Arco Iris Spanish Immersion School
Integrated Pest Management Plan
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I. INTRODUCTION

Structural and landscape pests can pose significant problems in schools. Pests such as mice and cockroaches can trigger asthma. Mice and rats are vectors of disease. Many children are allergic to yellow jacket stings. The pesticides used to remediate these and other pests can also pose health risks to people, animals, and the environment. These same pesticides may pose special health risks to children due in large part to their still-developing organ systems. Because the health and safety of students and staff is our first priority – and a prerequisite to learning – it is the policy of Arco Iris Spanish Immersion School to approach pest management with the least possible risk to students and staff. In addition, Senate Bill 637 (incorporated into ORS Chapter 634 upon finalization in 2009) requires all school districts to implement integrated pest management in their schools. For this reason, the Arco Iris board of directors adopts this integrated pest management plan for campus located at 8205 SW Creekside Pl, Beaverton, OR 97008.

II. WHAT IS INTEGRATED PEST MANAGEMENT?

Integrated Pest Management, also known as IPM, is a process for achieving long-term, environmentally sound pest suppression through a wide variety of tactics. Control strategies in an IPM program include structural and procedural improvements to reduce the food, water, shelter, and access used by pests. Since IPM focuses on remediation of the fundamental reasons why pests are here, pesticides are rarely used and only when necessary.

Education and Communication: The foundation for an effective IPM program is education and communication. We need to know what conditions can cause pest problems, why and how to monitor for pests, proper identification, pest behavior and biology before we can begin to manage pests effectively. Communication about pest issues is essential. A protocol for reporting pests or pest-conducive conditions and a record of what action was taken is the most important part of an effective IPM program.

Cultural & Sanitation: Knowing how human behavior encourages pests helps you prevent them from becoming a problem. Small changes in cultural or sanitation practices can have significant effects on reducing pest populations. Cleaning under kitchen serving counters, reducing clutter in classrooms, putting dumpsters further from kitchen door/loading dock, proper irrigation scheduling, and over-seeding of turf areas are all examples of cultural and sanitation practices that can be used to reduce pests.

Physical & Mechanical: Rodent traps, sticky monitoring traps for insects, door sweeps on external doors, sealing holes under sinks, proper drainage and mulching of landscapes, and keeping vegetation at least 24 inches from buildings are all examples of physical and mechanical control.
Pesticides: IPM focuses on remediation of the fundamental reasons why pests are here; pesticides should be rarely used and only when necessary.

III. WHAT IS AN INTEGRATED PEST MANAGEMENT PLAN?
ORS 634.700 defines an IPM plan as a proactive strategy that:

A. Focuses on the long-term prevention or suppression of pest problems through economically sound measures that:
   a. Protect the health and safety of students, staff and faculty;
   b. Protect the integrity of campus buildings and grounds;
   c. Maintain a productive learning environment; and
   d. Protect local ecosystem health;

B. Focuses on the prevention of pest problems by working to reduce or eliminate conditions of property construction, operation and maintenance that promote or allow for the establishment, feeding, breeding and proliferation of pest populations or other conditions that are conducive to pests or that create harborage for pests;

C. Incorporates the use of sanitation, structural remediation or habitat manipulation or of mechanical, biological and chemical pest control measures that present a reduced risk or have a low impact and, for the purpose of mitigating a declared pest emergency, the application of pesticides that are not low-impact pesticides;

D. Includes regular monitoring and inspections to detect pests, pest damage and unsanctioned pesticide usage;
E. Evaluates the need for pest control by identifying acceptable pest population density levels;

F. Monitors and evaluates the effectiveness of pest control measures;

G. Excludes the application of pesticides on a routine schedule for purely preventive purposes, other than applications of pesticides designed to attract or be consumed by pests;

H. Excludes the application of pesticides for purely aesthetic purposes;

I. Includes school staff education about sanitation, monitoring and inspection and about pest control measures;

J. Gives preference to the use of nonchemical pest control measures;

K. Allows the use of low-impact pesticides if nonchemical pest control measures are ineffective; and

L. Allows the application of a pesticide that is not a low-impact pesticide only to mitigate a declared pest emergency or if the application is by, or at the direction or order of, a public health official.

