



Municipal Rodent IPM Working Group: Meeting Notes 6/8/2021

City of Boston - Leo Boucher

<https://www.boston.gov/departments/inspectional-services>

Laws/Regulations/Ordinances

- State Sanitary Code is basis of violations – code is remedial, not punitive (involves working with people and providing education).
- [Site Cleanliness Ordinance](#). Applies to anyone that has a bulk refuse receptacle
 - Requires sites to inform city about how trash is stored, who's responsible for cleaning in/around receptacles, how often cleaned up, etc.
 - Violation of this ordinance is punitive: up to \$1000 per violation of ordinance.
- Enhanced construction requirements. Sites must have an inspection by City of Boston Inspectional Services prior to start of project if planning construction.
- Home Petition Rule that is now Mass General Law: created ability to put violations on property taxes at the end of the year to ensure payment.
- For the Future: working to create legislation that would allow the City of Boston to charge property owners in situations where the city performs pest control to address a problem created by an unsanitary person/property.

Program and Scope:

- Respond to 311 complaints
- 16 licensed inspectors, including certified applicators
- Perform pest control in public spaces: parks, public streets, etc.
- Conduct area inspections of neighborhoods (150+) and wards (22)

Collaboration

- Fortunate for collaboration amongst divisions (parks, sanitation, etc)
- Code Enforcement helps with dumpster regulations; placement of household trash
- Other divisions help with punitive enforcement.
- Central database for all divisions: housing, electrical, environmental - so one group can send report electronically to another division.
- Fortunate that Mayor and Commissioner recognize the rodent problem and support the Department.

Methods

- Seasonal baiting and trapping in parks
- One-time baiting for residences (with permission) if determine that the site is a victim of another site's poor sanitation practices.
- Monitoring and trapping in public alleys
- Inspectors have access to mobile solutions that allow them to spend more time in the field and less time at or in transit to office. Makes them more efficient.
 - Goal to increase electronic capabilities of staff in future.

Data

- Current system allows them to generate heat maps to show activity locations

Education and Outreach

- All literature is electronic – translations (currently in 11 languages) and translators available
- Inspectors taught to be effective, compassionate communications

- Put people at ease; inform them that ISD is there to help; provide information to prevent problem from happening again.

Challenges

- Observe change in activity during pandemic to a shift from commercial to residential issues
- Requirement to cap old sewer lines during new construction – but often done with foam. This does not provide an effective seal, and the exposed pipes can then provide harborage for rats.

New York City – Caroline Bragdon

<https://www1.nyc.gov/site/doh/health/health-topics/rats.page>

Laws/Regulations/Ordinances

- Health Code is basis for enforcement with property owners
- Attempted a Rat Package of legislation in 2018 that was mostly unsuccessful. Package included:
 - 4am set out rule: require multifamily buildings in rat mitigation zones to put trash out in the morning (between 4am and 6am) instead of overnight. “Hugely unpopular” and not passed.
 - FSE/Organics: would require Food Service Establishments to separate and store organic waste in containers with a lid and latch/lock. Not passed.
 - Increase minimum fines for second, third and subsequent litter violations within a 12-month period.
 - Require cleanup of grease stains on sidewalks, which data showed could contribute to rat problems.
 - Construction-related abatement legislation: when seeking construction permit, must demonstrate acceptable rodent abatement measures. [Pre-Demolition Rodent Extermination Certificate](#)
 - Illegal dumping and improper disposal: increase penalties for people that are dumping trash illegally.

Program Organization and Scope:

- Within Department of Health – mission to prevent rodent-borne disease, and rodent bites, but mostly address the quality of life factors that lead to rodent infestation across the city.
- Respond to 311 complaints
- Have their own pest management team (34 exterminators on staff), community outreach team, data management team (3 research scientists), ~60 inspectors with title Public Health Sanitarian – but also Community Associate (type of inspector that conducts survey work on city-owned properties - no enforcement capabilities with this title).
- Stoppage Team: seals up holes that allow free movement of rats on city-owned property.
- Assessments and Cleanups of rodent evidence.
- Tailored response for various neighborhoods and property types across the city.

