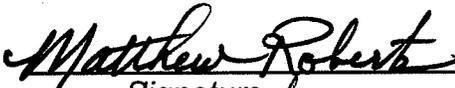


STAFF REPORT
COUNCIL MEETING DATE:
October 10, 2011

ITEM FOR COUNCIL CONSIDERATION:

Establishment of an Integrated Pest Management policy for use in the City's Park System.

Report prepared by:
Matthew Roberts, Parks and Recreation Director



Signature

Reviewed by:
Dave Durlinger, City Manager



Signature

STAFF RECOMMENDATION:

Action Item: Non action item:

That the City Council direct staff to prepare an Integrated Pest Management Policy for adoption that includes the tenets as listed in the Staff Report below.

Sample Motion: I move to direct staff to prepare an Integrated Pest Management Policy for adoption that includes the tenets as listed in the Staff Report below.

I. BACKGROUND:

The purpose of this report is to provide information about the City's use of pesticides in the park system and to request direction on their use in the future. This direction will then be incorporated into a written integrated pest management (IPM) policy to be adopted by the City Council.

The City of Carpinteria Parks Department currently uses pesticides on an infrequent basis. A written IPM policy for the City parks system will not affect the pesticide use outside of the City's park system. The use of pesticides by other agencies, Union Pacific Railroad, the Santa Barbara Vector Control District, Cal Trans, private residences, business and local agriculture is how the majority of pesticide use in Carpinteria occurs. Pest control service providers such as Hydrex and Orkin also apply pesticides routinely in Carpinteria for their customers.

The City of Carpinteria has been practicing IPM tactics in its parks for many years, but has never had a formal policy to do so. The low level of pesticide use in the parks is due to this practice over the last decade. Even still, the City has determined that there are benefits to adopting an IPM policy that includes defining the use of best management practices, improved communication with the public and public education about alternative practices to control pests without pesticides.

Most consider an IPM program to be a flexible strategy with the goal of effectively managing pest while minimizing the use of chemical pesticides. They are used only when non-chemical methods are not cost effective or practical. IPM strategies are thought to have originated in agriculture in the 1970's so the knowledge is well established and commonly practiced.

IPM programs have a proven track record of significantly reducing the risks and hazards of pesticides, while improving the quality and health of the environment. An IPM program includes a variety of practices such as cultural, mechanical, biological and chemical practices.

There are advantages and disadvantages to most IPM programs. The primary goal however, is to reduce the need for pesticides by using alternative pest management methods when practical, in order to reduce environmental exposure to potentially toxic chemicals.

Staff has reviewed numerous IPM policies from other California Communities. Some leading public agencies such as the City of Davis have an award winning IPM policy that embodies the standards of IPM programming while allowing the use of pesticides in limited circumstances. The cities of Berkeley and Santa Barbara have IPM policies that take a similar approach. These agencies and many others believe that pesticide use should be minimized yet can be used safely and beneficially when needed. The City of Santa Cruz, in their IPM policy, states that "The application of pesticides will remain an option if alternative control options are not effective".¹ Staff did find that the town of Fairfax, CA prohibited use of all pesticides in their parks, but the community has just two very small parks and no athletic fields making hand weeding and trapping viable.

After review of several different communities' IPM policies City Staff is recommending that a draft IPM policy be prepared for City Council consideration that includes the following basic tenets;

- To reduce the use of pesticides in City owned public parks to the minimum that is practical. Use of IPM tactics such as mulching, hand weeding, and trapping will be the first line of defense.
- To define pesticide free areas where no pesticides will be used such as in or around playgrounds or picnic areas.
- To manage turf areas in neighborhood parks differently than in athletic fields. Neighborhood parks will be proposed to allow higher levels of weed infestation in the turf and have a higher mow height.

¹ See this link for a useful partial list of cities with IPM policies. <http://www.pesticidereform.org/section.php?id=45>

- To use IPM tactics from mainstream sources; specifically the University of California at Davis² the California Invasive Plant Council³ and the California Department of Pesticide Regulation⁴. These resources provide some of the most up to date information about control methods of invasive species of concern and the safe use of pesticides.
- To work with the City's contract service providers to be sure they are using best management practices and are fully compliant with IPM tactics.
- When a pesticide use is indicated, to identify the least toxic yet effective pesticide that can be used using EPA toxicity ratings.
- To define a delineation and notification protocol to alert the public when any pesticide is planned to be used.
- To prepare an annual report to disclose pest issues encountered and tactics used to combat the problem including the pesticide use, if any, in the City parks. This report will be filed with the City Clerk for public inspection and presented to the City Council if desired.

