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Audit of the Department of Streets and Sanitation's Rat Abatement Program

July 28, 2026

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Acronyms

BORC	Bureau of Rodent Control
CDC	Centers for Disease Control
CDPH	Chicago Department of Public Health
DOB	Department of Buildings
DOHMH	New York City Department of Health and Mental Hygiene
DSS	Department of Streets and Sanitation
DWM	Department of Water Management
EPA	United States Environmental Protection Agency
IDPH	Illinois Department of Public Health
IPM	Integrated Pest Management
MCC	Municipal Code of Chicago
MTRCB	New Orleans Mosquito, Termite, and Rodent Control Board
NYC	New York City
OIG	Office of Inspector General
RMZ	Rat Mitigation Zone

The Public Plays a Role in Rodent Control

The Chicago Office of Inspector General (OIG) promotes economy, effectiveness, efficiency, and integrity in the administration of programs and operation of City government. In service of that mission, OIG conducts audits, reviews, and evaluations of the operations and policies of City departments, programs, and functions. This audit report identifies opportunities for improvement related to the rodent control operations of the Department of Streets and Sanitation (DSS) and its Bureau of Rodent Control (BORC). OIG acknowledges that the public also plays an important role in the City's rodent control efforts. As DSS notes, the public can avoid feeding rats by:

- Keeping garbage contained within closed bins.
- Ensuring dog waste is disposed in sealed containers.
- Keeping pet food indoors.
- Removing old tires, lumber, and other piles of debris.
- Regularly harvesting fruit and vegetables from gardens.
- Maintaining tidy bird feeders.

Note on the Time Period of OIG's Evaluation

OIG also notes that 15 months elapsed between the conclusion of fact-finding and the delivery of the draft of this report to DSS. The rodent control program experienced a management change during this time, and DSS reported that it has made improvements to the rodent control program that are not reflected in OIG's assessment. OIG's findings relate specifically to the period of inquiry from July 2023 to July 2024, and OIG has noted in the text below where DSS stated that it has made improvements. OIG appreciates proactive efforts made by DSS and will assess the efficacy of these program updates against its recommendations in its regular follow-up to this report.

I | Executive Summary

The City of Chicago Office of Inspector General (OIG) conducted an audit of the Department of Streets and Sanitation's (DSS) Bureau of Rodent Control (BORC). The audit focused on a period from July 2023 through July 2024. The objective of OIG's audit was to determine whether BORC's approach to addressing the harms of rat infestation aligns with the principles of Integrated Pest Management, a pest control framework endorsed by the Centers for Disease Control, the Environmental Protection Agency, and the Illinois Department of Public Health.

A | Conclusion

Widely accepted principles of Integrated Pest Management (IPM) hold that preventive efforts and coordinated action are crucial to addressing rat infestation. Although BORC stated that it follows these principles, its program did not satisfy IPM's key elements. Specifically, BORC did not survey or monitor the root causes of rat infestation over time. It treated individual complaints to 311 (the City's non-emergency service request system) as thresholds for action rather than targeting interventions based on overall impacts to quality of life, economic activity, or public health.[1] BORC's primary goal was to poison rats in response to complaints rather than addressing the root causes of rat infestations while using poison as a last resort.[2] Though other City agencies provide services that could address root causes, these services were not incorporated into BORC's program or into a unified strategy for rodent control. Finally, BORC did not evaluate or report on the effectiveness of its intervention efforts, which limited its ability to determine whether its efforts are creating long-term improvement.

B | Finding

OIG found that DSS's dedicated rodent control program was complaint-based, not integrated with other City services, and was unlikely to achieve long-term control of the rat population. Without a coordinated effort that identified and addressed the factors contributing to rat activity, and without ongoing evaluation of which interventions were most appropriate, the program could not deliver equitable solutions for the public health, quality-of-life, and economic impacts created by rats. The program's reliance on poison also increased the risk of environmental hazards.

C | Recommendations

OIG recommends that DSS fulfill its stated commitment to IPM principles by implementing a rodent control approach that includes surveying, establishing thresholds for intervention, prioritizing non-toxic intervention, and evaluation. DSS should,

1. use a surveying approach to collect and monitor data on root causes that support rat activity across the city, potentially including, for example, garbage and alley conditions, active rat signs such as burrow holes, vacant lots, green space, restaurant inspection violations, building violations, and other information that BORC deems relevant;

[1] City of Chicago, 311 City Services, accessed May 1, 2026, https://www.chicago.gov/city/en/depts/311.html.
[2] DSS emphasized that its rodent control program uses "pesticides that are registered and regulated by the U.S. Environmental Protection Agency (EPA) and the Illinois Department of Agriculture." Throughout this report, "poison," "rodenticide," and "pesticide" should be understood to refer to these labeled and regulated products. An example of the language from one such regulatory label is included on page 26 of this report.

2. establish thresholds at which rat activity or root causes warrant intervention, where the need for intervention could be determined by comparing the results of BORC's inspection and monitoring activities to these thresholds;
3. prioritize and coordinate non-toxic interventions (such as education, sanitation, and habitat modification) before using chemical control; and
4. establish measurable goals for rat abatement based on changes in rat activity and root causes over time, and report the outcomes of BORC's efforts in terms of these results.

Additionally, OIG recommends that DSS establish written policies and procedures to ensure that BORC collaborates with other relevant DSS bureaus and City agencies whose information, operations, and expertise are necessary to implement an IPM approach. To promote IPM across City operations, DSS should also provide training on rodent control to other City agencies whose missions include housing, public health, infrastructure, or recreation. Finally, OIG recommends that DSS establish a policy for the safe use of poisons and train employees on the circumstances that warrant chemical control of rat populations.

D | DSS Response

In response to OIG's audit findings and recommendations, DSS stated that it would expand BORC's surveying efforts to collect and monitor data on infestations and conditions that contribute to rat activity. DSS also stated that it would share these findings with partner City agencies to coordinate corrective actions.

Regarding thresholds for intervention, DSS stated that BORC would establish operational thresholds based on inspection results and observed conditions, including coordination with DSS's Sanitation Bureau, its Quality of Life team, and other City partners.

Regarding the prioritization of non-toxic interventions, DSS disagreed stating that it emphasizes education, sanitation, habitat reduction, and interdepartmental coordination prior to applying rodenticide, as appropriate. Nevertheless, DSS agreed to enhance its reporting on intervention efforts beyond chemical control.

DSS also committed to establishing measurable performance indicators that evaluate the effectiveness of the program based on trends in rodent activity and other conditions. BORC intends to conduct staff training and implement standardized inspection protocols. Relatedly, DSS reported that BORC now maintains a Standard Operating Procedure for rodent abatement operations. The department will expand the policy to address coordination with other City agencies, including a definition of roles and expectations for referrals.

BORC also agreed to work with other City departments to provide IPM training for agencies involved in housing, public health, infrastructure, recreation, and related services, contingent on the participation of those agencies.

Finally, BORC agreed to revise its Standard Operating Procedure to formally address the safe storage, handling, application, and disposal of rodenticides. BORC intends to develop a biannual training to ensure consistent implementation of these safeguards.

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

II | Background

Communities around the world suffer from rat infestations, and Chicago is no exception. For decades, the City has expended considerable resources to address rats' impact on public health, infrastructure, and quality of life.

Rats are adaptable and prolific pests that thrive in conditions created by human activity. Urban rats live in a variety of habitats, including underground burrows, aboveground structures, and sewers, and feed on garbage, uncollected garden produce, dog waste, and other sources. A single female rat may have 4-7 litters of 8-12 young, or up to 84 offspring, per year.

> "This year, rodents ate through the wires of the fuel injector of my car - which caused danger for me and an expensive repair …the city's solutions aren't enough, incurring more expense for us."
>
> - A member of the community described to OIG the economic impact of rat infestations

Populations of rats tend to occur in clusters, as rats prefer to shelter within 75 feet of a food source. These "rat reservoirs" may support generations of rats over multiple years and foster rat activity for surrounding areas. Rat activity is not restricted to one type of environment; rather, factors such as land use, population density, and commercial activity contribute to unique challenges for different communities.

Rats can spread diseases to humans and domestic animals through bites, droppings, and parasites such as fleas. Rats also cause costly and dangerous damage by gnawing through concrete, pipes, wires, gas lines, and vehicle components. Additionally, encounters with rats can cause psychological effects ranging from disgust to chronic stress, especially for people who encounter rats in daily life.[3]

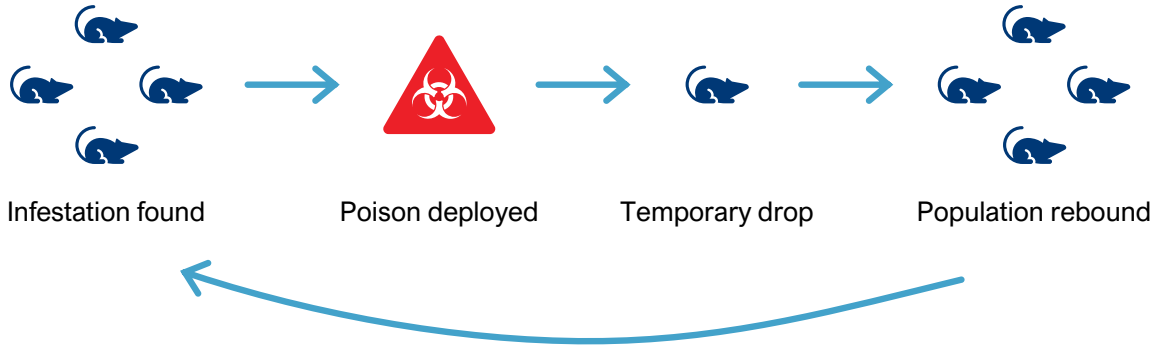
A | Integrated Pest Management

In the twentieth century, traditional rodent control programs sought to 'exterminate' rat infestations through intensive poisoning and trapping. However, some rodent control programs have reevaluated this strategy in recent years based on concerns about its effectiveness and environmental impact.

