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CITY OF CHICAGO
OFFICE OF INSPECTOR GENERAL

DEPARTMENT OF STREETS AND SANITATION WEED-CUTTING PROGRAM AUDIT

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TO THE MAYOR, CITY COUNCIL, CITY CLERK, CITY TREASURER, AND RESIDENTS OF THE CITY OF CHICAGO:

The Office of Inspector General (OIG) conducted an audit of the Department of Streets and Sanitation's (DSS) weed-cutting program. DSS is responsible for cutting weeds that have grown higher than ten inches on the public way, as well as City-owned and private vacant land. DSS ward superintendents manage this process by visually surveying their wards, responding to complaints, and providing direction to weed-cutting contractors. Because the problem of overgrown weeds disproportionately impacts the West and South Sides of Chicago, DSS' effectiveness in delivering this service substantially impacts efforts to combat blight in these neighborhoods. Throughout OIG's engagement efforts, community members and aldermen repeatedly voiced their concerns regarding the negative and hazardous impacts of overgrown weeds.

Based on the audit results, OIG concluded that DSS does not meet its goals for timely weed cutting. As a starting point, because there is no reliable list of City-owned properties that require mowing, DSS cannot effectively manage City-owned vacant property. Moreover, the Department cannot accurately assess its performance in responding to weed-cutting complaints, because its data system is insufficient to ensure that important information is consistently and accurately captured.

We recommend that DSS work with the Department of Planning and Development and Department of Law to compile a complete and accurate list of City-owned vacant properties, then contract out all aspects of managing weed cutting on City-owned properties so that ward superintendents are no longer responsible for identifying such sites. DSS should also set—and communicate to staff—goals for responding to weed-related complaints. This will allow staff to survey wards in an efficient manner and issue citations to private property owners who violate the City's overgrown weeds ordinance. Finally, DSS should assess its data entry procedures to ensure it is consistently capturing complete and accurate data related to weed-cutting operations.

In response, DSS stated that it agrees with all of OIG's recommendations and has already begun to implement several corrective actions. Because the City cannot operate an efficient weed-cutting program without a complete and accurate list of City-owned property, we urge the Department of Law and Department of Planning and Development to collaborate with DSS on establishing communication methods to create and maintain an accurate list.

We thank DSS staff and management for their cooperation during the audit.

Respectfully,

Joseph M. Ferguson
Inspector General
City of Chicago

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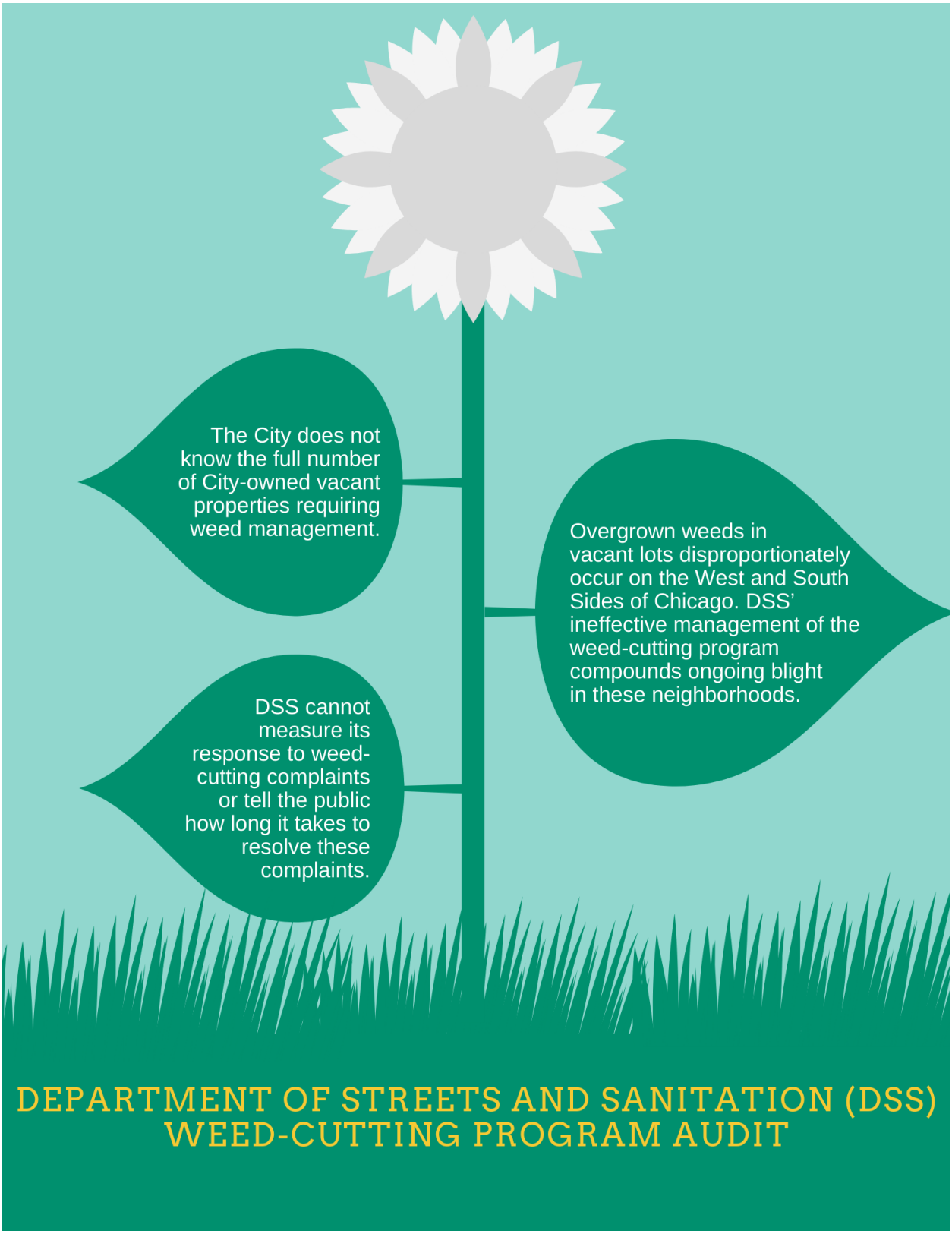
ACRONYMS

COLS	City-Owned Land System
DOL	Department of Law
DPD	Department of Planning and Development
DSS	Department of Streets and Sanitation
HDX Sheet	Hired Equipment Sheet
METS	Mobile Electronic Ticketing System
OIG	Office of Inspector General


The City does not know the full number of City-owned vacant properties requiring weed management.
Overgrown weeds in vacant lots disproportionately occur on the West and South Sides of Chicago. DSS' ineffective management of the weed-cutting program compounds ongoing blight in these neighborhoods.
DSS cannot measure its response to weed-cutting complaints or tell the public how long it takes to resolve these complaints.
DEPARTMENT OF STREETS AND SANITATION (DSS) WEED-CUTTING PROGRAM AUDIT

I. EXECUTIVE SUMMARY

The Office of Inspector General (OIG) conducted an audit of the Department of Streets and Sanitation's (DSS) weed-cutting program. DSS is responsible for mowing weeds that have grown higher than ten inches on the public way, as well as City-owned and private vacant land. DSS ward superintendents manage this process by visually surveying their wards, responding to complaints, and providing direction to contractors. According to DSS, weed cutting is important because "high weeds can conceal illegal activities, obscure dangerous debris, harbor rodents, and serve as a breeding ground for mosquitos."[1] In addition, overgrown weeds can "reduce real estate values and undermine safety and community improvement efforts."[2] Because the problem of overgrown weeds disproportionately impacts the West and South Sides of Chicago, DSS' effectiveness in delivering this service substantially impacts efforts to combat blight in these neighborhoods.

