

INTEGRATED PEST
MANAGEMENT
TOOLKIT FOR
BUILDING OWNERS,
MANAGERS AND STAFF

New York City Department of Health and Mental Hygiene

October
2015

Integrated Pest Management Toolkit for Building Owners, Managers and Staff

Pests, including cockroaches, rats and mice, are common in New York City (NYC), especially in high-poverty neighborhoods with poorly maintained buildings. In some neighborhoods, more than 50% of households report seeing cockroaches on a daily basis and mice within the last three months. Pests, especially cockroaches and mice, affect indoor air quality and can trigger allergic reactions or asthma attacks in some people. Asthma affects more than one million New Yorkers.

Integrated Pest Management (IPM) is a prevention-based pest management method that provides long lasting pest control, improves building conditions and is less harmful to residents and pets than traditional pest control.

Whereas traditional pest control relies on regularly scheduled pesticide applications, IPM targets the underlying causes of pest infestations through simple pest proofing strategies such as fixing leaks and holes and managing garbage to deprive pests of food, water, shelter and ways to get around. If pesticides must be used, IPM uses the least toxic chemicals, applied in the safest manner to protect people and pets.

Using IPM in your building can provide long-term effective pest control, prevent pest-related damage to buildings, improve building and air quality and reduce resident complaints. It is also consistent with good building management and can save time and money in the long run.

This toolkit is designed to support building-wide implementation of IPM. For additional information or specific questions, please email healthyhomes@health.nyc.gov or call 311 and ask for “Healthy Homes.”

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Selecting and Working with a Pest Management Professional

Pest management professionals (also known as exterminators or pest control companies) can provide both **Integrated Pest Management (IPM)** and traditional pest services. Pest management professionals (PMPs) are licensed to apply pesticides by the New York State Department of Environmental Conservation and regularly participate in trainings on pest control for insects, mice and rats. **In New York, only licensed professionals can apply pesticides in commercial and multi-family buildings.**

When choosing a PMP, ask specifically for IPM services and look for experience providing IPM services in residential buildings. Give the PMP a copy of the *Integrated Pest Management (IPM) Model Scope of Services* in this toolkit.

Selecting a Pest Management Professional

Find licensed PMPs through the New York State Department of Environmental Conservation by calling 718-482-4994 or visiting www.dec.ny.gov. Compare services and pricing among at least three different PMPs.

Look for PMPs that:

- Advertise IPM services and have licensed professionals applying pesticides
- Have positive reviews on social media
- Will inspect the entire property (interior and exterior) and provide a written report before quoting a final price

Hire the PMP that:

- Has good references. Ask to talk to building managers whose buildings had similar problems.
- Has enough staff to match building size and needs, including emergency response within 24 hours
- Offers the right service plan and pricing structure. The lowest bid may not always be the best solution.

Working with a Pest Management Professional

Initial Inspection and Report

During the initial inspection, the PMP should look for evidence of pests and identify problem areas and building conditions or practices that support pests. The PMP should inspect the interior of the building, including apartments with reported pests, garbage storage areas, and other common areas, as well as the exterior areas of the building. The PMP should provide a **written report** of the inspection findings and recommended pest control actions. The PMP may charge a fee for this initial inspection. A building representative (property manager or building supervisor) should accompany the PMP during *all visits* to provide access to service areas and give input on the status of pest problems on site.

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Whereas traditional pest control relies on routine pesticide applications, IPM targets the underlying causes of pest infestations through simple pest proofing strategies such as fixing leaks and holes and managing garbage to deprive pests of food, water, shelter and ways to get around.

If pesticides must be used, IPM uses the least toxic chemicals, applied in the safest manner to protect people and pets.

For more information, visit nyc.gov/health or call 311 and ask for “Healthy Homes.”

Description of Estimate and Services

The PMP's service estimate must contain a **pest monitoring plan** and a description of **pest management methods**, including sanitation improvements and pest exclusion measures.

1. Pest Monitoring Plan

The pest monitoring plan should include:

- A **service schedule** that shows *how often* the PMP will come to the building and *which* building areas will be inspected during each visit. Additional areas can be added as new problems are identified. The pest monitoring plan should provide a description of the technician's responsibilities during each regularly scheduled service visit. During each visit, technicians should:
 - Meet with the building representative and review any recent pest complaints
 - Identify the extent of any current infestation
 - Determine the control options most appropriate for the specific location and type of pest
 - Identify and report conditions that attract pests
 - If possible, treat affected area(s) using a non-chemical or reduced-risk method or make arrangements to schedule treatment
 - Check bait boxes and traps
 - Provide records of the services provided (see *Recordkeeping*)
- The **method of monitoring** for pests and a description of the monitoring devices to be used, such as traps and glue boards. Some PMPs may provide a map showing where monitoring devices will be placed on the property. Insect monitors can be used for cockroaches and other insects; glue boards and rodent monitoring blocks can be used for mice and rats.

