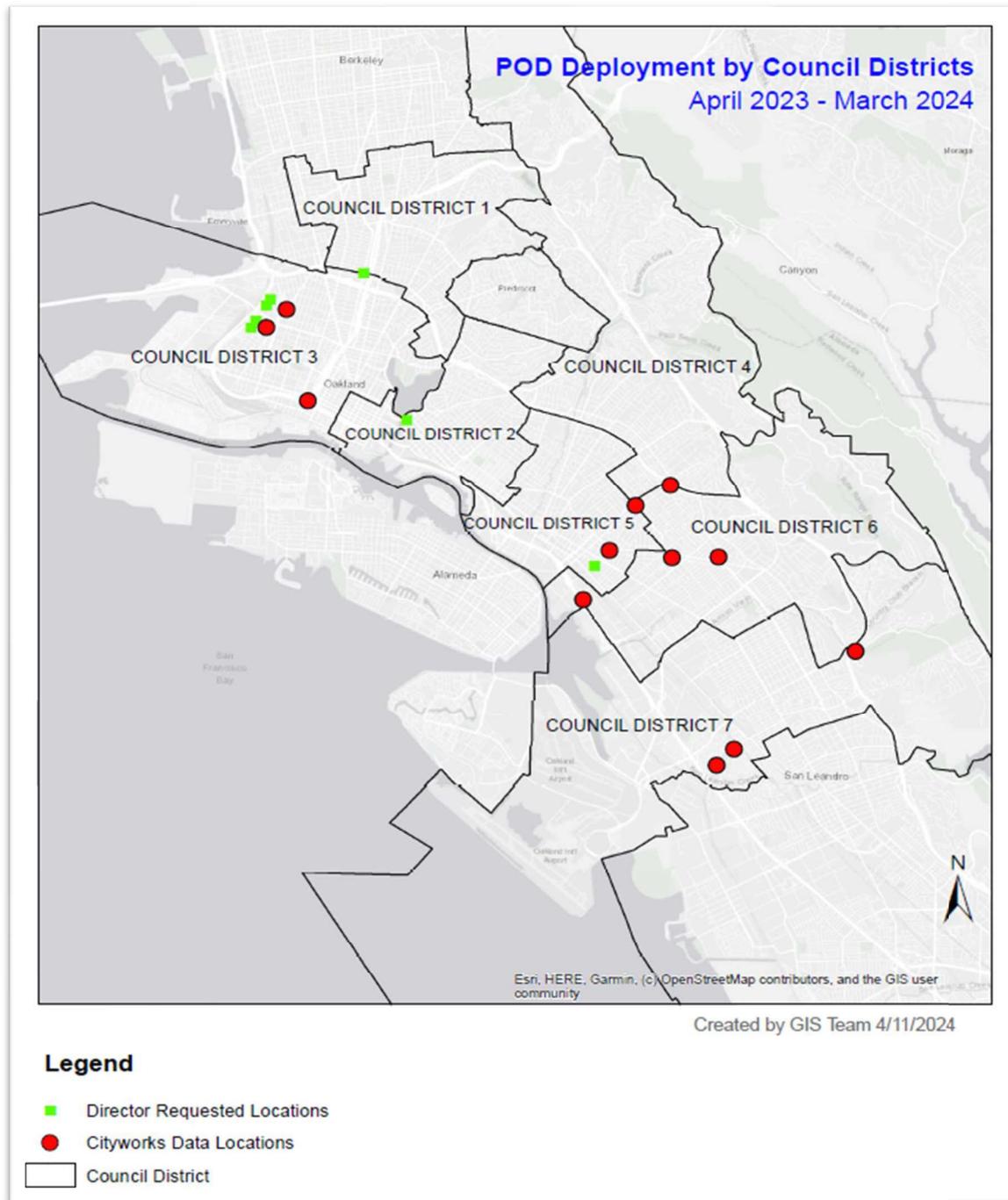
- C. Installation & Application** – Where applicable, a breakdown of what physical objects the surveillance technology hardware was installed upon; using general descriptive terms so as not to reveal the specific location of such hardware; for surveillance technology software, a breakdown of what data sources the surveillance technology was applied to.

For the period of April 2023 - March 2024, all PODs were mounted on City-owned light poles located in the public right of way. The two surveillance technology software programs – NETUS Pro for computers and SmartEyes Pro for phones – were used to view and download POD video footage only when dumping evidence is present. There are no other functionalities for the two software products.

- D. Deployment Breakdown** – Where applicable, a breakdown of where the surveillance technology was deployed geographically, by each Police Area in the relevant year.

