



**PARKS, OPEN SPACE AND PUBLIC WORKS
OPERATION POLICY**

Integrated Pest Management Policy

Policy No.	Program Most Impacted:
Date Approved by	Best Management Practices: 1. Reducing pesticide use 2. Client and employee safety 3. Environmental stewardship 4. Abide by local, State, and Federal requirements
Date Revised:	Forms:
Purpose of Revision:	Functional Area:
Last Training:	

PURPOSE

The purpose of this policy is to ensure that all city operations and contracted services that manage pests or vegetation on city property do so in an environmentally sensitive manner while addressing public health, safety, economic and aesthetics requirements.

This policy lays out the path for development and implementation of integrated pest management (IPM) on all properties maintained by the city of Davis.

The goals of this policy are to

- 1) Create awareness among city staff and citizens of integrated pest management techniques and environmental stewardship.
- 2) Provide a means of educating all city departments to practice the most appropriate approach to managing pests on city property.
- 3) Reduce and/or eliminate pesticides that pose known significant human or animal health or environmental risks.

- 4) Establish a program where pesticides categorized as toxic or persistent are used only when a pest is deemed a threat to public health, safety, the environment or to prevent economic damage (emergency or exception) and only after other alternatives have been attempted and are ineffective. If alternative methods of pest control are used and their costs are prohibitive based upon available budget, then least toxic conventional methods will be considered.
- 5) Promote the use of non-hazardous or reduced risk alternatives that are protective of human and animal health and the environment.

BACKGROUND

In July 1991, the city was presented with its first pest management policies and practices developed by a committee of experts from private industry, the California Department of Forestry, and the University of California. This policy investigated what pest control activity the city was engaged in and made recommendations for the city to “focus” on identification and prevention of pest problems, prioritize pest control methods moving towards a reduction in total pesticide use and implementation of alternative non toxic methods. An IPM specialist was hired from 1990 to 1995 to implement some of the recommendations. Since then the IPM position remained vacant and the policy had not been revised or updated.

In August 2007, an IPM Specialist was hired to develop and coordinate multi-departmental IPM techniques.

Many of the issues involving health and the environment are still important today and it is the purpose of this policy to address these issues and provide guidance for citywide use with procedures for pest control that provide a more efficient, effective and safer approach to pest control problems.

POLICY

The City of Davis, in carrying out its pest management operations, shall focus on long term prevention or suppression of pest problems with minimum negative impact on human health, non-target organisms, and the environment. To this end, preference shall be given to reasonably available non-pesticide alternatives when considering the use of pesticides on city property.

One of the goals of the city is to reduce its citywide total annual percentage of pesticides used in comparison to the total use of the prior year taking into consideration the city’s various growth factors.

When possible, city staff must employ non-chemical management tactics first. Chemicals are to be used only in accordance with the development of a site specific plan and shall be selected according to specific areas that are to be treated.

Chemicals are to be applied only by qualified applicators that have been trained in application methods, IPM techniques, safety precautions, pest biology, use of personal protective equipment, storage and handling, environmental concerns and employee rights regarding pesticide use.

The PHAER zone model will be tailored to the City of Davis. This model is based on the Pesticide Hazard and Exposure Reduction (PHAER) zone system (Attachment A). The objectives of the PHAER zone system are to identify concrete reduction goals (green zones), establish a measurable timeline for risk reduction activities (transition to green zones) and to communicate to the public the general level of pesticide hazard on a site by site basis through colored zone maps.

- Areas with high traffic and exposure to people and pets should be treated with “green” chemicals (Attachment B).
- Areas with less traffic and exposure can be treated with “green” and/or “yellow” chemicals (Attachment B).
- Red chemicals are those designated as category 1 (Danger) which are used in weed control at the waste water treatment facility and for sewer line root control (Attachment B).

In specific circumstances where there is a risk to public health or the environment, materials not on the approved materials list can temporarily be used, but only after all alternatives have been reviewed, evaluated, and or implemented and only after the IPM Coordinator has authorized the use of the pesticide for the specified purpose. Exemptions may be one-time or programmatic and the decision to approve an exemption will be based upon an evaluation of the failure or success of alternatives, and taking into consideration public health, environmental, and financial risks.