The City's Parks and Recreation Department maintains over 100 acres of parks and natural open space. These properties are located throughout the community and serve a variety of public needs. These parks can be characterized as three main types; neighborhood parks, community parks with athletic fields, and nature parks.

Neighborhood Parks are used as local recreational and open space focal points. Memorial Park, Heath Ranch Park, Franklin Creek Park, Carpinteria Creek Park, Monte Vista Park, the Linden Field⁵ and the new Tomol Interpretive Play Area include play structures, picnic amenities, turf areas and other landscape plants. The new Tomol Interpretive Play Area is managed as pesticide free and is posted as such.

Athletic Fields are found in three Carpinteria Parks; El Carro Park, Monte Vista Park, and Viola Fields. These fields are the most available fields in Carpinteria for use by adult and youth sports. Soccer, softball, baseball and other field sports take advantage of the large open fields to run practices and league games. Sport fields are subject to a high frequency of use causing specific maintenance challenges.

Carpinteria is very fortunate to have several significant nature parks that account for over half of the City's park acreage. The Carpinteria Bluffs, Tar Pits Park and the Carpinteria Salt Marsh Nature Park are each unique and are managed to promote native plants and animals and to minimize the impacts from visitors. Nature park restoration efforts require the control and removal of invasive weeds to be successful. These parks do not have play structures or turf areas.

IPM in neighborhood parks.

The City has been reluctant to use chemicals in the neighborhood parks for many years. Chemical applications have been authorized only when levels of targeted pests

² UC Davis IPM website: <http://www.ipm.ucdavis.edu>

³ California Invasive Weed Council website: <http://www.cal-ipc.org>

⁴ California Department of Pesticide Regulation website: <http://apps.cdpr.ca.gov>

⁵ The Linden Field is owned by the California Department of Parks and Recreation and managed by the City of Carpinteria. It is not used as an athletic field.

became a threat to park conditions. A spring time application of Round Up⁶ in planter areas to control spring weeds and the use of clover control chemicals in the turf has been a standard but not routine practice. Rodent control (rats and gophers) has included the use of both traps and poisons. An example of a conspicuous IPM tactic is the use of tree chips to mulch the ground in Heath Ranch Park. Because this park has a large exposed soil area, the tree chips provided weed, dust and moisture control very successfully. Tree chips are generated from park and street tree maintenance so the material has been provided at no additional cost.

Turf areas in neighborhood parks are too small for league sports play yet often serve as a place for informal play or dog walks. It is here that the City has opted to raise the mowing height to three inches and take a wait and see approach on the issue of weed infestation in turf areas.

Rodent control when the infestation is at a low level can be accomplished with traps. Hand weeding, mulching and trapping are more labor intensive but under the right circumstances provide a satisfactory result.

The need in the neighborhood parks to use any chemical pesticide is consequently limited to rodent control when the infestation is moderate to high or if an infestation of a highly invasive perennial weed is detected such as Bermuda grass⁷.

IPM in athletic fields.

The athletic fields present a significant challenge when it comes to turf management. The goal for the athletic field turf is not to eliminate all weeds but to maintain weed infestations low enough to prevent significant damage. Even under optimum grass-growing conditions some weeds will become established. An even height, smooth turf is required on athletic fields to promote optimal play and to help prevent injuries to athletes.

The most common problems in turf areas in Carpinteria that cannot be effectively controlled with non-chemical methods are clover infestations and gophers. The species of grass selected for athletic fields is commonly one that can withstand the rigors of athletic play. Soccer is particularly wearing on turf areas because soil compaction and high wear and tear can result in turf failure. This is usually seen as a bare area in the turf. Some species of weeds such as perennial and annual clovers can out compete turf for territory but isn't as tough when played upon, contributing to the creation of bare areas. Bare areas are subject to erosion and weed infestation. Also, soccer play prefers a lower mow height than is optimal for turf health to increase ball action. A common IPM tactic for lawns is to mow the lawn at three inches, but that is not suitable for soccer. The lower mow height can help to encourage clover infestation. Clover's abundant flower attracts bees and is slippery when wet. Clover is difficult to

⁶ Round Up is a trade name for glyphosate. Glyphosate is a broad-spectrum herbicide used to kill weeds, especially annual broadleaf weeds and grasses. It has a type III low toxicity rating by the US EPA. It was initially patented and sold by Monsanto Company in the 1970s.

