

CITY OF BOULDER

POLICIES AND PROCEDURES

INTEGRATED PEST MANAGEMENT POLICY

EFFECTIVE DATE: April 24, 2002

Ronald A. Secrist, City Manager

I. SCOPE AND APPLICATION

This Integrated Pest Management (IPM) policy shall apply to all pest control activities and pesticide use in buildings and related facilities; grounds and open space; and other property owned or managed by the City of Boulder and conducted by city staff or contractors. City officers, employees, and contractors are required to follow this policy. Departments that have employees monitoring or treating pest problems or managing any contractors who monitor and/or treat pest problems will receive a copy of the Integrated Pest Management policy. All pest control contractors will receive a copy of this policy.

II. PURPOSE

The policy is intended to provide a basis for pest and vegetation management that will protect public health, as well as water quality, federal endangered and threatened species, and state, county and local species of concern. The goal of the city's IPM policy is to utilize the most environmentally sound approaches to pest management, and to reduce and eliminate, where possible, the volume and toxicity of chemical pest control treatments.

The objectives of this policy are to

- require planning and development of an IPM program for all departments and
- provide procedural guidelines for implementation.

III. DEFINITIONS

A. Integrated Pest Management (IPM): a decision making process which selects, integrates, and implements pest control strategies to prevent or control pest populations. Integrated Pest Management uses a "whole systems approach", looking at the target species as it relates to the entire ecosystem. In choosing control strategies, minimal impacts to human health, the environment, and non-target organisms are considered.

B. Pest: any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism (except viruses, bacteria, or other micro-organisms on or in living man or other living animals) which the Administrator of the EPA declares to be pest under section 25(c)(1) [7 USCA 136w(c)(1)].

C. Pesticide: any substance or mixture of substances intended for destroying or repelling any pest. This includes without limitation fungicides, insecticides, nematicides, herbicides, and rodenticides and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. The following products are not pesticides:

1. Deodorizers, bleaching agents, disinfectants and substances for which no pesticidal claim is made in the sale or distribution thereof, and
2. Fertilizers and plant nutrients.

D. Reasonable Alternative: a feasible option for pest control which takes into account the economic, social, and environmental costs and benefits of the proposed choices.

IV. CITY IPM COORDINATOR

The City Manager has determined that there should be a central staff person to coordinate the Integrated Pest Management efforts of city departments. The IPM Coordinator shall be in the Office of Environmental Affairs in the City Manager's Office and responsibilities shall include, but are not limited to, the following items:

- Coordination with city departments on weed and pest control issues
- Publication of the annual IPM report
- Coordination of the Interdepartmental IPM Review Group
- Development of a city weed management plan, in accordance with state law
- Coordination of the development of departmental IPM plans
- Recommendations on IPM strategies
- Assist city departments with staff training needs
- Outreach to citizens regarding IPM

A. Annual IPM Report. The City IPM Coordinator will compile data from all participating

city departments and submit an annual report to City Council and the City Manager. The report will detail the previous year's IPM efforts and shall contain information listed in Section V, Departmental/Divisional Obligations. Each department using pest control methods shall submit their information through their department IPM coordinator to the City IPM Coordinator. The report will include a review of new IPM strategies as well as trends in IPM techniques over time.

B. Interdepartmental IPM Review Group. This group will be coordinated by the City IPM Coordinator and will include department IPM coordinators and other interested city staff. The Group shall meet at least quarterly and meetings will include development of annual City IPM goals, review and evaluation of each department or division plan, as well as opportunities for information exchange, education and cooperation. The Interdepartmental IPM Review Group shall also review interdepartmental issues and make policy recommendations that advance the objectives of the IPM policy and reduce reliance on chemical pest control.