2. Services and Treatment Descriptions

The PMP's service estimate must also include a **description of the pest management methods** that will be used for each type of pest. The PMP should provide vacuuming, cleaning and steaming services to remove pests and nests, and use the least toxic materials, such as gel roach bait, rodent traps, etc. High Efficiency Particulate Air (HEPA) vacuums and steam cleaners are recommended to remove existing insects and reduce grease and food sources. Chemical control methods such as containerized baits, gel baits and reduced risk pesticides should be used judiciously. PMPs should never use fogs or bombs and should limit the use of sprays to areas inaccessible to people and pets.

Sealing should be the first line of defense. Some PMPs may provide sealing services for small gaps and holes. Larger holes and related repairs are typically the responsibility of building staff. The scope of services should clearly describe the responsibilities of the PMP and of building management.

The PMP should provide written treatment plans for each type of pest. Some pests require treatment plans with additional considerations. For example:

- *Mice and Rats*: The PMP should check for rats and mice found inside and outside buildings. The PMP is responsible for pick-up and proper disposal of dead rodents unless other arrangements are made. This should be included in the scope of services.

- *Bed Bugs*: Bed bug services may be billed separately from the regular pest management contract. Services for bed bugs should adhere to the National Pest Management Association’s “Best Management Practices for Bed Bugs” (see bedbugbmps.org). Apartments next to and across from infested apartments should also be checked for evidence of bed bugs and, if necessary, treated with reduced risk chemicals, if necessary. PMPs should conduct at least two follow-up visits in infested apartments.
- *Unit Turnover Services*: The scope of services should specify who (building management or PMP) is responsible for conducting turnover pest inspections when a resident vacates a unit. The purpose of this inspection is to document pest activity and building conditions that may attract pests. PMPs should provide treatment as necessary when apartments are prepared for occupancy and install preventative measures as appropriate. Turnover preparation may also include structural repairs to correct building issues that may attract pests. A unit should only be treated with chemicals at turnover if there is evidence of a pest infestation.

3. Recordkeeping

PMPs must keep and provide records detailing the following:

- Specific pesticides used during each service and pest(s) treated
- Specific work done in a unit
- Future treatment required
- Conditions that may attract pests
- Pest complaint tracking

When reviewing the scope of services, keep in mind the following:

- ✓ Routine pesticide application is not a part of IPM. Use of aerosol spray is limited to cracks and crevices treatments. Baseboard and broadcast spray applications are never used.
- ✓ PMPs must get building manager approval for all pesticide use. All pesticides must have a manufacturer’s label and be used according to label instructions. Never use unlabeled or illegal pesticides. For more information, see [Pesticide Safety](#).
- ✓ Rodenticides should be used only when attempts at exclusion, sanitation and trapping are unsuccessful. Only use rodenticides in tamper-resistant bait stations or placed deep into rat burrows. Label bait stations with the date placed, product name and PMP contact information. Tracking powder should never be used in areas where people or animals can be exposed; the powder can contaminate human food and water.
- ✓ PMPs should outline a communication plan for reporting pest activity, building conditions or problems in need of maintenance that are outside the scope of pest control services.

Getting Results

Building Manager Responsibilities

- Accompany the PMP at every visit and track measures to remove and prevent pests.
- Implement and follow up on building maintenance recommendations.
- Respond to resident complaints in a timely manner.
- Log pest issues and inform PMP at every visit.
- Require a written report from PMP after every visit.
- Manage garbage and keep garbage storage areas and compactors clean (see [Building Garbage Control and Compactor Maintenance](#)).

Evaluation

Estimates should include a description of the PMP's quality assurance plan, a key component of which is a full site inspection at least once a year. Services should be adjusted as needed based on information gained during visits.

PMPs should provide indicators for demonstrating improvement over time, such as reduced pest activity, fewer pest complaints, fewer pest control materials used and reduced service time.

Integrated Pest Management (IPM) Model Scope of Services

When negotiating a **building-wide** pest control service agreement with a pest management professional (PMP), give this model **Integrated Pest Management (IPM)** scope of services to the vendor for reference. The model is a useful template for developing a customized scope of services that includes required services for any property.