⁷ Bermuda grass is an invasive creeping grass that comes from Africa. It roots in the ground at the shoot nodes. Roots can reach up to 4-5 feet deep so it is virtually impossible to control by hand. Plants will propagate from roots and from seeds. This grass can out pace most native plants and take over a landscape.

control in turf with manual methods because it has a fibrous root system that defies pulling. Clover is not all bad however, as some lawn-care manufacturers include certain species of annual clover in lawn mixes. Because it gathers nitrogen from the air, it can help lawns grow and can reduce the amount of fertilizer required. Lawn seed with clover in the mix is not recommended for athletic fields.

An important IPM strategy therefore is to work to prevent the clover infestation in the first place. The optimal use of soil building composts and fertilizers will help to out compete clover and reduce the need for chemical use. In many cases however, chemical control of clover is the only cost effective method of control when a lawn is infested.

Gophers are common in our parks and present a management problem when they create mounds of soil or sunken holes in the athletic fields. A single gopher can move well over a ton of soil in a year. Gopher damage can reach a level where a field becomes unplayable. Control methods include trapping and use of chemicals. When infestations are high, chemical use for quick control has been the City's preferred method. Poisons needed to treat for gophers are inserted underground in the burrows so the risk of human expose is low.

IPM in nature parks

The City's nature parks include the Carpinteria Bluffs Nature Preserve, Tar Pits Park, Carpinteria Salt Marsh Nature Park and some connecting trails. These nature areas are used by the public to enjoy outdoor passive recreation and experience the natural environment. The stewardship of these areas includes working to prevent new invasive weed infestations and to eliminate existing ones. The City has used IPM strategies in the past to remove invasive species successfully. For example, the continued removal of sea fig from the western end of Tar Pits Park has been conducted by hand. This weed is fairly easy to remove and manual removal is almost always successful. The same can be said for removal of some of the ivy species that once threatened the native stand of basket rush in the park. The ivy was pulled out by hand and kept under control with the help of volunteer s. Since this effort was made a management goal has been achieved as the basket rush has thrived and increased its footprint by a large percentage.

Not all weeds in the nature parks are easy to control. Many are extremely difficult. One specific example is the tamarisk tree groves that can be found in the Carpinteria Bluffs Nature Preserve. These trees appear to have been originally introduced as wind breaks for agricultural use. Tamarisk can be found throughout California. Tamarisk is associated with dramatic changes in geomorphology, groundwater availability, soil chemistry, fire frequency, plant community composition, and native wildlife diversity. As such, the City has begun, under the direction of the Bluffs Advisory Committee, to transition to a native plant replacement. Controlling tamarisk requires killing the root system. Most agencies that are responsible for controlling tamarisk agree that the use of chemicals is the most viable method. The alternative of ripping the trees out by their roots with heavy equipment is expensive and destructive. In addition, any root material left behind will likely re-sprout and reinstate an infestation.

Another example of an invasive weed removal is when the Santa Barbara Agricultural Commissioner treated significant stands of Giant Reed in the Carpinteria Creek. The reed's removal is a critical step toward the environmental recovery of Carpinteria Creek and the steelhead trout. The plants were treated with glysophate because it was decided that method was the most effective and least damaging to the environment.

II. POLICY:

The establishment of a formal park IPM policy will assist the City in its compliance with storm water pollution prevention policies.

III. FINANCIAL CONSIDERATIONS:

The use of pesticides is most frequently motivated by their effectiveness both in cost and in achieving control of the targeted pest. In some cases, the use of pesticides is the only cost effective method. Sometimes the alternatives are far more labor intensive and consequently more costly. The use of heavy machinery such as a backhoe tractor and a bulldozer to perform the initial removal of stands of tamarisk as an alternative to herbicides, for example, would cost much more. The freshly cut wood must be ground up or trucked away as even large wood branches of this species can have roots emerge as it reestablishes itself. The need to create a road to the project site for the machinery operation can have an undesired effect on the habitat including the destruction of many plants and animals that were not targeted. The costs are obviously relative to the size of the job but a crew operating chain saws, an excavator, a dump truck and the costs associated with the woody debris removal will easily approach \$5,000 per day.