The above definition is the basis for Arco Iris’ IPM plan. This plan fleshes out the required strategy from ORS 634.700 – 634.750 for our school and will be accomplished through the coordination of efforts by our school's IPM Plan Coordinator, our building maintenance team, landscape service provider and pest management service provider.

Note: As mentioned above, ORS 634.700 allows for the routine application of pesticides designed to be consumed by pests. To avoid a proliferation of pests and/or unnecessary applications of pesticides, we will not set out any ant or cockroach baits until first:

1. Informing staff in the area where the pests are that sanitation and exclusion are the primary means to control the pest.
2. Establishing an acceptable pest population density
3. Cleaning up any food debris in the area.
4. Sealing up any cracks or crevices where we know the pests are coming from.
5. Setting out sticky insect monitoring traps in the area using the sticky insect monitoring trap protocol.
IV. SCHOOL DISTRICT IPM PLAN COORDINATOR

The Arco Iris Board of Directors designates Robyn Stolin as the IPM Plan Coordinator. The Coordinator is the key to successful IPM implementation in our school, and is given the authority for overall implementation and evaluation of this plan. The Coordinator is responsible for:

A. Attending not less than six hours of IPM training each year
   The training will include a general review of IPM principles and the requirements of ORS 634.700 – 634.750. It will also include hands-on training on updated exclusion practices, monitoring & inspection techniques, and management strategies for common pests.

B. Conducting outreach to the school community about the school's IPM plan; The IPM Coordinator (or designee) will provide appropriate information to responsible parties as outlined in Section V below.

C. Overseeing pest prevention efforts outside of those covered by the building maintenance team; The Coordinator will work with the school’s administration, building maintenance team, custodian, teachers and staff to reduce clutter and food in the classrooms.

D. Assuring that the decision-making process for implementing IPM in the school (section VI) is followed; The Coordinator will work with the building maintenance team, landscape service provider and the pest management service provider to continually assess and improve the pest monitoring/reporting/action protocol.

E. Working with the building maintenance team to assure that all notification, posting, and record-keeping requirements in section VII are met when the decision to make a pesticide application is made;

F. Maintaining the approved pesticides list as per section VIII;

G. Responding to inquiries and complaints about noncompliance with the plan; Responses to inquiries and complaints will be in writing and kept on record with the Coordinator.

H. Keeping records of pest complaints and providing notification of complaints to the building maintenance team.
V. RESPONSIBILITIES + TRAINING/EDUCATION of SCHOOL EMPLOYEES

Note: ORS 634.700 (3) (i) requires staff education “about sanitation, monitoring and inspection and about pest control measures”. All staff should have at least a general review of IPM principles and strategy as outlined in Sections II and III.

A. IPM Plan Coordinator
   1. Training (see section IV above)
   2. Responsibilities (see section IV above)

B. Custodial Vendor
   1. Reviewing responsibilities as outlined under the plan, and provided by the IPM Coordinator, at least annually.
   2. Reporting pest problems and pest-conducive conditions to the IPM Coordinator.
   3. Reporting teachers to IPM Coordinator who repeatedly refuse to or need assistance to reduce clutter and other pest-conducive conditions in their classrooms.
   4. Reporting any unapproved pesticides (such as aerosol spray cans) discovered in their regular duties or during an inspection and reporting them to the IPM Coordinator.

C. Building Maintenance Team, Grounds and Pest Control Service Providers
   1. Reviewing responsibilities as outlined under the plan, and provided by the IPM Coordinator, at least annually.
   2. Notify the IPM Coordinator and review the annual report of pesticide applications.
   3. Notify the IPM Coordinator when sticky traps are placed in spaces occupied by Arco Iris.
   4. An outside pest control service provider will conduct at minimum quarterly facility inspections (4x annually) and the building maintenance team will conduct monthly facility inspections on the remaining months (8x annually).
   5. Reduce conditions conducive to weeds, gophers, moles, yellow jackets, and other outdoor pests
   6. Keeping vegetation (including tree branches and bushes) at least 18 inches from building surfaces.
   7. Proper mulching in landscaped areas to reduce weeds.
   8. Proper fertilization, over-seeding, mowing height, edging, drainage, aeration, and irrigation scheduling in turf areas to reduce weeds.
   9. When the decision is made to apply a pesticide, following notification, posting, record-keeping and reporting protocols in Section VII.
D. **Kitchen Staff**

1. Reviewing responsibilities as outlined under the plan, and provided by the IPM Coordinator, at least annually.
2. Assuring floor under serving counters and movable equipment is kept free of food and drink debris.
3. Avoiding long-term storage or use of cardboard boxes.
4. Keeping all food items in sealed containers.
5. Immediately reporting any sightings of rodents or rodent droppings to the IPM Coordinator, and following up with an email to the Coordinator (for records).
6. Reporting to the Coordinator any pest-conducive conditions that require maintenance (e.g., leaky faucets, dumpster too near building, drains need scrubbing, build-up of floor grease requiring spray-washing, etc.)