Collaboration

- Recent funding forged collaboration with Parks, Sanitation, Schools, and Public Housing.
- Partner with elected officials and Business Improvement Districts for educational opportunities, legislation, etc.

Methods

- Inspections:
 - Performed with an app – data collected and available for analysis.
 - *Complaint-based Inspections*: these are in response to 311 service requests
 - *Proactive Inspections* (part of Neighborhood Rat Index) – inspect every property (public and private) in an area (neighborhood) and look for signs of rat activity; scored on scale of 0-3. Rat index started in 2007. This method alone has helped department address rat activity.
 - *Street Area Inspections*: investigate areas that are not part of traditional tax lots. This includes catch basins, street trees, public plazas, malls, etc.

Two levels of inspections:

- *Initial Inspections*: if signs of rodent activity or conditions conducive to rats found, property owner sent an order letter to abate conditions.
- *Compliance Inspections*: generated only if property fails initial inspection and property is privately owned. Public properties that fail Compliance Inspection are put in queue for further work: extermination, stoppage, assessment and/or cleanup.
- Initiatives
 - *Attacking Rat Reservoirs (2014)*: Previous data demonstrated that certain neighborhoods had a higher burden of rat activity than others. Some areas within those neighborhoods serve as replenishers: sewers, parks, green streets, unrepaired sidewalks, large city-owned properties. This effort aims to eliminate long-standing populations that serve as reservoirs for rodent populations.
 - *Shelter Repair Squad (2015)*: an effort to address rodent and general pest problems in the city's network of homeless shelters that could impact surrounding areas.
 - *Neighborhood Rat Reduction Initiative (2017)*: builds upon what was learned in Rat Reservoir and Shelter Repair Squad efforts – that a neighborhood-level approach is needed to address rat issues, and that city-owned spaces are the driver for most of the rodent activity in the New York City.
 - Funding built out pest control team in Parks Department, Department of Sanitation, Department of Education, and New York City Housing Authority.
 - Attempt to replace mesh trash cans with Big Belly cans or solid steel can on exterior; replace compactors in public housing.
- Pest Management/Extermination
 - Install bait stations, perform dry ice burrow treatments, respond to tickets in system that represent repeat inspection failures, monitoring.

Data

- Demonstrated that multifamily buildings in NYC, especially publicly owned properties, are at significant risk of rodent infestations.
- Data dashboard: track community events to ensure that programming is offered to all neighborhoods – not just those that make a lot of complaints/requests.
- [Rat Information Portal](#): tracks areas that have failed inspection and the follow-up work.
- Use calculations from “Active Rat Sign” failure rate to evaluate the success of the program and make adjustments where needed.

Education and Outreach

<https://www1.nyc.gov/site/doh/services/rats-control-training.page>

- Walk throughs with community members to identify problem areas and conditions conducive to rodents.
- Community-facing rodent academy: three-hour training originally designed for building supervisors – later expanded to homeowners, building management staff, tenants, and business owners. A specifically tailored Academy was created for community gardeners and urban farmers. Rat resistant trash cans are offered as incentives to participate.
- Professional three-day rodent academy (origin of others across the country) offered to all staff, outside pest professionals and others involved in rodent management.