The objective of this audit was to determine if DSS meets its goals of mowing all City-owned vacant land at least four times during the growing season, which is May 1st through October 31st, and addressing all overgrown weed complaints within 42 days (six weeks).

A. CONCLUSION

OIG concluded that DSS does not meet its goals for timely weed cutting. Because there is no reliable list of City-owned properties that require mowing, the Department cannot effectively manage City-owned vacant property. Moreover, DSS cannot accurately assess its performance in responding to weed-cutting complaints, because its data system is insufficient to ensure that important information is consistently and accurately captured.

B. FINDINGS

OIG found that, although DSS staff are responsible for identifying City-owned vacant lots that require weed cutting, the City does not have a complete or accurate list of such properties. As a result, Department cannot ensure that City-owned vacant lots are cut at least four times per year. Further, lacking an accurate list, ward superintendents often entered citations into the Mobile Electronic Ticketing System (METS) for City-owned properties, leaving it up to the Department of Law (DOL) to

[1] City of Chicago, Department of Streets and Sanitation, "Weed Cutting/Weed Removal," accessed February 27, 2020, https://www.chicago.gov/city/en/depts/streets/provdrs/street/svcs/weed_control.html.
[2] City of Chicago, Department of Streets and Sanitation, "No Spray Option," accessed February 27, 2020, https://www.chicago.gov/content/dam/city/depts/streets/general/NoSprayOption.pdf.

review and reject these erroneous charges.[3] In 2019, ward superintendents entered 5,265 such citations, constituting nearly one-quarter of the 22,295 weed cutting citations entered that year. These mistakes wasted the time and resources of both DSS and DOL.

OIG also found that DSS staff resolve complaints in a variety of ways, but flaws in the Department's data system prevent it from determining which scenario a closed-out complaint work order represents. Therefore, the Department cannot determine if it addresses weed complaints in a timely manner.

C. RECOMMENDATIONS

OIG recommends that DSS work with the Department of Planning and Development (DPD) and DOL to compile a complete and accurate inventory of vacant City-owned properties, then provide this inventory to weed-cutting contractors to manage. Ward superintendents should be responsible only for identifying sanitation nuisances in their wards and responding to complaints. The Department should develop—and clearly communicate to staff and contractors—performance-based weed-cutting goals applicable to both management of City-owned land and complaint response. Finally, DSS should improve its data entry practices to ensure that it captures all the information necessary to assess its weed-cutting program performance.

D. DSS RESPONSE

DSS agreed with OIG's audit recommendations and stated that it has already begun to implement corrective actions. For the 2020 weed cutting season, DSS has begun providing the contractor with weekly lists of City-owned lots to mow and continues to issue tickets to private properties in violation of the ordinance. DSS plans to work with DOL and DPD to help improve the City lot list by, for example, having ward superintendents provide other departments with information about vacant properties to aid in the ownership verification process. DSS stated it is in the process of shortening its complaint response goal from 42 days to 21 days and will communicate the change to staff. Finally, before the 2021 weed cutting season, the Department plans to improve its data collection systems and processes.

The specific recommendations related to each finding, and DSS' response, are described in the "Findings and Recommendations" section of this report.

[3] In a September 2019 audit, OIG found that it took DOL an average of 289 days after the violation date to issue a notice of violation.

II. BACKGROUND

The Department of Streets and Sanitation (DSS) is responsible for cutting weeds on the public way (e.g., medians and parkways), as well as City-owned and private vacant land. DSS believes weed cutting is important because "high weeds can conceal illegal activities, obscure dangerous debris, harbor rodents, and serve as a breeding ground for mosquitos."[4] In addition, overgrown weeds can "reduce real estate values and undermine safety and community improvement efforts."[5]

Section 7-28-120 of the Chicago Municipal Code prohibits weeds taller than ten inches, defining them as a public nuisance. When DSS discovers a potential violation, it transmits the information to the Department of Law (DOL) to issue a ticket to the property owner. If the owner is found liable and does not eliminate the nuisance within ten days, DSS is authorized to cut the weeds. An owner cited under this provision is potentially liable for a fine. If the weeds remain uncut ten days after a finding of liability, the owner may also be required to pay all mowing expenses incurred by the City and a penalty of up to three times those expenses. In practice, DSS does not wait for a decision on liability to mow vacant lots; the Department exercises its general authority to protect the public health, safety, and welfare by addressing the nuisance as soon as possible after discovery.

During recent annual budget hearings, City Council members have questioned the effectiveness of DSS' weed-cutting operations. In October 2019, OIG sent a questionnaire to all 50 aldermen, inviting them to share their views about overgrown weeds in their wards. We received 26 responses—12 from wards with relatively few vacant lots and 14 from wards with many. Of the latter group, 9 aldermen said that overgrown weeds were a "substantial problem."

DSS' weed-cutting season runs from May 1st through October 31st. The Department's weed-cutting operation has two components: identifying overgrown weeds and mowing them. Ward superintendents identify overgrown weeds on City-owned and private land by visually surveying their wards and responding to 311 complaints. DSS processed 71,858 weed-cutting work orders in 2019. OIG determined that 63,053 of the orders (88%) originated from ward superintendent surveys and the remaining 8,805 (12%) resulted from complaints (see Figure 1).[6]

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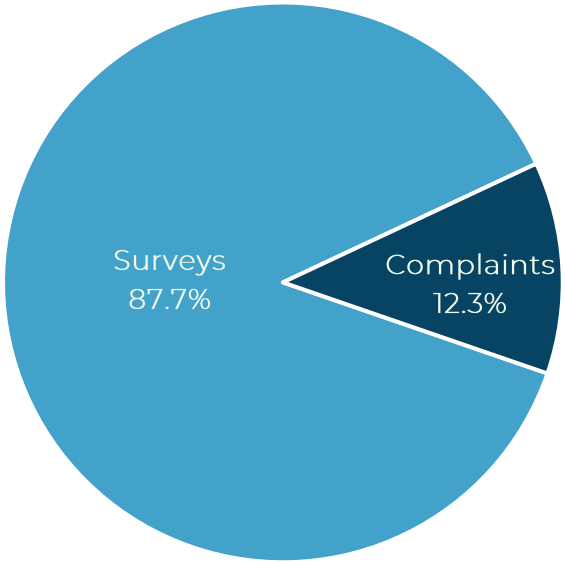
[4] City of Chicago, Department of Streets and Sanitation, "Weed Cutting/Weed Removal," accessed February 27, 2020, https://www.chicago.gov/city/en/depts/streets/provdrs/street/svcs/weed_control.html.
[5] City of Chicago, Department of Streets and Sanitation, "No Spray Option," accessed February 27, 2020, https://www.chicago.gov/content/dam/city/depts/streets/general/NoSprayOption.pdf.
[6] See Appendix A for a map showing the locations of weed-cutting work orders that originated from ward superintendents' surveys and Appendix B for a map showing the locations of work orders that originated from complaints.

