

Integrated Pest Management Program (IPMP)

Clark County Department of Aviation (CCDOA) Facilities Division

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REVISED**

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1. INTRODUCTION

The primary objective of the IPM program is to achieve long term, environmentally sound pest control through the use of a wide variety of technological and management practices. These practices include inspection/surveillance, identification, exclusion, trapping, communication, sanitation, biological and mechanical means of control, and where appropriate, application of pesticides as well as recommendations for structural and procedural modifications intended to eliminate the food, water and shelter available to pests. The IPM program is a multifaceted approach to preventing and solving pest problems by integrating education, inspection, identification, sanitation, housekeeping, exclusion, communication, biological and mechanical means of control, and where appropriate, specific pesticide application.

The IPM program shall be performed in a manner that will ensure the health and general well-being of both the public and airport personnel.

The CCDOA requires a facility-level plan IPM for each facility. The primary goals of an IPM program is to eliminate and prevent pests from inhabiting the building and damaging County, tenant property and to reduce the amount of pesticides used. IPM is the tool for controlling pests through monitoring, mitigation, and treatment. The extent of the work involved in an IPM program depends on the material types and size of the CCDOA facility. This document serves as the framework for addressing specific IPM at the facility-level by:

1. Describing the two common categories of pests found.
2. Developing mitigation strategies to prevent pests from entering facility spaces.
3. Discussing basic methods of monitoring and the need for identification.
4. Outlining inexpensive yet effective means of treatment for County spaces.
5. General housekeeping and sanitation practices to eliminate the food and water source for pests.
6. Educating, involving staff, tenants, and all applicable CCDOA Divisions as a collaborate effort to ensure the IPM plan is properly implemented.

When monitoring procedures and mitigation strategies in this IPM program are performed as scheduled and followed consistently, pests should be preventable in the facility, and anywhere on CCDOA property, landside or airside, without resorting to chemical treatments. However, if pests are detected or an infestation is found, inexpensive treatment options such as freezing can be used to eliminate pests found in or on objects. Reports of all wildlife on the Airport Property and Airside Operations Area (AOA) shall be reported to the Airport Control Center, per Section 7 - Management Actions - Reporting and Recordkeeping. The CCDOA Wildlife Hazard Management Plan governs wildlife management and regulations.

Collaborative monitoring between CCDOA and tenants together with educating employees about the IPM program will help to ensure the plan is successfully implemented.

2. SCOPE

County Property

CCDOA Vector Control will inspect CCDOA buildings, facilities and properties for identifying potential problem areas that may be contributing to interior and/or exterior pest infestations, making recommendations for corrective measures to CCDOA Facilities Division and General Building Maintenance Supervisors and the CCDOA Business Office on housekeeping issues. CCDOA Vector Control will implement a comprehensive IPM plan working with our tenants. The IPM plan will utilize all methods of pest control, which may include structural maintenance, sanitation, housekeeping, monitoring for insect and/or rodent populations, mechanical and biological control and the judicious use of pesticides. These methods will help to eliminate food, moisture and harborage for rodents, making their survival more difficult.

Tenants Responsibility

Tenants will be responsible for proper housekeeping of their leased areas. Tenants to train staff to clean up after dumping trash at trash compactor areas, removing food and trash left on ground around compactor areas, loading docks, ramps, and trashcan clean out areas. Tenants should not leave food out, dispose of or store food as soon as possible. All trash shall be taking out daily. Trashcans to be rinsed out in the appropriate areas only and the trashcan wash area shall be cleaned when done.

3. PESTS

Common pests that damage CCDOA property can be divided into two distinct categories: insects and vertebrates. However, the two categories are interrelated as they can provide a food source for one another. Often the temperature and relative humidity levels that are optimum for pests need to be addressed.

Insects

The most common categories of insects that may damage County property include mold feeders, woodborers, cellulose feeders, protein feeders, and starch feeders. Some insect pests may damage objects by feeding, whereas others may damage objects when burrowing to develop into the next life stage. However, it is important to identify every insect found to determine if it is a threat to County and tenant property. Include the specific types of insects found (e.g. bees, mosquitoes, flies, etc.) in all County and tenant spaces, if they are a threat to the operation.

Vertebrates

Rodents, coyotes, birds, and bats can cause both direct and indirect damage to County and tenant property. Rodents may chew and nest in all areas throughout the County and tenant areas. The excrement of rodents, birds, and bats may damage facilities, and their excrement and nests can attract insects. In addition, some vertebrate pests may carry and potentially spread diseases that can be harmful to humans. Include the specific types of vertebrates found in all County and tenant spaces, if they are a threat to our employees, and other vertebrates that could pose a risk.