Challenges

- Attempted a media campaign with signs at bus shelters and other locations, with the goal of making people aware of how trash impacts rat problems. The effort was not considered to be very effective.
- Attempted data analysis with Big Belly trash compactors to see how fast they fill up in certain areas, map the data and use this to inform decisions. Not as successful as hoped.
- Mindset that a silver bullet will solve the problem. There needs to be an awakening to the fundamental issue that garbage sustains the rat problem – and that must be addressed first.
- Pandemic set NYC back several years in rat mitigation efforts.
- Municipalities in general do not have great evidence at the city level that:
 - increasing trash pickup and removal reduces rat problems
 - the current approach to baiting has a measurable impact on rat populations

Successes

- Partnered with schools on waste management plan: containerize school food waste and organic waste. Sanitation picks up organic waste (stored in plastic bins) daily, while non-perishable trash is picked up less frequently.
- Add Parks staff to allow for additional pickup of refuse. Previously, Parks employees only work 7am to 3pm – so all trash left from 3pm until next morning. Addition of a shift led to less refuse left in parks.

Philadelphia – Ray Delaney

Laws/Regulations/Ordinances

- Ability to charge homeowner for repairs completed by department to address rodent problems (see C.L.I.P. details in Collaboration below).
- Enforcement: write tickets for high weeds, rat harborage, trash, animal waste (\$50-\$100).

Program Organization and Scope:

- Part of the Department of Health in Philadelphia – Environmental Health Services (Division) that includes Food Protection, Environmental Engineering, Lead & Healthy Homes Program, and Vector Control. When Vector Control is fully staffed, includes 24 employees (one administrator, sanitarian supervisors, vector control crew chiefs).
- About 3000 complaints per year; about 80 rodent stoppage services.
- Rodent Stoppage: exclusion services are small, easy to fix items that would prevent rodents from movement into/within a home (cement work, carpentry).
- Provide pest control services for health dept. buildings (15), common areas of two airports.
- Perform animal bite investigations (about 1000 per year).
- “We go where the rats are.” Will do interior and exterior inspections on private homes. Provide treatment for city-owned properties. In general do not provide service to commercial buildings (unless they are contributing to pest problems elsewhere).
- “Rat’s are ours - mice are yours”

Collaboration

- Have worked with Parks and Recreation, Water Department, Streets Department, Department of Public Property, and Friends of the Park groups to address rat issues.
- Good relationship with License and Inspectors (= Philadelphia’s Code Enforcement)
- Community Life and Improvement Program (C.L.I.P.) helps get properties into compliance: deals with high weeds, buildings in disrepair, overflowing trash, broken fences, etc. Will do some minor repair work, plus cut grass...
 - Expenses get billed to homeowner; Lien on property if it changes hands; added to tax base.
- Work with private industry on problem accounts.

Methods

- Maintain a list of problem sites (currently 52) that are perennial problems.
- Estimate that 95% of what the Vector Control program does is burrow baiting with pellets. Have used Rat Ice, BurrowRx, bait stations - unfortunately, bait stations tend to walk.
- Sewer baiting.
- Neighborhood surveys in winter: pick a section, go door to door – do as many inspections as possible.
- Coordinated Block Inspections – not sustainable due to amount of inspections, door to door, treatments of burrows, cleanup trash, etc.

Data

- Database that tracks complaints and responses. Desire to increase data collection and use.

Education and Outreach

- Offer community meetings

Challenges

- Competing Priorities: rats are not the only target pest for the agency: also manage mosquitoes, cockroaches in sewers, ticks, wasp nest treatments, etc.
- Bait stations used in management programs get stolen.
- Staffing limitations: 10 times the number of staff in the 70's. Do not have the outreach capabilities of previous eras.
- Older housing stock and older infrastructure.
- Philadelphia has a 53% owner-occupied rate. This means that almost half (47%) don't have the ability, funding or authority to make corrections in the homes that they live in.
- Residents feeding the birds and organizations feeding the homeless contribute to waste.
- Trying to figure out if the program is effective. What measures should be used: Fewer callbacks? Fewer complaints? Compliance/behavior change? Reduced number of burrows?
- Uninformed citizens and politicians that contribute to rat problems.
- Anti-rodenticide advocacy groups.
- Changes in rodenticide regulations (2020 California rodenticide bans).