Pest Management Professional: _____

Building Management: _____

Property Name and Address: _____

Period of Service: _____ (date) to _____ (date)

Ask for Proof of Qualifications:

- License from New York State Department of Environmental Conservation
- IPM policy and procedures

Note: If building management also has an IPM policy for the property, provide a copy to the PMP. It is the responsibility of the PMP to make sure that the services provided are consistent with professional policy and building management policy.

- References who can speak to PMP's IPM service

Scope of Services:

Initial IPM Inspection: PMP will conduct initial interior and exterior inspection and provide a written report that identifies problem areas and recommends structural, sanitary and/or procedural modifications to reduce pests' access to food, water and shelter.

IPM Monitoring Plan: PMP will submit a monitoring plan for building manager approval in advance of any contracted work. The plan will include:

1. An ongoing monitoring proposal for all locations where there is an active infestation, pest evidence or conditions potentially leading to infestation
2. Meetings or calls after treatment of infested areas
3. Recommended procedures for unit turnover

Visits will occur _____ (ex. monthly, weekly, etc.).

The PMP will inspect the following areas during each service visit:

_____ (ex: unit #, exterior, basement, etc.)

IPM Services: Treatment services will include:

- Sealing openings, cracks, crevices, entry points and other locations with pests/pest debris or where food and/or water can collect
- Removing pests, debris, food and dust with High Efficiency Particulate Air (HEPA) vacuuming and steam cleaners
 - PMP will use wet cleaning methods when removing rodent nests and nesting materials to prevent spreading allergens and pest waste during removal
- Applying approved gel, baits and pesticides as specified in the *Pesticide Use* section below, and only as needed
- Placing sticky traps and other monitoring devices in appropriate locations and monitoring pest activities
- Communicating findings to building manager or designated agent as outlined in *Recordkeeping* section

Service Descriptions:

1. *Emphasis on Non-Pesticide Methods*

- i. Standard use of non-pesticide methods as first and primary means of pest control
- ii. Standard use of portable HEPA vacuums rather than pesticide sprays for initial cleanouts of cockroach infestations
- iii. Standard use of trapping devices rather than pesticide sprays for indoor fly control

2. *Insect Control*

- i. Application of Insecticides to Cracks and Crevices: Insecticides will be applied ONLY in "crack and crevice" treatments. Formulated insecticide will not be visible to a bystander during or after the application process.
 - a. All labor and materials will be furnished to provide control of roaches, ants, silverfish and rodents.
 - b. All harborage areas (i.e. cabinets, sinks, closets, pantries) and cracks, crevices and breeding sites where pests have been identified will be treated with roach bait gels.
 - c. Roach bait gels will be odorless, non-volatile and will not produce airborne particles. They will be designed for use in sensitive areas and residents will not need to remove edibles or dishes from cabinets or vacate premises during application.
 - d. During each service visit, special attention will be paid to kitchen and bath areas, including spaces beneath sinks, counters, appliances, etc.
- ii. Application of Sprays or Insecticides to Exposed Surfaces: Fogging is prohibited and the application of spray insecticides to exposed surfaces will be limited. If use is required, PMP will obtain approval from the building manager prior to any application of insecticide to an exposed surface or application of a spray treatment. PMP will ensure resident and employee safety and employ necessary precautions for the containment of the pesticide to the site of application. No surface application or space spraying will be conducted while resident(s) or personnel are present.

- iii. Insecticide Bait Formulations: Bait formulations will be the standard pesticide technology for cockroach and ant control, with alternate formulations restricted to unique situations where baits are not practical.
- iv. Monitoring: Sticky traps will be used to guide and evaluate indoor insect control efforts where necessary.