4. MITIGATION

Before beginning to place traps, inspect all CCDOA facilities to be monitored. Make note of possible entry points for pests, where traps should be placed, and what types of pests that could be living in all County and tenant spaces. The following is a list of mitigation strategies that shall be implemented by CCDOA for each facility.

- a. Seal cracks in walls, along baseboards, and around points of entry for water (e.g., plumbing).
- b. Look for evidence of rodents, such as nesting, chew marks on objects, or droppings.
- c. Observe where spider webs are located as they are evidence of a food source located nearby (Note: spiders are usually only casual invaders and not considered pests).
- d. Check out other areas adjacent or connected to the County and tenant spaces. These areas may potentially attract pests, which could find their way in.
- e. Visually inspect the exterior of the building for evidence of birds or nests. If nests are found, they should be removed immediately as they provide a habitat for insect pests.
- f. Ensure all windows have well-fitted screens free of holes or other damage.
- g. If possible, avoid having trees, bushes, and mulch any closer than five feet from the building.
- h. While it is not possible to prevent eating and drinking in administrative office spaces, procedures should be in place to remove all food debris and empty trash receptacles on a daily basis.
- i. Daily trash removal, dusting, and vacuuming will need to be coordinated with housekeeping staff for administrative office spaces.
- j. Live plants attract pests. They provide food, water, and shelter for insect and vertebrate pests. For administrative office spaces, conditions should be placed on live plants, such as cut flowers must be greenhouse grown; potted plants must be in sterilized soil, treated with pesticides, and

grown in a controlled environment; and CCDOA staff must be informed when new plants are brought into the building.

- k. Isolate and examine new objects brought into the CCDOA space prior to introducing them to the rest of the facility. Examine all objects, as well as the packing material, for any evidence of pests. Discard all packing materials in trash containers that are outside of the building. Place objects in clear polyethylene bags to determine if an infestation is active. If after a month or more of isolation, and regular monitoring, no evidence of pests is found within the polyethylene bags, it is probably safe to bypass treatment and introduce the objects into the collection.
- l. To the extent possible, place all objects in storage in pest resistant materials. This could include storing all paper and photographic materials in metal cabinets, using polyethylene bags or archival boxes with lids for organic materials, and using shelving that elevates objects at least six inches off the floor.
- m. Water runoff should be directed away from the building. Drains should be screened with hardware cloth to prevent rodent access and kept free of debris to reduce puddling of water.
- n. Weather-stripping on doors should be repaired or replaced to reduce gaps to less than 1/4". Exterior doors should have automatic closing mechanisms installed and remain closed at all times. Loading dock areas should be clean, free of debris and doors should remain closed as much as possible.
- o. Dumpsters should be in good condition with all doors closed and drain holes capped. They should be located away from the building on a paved surface. Trash should be contained.
- p. Storage areas should be managed using a first in first out program. Inventory should be elevated on pallets or shelving that is 12" or more away from any wall.
- q. Provide protection to critical infrastructure (e.g. fiber optics, network cables, power cables, telecommunications, airfield lighting, FAA infrastructure, etc.).

5. MONITORING AND IDENTIFICATION

Monitoring

Monitoring is the key to developing an effective IPM program by establishing baseline information on the biological activity and environmental conditions in the facility and evaluating effectiveness of actions taken. Monitoring CCDOA and tenant spaces for pests is important to ensure that no property is being subjected to undue harm or deterioration.

CCDOA Vector Control will conduct an appraisal of this IPM program quarterly. A determination will be made as to the effectiveness of the program and revisions will be made to correct potential

problems. Revisions may include re-implementation of IPM methods already utilized and/or implementation of IPM techniques, which have not been utilized.

Rodent traps

CCDOA Vector Control, CCDOA contracted Pest Control Operator (PCO), and tenant contracted Pest Control Operator (PCO) will deploy the use of rodenticides placed inside tamper proof bait stations to monitor rodent populations and activity at CCDOA facilities. These stations will be placed in areas where rodent activity has been identified or is likely to occur. Maps and diagrams of numbered bait station placement will be maintained and updated in the "Rodent Control Service Report." All bait stations will be properly marked and labeled according to EPA, and Nevada State Pesticide Laws and Regulations.