FIGURE 1: MOST WEED-CUTTING WORK ORDERS ORIGINATE FROM WARD SUPERINTENDENTS' VISUAL SURVEYS



Source: OIG analysis of DSS work orders.

Ward superintendents compile lists of lots to be mowed and provide them to independent contractors responsible for cutting the weeds. Since 2014, Truck Tire Sales and the Mowing Circle have held the City's weed-cutting contracts. Truck Tire Sales, whose contract covers the South and West Sides of Chicago, handles the vast majority of the work. DSS pays the contractors on an hourly basis. The agreements with both companies are set to expire at the end of March 2021; DSS is preparing to solicit bids for a new contract.

A. IDENTIFYING AND MOWING OVERGROWN WEEDS

During the annual weed-cutting season, ward superintendents identify overgrown weeds on City-owned and private land by visually surveying their wards and responding to 311 complaints. Residents and aldermen submit overgrown-weed complaints through 311, which creates a work order in its software system, Salesforce. Ward superintendents are responsible for checking Salesforce regularly and inspecting properties that receive complaints. In parts of the City with large numbers of vacant lots, ward superintendents conduct daily surveys by driving through their wards and identifying properties with overgrown weeds, as well as inspecting locations with 311 complaints. Appendix A shows the volume of work orders originating in 2019 from ward superintendents' surveys; Appendix B shows the volume originating from complaints.

As a ward superintendent identifies vacant lots, medians, or parkways with overgrown weeds, they write the addresses on paper Hired Equipment Sheets (HDX Sheets). The weed-cutting contractors collect HDX Sheets at the beginning of the next workday. Each contractor receives, and is expected to complete, one HDX Sheet per day. We provide a sample HDX Sheet in Appendix C.

When a ward superintendent identifies an overgrown weed violation, they use a list managed by the Department of Planning and Development (DPD) to determine whether the property is owned by the City or a private party. City-owned properties should be mowed, but not cited. If a vacant lot is privately owned, the ward superintendent uses a handheld device to enter a citation in the Mobile Electronic Ticket System (METS).

To avoid inadvertently mowing any private property without also entering a citation in METS, ward superintendents cite every property of uncertain ownership status. DOL, which is responsible for processing these citations, confirms private ownership before issuing a ticket.[7]

However, if the overgrown weeds are on an inhabited property, the ward superintendent might work with the property owner to address the issue before entering a citation. Ward superintendents do not include inhabited lots on HDX Sheets; they close out the Salesforce work orders once a citation has been entered into METS or the owner has cut the weeds.

At the end of each workday during weed-cutting season, the contractors return their HDX Sheets to DSS. Ward superintendents add any uncut lots to the next day's HDX Sheet. Using the information on the HDX Sheets, sanitation clerks create a work order for each property in Salesforce, which the Department uses to track its work. For each property initiated by a 311 complaint, the clerk closes out the existing Salesforce work order. For each property identified by a ward superintendent's survey, the clerk opens a new Salesforce work order, then immediately closes it out. As a result, DSS cannot use Salesforce data to determine the time it took to identify, cut, and close a survey-based work order. Complaint-based work orders, in contrast, do record elapsed time from complaint submission to close-out.

Sanitation clerks told OIG that they often spend two to three hours per day entering weed-cutting data into Salesforce and that significant backlogs can occur. We discovered that it took DSS up to five months to input some completed HDX Sheets. Figure 2 summarizes the process described above.

[7] City of Chicago, Office of Inspector General, "Audit of Delays in Providing Notice of Sanitation Code Violations," September 4, 2019, accessed February 27, 2020, https://igchicago.org/2019/09/04/audit-of-delays-in-providing-notice-of-sanitation-code-violations/.

FIGURE 2: WARD SUPERINTENDENTS IDENTIFY OVERGROWN WEEDS AND RESPOND TO COMPLAINTS, THEN CONTRACTORS MOW

Ward superintendents drive through their wards identifying City-owned and private vacant land with weeds over ten inches. While surveying, ward superintendents also inspect any lots that received a 311 complaint.	Ward superintendents record locations with overgrown weeds on HDX Sheets and enter citations into METS for private properties.	Contractors pick up the HDX Sheets and mow properties on the list. Throughout the day, contractors fill out their HDX Sheets noting any problems, such as not being able to access a property.	Contractors return the HDX Sheets. Ward superintendents take note of any uncut lots and add those to a new HDX Sheet. Sanitation clerks enter weed cutting data from the HDX Sheets into Salesforce.

Source: OIG interviews with ward superintendents.

B. RECENT LITIGATION

In 2019, the City settled a lawsuit[8] stemming from an incident where a Truck Tire Sales employee driving a tractor between weed cutting jobs struck and killed a 7-year old girl. As a result of the lawsuit, DSS began to work with DOL to reassess its weed-cutting policies and procedures. Throughout this audit OIG communicated with DSS and DOL to ensure that OIG's recommendations would not contradict changes the City made as a result of the legal settlement.

[8] See, e.g., Rosemary Sobol, "Girl, 7, struck and killed while crossing street with mom: 'She was a joy. She was my joy.'" *Chicago Tribune*, May 26, 2019, accessed May 4, 2020, https://www.chicagotribune.com/news/breaking/ct-child-struck-by-vehicle-critically-injured-in-west-englewood-20160527-story.html.

III. FINDING AND RECOMMENDATIONS

FINDING: DSS DOES NOT MEET ITS GOALS FOR PREVENTING THE OVERGROWN WEEDS THAT CONTRIBUTE TO BLIGHT ON THE SOUTH AND WEST SIDES OF CHICAGO.

DSS does not meet its goals for timely weed cutting. As a starting point, because there is no reliable list of City-owned properties subject to the weed-cutting requirement, the Department cannot ensure that City-owned vacant lots are cut at least four times per year. Nor can DSS determine whether its staff responds appropriately to overgrown weed complaints. The Department also cannot meaningfully measure performance because its data system is insufficient to ensure that important information is consistently and accurately captured. Because the problem of overgrown weeds disproportionately impacts parts of the West and South Sides of Chicago, DSS' effectiveness in delivering this service substantially impacts efforts to combat blight in these neighborhoods.

1. DSS cannot ensure that City-owned vacant land is mowed at least four times per year

DSS management has an informal expectation that all City-owned vacant property should be mowed a minimum of four times per year. However, management has not clearly communicated this goal to ward superintendents. Several DSS staff members stated to OIG that they were unfamiliar with this expectation. Moreover, the process is not designed to ensure this goal is achieved—the Department does not have a complete and accurate list of City-owned land that requires monitoring, and the ward superintendent survey process is inefficient and inconsistent, thereby preventing DSS from measuring performance.

Ward superintendents are responsible for identifying City-owned vacant properties that require weed cutting. But the City does not have a complete or accurate list of City-owned land. DSS has been using a list from DPD that has not been updated since 2016. Although DSS was aware of inaccuracies, its management did not reach out to DPD to collaborate on creating a complete and accurate list. DPD told OIG that, in February 2019, it launched a new database—the City-Owned Land System (COLS)—which is regularly updated. We found, however, that this new database is inaccurate and incomplete. OIG compared the addresses in COLS to addresses in the Mobile Electronic Ticketing System (METS) that DOL had determined were City-owned. We found that COLS omitted 1,941 City-owned addresses included in METS

and miscategorized 41 addresses into categories such as "sold." Without a reliable list, DSS cannot ensure that it is monitoring all City-owned vacant land for overgrown weeds.