V. DEPARTMENTAL/DIVISIONAL OBLIGATIONS

The following departments/divisions conduct pest control operations that use or potentially use pesticides:

- Downtown and University Hill Management Division (including Parking Services)
- Fire
- Housing and Human Services
- Open Space/Mountain Parks
- Parks and Recreation (including Athletics, Boulder Reservoir, Environmental Resources, Flatirons Golf Course, Forestry, Recreation Centers and Urban Parks)
- Public Works (including Airport, Facilities and Asset Management (FAM), Greenways, Transportation & Utilities Maintenance and Water & Waste Water Treatment Plants)

A. Integrated Pest Management Plan. Each of these departments or divisions, and any others using pest control methods in the future, shall use the procedures outlined in this policy to develop a departmental or divisional Integrated Pest Management Plan. This plan shall be submitted to the City IPM Coordinator by January 15, 2003. Plans will be reviewed annually and updated at least every five years. Departments shall designate at least one staff member as the departmental/divisional IPM coordinator or representative to the Interdepartmental IPM Review Group.

B. Record-keeping and Evaluation. Each department, division or work group shall keep accurate records of all Integrated Pest Management treatments used and the results. Information on all treatments (including non-chemical ones) shall include how, when, where and why the treatment was applied and the name of the applicator. This information will be submitted to the City

IPM Coordinator yearly, as the basis for the Annual IPM Report. It should also be available for review at the Interdepartmental IPM Review Group meetings. The City IPM Coordinator will review pest management treatments with city departments to evaluate the successes and failures of the IPM program, and to plan more efficient and effective pest management strategies.

The following information shall be maintained:

1. Target pest
2. Pest population levels or injury thresholds for treatment
3. Treatment selection criteria with final treatment decision (IPM hierarchy checklist)
4. Area treated (including type of location and size of area)
5. Pesticide (including product trade name, active ingredient and EPA toxicity category)
6. Quantity of product used
7. Treatment method used (i.e. bait, injection)
8. Location of application
9. Time and date of pesticide application
10. Name(s) and license number(s) of Pesticide Applicator(s)
11. Name of the department contact authorizing work
12. Material Safety Data Sheets (MSDS) and labels for all pesticides used

Application records shall be made available to the public upon request in accordance with all applicable state laws governing public access to information.

C. Contractor Notification. Every department bidding out contractual work for pest management must inform all bidders that the City has an Integrated Pest Management Policy and include its guidelines in bid specifics. Contractors are encouraged to submit bids that include non-chemical pest control methods. Bids with non-chemical approaches may be given preference.

The City will inform pest management contractors of the City's IPM Policy and plans and provide a written copy of this policy and other documents as appropriate (i.e. departmental plans or Best Management Practices). Project managers, departmental IPM coordinators or contacts, or the City IPM Coordinator shall approve all pest management treatments.

VI. INTEGRATED PEST MANAGEMENT (IPM) PROCEDURE

The City assumes that all pesticides are *potentially* hazardous to human and environmental health. Therefore, reasonable non-pesticide alternatives shall be given preference over chemical controls by following the IPM procedure. City staff will evaluate alternatives to chemical treatment including the cost-effectiveness of the treatments. For all pest control activities, the IPM procedure outlined below shall be followed.

A. Initial Data Collection, Mapping and Monitoring. Each department or division considering pest control measures shall collect baseline data on the pest ecosystem(s) to determine pest population(s) occurrence, size, density and presence of any natural enemy population(s); gather information on pest biology and different control techniques available; and document sensitive areas and conditions that may limit control options. Data shall be collected in a standardized manner that is repeatable. This information may be included in departmental or divisional IPM plans.

Ranking, inventory, mapping, monitoring and evaluation are methods used for determining pest management priorities. Maps and inventories depict infestations in terms of pest species, size, location and threats to resources. Departments/divisions shall monitor infestations or pest populations and evaluate treatments over time to assess the effectiveness of various treatment strategies and their effects on target and non-target organisms.

All monitoring methods and data shall be specified in the departmental or divisional IPM plan, systematically recorded, and available for review at the Interdepartmental IPM Review Group meetings. Departments shall coordinate and utilize standardized pest mapping protocols.