E. **Faculty**

**Training/Education**
The IPM Plan Coordinator (or a designee of the Coordinator) will train faculty at least once per year on the basic principles of IPM and their responsibilities as outlined below. These short (15 – 20 minutes) training are arranged by the Coordinator with individual principals when openings in their school Faculty Meeting schedules permit. During the training, the Coordinator will review the following with Faculty:

1. What pest-conducive conditions are (clutter, food debris, moisture, cracks, holes, etc.), and the importance of reporting these in a timely manner.
2. The importance of keeping their classrooms and work areas free of clutter.
3. The importance of having students clean up after themselves when food or drink is consumed in the classroom.

**Responsibilities**

1. Reviewing responsibilities as outlined under the plan, and provided by the IPM Coordinator, at least annually.
2. Keeping their classrooms and work areas free of clutter.
3. Making sure students clean up after themselves when food or drink is consumed in the classroom.
4. Reporting pests and pest-conducive conditions to the IPM Coordinator, in-person and following up with an email to the Coordinator (for records).

F. **School Principal**

**Training/Education**

(From training/education as Faculty)

**Responsibilities**
1. Scheduling time for teachers to receive annual training provided by the IPM Coordinator (or designee).
2. Attending annual IPM training for teachers.
3. Assuring that teachers keep their rooms clean and free of clutter in accordance with the IPM Coordinator’s instructions.
4. Assuring that all faculty, administrators, staff, students and parents receive the annual notice (provided by the IPM Coordinator) of potential pesticide products that could be used on school property as per Section VII.
5. Working with the IPM Coordinator to make sure all notifications of pesticide applications reach all faculty, administrators, staff, students and parents through posting in the front office, e-mail and Arco Iris’s website.

VI. IPM PROCESS

A. Monitoring – Reporting – Action Protocol

Monitoring is the most important requirement of ORS 634.700 – 634.750. It is the backbone of our school’s IPM Program. It provides recent and accurate information to make intelligent and effective pest management decisions. It can be defined as the regular and ongoing inspection of areas where pest problems do or might occur. Information gathered from these inspections is always written down.

As much as possible, monitoring should be incorporated into the daily activities of school staff. Staff training on monitoring should include what to look for and how to record and report the information.

Monitoring & Reporting – All Staff

After a brief (15 – 20 minute) training by the IPM Coordinator (or designee) on pests and pest-conducive conditions, staff will be expected to report pests or pest-conducive conditions they observe during the normal course of their daily work. Reporting will be done verbally and by e-mail to the IPM Coordinator.

Monitoring & Reporting – Building Maintenance Team

During the normal course of their daily work, the building maintenance team will monitor structures and building perimeters for:

1. Pest-conducive conditions inside and outside the building (structural deterioration, holes that allow pests to enter, conditions that provide pest harborage).
2. The level of sanitation inside and out (waste disposal procedures, level of cleanliness inside and out, conditions that supply food and water to pests)
3. Invasive weeds, gophers, moles, yellow jackets, and other outdoor pests. These will be reported to the IPM Coordinator by e-mail.
4. The amount of pest damage and the number and location of pest signs (rodent droppings, termite shelter tubes, cockroaches caught in sticky traps, etc.)
5. Their own management activities (caulking/sealing, cleaning, setting out traps, treating pests, etc.) and their effects on the pest population.
6. Any pests or pest-conducive conditions will be reported to the IPM Coordinator orally and by e-mail.

**Sticky monitoring traps for insects**

Sticky traps are neither a substitute for pesticides nor an alternative for reducing pest populations, but rather a diagnostic tool to aid in identifying a pest’s presence, their reproductive stage, the likely direction pests are coming from, and the number of pests.