| | |
|-------------------------------------|---------------|
| Excavator with operator daily rate | \$1,400 |
| Bulldozer with operator daily rate | \$1,400 |
| 2 man chain saw crew daily rate | \$ 960 |
| Dump truck with operator daily rate | <u>\$ 960</u> |
| Total | \$4,720 |

The same project when herbicides are used and the trees are left standing could cost less than \$600 per day.

| | |
|-----------------------------------|--------------|
| 1 gallon of glysophate | \$ 40 |
| 2 man application crew daily rate | <u>\$500</u> |
| Total | \$540 |

Assuming that both methods of treatment will require at least one retreatment, the herbicide application method can save over \$8,000 over the mechanical method for a small removal.

Similarly, the use of glysophate to control Bermuda grass in a native plant restoration has similar economics. When Bermuda grass is actively growing, it is effectively controlled with this herbicide. The use of a hand crew to repetitively weed the project site could require routine visits for months and months on a weekly basis. The use of

herbicide may take two applications, the first having the most effect with a smaller secondary application two months later to complete the treatment. The cost comparison between the two methods demonstrates that the manual method would be cost prohibitive.

| | |
|--|----------------------------|
| Two man weeding crew daily rate, once a week for 26 weeks | \$320 x 26 = \$8,320 |
| Two man herbicide application crew daily rate for two applications | \$540 x 2 = <u>\$1,080</u> |
| Difference in costs | \$7,240 |

IV. LEGAL ISSUES:

No legal issues are presented as a part of this report.

V. ATTACHMENTS:

Two attachments are included in this report to serve as general examples of adjacent agencies' efforts in the area of IPM programming.

1. Front four pages of City of Santa Barbara IPM Strategy.
2. City of Davis Parks, Open Space and Public Works IPM Operations Policy.
3. City of Santa Monica Integrated Pest Management Update.

THIS PAGE LEFT INTENTIONALLY BLANK

Attachment 1

CITY OF SANTA BARBARA

IPM STRATEGY



Adopted by City Council

January 26, 2004

TABLE OF CONTENTS

| | |
|--|----|
| Preamble | 3 |
| I. Mission Statement..... | 3 |
| II. Purpose..... | 3 |
| III. Definitions | 5 |
| IV. Descriptions of Roles and Responsibilities | 8 |
| V. Notification | 10 |
| VI. Tiered Materials List and Exemption Process | 12 |
| VII. Record Keeping | 17 |
| VIII. Training | 19 |
| IX. Program Review & Coordination | 20 |
| X. Public Information | 21 |
| XI. Reviewing Plans for New Construction and Landscape Projects..... | 22 |
| XII. Contractors | 23 |
| XIII. Precautionary principle..... | 24 |

Preamble

On June 17, 2003, the City Council of the City of Santa Barbara adopted a resolution directing staff to develop an Integrated Pest Management Strategy for all City Departments. Prior to this event all City Departments were practicing least toxic measures and IPM principles; however, there was no united City policy creating consistency of practice throughout the departments. Pesticide use over a ten-year period (1990-2000) was reduced by half the volume of materials used in a calendar year in Parks, the Golf Course, and at the Airport. This strategy was developed to provide an ongoing specific program to further reduce the amount and toxicity of pesticides used on City property and, where feasible, to eliminate pesticide use in public areas using alternative methods.

In an effort to allow this program to be the most effective and of the most benefit to the public, City departments will coordinate their efforts with the County's IPM efforts to have policies consistent for all open space and park areas in the region. City departments will also continue to participate in Regional IPM Coalition efforts and collaborate with other local agencies facing similar challenges. Other cities that have a history of quality IPM programming will also be utilized as resources in the development and implementation of pesticide reduction efforts. Specifically, the City/County of San Francisco, California, and Seattle, Washington, have extensive IPM programs that offer models of learning for the City of Santa Barbara.

At the January 26, 2004 City of Santa Barbara, City Council Meeting, Council adopted the following Integrated Pest Management strategy. Council further directed staff work toward the goal of having pesticide free parks.

I. Mission Statement

It is the mission of the City of Santa Barbara IPM Policy to promote environmentally sensitive pest management while preserving assets and protecting the health and safety of the public and our employees. All costs and impacts associated with pesticide use, including community and environmental health, will be considered. The following IPM Strategy describes the City's goals and demonstrates how the City will achieve these goals.