Further, lacking an accurate list, ward superintendents often entered citations in METS for City-owned properties, leaving it up to DOL to review and reject these erroneous charges.[9] In 2019, ward superintendents entered 5,265 such citations, constituting nearly one-quarter of the 22,295 weed cutting citations entered that year. These mistakes wasted the time and resources of both DSS and DOL.

While attempting to measure how frequently DSS mowed City-owned lots in 2019, OIG uncovered additional recordkeeping problems. Although DPD's COLS is inaccurate and incomplete, it does contain 3,047 vacant properties verified by deed as owned by the City.[10] OIG randomly sampled 150 properties from this group and searched Salesforce for evidence they were mowed in 2019. First, we found 20 properties categorized in COLS as vacant that were actually either parking lots or other non-vacant City properties outside DSS' responsibility. Second, we identified 61 properties that, based on Salesforce data, were never mowed in 2019. However, DSS provided OIG with detailed information about each of the 61 properties indicating they had either been mowed or did not need to be mowed. This information revealed additional flaws in how the City inventories its property and how DSS tracks its work. For example, the Department told OIG that some of the 61 properties are maintained by neighbors or community groups, others are community gardens, and still others are actually owned by the Chicago Housing Authority or Chicago Park District. DSS also said that, in practice, it counts some clusters of vacant lots as part of a single address, which has the effect of creating the impression in the City's records that the adjacent lots were never mowed.

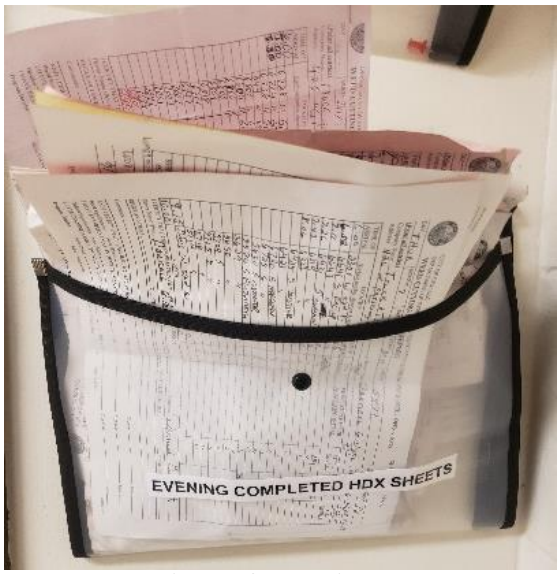
Finally, the Department acknowledged that it could not find evidence that 7 of the 61 properties were mowed in 2019. DSS does not track information about these 61 or similar properties in a centralized manner, nor does it provide such information to DPD to help update COLS. Without centralized, reliable records tracking the properties it is responsible for mowing, DSS cannot measure its performance. This also impedes the City's ability to maintain an accurate list of property that it owns.

[9] In a September 2019 audit, OIG found that it took DOL an average of 289 days after the violation date to issue a notice of violation.
[10] We narrowed our list to 3,047 City-owned properties to test from the entire COLS population. In total, COLS records 19,596 addresses, 14,178 which are designated as City-owned. Of those 14,178 addresses, 9,521 are vacant and not actively managed by a City department or program. Of those vacant 9,521 addresses, DPD verified City ownership of 3,047 with a deed as of October 3, 2019.

DSS' survey process creates inefficiencies that prevent the Department from ensuring all City-owned vacant property is mowed at least four times per year. There is no standardized process; each ward superintendent uses their own method to identify properties. These approaches vary widely, due to differences in the ward superintendents' technological capabilities and the number of vacant properties from ward to ward. In addition, because wards are political boundaries of varying shapes and sizes, it is difficult to find efficient routes for performing surveys. Some ward superintendents with a high volume of vacant lots in their wards spend upwards of four hours per day dealing with weed cutting, leaving them little time to fulfill their other responsibilities. Appendix A shows the disparities in survey activity among wards.

Ward superintendents write down addresses on the HDX Sheet in the order they find them. They do not use a planning tool to help them determine the most efficient survey routes. The weed-cutting contractors, who are paid hourly, mow addresses in the order they appear on the HDX Sheet. The ward superintendents' inefficient survey routes thus cost the City additional money. OIG entered several routes from HDX Sheets into a free online route planner, comparing the results to the ward superintendents' routes. The route planner saved both time and distance for each tested HDX Sheet. In one instance, the route planner recommended a 3.5-mile route where the ward superintendent had traveled 6.1 miles.

Moreover, the paper-based process for planning weed cutting increases the likelihood of errors and prevents DSS from meaningfully measuring performance. HDX Sheets are sometimes misplaced and the Department has difficulty recreating the lost information. The step where sanitation clerks enter data in Salesforce is burdened by a five-month backlog. And once in Salesforce, a record's timestamp only reflects when it was entered, not when a property was identified or work was completed. Finally, sanitation clerks often leave blank or enter an incorrect date in the field meant to record when a property was mowed.



Source: OIG photo of HDX Sheet storage, taken July 18, 2019.

DSS' inability to meet its goal of cutting City owned vacant land at least four times per year results in overgrown weeds contributing to blight throughout Chicago, particularly on the South and West Sides.

2. DSS cannot determine if it responds to overgrown weed complaints in a timely manner

DSS set a goal of closing out all weed-cutting complaints within 42 days of receipt. However, several ward superintendents informed OIG they were unaware of this goal. Furthermore, Salesforce does not capture information about ward superintendents' responses to complaints in a manner sufficient to allow DSS to evaluate weed-cutting performance. As a result, the Department cannot draw meaningful conclusions from its data and cannot identify and address the root causes of any response delays. Nor can DSS hold its staff accountable for failing to meet Department goals.

Salesforce categorizes each complaint about overgrown weeds as a "weed removal request." Since DSS only works on accessible[11] City-owned and private vacant lots, some complaints may not result in mowing by DSS contactors. For example, someone may complain about overgrown weeds on an occupied private property. In such cases, DSS does not mow; instead, the ward superintendent would warn the property owner to take care of the issue and enter a citation if they do not comply.

DSS does not have a consistent complaint response process. Each ward superintendent decides independently how to respond. There are, however, several common scenarios, as described in Figure 3.

FIGURE 3: DSS RESPONDS DIFFERENTLY TO COMPLAINTS DEPENDING ON THE TYPE OF PROPERTY

Property Type	Ward Superintendent Response
Private inhabited residence	The ward superintendent warns the property owner to address overgrown weeds. If the property owner does not take care of the issue the ward superintendent will enter a citation in METS and close out the complaint in Salesforce. DSS does not cut weeds at private inhabited residences.
Private vacant residence	If possible, the ward superintendent will try to contact the owner to have them address the issue. If not, DSS will enter a citation in METS and close out the complaint in Salesforce. Often, this type of property will have a fence preventing DSS from accessing the weeds.
Private vacant lot	If possible, the ward superintendent will try to contact the owner to have them address the issue. If not, DSS will enter a citation in METS. If DSS can access the property, it is added to an HDX Sheet to be cut

[11] "Accessible" in this case means that the property does not have a fence or bollards that would prevent a mower from accessing the property.

	by a contractor. Once the lot is cut, DSS will close out the complaint in Salesforce. Due to the poor quality of DSS's list of City-owned properties, the Department often inadvertently enters citations for lots later determined to belong to the City.
City-owned vacant lot	The ward superintendent will add the property to an HDX Sheet to be cut. Once the lot is cut, DSS will close out the complaint in Salesforce.
Complaint about something other than overgrown weeds	The ward superintendent closes out the miscategorized weed-cutting workorder and opens a new one for the correct complaint (e.g., for fly dumping).