- a. Place rodent traps along walls and in corners, near doorways and large cracks or openings.
- b. If, after a period of monitoring, the traps are empty, place the traps unset to allow the rodents to adjust to their presence. Adjust the placement of traps if rodents are not caught after several months of monitoring.
- c. Always wear gloves and masks when emptying traps, since rodents are known to carry many diseases harmful to humans.
- d. Recommend reusing traps as the smell will attract other rodents to them.
- e. Replace rodent traps when no longer working properly.
- f. Glue board traps for rodents are not permitted.

Routine Inspection

CCDOA Vector Control will routinely inspect and service rodent control devices (traps, bait stations, etc.), bird control devices (traps, etc.) and record sanitary and exclusion modification recommendations. In order for monitoring to be effective, all inspections and findings must be properly documented even if the inspections were negative. Evidence of pest activity may include the following, birds roosting, bird droppings, rodent droppings, insect casings, holes in objects, and spider webs.

Identification

Identification of pests is vital to determine an appropriate mitigation strategy for CCDOA space(s). Identification helps to provide an understanding of actions and steps necessary to properly avoid and/or block at least one of the three needs of pests (food, water, and shelter) to live in any CCDOA facility or tenant space. Eliminating just one of these will lead to a reduction in pest activity. If all three can be eliminated, a pest problem may no longer exist. Nevada Department of Agriculture is available to be as a resource to help identify any pests of questionable origin or species.

When unknown pests that are need of positive ID are caught in traps or found on objects during routine inspection, bag each trap/object separately in a sealable polyethylene bag.

- a. Bag the trap/object at its location. Do not carry a dirty trap/infested object through any CCDOA facility.
- b. Note the date and location found on the bag.
- c. Contact and take the bag to Nevada Department of Agriculture where staff biologists and entomologists can identify the pest in question.
- d. See Section 6 below for further instruction when an infestation is discovered.

6. THRESHOLD AND TREATMENT

Treatment

If evidence of pest activity is found, action should be taken immediately to prevent further infestation.

- a. Isolate the infested objects. Use polyethylene bags to collect the infested object in place. Do not carry infested material across the room as this may cause the infestation to spread.
- b. Identify the pest. This can be done through CCDOA Vector Control staff.
- c. Determine the source of the pest and how it may have been introduced while isolating any additional infested objects discovered in the process.
- d. Develop and implement any additional mitigation strategies to help prevent the pests from being allowed continued access to food, water, and/or shelter.

Treatment decisions must consider the infested materials, the condition of the object, type of pest, CCDOA policies on pesticides or other hazardous materials, and the expertise of a pest management specialist when treatments that are more complex are necessary.

7. MANAGEMENT ACTIONS

Reporting and Recordkeeping

Reports of pest activity sighted and/or evidence of possible pest activity (sightings, bats, birds, bees, cockroaches, ants, all insects, droppings, gnawing damage to structures, etc.) are to be reported immediately by contacting the Airport Control Center (ACC) via telephone:

(702) 261-5125. All pest sightings and possible pest activity calls to the ACC should include specific information as to the location (e.g. airport terminal, floor level, door number, space number, what the space is used for, ramp location, etc.) and type of evidence or activity seen.

When working directly with a hired Pest Control Operator (PCO) contractors on a shared IPM program all rodent activity information shall be communicated directly to CCDOA Business Office - Space Management and the CCDOA Facilities Division, and logged and recorded appropriately with the necessary action taking to address the issue or problem. CCDOA Business Office - Space Management and CCDOA Facilities Division shall be provided maps, monthly reports from the PCO contractor so we can see what type and where pest control is being performed, any increased activity, type of treatment, etc.

All treatment must be documented. Record of what type of treatment, exact location, which objects were treated (if applicable), the date treatment was undertaken, the duration of the treatment, the treatment method used, the type of pest, and the treatment results. Documentation should be placed in the object file if specific objects were treated and the appropriate folder(s) for each of the county spaces treated within the facility.

Pesticide Management

All pesticide storage, transportation, handling and disposal will be conducted in accordance with the requirement of the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code 136 et seq.), Environmental Protection Agency regulations in 40 CFR, Occupational Safety and Health Administration regulations, CCDOA Environmental Management System Environmental Guidelines, and local ordinances.

Staff Involvement

Inform tenants, as well as custodial and security staff of the presence of traps. Describe or physically show the staff what the traps look like to help ensure the traps are not disturbed. Custodial and security personnel are not responsible for monitoring the traps. This is the responsibility of the CCDOA Vector Control staff. One person should be assigned overall responsibility for the pest management program for the facility; however, specific duties may be assigned to other staff as needed.