The EEU relies on Cityworks data to identify the most chronic hot spots to deploy the POD units. Staff believes a data-driven approach is the best way to ensure cameras are not deployed in a discriminatory, viewpoint-based, or biased manner. Staff routinely generate a hotspot report using service request and work order data to identify and prioritize the hottest dumping locations. Once dumping activity diminishes significantly or ceases altogether at one hotspot, the POD unit is moved to the next hottest dumping location.

For the reporting period, surveillance cameras were deployed to 19 locations. Of those, seven (7) deployments were to locations directed by the OPW Director. EEU staff continue to be challenged with relocating the cameras due to limited OPW personnel with bucket truck certification to move the PODs.



E. **Community Complaints** – A summary of community complaints or concerns about the surveillance technology, and an analysis of the technology’s adopted use policy and whether it is adequate in protecting civil rights and civil liberties.

EEU staff did not receive any privacy-related complaints for the period of April 2023 - March 2024. All community complaints received for the surveillance cameras were that the PODs are *not* being deployed sooner and closer to the neighborhoods and locations constituents desired. The technology’s adopted Use Policy appears adequate in protecting

civil rights and civil liberties. Video data was downloaded in the reporting period for illegal dumping enforcement purposes only and promptly deleted after use. All routine video data is overwritten after 14 days.

- F. **Internal Audits & Compliance** – The results of any internal audits, any information about violations or potential violations of the Surveillance Use Policy, and any actions taken in response unless the release of such information is prohibited by law, including but not limited to confidential personnel file information.

For the reporting period, PODs were deployed in the public right of way. EEU staff did apply the masking feature when a POD's range of view included private property. Therefore, no written waivers from property owners or current residents were requested for the reporting period.

- G. **Data Breaches or Other Unauthorized Access** – Information about any data breaches or other unauthorized access to the data collected by the surveillance technology, including information about the scope of the breach and the actions taken in response.

There were no reported data breaches for the period of April 2023 to March 2024. However, POD 1 was confirmed stolen on March 27, 2024. The POD was deployed in the proximity of a former large homeless encampment at the time of the theft. Staff filed a police report on March 27, 2024. The camera has not been recovered; however, in reviewing the system's access log, POD 1's data has not been breached. Access to the data from the stolen camera would require: 1) access the secure website specific to POD 1; and 2) username and password.

- H. **Efficacy** – Information, including crime statistics, that helps the community assess whether the surveillance technology has been effective at achieving its identified purposes.

From its inception, the Camera Program's aim was to enhance illegal dumping enforcement by providing the EEOs another tool to help catch dumpers. The following data illustrates the tool's targeted effectiveness and unique limitations.

The Camera Program's second year saw changes and constraints that impacted the efficacy of the operation. As referenced earlier, the ability to move the PODs in a timely fashion is limited because there were only two bucket truck-certified staff<sup>1</sup> who were able to move the cameras for the reporting period. The classification of these staff are Painters and their primary assignment is to address graffiti citywide, which is a task for which there is significantly more work than the current personnel can address. There are no personnel whose primary assignment is the relocation of cameras. As a result, there have been delays in moving PODs from locations that no longer produce dumping activities to other active hotspots. To address this resource constraint, staff secured Council approval to establish a three-year technical service contract with POD vendor, Security Lines, U.S. In addition to providing technical maintenance for the surveillance cameras, the vendor will assist EEOs with relocating the PODs during their routine visits when needed. As OPW grows its fleet of surveillance cameras, however, having a dedicated City staff (i.e.,

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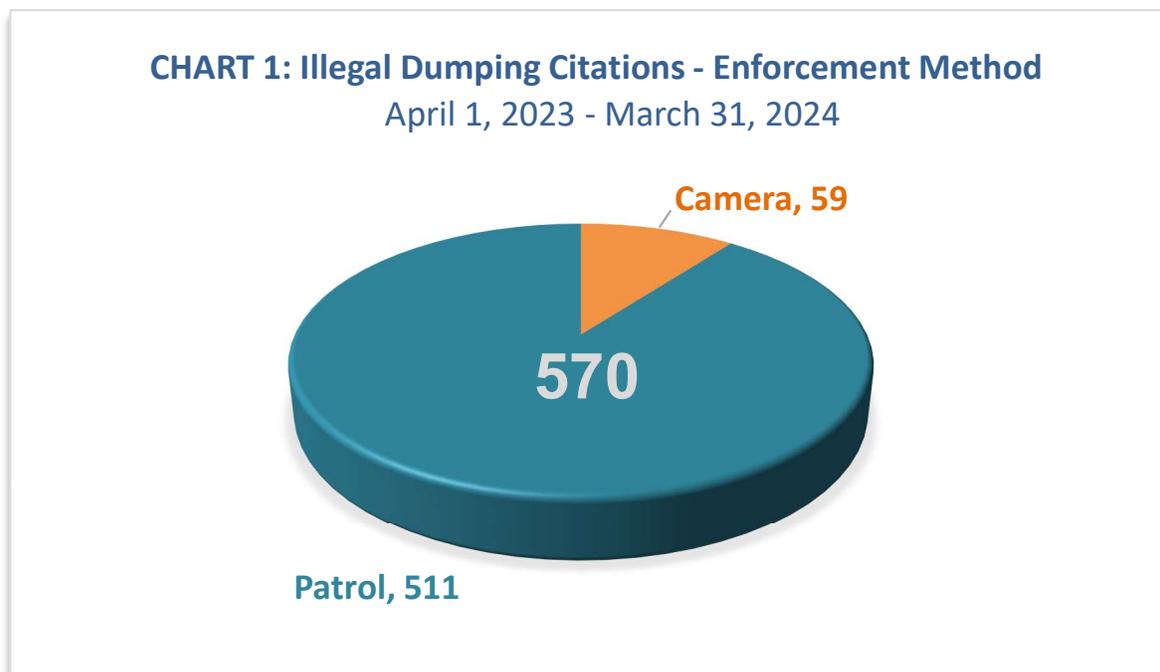
<sup>1</sup> KOCB has three painters; however, one was on medical leave during the reporting period.