3. *Rodent Control*

- i. Trapping: PMP will use trapping as the first method of indoor rodent control. Traps will be out of general view and in protected areas so as not to be affected by routine cleaning and other operations. PMP will check trapping devices on a schedule approved by the building manager. All trapped rodents and all rodent carcasses will be disposed of in an appropriate manner.
- ii. Use of Rodent Bait (rodenticides): When used in conjunction with other structural and mechanical controls, rodent baits are an effective means of providing long-term control with a minimal risk to people, pets and wildlife. The PMP must obtain building manager's approval prior to starting any interior rodenticide treatment. When used indoors, baits will **always** be installed within tamper-resistant bait stations and in out-of-reach areas. All bait stations (inside and outside) will be maintained in accordance with the Environmental Protection Agency's (EPA) regulations, with an emphasis on the safety of non-target organisms and in adherence to the following:
 - a. All bait stations must be placed out of general view, in locations where they will not be disturbed by routine operations.
 - b. The lids of all bait stations must be securely locked or fastened shut.
 - c. All bait stations must be securely attached or anchored to the floor, ground, wall or other immovable surface, so that the box cannot be picked up or moved.
 - d. The bait must always be secured in the feeding chamber of the bait station and never placed in the runway or entryways of the bait station.
 - e. All bait stations must be labeled on the inside with the PMP's business name and address, and dated by the PMP at the time of installation and at each follow-up service.
 - f. All bait stations should be numbered and their location marked on a simple floor plan map. The PMP should leave a copy of the map along with the pesticide's label with the building manager.
 - g. Bait stations should be inspected during every service visit for monitoring purposes and to ensure stations are not providing harborage to non-target pests.

When using rodent bait outdoors, the PMP will place loose bait like pellets or meal deep inside rat burrows. When this is not feasible, the PMP will install bait stations along the paths that rats travel. All rodenticides, regardless of packaging, must be placed either in locations not accessible to children, pets or wildlife, or in EPA-approved tamper-resistant bait stations. When rodenticide is prohibited in an area such as an organic garden, the PMP will use trapping devices.

4. *Pesticide Use*

The PMP will adhere to the following rules for pesticide use:

- i. Approved Products: Only apply pesticide products that have been included in the IPM Plan and approved in writing by the building manager.

- ii. Prohibited Products: Do not use foggers or bombs, organophosphate or chlorinated hydrocarbons pesticides. Do not use broadcast or baseboard spray applications.
- iii. Pesticide Storage: Do not store any pesticide products in the buildings specified in the contract.
- iv. Application by Need: Apply pesticides according to need and not by schedule. Do not apply pesticides in any inside or outside area unless visual inspection or monitoring devices indicate the presence of pests in that specific area and actionable levels specified in IPM Plan are exceeded.
- v. Minimization of Risk: When pesticides are necessary, use only the least hazardous materials, with the most precise application technique, and with the minimum quantity of pesticide necessary to achieve control. Apply pesticides in a manner that is safe and inaccessible to residents and pets.
- vi. Notification: Provide a written notice of the intention to apply pesticides at least 24 hours in advance. List rooms, apartments and other areas to be sprayed with insecticides someplace visible, at least 24 hours before application.
- vii. Emergency Procedures: In case of emergency situations, request written approval if it is necessary to vary from the above procedures.

5. *Recordkeeping*

- i. Recordkeeping Forms: The PMP will submit to the building manager a signed, dated checklist for each building site visited that will include: record of monitoring device results, list of all actions taken, list of threshold information, location, brand name and active ingredient for any preapproved pesticide product used, and list of problem apartments.
- ii. Service Updates to Building Management: PMP will schedule monthly meetings with building manager to provide an update on work performed, an assessment of existing problem areas and future treatment plans. The PMP will provide an annual summary of pesticides uses, brand names and active ingredients, progress and planned activities for problem infestation areas.
- iii. Proof of Service Guarantee: All invoices will be accompanied by proper proof of service, including the date of service, the technician's time of arrival and departure and a detailed report of all services performed, including target pests, method of extermination, chemicals/products used and locations of use. This proof of service is to be verified and signed by either the super or building manager in the case of regular extermination or special common area treatments, or the resident in the case of bedbug and/or any other apartment-specific treatment. Invoices will not be paid unless PMP provides acceptable proof of service.

Pest Management Opportunities during Building Renovations

Pest proofing during renovation saves time and future costs by reducing resident pest complaints, minimizing the destruction caused by pests and increasing the quality and value of the renovations. It also makes the building healthier for residents by reducing asthma triggers. During renovations, look for opportunities to fix leaks and moisture problems, seal cracks and holes and use pest-resistant materials.

Before Renovation

Hire a pest management professional (PMP) with experience in **Integrated Pest Management (IPM)** to inspect the building, review resident complaints and report pest conditions and ways to eliminate them. Common IPM recommendations include:

- Putting cockroach bait (gels, traps) in apartments and common areas
- Applying boric acid behind walls to kill cockroaches and prevent new infestation
- Using rodent traps and/or baits
- Sealing holes and cracks
- Fixing leaks and repairing water damaged areas

Talk to the PMP **and** the renovation contractor about combining pest control activities with the upcoming renovation. Be sure to:

- Incorporate pest proofing measures into the renovation scope of services.
- Track progress by creating a list of pest proofing tasks that must be completed.