Source: OIG interviews with ward superintendents.

Thus, regardless what steps are taken to resolve a complaint, either a sanitation clerk or ward superintendent will close the complaint in Salesforce. If DSS contractors mow a property in response to a complaint, a sanitation clerk will close the complaint. However, the ward superintendent may close the complaint once they determine the property contains a private inhabited residence, when the property owner cuts the weeds, or when they have entered a citation in METS.

There is no way to record what outcome a closed complaint represents in Salesforce. As a result, ward superintendents have resorted to using fields incorrectly to capture important information. There is no narrative field in Salesforce to enter notes about the complaint response. In 88% of all 2019 complaint work orders, DSS staff entered this type of narrative information into the field intended for the tractor's equipment number. For example, ward superintendents entered information such as "cut by [the] private homeowner" and "warning issued to homeowner to cut down the weeds and clean up." into this field.

Salesforce also does not have data entry controls sufficient to ensure that important information is consistently and accurately entered. In 2019, for example, the "ticket issued?" field for complaint work orders was filled only 53% of the time and the "public vs. private" field only 48% of the time.

Further, there is no way to associate a complaint in Salesforce with its corresponding citation in METS. DSS therefore cannot compare when a complaint was opened to when a citation was entered or when the complaint was closed. This prevents the Department from measuring the timeliness of specific steps within its complaint-response process.

Due to differences in DSS staff's methods for handling complaints and the inability of Salesforce to capture necessary data in a consistent manner, the Department cannot

reliably interpret work orders associated with closed-out complaints. Consequently, DSS cannot draw meaningful conclusions from its data, or evaluate its weed-cutting performance and share results with the public.

RECOMMENDATIONS

1. DSS should develop meaningful performance-based goals for the weed-cutting process, both for complaint response and management of City-owned land. Then, the Department should clearly communicate these goals to the necessary staff members and contactors.

2. DSS should work collaboratively with DPD and DOL to compile a complete and accurate inventory of vacant City-owned land.

3. DSS should contract out all aspects of managing weed cutting on City-owned properties so that ward superintendents are no longer responsible for identifying such sites.

4. Ward superintendents' sole responsibilities regarding weed cutting should be to survey their wards to identify private vacant properties with overgrown weeds and to respond to weed complaints.

5. If DSS continues to provide weed-cutting contractors with daily HDX Sheets, it should use a route planning tool to optimize ward superintendents' survey routes.

6. DSS should align its Salesforce data entry design and controls to meet program needs and ensure they are capturing necessary data, then train ward superintendents and sanitation clerks to close out work orders in a manner that fully and accurately captures complaint outcomes.

7. DSS should ensure that Salesforce work orders and citations entered in METS are linked to one another (for example, with common incident numbers) so that the Department can accurately track and evaluate performance at each phase of the complaint response process.

MANAGEMENT RESPONSE

1. *"The Department is planning to move from 42 days down to 21 days for a performance-based goal and has put in a formal request to 3-1-1 for approval. Upon approval, this change and the logic behind it will be clearly communicated to necessary staff members and contractors. DSS' goal is*

and has been to cut each City-owned lot between 4 to 6 times per season. This is necessarily impacted by weather, as well as by the state of individual lots.

2. *"We will continue to work with Department of Law and Department of Planning and Development to achieve a more accurate city lot list. A meeting will be set with DOL and DPD for later this month to discuss the current state of the city lot list and how each of the involved departments can work to improve the accuracy of the list. Our ward superintendents can assist by inspecting, taking pictures and verifying info that is being provided to them by Law and DPD. DSS is prepared to start immediately.*

3. *"DSS implemented this on May 4, 2020. We now send information to the vendor in advance on the Friday of the week before the lots are to be cut for the upcoming week. As the City lot list becomes more updated, we will continue to provide that information to the contractor.*

4. *"DSS implemented this on May 4, 2020. The Department issues tickets as needed. Ward Superintendents also review completed work in order to approve that the work is being done satisfactorily.*

5. *"Excel spread sheets are now being given to the vendor, listing locations in the order to be serviced. This is done based on route planning in order to save travel time between locations. The Department is actively looking at routing software in order to be more efficient.*

6. *"DSS will work in conjunction with the AIS-BoIT department [Department of Assets, Information and Services – Bureau of Information Technology] to identify any system changes needed within the Salesforce applications to meet program needs and ensure they are capturing necessary data. The goal is to incorporate this practice into the 2021 weed season, with necessary staff trained in advance. We are working with Salesforce to make answering certain questions mandatory in order to close out a request. I.E. Is lot city or private? If private what is the ticket number?*

7. *"DSS would likely be able to incorporate the Salesforce work order numbers into the METS application. However, they would not share a common incident number. DSS will work in conjunction with the AIS-BoIT department to identify any system changes needed to implement this recommendation. This new inclusion should be incorporated in the 2021 weed season."*

IV. OBJECTIVES, SCOPE, AND METHODOLOGY

A. OBJECTIVE

The objective this audit was to determine if DSS meets its goals of mowing all City-owned vacant land at least four times during the growing season—which is May 1st through October 31st—and addressing all overgrown weed complaints within 42 days (six weeks).

B. SCOPE

This audit focused on DSS weed-cutting operations during 2019. Specifically, we looked at whether the Department addressed overgrown weed complaints in a timely manner and whether it ensured that City-owned vacant lots were mowed at least four times during the cutting season. The audit did not assess the quality of weed cutting conducted by the Department's vendors.

C. METHODOLOGY

To address the audit objectives, the project team,

- interviewed DSS management, district superintendents, ward superintendents, and sanitation clerks;
- reviewed policy and procedure documents; and
- observed DSS staff in the field to understand how the program was executed.

To assess DSS' development of objectives and risk tolerances as well as their identification, analysis, and response to risks, we spoke to Department management. To assess internal communication efforts, we spoke with Department management and frontline staff.

To assess DSS' use and processing of information, we analyzed the Department's 2019 work order data in Salesforce, 2019 citation data in METS, and property information in DPD's COLS.

To validate the data entry controls, completeness, and internal consistency of 2019 weed-cutting work order data pulled from Salesforce, the project team interviewed DSS staff responsible for entry and review of the data. We then reviewed 311 questions to determine if the answers were filled out consistently, correctly, and logically. To determine the accuracy of Salesforce work orders against source data, the project team compared 208 work order records taken from HDX Sheets with corresponding work orders in Salesforce. Specifically, we compared "Completed" date, "Public or Private," "Ticket Number," and "Tractor Number" fields.

To validate the accuracy, completeness, and internal consistency of 2019 weed ordinance citation data pulled from METS, the project team observed a DSS staff member enter a citation into the system and reviewed the data entry controls. The project team then exported a report from METS and reviewed the records to identify any discrepancies. Finally, the project team spoke to DOL staff to understand how citations are updated and identified the source of any discrepancies.