The pest prevention vendor will be responsible for setting them out and checking them once per month, and replacing them once every four months.

Via notification from the IPM Coordinator, who will receive notification from the building maintenance team, all school staff will be made aware of the traps and their purpose so they don’t disturb them.

**Monitoring for Mice**

In addition to monitoring for signs of mice (droppings, gnawing, hair, etc.), snap traps will be placed in the kitchen and checked routinely by the building maintenance team.

**Reporting (pests, signs of pests, and conducive conditions)**

When school staff observe pests or pest-conducive conditions they should tell and e-mail the IPM Coordinator who will pass the information along to the building maintenance team.

**Reporting “Pests of Concern”**

“A pest of concern” is a pest determined to be a public health risk or a significant nuisance pest. These include cockroaches (disease vectors, asthma triggers), mice & rats (disease vectors, asthma triggers), yellow jackets (sting can cause anaphylactic shock), cornered nutria, raccoons, cats, dogs, opossums, skunks (they can bite), and bed bugs (significant nuisance pest).

When pests of concern (or their droppings, nests, etc.) are observed, school staff should contact the IPM Plan Coordinator immediately who will pass the information along to the building maintenance team for action.

**Action!**

**Structural**

Any items (such as sealing up holes) that building maintenance team observe that they can resolve should be taken care of as soon as possible.
Grounds
When pests on grounds reach a threshold established by the building maintenance team, action will be taken to resolve the problem.

Acceptable Thresholds
A threshold is the number of pests that can be tolerated before taking action. The acceptable threshold for cockroaches, mice, rats, raccoons, cats, dogs, opossums, skunks, and nutria is 0.

Acceptable thresholds for other pests will be determined by the building maintenance team and IPM Coordinator.

B. Inspections
The building maintenance team and IPM Plan Coordinator will conduct an annual walk through to inspect or review:
   1. Human behaviors that affect the pests (working conditions that encourage or support pests, food preparation procedures that provide food for pests, etc.)
   2. Management activities (caulking/sealing, cleaning, setting out traps, treating pests, etc.) and their effects on the pest population.

C. Pest Emergencies (see also Section VII. B. below)
IMPORTANT: If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps. When the building maintenance team and IPM Plan Coordinator, after consultation with school faculty and administration, determines that the presence of a pest or pests immediately threatens the health or safety of students, staff, faculty members or members of the public using the campus, or the structural integrity of campus facilities, he or she may declare a pest emergency. Examples include (but are not limited to) yellow jackets swarming in areas frequented by children, a nutria in an area frequented by children, a half a dozen mice or rats running through occupied areas of a school building. The Coordinator will keep records of actions taken.

VII. PESTICIDE APPLICATIONS: REQUIRED NOTIFICATION, POSTING, RECORD KEEPING, AND REPORTING
Any pesticide application (this includes weed control products, ant baits, and all professional and over-the-counter products) on school property must be made by a licensed commercial or public pesticide applicator. At the beginning of each school year, all faculty, administrators, staff, adult students and parents will be given a list of potential pesticide products that could be used in the event that other pest management measures are ineffective. They will also be informed of the procedures for notification and posting of individual applications, including those for pest emergencies. This
information will be provided to all the above via posting on the Arco Iris website.

A. Notification and Posting for Non-emergencies
When prevention or management of pests through other measures proves to be ineffective, the use of a low-risk pesticide is permissible. Documentation of these measures is a pre-requisite to the approval of any application of a low-risk pesticide. This documentation will remain on file with the IPM Plan Coordinator.

Non-emergency pesticide applications may occur in or around a school during non-school hours, unless the IPM Plan Coordinator in coordination with the building maintenance team authorizes an exception. If the labeling of a pesticide product specifies a reentry time, a pesticide may not be applied to an area of campus where the school expects students to be present before expiration of that reentry time. If the labeling does not specify a reentry time, a pesticide may not be applied to an area of a campus where the school expects students to be present before expiration of a reentry time that the IPM Plan Coordinator determines to be appropriate based on the times at which students would normally be expected to be in the area, area ventilation and whether the area will be cleaned before students are present.

The building maintenance team will give written notice of a proposed pesticide application to the IPM Coordinator at least 48 hours before the application occurs, who will in turn notify the Arco Iris community (via the method most likely to reach the intended recipient).