a full-time bucket-truck certified Information Systems Specialist I) would increase the efficacy of the Camera Program.

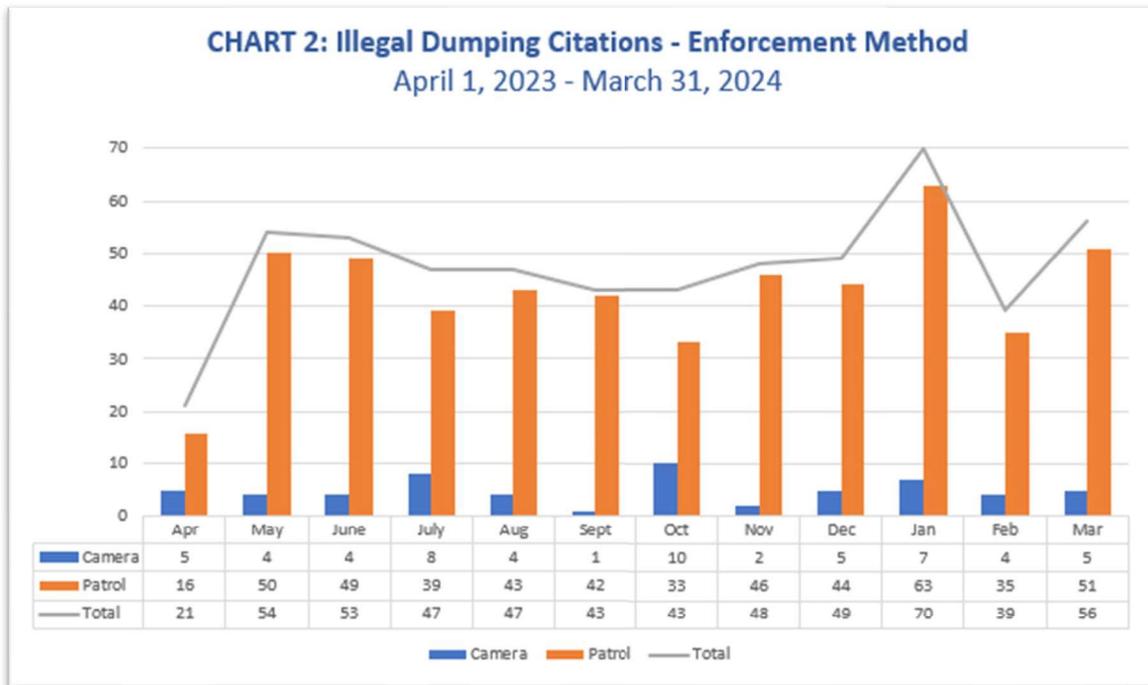
Lastly, seven (7) of the nineteen (19) deployments in the reporting period were deployed under the OPW Director’s direction for “special projects” that were requested to be deployed in consultation with other departmental needs as potential illegal dumping and other illegal activity hot spots., which reduced the number of available POD for general illegal dumping enforcement.

***NOTE:*** Due to the February 8, 2023, ransomware attack, some enforcement data from November 15, 2022 – April 11, 2023, was permanently lost. Wherever this data lost impacted the year-to-year data analysis, the data set’s timeframe will be clearly identified.