During Renovation

- Seal gaps in walls, floors and joint areas using non-toxic sealing methods such as window screens, door sweeps, escutcheon plates and elastomeric sealants.
- Use rodent and corrosion resistant screens such as copper, stainless steel or rigid metal cloth for openings greater than ¼ inch.
- Place garbage cans with secure lids on site for daily trash.

Residential Apartments

Focus on closing cracks and gaps. Adult cockroaches can hide in a crack 1/16 of an inch wide, and mice can squeeze under a door gap the width of a pencil (¼ inch). Remember to:

- Reduce gaps around door edges and along thresholds when installing doors.
- Install door sweeps on front and main entry doors.
- Seal entry points for water pipes, radiator pipes, risers, gas lines and electrical lines.
- High Efficiency Particulate Air (HEPA) vacuum and wash walls to remove any pest debris (i.e. cockroach shells and insect excrement) *before* installing cabinets or kitchen appliances.
- Install cabinets with doors that close tightly.
- Seal edges between cabinets and walls. Seal any holes or cracks around appliances.
- Seal baseboards and molding along floor and wall edges.
- Repair water-damaged areas and fix leaks.

- Require the pest management professional to treat wall voids with boric acid before walls are sealed.

Common Areas and Exteriors

- Check the building exterior for holes, cracks, gaps and crevices. Thoroughly seal all openings, especially in foundation areas.
- Talk to building staff about any problems with the current garbage management system.
- Make sure the garbage area is big enough to store the proper number of garbage cans with secure lids. The building should be able to securely store at least three days' worth of garbage.

Compactor Rooms

- Resolve compactor pest issues before dismantling the compactor or compactor room.
- Seal area during renovations to prevent pests from finding shelter in adjacent apartments.
- Install compactor chute doors that are large enough to fit a full garbage bag.

Renovation Work Areas

- Make sure garbage cans are available on site for the workers and are emptied daily to avoid pests.
- Make sure food wrappers and other waste are **not** thrown into wall voids.

After Renovation

The pest management professional should identify any problem areas that need attention and address remaining concerns before building management makes apartments available to residents.

Keep pest control records and adopt a building-wide pest management policy that specifies how to inspect for and eliminate pests. Provide this information to residents.

- Schedule regular pest management inspections.
- Promptly fix structural and sanitation problems.
- Consult with the PMP about safe pesticide use for persistent pest problems.
- Assign a staff member to serve as “pest control coordinator” to oversee pest complaints and services.

Pesticide Safety for Building Owners, Managers and Staff

Building owners are required to keep apartments and common areas pest-free and must hire a pest management professional (PMP) licensed by the New York State Department of Environmental Conservation if applying pesticides in these areas.

Routine spraying of chemical pesticides does not address the root of pest problems, and many pesticides contain chemicals that may harm people, pets and the environment. However, reduced-risk pesticides that are used in a safe manner by licensed pest management professionals are sometimes appropriate, if used in combination with other pest management methods that address the source of infestations, such as improved sanitation, building maintenance, pest exclusion and trapping.

Safe Pesticide Application by Pest Management Professionals

Pest management professionals should:

- Discuss any pesticide application and the associated risks.
- Use chemical pesticides sparingly and apply to small targeted areas only.
- Provide a copy of the manufacturer's label for any pesticide used.
- Keep chemicals away from children and pets.

Reduced-Risk Pesticides

Pesticides for Ants and Cockroaches

- **Dusts and Granular Baits:** Dusts for cockroaches include boric acid, diatomaceous earth and silica gel. All dusts should be applied directly inside cracks and crevices. Clean up any remaining dust in accessible areas.
- **Gel Baits and Bait Stations:** Gel baits are available in tubes and bait stations. These baits are applied in cracks and crevices where cockroaches and ants live. Containerized gel bait stations are very effective at controlling cockroach infestations. Pests eat the bait and return to their nests to die, exposing the other pests to the poisonous chemicals.

Pesticides for Rodents

Rodent bait is an effective way to eliminate rats, but should be **applied only by professionals** in public areas, commercial settings and multiple unit buildings.

Integrated Pest Management

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Whereas traditional pest control relies on routine pesticide applications, IPM targets the underlying causes of pest infestations through simple pest proofing strategies such as fixing leaks and holes and managing garbage to deprive pests of food, water, shelter and ways to get around.

If pesticides must be used, IPM uses the least toxic chemicals, applied in the safest manner to protect people and pets.