All pesticide application shall follow the city of Davis Pesticide Use Policy (Attachment C).

PROCEDURE

1. Develop site specific Plan based on the PHAER model
 - 1.1. Monitor each pest ecosystem to determine pest population, size, occurrence, and natural enemy population, if present.
 - 1.2. Identify decisions and practices that could affect pest populations as well as keeping records of such monitoring.

- 1.3. Set a threshold level, based on how much aesthetic or economic damage the site can tolerate from pests including impacts to the operation and maintenance of public utilities, fire hazards, traffic and pedestrian safety.
 - 1.4. Develop a plan, based on the PHAER zone model determining appropriate level of chemical (e.g. green or yellow zone)
 - 1.5. Develop a graphical display of the PHAER zones
 2. Consider the potential pest treatments and determine appropriate treatment during ongoing maintenance
 - 2.1. In consultation with the IPM coordinator, the field supervisor shall determine the most effective treatment time, based on pest biology and other variables, such as weather and local conditions.
 - 2.2. Cultural practices, including watering, mulching, waste management, and food storage must be taken into consideration by staff prior to applying any pesticide.
 - 2.3. When possible, pest ecosystems must be modified by staff to reduce food and living space.
 - 2.4. Staff should use physical or mechanical controls such as hand-weeding, traps, and barriers when possible.
 - 2.5. Staff should use biological controls, including introducing or enhancing pests' natural enemies.
 - 2.6. The Pesticide Use policy should be followed when applying pesticides.
 3. The IPM Coordinator shall present an annual report on the city's IPM program to the Natural Resources, and may present to the Recreation and Parks, Open Space and Habitat Commissions, or other Commissions if requested.
 4. Conduct ongoing training programs
 - 4.1. The IPM coordinator and/or department supervisors trained in pest control shall train staff in pest biology, the IPM approach, new pest management strategies as they become known, and toxicology of pesticides proposed for use.
 5. Conduct ongoing public outreach and education
 - 5.1. The IPM coordinator shall inform the public of the City's policy to reduce pesticide use and respond to questions from the public about the City's pest management practices
 6. When planning new projects or renovating existing areas, the design must be reviewed by the IPM coordinator and staff overseeing both the initial design and future maintenance to assure that pest habitats are eliminated or reduced. This process will result in a more sustainable design.
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SCOPE AND CONDITIONS

This policy and procedure applies to all City of Davis departments, staff and hired contractors that use pesticides in any way. All contractors involved in pest management are to comply with the procedures listed above through coordination with the City staff person coordinating or supervising the contract.

RESPONSIBILITY

Department Heads, Managers and Supervisors

- 1) Department Heads and Managers shall ensure that departmental procedures, budget, and staffing decisions support implementation of the IPM Policy.
- 2) Supervisors working with the IPM coordinator shall provide training for field management staff in the requirements of this IPM Policy.
- 3) Report as required to various commissions and the City Council regarding the department's implementation of the IPM Policy.

Integrated Pest Management Coordinator

The IPM Coordinator shall be responsible for:

- 1) Coordinating efforts to adopt IPM techniques for the City of Davis.
- 2) Communication with all staff on the goals and guidelines of the program.
- 3) Providing training to Parks and General Services, Public Works and other City staff in the requirements of this IPM Policy as well as preparing individuals who handle pesticides in obtaining a QAC.
- 4) Facilitating meetings with the city's commissions and city council.
- 5) Tracking all pesticide use and ensuring that the information is available to the public.
- 6) Presenting an annual report to evaluate the progress of the IPM program.
- 7) Coordinating with other public agencies that are practicing IPM programs.
- 8) File monthly pesticide use reports to the county and renew the annual pesticide permit.
- 9) Serving as public information officer in coordination with the Environmental Compliance Coordinator on IPM and pesticide related issues.
- 10) Keep current on all federal (EPA), state (DPR) and local regulation and provide updates to department personnel.