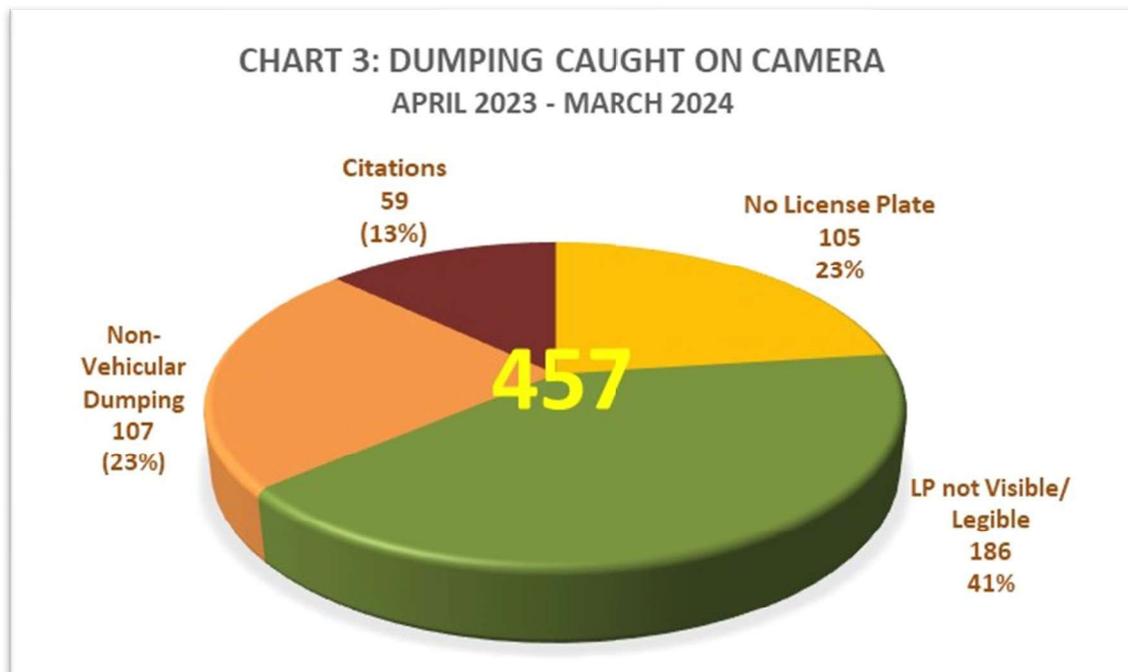
From April 1, 2023, to March 31, 2024, EEOs issued a total of 570 citations, with 59 citations from surveillance camera footage (10%) and 511 citations via traditional enforcement methods such as field patrol (**Chart 1**).



**Chart 2** shows a month-to-month analysis of citations by method and quantity. Excluding outlying months such as April and January, the data reveals a relatively consistent rate of enforcement at an average of 48 citations per month.



For the reporting period, surveillance cameras captured a total of 457 illegal dumping incidents. Of those, 59 (13%) of the dumping incidents resulted in citations being issued.



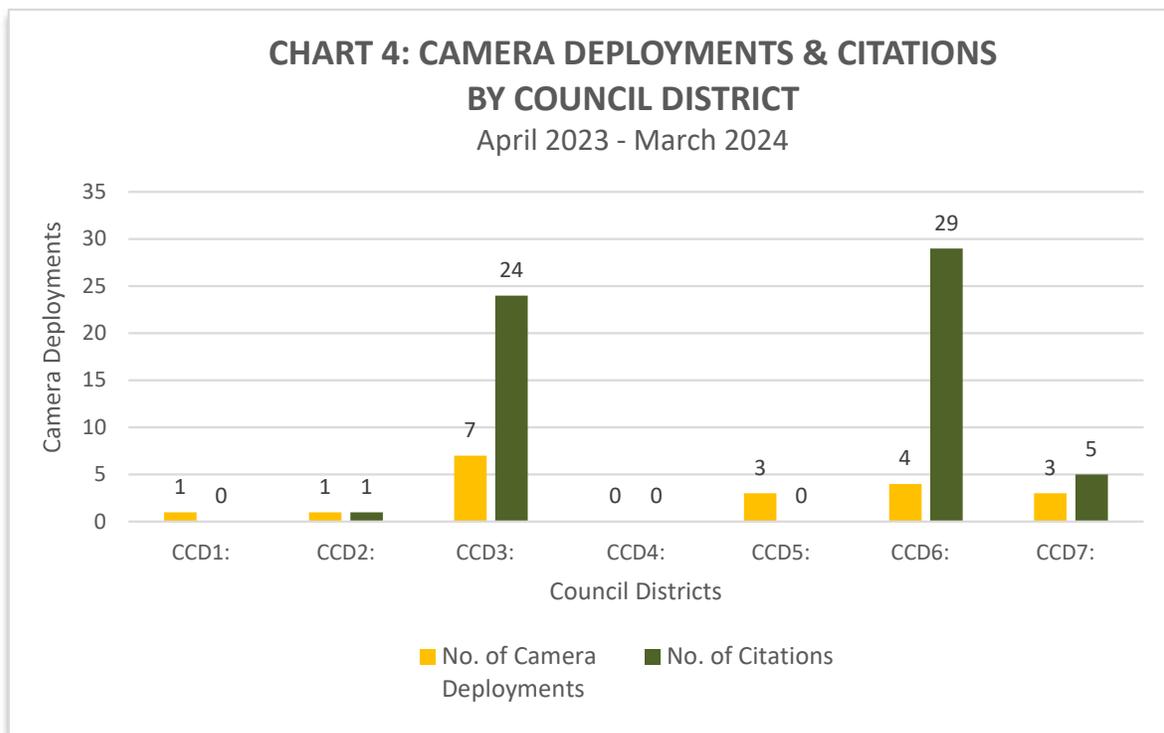
**Chart 3** shows the latest data for the same metrics reported in the first Annual Report. As with last year, the citation rate from the cameras remains limited without the use of License Plate Recognition (LPR) technology. From April 2023 to March 2024, 41% of the dumping incidents caught on camera were unenforceable due to the lack of license plate information. When combined with “no license plates” cases, the data indicates that 64% of