A poison-centered approach may immediately reduce a specific infestation, but because of rats' high reproductive rate, it does not control infestations in the long term. Without addressing the root-cause conditions that perpetuate rats' life cycle (such as by reducing access to garbage), poison-based programs repeatedly expend resources to suppress populations that then rebound. This cycle, as depicted in Figure 1, is known as "rat harvesting."

[3] Maureen H. Murray, Kaylee A. Byers, Jacqueline Y. Buckley, Seth B. Magle, and Danielle German. "Associations between Rat Infestations and Mental Health Vary by Gender, Race, and Income in Chicago," Journal of Urban Health 101, April 2, 2024, 318–26, accessed May 1, 2026, https://doi.org/10.1007/s11524-024-00840-4.

Figure 1: A Poison-based Approach Leads to a Cycle of "Rat Harvesting"



Source: OIG visualization of a cycle of extermination and population rebound that rodentologists call "rat harvesting."

Poison not only has minimal long-term effectiveness in reducing rat infestations, it can also negatively impact other animals. The United States Environmental Protection Agency (EPA), as well as rodentology researchers, have found that widely used poisons, which kill rats by causing internal bleeding, can harm birds of prey and urban mammals that might feed on rats and thereby ingest any poison ingested by those rats.[4] Best practices have shifted towards Integrated Pest Management (IPM), a more proactive approach that addresses the root causes of infestation by restricting the food, water, and shelter that allow pests like rats to thrive in the first place.

In contrast to a poison-first approach, IPM "is a pest management strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and nontarget organisms."[5]

The IPM pest control framework is endorsed by the Centers for Disease Control (CDC), Illinois Department of Public Health (IDPH), and EPA. Its central concept is that by managing environmental

> "It is recognized that pests can best be controlled through an **integrated pest management program** that combines preventive techniques, nonchemical pest control methods, and the appropriate use of pesticides with preference for products that are the least harmful to human health and the environment."
>
> - Illinois Structural Pest Control Act (225 ILCS 235/2) [emphasis added]

[4] In order to understand the risks rodenticide poses to non-target animals, OIG reviewed evidence from the United States EPA, the Lincoln Park Zoo Urban Wildlife Institute, and the City's rodenticide vendor, Liphatech. OIG also interviewed rodent control experts in peer municipalities, experts with IDPH's Structural Pest Control Program, and rodentologist Dr. Robert Corrigan.
United States Environmental Protection Agency, "Risk Mitigation Decisions for Ten Rodenticides," May 28, 2008, accessed May 1, 2026, https://www.regulations.gov/document/EPA-HQ-OPP-2006-0955-0764.
Jacqueline Buckley, Maureen Murray, et al., "Widespread Exposure to Anticoagulant Rodenticides among Common Urban Mesopredators in Chicago," Science of the Total Environment 952¸ November 20, 2024, accessed May 1, 2026, https://doi.org/10.1016/j.scitotenv.2024.175883.

[5] Mary Louise Flint, Sheila Daar, and Richard Molinar, "Establishing Integrated Pest Management Policies and Programs: A Guide for Public Agencies," University of California Agriculture and Natural Resources Catalogue 8093, January 2003, J-2, accessed May 1, 2026, https://ucanr.edu/sites/default/files/2011-02/77664.pdf.

conditions, pests can be reduced to acceptable levels over the long term while minimizing the use of pesticides.[6]

Federal agencies are required to use IPM for pest control[7] and the State of Illinois requires its use in sensitive settings such as schools and daycares.[8] The City of Chicago's 2021 Wildlife Management and Coexistence Plan stated that, compared to the use of poison, "[a] more long-term and effective approach to preventing rats is to remove rat attractants such as food and shelter."[9] This aligns with the principles of IPM.

As far back as the 1970s, the CDC used IPM techniques to achieve control of rat infestations on highly impacted blocks in communities throughout the United States. Since then, municipalities such as New York City, New Orleans, and San Francisco have incorporated elements of IPM into their rodent control programs. In an urban setting, implementing an IPM approach requires coordination among relevant public agencies and other stakeholders, including residents. This is because rat populations and contributing factors exist across many different properties and infrastructure components in cities—including businesses, high- and low-density residential buildings, sewers, and public transit—which are overseen by many different agencies and private stakeholders.[10]

As public agencies incorporate IPM into their rodent control programs, residents can help by keeping garbage contained, disposing of dog waste, maintaining gardens and bird feeders, and removing excessive weeds or debris from their yards.

The summary below includes the four "key components" of IPM principles as defined by the CDC and examples from municipalities contacted by OIG. While each of the municipal agencies operates with different resources and within different regulatory environments that make direct comparison difficult, OIG offers the examples below to illustrate how individual IPM principles may be used in local government. The CDC noted that "if one key component is omitted, success in managing or eliminating pests is reduced."[11]

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[6] Mary Louise Flint, Sheila Daar, and Richard Molinar, "Establishing Integrated Pest Management Policies and Programs: A Guide for Public Agencies."
Centers for Disease Control, "Integrated Pest Management: Conducting Urban Rodent Surveys," 2006, 2, accessed May 1, 2026, https://stacks.cdc.gov/view/cdc/6865.
[7] 7 U.S. Code § 136r–1.
[8] 225 ILCS 235/10.2(b). The law allows an exception where a school or daycare provides written notice that implementing IPM would be a financial hardship.
[9] City of Chicago Animal Care and Control and Lincoln Park Zoo Urban Wildlife Institute, "Chicago Wildlife Management & Coexistence Plan," Summer 2021, 17-18, accessed May 1, 2026, https://www.chicago.gov/content/dam/city/depts/cacc/PDFiles/FINAL_CHICAGO_WILDLIFE_Mangement_&_Coexistence_plan2021.pdf.
[10] Bobby M. Corrigan, "A Profile of the Norway Rat, Rattus Norvegicus, in New York City: Its Impact on City Operations and the Need for Collaborative Interagency Rat Management Programs," Proceedings of the Vertebrate Pest Conference, 2006, 134, accessed May 1, 2026, https://escholarship.org/uc/item/8nv0z3v4.
[11] CDC, "Integrated Pest Management: Conducting Urban Rodent Surveys," 2.

IPM Component 1: Surveying involves gathering information about pest populations and conditions that promote pest populations. This could include techniques such as inspection, monitoring of problem areas, preparation of summary reports (e.g., maps, graphs, and tables), and developing methods to address root causes. Surveying does not require completing a "census" of the rat population; however, it could involve developing an "index" that uses scores for the severity of infestations and root causes like exposed trash.

Parcel-level inspection results viewable on NYC's Rat Information Portal. Source: NYC DOHMH

For example, New York City's (NYC) Neighborhood Rat Reduction Initiative, which is located within its Department of Health and Mental Hygiene (DOHMH), conducted a survey of 35,000 properties across 11 neighborhoods from 2007 and 2008 and assigned simple severity scores to rat infestations. This baseline allowed NYC to assess through subsequent inspections whether its later interventions had reduced levels of infestation and their root causes.

IPM Component 2: Tolerance levels are the thresholds of harm caused by infestations and root causes at which action must be taken to reduce impacts on health, economic activity, and quality of life. The results of surveying and monitoring can be measured against these thresholds. For example, the CDC established block-level thresholds of "2% or less of the premises with active exterior rodent signs and either 15% or less of the premises with exposed garbage or 30% or less of the premises with unapproved refuse storage."[12] According to the CDC, "this set of criteria became widely accepted as the tolerance limit for a block, target area, or community."[13] If conditions exceed these thresholds, they should trigger targeted action to reduce pest activity and contributing factors like food and shelter.

IPM Component 3: Intervention includes the "actions taken to prevent, reduce, or eliminate [pest] infestations and their destructive effects."[14] IPM emphasizes addressing the root causes of infestation by prioritizing sanitation, structural repairs, education, and legal enforcement before turning to the least toxic chemical control (including poison) that will be effective for a particular pest.

For example, the New Orleans Mosquito, Termite, and Rodent Control Board (MTRCB), which is a city department that reports to the City of New Orleans Office of Public Safety and Homeland Security, does not bait rodent burrows.[15] Rather, it uses nontoxic management methods and focuses on addressing conditions that contribute to rodent problems. Specifically, MTRCB provides inspections in response to requests. Inspectors pass or fail properties based on rodent signs and advise residents on pest-proofing. MTRCB also uses carbon monoxide machines and mechanical traps for large infestations when needed.