GLOSSARY

Biological control – This method uses biological technologies to manage unwanted pests. Examples of this type of control include, but would not be limited to the use of pheromone traps for management of Indian meal moth in food storage/preparation areas, or beneficial insect release for control of certain types of weeds or invasive insects in landscapes.

Contract- A binding written agreement between two parties. Contracts entered into the pesticide realm are generally for goods or services

Contractor- A person, firm, corporation, or other entity, including a governmental entity, that enters into a contract with the City of Davis.

Cultural control - Is the practice of modifying the growing environment to reduce the prevalence of unwanted pests. Examples include irrigation practices, improved and reduced fertilization applications, proper mowing practices that include mulching, and regular aeration to improve the soil.

DPR - Department of Pesticide Regulations for the State of California's Environmental Protection Agency. DPR, in partnership with Federal EPA and County Department of Agriculture, oversees all issues regarding the registration, licensing and enforcement of laws and regulations pertaining to pesticides.

Emergency- A pest outbreak that poses an immediate threat to public health or significant economic or environmental damage.

Environmental Stewardship - The strategic approach to pest management in which the IPM practitioners find balance in preserving the natural integrity and health of the environment, promoting public safety and maintaining functional utilities while recommending or applying pest management methods. Environmental Stewardship philosophy helps to create awareness of Best Management Practices and their relationship to maintaining a healthy environment while conducting pest management activities.

EPA- The United States Environmental Protection Agency

Exemption- A process by which materials not on the approved materials list, can temporarily be used, but only after all alternatives have been reviewed, evaluated, and or implemented and only after the IPM Coordinator has authorized the use of the pesticide for the specified purpose. Exemptions may be one-time or programmatic and the decision to approve an exemption will be

based upon an evaluation of the failure or success of alternatives, and taking into consideration public health, environmental, and financial risks.

IPM Coordinator- An individual whose primary function is to administer the IPM program for the City of Davis. The IPM coordinator shall be trained in the principles of low risk IPM, safe application of pesticides, and alternatives to pesticide use. The IPM coordinator shall possess a PCA license by the state of California.

Integrated Pest Management (IPM)- A decision-making process for managing pests that uses monitoring to determine pest levels and tolerance thresholds and combines biological, cultural, physical, and chemical tools to minimize health, environmental, and financial risks. The method uses extensive knowledge about pests, such as infestation thresholds, life histories, environmental requirements, and natural enemies to compliment and facilitate biological and other natural control of pests.

Landscapes- Grounds that are actively managed such as parks, plantings, lawns around public buildings, right-of-ways, watersheds, and open space, etc., excluding large tracts of forestland.

Mechanical controls – The use of IPM control methods utilizing hand labor or equipment such as mowers, graders, weed-eaters, and chainsaws. Crack and crevice sealants and closing small entryways (i.e., around pipes and conduits) into buildings for insect and rodent management would also be mechanical methods.

PCA – PCA or Pest Control Advisor is one licensed by the California Department of Pesticide Regulations according to Title 3, Article 5 of the California Code of Regulations. Only a licensed PCA, who is registered with the County Agricultural Commissioner may provide written pest control recommendations for agricultural pest management, including parks, cemeteries, golf courses, and rights-of-way.

Pesticide- Any substance, or mixture of substances, used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, which may be detrimental to vegetation, humans, animals or structures.

QAC - Qualified Applicators Certificate is a certified applicator of pesticides according to Title 3, Article 3 of the California Code of Regulations. Applications may include residential, industrial, institutional, landscape, rights-of-way sites.

Sustainable Design, Construction, and Maintenance- Principles, materials, and techniques that conserve natural resources and improve environmental quality throughout the life cycle of

the landscape and its surrounding environment. Sustainable designs for buildings and landscapes incorporate methods that reduce the potential for pest problems from the start and with long-term maintenance needs in mind.

Attachments:

- A. PHAER zone descriptions
- B. Chemical List
- C. Pesticide Use Policy