To determine the length of time it takes DSS to close out work orders for complaint-identified properties, the project team attempted to match related Salesforce work orders and METS citations generated from the same incident in 2019. The project team was unable to match work orders and METS citations, and was unable to measure timeliness due to data quality and database design issues. We detail these issues in the finding.

To determine if DSS had an accurate and complete population of City-owned vacant property, the project team met with representatives from DPD to learn about COLS, specifically focusing on the data's reliability and how it could be used by DSS. The project team then met with DSS staff to learn how the Department built a list of City-owned vacant land and determine whether it matched the best available data provided by DPD. Finally, the project team compared a list of City-owned addresses confirmed by a deed search in METS against DPD's COLS list to determine the accuracy and completeness of COLS.

To determine if DSS cut all City-owned vacant properties every six weeks in 2019, the project team drew a random sample of 150 City-owned vacant addresses from a subset of addresses in the COLS database. We looked up each address within our sample on Google Maps to ensure it was vacant and found 20 addresses that were out of scope because they were parking lots or other non-vacant City properties. For the 130 addresses that fell within the audit's scope, we counted the number of work orders in Salesforce associated with that address. We consulted with DSS about the remaining addresses that we could not find in Salesforce and determined that due to poor data quality within both COLS and Salesforce that we could not definitively state whether DSS should have cut the addresses in question.

D. STANDARDS

We conducted this audit in accordance with generally accepted Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

E. AUTHORITY AND ROLE

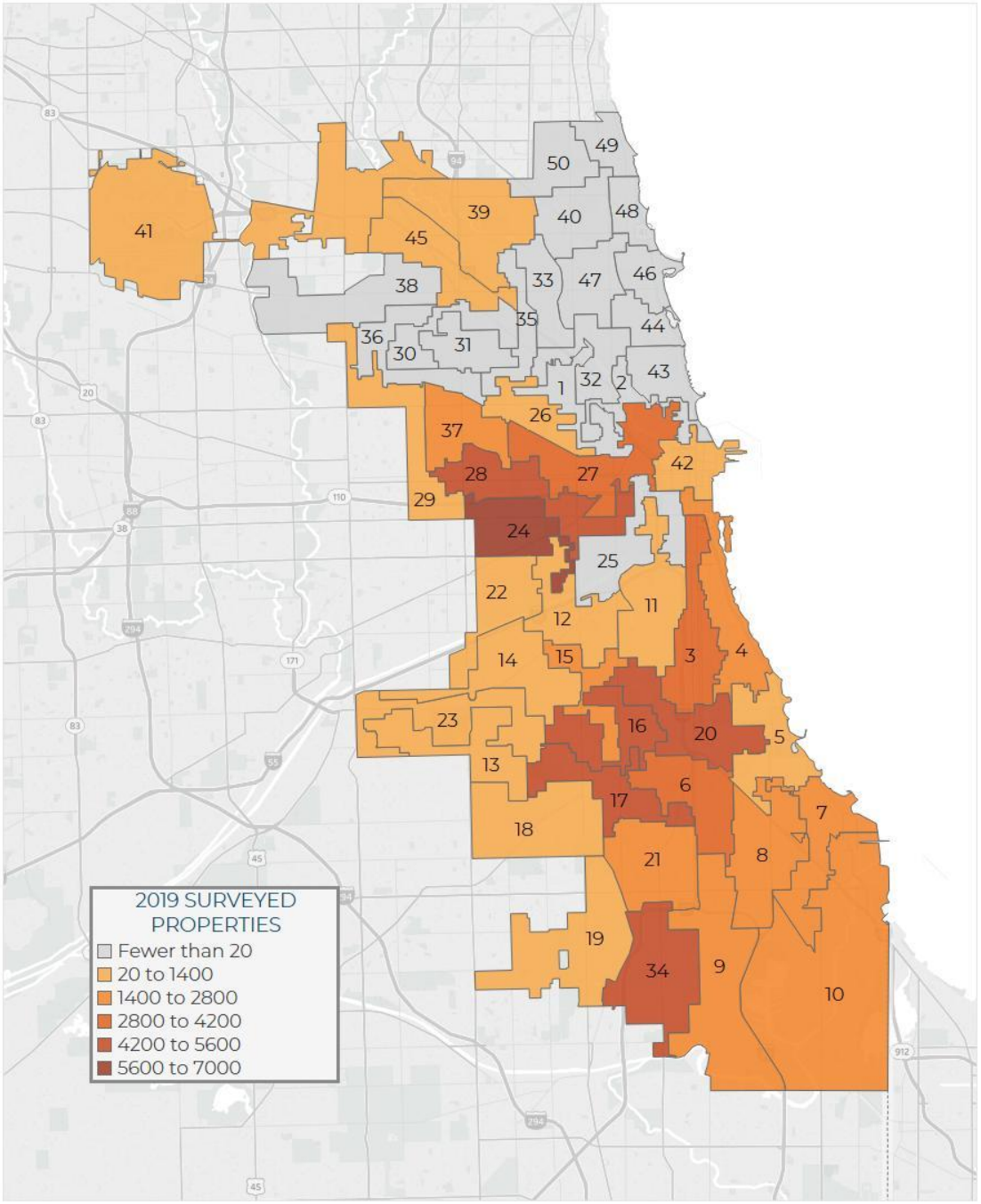
The authority to perform this audit is established in the City of Chicago Municipal Code § 2-56-030 which states that OIG has the power and duty to review the programs of City government in order to identify any inefficiencies, waste, and potential for misconduct, and to promote economy, efficiency, effectiveness, and integrity in the administration of City programs and operations.

The role of OIG is to review City operations and make recommendations for improvement.

City management is responsible for establishing and maintaining processes to ensure that City programs operate economically, efficiently, effectively, and with integrity.

APPENDIX A: MAP OF WORK ORDERS ORIGINATING FROM WARD SUPERINTENDENTS' VISUAL SURVEYS

The map below shows the citywide distribution of work orders that originated from ward superintendents' surveys. These are vacant lots identified in 2019 by ward superintendents through their daily surveys and cut by contractors.



Source: OIG analysis of weed-cutting work orders in Salesforce, May 1, 2019 – December 16, 2019.

The table below provides the source data for the map in Appendix A. Wards 32, 44, 46, 48, and 50 did not have any work orders arising from surveys because they contain few vacant lots. The ward row labeled "Unknown" represents addresses that Salesforce could not geocode.