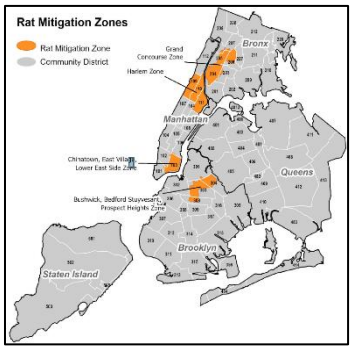
San Francisco's Vector Control Program, which is located within the Department of Public Health and collaborates with the city's Department of Environment, places strict limits on the use of

[12] Active rodent signs include evidence of rodent activity such as droppings, open burrows, etc.
[13] CDC, "Integrated Pest Management: Conducting Urban Rodent Surveys," 16.
[14] CDC, "Integrated Pest Management: Conducting Urban Rodent Surveys," 2.
[15] Baiting refers to the act of strategically placing a substance to lure rodents to ingest the bait, killing them or interfering with their reproductive cycle.

pesticides. Vector Control inspectors respond to complaints by inspecting properties for signs of rat infestations or root causes. Inspectors do not conduct direct baiting, but a third-party vendor uses exclusion (structural changes to block the movement of rats) and sanitation techniques to limit rats' access to sources of food and shelter in the public way.[16] The Department of Environment maintains a list of allowable pesticides, including some rodenticides, that it defines as reduced-risk.[17] This list also places limitations on how particular pesticides can be used. On a case-by-case basis, the department may grant exemptions to allow the use of other pesticides on City of San Francisco property based on special, unforeseen, or emergency situations. According to the Department of the Environment, "most exemptions granted are for pilot testing new, safer products."[18]

IPM Component 4: Evaluation involves measuring the effects of interventions and determining whether they should be "repeated or modified." Evaluation helps to ensure that the most effective solution is being used for a particular pest problem. Reporting outcomes of interventions to stakeholders also provides transparency into the effectiveness of the pest control strategy.

An example of evaluation is New York City's reporting on Rat Mitigation Zones (RMZs). RMZs are areas that have been designated as high-need based on criteria such as inspection results, complaints, and impact on public green spaces like parks. Each parcel in an RMZ receives a proactive "index" inspection, and aggregated results are compared to established baselines.



Map of New York City's RMZs. Source: Rules of the City of New York, Title 24, Ch. 35

NYC's local laws also require DOHMH to report on the outcomes of inspection activities. NYC Local Law 37 ("Pesticides Used by City Agencies") and Local Law 54 ("Pesticide Use Reporting from NYC Agencies") require city agencies to reduce their use of pesticides and to report annually on the amount of pesticide used. Local Law 110 ("Rat Mitigation Zones") requires DOHMH to report annually on mitigation goals and results within RMZs. Finally, an online portal allows residents to look up parcel-level inspection results, which include the reasons why inspections passed or failed.[19]

B | DSS Bureau of Rodent Control

The Municipal Code of Chicago (MCC) § 2-100-030(f) charges the Commissioner of the Department of Streets and Sanitation (DSS) with "the administration of programs for the

[16] Exclusion involves a structural change that physically blocks rats' movements, such as sealing holes, using wire mesh to cover gaps in fencing, or installing concrete pads beneath compost piles.
[17] Rodenticides are a type of pesticide used to control rodents by killing the rodents that ingest bait containing the active ingredient. United States Environmental Protection Agency, "Rodent Control Pesticide Safety Review," accessed May 1, 2026, https://www.epa.gov/rodenticides/rodent-control-pesticide-safety-review#:~:text=Rodenticides%20are%20used%20to%20control,serious%20risk%20to%20public%20health.
[18] City of San Francisco Environment Department, "Guide to San Francisco's Reduced-Risk Pesticide List," September 1, 2013, 2, accessed May 1, 2026, https://www.sfenvironment.org/files/2025-12/sfe_th_guide_to_reduced_risk_pesticide_listposted.pdf. See also San Francisco Environment Department, "San Francisco Reduced-Risk Pesticide List for City-Owned Properties," September 22, 2025, accessed May 1, 2026, https://www.sfenvironment.org/san-francisco-reduced-risk-pesticide-list.
[19] New York City Department of Health and Mental Hygiene, "Rat Information Portal," accessed May 1, 2026, https://a816-dohbesp.nyc.gov/IndicatorPublic/Rats/.

extermination of insects, rodents or other pests." While DSS encounters rodent populations in its various operations, Chicago's dedicated rat abatement program is located within DSS's Bureau of Rodent Control (BORC). In addition, MCC § 7-28-670 empowers DSS to "inspect the interior and exterior of buildings, other structures, or parcels on which a building has been demolished or is being constructed" for signs of rat infestation, and to serve property owners with "written notice to abate" any conditions that provide shelter for rats.

BORC's rodent control services consist of the Carts program, which replaces and repairs City garbage and recycling carts, and Vector Control, which conducts rodent control, dead animal pickup, and wasp/bee removal. The City's 2026 Budget allocated $12,527,603 to BORC, with 3 budgeted positions in Administration, 30 in Cart Management, 68 in Vector Control, and 2 in Dead Animal Recovery.[20] Based on day-to-day availability of staff during the time period of the audit, BORC fielded 14 to 16 crews for rat abatement, 2 to 3 crews dedicated to dead animal pickups, and 1 crew for wasp/bee removal.

BORC stated in public outreach materials that it used an IPM approach to rodent control, including "inspection, monitoring, sanitation, exclusion, and chemical control when necessary." BORC further described its approach to rats as a "multi-pronged attack on their food sources and breeding places in residential neighborhoods" (Figure 2, below).[21]

Figure 2: BORC Stated that It Used an IPM Approach to Rodent Control

Source: City of Chicago Department of Streets and Sanitation, "Rodent Control" pamphlet

BORC's Rodent Control Program is Primarily Complaint-Driven

Although BORC publicly stated an adherence to IPM principles, it did not have standard operating procedures for the rodent control program, and management stated that the primary purpose of the rodent control program was to deploy poison. Additionally, while IPM calls for a proactive program based on monitoring of risk factors, BORC relied on public complaints to prioritize its daily

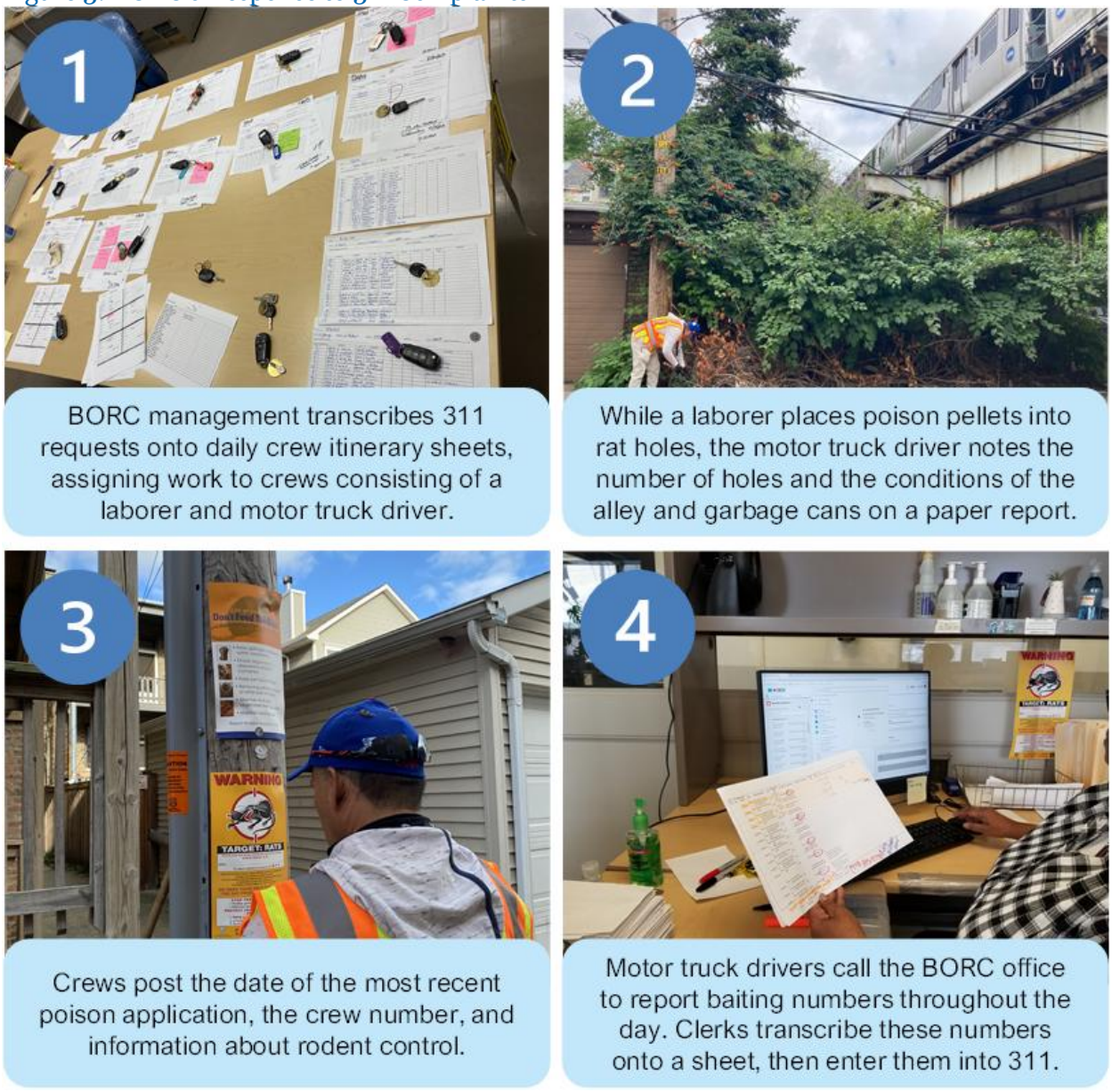
[20] City of Chicago Office of Budget and Management, "2026 Annual Appropriation Ordinance," 392-393, accessed May 1, 2026, https://www.chicago.gov/content/dam/city/depts/obm/supp_info/2026Budget/FY2026%20Annual%20Appropriation%20Ordinance.pdf.
[21] City of Chicago, "Streets and Sanitation: Rats in Chicago," accessed July 31, 2025, https://www.chicago.gov/city/en/depts/streets/provdrs/rodent/svcs/rats_in_chicago.html.

operations.[22] When a resident called 311 or used the CHI311 application to submit a complaint, BORC's primary goal was to dispatch a baiting crew to the complaint location within five business days.