II. Purpose

The purpose of this IPM Policy is to ensure that the City:

- Reduces and eliminates the use of pesticide products that pose known, likely, or probable human health or environmental risks;
- Promotes the use of non-hazardous and/or reduced risk alternatives that are protective of human health and the environment;

- Applies pesticides in a manner that protects and enhances our region's natural resources and public health;
- Pesticide use is a model of environmental stewardship in the eyes of the public;
- Maintains a leadership role in developing both ecologically sensitive and aesthetically pleasing landscapes and structures;
- Practices a consistent standard of environmental stewardship by departments managing structures, landscapes, and other grounds;
- Establishes a program where pesticides categorized as toxic or persistent (Tier 1) are only used when there is a threat to public health, safety or the environment, or when use is warranted to prevent economic damage and only after other alternatives have been implemented and shown to be ineffective or considered and found infeasible;
- Establishes a clear criteria for pesticide use, to reduce the amount and toxicity of pesticides and eliminate pesticide use on City property and where feasible.

This IPM Strategy also provides for periodical re-evaluation of pesticides used by the City. The Strategy requires updates, which outline pesticides that are being used in all departments, and will allow employees involved in pesticide use to make conscious decisions about the control mechanism selected, to employ the use of pesticides wisely, and to make full use of pesticides purchased. All departments responsible for overseeing construction projects; managing City-owned structures, grounds, landscapes; and purchasing and/or using pesticides are affected. In addition, all contractors that are applying pesticides on the City's behalf will be required to subscribe to the IPM Strategy. Disinfectants used to protect human health are excluded from this strategy and the IPM policy.

Attachment 2



**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.

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

Attachment 3

FY02-03 Integrated Pest Management Update

Background

-

As part of the Sustainable City Plan, in 1993 the City of Santa Monica's Environmental Programs Division (EPD) reviewed the use of hazardous materials in all City operations, including those used for pest control. This evaluation resulted in the development and implementation of an integrated pest management (IPM) program in 1996-7. Where conventional pest control techniques rely heavily on chemical pesticides, IPM provides a broad set of tools with which to effectively manage pest populations, including monitoring of pest activities; understanding pest behavior, natural enemies, preventative measures that reduce food, water, harborage, access, and environmental conditions favored by pests; and targeted applications of the least toxic pesticides as a last resort. These pest control methods are not only very effective, but also contribute to a safer community and healthier environment due to a reduced dependence on harmful pesticides. The City's Pest Control Contractor performs the majority of pest control for city buildings and structures, while both City staff and contractors address landscape pest problems.

So whether we are eliminating an aphid infestation by knocking them off a tree with a high-pressure water hose or sealing entry points to prevent rodents from entering our facilities, the City of Santa Monica has long embraced IPM as a sustainable pest control strategy. This update highlights the City's existing IPM practices and future IPM goals. For purposes of better understanding implementation strategies, IPM will be separated into two categories, structural pests, which occur inside buildings and structures, and landscape pests, which typically occupy the outside environment.

General IPM Program – Existing Practices

- ✓ The City has developed an Approved, Reduced Risk Pesticide List, which lists the types of insecticides, rodenticides, herbicides, and fungicides (these are all types of pesticides) available for use in the City. These pesticides are evaluated and categorized into three Tiers (Tier 1 – Most harmful, Tier 2 – Moderately harmful, Tier 3 – Least harmful) depending on their ability to impact human health (cancer or reproductive harm), the environment (persistence in the environment, water quality impact, bioaccumulation), and non-target species (impact on wildlife, bees, and other beneficial species). The City continues to identify and use the least toxic pesticides available, while phasing out and eliminating, where possible, those pesticides found in the two most harmful Tiers. Metrics for measuring pesticide reductions will be developed in fiscal year 2003-04.
- ✓ Articles covering long-term, effective control of pests with minimal reliance on harmful pesticides are routinely published in the City's Wavelengths and Seascape newsletters, to highlight the City's efforts and promote the use of IPM strategies by residents.
- ✓ The City has continued to practice IPM throughout this reporting period as well as continuing the administrative and operational activities to support the program.
- ✓ Interdepartmental coordination of new product testing and new technology pilots for control of structural and landscape pests contributed greatly to the success of the IPM Program in 2002-03, and this collaboration is expected to continue in 2003-04.