Opportunities

- Diverse program with numerous targets provides opportunities for outreach and education to audiences on different topics.
- Develop best practices for municipal rodent management that are specific to challenges of cities.
- Training specific to municipalities – not commercial rodent control. Has to be on scale and scope of what a municipal program does.
- Best approaches to facilitate collaboration and working relationships with private industry.

Washington, DC – Gerard Brown

<https://dchealth.dc.gov/service/rodent-control>

Laws/Regulations/Ordinances

- Mission to protect the public health and safety of the residents and visitors of the District by reducing rodent activity and other vectors through proactive surveys, inspections, baiting, enforcement, community outreach and distribution of educational materials.
- Petition: filled out and signed by residents: Health Department will come and perform a block inspection to assess rodent problems [a priority for department].
- Started enforcement in 2000, mostly relating to dumpsters/containers. If lids are open, trash overflowing, lids damaged or missing, holes in the can, etc.: \$500 ticket possible. Strict, but common sense enforcement. If issue addressed, can reduce or dismiss fine.
- Grease management: \$500 ticket possible.
- Construction: contractor has to submit a rodent control plan from the beginning of the project to ensure that rodent populations and mitigation are considered (what happens to food waste on site? etc.). \$250 fee for permit since staff have to visit site for inspection.
- Property owner on tax documents is responsible to pay violations

Program Organization and Scope:

- One program manager, two supervisors, two staff assistants, 16 code enforcement and rodent inspectors that combine two formerly distinct jobs. One person can do the work of two: code enforcement and rodent mitigation.
 - Health Department also has about 20 sanitarians in the Food Safety Division.
- Surveys on residential and commercial properties.
 - Typically do not treat commercial properties unless there is an issue. Then, treatment performed and property owner sent notice to abate.
 - Bait public spaces, private property.

- Respond to 311 complaints within three days: use issued iPads and cell phones. Because 311 is web-based, inspectors can receive and respond to complaints in real time. Response time is accurate and measured in the system.
 - Inspectors leave a door hanger if person is not home: communicates what was observed and done – follow-up within three weeks if activity found and treatment performed.
 - District has eight wards: inspectors assigned to those wards and dedicated to the areas. Helps reduce response time.
- Initiatives:
 - *Rat Riddance*:
https://dchealth.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/RAT%20RID%20DANCE%20INITIATIVE_0.pdf
 - *Working for a Rat Free DC*:
https://occc.dc.gov/sites/default/files/dc/sites/occc/publication/attachments/RATS_6_6_05.pdf
 - *Community Hygiene Program*: meet with residents and businesses on a block to address rat issues. Provide recommendations and inform participants what role health department can play.
 - *Trash Compactors*: desire to increase the use of rodent-proof trash receptacles and compactors – grants program from Mayor. Increased funding amount in subsequent year due to high installation costs.

Collaboration

- Work with other units in the Health Department
- Open to collaboration with industry to try new products, techniques, and equipment to manage rats.
- National Parks Service (16% federal land in DC) – arrangement where DC Dept of Health are contractors for rodent control. Four staff members every Saturday inspect and treat park sites as needed.
- Department of Public Works – staff from both departments call each other in response to complaints.
- Department of Consumer Regulatory Affairs, Licensing Agency: enforce regulations on structures such as tall weeds and grass. Fine for tall weeds and grass over four inches starts at \$500.
- DC Housing Authority: have their own pest control team.
- Department of General Services: responsible for pest control in all city-owned property: police stations, city-owned parks, office buildings, recreations centers.
- Food Safety Division: work primarily inside, but some collaboration if rat issues.
- Advisory Neighborhood Commissions.
- Encampment Coordinator oversees cleanups – but not well-received by homeless.
- Work with media to promote messages to the public.

Methods

- Burrow treatments: tracking powder and baits, BurrowRx machine, dry ice.