As described in Figure 3, BORC management reviewed 311 complaints, then assigned hardcopy itineraries to crews. Management assigned work based on the ward location and age of unaddressed 311 complaints. Crews then visited the locations of complaints and inserted anticoagulant poison pellets[23] into rat burrows found in the public way (e.g., in alleys) and in the yards of residential properties with fewer than five units.[24] Notably, residential yard baiting was scheduled only between the hours of 7:00 a.m. and 9:00 a.m., Monday through Friday, and a resident was required to be present, which limited the accessibility of the service.

[22] The Chicago 311 system allows residents to request City services, including rat abatement.
City of Chicago, 311 City Services, accessed July 31, 2025, https://www.chicago.gov/city/en/depts/311.html.
[23] Anticoagulant poisons interfere with blood clotting and cause death from excessive bleeding.
United States Environmental Protection Agency, "Restrictions on Rodenticide Products," accessed May 1, 2026, https://www.epa.gov/rodenticides/restrictions-rodenticide-products.
[24] BORC management described the five-unit cut-off as a long-standing convention reflecting the types of residences that receive City garbage pickup.

Figure 3: BORC's Response to 311 Complaints



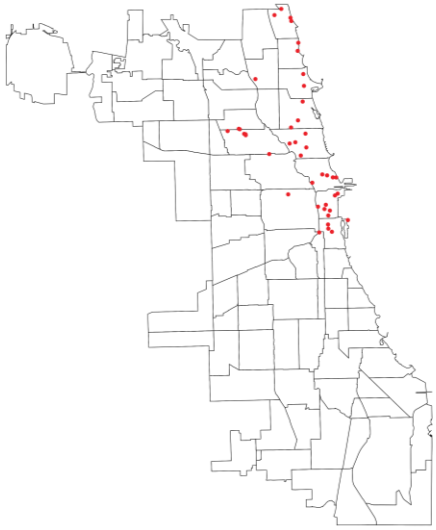
Source: OIG photos and direct observations

BORC also offered complaint-based services at the block level upon requests by residents or ward officials, which it called rat "abatement projects." Abatement projects were scheduled during morning hours, Monday through Friday. BORC typically limited the number of block-level abatement projects to three per week so that crews could prioritize individual 311 complaints, according to BORC management. Before abatement projects, crews distributed flyers to notify residents on the block. At a later date, one or two BORC crews returned to offer door-to-door residential baiting on the block, bait alleys, and document damaged garbage carts. Crews distributed doorhangers informing residents about common sources of rat infestation and how to help prevent them.

In addition to responding to individual complaints and block-level requests, BORC provided some services to City departments and Sister Agencies:[25]

- BORC had a longstanding practice of baiting on Chicago Park District (Park District) properties based on a 2007 intergovernmental agreement.[26] BORC conducted both complaint-based baiting and routine baiting at certain downtown and other lakefront parks based on subjective criteria such as a location being considered "high visibility." As shown in Figure 4, this proactive approach included few parks on the City's South and West Sides. The Park District did not conduct separate rodent prevention activities.
- BORC provided baiting services when the DSS Bureau of Street Operations collaborated with the Department of Family and Support Services on scheduled cleanings of encampments of people experiencing homelessness.
- To secure a Department of Buildings (DOB) demolition permit, property owners had to submit an affidavit that rodent control measures are in place. BORC supervisors inspected to confirm the measures, then approved or denied these affidavits as part of DOB's permitting process.
- BORC provided baiting services before major water-sewer main installations by the Department of Water Management (DWM). BORC crews used wires to suspend blocks of bait beneath manholes for several weeks and drew them up again before construction commenced.

Figure 4: BORC Provided Routine Baiting for Certain City Parks



Source: OIG visualization of routine park baiting locations provided by the Park District

BORC also responded to requests for assistance submitted by other City departments, such as DOB, on a case-by-case basis.

C | In Chicago, Many Public and Private Entities Have Responsibility for Factors Impacting Rodent Control

As mentioned, implementing an IPM approach in an urban setting requires coordination among relevant public agencies and other stakeholders, including residents, to ensure that rat infestations and root causes are addressed holistically. This is because rat populations and conditions conducive to such populations exist across many different properties and infrastructure

[25] MCC § 1-23-010 defines "Sister Agency" as "the Chicago Public Schools, Chicago Park District, Chicago Transit Authority, City Colleges of Chicago, Chicago Housing Authority or Public Building Commission."
[26] According to Park District management and DSS, the 2007 agreement is long expired, but BORC continued to provide baiting services in parks. DSS also stated that although BORC management provided information regarding rodent baiting to the DSS finance office, DSS did not bill the Park District for baiting services between 2021 and the time of OIG's inquiry in April 2024.

components in cities—including businesses, high- and low-density residential buildings, sewers, and public transit—which are overseen by many different agencies and private stakeholders.[27]

Figure 5 shows the many government entities in Chicago whose activities touch on the causes and effects of rat infestation, as well as others such as property owners and community gardeners. While BORC coordinated on a case-by-case basis with other City departments or other units within DSS (such as the Sanitation Bureau or weed-cutting program), these stakeholders were not unified by a shared strategy. The limitations of these coordination efforts are discussed in the Finding.

Figure 5: Multiple Entities Have Responsibility for Factors Impacting Rodent Control

Conditions	Interventions	Responsible Parties
Alley infestations	Baiting, garbage cart replacement	BORC
Interior rat infestations	Building inspections	DOB, Chicago Housing Authority
	Restaurant inspections	CDPH
	Commercial pest control	Property owners, pest control industry
Parks and gardens	Management of weeds, trash, dog waste, and edible produce	Park District, community gardeners
Exposed garbage	Trash removal	DSS Sanitation Bureau, private haulers, Special Service Areas[28]
	Sanitation code inspections	DSS ward superintendents
Overgrown weeds	Weed-cutting	DSS Sanitation Bureau, ward superintendents, property owners, City vendors
	Sanitation code inspections	Ward superintendents
Code enforcement	Administrative hearings	Department of Law, Department of Administrative Hearings
Abandoned/troubled buildings	Remediation, enforcement	Department of Housing, DOB, Chicago Police Department
Rat-borne disease	Sampling and surveillance	None
Demolitions and excavation	Site inspections	BORC
	Site monitoring	None
Sewer infestations	Pre-installation baiting	BORC, DWM
	Sewer monitoring	None
Other infrastructure damage	Repair, prevention	Chicago Transit Authority, Chicago Department of Transportation

Source: OIG interviews and analysis

[27] Bobby M. Corrigan, "A Profile of the Norway Rat, Rattus Norvegicus, in New York City: Its Impact on City Operations and the Need for Collaborative Interagency Rat Management Programs."
[28] Special Service Areas (SSAs) are public/private partnerships that provide supplemental sanitation and beautification services within neighborhoods through an additional localized property tax. According to the Department of Planning and Development, there are currently 58 SSAs throughout the city. City of Chicago, "Special Service Area Program," accessed May 1, 2026, https://www.chicago.gov/city/en/depts/dcd/supp_info/special_service_areassaprogram.html.

In the past, the City has organized at least three interdepartmental or intradepartmental task forces that used a variety of tools to address both rat populations and root causes. However, without a formal structure for collaboration, none of these initiatives lasted into the current day:

- In 1977, then-Mayor Michael Bilandic established a "Comprehensive Rodent Control Program" with 26 four-person crews and a six-member board of directors to run educational campaigns along with abatement efforts.
- In 1994, then-Mayor Richard M. Daley formed a "Dumpster Task Force" in which DSS, DOB, and the Chicago Department of Public Health (CDPH) shut down infested restaurants and enforced sanitation standards on residential blocks. This approach addressed multiple sources of rodent infestation in one coordinated effort.
- In 2016, then-Mayor Rahm Emanuel announced a "Rodent Task Force" to promote interagency collaboration. DSS laborers were cross-trained in rodent control and sanitation tasks, such as cutting weeds and removing garbage. This allowed the City to address food and harborage sources in addition to baiting in one integrated effort.