B. Establishing Threshold Levels. To determine if treatment is warranted, an acceptable threshold level of treatment for each target pest and site should be established. Departmental IPM plans will contain the threshold levels for common pests, determined by individual work groups, in conjunction with the City IPM Coordinator. In some instances, treatment may be required by federal or state law. The assessment will be based on the following:

1. The tolerable level of environmental, aesthetic and economic damage as a result of the pest population(s) and the tolerable level of risk to human health as a result of the pest population(s);

OR

2. The size or density of the pest population that must be present to cause unacceptable environmental, aesthetic and/or economic damage; and the size, density and type of pest population that must be present to create a human health risk.

C. Treatment Selection Criteria. Upon determining that treatment is necessary, the following criteria should be used to help select the appropriate IPM treatment strategy:

1. Least-disruptive of natural controls
2. Least-hazardous to human health
3. Least-toxic to non-target organisms
4. Least-damaging to the general environment
5. Most likely to produce a permanent reduction in the environment's ability to support target pests
6. Cost-effectiveness in the short- and long-term

D. Treatment Strategies. Each department or division, in consultation with the City IPM Coordinator, shall make its own determination about appropriate and effective treatments, based on site-specific requirements. Commitment to the most environmentally sound approach is expected, with non-chemical methods considered first.

Prevention, cultural control, mechanical control, biological control and chemical control are the techniques used in integrated pest management. In general, a combination of treatments is more effective than a single approach. Departments and divisions are encouraged to seek out and experiment with innovative IPM treatments (and combinations of treatments) and share this information at the Interdepartmental IPM Review Group meetings. The following treatments are listed in the order in which they should be executed:

1. Prevention. This is the most effective pest management strategy. By reducing the capacity of the ecosystem to support target pest populations through design and appropriate management, the opportunities for pest establishment can be reduced or eliminated.

- a) Use strategies that reduce the preferred harborage, food, water or other essential requirements of pests.
- b) Use weed-free materials for road and trail construction and maintenance.
- c) Use landscape and structural design that is appropriate to the specific habitat, climate and maintenance the area will receive.
- d) When designing projects, consider the potential impacts of pests and mitigate through the use of appropriate landscape design (water requirements, weed barriers, etc).

2. Cultural. Cultural control is the use of management activities that prevent pests from developing due to enhancement of desired conditions. Specific examples are the following:

- a) Selection and placement of materials that provide life-support mechanisms for pest enemies and competitors.
- b) Modification of pest habitat by reducing pest harborage, food supply and other life support requirements.
- c) Vegetation management including irrigation, mulching, fertilization, aeration, seeding, pruning and thinning.
- d) Waste management and proper food storage.
- e) Barriers and traps.
- f) Heat, cold, humidity, desiccation or light applied to affected regions.
- g) Prescribed grazing.

3. Mechanical. Mechanical control is accomplished by using physical methods or

mechanical equipment to control pest infestations.

- a) Mowing or weed-whipping
- b) Burning
- c) Hand-pulling of weeds
- d) Hand-removal of insect egg masses

4. Biological. Biological controls include the introduction or enhancement of natural enemy populations to target pests. Introduction of non-indigenous organisms has an associated risk factor and should be thoroughly evaluated prior to implementation.

Biological methods include

- a) Conservation and augmentation of the pest's natural enemies
- b) Introduction of host-specific enemy organisms

5. Chemical. Chemical control of pests is accomplished by using chemical compounds registered as pesticides. All pesticides shall be assumed to be *potentially* hazardous to human and environmental health.

- a) The type, methods and timing of chemical treatment shall be determined **after** consideration has been given to protection of non-target organisms (including threatened or endangered species), protection of water quality, pest biology, soil types, anticipated adverse weather (winds, precipitation, etc) and temperature.
- b) Initial review of potential chemicals shall begin with the least toxic compounds, i.e. chemicals in EPA Toxicity Categories III and IV. The use of compounds in EPA Toxicity Categories I and II shall be avoided if possible or used in situations where exposure to the active ingredient is limited (i.e. baits or soil/trunk injections).
- c) If, after a thorough evaluation of alternatives, the only effective or practical chemical control is an EPA Toxicity Category I or II compound, the department or division IPM coordinator shall confer with the City IPM Coordinator, and, if practical, the Interdepartmental IPM Review Group, to review the decision-making process and make a recommendation to the department head for approval. This may be done on a yearly basis for specific pest treatments. The decision-making process and lack of alternatives shall be documented.
- d) Staff will review the information available on potential chemicals for persistence in the soil and the potential impacts from persistence. These factors will be considered along with the potential for more frequent application of chemicals that do not persist in the environment.
- e) If chemical treatment is warranted in a riparian area, applications will generally be plant specific and limited to wick applications. If broader applications are needed, the department or division IPM coordinator shall