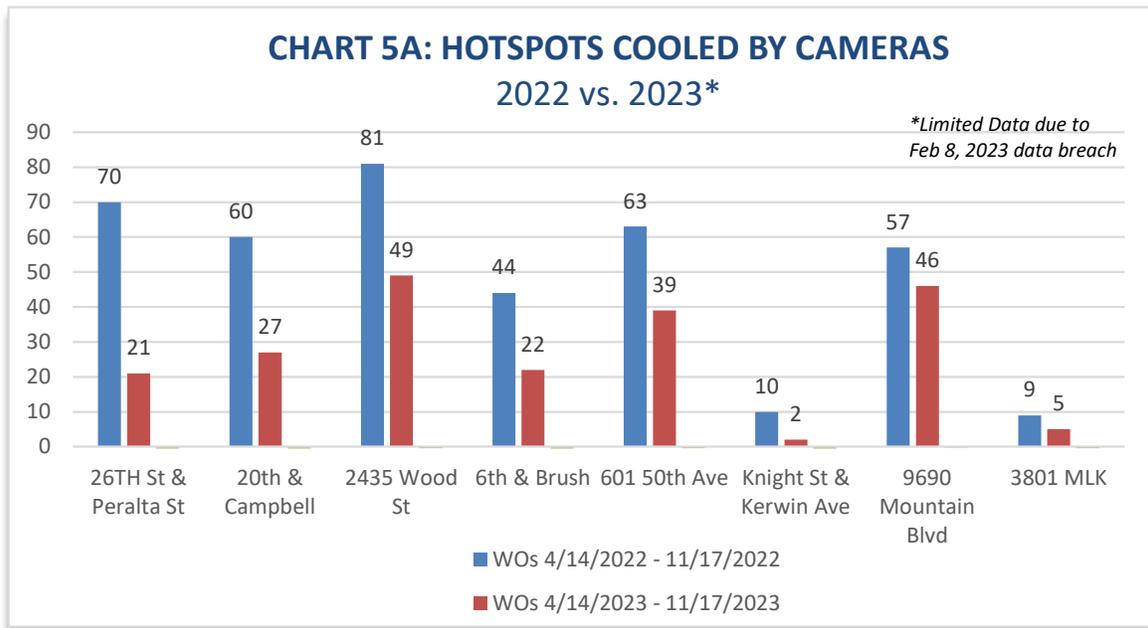
all unenforceable dumping caught on camera were conducted using motor vehicles. EEU staff anticipates an increase in citations once the new LPR cameras are deployed. However, greater enforcement of individuals operating vehicles without license plates will be necessary to reduce the number of bad actors using non-plated vehicles when dumping.

The proportion of non-vehicular dumping (i.e., dumping conducted by foot, on bicycles, via grocery carts, etc.) captured by the cameras was consistent with last year’s statistic at approximately 23% of the total dumping incidents caught on camera.