III | Objectives, Scope, and Methodology

A | Objectives

The objective of OIG's audit was to determine whether BORC addresses the harms of rat infestation in alignment with the principles of IPM.

B | Scope

The scope of the audit included BORC's policies, procedures, and internal controls related to BORC's ability to achieve its organizational objectives.

The scope did not include an analysis of the reliability of 311 work order information, nor the accuracy of paper records of work performed. The audit did not evaluate the timeliness of BORC's response to 311 complaints. Nor did it consider pest control services provided by City vendors or other private companies.

C | Methodology

To understand the principles of IPM, OIG reviewed Illinois law, United States EPA rules, CDC guidance, peer city practices, pest control industry materials, and academic literature. OIG also contacted pest control professionals from IDPH and interviewed staff responsible for rodent control programs in New York, NY; New Orleans, LA; Washington, D.C.; and San Francisco, CA, about their cities' use of IPM.

To learn about the impacts of rat infestations on Chicagoans, OIG spoke with community groups, solicited public input through flyers and media outreach, and interviewed elected officials. To learn about the impacts of rodenticides on non-target species, OIG spoke with researchers from the Urban Wildlife Institute of the Lincoln Park Zoo and a professional rodentologist.

To learn about BORC's operations, OIG interviewed senior management, administrative staff, and front-line rodent control crews. OIG directly observed BORC's fieldwork and office-based processes. OIG also spoke with the pest control vendor for City facilities.

To understand participation in rodent control among the City agencies whose functions intersect with concerns created by rats, OIG interviewed staff from the DSS Sanitation Bureau, CDPH, DOB, the Park District, DWM, and the Carts program of BORC. OIG also met with the Commissioner of DSS to discuss the draft audit report and incorporated additional information related to public education and quality-of-life initiatives at the department level.

To assess the City of Chicago's approach to rat abatement, OIG compared knowledge gathered about BORC's operations and the operations of other relevant City and Sister Agencies against the four components of IPM principles identified by the CDC.

D | Standards

OIG conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that OIG plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for its findings and conclusions based on its audit objectives. OIG believes that the evidence obtained provides a reasonable basis for its findings and conclusions based on its 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.

IV | Finding and Recommendations

Finding: DSS's dedicated rodent control program is complaint-based, not integrated with other City services, and is unlikely to achieve long-term control of the rat population.

The City's rodent control program did not align with the principles of IPM. A key component of these principles is gathering information about rat populations using surveying and monitoring. To control and prevent rat infestations, agencies should prioritize addressing the root causes of infestation and use poison only as a last resort. Finally, agencies should evaluate and report on the effectiveness of their interventions. Though BORC had publicly stated an adherence to IPM, OIG found the following:

- Surveying: BORC did not proactively survey to identify rat populations and root causes citywide; nor did it monitor for emerging issues over time. Rather, BORC primarily identified rats on a case-by-case basis, largely by responding to 311 complaints, which may not provide an accurate or comprehensive picture of rat infestations across the city. DSS reported that it perceived a need to prioritize responding to 311 reports because of public and aldermanic expectations, even though that may not be the most strategic use of resources.
- Establishing Tolerance Levels: BORC responded to 311 complaints primarily in the order in which they were received instead of targeting interventions based on the severity of conditions compared to established tolerance levels.
- Intervention: In response to 311 complaints of rat sightings, BORC used poison as a primary intervention. IPM calls for using poison as a last resort. While other City departments, including DSS, have services that may encounter and address specific conditions conducive to infestation, these services were not integrated into a unified approach to rodent control or communicated to any centralized body to coordinate such an approach. This prevented the City from targeting its collective resources in a way that most efficiently and effectively reduces rat infestations while minimizing the use of poison.
- Evaluation: Neither BORC nor any centralized DSS body evaluated or reported on the effectiveness of interventions at reducing the harms of rat activity over time. Rather, BORC reported on the timeliness of its response to 311 complaints. This means that publicly reported data reflected the number of tasks performed (outputs) but not their results (outcomes).

As a result of these departures from IPM, the City's approach to rat abatement was unlikely to reduce rat populations over the long term. Further, gaps in the coordination with relevant stakeholders lessened the City's ability to address the burdens of rat infestation faced by Chicagoans across multiple contexts, such as residential buildings, parks, and restaurants.

Finally, BORC's reliance on anticoagulant poison increased the risk of known environmental hazards. For example, poison would not be appropriate for use in gardens or playgrounds due to the risk it would create to humans, limiting the reach of the City's dedicated rat abatement program.

IPM Component 1: Surveying involves identifying pest populations and conditions conducive to those populations, conducting ongoing monitoring of those issues, and developing the most appropriate solutions for a given problem. DSS, per MCC § 7-28-670, has the authority to inspect conditions contributing to rat infestations for all buildings and properties within the city of Chicago.[29] This authority allows DSS to identify pest populations and root causes citywide in alignment with IPM's surveying component, but BORC's program did not use inspections to survey rat activity or root causes. Rather, BORC's primary approach to identifying rats was by responding to 311 complaints. According to pest control researchers and practitioners, allocating resources based on individual complaints of rat sightings rather than comprehensively identifying rat reservoirs or root causes is unlikely to reduce rat populations over the long term. Because 311 complaints reflect self-initiated reporting rather than citywide data, BORC's program did not position the Bureau to determine whether its efforts are serving Chicagoans where the problems are worst.

Reliance on complaints reduced BORC's awareness of issues that do not result in 311 complaints. For example, BORC crews fulfilled baiting requests from DWM immediately prior to major water-sewer installation projects, but did not monitor sewers for rat activity on an ongoing basis. Although rodentology research has identified sewer systems as common habitats for rats, these areas are concealed from residents and are less likely to be reported to BORC. Neither BORC nor DWM had assessed or monitored whether particular areas of the sewer system serve as reservoirs for rats or contribute to ongoing issues.[30]

Within a block or community, the root causes of rat infestation and the infestations themselves extend across property lines and property types.[31] To address this, according to the CDC, surveys should include "residential, commercial, and civic buildings; vacant lots; and public areas."[32] However, as illustrated by Figure 6, BORC responded only to complaints involving certain types of properties, though the public may encounter rats across all these contexts.[33] DSS management stated that BORC only provided baiting services within parks, alleys, the public way, and on

[29] MCC § 7-28-670 states, "Inspectors from the department of buildings and the department of streets and sanitation shall have the authority to inspect the interior and exterior of buildings, other structures, or parcels on which a building has been demolished or is being constructed to determine evidence of rat harborage, rat infestation and the existence of new breaks or leaks in the rat stoppage, and when any evidence is found indicating the presence of rats or openings through which rats may enter such buildings or structures, to report such evidence to the appropriate commissioner, who shall serve the owner, agent, or occupant of such building, structure, or parcel with written notice to abate the conditions found."

[30] Corrigan, "A Profile of the Norway Rat," 133, 136.

[31] Corrigan, "A Profile of the Norway Rat," 134.

[32] CDC, "Integrated Pest Management: Conducting Urban Rodent Surveys," 1.

[33] US Census Bureau's 1-year American Community Survey for 2023 estimated that about 43% of Chicago residences contain 5 or more units and, thus, would not be served by BORC's rat abatement services.
U.S. Census Bureau, "Selected Housing Characteristics," American Community Survey, ACS 1-Year Estimates Data Profiles, Table DP04, 2023, accessed on September 24, 2024, https://data.census.gov/table/ACSDP1Y2023.DP04?q=DP04&g=060XX00US1703114000. The proportion of Chicago's housing stock covered by BORC's services was discussed in a joint Illinois Answers/Block Club Chicago article.
Casey Toner, Mina Bloom, "Why Chicago is Losing the War on Rats," Illinois Answers Project/Block Club Chicago, August 31, 2023, accessed July 31, 2025, https://blockclubchicago.org/2023/08/31/why-chicago-is-losing-the-war-on-rats/.

residential properties with fewer than five units. As a result, BORC did not achieve alignment with IPM by gathering information about infestations and root causes across the many property types that exist within a block or community, such as multi-unit buildings, vacant lots, and businesses.

Figure 6: Though Rat Issues Extend Across Property Lines, BORC's Services Did Not

Source: OIG visualization of BORC's service scope

As shown in Figure 5, many other entities may have responsibility for factors impacting rat control beyond BORC's complaint-based services in the public way. BORC could gather data from each of these entities to inform a more comprehensive survey of rat infestations and root causes across blocks and communities within the city. However, BORC did not leverage data from these entities. For example, among City departments:

- While BORC and DOB both have the authority to inspect all buildings and properties within the city, BORC expected that complaints involving rats *within* buildings should go to DOB, whose inspectors can serve property owners with a notice to abate. However, BORC and DOB did not share data or coordinate abatement activities to address overlapping complaints about rat issues both indoors and outdoors.[34]
- Meanwhile, CDPH has authority to inspect food establishments.[35] CDPH inspectors may write citations for restaurants that fail to control rodents; however, in contrast to administrative structures in peer cities such as New York,

> "[I] had rats in my apartment and running around my ceilings for the past two years. They would scurry around in the ceilings all night and eventually they found their way into my apartment underneath the sink. Once inside my apartment, they were running around and eating my food and trash."
>
> - A member of the community described conditions to OIG that would not have been addressed by the City's rodent control program.