Data

- Recommendation to use data associated with trash cans (nearby rodent population, volume of trash) to determine which cans need to be replaced with rodent-proof devices: prioritize!

Education and Outreach

- Provide educational materials and presentations in person / virtually.
- Rodent Control Academy since 2006.
- Wire mesh giveaway: associated video on website of how to use in small yards.
- Website with educational videos and downloadable content.

Challenges

- Logistics associated with use of dry ice.

<https://www.nola.gov/mosquito/>

Laws/Regulations/Ordinances

- Recent initiatives created opportunity to enforce violations that will be used sparingly.

Program Organization and Scope:

- Fall under umbrella of Homeland Security.
- Provide pest management for all City facilities (363 buildings), green space, schools.
- 38-42 employees with some seasonal fluctuation.
- Provide treatment for commercial accounts and generate revenue.
- Exterior residential services in response to 311 (respond in 3 or fewer business days).
 - Constantly teaching residents how to pre-bait because they only rarely provide treatments indoors, but receive requests for indoor rat problems.
- Write bid specifications for schools and other agencies.
- Emergency preparedness and disaster response.

Collaboration

- Support and work with Mayor: press releases, funding. Attempt to be transparent with what department is doing.
- Industry supported research, independent projects, collaborative projects, molecular diagnostic lab.
- Partner with academic programs for pathogen surveillance.

Methods

- Heavy into snap trapping.
- Not bait often, but did weekly baiting during the pandemic when things were closed and rats were consuming lots of bait.
- Initiatives:
 - [Cleanup NOLA](#): illegal dumping prevention code enforcement – first time in history of program to have enforcement power.
 - City purchased closed trash cans in 2007 – helped remediate some issues. After seeing benefits, transportation authority changed to closed cans.
- Product testing with sensors.

Data

- Map where calls to 311 are coming from to identify problem areas.
- Use data from mosquito surveillance to make decisions about management – but the same is not done for rodents. This is a goal of the program.
- Examined consumption data from sewer baiting: found that consumption was low – making it an ineffective practice.

Education and Outreach

- Branding and social media efforts; provide presentations that are accessible to a general audiences.
 - Who they are, what is message, what are they trying to accomplish, etc.
 - Branded bookmark for distribution via library. Magnets distributed too.
- Host training events for the professional industry.
- Important to have a unified message across agencies: should all be spreading the same info in terms of rodent mitigation.

Challenges

- Baiting storm drains failed during COVID.
- Loss of staff (13) due to COVID funding cuts.
- Age of the infrastructure: old sewers, giant canals underground [storm drains are separate from sewers].

- Competing interests: Mosquito, Rodent, Termite Control Board.
- People placing out food to feed cats/dogs after natural disaster – but really feed rats.
- Need for funding to perform surveillance to better understand distribution of pathogens/ectoparasites.
- Research needed to understand best way to implement surveillance program and develop useful recommendations from results.
- Diverse audiences vary in their needs, expectations and philosophical concerns about rodent problems.
- Abandoned properties (structures and lots) as a result of natural disasters (Hurricane Katrina) create problems for rodent management.
 - Residential areas with high levels of vacancy and unmanaged vegetation had more rats.
- People do not know a lot about rats (or other pests, or their management, etc.).
- A percentage of people do not think about rodent control – nor do they feel it's important.
- Commercial pest control contracts were cancelled during COVID in restaurants, potentially worsening problems.
- Access to dry ice/Rat Ice is difficult – drive time to and from sites makes it impractical.
- Homeless encampments directly over rodent burrows (rats living with people) – creates potential for rodent-borne disease outbreak.

Opportunities

- When municipality provides training to industry – they can become partners and messengers.
- Recognition that smaller chunks of information get across to people, especially general audiences.
- Information and data sharing between municipalities is important.