For more information, visit nyc.gov/health or call 311 and ask for "Healthy Homes."

Rats and mice can easily push or carry bait out of burrows or nests and bait stations into areas where children, pests or wildlife could be exposed. Therefore, the PMP must place loose pellet bait deep into burrows and secure bait blocks on rods, inside tamper-resistant bait stations that are anchored by cement, caulk or wire. The PMP should also:

- Read and follow the manufacturer's label.
- Use the smallest effective amount of bait.
- Place bait stations on the path rats normally travel, often along building walls and fences.
- Keep bait stations away from children and pets.
- Check bait stations at least monthly.
- Replace bait after it's been eaten.
- Wait at least two weeks after all rat activity has stopped to remove bait stations.

Pesticides for Bed Bugs

Talk with the PMP about steam cleaning, disinfecting and reduced-risk pesticides for bed bugs. The use of an effective, reduced-risk pesticide is crucial for successful management of bed bugs without harming the health of people and pets.

Pesticide Warnings

- Never use *illegal* pesticides like Tres Pasitos, Chinese chalk or Tempo.
 - Never use a product that does not have a manufacturer's label.
 - Never use foggers or bombs for insect control.
 - Never place loose rodent bait in areas accessible to children or pets.
-

Pest Proofing Tips for Building Owners, Managers and Staff

Integrated Pest Management (IPM) targets building conditions that encourage pests to live and breed by focusing on good building maintenance and timely repairs. Sealing cracks and holes, fixing leaks and improving garbage management deprive pests of food, water, shelter and ways to get around. Many of these repairs are inexpensive and easily handled by building staff. Use reliable, long-lasting materials to improve the quality of building repairs, and remember to always follow label instructions.

Pest Proofing Materials

Refrigerator Door Gasket: Rubber seal around refrigerator door.

Sealant: Filler for cracks and crevices made of siliconized acrylic latex or ethylene copolymers. Sealant is more flexible, crack proof, water-resistant and longer-lasting than traditional caulk. Use the appropriate sealant for each repair; for example, use concrete sealant for repairs on concrete walls.

Escutcheon Plate: Plates that fit snugly around plumbing and electrical pipes near wall penetrations to prevent pest access. Generally made of stainless steel.

Backer Rod: Tube-shaped material that is used to help fill larger gaps and cracks.

Galvanized Wool/Mesh: Used to fill holes around pipes. Copper lasts longer and is more rust-resistant than steel wool.

Rodent Barrier Cloth/Hardware Cloth/Exclusion Materials Made of Stainless Steel or Copper Mesh: Materials that act as barriers for rodent burrowing and nesting. Remember to wear gloves when handling.

Blown-In Cellulose Installation Treated with Boric Acid: Wall void filler that acts as an insecticide when treated with boric acid. It also helps maintain heating and cooling in the home, is fire retardant and is environmentally friendly, since it is primarily made from recycled materials.

Insecticide Dusts: Dusts such as boric acid and diatomaceous earth that are pesticides for insects.

Anti-Pest Door Sweeps/Thresholds: Stainless steel strips attached to a thick bristled brush. They block out rodents by closing gaps underneath exterior doors.

Landscape Cloth: Fabric that deters weed growth and rodent burrowing.

Pea Gravel: Loose gravel that separates landscaping from the building foundation and discourages rodent burrowing.

Pest Proofing by Area			
	<i>Where to look</i>	<i>What to look for</i>	<i>How to pest proof</i>
Kitchen	Refrigerator	Fallen food and sources of leaks behind refrigerator. Check refrigerator door to make sure it closes properly and has a good seal.	Remove all sources of clutter from around refrigerators. Sweep and Vacuum behind and under refrigerators. Clean food residue, dirt and dust from behind and under fridge. Clean exterior and interior of the refrigerator. Replace door gasket with a new one based on refrigerator model number using a screw driver.