[34] MCC § 7-28-670. Though the DSS Commissioner described personally contacting commissioners of other departments about rat issues, OIG interviewed management in the DSS Sanitation Bureau, CDPH, DOB, the Park District, and DWM who affirmed that they did not share data with BORC as part of a shared rodent control strategy.
[35] MCC § 7-42-010.

Washington, D.C., and San Francisco, Chicago's public health agency did not play a role in the City's dedicated rodent control program. According to BORC and CDPH management, they did not share data regarding overlapping rat issues in food establishments and the public way.

- In addition to the health impact that infestations have on restaurants, residents and elected officials described incidents of rat bites and rat-borne disease. Neither BORC nor CDPH collected or monitored health information related to rats as part of the City's rodent control program. As a result, these incidents concerning public health did not trigger focused intervention as called for by IPM. This increased the risk that the City would not be prepared to identify and respond to public health issues (such as outbreaks of zoonotic disease) as part of its rodent control efforts.[36]

DSS management stated that the division of responsibility described above among BORC, DOB, and CDPH was a long-held, informal practice that could change with departmental leadership. Without defined roles or a shared strategy for rodent control, the City at large was not well positioned to fulfill the principles of IPM.

Not only did BORC not leverage data from other relevant City departments, it also did not leverage the limited data it collects itself. In their daily work responding to 311 complaints, BORC crews used paper "crew sheets" to capture some data on rat activity and root causes like tall weeds that could be compiled to create an area survey. BORC could then use this data to monitor changes over time. However, BORC management stated that this information was not currently used for any purpose. As shown in Figure 7, this data included the number of rodent holes baited, the condition of garbage carts, and alley conditions like accumulated junk or tall weeds that provide shelter for rats.

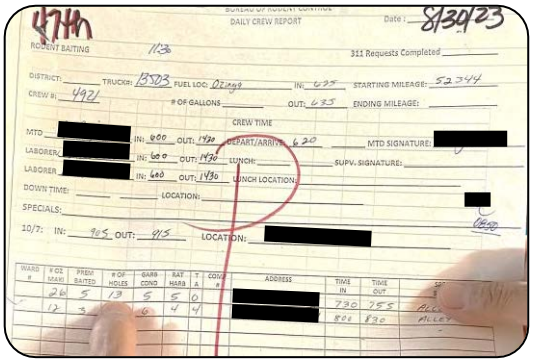
[36] For example, leptospirosis is a bacterial disease that can be spread through contact with rat urine. Leptospirosis can cause mild to serious illness in both humans and domestic animals.

Figure 7: Through Observations of Garbage Cart and Alley Conditions, BORC Crews Gather Information that Was Not Used for Any Operational Purpose

Damaged carts with a poor "garbage score"

Tall weeds providing shelter for rats in an alley

Rodent holes identified under brush



Conditions noted on paper crew sheet

Source: OIG photos

Although the City did not survey or monitor rat activity beyond complaints, it made attempts in the past to do so. In 2013, the City partnered with Carnegie Mellon University to identify locations with likely rat activity using predictive analysis. However, the initiative was abandoned and DSS stated that it no longer had the associated records.[37]

IPM Component 2: Establishing Tolerance Levels sets thresholds for conditions conducive to pest infestations and harm caused by active infestations at which agencies must take action. For example, using the results of surveys, agencies can define thresholds for *causes* of infestation, such as exposed garbage, as well as the *impacts* of infestation, such as quality-of-life disruption, economic damage, and public health risk. Agencies can conduct routine surveys across larger areas or monitor specific sites to track baseline levels of infestation and conducive conditions. Over time, comparing changes in these baselines against established action thresholds could trigger focused intervention.

[37] The researcher at Carnegie Mellon stated that the goal of the project was to use analytics to predict where rat infestations might occur so that BORC could address and prevent infestations without relying on rodent complaints. Specifically, the predictive model used 311 complaint data related to conducive conditions, such as overflowing garbage and tall weeds. In order to prove that the model worked, the project relied on a randomized control trial that would compare the data analysis to observations by BORC crews. However, the researcher told OIG that the City mishandled the execution of the trial. The researcher stated that the City's point-of-contact left City employment and lawyers with the City's Department of Law did not work constructively with Carnegie Mellon's lawyers. This resulted in a breakdown in communication.

BORC had not established uniform tolerance levels and, thus, its approach did not align with this IPM component. As discussed, BORC primarily provided services based on complaints from the public, elected officials, and other City agencies. Using individual complaints as a threshold for intervention treats each complaint—regardless of the severity of infestation—as a threshold for action rather than establishing levels of quality-of-life disruption, economic damage, and public health risk that warrant intervention. BORC's reliance on complaints could lead to inequitable outcomes for residents because its interventions were not necessarily based on where the burden of rat activity was the highest, but where residents had the time, knowledge, and expectation of service to contact the City using 311.[38]

The City acknowledged this risk in the 2024 Equity Report, stating about DSS's tree-trimming services that, "While 311 is a helpful tool, [the Department of Streets and Sanitation (DSS)] recognized disparities in who used 311. Specifically, heat maps and data show that certain areas of the City, predominantly on the North Side in majority white neighborhoods, were more likely to file a complaint via 311."[39]

Beyond complaint-driven interventions, services provided by BORC to City departments and Sister Agencies were not based on an assessment of rat activity compared against established tolerance levels. For example, the Park District's over 600 parks cover more than 8,800 acres of green space for which BORC provided outdoor rodent baiting services. BORC management described assigning crews to bait in certain lakefront and downtown parks due to their "high visibility;" however, management had not applied this "visibility" consideration as a threshold for other parks across Chicago's neighborhoods, which were served solely through complaints. For example, BORC and Park District staff agreed that elements such as dog-friendly areas and community gardens are common rat attractants, but this anecdotal information had not factored into a plan of action between DSS and the Park District to provide focused prevention or intervention related to these risk factors.

IPM Component 3: Intervention emphasizes prioritizing the root causes of infestation through habitat modification, the elimination of food sources, public education, structural repairs, and legal enforcement. Poison should be used as a last resort with a preference for the least harmful effective option.

Though BORC did provide education to residents and other stakeholders, its approach did not align with this IPM component because it used anticoagulant poison as its primary method of abatement. As discussed in the Background, the City did not integrate multiple programs that encounter and address root causes (such as trash removal, weed cutting in vacant lots, habitat modification, and enforcement of sanitation, restaurant, and building codes). However, in an urban context, the

[38] Specifically, 311 complaints may not be reliable proxies for service need. Members of the community told OIG that their use of 311 was inhibited by a lack of trust in government, language access, and familiarity with 311. OIG also discussed the impacts of complaint-based services on cost, equity, and safety in a 2024 advisory report.
City of Chicago Office of Inspector General, "Advisory Concerning the City's Complaint-based Approach to Providing Services," March 6, 2024, accessed May 1, 2026, https://igchicago.org/wp-content/uploads/2024/03/Advisory-Concerning-the-Citys-Complaint-Based-Approach-to-City-Services.pdf.

[39] The City's Office of Equity and Racial Justice published the Equity Report during the 2024 budget process. The report highlights process changes and departmental priorities for promoting racial equity throughout City operations. City of Chicago, "2024 Equity Report, 17, October 11, 2023, accessed May 1, 2026, https://www.chicago.gov/content/dam/city/depts/obm/supp_info/budget-equity/2024-Budget-EquityReport.pdf.

collaboration of multiple stakeholders and residents is required to address the conditions conducive to rat infestations.[40] As shown in Figures 5 and 8, programs across several City departments, Sister Agencies, and within DSS have responsibilities and possess information that could help address these root causes of rat infestation. Such responsibilities and information include trash removal, weed cutting in vacant lots, habitat modification, and enforcement of sanitation, restaurant cleanliness, and building codes. These stakeholders operate independently instead of executing a shared rodent control strategy that prioritizes addressing the root causes of infestations and uses poison as a last resort.

Figure 8: Relevant DSS Operations Did Not Cohesively Support Rodent Control Efforts

DSS Function	Involvement in Rodent Control
DSS's Sanitation Bureau collects garbage from alleys once per week in addition to daily pickups from the downtown business district. The Sanitation Bureau is also responsible for street sweeping and coordinating weed-cutting performed by vendors on City-owned lots. Supervisors review alley conditions and collaborate with ward offices.	Sanitation Bureau supervisors sometimes referred rodent issues to BORC, though this process was described as informal and dependent on each supervisor's level of thoroughness.
Ward superintendents respond to 311 complaints of sanitation code violations with outreach and citations.[41]	BORC supervisors typically referred sanitation issues to ward superintendents rather than issuing their own citations. Each of the 50 superintendents took an individual approach to enforcement.
The Carts Program within BORC is tasked with refurbishing and replacing damaged black garbage carts and blue recycling carts.	The Carts Program prioritized cart replacement requests submitted through 311 over those from the Vector Control Program within BORC. This likely hindered BORC's ability to address urgent rodent infestations. Further, during the audit, BORC management described having minimal involvement with the day-to-day operations of the Carts Program, though it was located within the same Bureau as Vector Control.