Structural Pests – Existing IPM Practices

- ✓ Complaints from City staff regarding structural pests, such as ants, rats, cockroaches, and mice, decreased initially when the City's IPM Program was introduced, and continue to remain very low. In fact, the City's pest control contractor recently commented "I've only received a few calls in the last few months." By staff's diligent attention to eliminating food, water, and harborage for these pests, in conjunction with the use of containerized baits specifically targeted to the individual pests, these pests are being controlled much to the satisfaction of our employees.
- ✓ The City eliminated broadcast application and perimeter spraying of pesticides to control structural pests back in 1997. The City believes these pest control methods are unnecessary and pose an unreasonable risk to the public and environment.
- ✓ The Environmental Protection Agency only recently banned two commonly used pesticides, Diazinon and chlorpyrifos, based on data showing these chemicals are much more harmful to human health and the environment than previously thought. The City Of Santa Monica recognized 5 years ago that these highly toxic organophosphate insecticides posed a threat to the environment and ceased using them.
- ✓ The City has begun distributing pest fact sheets to help inform residents about low-toxic methods of pest control. These colorful, informative fact sheets, cover common structural pests, including ants, cockroaches, yellow jackets, and fleas, and have been tailored to meet the needs of our local community. These fact sheets are available to the public and staff free of charge, and can be obtained by calling 458-2255 or visiting Smart Choices About Pesticides - City of Santa Monica at <http://www.smgov.net/environment/pest.htm>.
- ✓ Switching from traditional to IPM pest control services for structural pests initially reduced costs by 30% between 1996 and 1997. Since then, costs have dropped an additional 4%.
- ✓ The more you know about a pest, the better you can control it! Key employees, known as Pest Managers, located at facilities throughout the City, regularly receive training on a variety of pest topics, including fire ants, mosquitoes and West Nile virus, and control of Argentine ants and rodents.
- ✓ The management structure of the IPM program relies on one approved professional pest control contractor who works closely with the City's IPM Coordinator and Pest Managers. This system has facilitated excellent communication and rapid response to a variety of pest management challenges.

Landscape Pests – Existing IPM Practices

- ✓ The City has designated numerous community areas as "Green Zones". These "Green Zones", which include

parks, tot lots, and dog runs, are maintained with minimal reliance on the use of pesticides. Routine applications of herbicides, such as Roundup and 2,4-D are simply not performed in these zones. The goal is to not use any pesticides in these areas, unless a review by City staff concludes that no other options exist. When pesticides must be used, staff rigorously screens them to ensure the least toxic product is used to do the job.

- ✓ The City has created a community right-to-know system, where by residents and visitors will be notified via posting of signs, if a pesticide application is going to occur in a "Green Zone". Posted signs notify the public 24 hours prior to an application and remain posted for 72 hours following it. This system has already been piloted at Joslyn Park, at which an application of Roundup took place as part of a long-term strategy to prevent future problems that rely on the use of herbicides, and at Palisades Park where targeted applications of Fusilade, an herbicide, were made to control invasive grass weeds. The City will continue to pilot this effort through 2003-04 and then determine if this notification system is both beneficial and feasible for permanent implementation.
- ✓ The City uses a variety of IPM methods to control weeds, such as mulching and mowing, and is currently experimenting with other methods, such as woven weed barriers and vertical root barriers to prevent weeds and grasses in flower and planter beds. The City's intent is to identify non-chemical measures that will provide long-term solutions to weed control, while reducing future labor and materials costs.

Future IPM Goals

- ✓ The City will finalize and begin distributing pest fact sheets for effective, less-toxic control of pests in the landscape environment. These fact sheets address roses, lawns, natural management of pests, snails and slugs, aphids, and weeds, and will be ready for distribution in early 2004. These informational sheets will be tailored to meet the needs of our local community. They will be available to the public and staff free of charge, and can be obtained by calling 458-2255 or visiting Smart Choices About Pesticides - City of Santa Monica at <http://www.smgov.net/environment/pest.htm>.
- ✓ EPD Staff will develop metrics by July 2004 for use in tracking the success of the IPM Program and developing IPM Program goals.
- ✓ In 2004 City Staff will develop a comprehensive, written Integrated Pest Management Policy, covering both landscape and structural pests.
- ✓ Pest Managers throughout the City will continue to receive training regarding problematic pests, in order to better understand and educate the community and City staff.
- ✓ EPD Staff will continue to work with other departments/divisions to identify, test, and implement IPM measures to achieve pest control with minimal reliance on pesticides.