Pest Proofing by Area

	<i>Where to look</i>	<i>What to look for</i>	<i>How to pest proof</i>
	In and around cabinets and under sink basin	Crevices at wall junctions, in between cabinets, under sink basins and around cabinet trims on walls	Seal all gaps with sealant. Use backer rods for gaps larger than ¼ inch.
	Cabinet kick plates	Cracks and crevices	Seal crevices with sealant. Use hardware cloth or sheet metal for the larger structural gaps.
	Sink back splash	Gaps at the top edge and along the wall	Seal gaps with sealant and backer rods for gaps larger than ¼ inch.
	Ventilation hood	Gaps around edges and built-in chases (spaces or grooves in masonry walls or through floors for pipes or ducts)	Seal gaps and build chases that can be opened for inspection and treatment.
	Utility and plumbing openings	Gaps around plumbing and gas line penetrations	Seal around plumbing and gas lines and install a two-piece escutcheon plate.
Bathroom	In and around cabinets and under sink basin	Crevices at wall junctions, in between cabinets, under sink basins and around cabinet trims on walls	Seal all gaps with sealant. Use backer rods for gaps larger than ¼ inch.
	Shower	Gaps around basin and wall penetrations	Seal around gaps and wall penetrations with sealant and copper wool.
	Tub	Gaps and worn caulking and sealant	Seal gaps or replace with tile or other non-porous surfaces.
	Toilet	Gaps at edges and sides	Seal crevices and gaps with sealant and copper wool.
	Wall penetrations and water lines	Gaps around plumbing fixtures and wall penetrations	Seal crevices and gaps using sealant, escutcheon plates and copper wool.
Living Room	Radiator pipe penetration	Gap around pipe penetration in wall or floor	Seal around pipe with copper wool/rodent barrier cloth and install a two-piece escutcheon plate.
	Void under staircase	Spaces where pests can shelter	Treat void with granular boric acid and seal wall penetrations, or use blown-in cellulose insulation treated with borates and seal.

Pest Proofing by Area			
	<i>Where to look</i>	<i>What to look for</i>	<i>How to pest proof</i>
	Crawl space/attic	Openings in ventilation screens or utility doors	Install vandal resistant screens and door sweeps around utility doors. Use welded stainless steel ¼ inch screens, and wood or metal stripping or door sweeps.
All Apartments	Wall/floor junction	Gaps and crevices at junctions	Seal gaps between walls and floors before installing baseboards or crown moldings. Seal gaps and crevices and then paint. Use backer rods for gaps larger than ¼ inch, and sealant for porous surfaces if in bathroom or kitchen.
	Molding (i.e. decorative chair rail and crown molding)	Gaps at edges and sides	Seal and paint over when finished.
	Baseboards	Loose baseboards and gaps between wall and floor	Seal gaps between walls and floors before installing baseboards. Tightly seal baseboards at wall junctures. Use backer rods and sealant for porous surfaces.
	Electrical outlets, light switches, fuse boxes and circuit breakers boxes	Missing or broken covers and gaps around edges and sides	Replace missing or broken covers. Seal around edges and sides.
Common Spaces	Compactor room/trash chutes	See <i>Building Garbage Control and Compactor Maintenance</i>	See <i>Building Garbage Control and Compactor Maintenance</i>
	Boiler and laundry rooms	Gaps around wall penetrations and under doors, cracks and crevices	Seal around pipes and electrical equipment using backer rods, concrete sealant with epoxy or latex compound, and copper wool/rodent barrier cloth.
Exterior	Exterior entry doors	Light penetrating underneath exterior doors, door threshold damage and gaps in door seal	Install door sweeps at the base of all exterior entry doors. Fit bottom of garage doors with a rubber seal. Line the bottom track of sliding glass doors with foam weather stripping.
	Exterior wall penetrations	Gaps around any areas where plumbing, electrical or cable services enter the building	Seal all gaps using backer rods and outdoor sealant.

Pest Proofing by Area			
	<i>Where to look</i>	<i>What to look for</i>	<i>How to pest proof</i>
	Gutters	Buildup of dirt and leaves from the roof and in gutters	Remove debris with rubber gloves and a gutter scoop.
	Exterior vents	Holes in fitted screens or missing screens on vents	Replace or fit broken or missing screens on vents using galvanized mesh.
	Landscape	Overgrown vegetation	Cut back overhanging branches and thick shrubs so they are 10 inches or more away from the building. Create a vegetation-free zone around the perimeter of the building. This perimeter should be three feet wide and made from durable materials, such as landscape cloth covered by pea gravel.
	Entryway, paved private property	Cracks in pavement, sidewalks and concrete slabs	Remove cracked, crumbling or loose concrete with a small hammer and chisel. Seal using a putty knife and concrete sealant with epoxy or latex compound (works best on cracks $\frac{1}{8}$ inch wide or narrower). For larger chips and cracks, use mortar mixes.

Adapted with permission from the San Francisco Department of the Environment.