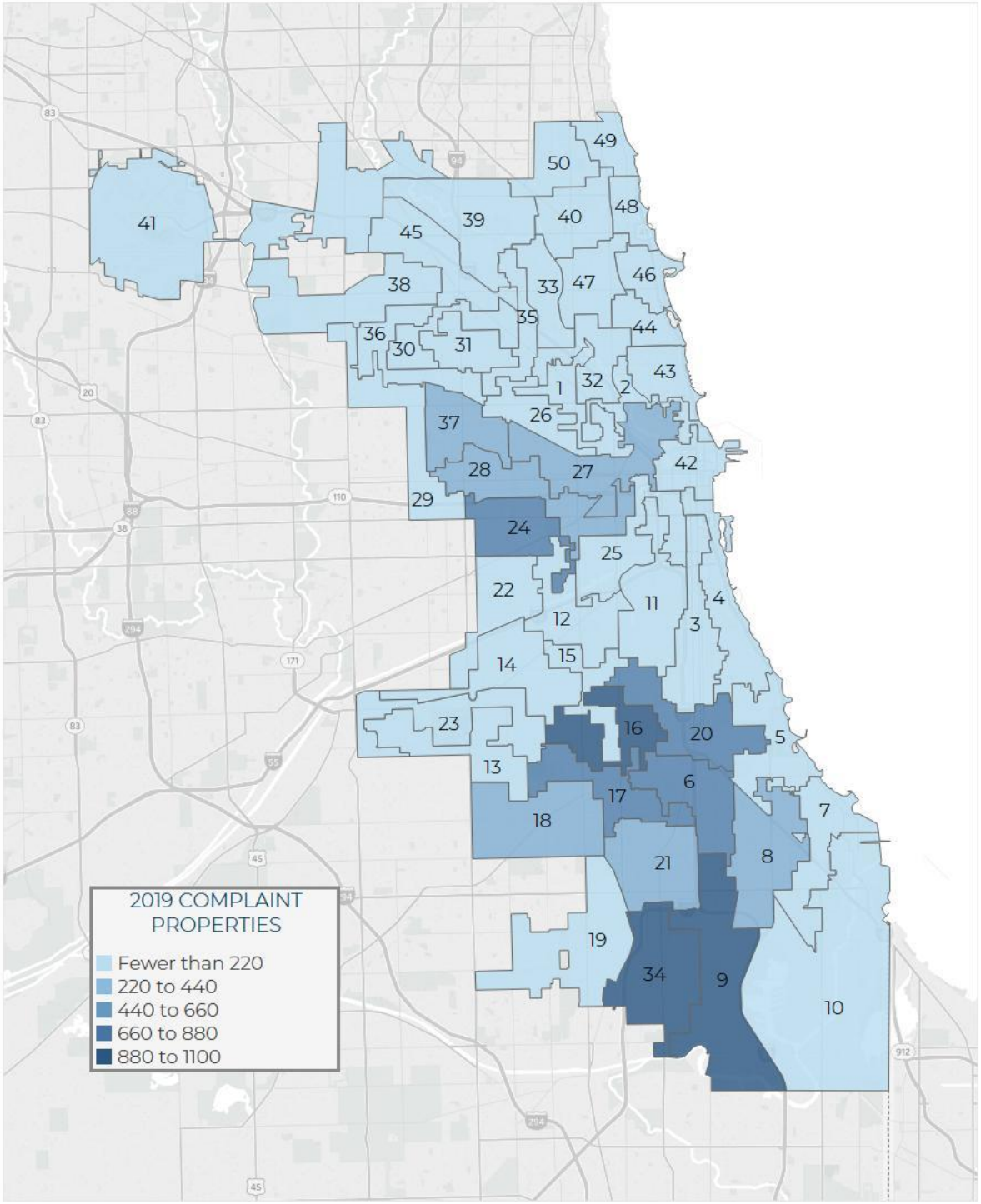
Work Orders Originating from Ward Superintendents' Visual Surveys in 2019			
Rank	Ward	Number of Work Orders	Percent of Total
1	24	6,909	10.96
2	16	5,587	8.86
3	20	5,049	8.01
4	28	4,414	7.00
5	17	4,376	6.94
6	34	4,314	6.84
7	6	3,985	6.32
8	27	3,897	6.18
9	3	3,160	5.01
10	21	2,420	3.84
11	4	2,355	3.73
12	37	2,333	3.70
13	9	2,324	3.69
14	15	2,179	3.46
15	10	1,948	3.09
16	8	1,622	2.57
17	7	1,571	2.49
18	29	1,293	2.05
19	5	999	1.58
20	18	816	1.29
21	Unknown	371	0.59
22	19	192	0.30
23	22	168	0.27
24	14	152	0.24
25	41	108	0.17
26	11	108	0.17
27	13	105	0.17
28	39	55	0.09

Work Orders Originating from Ward Superintendents' Visual Surveys in 2019, **Continued**			
Rank	Ward	Number of Work Orders	Percent of Total
29	23	41	0.07
30	42	39	0.06
31	26	31	0.05
32	45	26	0.04
33	12	20	0.03
34	36	18	0.03
35	38	16	0.03
36	49	11	0.02
37	1	10	0.02
38	25	7	0.01
39	30	6	0.01
40	33	5	0.01
41	35	4	0.01
42	2	3	0.00
43	31	2	0.00
44	47	2	0.00
45	40	1	0.00
46	43	1	0.00
47	32	0	0.00
48	44	0	0.00
49	46	0	0.00
50	48	0	0.00
51	50	0	0.00
	Grand Total	63,053	100

Source: OIG analysis of weed-cutting work orders in Salesforce, May 1, 2019 – December 16, 2019.

APPENDIX B: MAP OF WORK ORDERS ORIGINATING FROM COMPLAINTS

The map below shows the locations of properties subject to overgrown-weed complaints via 311 in 2019.



The table below provides the source data for the map in Appendix B. All 50 wards received complaints in 2019. The ward row labeled "Unknown" represents addresses that Salesforce could not geocode.