Source: Informational interviews with DSS management and staff.

BORC's use of poison was the default response to rat infestations. BORC's poison-first approach not only contributed to harmful effects on non-target animals, it also wasted resources in the long run. When the City responds to successive complaints without removing rats' food and shelter through sanitation and habitat modification, it engages in "rat harvesting": eliminating one generation of rats only to make way for another. BORC's approaches to the use of poison, habitat modification, legal enforcement, education, and collaboration are described below.

[40] Bobby M. Corrigan, "A Profile of the Norway Rat," 133, 136.
[41] DSS employs 50 ward superintendents who perform duties including monitoring refuse collection, street cleaning, and snow removal, among others. Ward superintendents also work closely with the elected alderpersons of their assigned wards, helping to ensure proper delivery of constituent services for which DSS is responsible. However, superintendents are not employees of alderpersons or the City Council; they report to through DSS's chain of command.

Chemical Control

BORC pellet bait placed in a drain in a private yard. Source: OIG photo

BORC uses anticoagulant poison as its primary approach to address rat infestations. It baits burrows in yards and on the public way with poison pellets containing the active ingredient bromadiolone. The EPA counts bromadiolone, a second-generation anticoagulant, among "the most toxic and persistent pesticide active ingredients" used for rodent control and limits its use to professional applications.[42] The EPA label for the rodenticide used in Chicago states, "ENVIRONMENTAL HAZARDS: This product is extremely toxic to mammals and birds. Dogs, cats, and other predatory scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate." Federal regulations require pellets to be placed at least six inches deep into active rat burrows.

BORC laborers expressed an understanding of and concern for the risk of poison to small children and pets. However, OIG observed inconsistency in rodenticide application, including the amount of poison used per burrow hole (in some instances, more than twice what was documented), the depth at which poison was placed, and the use of poison along the boundaries of private property.

New BORC employees received on-the-job training, but BORC did not have written policies or provide instruction about the safe use of poison. Without formal policies, BORC crews were subject to unclear expectations, and the Bureau's activities may have increased the risk of harm to humans and wildlife.

In fact, environmental damage caused by rodenticide may already have occurred in Chicago. Researchers from the local Urban Wildlife Institute found that 100% of sampled urban mammals such as opossums, skunks, and racoons, tested positive for rat poisons—including the same type of poison used by BORC. Urban mammals, including birds of prey, can be exposed to these poisons by eating rats that have ingested rodenticide.[43] For example, in the spring of 2024, the deaths of three great horned owls in Lincoln Park were caused by poisoning from rodenticide, according to a necropsy performed by the DuPage Wildlife Conservation Center.[44]

BORC's focus on chemical control also deterred community members who were hesitant to use poison from requesting help with rodent issues. OIG spoke with residents who reported having declined to call BORC due to fear of poison affecting their gardens or pets.

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[42] Rodenticides like bromadiolone may not be marketed in pellet form for indoor consumer use. United States Environmental Protection Agency, "Mouse and rat poisons in pellet form banned," May 15, 2025, accessed May 1, 2026, https://www.epa.gov/safepestcontrol/mouse-and-rat-poisons-pellet-form-banned.
[43] Buckley, Murray, et al., "Widespread Exposure to Anticoagulant Rodenticides," 2-3.
[44] Chicago Bird Alliance, "The Impact of Rodenticides on Birds," August 21, 2024, accessed May 1, 2026, https://chicagobirdalliance.org/blog/2024/8/17/the-impact-of-rodenticides-on-birds.

Currently, Illinois law does not require municipal employees to obtain applicator licenses for bromadiolone, which is classed for general use by the US EPA. Following a review of pesticides proposed for EPA registration, however, the EPA issued a proposed interim decision in November 2022 to move all rodenticides, including bromadiolone, to its Restricted Use Pesticides list.[45] BORC had a limited number of licensed applicators on staff. If the EPA finalizes its decision to restrict rodenticides, all of BORC's field crews assigned to rat abatement will require licensure to continue the Bureau's daily operations, which relied almost entirely on burrow baiting. By taking steps to train and license its employees, the City could reduce the risk of future operational disruption.

Habitat Modification

A decorative wastebasket serves as a food source near rat-infested tree roots.
Source: OIG photo

DSS bureaus including Sanitation and Street Operations provide services such as garbage collection and weed-cutting. However, the department did not organize these efforts as part of a rodent control strategy to modify the habitats where rats could thrive. Modification could include removing brush, debris, or trash that provides shelter for rats where those conditions have exceeded established limits. Former BORC management stated that, in the past, rodent control efforts combined baiting, sanitation, and tree trimming, but no longer did so.

After the period of OIG's audit review, DSS leadership stated that the department created 'Quality of Life' crews within the Sanitation bureau to clear out select alleys that have received complaints of overgrown weeds and trash accumulation. This may reduce harborage for rats. However, according to DSS, the crews only operated in parts of the City and only in response to complaints.

The fact that DSS does not provide sanitation services to the entire city also reduces their ability to prevent infestations. For example, some garbage is collected by private companies that may not replace damaged containers, and decorative wastebaskets often placed on sidewalks by private sanitation providers such as Special Service Areas may expose overflowing trash, allowing rodents to use them as a food source.[46]

[45] As of the time this report was published, that decision remains in interim status. Restricted use pesticides (RUPs) are not available for purchase or use by the general public. RUPs have the potential to cause unreasonable adverse effects to the environment and injury to applicators or bystanders without added restrictions. The "Restricted Use" classification restricts a product, or its uses, to use by a certified applicator or someone under the certified applicator's direct supervision.
United States Environmental Protection Agency, "Restricted Use Products (RUP) Report," accessed May 1, 2026, https://www.epa.gov/pesticide-worker-safety/restricted-use-products-rup-report#:~:text=RUPs%20are%20not%20available%20for,pesticide%20applicators%20with%20special%20training.
United States Environmental Protection Agency, "Proposed Interim Registration Review Decision for Seven Anticoagulant Rodenticides," Federal Register Docket Number EPA-HQ-OPP-2015-0778, 49, November 2022.

[46] Special Service Areas (SSAs) are public/private partnerships that provide supplemental sanitation and beautification services within neighborhoods through an additional localized property tax. According to the Department of Planning and Development, there are currently 58 SSAs throughout the city. City of Chicago, "Special Service Area Program," accessed May 1, 2026, https://www.chicago.gov/city/en/depts/dcd/supp_info/special_service_areassaprogram.html.

DSS also did not provide services related to 'exclusion,' another intervention recommended by IPM. Exclusion is a structural change that blocks rats' movements, such as sealing rat holes, covering fencing gaps with wire mesh, or installing concrete pads beneath compost piles. While baiting in private yards, crews could informally advise residents to modify conditions that were conducive to rat infestations. In public spaces such as community gardens, poison could contaminate edible plants. As a result, volunteers told OIG that the City's services could not help them, and they had to assume the physical and financial burden of rat-proofing as a non-toxic intervention.

Wire mesh is used along a fence to prevent rats from entering a private yard. Source: OIG photo

According to IPM principles, habitat modification and exclusion should be the primary approaches to control rat infestations because they address the root causes of the problem: rats' access to food, water, and shelter. In addition to improved coordination of City services, residents' own actions can help to fulfill this IPM principle by keeping garbage contained within closed bins, disposing of dog waste in covered containers, removing piles of debris, maintaining bird feeders and gardens, and keeping pet food indoors.

Education

BORC engaged in several forms of education that could help address the root causes of infestation, many of which depend on the awareness and commitment of the public to reducing sources of food and shelter:

- During scheduled visits with residents on private property, BORC laborers baited exterior rat holes and could point out common problems such as dense vegetation or broken fencing. As mentioned above, BORC's appointment-based baiting was limited to early morning hours on weekdays, reducing opportunities for engagement with residents who had other obligations during those times.
- Following baiting, BORC crews hung informational posters in alleys with tips to prevent rat infestation.
- During "abatement projects," BORC crews delivered informational doorhangers to homes on the affected residential blocks.

This educational outreach was limited to residents who had reported rat-related concerns, as BORC did not perform proactive educational outreach about abatement or the environmental impacts of poison. While peer cities hosted online and in-person 'academies' to educate residents, businesses, and pest control professionals about rat behavior and rodent control, elected officials and community groups in Chicago described filling this gap with their own materials.

Informational poster placed by BORC. Source: OIG photo

In survey responses to OIG, community members expressed uncertainty about where BORC provided baiting and what interventions were available (for example, some residents mistakenly believed that BORC used traps or enclosed bait boxes).

Some respondents wished they had more information about their options for addressing rats in contexts not served by BORC. Community gardeners referenced the online 'rat academies' held by peer cities and expressed a desire for similar public education in Chicago. A hotline coordinator for the Metropolitan Tenants Organization described receiving thousands of indoor rat-related complaints, mostly from residents of older buildings on the South and West Sides of Chicago. The coordinator described advising complainants to pursue multiple solutions at once, such as contacting alderpersons, submitting a 311 request, and notifying a landlord, but stated that it would be helpful to have one compiled source of information about rodent control to provide to callers.