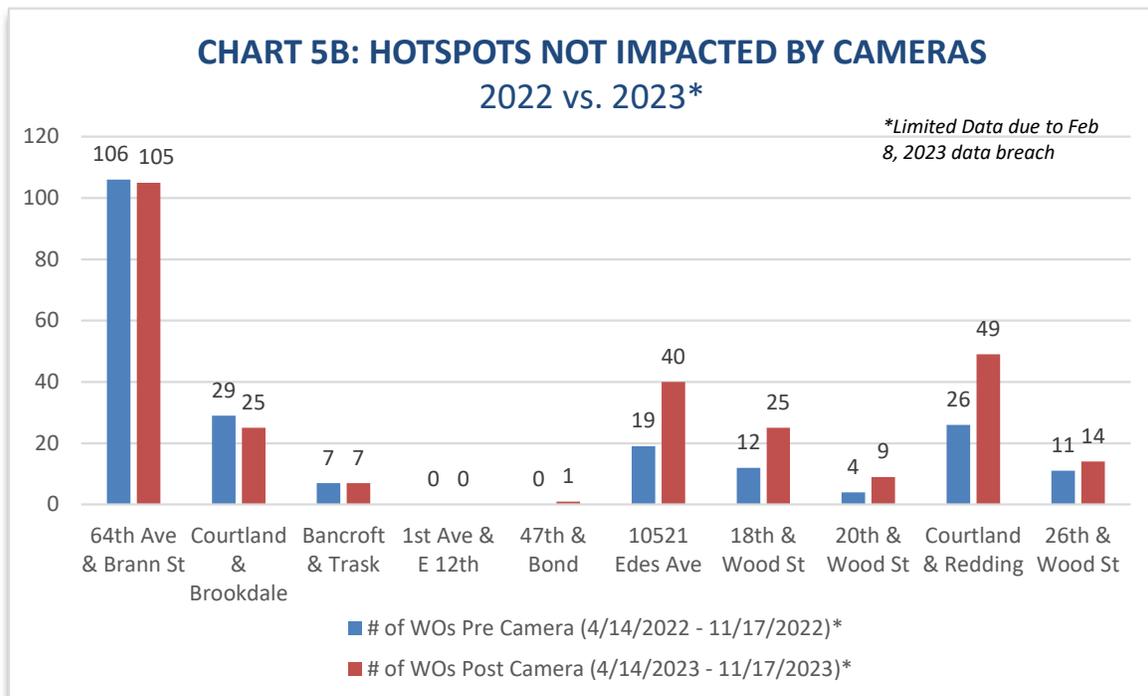
Based on findings from the first Annual Surveillance Report, Oakland City Council in July 2023 adopted a new Surveillance Use Policy to allow the use of LPR technology in the Camera Program. The process to identify an LPR camera vendor was, however, a protracted one because of the limited number of vendors offering portable LPR solutions that meet the City’s surveillance technology guidelines. On March 8, 2024, staff secured Council approval to purchase LPR cameras from current POD vendor, Security Lines, U.S. The LPR camera does not possess facial recognition technology in compliance with the City’s Surveillance Technology Ordinance. The first Security Lines U.S. LPR PODs are slated for deployment in May 2024.

For the reporting period, PODs were deployed in six of the seven Council Districts (**Chart 4**). As in Year 1, citations issued primarily came from Council Districts 3 and 6. EEOs will explore the potential factors that make surveillance cameras more effective in these two Council Districts to better inform enforcement efforts.