The notice must identify the name, trademark or type of pesticide product, the EPA registration number of the product, the expected area of the application, the expected date of application and the reason for the application.

The building maintenance team shall work with the IPM Coordinator to place warning signs around pesticide application areas beginning no later than 24 hours before the application occurs and ending no earlier than 72 hours after the application occurs.

A warning sign must bear the words “Warning: pesticide-treated area”, and give the expected or actual date and time for the application, the expected or actual reentry time, and provide the telephone number of a contact person (the person who is to make the application and/or the IPM Plan Coordinator).

B. Notification and Posting for Emergencies
Important Notes:
1. The building maintenance team may not declare the existence of a pest emergency until after consultation with school’s IPM Plan Coordinator, who will consult with the faculty and administration.
2. If a pesticide is applied at a campus due to a pest emergency, the Coordinator shall work with the building maintenance team to review the IPM plan to determine
whether modification of the plan might prevent future pest emergencies, and provide a written report of such to the governing body.

3. The governing body shall review and take formal action on any recommendations in the report.

The declaration of the existence of a pest emergency is the only time a non low-impact pesticide may be applied. If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps.

If a pest emergency makes it impracticable to give a pesticide application notice no later than 24 hours before the pesticide application occurs, the building maintenance team shall send the notice to the IPM Plan Coordinator no later than 24 hours after the application occurs.

The Coordinator or designee shall place notification signs around the area as soon as practicable but no later than at the time the application occurs.

Note: ORS 634.700 also allows the application of a non-low-impact pesticide “by, or at the direction or order of, a public health official”. If this occurs, every effort must be made to comply with notification and posting requirements above.

C. Record Keeping of Pesticide Applications
The IPM service provider shall provide a copy of the following pesticide product information to be kept on file at the office of the school where the application occurred:
- A copy of the label
- A copy of the MSDS
- The brand name and USEPA registration number of the product
- The approximate amount and concentration of product applied
- The location of the application
- The pest condition that prompted the application
- The type of application and whether the application proved effective
- The pesticide applicator’s license numbers and pesticide trainee or certificate numbers of the person applying the pesticide
- The name(s) of the person(s) applying the pesticide
- The dates on which notice of the application were given

The building maintenance team and/or IPM Plan Coordinator shall keep a record of:
- The dates and times for the placement and removal of warning signs
- Copies of all required notices given, including the dates notice was given

The above records must be kept on file office of the school where the application occurred for at least four years following the application date.

D. Annual Report of Pesticide Applications
In January of each year, the IPM Plan Coordinator will provide the governing body an annual report of all pesticide applications made the previous year. The report will contain the following for each application:

- The brand name and USEPA registration number of the product applied
- The approximate amount and concentration of product applied
- The location of the application
- The prevention or management steps taken that proved to be ineffective and led to the decision to make a pesticide application
- The type of application and whether the application proved effective

**VIII. APPROVED LIST OF LOW-IMPACT PESTICIDES**

Note: All pesticides used must be used in strict accordance with label instructions. According to ORS 634.705 (5), the governing body of a school district shall adopt a list of low-impact pesticides for use with their integrated pest management plan. The governing body may include any product on the list except products that:

a) Contain a pesticide product or active ingredient that has the signal words “warning” or “danger” on the label;

b) Contain a pesticide product classified as a human carcinogen or probable human carcinogen under the United States Environmental Protection Agency 1986 Guidelines for Carcinogen Risk Assessment; or

c) Contain a pesticide product classified as carcinogenic to humans or likely to be carcinogenic to humans under the United States Environmental Protection Agency 2003 Draft Final Guidelines for Carcinogen Risk Assessment.

As a part of pesticide registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) and re-registration required by the Food Quality Protection Act (FQPA), EPA Office of Pesticide Programs (OPP) classifies pesticide active ingredients (a.i.) with regards to their potential to cause cancer in humans. Depending on when a pesticide active ingredient was last evaluated the classification system used may differ as described above.

The National Pesticide Information Center (http://npic.orst.edu/) can be contacted at 1.800.858.7378 or npic@ace.orst.edu for assistance in determining a pesticide a.i. cancer classification. The most current list of approved low-impact pesticides is available via the Oregon State University IPM website located [here](http://npic.orst.edu/).