confer with the City IPM Coordinator, and, if practical, the Interdepartmental IPM Review Group, to review the decision-making process and make a recommendation to the department head for approval. This may be done on a yearly basis.

- f) Potential chemical approaches
 - (1) pheromones and other attractants to confuse pests and/or act as bait
 - (2) insecticidal soaps
 - (3) juvenile hormones that arrest pest development
 - (4) repellants
 - (5) allelopathins
 - (6) sterilants or contraceptives to reduce breeding
 - (7) contact, stomach or other poisons
 - (8) fumigants
 - (9) combinations of above (baits with poisons)
 - (10) herbicides, insecticides
- g) All pesticides shall be applied in conformance with label specifications and all applicable federal, state and municipal laws, regulations and ordinances.
- h) All pesticide applications shall comply with the appropriate pre and post notification requirements, according to the City of Boulder's Pesticide Ordinance (Section 6-10-1 B.R.C. 1981). For all city pesticide applications, notification will be posted at least 24 hours in advance. This includes soil and trunk injections, spot spraying, hand-wicking and broadcast spraying on all city lands or property open to the public.

E. Education. Education is a critical component of an IPM program. The City IPM Coordinator will include IPM information on the Office of Environmental Affairs' website. Information will include the Annual IPM Report, departmental IPM plans and other pertinent material. Individual departments, divisions and work groups may conduct additional specific educational activities.

VII. CONTRACTOR RESPONSIBILITIES & REQUIREMENTS

All contractors working for the City are required to abide by the City's IPM Policy. The contractor will return a signed statement to the IPM Coordinator or departmental contact certifying they have read and understand the policy prior to any work being done for the City. The contractor shall maintain records as listed in Section V, B.

The City periodically enters into contracts that authorize pest management, such as for building maintenance, project construction and maintenance, and weed and insect control. When the city signs a new contract or extends the term of an existing contract with a contractor that may include or authorize the application of pesticides, the department shall review its IPM plan with the City IPM Coordinator and update the plan to include the pesticide usage of the contractor.

Contractors who apply pesticides on City owned or managed property shall submit a plan to the contracting city department and the City IPM Coordinator if the department has not provided a plan. Their plan shall include the following:

- Information addressing all the elements listed in Section VI, Integrated Pest Management (IPM) Procedure
- Types and estimated rates, to the extent possible, of the pesticides that the contractor may need to apply to City property during its contract
- An outline of the actions the contractor will take to meet the City IPM policy
- The primary IPM contact for the contractor

Contractors will provide background information on the decision-making process for treatment methods to the city upon request. The City department and City IPM Coordinator shall approve the plan before any chemical applications are made. Contractors shall notify their departmental contact when any biological or chemical treatments are conducted. The contractors shall comply with appropriate pre and post notification requirements, according to the City of Boulder's Pesticide Ordinance (Section 6-10-1 B.R.C. 1981) and relevant internal city protocols.

VIII. CONSTRUCTION AND INTERPRETATION

Employees who have questions concerning possible conflict between their interests and those of the City, or the interpretation and application of any of these rules, should direct their inquiries to their Department Director. The Department Director may refer the matter to the City Manager for final resolution.

IX. EXCEPTIONS/CHANGE

This policy supersedes all previous policies covering the same or similar topics. Any exception to this policy may be granted only by the City Manager. This policy may be reviewed and changed at any time.

Adopted 1993, updated April 2002.