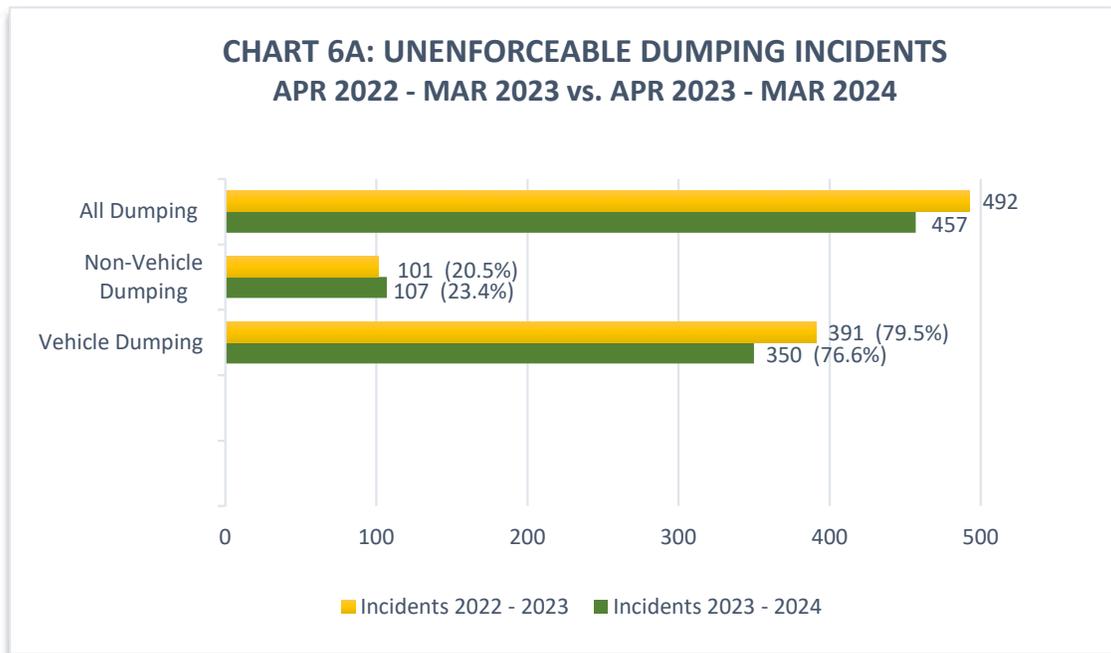




A majority of surveillance camera citations came from just a few hotspots that attract dumpers. Enforcement efforts were moderately effective at deterring this type of opportunistic dumping. More data is needed to confirm the PODs’ effectiveness as visual deterrents that prevent dumpers from dumping in the first place, but work orders and EEO field intelligence suggest approximately eight (8) hotspots have cooled from surveillance and enforcement action taken using POD video data (**Chart 5A**). Illegal dumping data for the same 7-month period between 2022 and 2023 shows the number of illegal dumping work orders dropped by an average of 50% at the eight locations monitored/previously monitored by PODs.

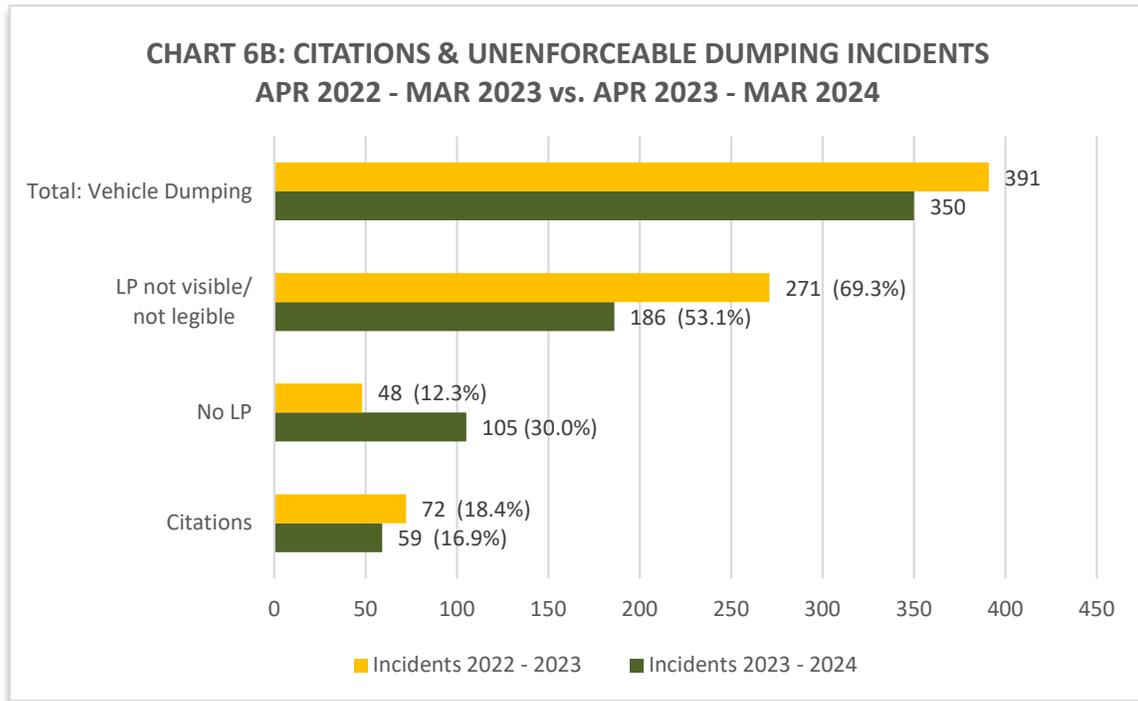


Year 2 work order data also presented EEOs with dumping activity that were not easy to interpret. As illustrated in **Chart 5B**, three locations saw virtually no change to dumping levels despite active surveillance and enforcement at the hotspots. Even more intriguing are the five locations where, despite active surveillance and enforcement, the amount of dumping notably increased. EEU staff will continue to analyze dumping activities at these hotspots to identify the factors that influence dumpers’ behavior.



As they were last year, surveillance cameras are not effective at curbing dumpers who operate vehicles without license plates when dumping. The PODs are also not effective against non-vehicular dumping. As **Chart 6A** (above) shows, 107 dumping incidents – nearly a quarter of all dumping captured by the PODs – were “non-vehicle dumping,” where dumpers dispose of their debris by foot, by bicycle, or through the use of grocery or push carts. The EEOs have no means to identify such dumpers.