To ensure continued awareness of the IPM program in all facilities, CCDOA staff must conduct required informational coordination meetings with all staff in each facility on a monthly basis and as determined by CCDOA. The meetings should include a brief description of the pests that could pose a problem or are a problem at the facility showing photographs of pest damage, improper housekeeping, and infestation found in the facility. In addition, the monitoring devices used mitigation strategies that staff can do to prevent infestation, and contact information of CCDOA staff for reporting infestations or other observations and focusing on what staff can do to help prevent introducing pests into the facility and what can happen if an infestation occurs.

Pest Control Operator Contractors

If deemed necessary, CCDOA Vector Control, CCDOA Building Maintenance Supervisors and CCDOA Facilities Management will work in tandem with privately owned, outside pest control operator (PCOs) contractors hired by CCDOA Management to assist and support CCDOA Vector Control in IPM methods for pest control in the common areas of CCDOA facilities not leased privately by vendors, airlines and concessions.

All contracted PCOs hired by the tenants shall abide by the below guidelines and provide the following information:

- a) Scheduled service plans; (e.g. licensing/qualifications, written reports, support personnel, equipment requirements, etc.), concerning any and all work done by contracted PCO companies will be provided to the Business Office to be assessed and organized by CCDOA Vector Control and DOA Building Management.
- b) Protocols for written and verbal communication (e.g. phone numbers, activity reports, times of service, etc.), between CCDOA personnel and private PCO companies will be clearly stated within the initial contract and maintained throughout the service of the contract period.
- c) All bait stations used must be properly marked and labeled according to EPA, and Nevada State Pesticide Laws and Regulations. Glue board traps for rodents are not permitted.
- d) Isolate and examine new objects brought into the CCDOA space prior to introducing them to the rest of the facility. Examine all objects, as well as the packing material, for any evidence of pests. Discard all packing materials in trash containers that are outside of the building.
- e) Storage areas should be managed using a first in first out program. Inventory should be elevated on pallets or shelving that is 12" or more away from any wall.
- f) All traps placed in the ceiling must be identified with labels or stickers that are visible from the ground.

APPENDIX A: Maps of Airport Property Spaces

Include a map, such as building plans, of each of the spaces monitored under the Integrated Pest Management Plan. Clearly identify the location of all traps including the type of trap, the date of placement, and a number that can be used for recording purposes.

APPENDIX B: Pest Recordation Form

File all Pest Recordation Forms for future reference. Use the following sample form as a guide to create recordation forms for the traps and spaces identified in Appendix A of the Integrated Pest Management Plan.

Trap # _____ Trap Type _____ Space Type _____

Location (be specific) _____

Type of Pest _____ Quantity _____

Genus/species _____ Life Stage _____ Dead/Alive _____

Object _____

Material Type(s) Infested Object

Notes _____

Discovered By (please print) _____ Date _____

Recorded By (please print) _____ Date _____

In Object File (Y/N) _____ Entered into IPM Record File (Y/N) _____

APPENDIX C: Suppliers

The following is a list of the suppliers/vendors for all supplies, equipment, and professional services needed to implement the Integrated Pest Management Plan

Univar USA

4650 S Valley View Blvd.

Las Vegas, NV 89103

(702) 736-7066

www.univar.com

Pest Control Products

Target Specialty Products

3455 W Lake Mead Blvd.

North Las Vegas, NV 89032

(702) 631-7495

Pest Control Products

APPENDIX D: Contacts

CCDOA Contacts

Airport Control Center	Main # (702) 261-5125
Austin Mulvenon, M&O Supervisor – Building Maintenance	Office # (702) 261-5324
Chris Derrico, Vector Control Officer – Building Maintenance	Office # (702) 261-5344
Cody Roberts, Vector Control Officer – Building Maintenance	Office # (702) 261-5344
Doug McMahan, Airport Manager – Facilities	Office # (702) 261-5567
Don Sears, Airport Superintendent – Building Maintenance	Office # (702) 261-5357
Lisa Meranto, Management Analyst – Business	Office # (702) 261-5509
George Gordon, Property Coordinator – Business	Office # (702) 261-5748
Robert Phillips, Property Monitor – Business.....	Office # (702) 261-5474
Michael Nelson, Airport Environmental Specialist – Safety	Office # (702) 261-5166