Building Garbage Control and Compactor Maintenance

Compactor rooms that are not well maintained are perfect breeding grounds for pests and can undermine building-wide pest control efforts. Just one bag of improperly stored food waste can feed hundreds of cockroaches and rodents. Building management can reduce pests by:

Controlling Garbage

- Use garbage containers with tight-fitting lids and place them six inches off the floor and away from walls. The building should be able to properly store three days' worth of garbage between sanitation pick-ups.
- Use only heavy-duty plastic bags (at least 1.9 mills thick). Tie bags tightly at the top to minimize leakage and spills.
- Label clearly where residents should put garbage and recycling. Remind residents to rinse recyclables and break down large items such as cardboard boxes.
- Remind residents to put tied bags of household garbage down compactor chutes.
- Never place garbage in undesignated areas or leave outside of bags or containers.

Keeping Garbage Areas Clean

- Sweep and clean common areas frequently to remove litter that attracts pests.
- Keep the sidewalk around the building clean and grease-free.
- Regularly inspect garbage containers for gnaw marks, holes, cracks, rusting or other signs of disrepair. Replace as needed.
- Scrub and wash garbage storage areas and compactor rooms often to prevent grease build-up.
- Keep all food waste in sealed containers until right before sanitation pick-up.
- Place garbage on the curb as close to collection time as possible; preferably the morning of sanitation pick-up instead of the night before.
 - The longer garbage is left out, the more time pests have to find it and feed.
 - The more garbage pests find, the more attracted they'll be to the building.

Maintaining Compactors and Compactor Rooms

- Inspect compactors and compactor rooms frequently and repair issues immediately.
 - Paint or use anti-corrosive products to prevent rust on metal parts.
 - Install door sweeps on compactor room doors.
 - Ensure garbage chute doors close properly.
- Eliminate strong odors coming from compactor rooms by cleaning. Pests will be attracted to food odors, even if deodorizers are used. Use environmentally friendly products such as enzyme cleansers for floor drains and in chutes to address odors.
- Clean the inside of the chute weekly.
- Sweep and mop compactor room floors regularly.
- Deep-clean compactors at least annually. Follow manufacturer's instructions.
- Provide residents an alternative to the compactor chute for oversized garbage and recyclables.
- Have the pest management professional (PMP) monitor for pest activity in the compactor room on each service visit and treat as appropriate.
- See [*Pesticide Safety for Building Owners, Managers and Staff*](#) for information on safe pest control.

Pest Management Tips for Building Residents

Sealing cracks, fixing leaks and removing garbage deprive pests of food, water and shelter. This approach to pest control is called **Integrated Pest Management or IPM**. Building managers are required to keep units pest-free, but tenants have a role to play too.

Keep your home clean and dry – especially the kitchen.

- Keep food in sealed containers.
- Keep counters and sinks free from food residue.
- Reduce clutter.
- Recycle piles of newspapers, paper bags and cardboard.
- Don't leave pet food out overnight.
- Don't leave dirty dishes in the sink.

Manage garbage.

- Keep garbage in sealed bags or containers.
- Rinse recyclables before throwing out in designated bins.
- Take garbage and recycling out of unit every day.

In Buildings with Compactors

- Bag and tie garbage before sending down the chute.
- Leave larger bags and items in designated storage areas.
- Do not overstuff chutes.
- Place recyclables in designated bins, not down the chute.
- Do not leave bagged garbage on the floor in compactor rooms.
- Do not throw liquids or sharp items down the chute.

Work with building manager and pest management professionals.

- Report pests, water leaks, holes and other conditions that can attract pests to building management.
- Allow pest management professionals access to the home for pest inspections and services.
- Let pest management professional know if there are children or pets in the home.
- Follow pest management professional's advice on preventing pests.
- Call 311 if management fails to respond.

Only use safe pest control methods in your home.

- Use pesticides that have manufacturer labels and are marked for consumer use only. Make sure to read and follow label instructions.
- Use bait stations and gel for cockroaches and ants.
- Use traps for mice.
- Use fly traps for flies.
- Never use *illegal* pesticides like Tres Pasitos, Chinese chalk or Tempo.
- Never use foggers, bombs or loose rodent bait.

Integrated Pest Management (IPM) is a prevention-based pest management method that provides long lasting pest control, improves building conditions and is less harmful to residents and pets than traditional pest control.

Whereas traditional pest control relies on routine pesticide applications, IPM targets the underlying causes of pest infestations through simple pest proofing strategies such as fixing leaks and holes and managing garbage to deprive pests of food, water, shelter and ways to get around.

If pesticides must be used, IPM uses the least toxic chemicals, applied in the safest manner to protect people and pets.

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