Seattle and King County, Washington – Leah Helms

<https://kingcounty.gov/depts/health/environmental-health/animals/rat-prevention.aspx>

Laws/Regulations/Ordinances

- Regulations housed under King County Board of Health Title 8: Rodent Control
 - Investigations can lead to enforcement: civil penalties and property liens.
 - Process is progressive: Notice of Violation, Notice and Order of Penalties and liens.
 - Commercial: one-time \$7,500 civil penalty. Can double penalty for repeat offense.
 - Residential: \$2,500 civil penalty, max of \$250 per day.
 - Adopted process in 2003. Previously was a criminal code that required court appearance (not effective).
- Can involve prosecuting attorneys in Seattle's Law Department if severe rodent infestation is affecting neighbors and not being abated.
- Ordinance to require demolition permits include rodent abatement.

Program Organization and Scope:

- In Seattle and King County, diverse and vibrant population: 15 languages prioritized for Limited English Populations.
- Rat Program is actually composed of two separate entities that are funded separately.
 - Seattle Public Utilities funds the *Above-Ground Rodent Program* that responds to citizen complaints, does outreach on prevention, advisement and public inquiries, and response to homeless encampments. Average about 250+ complaints per year.
 - *Below-Ground Rodent Program* conducts sewer baiting, responds to 'rat in the toilet' complaints and side sewer investigations. Average about 30-50 complaints per year.
 - City of Seattle contracts with program (county public health) for complaint response, outreach and sewer baiting.
- Staff includes supervisor and 2 field investigators (for all of Seattle and King County).
- Emphasis on education (no abatement services offered)
- Cover all property types: urban, rural, downtown, residential, industrial and port areas.

Collaboration

- Work with Parks, Public Utilities – but slow to form relationships.
- Hope to participate in the city's [Clean City Program](#).
- Opportunities to work with local Hoarding Task Force.

Methods

- Sewer Baiting – lack a good evaluation tool, but have been mapping the location of manholes and entering data in ArcGIS.
- Side Sewer Assessments (pipe that runs from home to street). If holes/rat burrows are found in lawn near the location of side sewers, perform a dye test to determine if there's a break. In most cases, homeowner is responsible to repair.
- Prioritize complaint response to residents (not currently part of the 311 system).
- Initiatives:
 - *Purple Bag Program*: drop off garbage bags at homeless encampments and City picks them up weekly [considered a good start, but not sufficient on its own].

Data

- 70% of manholes baited with rodenticide had activity – independent of manhole age, type of pipe, etc.

Education and Outreach

- Targeted outreach to neighborhoods surrounding homeless encampments to prepare for when influx of rodents during cleanup events.
- Collate reports from public health nurses and outreach workers in homeless encampments to generate a list of tips to reduce issues.
- Educational materials are translated in at least the 7 top-tier languages in county.
- Youth Outreach projects with Seattle Housing Authority and area high school. Hope/plan to do more of this type of outreach in the future.

Challenges

- Funding limitations, competing priorities and capacity.
- Nation's 3rd largest homeless population – half of which live unsheltered.
- No illegal dumping program with associated fines and enforcement.
- Do not have adequate regulations to support the work the program needs to accomplish.
- Legislators are focused on other issues besides rats – such as homelessness.
- Old, combined stormwater/sewer system.
- *Clear Alley Program* adopted by city, against advisement, prohibits dumpsters and containers with lids.
- Urban farming is popular and individuals can have fowl and some livestock in their yards without permits.
- Bird feeders – people feeding crows, contribute to rat problems.
- Hoarders.
- Lots of lush vegetation – but no ordinance on vegetation management. Prohibitive regulations from City that prevent removal of vegetations in some instances can interfere with rodent mitigation.
- Currently no pathway to shut a restaurant down, even if it's infested with rodents and presents a health risk. Restaurants also don't have to contract with a trash hauler – they can manage the trash on their own.

Opportunities

- Currently a training gap with food inspectors – plan to address this in the future.
- Building trauma-informed approaches to code compliance toolkit – such as motivational interviewing

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