A comparison of the Camera Program’s data from the first two years (**Chart 6B**) shows a 118.8% increase in the number of dumpers operating vehicles without license plates, which directly impacts EEOs’ citation rate. OPW staff do not have sufficient data to ascertain whether Oaklanders driving vehicles without license plates is a general trend, or if dumpers are intentionally evading surveillance enforcement by removing their license plates prior to dumping. More data tracking over the coming months and years will be helpful to see what trends emerge.



The PODs continue to provide EEU staff a better understanding of the nature of dumping at hotspots. Consistent with EEU observations, surveillance cameras have proven to be an effective enforcement tool for a particular subset of dumping activities and as such should be looked at as just one of several tools in the toolbox in the fight against illegal dumping.

Staff are continually looking at ways to increase the efficacy and effectiveness of the cameras, such as the addition of the LPR technology and the addition of a technical support services component to the contract with Security Lines U.S. to reduce time the EEOs need to spend trouble-shooting technical issues with the cameras and increasing time available to review footage and issue citations.

- I. Public Records Requests – Statistics and information about public records act requests regarding the relevant subject surveillance technology, including response rates.

There were no public records requests for the period of April 2023 to March 2024.

- J. Total Annual Costs – Total annual costs for the surveillance technology, including personnel and other ongoing costs, and what source of funding will fund the technology in the coming year.

Total Annual Costs for Fiscal Year 2024-2025 are projected as follows:

ILLEGAL DUMPING SURVEILLANCE CAMERA PROGRAM PROJECTED COSTS (FY2024-2025)				
Equipment-Related Costs	Quantity	Cost	One-Time	Ongoing
Additional LPR PODs	15	\$6,495	\$97,425	
Cellular Boosters	15	\$425	\$6,375	
Miscellaneous Replacement Parts	-			\$1,000
Monthly Technical Support	10	\$5,000		\$50,000
Shipping/Handling/Labor (15% of cost)			\$15,570	
<b>SUBTOTAL</b>			<b>\$119,370</b>	<b>\$51,000</b>
Personnel Costs	Quantity	Annual Personnel Cost (Fully Burdened)	Percentage of Surveillance Work	Surveillance Personnel Cost
Clean Community Supervisor*	1	\$213,687	15%	\$32,053
Analyst I	1	\$214,717	15%	\$32,208
EEOs	7	\$211,613	20%	\$296,258
Painter	1	\$231,448	5%	\$11,572
<b>SUBTOTAL</b>	<b>10</b>			<b>\$372,091</b>
<b>TOTAL PROJECTED ANNUAL COST (FY24-25)</b>			<b>One-Time</b>	<b>Ongoing</b>
			<b>\$119,370</b>	<b>\$423,091</b>

\*Position funded out of Fund 2270.

Fund 2270 fully burdened costing formula is less because it cannot include internal service funds

Funding for this program is budgeted and available in KOCB’s Fiscal Year 2023-2024 O&M budget in Illegal Dumping (ORG 30674) and Environmental Enforcement (ORG 30676) Units. Staff will request City Council’s approval for additional funding during future Budget Development processes.

- K. Requested Use Policy Amendments - Any requested modifications to the Surveillance Use Policy and a detailed basis for the request.

The EEU is scheduled to be reorganized under OPW’s Environmental Services Division in FY2024-2025. In anticipation of the reorganization, staff seeks the following modification to the Surveillance Use Policy:

**D. Data Access**

Only designated City of Oakland staff have access to POD video data and LPR camera license plate data. However, the vendor is authorized to access the surveillance system to provide ongoing technical support. The following individuals are authorized to access and/or view surveillance camera information:

Oakland Public Works –

- OPW Director and OPW Bureau of Environment’s Assistant Director will be given access to view video data.
- Environmental Services Manager and Recycling Program Manager, who oversee the EEU, will be able to add/delete users and will be granted admin/super user access.

- EEU staff – Clean Community Supervisor, EEU Administrative Analyst, EEU Administrative Assistant, and EEOs – who are tasked with checking cameras for illegal dumping activities and remote monitoring the POD/ LPR POD units – will be given access to view video, control PTZ cameras, as well as search and download video evidence. EEU staff will not have the ability to add/delete users.

Security Lines US. –

- Technical staff for ongoing technical support

**E. Data Protection and F. Data Retention**

- Replace references to DVRs with NVRs

OPW is committed to holding dumpers accountable while remaining transparent in its surveillance protocol and activities. This Annual Report is consistent with the department's continued effort to strengthen trust and collaboration with the Oakland community.

*Michael Kashiwagi*

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For questions, please contact Victoria Chak, Administrative Services Manager, at x5446.