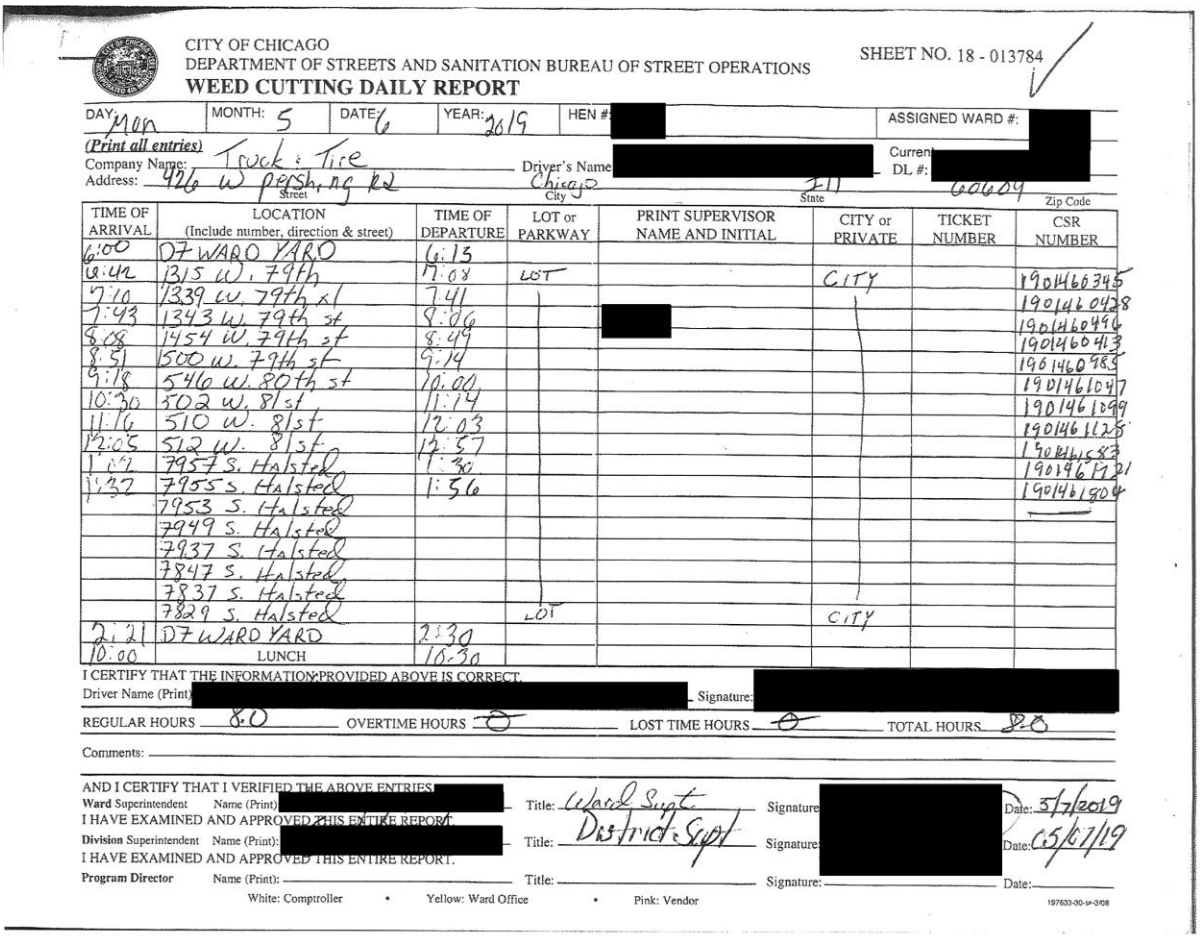
Weed-cutting Work Orders Originating from Complaints in 2019			
Rank	Ward	Number of Work Orders	Percent of Total
1	34	1,101	11.48
2	9	987	11.21
3	16	973	11.05
4	20	637	7.23
5	6	570	6.47
6	24	486	5.52
7	17	449	5.10
8	21	333	3.78
9	18	279	3.17
10	28	265	3.01
11	37	237	2.69
12	8	229	2.60
13	27	221	2.51
14	7	208	2.36
15	3	203	2.31
16	10	138	1.57
17	4	100	1.14
18	1	97	1.10
19	26	93	1.06
20	29	88	1.00
21	15	87	0.99
22	45	86	0.98
23	19	84	0.95
24	5	80	0.91
25	11	72	0.82
26	32	68	0.77
27	25	67	0.76
28	22	49	0.56

Weed-cutting Work Orders Originating from Complaints, Continued			
Rank	Ward	Number of Work Orders	Percent of Total
29	2	48	0.55
30	23	47	0.53
31	12	47	0.53
32	36	43	0.49
33	39	36	0.41
34	33	35	0.40
35	47	35	0.40
36	40	34	0.39
37	30	34	0.39
38	35	33	0.37
39	Unknown	27	0.31
40	46	23	0.26
41	50	21	0.24
42	38	21	0.24
43	49	19	0.22
44	41	18	0.20
45	31	17	0.19
46	13	14	0.16
47	44	13	0.15
48	43	13	0.15
49	48	12	0.14
50	14	11	0.12
51	42	7	0.08
	Grand Total	8,805	100

Source: OIG analysis of weed-cutting work orders in Salesforce, May 1, 2019 – December 16, 2019.

APPENDIX C: SAMPLE HDX SHEET

Below is a sample HDX Sheet. Ward superintendents prepare HDX Sheets daily and weed-cutting contractors use them to guide their work.



CITY OF CHICAGO
DEPARTMENT OF STREETS AND SANITATION BUREAU OF STREET OPERATIONS
WEED CUTTING DAILY REPORT

SHEET NO. 18 - 013784

DAY: Mon | MONTH: 5 | DATE: 6 | YEAR: 2019 | HEN #: [redacted] | ASSIGNED WARD #: [redacted]

(Print all entries)
Company Name: Truck & Tire
Address: 926 W pershing Rd (Street) Chicago (City) IL (State) 60609 (Zip Code)
Driver's Name: [redacted] Current DL #: [redacted]

TIME OF ARRIVAL	LOCATION (Include number, direction & street)	TIME OF DEPARTURE	LOT or PARKWAY	PRINT SUPERVISOR NAME AND INITIAL	CITY or PRIVATE	TICKET NUMBER	CSR NUMBER
6:00	D7 WARD YARD	6:13					
6:42	1315 W. 79th	7:08	LOT		CITY		19014660345
7:10	1339 W. 79th st	7:41					19014604128
7:43	1343 W. 79th st	8:06		[redacted]			19014604964
8:08	1454 W. 79th st	8:49					19014604134
8:51	1500 W. 79th st	9:14					19614609835
9:18	546 W. 80th st	10:00					19014610477
10:30	502 W. 81st	11:14					19014610999
11:16	510 W. 81st	12:03					19014611283
12:05	512 W. 81st	12:57					19014611833
1:07	7957 S. Halsted	1:30					19014617121
1:37	7955 S. Halsted	1:56					19014618044
	7953 S. Halsted						
	7949 S. Halsted						
	7937 S. Halsted						
	7847 S. Halsted						
	7837 S. Halsted						
	7829 S. Halsted		LOT		CITY		
2:21	D7 WARD YARD	2:30					
10:00	LUNCH	10:30					

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS CORRECT.
Driver Name (Print): [redacted] Signature: [redacted]

REGULAR HOURS: 8.0 OVERTIME HOURS: 0 LOST TIME HOURS: 0 TOTAL HOURS: 8.0

Comments:

AND I CERTIFY THAT I VERIFIED THE ABOVE ENTRIES
Ward Superintendent Name (Print): [redacted] Title: Ward Supt. Signature: [redacted] Date: 5/7/2019
I HAVE EXAMINED AND APPROVED THIS ENTIRE REPORT.
Division Superintendent Name (Print): [redacted] Title: District Supt Signature: [redacted] Date: 05/07/19
I HAVE EXAMINED AND APPROVED THIS ENTIRE REPORT.
Program Director Name (Print): Title: Signature: Date:

White: Comptroller • Yellow: Ward Office • Pink: Vendor

197633-30-M-3/08

Source: OIG copy of an HDX Sheet.

MISSION

The City of Chicago Office of Inspector General (OIG) is an independent, nonpartisan oversight agency whose mission is to promote economy, efficiency, effectiveness, and integrity in the administration of programs and operations of City government. OIG achieves this mission through,

- administrative and criminal investigations by its Investigations Section;
- performance audits of City programs and operations by its Audit and Program Review Section;
- inspections, evaluations and reviews of City police and police accountability programs, operations, and policies by its Public Safety Section; and
- compliance audit and monitoring of City hiring and human resources activities and issues of equity, inclusion and diversity by its Diversity, Equity, Inclusion, and Compliance Section.

From these activities, OIG issues reports of findings and disciplinary and other recommendations,

- to assure that City officials, employees, and vendors are held accountable for violations of laws and policies;
- to improve the efficiency and cost-effectiveness of government operations; and
- to prevent, detect, identify, expose, and eliminate waste, inefficiency, misconduct, fraud, corruption, and abuse of public authority and resources.

AUTHORITY

OIG's authority to produce reports of its findings and recommendations is established in the City of Chicago Municipal Code §§ 2-56-030(d), -035(c), -110, -230, and 240.

Cover image courtesy of Kathleen O'Donovan.

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