At the conclusion of the audit, DSS leadership stated that the department engages in outreach at a variety of community events including ward community events, senior facilities, "Touch-a-Truck" events, and Chicago Public School visits.[47] At such events, DSS shares flyers that include advice about reducing litter that increases rat activity. The department emphasized the importance of public participation in reducing rats' food and shelter.

Legal Enforcement

BORC supervisors could issue citations, but management described preferring to educate residents through individual conversations over ticketing and enforcement.

DSS ward superintendents, who are not part of BORC, may issue citations for sanitation code violations, though each superintendent uses their own discretion to give a warning or write a ticket. Relevant citations are also issued by non-DSS agencies: rodent-related citations in food establishments are the responsibility of CDPH inspectors, while rodent infestations or structural issues inside buildings may be cited by DOB inspectors. Each of these pathways to enforcement has a separate 311 complaint type. However, BORC was generally unaware of enforcement

[47] Per DSS, a "Touch-a-Truck" event "provides children with an up-close, hands-on experience with one of [DSS's] refuse trucks that helps keep our City clean."

actions conducted by ward superintendents and other City departments. As a result, they were not factored into its rodent control efforts.

IPM Component 4: Evaluation involves assessing and reporting on the effectiveness of interventions. BORC did not evaluate or report on the effectiveness of its rodent control program. As a result, neither BORC nor the public was well-equipped to assess whether BORC's activities reduce the number of rat infestations over time. BORC's only performance metric was a five-day response time goal for 311 complaints. While timeliness is an important dimension of measuring service quality, it could not tell the department or the public how *effective* the services are at addressing rat infestations over time. This sole metric also did not capture the impact of other City services (such as garbage collection and weed-cutting) on rat infestations.

311 service request data, including the completion status of rodent baiting requests, is available on the City's Open Data Portal.[48] However, the available data does not include an inspection component with a final determination (such as a quantitative score or pass/fail result). This means that publicly reported data reflects the number of tasks performed (outputs) but not their results (outcomes).[49] Therefore, BORC's public work order data is not sufficient to evaluate the relationship between interventions and outcomes over time, such as decreasing rat populations or reducing impacts on quality of life, economic activity, or public health.

As discussed under the Surveying component, BORC did not use available internal data to monitor rat activity and root causes over time or evaluate the effectiveness of its own efforts. By contrast, the City requires its vendor for pest control services within City facilities to follow an IPM approach and submit reports addressing root causes, pesticide use, and planned improvements (Figure 9). This example shows how baseline information, routine monitoring, and evaluation of interventions could help DSS track outcomes over time.

[48] "The City of Chicago's open data portal lets you find city data, lets you find facts about your neighborhood, lets you create maps and graphs about the city, and lets you freely download the data for your own analysis."
City of Chicago, Chicago Data Portal, accessed May 1, 2026, https://data.cityofchicago.org/#about.
To view data on rodent baiting requests, visit: https://data.cityofchicago.org/Service-Requests/311-Service-Requests-Rodent-Baiting-No-Duplicates/uqhs-j723/about_data.

[49] To illustrate how a peer city interprets this IPM component, see a report posted by New York City containing outcome metrics and planned interventions within Rat Mitigation Zones. New York City Environment & Health Data Portal, "Rat Mitigation Zone Report: January 2025 to June 2025," accessed May 1, 2026, https://a816-dohbesp.nyc.gov/IndicatorPublic/data-features/rat-report/.

Figure 9: The City's Interior Pest Control Contract Requires IPM, Including Regular Reporting

5.5. Integrated Pest Management Program

Integrated Pest Management (IPM) is a planned program that coordinates economically and environmentally acceptable methods of pest control with the judicious and minimal use of toxic pesticides. IPM is a process for achieving long term, environmentally sound pest suppression and prevention through the use of a wide variety of technological and management practices. Control strategies in an IPM program include:

- Structural and procedural modifications to reduce food, water, harborage, and access used by pests.
- Pesticide compounds, formulations, and application methods that present the lowest potential hazard to humans and the environment.
- Non-pesticide technologies such as trapping and monitoring devices.
- Coordination among all facilities management programs that have a bearing on the pest control effort.

5.24. Reporting

The Contractor must provide written semi-annual reports, with the first reporting period ending six (6) months after the contract is executed and each successive reporting period ending six (6) months after that. The semi-annual report is due within fifteen (15) business days of the end of each reporting period. Each report must include the following information:

- An updated list of needed improvements in structure, sanitation, or operations that would reduce the likelihood of infestation by reducing access to food, water, or harborage. The Contractor will include an updated list of suggested improvements and their status in Contractor's semi-annual reports as required under this contract.
- A summary of the results from the quality control reviews and planned corrective actions.
- A summary of current pest problems and their general locations.
- Total amount of pesticide applied in each facility, broken down by formulation and active ingredient.
- A summary of any circumstances or lack of cooperation that prevent s the Contractor from effectively performing the services.

Source: City of Chicago Contract #32909

Recommendations

DSS should implement a rodent control approach that fulfills its stated commitment to IPM principles, including surveying, establishing thresholds for intervention based on the results of surveys, prioritizing non-toxic intervention, and evaluation.

Specifically, to align with IPM principles, DSS should,

1. use a surveying approach to collect and monitor data on a range of factors that support rat populations across the city, potentially including, for example, garbage and alley conditions, active rat signs such as burrow holes, nearby vacant lots, green space, restaurant inspection violations, building violations, or other information that BORC deems relevant;
2. establish thresholds at which rat activity or root causes warrant intervention to prevent infestation. The need for intervention could be determined by comparing the results of BORC's inspection and monitoring activities to these thresholds;
3. prioritize and coordinate City services to deliver non-toxic interventions (such as education, sanitation, and habitat modification) before using poison as a last resort;
4. establish measurable goals based on the change in inspection and monitoring results over time and evaluate the outcomes of its abatement efforts in terms of these results;
5. establish policies and procedures to ensure BORC's collaboration with other City agencies whose information, operations, and expertise are necessary to support an IPM approach;

6. promote IPM techniques across City government by providing trainings on rodent control to other City agencies whose missions include housing, public health, infrastructure, or recreation; and
7. establish a policy for the safe use of pesticides and train employees on the circumstances that warrant the use of poison.

Management Response

1. *"DSS will expand BORC surveying efforts when doing projects to collect and monitor data on environmental and operational conditions that contribute to rodent activity, including evidence of burrows, refuse accumulation, vacant properties, alley conditions, and other relevant indicators referenced on the 'Exterior Rodent Inspection and Sanitation Form'. Findings will be shared with partner City agencies to coordinate corrective actions. Expansion of data collection capabilities may also be dependent upon available funding, technology enhancements, and interdepartmental data sharing.*

2. *"BORC will establish operational thresholds for intervention based on inspection results and observed environmental conditions. Locations exceeding established thresholds will be prioritized for coordinated response with Sanitation, Quality of Life, and other appropriate City partners. Continued refinement of these thresholds may evolve as additional data become available and as operational resources permit.*

3. *"DSS currently employs an Integrated Pest Management (IPM) approach that emphasizes community education, sanitation, habitat reduction, and interdepartmental coordination prior to the application of rodenticides whenever operationally appropriate. At the time of the OIG's fieldwork and discussions with the Department, BORC had already participated in more than 100 community engagement activities, including community meetings, town halls, aldermanic meetings and events, neighborhood fairs, and school outreach, to educate residents on rodent prevention and encourage proactive sanitation measures. While DSS disagrees with the recommendation because these practices are already in place, BORC will implement a standardized reporting process to better document outreach efforts, community engagement activities, sanitation interventions, and coordination with partner agencies. Additional enhancements to reporting may be dependent upon available funding and participation from other City departments responsible for addressing environmental conditions that contribute to rodent activity.*

4. *"Following completion of staff training and implementation of standardized inspection protocols, BORC will establish measurable performance indicators and evaluate program effectiveness using trends in rodent activity, burrows, refuse conditions, and other environmental indicators. Continued development of performance metrics may be refined as additional data systems become available.*

5. *"BORC currently maintains a Standard Operating Procedure (SOP) governing its internal rodent abatement operations and response protocols. DSS will expand the existing SOP to incorporate formal coordination procedures with other City departments whose information, operations, and expertise support an Integrated Pest Management (IPM) approach. The revised SOP will define roles, communication protocols, and referral processes to strengthen collaboration on addressing the environmental conditions that contribute to*

rodent activity. Implementation of cross-departmental procedures will be dependent upon the participation and coordination of partner agencies and may be refined as interdepartmental practices evolve.

6. *"BORC will work with partner City departments to provide Integrated Pest Management (IPM) guidance and training for agencies involved in housing, public health, infrastructure, recreation, and related services. Training opportunities will be scheduled based on operational capacity and the participation of other city agencies.*

7. *"BORC will revise its existing Standard Operating Procedure (SOP) to formally incorporate policies governing the safe storage, handling, application, and disposal of rodenticides, including the circumstances that warrant the use of pesticides as part of an Integrated Pest Management (IPM) approach. BORC will also develop standardized training materials and conduct biannual training for applicable staff to ensure consistent implementation of the SOP, regulatory compliance, and the safe and effective use of rodenticides. The SOP and training materials will be reviewed periodically and updated as operational best practices and applicable regulations will evolve."*

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